AUSTRIAN CONTRIBUTIONS TO UNESCO´S MAN AND THE BIOSPHERE PROGRAMME (MAB)

Summary Report for the Period May 2021 – May 2022

Typical landscape in the BR “Großes Walsertal” (Photo: Christine Klenove)

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1. NATIONAL COMMITTEE ACTIVITIES AND FUNDING:

In 2022, the Austrian MAB Programme celebrates its 50th anniversary. Austria thus has been among the first nations to get involved in the UNESCO’s MAB Programme. Since 2011 MAB-Austria is part of the new research structure “Earth System Sciences (ESS)”. ESS, an initiative of the Austrian Academy of Sciences (ÖAW), financed by the Federal Ministry of Education, Science and Research (BMBWF), aims at studying the physical, chemical, hydrological, biological, social, technological and economic processes of the Earth System and their interaction. ESS is an interface between Austrian science and international research and is directly integrated in international research programmes and cooperation (e.g. UNESCO’s MAB, IGCP and IHP programmes, WCRP, UNISDR, LTER, ISCAR, Future Earth) through its three National Committees Global Change, Geo/Hydro-Sciences, and Man and the Biosphere (MAB). These NCs, made up of renowned scientists and representatives of several ministries and federal organizations, monitor the Austrian research community, analyse its strengths and knowledge gaps and work out targeted new research foci. The MAB National Committee supports and advises Austrian biosphere reserves (BRs), develops guidelines and criteria, stimulates and funds research projects and assists research in BRs.

Members of the Austrian MAB National Committee:

Chair:
Prof. Dipl.-Ing. Dr. Marianne Penker, Institute for Sustainable Economic Development, Department of Economics and Social Sciences, University of Natural Resources and Life Sciences, Vienna, Feistmantelstraße 4, A-1180 Vienna, Austria. Phone: +43-1-47654-73115; marianne.penker@boku.ac.at; http://www.wiso.boku.ac.at/inwe/persoenliche-websites/marianne-penker-website/marianne-penker/

Vice Chair:
Assoc. Prof. Dipl.-Ing. Dr. Arne Arnberger, Institute of Landscape Development, Recreation and Conservation Planning, Department of Spatial-, Landscape-, and Infrastructure-Sciences; University of Natural Resources and Life Sciences, Vienna. Peter-Jordan-Straße 65, 1180 Vienna Austria. Phone +43-1-47654-85315, Fax +43-1-47654-85309, arne.arnberger@boku.ac.at; https://www.rali.boku.ac.at/ilen/personen/arme-arnberger/

Executive Secretary:
Dr. Jörg Böckelmann, Austrian Academy of Sciences, International Research Programmes, Dr. Ignaz Seipel-Platz 2, A-1010 Vienna, Tel. ++43 1 51581-2771; joerg.boeckelmann@oeaw.ac.at; http://www.oeaw.ac.at

Other Members:
Em. Univ. Prof. Dr. Georg Grabherr (University of Vienna), Honorary Member of the MAB Committee
Em. Univ. Prof. Dr. Marina Fischer-Kowalski (University of Natural Resources and Life Sciences Vienna)
A.o. Univ. Prof. Dr. Norbert Weixlbaumer (University of Vienna)
Dr. Günter Köck (ÖAW-Institute for Interdisciplinary Mountain Research, Innsbruck), Representative to the MAB-ICC
Univ. Prof. Dr. Sigrid Stagl (University of Economics and Business Vienna)
Dr. Elisabeth Haring (Natural History Museum Vienna)
Dr. Harald Pauli (ÖAW - Institute for Interdisciplinary Mountain Research, University of Natural Resources and Life Sciences Vienna)
Dr. Franz Essl (University of Vienna)
Prof. Dr. Volker Mauerhofer (Mid-Sweden University, Östersund, Sweden)
Mag. Patrizia Jankovic (Austrian Commission for UNESCO)
Mag. Ernst-Peter Brezovsky (Federal Ministry of Europe, Integration and International Affairs)
Dr. Karolina Begusch-Pfefferkorn (Federal Ministry of Education, Science and Research)
Dr. Helmut Kudrnovsky (Environmental Agency Austria)
DI Maximilian Albrecht (Austrian Federal Provinces)
Dr. Gerhard Schwach (Federal Ministry of Agriculture, Regions and Tourism)
DI Arno Mohl (World Wildlife Fund for Nature)
Three meetings (two virtual, one hybrid) of the Austrian National Committee for MAB took place in the reporting period. The managers of the Austrian BRs participated in the meeting and reported about activities in their region and discussed future research strategies with the committee members.

The annual funding for the MAB Committee, provided by the Austrian Ministry for Education, Science and Research, is

\[ \text{EURO} 180.000,- = \text{US$} 189.661,- \]

*Exchange rate per 12/05/2022*

This funding is entirely used for research projects and additional MAB-related activities.

2. CURRENT RESEARCH PROJECTS WITHIN THE FRAMEWORK OF MAB:

According to the research agenda for the Austrian MAB Programme, and in response to the priorities set by the International MAB Council, the Austrian National MAB-Committee has focused its research activities predominantly on the needs of Austrian BRs. However, to deepen the involvement of Austrian expertise in international MAB research, the MAB Committee is also funding international research cooperations with BRs and BR projects in foreign countries. Some of the projects approved in the last 5 years include international cooperation with BRs or BR candidates in Peru, Brazil, Greece, Spain, Switzerland, Germany and UK.

Currently, only one of a total of four projects funded from the MAB National Committee’s project call 2018 is still running:

M. Coy (University of Innsbruck): Creative approaches for socio-ecological transitions: A comparative study of rural-peripheral biosphere reserves as driver of social innovations (CRAFT).

A new call for projects from the MAB National Committee will be published in June 2022.

3. CURRENT STATUS OF BRs IN AUSTRIA:

Since 2014 and in full accordance with the MAB Programme’s “Process of excellence and enhancement of the World Network of Biosphere Reserves (WNBR) as well as quality improvement of all members of the World Network”, Austria has reduced the number of its BRs from seven to three. However, the remaining areas are very well functioning BRs with a broad range of scientific and educational activities.

<table>
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<th>Approved: four sites</th>
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<tr>
<td><strong>Großes Walsertal</strong></td>
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<td>(approved 2000)</td>
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<td><strong>Wienerwald</strong></td>
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<td>(approved 2005)</td>
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<td><strong>Salzburger Lungau und Kärntner Nockberge</strong></td>
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<td>(approved 2012)</td>
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<tr>
<td><strong>Unteres Murtal</strong></td>
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<td>(approved 2019)</td>
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in Austria. The BR is the nearly identical reflection of the directly adjacent BR in Slovenia, as the Mura River forms the common border and a length of almost 40 km. The scenic Mura Valley is characterised by a mosaic of outstanding habitats and land use systems. The hydrologic preconditions near the river lead to various forms of valuable inland freshwater types, riparian forests, wetlands, and grasslands. Since 2021, the BR “Unteres Murtal” is part of the world’s first transboundary BR consisting of five countries (TBR MDD).

4. ACTIVITIES IN AUSTRIAN BRs:

Due to the Covid situation, many activities of the Austrian BRs and the MAB Committee had to be changed into virtual events or had to be postponed to a later date or even cancelled altogether during the reporting period. However, all BRs have made a big effort to carry out their educational activities and cooperations with schools as virtual events.

One of the many activities that was severely affected by the Covid pandemic was the EuroMAB Conference 2021. The meeting planned for September 2021 had to be postponed to the year 2022 due to the COVID situation. The conference will take place from September 12 – 16, 2022 in Bad Kleinkirchheim (Nockberge Region, Carinthia): http://www.euromab2022.at/

5. OTHER ACTIVITIES:

November 2021:

The Austrian MAB National Committee has organized and financed a Special Issue on biosphere reserves in mountain regions to mark the 50th anniversary of the international MAB programme in the renowned scientific journal eco.mont. The 140-page special issue, whose cover also bears the official MAB-50 design, contains 16 articles from four of five MAB regions. Editors of the Special Issue are Arne Arnberger, Günter Köck (both Austrian MAB Committee) and Valerie Braun (ÖAW-IGF).

Günter Köck, who participated as Vice Chair and Rapporteur of the MAB International Coordinating Council (MAB-ICC) in the official MAB Anniversary Ceremony at UNESCO Headquarters in Paris on November 17, 2021, presented a copy of the Special Issue on behalf of the entire MAB community to three high-ranking representatives of the international MAB programme: Shamila Nair-Bedouelle (Assistant Director-General for the Natural Sciences), Prof. Adeshola Olatunde Adepoju (Chair MAB-ICC) and Noëline Raondry Rakotoarisoa (Director, Division of Ecological and Earth Sciences; Secretary of the MAB Programme).

List of Articles:

Editorial by Günter Köck, Valerie Braun and Arne Arnberger

Editorial by Miguel Clüsener-Godt

Jennifer M. Thomsen, Kelly L. Cerialo, Sarah M. Gaines & Jeremy S. Dertien: Engaging the United States Network of Biosphere Reserves in a changing social-political context
Michael Jungmeier, Axel Borsdorf, Valerie Braun, Volker Häring, Thomas Hammer & Christina Pichler-Koban: Pärke, Parks and Reservate – biosphere reserves in Austria, Germany and Switzerland on their way towards Biosphere 4.0? (Article plus Supplementary Table in a separate file)

Nina Botha, Hubert Job & Fidelcastor Kimario: Potential and challenges of the Serengeti-Ngorongoro Biosphere Reserve, Tanzania

Mari-Carmen Romero, Feliu López-i-Gelats, Pablo Dominguez, Said Boujrouf & Roser Maneja: Towards inclusive environmental governance in the Arganeraie Biosphere Reserve, Morocco

Renate Eder & Arne Arnberger: Local residents’ place attachment and the perceived benefits for them of the UNESCO Wienerwald Biosphere Reserve

Marijana Pantić, Nataša Čolić & Saša Milijić: Golija-Studenica Biosphere Reserve (Serbia) as a Driver of Change
Snežana Milićević, Živana Krejić & Nataša Dordević: Gender differences in visitor motivation and satisfaction: the case of Golija-Studenica Biosphere Reserve, Serbia

Günter Köck: Austrian UNESCO Biosphere Reserves as model regions for regional culinary enjoyment (Article plus Supplementary Table in a separate file)

Martin F. Price, Thomas Schaaf & Maria R. Cárdenas Tomažič: Mountain research in UNESCO’s Man and the Biosphere Programme: the first five decades

Marcelo Leguia-Cruz, Colectiva Tejer-Nos, Natalia Ortiz -Cubillos, Pablo Mansilla-Quinones & Andrés Moreira-Muñoz: Biocultural resistance and re-existence through a dialogue of knowledges and citizen art in a threatened biosphere reserve

Pablo Mansilla-Quinones, Susana Cortés-Morales & Andrés Moreira-Muñoz: Depopulation and rural shrinkage in Subantarctic Biosphere Reserves: envisioning re-territorialization by young people

Christoph Huber, Florian Brossette, Markus Adler & Walter Kemkes: Keeping the landscape open – challenges and successful strategies in the Black Forest Biosphere Reserve

Florian Knaus, Annette Schmid & Engelbert Ruoss: Insights from 20 years of research in the Entlebuch UNESCO Biosphere Reserve

Sara Di Lonardo & Andrea Cinocca: A Man and the Biosphere Reserve as a natural and socio-economic laboratory for the sustainable future of small rural communities

Pierre L. Ibisch, Angela Dichte, Fedir D. Hamor, Andrii Holovko, Vasyľ F. Pokynchereda, Mykola P. Rybak & Iuliia Shvediuk: About borders and limits: experiences with UNESCO Biosphere Reserves for transboundary cooperation in Ukraine and neighbouring countries

May 2021

Since its last meeting the Austrian MAB National Committee has a new chair. The previous chair Arne Arnberger has handed over his function as chair to the previous vice-chair Marianne Penker. Arnberger will continue to serve the National Committee as Vice Chair.
March 2022:

From 14 to 17 March 2022, the first Southern African Mountain Conference (SAMC 2022) was held at the transboundary Maloti-Drakensberg World Heritage Site, which straddles South Africa and Lesotho. A total of 17 sessions covering a wide variety of topics (including Protected Areas & Conservation, Biodiversity: Plants, Biodiversity: Animals, Mountain Invasives, Communities & Livelihoods, Education & Research Management and Water Resource Management) and about 200 scientific contributions brought together stakeholders from governments, international organizations, academic institutions, research institutes, NGOs and private individuals. The Austrian Committee was represented at this conference by Günter Köck. The UNESCO Special Session on Regional Collaboration, organized by the UNESCO Regional Office in Harare (Zimbabwe), aimed to highlight the benefits of regional cooperation from the perspectives of African stakeholders and of the Austrian National Committee for UNESCO’s Man and the Biosphere (MAB) programme. In addition to Köck, the session panel consisted of Lidia Brito (Director, UNESCO Regional Office Harare; Session Chair), Guy Broucke (Moderator), Julia Heiss, Francisco Gómez Durán (all UNESCO Regional Office Harare), Mohau Monyatsi (Park Manager Maloti-Drakensberg World Heritage Site, Lesotho) and Dagmore Tawanezvi (SADC, Zimbabwe). Key contents of Köck’s presentation on "National/International Collaboration in UNESCO Biosphere Reserves in Austria" were two Austrian best practice examples for international cooperation, namely the "5-Country Biosphere Reserve Mura-Drava-Danube (TBR MDD)" and the Nockberge Biosphere Reserve Management. The subsequent discussion focused on looking beyond a one-off conference and provided an excellent opportunity to exchange ideas, establish connections, and explore possibilities for cooperation, such as the newly created UNESCO World Network of Mountain Biosphere Reserves (https://en.unesco.org/news/new-secretariat-world-network-mountain-biosphere-reserves-announced).

6. PUBLICATIONS:

The research projects funded by the MAB National Committee yield not only a series of research reports but also a range of research articles in scientific journals. Based on a successful cooperation with the Austrian Academy of Sciences Press (AASP) almost all Austrian MAB project reports will published online at the AASP homepage. At present, some 37 documents are ready for download from http://epub.oeaw.ac.at/Projektberichte or via the MAB-Austria website http://www.biosphaerenparks.at/.

Project reports:


Biosphere Reserves in Austria - Grundlagenerhebung und Stand der Forschung (ISBN-13 Online: 978-3-7001-3599-9)


Biodiversity and Ecosystem Services as scientific foundation for the sustainable implementation of the Redesigned Biosphere Reserve “Neusiedler See” (doi:10.1553/bioserv-neusiedler-see, ISBN-13 Online: 978-3-7001-7289-5)


DivRESTORE - Transforming grasslands to achieve insect diversity restorative goals and human well-being (ISBN-13 Online: 978-3-7001-9204-6)
List of selected articles in books, scientific journals and conference/workshop papers:


Eder, R., Arnberger, A. (2021). Local residents' place attachment and the perceived benefits for them of the UNESCO Wienerwald Biosphere Reserve. eco.mont - Journal on Protected Mountain Areas Research 13 (Special Issue), 49-57. Link


Köck, G. (2021). Austrian UNESCO Biosphere Reserves as model regions for culinary enjoyment. eco.mont - Journal on Protected Mountain Areas Research 13 (Special Issue), 80-94 (plus Supplementary Table 1-3). Link-1 (Article) Link-2 (Supplementary Table) Link-3 (Article including Supplementary Table)


Vienna, 19/05/2022 (G. Köck)