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Item 4.17 of the provisional agenda*

DRAFT REPORT OF THE EXPERT WORKSHOP ON EDUCATION

Draft report by the Executive Secretary

INTRODUCTION AND EXECUTIVE SUMMARY

1. The Expert Workshop on Education: Priority activity 10 for the programme of work on Communication, Education and Public Awareness (CEPA) of the Convention on Biological Diversity was held in Paris from 17 to 19 March 2008 at the offices of UNESCO. Parties represented included Antigua and Barbuda, Australia, Brazil, Canada, Germany, the Netherlands, Norway and Spain. Multilateral Environmental Agreements (MEAs) represented included, CBD, UNFCCC, and Ramsar. Two experts from educational and the private sector were also present. Representatives for a number of divisions of UNESCO were also present.

2. The meeting was the first opportunity for experts on education to exclusively discuss the issues of mainstreaming biodiversity into education in the context of the Convention on Biological Diversity. On the basis of a survey of the issues, the group responded to a number of questions addressing issues of integrating biodiversity into formal, informal and nonformal contexts; understanding and taking into account the specificities of traditional knowledge; working with ministries of education; and facilitating collaboration between environmental conventions at the international level. In the context of this, the following recommendations were made:

(a) Formal, informal and nonformal contexts of education are equally important, but have their own specific mechanisms, opportunities and actors. There are however good reasons for promoting and enhancing collaboration between all fields of education, as this is likely to result in greater effectiveness. The expert felt it would be useful to think of education in terms of learning processes. This better reflects the need to capture the notions of interaction and internalization;

(b) The Expert Workshop recognized the complexity of reaching out to millions of primary and secondary schools and 60 million teachers worldwide in the formal system and the further millions of

- UNEP/CBD/COP/9/1.

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learners in nonformal contexts. For this reason it is essential to focus international initiatives on creating tools, frameworks and cooperation that facilitate action on the national level. Partnerships between key organizations from the fields of education and environment form the basis for such national activities to strengthen education for sustainable development;

(c) The mainstreaming of biodiversity into education in all contexts should be framed in terms of its contribution to the messages, competencies and themes of education for sustainable development. It is not recommended that biodiversity education in and of itself be the starting point for work;

(d) Any attempts at mainstreaming should seek to bring together actors and experts from various ministries, including environment, education and others. The particularities of cross-ministry collaboration in any given context need to be taken into account;

(e) The unique nature of traditional knowledge and the contribution of indigenous and local communities to knowledge about the world were also acknowledged as extremely important. Particular guidelines should be developed that take their experience into account. More work is required in this regard;

(f) Knowledge management was recognised as important in ensuring that the existing body of work and experience is presented and shared among practitioners in an efficient, effective and useful way. Effort should be made to develop clearing houses according to discrete goals and guidelines and taking existing experience into account;

(g) UNESCO has an important role to play in the mainstreaming of biodiversity into ESD. Greater collaboration and consolidation of existing experience needs to be realised. The secretariats of Multilateral Environmental Agreements should also seek to collaborate on educational matters, taking into consideration the differences in national structures for CEPA, and taking advantage of projects at the international level to create collaborative structures. One such project, "Learning for Life" was presented and should be discussed at COP.

ITEM 1. OPENING OF THE MEETING

3. The meeting was opened by the Chair of the Informal Advisory Committee for Communication, Education and Public Awareness (IAC-CEPA), Dr. Peter Bos. He welcomed participants, thanked UNESCO for their generosity in hosting the meeting, and thanked the ES for the preparatory documents for the meeting. He stressed that the meeting should seek to produce outcomes and conclusions that were practical and operational in nature. He indicated that the groups would seek to work with flexibility over the next few days.

ITEM 2. ADOPTION OF THE AGENDA AND ORGANIZATION OF WORK

4. The draft provisional agenda prepared by the Executive Secretary, was adopted as the working draft for the meeting. It was agreed that the specific terms of reference for the working groups on the second and third days of the workshop would be created based on the outcomes of the first day.

ITEM 3. ADVANCING PA 10 OF THE POW FOR CEPA AND CHOOSING TARGET GROUPS

5. Under this introductory session, David Ainsworth of the Secretariat for the CBD delivered a presentation outlining Article 13 of the Convention, the programme of work for CEPA, the Priority Activity and its role in the implementation of the Convention, including Goal 4 of the Strategic Plan. The current conjuncture including the drivers of loss of biodiversity was outlined. The purposes of education

in the context of the Convention, the programme of work for CEPA and the plans for the International Year of Biodiversity were outlined. The presentation concluded by outlining proposed goals for the workshop, including the need to provide a set of guidelines for the integration of biodiversity into formal and informal education by Parties and other interested actors.

6. Following this, Frits Hesselink of the CEC of IUCN delivered a presentation outlining the relationship between CEPA and Education for Sustainable Development (ESD). The characteristics of learning in the current context, including the notion of life-long learning, the role of games and social networks, the notion of accelerated pathways and the significance of this for biodiversity issues were outlined. The learning needs for a variety of sectors including NGOs, universities, professionals and the private sector were mentioned. The relationship between formal and informal education was also outlined and the challenge of optimizing and integrating learning in formal and informal contexts was outlined.

7. In the discussion that followed, participants stressed the need for education to deal with issues of over consumption for citizens of developed countries and sustainable consumption and livelihoods for developing countries. The diversity of experience of ESD in different countries and contexts was also underlined. Participants from UNESCO pointed out that any discussion of biodiversity conservation was heavily value laden and this needed to be taken into account. Finally, the importance of networks in sharing information was stressed.

ITEM 4. THE RELATIONSHIP OF ESD AND BIODIVERSITY EDUCATION UNDER THE CBD

8. Under this discussion item, Salvatore Arico and Wakako Ichikawa of the Division of Ecological and Earth Sciences of UNESCO delivered presentations on education programmes delivered by the UNESCO Science Sector. In his presentation, Mr Arico pointed out that UNESCO has a number of mechanisms through which the educational component of the Programme of work for CEPA can be operationalised including: the global system of UNESCO research chairs; a network of category I and II research institutes and others. Concrete projects and examples will also be carried out. For example, in the near future at a UNESCO-sponsored workshop in Trieste will focus on biodiversity and climate change. Other experience can be found in intergovernmental science programmes, as well as the expertise and experience of other UNESCO sectors. He concluded his presentation noting that a holistic approach is needed.

9. Ms. Ichikawa delivered a presentation that outlined the role of education in the Man and the Biosphere Programme. The programme provides for a focus on three elements: conservation, development and research, and monitoring. As demonstration sites for sustainable development, the Biosphere reserves are good examples of education in an informal context and are contributions to the Decade of Education for Sustainable Development (DESD). Ms Ichikawa's presentation outlined a number of other Biodiversity education projects and pilots including the Discovery Kit, which addresses Biosphere Reserves on island ecosystems, projects on Biosphere Reserves in Spain, Vietnam, the Desertification kit and teachers' resource kit, the Great Apes Survival Project (GRASP) and work with Ramsar.

10. Douglas Nakashima, of the Local and Indigenous Knowledge Systems (LINKS) Programme of UNESCO delivered a presentation on LINKS, traditional knowledge, and ESD. He emphasised that a sophisticated knowledge of the natural world is not confined to science and that societies from all parts of the world possess rich sets of experience, understanding and explanation. The goals of the LINKS programme that relate to the programme of work on CEPA are to sustain the vitality and dynamism of local & indigenous knowledge within local communities and to identify key approaches, means and measures to enhance local & indigenous knowledge transmission from elders to youth. A number of key questions were raised that related to the transmission of knowledge in these communities and the state and vitality of this local and indigenous knowledge. The impact of formal schooling and ways to

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integrate local and indigenous knowledge and shift the roles of teachers, children and local knowledge holders were also raised as questions. The presentation highlighted a number of projects that sought to address these questions, including an educational resource package for teachers and students in the Pacific that is under development.

ITEM 5. LINKAGES WITH THE DESD AND PLANS FOR 2012.

11. Bernard Combes of the UNESCO Secretariat for the Decade of Education for Sustainable Development delivered a presentation which addressed agenda items 4 and 5, outlining the linkages between ESD, biodiversity education. Sustainable Development and its pillars (Environment, Economy and Society) were defined, and the vision and goals of ESD were outlined, including the elements of empowerment, democracy and the practice of respect for values including: dignity and human rights, the greater community of life and cultural diversity, and a commitment to build peace. Biodiversity was identified as one of the strategic perspectives that informs education and learning for sustainable development. In ESD, biodiversity is addressed by the focus on interlinking issues of biodiversity with livelihoods, agriculture, livestock, forestry, fisheries and other topics.

12. Education on Biodiversity is part of the DESD communication strategy and the UNESCO DESD Action Plan. In particular, the thematic programme of Education for Sustainable Ecosystems and Livelihoods, with a focus on Biosphere Reserves integrates biodiversity. Mr. Combes presented many different UNESCO programmes, information products and training materials that support both the goals of the DESD as well as the goals of the CBD and its Article 13. He also pointed out ways that UNESCO raises awareness of biodiversity in formal, informal and non-formal education, including the system of UNESCO chairs, the Eco-schools programme, the Bio-chats programme, Young reporters for the environment, and work with the Scouts movement. Mr. Combes concluded by outlining the need for educators and learners to reflect critically on their own communities, on non-viable elements in their lives and to become empowered to develop alternative visions of a sustainable future and to work to collectively fulfill these visions.

13. Following this presentation, Ana Persic of UNESCO delivered a presentation on the linkages between cultural and biological diversity. Her presentation demonstrated the ways that ensembles of biodiversity are developed, maintained and managed by cultural groups, whose cultural practices in turn depend upon specific elements of biodiversity for their existence and expression. Diversity loss in both spheres needs to be dealt with in holistic, more comprehensive ways that recognise the links between components of diversity and address them together. For the future, actors need to integrate lessons learned from experience in biosphere reserves on biological/cultural diversity linkages in the context of management and policy decisions dealing with sustainable development, poverty alleviation and well-being. In particular, we need to translate the principles of mutual reinforcement of cultural and biological diversity at the site-specific level into proposals for policies and action on the local, regional and international levels and integrate the links between biological and cultural diversity in education for sustainable development.

14. In the discussion that followed these presentations, participants were impressed with the depth and breadth of initiatives, but sought to identify ways to integrate and consolidate this experience. In this regard, the issue of Knowledge Management was raised. The challenge of integrating UNESCO's work with that taking place in the MEAs like the CBD, UNFCCC and Ramsar was also raised. The role of Biosphere reserves was discussed and participants sought ways to enhance the contribution of Biosphere reserves to the DESD. The need for biodiversity educational projects to add sustainable use to its focus on conservation was also emphasized. In terms of proceeding on a strategy, participants asked to what extent that biodiversity concepts needed to be infused in a general way in a document or whether specific regions were going to be requested to specify their particular needs.

ITEM 6. WAYS TO COORDINATE ACTIONS WITH MINISTRIES OF EDUCATION

15. Under this item, Carol-Faye George of Antigua and Barbuda delivered a presentation on branching environmental science to natural sciences. In integrating biodiversity concerns into formal, informal and nonformal contexts, the team at the ministry adopted a spiral approach. The strategy included repetition of themes with the addition of new information at each successive grade. The approach worked despite human resource constraints, and differences in the ways that the Ministry of the Environment and the Ministry of Education work.

16. Gwang Chol Chang of UNESCO delivered a brief presentation on the National Educational Support Strategies (UNESS) and its potential role in mainstreaming of biodiversity. UNESCO has major partners are at country level. But because the organization is expected to provide role for all educational sectors, UNESCO's tends to respond to requests from the ministries of education, rather than work proactively. This has promoted the practice of working with partners and taking the role of exchanging experience. Nevertheless there are plans to become more proactive through UNESS. Under this new programme, we are working with ministries of education. UNESS will be sector wide, will cover all the major priorities of UNESCO in the field of education, including biodiversity.

17. A presentation by Astrid Sandas of Norway emphasized the need for ESD and all environmental education to be integrated into educational activities as part of a school's regular activities. Furthermore, any ESD initiatives need to establish learning areas that gave students the experience needed to develop knowledge, attitude and action competence. ESD needs to be an ongoing process and for this, it was learned that schools needed constant support and encouragement. The ESD plans for Norwegian schools are integrated as part of the Action Plan with themes and topics chosen each year. Biodiversity, along with climate, pollution and consumption patterns, is always a central issue. To address the need for constant feedback, an electronic meeting place was determined to be the best way to link schools, research institutions and environmental authorities. The central platform for the ESD initiative is the sustain.no network, which is both an electronic portal as well as a network of schools and interactive activities. Beyond Norway, the "SUPPORT" project has 14 EU countries as partners and 9 affiliated members, including 7 non EU countries. The aims of these projects are to develop Schools as partners for developing a sustainable tomorrow; to collect information and document the loss of biodiversity and to raise awareness and communicate the importance of halting biodiversity loss at home and in the municipality.

18. Participants commented on the Norwegian experience and asked to what extent it could be generalised to other societies with different ICT resources and infrastructure, such as in India. Astrid commented that the model was first developed without ICT as a consideration. UNESCO representatives commented that these kind of ICT projects also work in the Pacific, as a great way to connect rural schools.

ITEM 7. STRATEGIES FOR TEACHER EDUCATION

19. Amina Hamsari delivered a presentation on the UNESCO associated schools project network. (ASPnet). In existence since 1998 it now has 8,000 schools around the world. It includes primary, secondary and vocational schools. The objective of ASPnet is to translate UNESCO priorities into concrete actions at the school level, including ESD and biodiversity. Schools are selected by the member states through the national commission for UNESCO and includes both public and private schools. These schools then participate in the development of new pedagogical materials. (desertification and ozone) Experiments requires participation of the schools, the principal and the teachers. Local coordinators help us test materials and gather best practices. The experience is generally very concrete.

20. Charles Hopkins delivered a presentation on some of the challenges involved in gaining acceptance of education on biodiversity in school systems. Given the high demand for inclusion of

specialised educational topics in curriculum, any new topics face a challenge in gaining acceptance. Moreover, the hierarchical structure of many ministries is a further challenge to acceptance of new ideas. Most new initiatives are the product of alliances between single teachers and groups of students, which are accepted by local authorities and then possibly accepted at higher levels. His presentation stressed the need for any new initiatives to be accepted by the school system, they would need to demonstrate that they represent a way for more efficient delivery of educational outcomes. Biodiversity education needs to be clustered with other ESD concepts and themes in order to increase the changes of integration.

21. Commenting on the presentations, participants indicated that successful models were those that created networks of environmental and educational ministries which were based on the exchange of mutually beneficial resources and ideas. The role of ASPnet as a potential resource for connecting teachers to this was emphasised. Given that many of the ESD ideas and resources come from outside of ministries of education, the need to communicate the value added of these ideas to education was considered paramount. The power of individual schools was emphasised, as was the important role of NGOs in creating and implementing ideas.

ITEM 8. THE ROLE OF NGOS AND CIVIL SOCIETY

22. Under this item, Susana Padua delivered a presentation on the role of NGOs in implementing education for sustainable development. For many NGOs, environmental education is the result of and part of environmental and social projects and therefore is intimately linked with questions of sustainable development. Case studies in her presentation demonstrated how environmental education has become a central tool for conservation initiatives. It has become a tool for transmitting scientific knowledge creatively and to non-expert communities, a means of promoting sustainable practices that favour conservation, the basis for generating coalitions in favour of development.

ITEM 9. WORKING GROUPS

23. On the basis of the goals of the workshop, and in the context of the presentations from the first day, six questions were outlined to guide discussion:

1. To integrate biodiversity into formal learning contexts, what are the most effective ways and means to proceed? Should biodiversity issues be integrated as part of bigger questions of sustainability? If so, how can this be accomplished while maintaining the core issues and messages of biodiversity? Who are the main partners and actors for this process? Any guidelines for this should be anchored in concrete experiences and should be practical and operational in nature.
2. What strategies need to be adopted to support to mainstreaming of biodiversity issues into non-formal and informal learning contexts? Which partners should be engaged? How? What are the different paths to interacting with the different target audiences?
3. What should be done to ensure, for formal as well as informal learning, the continued transmission of traditional knowledge relevant to conservation and sustainable use of biodiversity? Within this context how can we take into account the specific conditions of traditional and scientific knowledge? What differences will we encounter between developed and developing countries? What opportunities are offered by this diversity?
4. What opportunities are there for mutual learning about education between the Conventions? Is it possible to imagine collaboration between these initiatives in presenting the related issues (biodiversity, climate change, inland waters, etc) to educational actors? If so, what are the ways to do so? What are the common points in content and strategy? What are the important differences in approaches and content?

5. How can we facilitate communication and exchange of information for biodiversity learning and education? What would a clearing-house look like for this? What are the principles for a knowledge management strategy? How can we work, in general to better communicate the work that is already going on, both at the international and national level?
 6. Outlining and clarifying the role of UNESCO in mainstreaming of biodiversity education. Based on their existing work with schools around the world, with ESD, with indigenous and local communities, and other activities, what is the best way to mobilise UNESCO for implementing priority activity 10?
24. Two working groups were created to discuss the questions. Working Group A addressed Questions 1, 5 and 6 and focused on learning in formal educational contexts. Working Group B addressed questions 2 through 4, and focused on learning in informal and nonformal educational contexts, including the question of traditional knowledge..

ITEM 10. TOWARDS A STRATEGY AND NEXT STEPS

25. Following discussions on Tuesday and Wednesday Morning, the Working Groups delivered summary reports on their work in the afternoon of Wednesday. The reports included responses to the three questions they were posed. Adaptations of these reports are presented below:

Working Group A

Question 1 – on integrating biodiversity into formal education.

26. Formal education systems around the world are continually approached by a variety of groups and asked to include societal issues in their curricula. Faced with this demand overload, establishing a positive relationship with practitioners and officials in education systems and convincing them of the benefits of a particular form of specialised education or specialised subject area requires nuance and skill. At the same time, the ongoing quest of formal education systems around the world is the delivery of a quality education for the 21st Century. In this respect, a concern for biodiversity conservation and sustainable use remains central. Surely the future of the planet and an understanding of the relationships between humans and the environment is a core issue. Some of the central principles are the following:

(a) Biodiversity concepts as well as ESD should be positioned as a way of delivering elements of the existing curriculum more effectively and cheaper. It is not to be seen as another add-on.

(b) In this respect, the idea of adding biodiversity education to the long list of societal issues being requested for inclusion into formal education was not recommended. Instead the working group suggested approaching school systems from the perspective of providing assistance. The entry recommended was to infuse key biodiversity messages into the overarching concept of engaging formal education in the pursuit of a more sustainable future (ESD)

(c) Concrete proposals that actors can do to implement this approach:

- i. Offer to co-develop materials that will assist school systems to deliver a quality education for all in the community.
- ii. Offer to provide in-service materials
- iii. Offer to assist with in-service of teaching staff.

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- iv. Work with school system's curriculum developers to build custom products that also address other ongoing initiatives (math, language arts etc.)
- v. Learn to speak the professional language of educators. Learning to understand terms such as "Graduation outcomes" and "skill set expectations" etc. will help build an understanding of mutual assistance. This may be accomplished by engaging interested teachers and educational leaders in advance to give insight into current school system priorities and initiatives.
- vi. Following from this, find ways to gain support of teachers and learn ways that key biodiversity concepts can fit into curriculum.
- vii. Assist school systems with public relations for their initiatives and offer other forms of support.
- viii. Appeal to the altruism of school leaders. School leaders also want to do the right thing and welcome the opportunity to participate in new initiatives if action fits into an educational rationale. Present biodiversity messages as ways to address the higher end education goals of critical thinking and fostering creativity.
- ix. "Cluster" biodiversity messages with other like "adjectival educations" such as environmental education, Global education and "diversity" education in general. Go beyond the environmental aspects whenever possible to widen the engagement process.
- x. Try to find a way to make biodiversity concepts truly relevant for the formal education/community. Link these to issues such as immigration or the impact of consumption to other regions of the world.
- xi. Link to students' interests in ways that make biodiversity relevant and interesting to them so the school system is rewarded for their engagement by positive feedback from students.
- xii. Given the linkage between biodiversity and cultural diversity, with some planning biodiversity can play a role in enhancing nationalism/citizenship identity.

27. The strategy for working with ministries of education also suggested the adoption of certain guidelines regarding working with other government bodies:

(a) The conservation and sustainable use of biological diversity is impacted by the activities of many government bodies, with the actual structural arrangement varying from country to country;

(b) For biodiversity education to be effective one of the first steps should be to identify those government bodies and their decision makers which are most relevant to biodiversity conservation and sustainable use and education;

(c) In terms of formal education, the obvious government body to target is the Ministry of education. In many instances however, other ministries such as natural resource/agriculture/science/etc are involved with formal education;

(d) In engaging the appropriate authorities it is essential that there is an understanding of their policies, programmes and working arrangements and in particular their priorities. Depending on the

level of understanding and empathy with the issues, there may be a need for an initial “education programme” directed at key people in those authorities;

(e) For both an initial engagement and a continuing commitment, the relevance of biological diversity conservation and education to the authority’s core policy responsibilities - and any broader government policies and commitments - need to be clearly identified and effectively communicated;

(f) Other mechanisms to promote and maintain commitment include Ministerial level involvement, the establishment of consultative/advisory bodies comprising community experts and the development of ongoing coordination processes/ structures involving relevant officials;

(g) The availability of adequate funding is fundamental.

Question 2 – Knowledge Management

28. With regard to the question of Knowledge Management (KM), the group discussed the role of clearing-houses. They defined a web-based clearing house as a mechanism that brings together pre-existing information networks, and filters data based on established criteria, serving as an organizing tool to provide a more coherent and coordinated approach for accessing, synthesizing and visualizing thematic information. It is a collective pool of validated and quality assured data, information, assessments, reports, documents and expertise. The consolidation of the data broadens the client access to information, and the filtering provides the client with tailored information according to needs.

29. The Group acknowledged that a clearing house for biodiversity education would facilitate communication and exchange of information and wise practices, and promote the implementation of the CEPA work programme. It also recognized that such a clearinghouse should build on existing relating mechanisms to ensure cost-effectiveness of the system and avoid duplication of efforts. Existing relating clearing houses include the CBD CHM as well as CEPA portal, the Open Training Platform of UNESCO, and the information network clearing house (CC:iNet) of the UNFCCC. The Group encouraged the CBD secretariat to seek partnerships with these and other relevant organizations to support the development of a Biodiversity Education Clearing House.

30. The Group identified several challenges that needed to be considered when developing such a clearing house, and in particular:

- a. Identifying relevant information and materials and ensuring that key documents are made available;
- b. Identifying target audiences;
- c. Providing access to multilingual information;
- d. Ensuring quality control;
- e. Promoting the use of the system.

31. The Group also identified other means or avenues to facilitate exchange of information and experience such as regional and sub-regional workshops that would engage prospective partners such as NGOs, CBOs, indigenous groups, various ministries etc. and

32. The Group recommended the CBD secretariat to enhance synergies with other Multilateral Environmental Agreements, and in particular to engage other CEPA experts dealing with various environmental and sustainable development issues in being part of this initiative.

33. Enhance the role of formal and non-formal education as one instrument to cope with global problems for mitigation and adaptation by ways of changing attitudes and life styles.

Question 3 – Tasks for the Ministries of Education and the role of UNESCO

34. Bearing in mind that loss of biological diversity is closely linked to other global problems such as climate change, desertification, degradation of water resources and soils, it should therefore become an important part of ESD.

35. In order to promote ESD with a special focus on the requirements of conservation and sustainable use of biodiversity, it is essential that the ministries of education or other ministries in charge of formal and/or informal education should be urged to take a lead in setting goals, outlining strategies and deciding on plans for implementation.

36. Goals and plans should address all level and institutions of education, from elementary education through primary and secondary schools, vocational training as well as tertiary education at the university level.

37. Special attention should be given to the basic training of school and pre-school teachers, as well as to in-service training and training of other relevant multipliers

38. With regard to the participation of **UNESCO**, As lead agency for the UN Decade of Education for Sustainable Development (DESD, 2005-2014), and taking into account that Biodiversity is one of the key action theme of DESD, can contribute to Priority Activity 10 (Education) of the programme of work of CEPA in the following areas:

(a) Contribute to identification, compilation and exchanges of good practices (using the existing ESD Good Practice Template) and teaching materials (through current ESD survey of materials) on biodiversity issues with various UNESCO networks (UNESCO Associated Schools, UNESCO Chairs, UNESCO Clubs, and in cooperation with other agencies (in particular UNEP) and stakeholders (including private sector and faith-based organisations);

(b) Contribute to the dissemination of information and good practices related to biodiversity, including those of relevance to indigenous and local communities;

(c) Mobilize teachers, researchers, students, decision-makers through those networks to reflect on biodiversity issues and their interdependence with the global sustainable issues;

(d) Contribute to the development of pedagogical tools in indigenous languages and based upon traditional knowledge of relevance for biodiversity conservation;

(e) Strengthen ties between teachers, local knowledge holders and community members to enhance the transmission of traditional knowledge within local communities;

(f) Address the place of biodiversity in sustainable consumption and lifestyles, in particular through the joint UNEP/UNESCO YouthXchange initiative and through UNESCO's involvement with the Marrakech Process Taskforces on Sustainable Lifestyles and on Education for Sustainable Consumption;

(g) Develop, as part of reorienting educational programmes to address sustainability issues, an approach to ensure better integration of biodiversity issues in school curricula and teacher education, in partnership with relevant partners;

(h) Share results and lessons learnt from UNESCO initiated projects such as Biosphere Reserves part of the UNESCO DESD Action Plan Thematic Programmes; Sandwatch project, Baltic Sea Project, Coranic Botanical Gardens, and others;

(i) Contribute and participate in the International Year of Biodiversity in 2010, in particular involvement of UNESCO Associated Schools, World Heritage Education projects, Biosphere Reserves and strengthening visibility of Biodiversity in DESD actions;

(j) Help increase public awareness of biodiversity issues through training of various stakeholders, including educators, media professionals, and through cooperation with the private sector;

(k) Encourage DESD and MAB national committees to liaise with CBD counterparts for including Biodiversity in the implementation of DESD at national, regional and international level;

(l) Continue contributing relevant scientific contents based on UNESCO's Intergovernmental Scientific Programmes and scientific assessments in which UNESCO is involved of relevance to the conservation, sustainable use and equitable sharing of biodiversity and its benefits.

Working Group B

Question 1- Integrating biodiversity considerations into nonformal learning contexts.

39. The group elaborated the following draft principles and guidelines, intended as a starting point for discussions and policy elaboration:

a. Main Principles of nonformal learning:

- People are always learning. They learn from observing others; they learn from their parents; they learn from media; they learn in the workplace; they learn from life.
- Nonformal learning providers support this “everyday” learning by offering structured and free-choice opportunities for people to explore ideas, to satisfy curiosity, to gain information and skills, and to improve their quality of life.
- Nonformal learning includes all types of learning outside the formal education system (primary schools, secondary schools, and universities).

b. Nonformal learning providers cover a range of opportunities:

- Support formal education with supplemental resources, field trips, guest speakers, resource experts, in-service training.
- Reach youth outside of school in clubs and camps with strategies such as games, field trips, etc.
- Engage adults in professional development and issue-specific skills and information in workshops, distance education programs, on-the-job training, courses, and conferences.
- Offer life-long learning for all through the media, libraries, exhibits, and community program.

c. Actions parties may take to support mainstreaming of biodiversity into nonformal learning:

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- Support nonformal learning providers and direct their activities toward biodiversity education (BD) by providing:
 - Professional development in BD outreach;
 - Funds to orient their programs to BD;
 - Templates for materials with BD messages, such as exhibits, posters, flyers for public spaces, libraries, museums, zoos;
 - Booklets for literacy programs;
 - Networking opportunities to share ideas nationally and internationally;
- Engage universities and researchers in understanding how to evaluate and improve nonformal learning for biodiversity and sustainable development (SD);
- Design campaigns with nonformal providers to support adult lifestyle change toward more sustainable behaviors;
- Help nonformal providers listen to all voices (including indigenous and minority people) and engage all stakeholders in designing educational programs;
- Seek support from non-environmental nonformal providers, such as the private sector, media and entertainment industries by challenging them to address BD and SD concepts;
- Engage relevant professions in creating solutions to BD and SD challenges with contests, awards, and publicity;
- Engage the public in critical reflection of lifestyle and consumption choices by working through faith-based groups, women's groups, civic groups, local communities, neighborhood associations, and extension programs;

d. Parties SHOULD:

- Understand the needs of other sectors, then translate biodiversity main messages into simple language that responds to their problems and meets their needs;
- Use professional experts to develop that translation;
- Develop a “working group” structure of nonformal providers to provide guidance and implementation assistance;
- Use participatory planning with nonformal providers to design learning programs and train them to do the same;
- Encourage nonformal providers to design programs that enable people to choose effective learning strategies;
- Encourage nonformal providers to design programs that build skills and create solutions to sustainable development challenges;

e. Nonformal learning in support of biodiversity includes:

- Content: interdependencies, ecosystem functioning, human impacts on ecosystem
- Competencies: Systems Thinking, Problem solving, Communication skills;
- ...To enable people to understand, be motivated, and be committed to helping to solve challenges that affect biodiversity on Earth;

Question 2 – Guidelines for biodiversity education in indigenous and local communities and considerations for the role of Traditional Knowledge related to the conservation and sustainable use of biodiversity:

40. Indigenous and local communities in close relationship with natural environments require special consideration when it comes to biodiversity education.

41. This is due to their extensive and at times unique knowledge about biodiversity, as well as practices and worldviews that may contribute to conservation and sustainable lifestyles when appropriately shared with society in general.

42. Biodiversity education that disregards this knowledge, misses opportunities to enrich formal and non-formal education and may undermine indigenous and local communities contributions to understanding and conserving biodiversity.

43. Biodiversity education in indigenous and local communities should recognize and support local knowledge, practices and worldviews as pertinent ways of knowing, alongside science.

44. This acknowledgement is important for indigenous children and youth whose school experience should reinforce pride and solidarity with their culture, rather than running the risk of having them lose identity and self-esteem.

45. In many cases indigenous knowledge has been affected by the dominant economic society, so it is important to respect its essence and to use their knowledge only when appropriate permission is given.

46. As learning is reinforced by education in the mother tongue, indigenous languages should be the medium of instruction for indigenous children, enhancing people's sense of pride for their own culture.

47. Indigenous and local communities should be directly involved in decision making with respect to education and other aspects that impact their lives.

Question 3 – Considerations for collaboration between environmental conventions.

48. The key messages about CEPA and the environmental conventions are the following: While the environmental conventions are 'technical,' CEPA is a suite of social tools that needs to be integrated into management and policies. Synergies between the various multilateral environmental conventions are possible, but mechanisms are needed to make this effective.

49. There are CEPA Programme Officers in place in all Secretariats that collaborate on a number of levels.

50. At the horizontal level they communicate/cooperate with each other for mutual learning largely through meetings of the Informal Advisory Committee for Communication, Education and Public Awareness (CEPA IAC). There is a need for a more formal structure that could save time and money. Discrete opportunities exist to cooperate through the International Day for Biological Diversity, World Wetlands Day and other events. These conventions also provide side events at their COPs where CEPA community can meet, exchange experiences, learn from each other.

51. At the vertical level, the programme officers communicate, especially with their CEPA FPs, through the web site, email lists, providing a sense of 'community.' They provide information to the FPs on their role as a CEPA FPs at the national level: provide leadership in identifying key goal of the FP « to integrate CEPA into management, policies and encourage FPs in developing a national strategic approach to CEPA

52. Comparing CEPA Focal Points between the various conventions we find quite a variation. The Convention on Biological Diversity does not have CEPA Focal Points but it has an Informal Advisory Committee. Ramsar has focal points both for Government and NGOs. The United Nations Framework Convention for Climate Change has for some Parties, CEPA Government FPs. The United Nations Convention to Combat Desertification has National FPs only. This variation needs to be taken into account in any attempts to collaborate.

53. It is important to underline the roles these focal points have in implementing international recommendations in a national context. In this regard, they work in collaboration with national actors (environmental managers, environmental educators, educational authorities, decision-makers, NGOs, local communities, media etc).

54. A number of opportunities for collaboration exist. It is important to ascertain the specific benefits, goals and outputs for any collaborative effort in advance, to determine which projects will be the most effective.

55. Collaboration can take place at the national level, where mechanisms exist to bring together the focal points. This is the case for Spain. These mechanisms should be identified.

56. At the International level, collaboration can take place through other institutions. For example, the Joint Liaison Group of the Rio conventions has given a mandate for collaboration on educational matters to take place. The IAC for CEPA of the CBD also offers opportunities for collaboration.

57. Building more extensive collaboration is best founded on discrete projects. In this regard, the proposal for the Learning for Life campaign, in the annex to this meeting, is an example of how this collaboration could take place.

ITEM 11. OTHER MATTERS

58. The chair invited the Secretariat to give a presentation on its plans for COP-9, including presentations on educational matters. The Secretariat described a number of activities to take place including the CEPA fair, the holding of an IAC workshop at the COP, the launch of the IYB strategy, the celebrations for IBD, the launch of the CEPA toolkit, and an event organized around the CBD and the UN DESD.

ITEM 12. CLOSURE OF THE MEETING

59. The meeting was closed at 5 pm on 19 March 2008.

Annex

LEARNING FOR LIFE – IDEA FOR A GLOBAL CAMPAIGN

Citizens learning, living and implementing sustainable development

Based on DESD 2009, IYB 2010, Rio +20 2012, DESD 2014

1. The campaign “Learning for Life” is a global campaign of nonformal learning, linked thematically and in time to the DESD, the IYB in 2010 and the upcoming 20th anniversary of the Rio conventions. It is based on the following principles of learning in a nonformal context:

- (a) The learner is in control
- (b) The role of the Conventions and Parties is to create enabling environment and to help facilitate learning
- (c) The process of learning is designed by providers of learning and learners

2. The thematics of the Learning for Life campaign is based around both key messages relating to sustainable development and key competencies from ESD:

- (a) Messages
 - (i) The Earth has a certain carrying capacity
 - (ii) Biodiversity and the richness of life is needed to ensure the resilience of the ecosystems around us.
 - (iii) The notion of interdependence is central to human activities and their relationship to the environments that surround them.
 - (iv) Ecosystems produce the goods and services that all people need for their well-being. Use of these goods and services must be responsible
 - (v) Cultural and spiritual values of humanity are rooted in environments. We need to appreciate diversity in these, just as we appreciate diversity in ecosystems.
 - (vi) The human dimension, and respect are central.

(b) Competencies to be developed as a result of the campaign:

- (i) Problem-solving
- (ii) Communication
- (iii) Systems-thinking
- (iv) Economics
- (v) Dealing with change
- (vi) Living with diversity

3. Potential Themes for an informal learning campaign.

(a) An issue that appeals to many Conventions (incl. beyond environment), major groups, and citizens and their initiatives. This should be decided among the organizations leading the initiative. Potential themes include:

- (i) Reducing deforestation – to enhance biodiversity, to mitigate climate change
- (ii) Planning for conservation and designing development – to protect biodiversity, to maintain wetlands, to protect watersheds
- (iii) Developing alternative livelihoods in areas prone to desertification, deforestation, wetlands, protecting biodiversity, climate change
- (iv) Communities and their surroundings: the inter-relationship of cultural, spiritual and biological diversity
- (v) Sustainability in the city: wetlands, transportation and biodiversity system

4. Global Planning Process involving the Conventions (2008-2009):

(a) Agreement on approach and choice of themes. (side event during COP-9 meeting)

- (i) Structures and governance agreed
- (ii) Timelines established
- (iii) Conventions, UNESCO, UNU, ESD organizations, UNEP, IUCN, WWF, etc.
- (iv) Create templates for information campaigns

(b) In coordination with other bodies and initiatives, convene and support Sub-regional Workshops for CEPA Focal Points + Secretariats, and other relevant actors to:

- (i) Exchange understanding of the theme and goals
- (ii) Share relevant experiences on CEPA
- (iii) Build a common understanding and purpose
- (iv) Identify a common approach

5. Planning Process: Building support at the International Level (2008-2009):

(a) Promote at major international events and seek partners and resources. Events include: COP-9, WCC, UNGA, UNFCCC COP, UNEP GC (2009)

(b) Seek participation and buy-in of relevant technical experts, scientists and educators through promotion at expert meetings, at associations of museums, etc.

(c) Workshops (2008-2009) should be held and should balance sub-regional representation with a manageable size. They should seek ways to exemplify global themes and competencies in context of local needs.

- (i) Participants can include, Convention CEPA Programme Officers and Focal Points, NGOs, CSOs, Regional Centres of Expertise, Learners and those who facilitate learning.
- (ii) Mandate of the workshops is to establish the themes, action plans and activities; build dialogue and demonstrate the principles of the campaign;

create conditions and frames for national initiatives, including customizing templates from global level.

6. National Planning Processes: building the community of participants:

(a) Participants in sub regional workshops NFPs, CEPA reps, selected organizations, convene meeting with national representatives or key leaders of nonformal education providers, funders, and users including:

- (i) Association of museums, zoos, gardens
- (ii) Professional organizations (EE, teachers, planners, rural dev)
- (iii) Private sector and funders
- (iv) Media leaders
- (v) Indigenous groups

7. National Level Planning (2009):

(a) Focal points and others are responsible to confirm vision, themes and goals and to identify in particular: issues, challenges for sustainable development at the national level and tools, competencies and transformations required to meet the challenges.

- (i) Select target audience, locations, communities, regions
- (ii) Identify partners and key leaders
- (iii) Develop a timeline and communication plan
- (iv) Design objectives and evaluation plan
- (v) Develop funding plan
- (vi) Agree on tasks and responsibilities

(b) Communicate with Constituents

- (i) National leaders communicate with their constituents, seek support, & generate enthusiasm to participate in campaign.
- (ii) Additional partners at local level are contacted: Community centers, nature centers, camps, Youth groups, clubs, Schools, Universities, Museums, zoos, gardens, Wildlife refuges, parks, forests, Indigenous leaders

(c) Extend the community and establish partnerships with groups who do not have environment as their main agenda:

- (i) Women's groups
- (ii) Faith-based groups
- (iii) Social change organizations
- (iv) Media and Internet
- (v) Other professional associations
- (vi) Municipalities

- (d) Potential activities could include:
 - (i) Customize templates of information material provided at international level. Transmit to constituents for their own use
 - (ii) Organize fact-finding excursions, investigate local situation
 - (iii) Create school-based service learning projects, collect data, report on findings (sustain.no)
 - (iv) Organize competitions around solutions, plan promotional festival
 - (v) Create a communications strategy that uses traditional and non traditional media, including YouTube, etc

- 8. Theme Example: Avoided Deforestation:
 - (a) Identify the challenges and opportunities offered by the need to re-imagine the relationship with a forest ecosystem:
 - (i) the importance of the ecosystem services for the ecosystem, the local and global communities
 - (ii) the economic potential of a new way of using and managing the forest
 - (iii) The place of the forest in the cultural and historical memory of the region
 - (iv) What transformations does the community want to realise sustainability?
 - (b) Potential Partners
 - (i) Private landowners
 - (ii) Ethnic groups including indigenous and local communities
 - (iii) Conservation organizations
 - (iv) Business actors involved in fair trade.
 - (v) Carbon trading Market – investors
 - (vi) Researchers
 - (vii) Ecotourism actors
 - (viii) Educators
 - (c) Actions and Plans
 - (d) Forums to identify issues and problems
 - (e) Sponsorship of cultural activities (film festivals, short stories, visual arts)
 - (f) Extension courses with universities
 - (g) National park visits
 - (h) Establishment of Planning processes with relevant actors.

- 9. Gaining support: actions at COP-9:
 - (a) Cop-9

- (i) Hold side event at CEPA fair with initial partners
 - (ii) Report of workshop referenced in CEPA decision, discussed by Parties
 - (iii) Lobby to integrate these ideas into International Year of Biodiversity strategy discussion at COP
 - (iv) Promote at event on 30 May about ESD in Germany
 - (v) Introduce concept and ideas informally to partners in meetings on the margins.
 - (vi) Finalize proposal and funding requests
- (b) 2009 and beyond:
- (i) As planning proceeds in 2009, promote the actions in the context of the half-way mark of the DESD
 - (ii) Seek to mainstream this into other activities of the DESD
 - (iii) Encourage the National Programmes to carry out actions as part of the International Year of Biodiversity in 2010
 - (iv) Prepare to coordinate for 20th anniversary of Rio conventions in 2012, including working with host of the celebrations.
