

GAIiA

ÖKOLOGISCHE PERSPEKTIVEN FÜR
WISSENSCHAFT UND GESELLSCHAFT
ECOLOGICAL PERSPECTIVES FOR
SCIENCE AND SOCIETY

3 | 2009



-
- FOCUS: COASTAL CHANGE AND MANAGEMENT
 - SCHWERPUNKT: CCS
 - SICHERHEITSMARGEN IN DER KLIMAPOLITIK
-

The Global Research Centre for Biosphere Reserve Advancement

A New Emphasis on Social Dynamics and Exchange in UNESCO's *World Network*



Susanne Stoll-Kleemann,
Rainer Schliep, Christoph Nolte

In the World Network of Biosphere Reserves the social dimension of adaptive protected area management plays only a minor role. The Global Research Centre for Biosphere Reserve Advancement seeks to reduce these deficits and releases the Biosphere Research Platform to intensify the information exchange.

On the occasion of the 2009 *Conference on Human Ecology* in Manchester, the German Society for Human Ecology (DGH) hosts several round tables on cross-cutting issues in social-ecological research (Franz-Balsen et al. 2009). One of these events takes a closer look at how the United Nations Educational, Scientific and Cultural Organization (UNESCO) biosphere reserves deal with the challenges of an urbanized world. This article seeks to provide a corresponding contextual frame. Against the historical backdrop of the UNESCO programme *Man and the Biosphere (UNESCO-MAB)*, we highlight current issues in the *World Network of Biosphere Reserves (WNBR)* and introduce an initiative that seeks to join forces in order to overcome observed deficits.

Contact authors: Prof. Dr. Susanne Stoll-Kleemann | E-Mail: stollkle@uni-greifswald.de

Christoph Nolte | E-Mail: christoph.nolte@uni-greifswald.de

Rainer Schliep | E-Mail: schliep@uni-greifswald.de

In addition to the authors the following people are part of the Biosphere Research Platform Development Team: Nadine Fritz-Vietta, Martin Hirschnitz-Garbers, Nele Leiner, Thomas Reinhold (informatics).

all: Ernst Moritz Arndt University of Greifswald | Institute of Geography and Geology | Applied Geography and Sustainability Science | Greifswald | Germany

Contact DGH: Dr. Angela Franz-Balsen | Secretary General DGH | Avenue de Tervueren 266 c/6 | 1150 Brussels | Belgium | Tel.: +322 7631289 | E-Mail: franzbals@aol.com | www.dg-humanoeekologie.de

The World Network of Biosphere Reserves: Achievements and Shortcomings

Biosphere reserves have come a long way since the inception of the *UNESCO-MAB* programme in the early 1970s. Originally set up as mere observatories for interdisciplinary research with a focus on biodiversity and human impacts, it was only after the 1992 *Earth Summit* that a more prominent role was given to social and economic issues. With the drafting of the *Seville Strategy* (UNESCO 1995), “reconciling conservation and development” became the *UNESCO-MAB* programme’s overarching goal, reinforced in subsequent strategy papers such as the *Seville+5* outcomes (Bridgewater 2001) and, more recently, the *Madrid Action Plan* (UNESCO 2008).

The programme’s paradigm shift over the last two decades assigned a new and more ambitious role to the former research sites (Batisse 1997). Biosphere reserves were increasingly seen as “learning laboratories for sustainable development” (Ishwaran et al. 2008), with their three functions – conservation, development, logistic support – and three zones – core, buffer and transition – becoming conceptual cornerstones of that new approach. New thematic issues such as stakeholder involvement, environmental education, quality economies and – more recently – climate change, ecosystem services and urbanization burgeoned and flourished throughout the *WNBR*.

However, as regional development perspectives took precedence over merely ecological viewpoints on strategy papers and

conferences agendas, this shift was not necessarily reflected in management practice and research activities of participating reserves (Fall and Andrian 2004). Ishwaran et al. (2008) highlight that up to date, a large number of biosphere reserves designated pre-Seville remain faithful to their earlier focus on conservation. The results of the *Governance of Biodiversity (GoBi)* project show a similar discrepancy between international targets and on-the-ground implementation in a large number of sites (Stoll-Kleemann 2005, 2008, Stoll-Kleemann and Welp 2008). Even with respect to research and monitoring, Lass and Reusswig (2002) stress that the social dimension of biosphere reserve management remains a “widely neglected issue” (p. 4).

Another potential remains largely untapped: information exchange and mutual learning within the *World Network* is not taking place with the frequency and intensity desired by programme officials and biosphere reserve coordinators. While *UNESCO-MAB* strategists consider “learning, together with accumulation and transfer of knowledge (...) key to the future of biosphere reserves” (Ishwaran et al. 2008, p. 130), the *UNESCO-MAB* International Coordinating Council (ICC) deplores that “much of the information, experiences and lessons learned (...) are not readily available for *UNESCO-MAB* audiences and other user groups” (UNESCO 2009). Similar communication and knowledge gaps have been observed by the *GoBi* project mentioned above (see, e.g., Stoll-Kleemann 2005, 2008).

However, attempts to bring together the scattered activities within the *WNBR*, turning the network into a genuine community of practice (Wenger 1998), are held back by a number of institutional and technological obstacles, such as communication bottlenecks between local and international levels (Bouamrane 2007, Schaaf 2009, personal communication).

The Global Research Centre for Biosphere Reserve Advancement

The Global Research Centre for Biosphere Reserve Advancement (C-BRA) is an emerging alliance of scientists and researchers involved in the management of UNESCO biosphere reserves around the world. Committed to the principles laid down in the *Seville Strategy* and the *Madrid Action Plan*, its proponents see the 553 biosphere reserves in 107 countries as a network of learning sites, whose local experiences should feed into national policy making and be exchanged and built on internationally.

C-BRA seeks to create a community of science and practice for the *WNBR* through its functions as a

- forum of interdisciplinary, trans-disciplinary and applied research;
- promoter of international cooperation between biosphere reserves, politics, media, research, non-governmental organizations (NGOs) and the private sector;
- supporter of governments and NGOs in the establishment of new biosphere reserves;
- provider of management advice for existing biosphere reserves.

The Centre is located at the University of Greifswald (Germany), and supported by an association with currently 63 members from 18 countries (June 2009). Twelve experts from UNESCO, NGOs, research institutes, universities and individual biosphere reserves supervise its work.

Research and Education Projects: Emphasis on Social Dynamics

One of C-BRA's priorities is strengthening social science perspectives in biosphere reserve management and research. The work of the team is based on the experi-

ences and networks of the ongoing *GoBi* research project (2004 to 2010). Own and associated research projects complement the portfolio.

- To date, C-BRA researchers have taken up work on a comparative analysis of four German biosphere reserves under the title *Societal Processes for the Integration of Nature Conservation and Sustainable Use*, funded by the German Foundation for the Environment (Deutsche Bundesstiftung Umwelt).
- A European survey of *Protected Area Management Effectiveness Evaluation (PAME)* is carried out in cooperation with the University of Queensland, Australia, UNEP-WCMC, EUROPARC Federation, Equilibrium and the German Agency for Nature Conservation (Bundesamt für Naturschutz, BfN).
- Earlier this year, a Summer School on *Education for Sustainable Development (ESD)* brought together 26 experts from Africa, Asia, Europe and Latin America at the International Academy for Nature Conservation on the Island of Vilm in the run-up to UNESCO's *World Conference on ESD*.
- Fact-finding missions, workshops and conferences have been scheduled lat-

er this year with partners in Vietnam to create learning centres for protected area management and initiate research cooperations.

Building a Community of Practice: The Biosphere Research Platform

There have been numerous calls for more intense information exchange within the *WNBR*. On the occasion of the *3rd World Conference on Biosphere Reserves* in Madrid 2008, the *UNESCO-MAB* Secretariat agreed to continue with the development of a decentralized, web-based clearing house mechanism (CHM). Following this decentralized approach, C-BRA is currently developing a "science and research hub" under the umbrella of the *UNESCO-MAB* and CHM, building on the team's earlier work in that field.

Dynamic and direct information exchange is essential to the survival and the success of any web-based community. In developing the *WNBR*'s Biosphere Research Platform (see figure), C-BRA therefore adopted a user-centered and adaptive approach. The exchange of researchers and practitioners generated crucial information on user's potential needs and interests. A group of experts was formed to ac-

FIGURE: The Biosphere Research Platform has a user-centered and adaptive approach. With a release scheduled in early August 2009, the first prototype of the platform will provide four interdependent sections: library, tools, community and research sites.

company the development process: At the moment, ten committed individuals from five continents provide input on content organization, identify desired features, and test the platform prototype.

With a release scheduled in early August 2009, the first prototype of the platform will provide four interdependent sections:

- **Library:** Pooling information on biosphere reserve management, such as scientific articles, case studies, guidelines, maps and management plans, etc. Documents are organized according to main themes, spatially referenced and linked to the members who uploaded them.
- **Community:** Profiles of members, their research interests and expertise. Individuals present their work, identify project partners and discuss common challenges with their colleagues in forum discussions (with moderation).
- **Research Sites:** Collection of key data for each biosphere reserve, building on the UNESCO-MAB database, searchable by category, size, region, interests, activity, etc. Close integration with data of community members allows the creation of local, national and regional research profiles.
- **Tools:** Section to be developed according to the user's interests and priorities. Potential features include collaborative platform surveys, project monitoring, decision support tools and GIS integration.

In order for the Biosphere Research Platform to remain flexible and easily adaptable to future needs and challenges, it is based on the open source software package *Drupal*. Close integration with other elements of UNESCO's forthcoming CHM is aimed at and desired. The 2009 *Conference of the European Man and the Biosphere Network (EuroMAB)* will provide an opportunity to discuss these and other challenges.

Outlook

Even before the official inauguration of C-BRA, several projects in the fields of research, education and communication have emerged in association with the new ini-

tiative. The positive response of local, national and international partners indicate that the centre's mission fills a recognized gap in the *World Network of Biosphere Reserves*. It is the sincere hope of C-BRA's proponents that their efforts not only help to create a more dynamic, interconnected and productive community of practice, but ultimately, that this exchange of knowledge will result in better informed decisions on the ground – for the benefit of nature and humans alike.

References

- Batisse, M. 1997. Biosphere Reserves: A challenge for biodiversity conservation and regional development. *Environment* 5/39: 7–33.
- Bridgewater, P. 2001. Epilogue: Main results and thoughts for the future of biosphere reserves. *Parks* 1/11: 46–47.
- Fall, J., G. Andrian. 2004. Experiments and adjust: Tracing changes in the definition of boundaries in biosphere reserves. *Gazzetta Ambiente* 4: 25–29.
- Franz-Balsen, A., B. Glaeser, W. Serbser, S. Stoll-Kleemann. 2009. DGH setzt Zeichen für weltweite Kooperation. *GAIA* 18/1: 84–85.
- Ishwaran, N., A. Persic, N. H. Tri. 2008. Concept and practice: The case of UNESCO biosphere reserves. *International Journal of Environment and Sustainable Development* 2/7: 118–131.
- Lass, W., F. Reusswig. 2002. *Social monitoring: Meaning and methods for an integrated management in biosphere reserves*. Paris: UNESCO.
- Stoll-Kleemann, S. 2005. Indicators and evaluation of sustainable natural resource management and governance in biosphere reserves. In: *Global change impacts in mountain biosphere reserves*. Edited by UNESCO. Paris: UNESCO. 237–245.
- Stoll-Kleemann, S. 2008. *The Governance of Biodiversity Research Project (GoBi): Assessing biodiversity governance and management approaches in protected areas and biosphere reserves*. *GLP News* 3: 20–22.
- Stoll-Kleemann, S., M. Welp. 2008. Participatory and integrated management of biosphere reserves. Lessons from case studies and a global survey. *GAIA* 17/S1: 161–168.
- UNESCO (United Nations Educational, Scientific and Cultural Organization). 1995. *The Seville Strategy for biosphere reserves*. Paris: UNESCO.
- UNESCO. 2008. *Madrid Action Plan for biosphere reserves (2008–2013)*. Paris: UNESCO.
- UNESCO. 2009. *International Coordinating Council of the Man and the Biosphere (MAB) Programme. Twenty-First Session. Item 6.4 of the provisional agenda: Communication strategy and clearing house mechanism for biosphere reserves*. Paris: UNESCO.
- Wenger, E. 1998. Communities of practice: Learning as a social system. *The Systems Thinker* 5/9: 2–3.

MORE INFORMATION:

www.biosphere-research.org

GAIA ECOLOGICAL PERSPECTIVES FOR SCIENCE AND SOCIETY

© 2009 Verein Gaia | Konstanz, St. Gallen, Zürich

HAUPTHERAUSGEBERIN

Verena Winiwarter | Wien
(verantwortlich im Sinne des Presserechts)

REDAKTION

Dr. Susanna Bucher/Dr. Almut Jödicke | ETH Zentrum
| Postfach CAB 42 | 8092 Zürich | Schweiz |
Tel.: +41 52 222 2805 | E-Mail: redgaia@env.ethz.ch

Dr. Ulrike Sehy | oekom verlag | Hagenbuchrain 13 |
8047 Zürich | Schweiz | Tel./Fax: +41 43 3110785 |
E-Mail: sehy@oekom.ch

Tobias Mickler | oekom verlag | Waltherstr. 29 |
80337 München | Deutschland |
Tel.: +49 89 54418445 | Fax: +49 89 54418449 |
E-Mail: mickler@oekom.de

GRAFISCHE GESTALTUNG UND SATZ

Heike Tiller | München | E-Mail: h.tiller@freenet.de

VERLAG

oekom verlag – Gesellschaft für ökologische Kommunikation mbH | Waltherstr. 29 | 80337 München | Deutschland | www.oekom.de | Gesellschafter und Anteile: Jacob Radloff, Feldafing, 77 Prozent, und Christoph von Braun, München, 23 Prozent

ANZEIGEN

Christine Burk (verantwortlich) | oekom GmbH |
Tel.: +49 89 54418422 | E-Mail: anzeigen@oekom.de

DRUCK

Kessler Druck + Medien | 86399 Bobingen |
Deutschland | www.kesslerdruck.de

Die Zeitschrift und alle ihre Inhalte sind urheberrechtlich geschützt. Jede Verwertung, die nicht ausdrücklich vom Urheberrechtsgesetz zugelassen ist, bedarf der Zustimmung des Vereins Gaia. Namentlich gekennzeichnete Artikel müssen nicht die Meinung der Herausgeber/Redaktion wiedergeben. Unverlangt eingesandte Manuskripte, für die keine Haftung übernommen wird, gelten als Veröffentlichungsvorschlag zu den Bedingungen des Verlags. Es werden nur unveröffentlichte Originalarbeiten angenommen. Die Verfasser(innen) erklären sich mit einer nicht sinnentstellenden redaktionellen Bearbeitung einverstanden.

ERSCHEINUNGSWEISE Viermal im Jahr.

BEZUGSBEDINGUNGEN

Probeabonnement (2 Ausgaben inkl. Versand, nur in Deutschland): 19,90 EUR | Jahresabonnement: 93,- EUR für Privatpersonen; 163,- EUR für Unternehmen, Institutionen, Bibliotheken; 63,- EUR für Studierende, Auszubildende, Schüler(innen) (jährlicher Nachweis erforderlich) | Einzelheft 22,80 EUR. Alle Preise inkl. MwSt., zzgl. Porto- und Versandkosten. Abbestellungen sechs Wochen vor Ablauf des Abonnementjahres. Zahlungen im Voraus.

BESTELLUNG, ABOVERWALTUNG, VERTRIEB

Rhenus Medien Logistik GmbH & Co. KG | Auslieferung oekom verlag | 86899 Landsberg am Lech | Deutschland | Tel.: +49 8191 125378 | Fax: +49 8191 125103 | E-Mail: oekom@de.rhenus.com

KONTO für Deutschland: Postbank München |
BLZ 700 10080 | Konto 358 744 803
für die Schweiz: PostFinance SWISS POST |
BLZ 300 011 01 | Konto 40-344357-9

oekom ist der erste klimaneutrale Verlag Deutschlands.

ISSN 0940-5550
Printed in Germany. Gedruckt auf FSC-zertifiziertem Papier.



Mix

Produktgruppe aus vorbildlich bewirtschafteten Wäldern und anderen kontrollierten Herkünften
www.fsc.org Zert.-Nr. IMO-COC-026340
© 1996 Forest Stewardship Council