

Lutz Möller

Dear Reader,

Ayers Rock in Australia, the Everglades in the United States, the Spanish island Lanzarote and the Wadden Sea of Germany and the Netherlands are world famous travel destinations. Did you know that these are all UNESCO biosphere reserves?

UNESCO biosphere reserves are model regions for sustainable development. They protect biodiversity, support regional marketing and promote low-impact tourism as well as innovative, environmentally-friendly agriculture. They advance education and research and interact in a world network.

They are particularly important today in times of obvious global change. World-wide environmental changes such as climate change, desertification, and water shortage recently started to dominate the headlines. Centres of power and economy are shifting rapidly, both within and between countries. Increasing migration is, these days, seen to be a security risk by many states. The age pyramid of many countries is changing drastically. These developments occur not least, as a result of behavioural patterns – above all, in industrialised countries – which in the long term are intolerable.

Sustainable development is the alternative draft to escalating global change. Sustainable development looks for solutions as to how this planet's resources can be managed to ensure a decent life, both globally and for centuries to come. There is no patent formula for sustainable development. It can take on a different form on each continent, even in each district, because conditions differ and because global change is so complex. Even more, adapting to global change will require a temporarily changing concept of sustainable development. At any rate, all around the earth places are required, which serve as experimental laboratories for sustainable development. The biosphere reserves are such places.

One example: in Europe small farms are hardly profitable these days. Climate change leads to rising temperatures and

decreasing rainfall in many regions of Europe. In turn, rising prices are an incentive to produce biomass for the production of energy, potentially using genetically manipulated seed. What is the right alternative: Should farmers abandon their land and leave it at the mercy of natural succession? Should they grow rapeseed and corn on an industrial scale? Or are there economic frameworks for the remaining small-scale farming to survive?

Sigmar Gabriel and Carlo Jaeger justify the necessity of biosphere reserves in the era of global change in their contributions to this journal. The chairwoman of the German MAB (Man and the Biosphere) National Committee, Gertrud Sahler, while considering new challenges, comes to the conclusion that biosphere reserves all the more earn to be strengthened.

UNESCO biosphere reserves have not only recently gained importance. Julia Marton-Lefèvre describes know-how impulses for the management and zoning of protected areas. Thomas Schaaf presents research on the impact of global change in mountainous regions. Michael Succow illustrates how the biosphere reserve concept influences the establishment of national parks in the successor countries of the Soviet Union.

Natarajan Ishwaran sees biosphere reserves as being learning laboratories. What is meant by this and what the German biosphere reserves have got to offer is portrayed by Lenelis Kruse-Graumann.

A further important aspect of biosphere reserves is to look at 'cultural landscapes'. Although it is definite that traditional cultural landscapes did not always evolve while protecting nature, they often do offer habitats for a rich diversity of species. They are being threatened by increasingly intensive agricultural use in the same way as by the abandoning of unprofitable areas due to climate change and demographic change. UNESCO biosphere reserves preserve functioning cultural landscapes due to the groundbreaking concept of zoning.



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Werner Konold stresses in his contribution that the accelerating dynamics of cultural landscapes today need value frameworks like the Seville Strategy.

Scepticism or even fear is not an appropriate response to global change; surprisingly obvious recipes sometimes turn out to be best practice for meeting the challenges. Claudia Neu presents success factors, which prevent migration from villages in Mecklenburg-Western Pomerania. Rainer Mönke reports how biosphere reserves can create more jobs. Martin Kremer describes influences of regional marketing, through which the Rhön, despite its peripheral location, was built up and which helped a new regional identity to emerge. Armin Kullmann explains how the biosphere reserves measure up with regard to regional marketing in comparison with other areas.

The involvement of local communities is a definite strength of biosphere reserves. Christine Kehl and Elke Baranek explain that this grants nature conservation projects the necessary acceptance. For Klaus Jarmatz and Johannes Treß this

is decisive for well-functioning framework concepts. Marcus Lämmle explains that local involvement is already significant during the founding phase of a biosphere reserve. According to Susanne Stoll-Kleemann, it is considered to be central for the management of biosphere reserves throughout the whole world. Eberhard Henne explains that the umbrella brand 'National Natural Landscapes' boosts awareness for biosphere reserves throughout Germany.

The UNESCO biosphere reserves create local success formulae, in order to enable sustainable development to become a reality. Local experience is incorporated and distributed in the world network of

biosphere reserves. In this journal we give you a brief introduction to 34 existing and planned regions. Peter Heyne as well as Guido Puhmann and Susanne Reinhardt report on new partnerships in the world network; Roland Stein describes the difficult additional tasks of transboundary biosphere reserves.

The German Commission for UNESCO held its General Assembly on the subject of UNESCO biosphere reserves in 2007. This Assembly passed a resolution on the UNESCO biosphere reserves in Germany which is reprinted on the third cover page. In line with the German MAB National Committee which has made the English version of this journal possible,

it stresses the significance of biosphere reserves in realising sustainable development. This journal should portray to you that UNESCO biosphere reserves – those you are already acquainted with and those that you may want to get to know better after reading this – really are 'Model Regions with a Global Reputation'.

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UNESCO Biosphere Reserve Arganeraie

Morocco



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Corvin Wimmer

The biosphere reserve Arganeraie, designated in 1998, is situated in the south-west of Morocco, bordered by the Atlas Mountains and the Atlantic Ocean. The city of Agadir is also a part of this region

which spans 25,600 km² and supports almost 2.5 Million inhabitants, who predominantly earn their livelihood through agriculture and livestock farming. The priority of this biosphere reserve is the preservation of the Argan tree – which is currently under threat of extinction due to excessive human exploitation – and the sustainable production of Argan oil.

The Argan tree is endemic to this part of Morocco. This thorny tree, which loses its foliage in the dry period, is extremely well adapted to the high temperatures and extreme drought. Its fruits are roughly as large as hazelnuts and their look resembles that of yellow plums and olives. They are the source of the precious Argan oil known as the 'liquid gold of Morocco'. It is rich in unsaturated fatty acids and is used by the Berbers to treat stomach and bowel ailments, poor circulation or fertility problems. In Europe it is now widely used as high-quality cooking oil and as an ingredient in the manufacture of cosmetics.

Other products obtained from the Argan tree are wood and animal food. At the edge of the Sahara the tree also functions as a buffer against desertification. The Berber women have maintained sustainable methods of oil production based on century-old traditions. Importantly, the

fruits should never be beaten down from the trees, only gathered from the ground. The oil is produced by the Berber women meticulously by hand. It takes eight hours to produce one litre of oil from thirty kilogrammes of Argan fruits.

The biosphere reserve carries out replanting of the tree and supports marketing initiatives of oil produced in a traditional style. The 'Union des Coopératives des Femmes de l'arganeraie', was founded in 1999 for that purpose and is the first network of local cooperatives in Morocco. It promotes sustainable use of the precious resources and aims at increasing revenue. German-Moroccan technical cooperation has substantially supported projects for the sake of the Argan tree. The Argan tree is also a central issue in the research being carried out in the biosphere reserve.

Further information:
<http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?mode=all&Code=MOR+01>