



Lenzen, Germany 23 April 2014

Position paper of the German MAB National Committee on Education for Sustainable Development in Biosphere Reserves

1. Education for sustainable development: a task for biosphere reserves

The idea of sustainable development was formulated in light of problems arising from global change affecting people the world over. These include poverty and unequal life chances due to hunger, lack of education or a lack of respect for certain social groups, unadapted lifestyles and undemocratic concentrations of power, man-made loss of biodiversity, climate change and its impacts, overexploitation of soils and the seas, impairment of ecosystem regeneration due to excessive use and pollution from emissions, depletion of natural resources, production and processing of foodstuffs without considering the impacts on human health, improper farming of animals and monocultures, loss of cultural diversity.

Sustainable development will only be possible if we first explore the intricate connections between these problems. This can best be understood at regional level: Environmental problems are both a cause and an effect of social problems. Economic activity can have positive or negative social, ecological and cultural impacts. Cultural traditions and guiding principles can support or impede sustainability. Moreover, power and interests, social structures and policies can be counterproductive to sustainable development. Solutions for sustainable development must take these complex connections into account.

All these problems stem from the unsustainable interaction of human beings with their natural and material environment and with other people. This is ultimately reflected in people's actions or, more generally, in their lifestyles. Sustainable development means transforming a non-sustainable society into a more sustainable one. It involves a process of exploring, learning and creating that must be implemented at many levels (globally, regionally, locally, and of course individually too). A variety of technical, economic and legal strategies and instruments are used in the process. A necessary prerequisite for embarking on the path towards sustainable development is a fundamental mental change of values, attitudes,

abilities and capacities, which will ultimately be manifested in changed actions and lifestyles. This must be facilitated and supported through education and learning.

Biosphere reserves are model regions for sustainable development. Should we consider sustainable development to be an individual and social process of exploring, learning and creating, education must be an indispensable, integral part of it. Education is thus an important element for achieving a biosphere reserve's sustainability targets.

Education for sustainable development (ESD) is a concept that raises critical awareness of unsustainable developments and promotes empathy, perceptiveness, knowledge and capacities that encourage and enable people to contribute to shaping a responsible future.

This concept involves the examination of key issues of sustainable development based on the values of sustainable development. The specific processes and methodologies of this approach allow learners to understand the complex tasks of sustainable development and find new solutions, at local and regional level, for the relationship between man and the environment and for our co-existence in one world whilst also taking the global connections and impacts into account.

Everyone living or working in a biosphere reserve should therefore have the opportunity to contribute towards shaping the model region through education for sustainable development. The biosphere reserve thus facilitates and supports education and learning for sustainable development for all social groups and all ages - by means of special educational programmes and the integration of education and learning opportunities into various activities and learning sites.

At the same time, biosphere reserves are called upon, as model regions, to share their experience and knowledge on sustainable development and are encouraged to develop ESD projects for visitors and the interested public from other regions.

2. Education for sustainable development is a new concept, not an extension of environmental education

Education for sustainable development is not an updated or amended form of environmental education, forest education or global learning. It provides a new orientation for developmental and learning processes. Important sources of inspiration and motivation for active commitment to sustainable development include experiencing nature, understanding the importance of biological diversity and specific habitats in the biosphere reserve, being aware of the sensitivity of ecosystems and simply enjoying nature. For educational processes to enable people to build up a responsible relationship with nature and among each other, an integrative approach is required.

ESD establishes connections between nature and environmental problems and our everyday thoughts and activities, our economic practices, social issues and cultural

ideas and can thus help us in identifying new, innovative strategies for the long-term preservation of the natural foundations and quality of life.

Sustainable development requires a fundamental shift in our thinking, new approaches to specific questions and tasks, a critical attitude towards existing knowledge, and new insights. People must learn how to think and act in accordance with the principle of sustainable development. This is why the idea of education for sustainable development was conceived at the UN Conference for Environment and Development in Rio de Janeiro in 1992 and has since been developed worldwide and through international exchange. It includes the following, interrelated tasks and goals that serve as orientation for the planning and implementation of education projects. Particular consideration is given to the special characteristics and potential of biosphere reserves as model regions for sustainable development:

The goal of education for sustainable development is to

- address key questions of sustainable development based on the specific characteristics of the individual biosphere reserves, enable people to understand the complexity of these questions and form an opinion on them through access to knowledge and experience,
- raise and promote awareness of and sensitivity to the living beings involved (including human beings) and their needs,
- open up experiences of nature and spirituality,
- allow people to experience solidarity in joint work for sustainable development (for example through encounters of different generations and cultures; international cooperation),
- highlight the importance of nature for human life and contribute to nature being valued, for example through nature experiences,
- help people discover and critically review their potential for living with nature (through knowledge, behaviour, technologies),
- make people understand that the protection and use of nature in a biosphere reserve are a joint task,
- raise awareness of the values of sustainable development and apply these to tasks and problems in the individual region,
- promote skills that allow individuals and social groups to act together for the benefit of sustainable development,
- foster strategic, anticipatory, alternative thinking that allows people to accept an open future,
- encourage people and give them the opportunity to become involved in shaping their region (and thus their own living conditions),
- tackle specific development projects in the biosphere reserve and learn together from them.

3. Education for sustainable development can be implemented via formal education programmes as well as non-formal and informal learning

Biosphere reserves are learning sites which offer formal education programmes. However at the same time these should be designed to facilitate everyday, informal

learning about sustainable lifestyles and economic practices. Examples include food tastings in public institutions or during events, preferably with regional products from ecologically and socially responsible production and fair trade; integration of all age groups in regional planning processes; showcasing biodiversity in meadows and private gardens; preservation and use of traditional animal breeds. Non-formal education programmes (such as exhibitions, theatre, art) are particularly suited to creating educational and learning opportunities in connection with leisure activities.

4. Education for sustainable development in biosphere reserves facilitates learning based on specific tasks and questions

Education programmes in biosphere reserves should provide access to knowledge and options for action with regard to shaping sustainable development in people's own region. However, to bring about a shift in thinking, behaviour and decision-making principles, people need to be able to evaluate this knowledge. The best way to achieve this is to use specific tasks and questions (potentially) arising in the biosphere reserve to demonstrate why this knowledge is useful and what impacts it can have.

5. Specific characteristics of a biosphere reserve offer potential for educational activities

Specific regional features (geomorphological structure, cultural landscape, flora and fauna, cultural artefacts from the past, current cultural practices) in a biosphere reserve harbour potential for educational activities. For example, historic studies of the cultural landscape can reveal changes in biodiversity caused by human management practices; natural resources and cultural diversity in the region can be used as a basis for future scenarios, what-if-stories and visions for sustainable regional development. Education projects can be geared towards enabling inhabitants to find new solutions for the ecological, economic, social and cultural development of the biosphere reserve in areas such as renewable raw materials, bioenergy, local energy supply, demographic development in connection with sustainable building, development of regional value chains.

6. Regional and global responsibility can be acknowledged and practiced in biosphere reserves through education for sustainable development

Sustainable development cannot be achieved at local or regional level alone. Local and regional action is increasingly becoming part of global interdependencies. Responsible regional action should always be responsible at a global level as well. Education for sustainable development in biosphere reserves can make an excellent contribution to this, as biosphere reserves are part of a global network. They show that sustainable development is a global challenge people in all regions of our planet are facing in different ways.

Learning about the specific natural and cultural characteristics in other biosphere reserves worldwide and cooperating directly with these allows people to appreciate the value of cultural and biological diversity and take a fresh look at their own region. Examples from other biosphere reserves and direct cooperation should become components of biosphere reserves' own education programmes.

7. Education for sustainable development requires a new learning culture

The idea of sustainable development as an individual and social process of exploring, learning and creating is also reflected in the way ESD is approached. Participation is a vital principle of this approach. It values people's different perspectives, ideas and levels of knowledge and takes account of the need to make decisions for sustainable development transparent and sound. It is a way of generating new knowledge and new options for action and motivating all those involved to make use of these.

This applies to all ages and all social groups. Everyone can participate; education for sustainable development supports people in developing the necessary skills to do just that. Experience with negotiating and decision-making processes is essential. Education for sustainable development is therefore characterised by

- a variety of information and communication opportunities
- participatory learning and
- a new culture of participation and cooperation for those involved in education processes.

Openness for new perspectives, a willingness to rethink and reflect on one's own lifestyle and new approaches to interpersonal relationships as well as relationships between human beings and nature/the environment cannot be generated through intellectual challenges alone. Sensory and aesthetic perceptions and creative, artistic, exploratory activities help us question existing patterns of thinking and acting and inspire new ideas. This is particularly effective if a person has the opportunity to address a question in both a cognitive and an emotional, sensual way. The overall approach must therefore include both, also through cooperation with artists and cultural institutions.

8. Cooperation and networking are key elements of education for sustainable development

Biosphere reserves can implement ESD through cooperation of the biosphere reserve administration with kindergartens, schools, universities, adult education facilities and other educational and cultural institutions as well as associations and companies. Networking can help to

- develop, evaluate and regularly update a programme for the biosphere reserve that can be jointly communicated,
- jointly organise and implement the qualification of people and institutions for education for sustainable development,

- explore opportunities for cooperation of kindergartens, schools, universities and adult education facilities with players from the region that allow for learning based on real, regional tasks,
- give the regional educational offering a sustainable development profile.

The important role of the biosphere reserve partners in education processes can be visualised by establishing "theme-based educational environments". These show, for example, who is involved in manufacturing sustainable products in the region or establishing sustainable value chains (such as "milk" or "fisheries") or who takes part in complex joint tasks, e.g. regarding the results chain of land uses. Documenting which parties are involved can aid in regional development and serve to find cooperation partners for education projects with practical relevance.

9. Drafting, evaluating and continuously developing a programme for education for sustainable development and communicating this are tasks of the biosphere reserve administration.

The biosphere reserve administration has the task of drafting an ESD programme for the biosphere reserve, evaluating it and developing it further, with support from external experts if needed.

The administration organises events (in particular for multipliers) and helps establish a wide range of ESD courses through cooperation with others. It uses the work carried out in model projects for ESD to establish a base in the region in the long term.

The administration shapes and leaves its own mark on the further development of the education programme by means of an exchange between biosphere reserves, including internationally, and cooperation with external partners from the scientific community.

Wherever possible, it includes projects for all social and age groups in its programme (also by working with external partners) - for example on the transformation of the energy system, new forms of building and housing, biodiversity strategies or sustainable management of agricultural land. Education for sustainable development should be mentioned as a task of biosphere reserves and illustrated with concrete examples from the region in publications developed for information and communication activities.

10. In summary, programmes offered in the context of education for sustainable development are characterised by the following essential elements:

10.1 Educational activities should be designed in such a way as to contribute to

- a responsible relationship between humans and nature and more global and intergenerational justice
- preserving the natural foundations of life

- maintaining, cultivating and sustainably developing cultural landscapes.

10.2 They address key issues of sustainable development using local and regional examples.

10.3 They reflect specific tasks, problems and questions arising in the biosphere reserve, attempt to understand and assess them in cooperation with relevant partners and thus integrate ways of experiencing and shaping sustainable development in the biosphere reserve in the educational activity.

10.4 Drawing on specific examples from the region, they raise awareness of the fundamental values of sustainable development (human dignity, preservation of the natural foundations of life, equal opportunities of all people on the planet and future generations for leading a good life), demonstrate how a common understanding can be reached on these values, for example by making reference to the Earth Charter (www.earthcharterinaction.org), and how we can live together in harmony with other living beings.

10.5 They link experiences of nature, spiritual experiences and aesthetic approaches to the relationship between humans and nature with opportunities to reflect on and understand relationships between humans and nature/the environment.

10.6 They allow for systemic thinking, precautionary thinking, thinking about alternatives and strategic thinking for sustainable development by creating space in educational activities for wishes and visions for the future.

10.7 They draw attention to alternatives, conflicts, dilemmas and controversies, open or hidden, that exist in the region.

10.8 They allow for active participation, e.g. the integration of experiential knowledge, creative ideas and individual responsibility in a common negotiation and creation process.

10.9 They use different media (films, exhibitions, campaign days, guided tours, mobile information stands, Internet) and technologies to analyse, document and communicate the topics.

10.10 They are geared towards different target groups, including small children and child care centre staff; children, adolescents, teachers and other school staff; women; farmers; municipal administration, politicians, multipliers from institutions and companies; elderly people; people working in the tourism sector and guests and tourists visiting a biosphere reserve.