

“Our New National Parks Are actually Biosphere Reserves”

Interview with Michael Succow

Prof. Dr. Michael Succow has been involved in the establishment of numerous large-scale protected areas in the transformation countries of East Europe and Central Asia since 1990. He was awarded the Alternative Nobel Prize for his achievements in 1997. Prof. Dr. Michael Succow was Professor for Geobotany and Landscape Ecology at the University of Greifswald from 1992 until 2006. In 1990 he was Deputy Minister of the GDR; he paved the way for the Cabinet decision to designate 7 percent of the area of the GDR as national parks or biosphere reserves. Since 1991 he has been a member of the German MAB committee. In the following interview he gives insights into his international projects. The questions were put by Dr. Lutz Möller, Head of the Section for Science of the German Commission for UNESCO.

UNESCO today: Mr. Succow, since the nineties, you have advised many governments in East Europe and North and Central Asia on the development of large-scale nature conservation projects as well as supporting them through research and procuration of funds. Which countries were you active in and who were your partners?

Succow: The region that we are talking about here is that of the transformation countries of East Europe, such as Russia, Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan and the Caucasus Republics, as well as Mongolia and China. This is where we offer our experience and our support capacities. When talking in the plural, I mean the Michael Succow Foundation, the Institute for Botany and Landscape Ecology of the University of Greifswald with its motivated young scientists, which I was Head of until my retirement in late 2006, as well as the NABU, a large German Nature Conservation NGO whose Board of Trustees I am Head of and was Vice President of for many years.

The focus of the activities is, at present, Azerbaijan. Soon we will focus on Turkmenistan. The first expert from our Foundation is there just now. I also supported projects in Belarus; these were financed by the Michael Otto Foundation for Environmental Protection. As a non-governmental organisation, our work can be quite effective, which is a result of long trustful relations combined with scientific and social competence.

UNESCO today: As a result of your international projects, numerous World Heritage sites, national parks and biosphere

reserves have emerged. How do you use the instruments of World Heritage, national park and biosphere reserve?

Succow: All three categories occur in our work; the most valuable certificate for a nature area certainly is inscription on the list of the UNESCO World Heritage. In the transformation countries, we were able to help create a great many World Heritage sites. They are very different to the early protected areas created in North America, for which I have a great deal of esteem. The only thing is that there the indigenous population was frequently almost completely wiped out before an area was designated as a national park. In contrast the World Heritage sites being established in Russia, Kyrgyzstan, Kazakhstan and Azerbaijan protect the surviving indigenous cultures. All in all we were involved in the nomination process of ten to twelve World Heritage sites; among others, the Lena-Delta, the volcanos of Kamtschatka, parts of the Northwest Caucasus, the Hirkan Forests and currently parts of the Tarim-floodplain at the edge of the Taklamakan desert in Northwest China.

The second category is that of the national parks. Many governments in our target countries are in the process of building up a network of national parks. During the socialist period this protection category did not exist. These newly created national parks – I was able to be involved in 20 to 30 projects – are actually biosphere reserves! They are zoned, they do public relations and environmental education, they allow tourism in some parts and they have buffer zones where the popula-



Photo © Michael Succow

The most valuable certificate is the UNESCO World Heritage

Eight large-scale conservation areas have been established in Mongolia

tion can and must make a living. All these new projects in Southwest and Central Asia and in the Caucasus have strictly protected areas not used by humans in any way. As a rule, they are based on 'Zapovedniki', which are conservation areas from the time of the Soviets. The new national parks play an important role for the regional development.

The idea of biosphere reserves was our approach for going to these countries at first, as we considered it to be an ideal concept for a sustainable way of handling landscapes: core areas with unaffected nature – nature with its own momentum – next to which areas with sustainable uses of nature; all in all similar to the biosphere reserves, which we were able to create in the final phase of the GDR.

UNESCO today: Was the biosphere reserve approach successful in these countries?

During the period of socialism, national parks did not exist

Succow: Partly. In Kyrgyzstan we helped to develop the large biosphere reserve in central Tian Shan around Issyk-Kul Lake. Its area comprises almost a quarter of that of the entire country. The project was, inter alia, financed by the German Technical Cooperation Agency GTZ. Meanwhile we have realised that because of the economic constraints and the hardship in this country, it is difficult to manage such an enormous biosphere reserve according to the UNESCO guidelines. In addition, changes in government and corruption caused problems. All of this does not make the idea of biosphere reserves in post-communist countries a utopia but does make their implementation extremely difficult. The largely missing infrastructure and the extent of poverty make a modification necessary.

Today, I am of the opinion that it would be better to implement the concept of UNESCO biosphere reserves in the transformation countries via national parks. A national park is seen to be a national heritage and enjoys a very high standing, the areas are also smaller and easier to manage. Apart from that the national parks are taking up the concept of the UNESCO biosphere reserves more and more. A sound buffer zone management is today seen to be essential for every modern national park.

A further example: In 1992 at the UNCED conference in Rio de Janeiro, the then

Prime Minister of Mongolia declared that the entire Mongolian Republic actually earned the status of a biosphere reserve. Two months later I travelled to Mongolia with my friends Matthias Freude and Hans-Dieter Knapp. Funded by the WWF, we identified eight large 'biosphere regions', containing all the landscape zones of this wonderful country. With the help of German bilateral development aid, this led to the creation of eight large-scale conservation areas. Officially they are usually called national parks; the concept behind them is, however, rather that of a biosphere reserve.

UNESCO today: Why are national parks particularly attractive for these countries?

Succow: In the transformation countries there is the need to catch up with regard to national parks. In the Soviet Union – apart from Estonia – and in the GDR, there were no national parks, as this was an idea perceived to be originating from capitalism. However, the Academy of Sciences in the Soviet Union did have a well-developed system of high-quality conservation areas: the Zapovedniki. People were strictly kept out though; there was therefore no acceptance amongst the population for them. We are now helping to convert some of these conservation areas into national parks. This usually means a marked increase in area and a buffer zone management. These regions should also be used for tourism.

The most successful country in this respect is Azerbaijan; within the last five years, seven national parks have been developed from Zapovedniki.

UNESCO today: In other words the new national parks are based on the concept of biosphere reserves; the existing Zapovedniki are used as core areas, which are supplemented by additional buffer and transition areas?

Succow: This is indeed correct: Many of the new national parks originate from the Zapovedniki, which were solely used for research purposes. These once well-guarded conservation areas are nowadays equipped with an appropriate administration, they are no longer guarded and research no longer takes place. Their natural resources are often robbed, for example by poaching, illegal grazing and illegal forestry use. It is

The 'Zapovedniki' were solely for research purposes

essential to secure these Zapovedniki as core areas and to develop further valuable areas as buffer zones. Azerbaijan is a good example of this. In this case former Zapovedniki were extended by twice to four times their original size and transformed into national parks. The larger part of the new national parks is open for development plans and tourism. These areas are gaining more and more acceptance within the population.

UNESCO today: Is the focus of the economy in the buffer zone of these national parks on low-impact tourism or, as in the case of German biosphere reserves also on environmentally friendly cultivation and sustainable forestry? Which development concepts are, for example, of significance in Azerbaijan?

Succow: The concepts are the same as those here: on regional development, the preservation of established, traditional sources of revenue. Azerbaijan is a country in the Great Caucasus, where transhumance is still alive, which is a

special form of pastoralism; the herds spend the summer above the tree line in the subalpine and alpine pastures and the winter in the steppes of the lowlands. In Azerbaijan, transhumance is still very successful, whereas in Spain or in the Alps it has to be subsidised considerably. Transhumance is an integral component of the protection areas of the lowlands as well as the high mountains, whose protection and preservation we are working for. My institute was able to acquire support from the Volkswagen Foundation for a research project whereby young scientists from both countries investigate the sustainability of meadows within the ecosystems of Azerbaijan. Landscape ecologists and resource economists examine the local conditions and the ecology of these pastures, their productivity and the socio-economic conditions: How many people can live there, what is their income, do they earn their living both ecologically and economically reasonably, are the incomes also sustainable in the future?

How many people can earn their living?

UNESCO Biosphere Reserve Issyk Kul

Kyrgyzstan

Surrounded by the glaciated Tian Shan mountain range, the Issyk Kul biosphere reserve reaches an altitude of more than 7,000 meters above sea level. With an area of 43,115 km², it covers 20 percent of the national territory of Kyrgyzstan. In the middle is the lake of the same name, which is 180 km long and 60 km wide; thus it is the second largest high-altitude lake in the world. It appears like an oasis in this arid landscape and is held to be sacred by the residents.

From desert landscapes to the Siberian tundra, Issyk Kul represents an amazing range of ecosystems. Many threatened species such as the snow leopard, the Marco-Polo sheep and the Siberian ibex look for refuge in this thinly populated area. In the biosphere reserve there are eight specially protected zones. They are used for research on the genes of local flora and fauna and for the protection of the typical ecosystems.

Since 1995, the German Federal Ministry for Economic Cooperation and Development has supported the further development of the biosphere reserve. The project is headed by the GTZ (German Technical Cooperation Agency) and its aim is to preserve the unique mountain landscape and to promote sustainable development. The first priority was to establish a legal basis for the biosphere reserve, which was achieved in 1998 by a government decree and a regulation for an administrative structure in 2000.

Maps were produced for the zoning of the reserve and plans for a sustainable use of land. More recently the focus has been on increasing administrative effectiveness to promote sustainable tourism and agriculture. Public relation activities such as the production of a regional magazine and the installation of an information centre should convince the local population of the objectives of this biosphere reserve.

Further information:

<http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?mode=all&code=KIZ+02>

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Overview over the Hirkan National Park

Photo © Michael Succow

The protection of natural resources ensures future livelihoods in Azerbaijan

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UNESCO today: Do you consider the legal and administrative set-up of these regions, if we keep the Caucasus examples in mind, to be sufficient to survive potential drastic, political and economic revulsions in future?

Succow: A good question. Today these projects require a great deal of improvisation. I believe however that the conditions are favourable. Azerbaijan has a sound and dynamic economy because of the oil and gas reserves. President Ilham Aliyev knows that in 15 years the oil reserves of the country will be depleted. The protection of the natural resources is therefore necessary to ensure future livelihoods in Azerbaijan.

At the moment our foundation is working on a project for the protection and preservation of forests. The forests of Azerbaijan are in a state similar to those in Germany 250 years ago. Here traditional, devastating methods of use like coppicing, management of pastures in the forests and uncontrolled firewood production are still common. 'High forests' only exist far away from settlements; at distances too far for cows. At the moment scientists from the Michael Succow Foundation, financed by foundations from Switzerland and Liechtenstein study and record the as-is state of forests on-site and develop concepts for their future use and the protection. The aim is to preserve, or rather to develop 'high forests', to separate forests from pastures. We help to develop what was already successfully carried out in Germany during the first half of the 18th century in the Prussian forestry: the development of high forest.

UNESCO today: You have made clear that you do not necessarily recommend biosphere reserves to the governments of transformation countries in the context of your current projects. Which factor predominates your considerations: would the biosphere reserves in the transformation countries account for areas, which are simply too large; or is it the term 'national park' that implies a national heritage, in other words represents a higher value?

Succow: In these formerly socialist countries, biosphere reserves actually did exist, they were used for the implementation of purely scientific programmes – in the way, which was, at first, common worldwide. The term biosphere reserve was attached to selected Zapovedniki as an additional, international certification. The concept that biosphere reserves are only meant to be for research purposes is still widely prevalent.

For me the idea of biosphere reserves is fundamental. It does, for pragmatic reasons however, make more sense to put this idea into practice in the transformation countries via national parks. The local partners want national parks, also because they justifiably think in terms of tourism. I feel that this is a sensible adaptation of the idea of biosphere reserves to the general scheme of things in the transformation countries. In West European countries, the concept of biosphere reserve has become firmly established. Here the categories national park and biosphere reserve can be kept apart. A problem is rather that in West Europe some of the national parks aspire the certificate of a biosphere reserve in addition. In my view, it is correct that the German Federal Nature Conservation Act includes both categories: the national park with the focus on nature's own dynamics, the biosphere reserve for the preservation of historical culture landscapes and with the focus of motivating sustainable land use.

UNESCO today: Based on your experience in the MAB National Committee, do you consider the implementation of the biosphere reserve programme in Germany to be a success?

Succow: I was able to become acquainted with different countries in the East and the West and have worked in the German MAB National Committee since 1991. Germany is, with regard to its biosphere reserves, certainly one of the leading

countries. With our national criteria, compiled in an exemplary fashion in the mid-nineties under Wilfried Goerke, Germany has proved to be a pioneer. These criteria are applicable worldwide: what is necessary is an administration, an infrastructure, an information centre, a ranger service; absolutely necessary are buffer zones, so that tourists can be supplied with locally and ecologically produced food.

Additionally, I would like to point out two terms, which we have used in the transformation countries since the nineties, starting in Georgia: the 'national park region', embracing the surrounding land of a former Zapovednik. In other words, a biosphere reserve. The second term was coined in Kyrgyzstan; there, in the same way as in Germany, the term 'reserve' arouses negative associations: here we talked about 'biosphere regions' or 'biosphere territory'. The term 'biosphere territory' was eventually introduced by a decree of the Kyrgyzstani President.

UNESCO today: We have spent a lot of time talking about your current focus, Azerbaijan. Which other projects are you preparing for at the moment?

Succow: We are currently carrying out a project in the Tarim basin in Northwest China, in order to preserve the last large 'Tugay forests'. These riparian forests in the winter-cold deserts are, from my point of view, a miracle of nature, a magnificent treasure. We are supported by the Volkswagen Foundation and the Louisoder Foundation for establishing a sound scientific basis, which is of course absolutely necessary. With the support of the DBU, the German Federal Foundation for the Environment we are currently working on a project for the regional development of a 'biosphere region' in the Kaliningrad Oblast. A substantial area of forest extending into Poland and Lithuania is supposed to be certified with an international conservation status. A future focus will be on transboundary conservation areas in the Caucasus, potentially encompassing Azerbaijan, Georgia and the Russian Republic Dagestan. It is high time implementing the idea of developing 'peace parks' like these!

UNESCO today: In February 2008, the third World Congress of biosphere reserves is to take place. Where, in your opinion, should the UNESCO biosphere reserve programme go from here?

Succow: A most fundamental demand is: Every economic use of a given area must preserve the ability of its ecosystems to function. We cannot accept any land use in future, which destroys this ability. As an example: Moors must not be drained, but left as carbon dioxide sinks be able to form peat. If we want to use moors, then in the form of semi-aquatic ecosystems; on re-flooded moors, reeds and alderwood can be harvested, peat can form – protection and use are combined. Second example: Steppes are, due to the formation of black earth, extremely valuable carbon dioxide sinks. We must not overly exploit the steppe by introducing intensive cultivation methods, destroying the black earth and releasing carbon dioxide into the atmosphere. Third example: Mangroves have a great many ecosystem functions and offer a lot of economic options. They act as a protective shield for tropical coasts, as sediment stops and represent an important habitat. They lose their entire productive capacity as ecosystems when transformed into shrimp cultures.

Mankind cannot exist without using the landscape; thus we must find ways, which preserve the ability of ecosystems to function on the places where we use the landscape. The individual species is not paramount, but the ecological balance, a prerequisite of mankind's survival. That is why the biosphere reserves play such an important role, to put new, alternative ways of use into practice. New ways of reasoning are necessary; much needs to be changed at the global scale, also at the national scale, as in Germany.

Mud volcano in the Shirvan National Park

Photo © Michael Succow



It is high time for developing 'peace parks'

We need to protect the ecological balance