

Carlo Jaeger

## The Challenge Climate Change

*In the era of globalisation, the local and regional environment becomes increasingly important. Biosphere reserves are sites for social learning in the local community; without a sense of responsibility in the neighbourhood, solidarity on a global level will never be reached. Through information exchange and cooperation in a worldwide network, biosphere reserves can also help to promote collective action in the battle against climate change.*

In the debate on climate change two worlds, having had too little contact with each other in the past, collide: nature conservation and industry. Scientists are involved with both worlds. Industry is very much dependent on the results of scientific research. Nowadays nature conservation cannot be thought about without referring to science.

The hole in the ozone layer cannot be seen with the naked eye. It can only be recognised with the use of special instruments. Climate change will be visible to the human eye in due course – however, when that happens, it will be too late. In order to be able to detect it early on, we are also dependent on science.

Nowadays, we live in a completely new dimension of globalisation. There have been processes of globalisation for some centuries; however they have only recently started to affect everyone's daily life. With globalisation in mind, many people consider local and regional environmental issues to be less important. However, even more so in the era of

globalisation, the neighbourhood takes on a whole new importance, in as far as global reasoning has to be turned into local action. Biosphere reserves play an important role in this process: as laboratories for social learning.

### The social product of the planet will increase sevenfold

Currently around six billion people are emitting around seven billion tons of carbon dioxide annually. By the end of the century it is very likely that the world population will increase to nine billion people. The social product of Germany enables its population to enjoy a high quality of life. Today this is not the case in many other parts of the world. Yet, the social product of the entire planet is expected to increase sevenfold by the end of this century.

When will global emissions decrease under these circumstances? Some electricity companies forecast not before



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Without neighbourhood  
no sense of civil responsibility

Climate change makes global  
interconnectedness visible

2100. Many specialists, however, say that emissions must decrease significantly before 2030, to counteract drastic consequences of climate change.

We must, without doubt, do something for our planet very soon. However people do not live in global community; they live in local neighbourhood, without which there would be no awareness of civil responsibility. Collective action on a global scale is not possible in a society where there is no solidarity on a local scale.

The world map of biosphere reserves is made up of hundreds of spots – spots where people live and build neighbourhoods. The biosphere reserves are established locally on the one side and are an integral part of a global network on the other side. They are places where experience can be exchanged in all sorts of ways, by doing something about climate change and protecting the environment, be it in Germany, South America, Africa or China. This makes them into laboratories of social learning.

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### Firm local establishment is crucial

A study carried out at the Humboldt-University in Berlin examined the factors, which led to success or failure of a biosphere reserve (featured in this journal). It appeared that the most important success factor is the degree of establishment in the region. Is the population involved in the founding process? Can the reserve spur economic interests of the population in the long-term existence of the biosphere reserve?

Experts consider capacity-building to be a significant factor for successful management. Yet today, the most relevant capacities are no longer related to book knowledge but to practical knowledge.

The mentioned study also dealt with the question of how important the biosphere managers consider climate change to be for their reserves. Most of them considered climate change to be only one of many important problems. This is possibly realistic taking into account the current situation. What is crucial however is whether this attitude will change or not. Still, climate change should not only be regarded as a problem for biosphere reserves; it also presents an opportunity for making the global network visible.

### No climate protection without changing consumer patterns

We will only be able to reduce emissions and cope with climate change, if we make significant changes in our day to day lives. We must, for example, start to use different types of cars in future. We must change our consumer habits.

An important issue is how much time will elapse. Ice is melting – it is melting in Greenland and in the Antarctic. Climate change is changing the world we live in, right at this moment. Sea levels are rising, slowly at first, just a few millimetres, then a few centimetres. In the coming centuries giant ice blocks could come loose and cause sea levels to rise by a couple of metres very rapidly. Consequently, underwater archaeologists may in future find themselves studying the remains of Hamburg, New York and Shanghai.



Whether or not we can avoid a climate disaster is, not least, dependent on whether places exist, which are setting new trends. One example is California, a place which inspires collective creativity, for example by passing the recent powerful climate protection law.

There have to be places where new transport-technologies are tested and developed which in turn, encourage the use of such technologies in other parts of the world. In this regard, the German automotive industry definitely was too passive for too many years while others successfully took up the challenges of the future.

### Stop the meltwater

Biosphere reserves could become trendsetters, being just the places, which spread the idea of provision for the future and of a sustainable development across the entire planet. Yet, ideas do not suffice, appropriate institutions are needed. Many public pension schemes and health care systems are not effective because

we do not seriously address the issue as to which institutions are best suited to deal with such complex long-term issues; the same applies to climate change.

Biosphere reserves can become institutions, which take on the tasks of sustainable development. They can become places for social learning. They are already education sites for sustainable development, which could have a far-reaching effect – from the neighbourhood to the global network. In this way, each individual biosphere reserve can make a contribution by making sure that the meltwater in Greenland and the Antarctic in time ceases to flow.

We need places to set trends

*Prof. Dr. Carlo Jaeger is Professor for Modelling Social Systems at the Department of Economics, University of Potsdam and Head of the Department of Global Change and Social Systems at the Potsdam Institute for Climate Impact Research. This contribution is based on his talk at the Potsdam Climate Conference in 2006, which was entitled 'How can biosphere reserves contribute to climate protection?'.*

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