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

Summary Report for the Year 2016

Austrian MAB National Committee
c/o Austrian Academy of Sciences
International Research Programmes
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Homepage of the Austrian MAB Programme:
1. NATIONAL COMMITTEE ACTIVITIES AND FUNDING:

In 2011 the Austrian Academy of Sciences has started the reorganization of its international research programmes. MAB is now 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 Science, Research and Economy (BMWFW), aims at studying the physical, chemical, hydrological, biological, social, technological and economic processes of the Earth System and their interaction. ESS is structured around the three research themes of Future Earth, a 10-year international research initiative that will develop the knowledge for responding effectively to the risks and opportunities of global environmental change and supporting transformation towards global sustainability in the coming decades. 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, IGBP, IHDP, WCRP, UNISDR, LTER, ISCAR, Future Earth) through its three National Committees (NC) 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 scene, analyse its strengths and knowledge gaps and work out new research foci.

Members of the Austrian MAB National Committee:

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 +43-1-47654-7205, Fax +43-1-47654-7209, arne.arnberger@boku.ac.at; https://www.rali.boku.ac.at/ilen/personen/arne-arnberger/

Vice Chair:
Ao.Univ. 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: +43-1-47654-3580, Fax: +43-1-47654-4429; marianne.penker@boku.ac.at; http://www.wiso.boku.ac.at/inwe/persoenliche-websites/marianne-penker-website/marianne-penker/

Executive Secretary:
Dr. Günter Kocz, Austrian Academy of Sciences, International Research Programmes, Dr. Ignaz Seipel-Platz 2, A-1010 Vienna, Tel. +43 1 51581-2771, Fax: ++43 1 51581-1275; guenter.koeck@oeaw.ac.at; http://www.oeaw.ac.at

Other Members:
Em.Univ. Prof. Dr. Georg Grabbherr (University of Vienna), Honorary Member of the MAB Committee
Univ. Prof. Dr. Axel Borsdorf (Austrian Academy of Sciences and University of Innsbruck)
Em.Univ. Prof. Dr. Friedrich Ehrendorfer (University of Vienna)
Em.Univ. Prof. Dr. Marianne Popp (University of Vienna)
Univ. Prof. Dr. Marina Fischer-Kowalski (Alpen-Adria University Klagenfurt Vienna Graz)
Ao.Univ. Prof. Dr. Norbert Weixlbauer (University of Vienna)
Dr. Karolina Begusch-Pfefferkorn (Ministry of Science, Research and Economy)
Mag. Stephan Vavrik (Ministry of Europe, Integration and International Affairs)
Dr. Elfriede Fuhrmann (Ministry of Agriculture, Forestry, Environment and Water Management)
Mag. Gabriele Eschig (Austrian Commission for UNESCO)
Mag. Wolfgang Mattes (Environmental Agency Austria)
DI Maximilian Albrecht (Austrian Federal Provinces)
DI Arno Mohl (World Wildlife Fund for Nature)
In the year 2016 two meetings of the Austrian National Committee for MAB took place. The managers of the three Austrian biosphere reserves (BRs) joined the meetings and reported about activities in their region and discussed future research strategies with the committee members. One of the meetings was held in the BR “Großes Walsertal”.

For the year 2016 the total funding for MAB, provided by the Austrian Ministry for Science, Research and Economy, was

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\text{EURO 150.000,-} = \text{US$ 160.392426,-}^{1}
\]

1 Exchange rate per 30/01/2017

This funding was entirely used for research projects.

2. **FUNDING CONTRIBUTION TO UNESCO**

MAB Biannual Activity Report 2014 - 2015: The Austrian MAB National Committee has supported the publication of the “MAB Biannual Activity Report 2014 – 2015” with an amount of approx. US$ 13,650. The publication, coordinated by Maria Cardenas Rosa, Miguel Clusener-Godt and Günter Köck, summarizes the activities undertaken by the MAB Programme and its World network of Biosphere Reserves in 2014 and 2015. The production of the report was carried out by the Austrian publisher EDITION LAMMERHUBER, worldwide recognized for his photography books. The Book (ISBN English Version 978-3-903101-13-5) is available in English, French and Spanish languages.

3. **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 the biosphere reserves in Austria. However, to deepen the involvement of Austrian expertise in international MAB research, the MAB national committee has started funding international research cooperations with BRs and BR projects in foreign countries.

Currently six projects are funded by the Austrian MAB Programme. The projects will be finished by spring 2017 at latest.

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Coordinator</th>
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<tr>
<td>Biosphere reserve landscapes and human health benefits: Analysing the potential of the Biosphere reserve Wienerwald on life quality and psychological well-being (HealthSpaces)</td>
<td>B. Allex</td>
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<tr>
<td>Regional economic and perceptual analysis in an UNESCO biosphere reserve. Future strategies for regional development in the BR Großes Walsertal against the background of demographic changes: What comes next? (REPA-next)</td>
<td>M. Coy</td>
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<tr>
<td>Establishing a complete Biosphere Reserve Integrated Monitoring scheme for the transboundary Biosphere Reserve Salzburger Lungau &amp; Kärntner Nockberge (BRIM_Lungau&amp;Nockberge)</td>
<td>M. Jungmeier</td>
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<tr>
<td>Biosphere reserves - Prospects of innovations or Constraints. Perceptions of farmers in the Biosphere reserves Salzburger Lungau Kärntner Nockberge (A), Entlebuch (CH) and Berchtesgadener Land (D) (AgriBioRes - Agriculture in biosphere reserves)</td>
<td>H. Humer-Gruber</td>
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<tr>
<td>40 Years MAB Program – Man and the Biosphere School Twinning</td>
<td>C. Diry</td>
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<tr>
<td>Outlining a sustainable future for the island of Samothraki (Greece) as a MAB reserve, and creating a regional showcase – Phase 3</td>
<td>S. Singh</td>
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An additional ongoing MAB research project (T. Frank: Alpine landscapes under global change - Impacts of land-use change on ecosystem services and human health and well-being) is funded through the ESS research initiative.

In October 2016, the MAB Committee has launched a new call for research projects including cooperative projects with foreign partners. For the first time the MAB National Committees of Austria and Switzerland have agreed on a closer cooperation on the MAB sector. The Swiss MAB Committee will financially support collaboration projects between Austrian and Swiss BRs. The proposals received are currently under review. The final decision on the award of funding will be made in June 2017.

4. CURRENT STATUS OF BIOSPHERE RESERVES IN AUSTRIA:

In 2006, the Austrian MAB-NC concluded that, in Austria’s first-generation BRs UNESCO’s international criteria had been implemented insufficiently and they definitely did not live up to the term “Model region for sustainable development”. Consequently, the MAB-NC implemented National Criteria for BRs in Austria (updated in 2016), allowing a five-year transition period for the first-generation sites (Austrian MAB-NC 2006, 2016; Köck 2011). At the end of that period, if these sites did not adequately meet the criteria, they would be withdrawn from the WNBR. At the same time, the National Committee started redesign initiatives (e.g. in the BRs Neusiedler See and Gurgler Kamm) to transform its first-generation sites into second-generation BRs (Wrba et al. 2009, 2012). However, this process turned out to be lengthy and difficult, as described in detail by Köck (2011) for Gossenköllesee BR. Unfortunately, the efforts of the Austrian MAB-NC towards rezoning and expanding the four first generation sites were not rewarded. Following all reviews and consultations with many stakeholders and local authorities, it became clear that the four BRs did not meet the current criteria for BR accreditation. Therefore, the Austrian MAB-NC recommended the removal of its first-generation BRs from the WNBR (Köck & Arnberger 2017). Although these areas lost their UNESCO label, they are still under different levels of nature protection.

Since 2014 Austria has reduced the number of its BRs from seven to three. However, the quality of the remaining BRs is exceptional.

<table>
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<tr>
<th>Approved: 3 areas</th>
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<tr>
<td>In accordance with Seville Strategy: three sites</td>
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<tr>
<td><strong>Großes Walsertal</strong> (approved 2000)</td>
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<tr>
<td><strong>Wienerwald</strong> (approved 2005)</td>
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<tr>
<td><strong>Salzburger Lungau und Kärntner Nockberge</strong> (approved 2012)</td>
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<tr>
<th>First generation biosphere reserves: 4 sites removed from the WNBR</th>
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<tr>
<td><strong>Gossenköllesee</strong></td>
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<td><strong>Gurgler Kamm</strong></td>
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<td><strong>Untere Lobau</strong></td>
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<tr>
<td><strong>Neusiedlersee</strong></td>
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</table>
In planning stage: one area

Danube/Drava/Mura

Drava alluvia; trans-boundary biosphere reserve (Austria, Slovenia, Croatia, Hungary, Serbia). The Austrian MAB Committee is actively involved in the international Coordination Board.

At present, several Austrian regions are discussing chances and options of the biosphere reserve status for their communities.

5. OTHER ACTIVITIES, AWARDS:

March 2016: The Austrian MAB Committee, represented by Günter Köck, attended the 4th World Congress of Biosphere Reserves in Lima and presented the successful work of the Austrian MAB Programm and the Austrian BRs with four posters (MAB Research in Austria, Biosphere Reserve Salzburger Lungau and Kärntner Nockberge, Biosphere Reserve Wienerwald, ISCAR). The Austrian Delegation was completed by Christine Klenovec representing the BR “Großes Walsertal” and Leopold Füreder, the chair of the International Scientific Committee on Alpine Research (ISCAR)”. A significant financial contribution provided by the International Research Programmes of the Austrian Academy of Sciences enabled two representatives of the MAB Focal Point from Bhutan to attend the World Congress.

June 2016: Axel Borsdorf, Member of the Austrian MAB Committee, was awarded in recognition for his exceptional contribution to geographical research the Franz-von Hauer-Medal, the highest possible decoration for a Geographer in Austria. Former laureates such as Eduard Sueß, Sven Hedin, Roald Amundsen, Robert Falcon Scott and Alfred Wegener underline the significance of this award.

December 2016: The MAB Committee organized an international workshop aimed at “Opportunities, challenges and limits for sustainable energy sources in Austrian BRs”. The workshop, held in the Austrian BR “Großes Walsertal” lead to position paper which will be published in the first half of 2017 in German and English language.

6. PUBLICATIONS:

Project reports:

Based on a successful cooperation with the Austrian Academy of Sciences Press (AASP) almost all Austrian MAB project reports are now published online at the AASP homepage. At present 29 documents can be downloaded from http://epub.oeaw.ac.at/Projektberichte.


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)


List of selected articles in scientific journals/books:

A number of projects and activities sponsored by the Austrian MAB Programme lead to publications.


Vienna, 25/04/2017