

The Biosphere Reserves Institute at Eberswalde University for Sustainable Development.



**Eberswalde University
for Sustainable
Development**

Biosphere Reserves Institute

Advancing science in, with and for UNESCO Biosphere Reserves

The new Biosphere Reserves Institute (BRI) at Eberswalde University for Sustainable Development (HNEE) represents a pioneering effort to promote sustainable development and transformation. As an UNESCO Category 2 Institute, the BRI serves as an international think tank that advances science, technology and innovation in UNESCO Biosphere Reserves.

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Since UNESCO (United Nations Educational, Scientific and Cultural Organization) initiated biosphere reserves in the 1970s to expand the idea of nature conservation to a model region for sustainability, a growing number of biosphere reserves have been designated by the *UNESCO Man and the Biosphere (MAB) Programme*. Biosphere reserves are learning places for sustainable development,

providing space and opportunities to test and apply interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems (UNESCO 2015). Biosphere reserves linked in a global network through UNESCO offer a unique opportunity for international collaboration through the exchange of experiences and knowledge, capacity building and the promotion of best practices. To date, the *World Network of Biosphere Reserves* consists of more than 750 sites in 136 countries (UNESCO 2024).

The guiding idea of the newly established Biosphere Reserve Institute (BRI) at Eberswalde University for Sustainable Development (HNEE) is to contribute to this global network through innovative research, teaching and transfer, building on the university's long-standing expertise in sustainability research and education. The BRI is the result of an earlier academic development project called *Process Design for the Implementation of Biodiversity-Preserving Land Use – Focus on Biosphere Reserves (ProBio-LaB)*, which was funded by

the Ministry of Science, Research and Culture of the German State of Brandenburg in 2019. It established a new research area on biosphere reserves at HNEE with the idea of using and promoting these model regions as real-world laboratories for sustainability transformations.

Vision and mission of the Biosphere Reserve Institute

The vision of the BRI is to support biosphere reserves and to become a recognized think tank for innovative research, education and collaboration. The four main objectives of the BRI, as set out in its statutes, are:

1. To advance applied inter- and transdisciplinary research on biosphere reserves, their management, and challenges;
2. to advance international and transdisciplinary teaching and learning focused on biosphere reserves, social-ecological systems, and the development of skills to shape sustainable transformation;

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3. to provide training for practitioners, thereby enabling the transfer of tools, approaches and methods for the effective management of biosphere reserves; and
4. to promote networking activities by facilitating dialogue and collaboration between a variety of stakeholders from science, policy and practice in and around biosphere reserves.

For implementation, the BRI has developed three main pillars as focal activities. These include an international and interdisciplinary Master's programme in Biosphere Reserves Management (BIOM) and a graduate programme that hosts a small team of dedicated PhD students working on biosphere reserves' issues. This is complemented by a research group that brings together research in and with biosphere reserves, fostering systematic exchange and mutual learning between scientists and practitioners from different disciplines, sectors and administrative levels.

Master's programme Biosphere Reserves Management (BIOM)

The international BIOM Master's programme focuses on teaching and developing theoretical, methodological, and practical knowledge and skills in biosphere reserve management. Guided by the current *MAB Strategy* and the *Lima Action Plan* (UNESCO 2015, 2016), the Master's course addresses three main areas of competence: 1. ecological and social systems and their interdependencies; 2. governance and management of biosphere reserves; 3. cooperation, communication and learning. BIOM is the only existing Master's course in English dedicated to biosphere reserves.

Graduate programme

Since 2019, the BRI offers a graduate programme for doctoral students with a focus on biosphere reserves and their challenges. In cooperation with Leuphana University Lüneburg, this initiative broke new ground for the development and awarding of doctoral degrees at HNEE as a university of applied sciences. The BRI grad-

BOX 1: The TRANSECTS project

TRANSECTS is an example of an international project being developed at the Biosphere Reserves Institute (BRI), led by the University of Saskatchewan, Canada. *TRANSECTS* stands for *Interdisciplinary Education Collaboration for Transformations in Sustainability*. Partner universities include the University of Saskatchewan and Vancouver Island University (Canada), Rhodes University, University of the Witwatersrand and University of Cape Town (South Africa), and Eberswalde University for Sustainable Development (Germany). *TRANSECTS* is funded by the Canadian Social Sciences and Humanities Research Council. The project involves an international and diverse community of academics and practitioners, including partners from biosphere reserves, indigenous, educational and professional organizations. It organizes a range of activities including *Transdisciplinary International Learning Laboratories (TILLs)* for transdisciplinary education. In its *Programme Institutes*, participants learn and share current challenges and experiences in transdisciplinary research and education. The project provides a unique opportunity for HNEE and the BRI community to engage in and shape transdisciplinary research in biosphere reserves to foster collective sustainability transformations.

MORE INFORMATION:

<https://sens.usask.ca/transects/index.php>

uate programme is now being restructured to adapt to the new Brandenburg Graduate School, which will allow universities of applied sciences from the State of Brandenburg to award PhD degrees. This will further strengthen the research profile of HNEE and the BRI. A joint paper of PhD students in collaboration with other researchers and BIOM students on transdisciplinary research in biosphere reserves (Dabard et al. 2024) demonstrate the vivid and innovative research environment of the BRI.

Research group

The research group brings together the research projects and networking activities of the BRI and fosters collaboration between scientists from different disciplines and practitioners at university level and beyond. A recent example of an ongoing project is *TRANSECTS* (box 1).

The networking activities include the organization of international conferences and workshops to advance research in biosphere reserves (figure 1). The international conference *Science and Research in, for and with UNESCO Biosphere Re-*

FIGURE 1: Gathering of the participants of the international conference *Science and Research in, for and with UNESCO Biosphere Reserves* that took place in Eberswalde, Germany, in May 2022.



BOX 2: UNESCO Category 2 Institutes and Centres

Category 2 Institutes and Centres under the auspices of UNESCO are a global network of institutions of excellence in UNESCO's fields of competence. According to the UNESCO Strategy for Category 2 Institutes and Centres (UNESCO 2019), these institutes and centres are key to advance the UNESCO mission: "Given their expertise, these institutes and centres contribute in a meaningful way to the implementation of UNESCO's priorities, programmes, and global development agendas during a defined period, through international and regional cooperation, research, knowledge production, policy advice, and capacity enhancement. Though independent of UNESCO, category 2 institutes and centres are a privileged partner of the Organization with access to UNESCO's logo, international and intergovernmental bodies and networks, and may leverage UNESCO's international reach and convening powers. Category 2 institutes and centres under the auspices of UNESCO are an integral part of the Organization's Comprehensive Partnership Strategy" (UNESCO 2019). The first UNESCO Category 2 Centre in Germany was the International Centre on Water Resources and Global Change in Koblenz. The International Center for the Mediterranean Biosphere Reserves is another UNESCO Category 2 Center located in Castellet i la Gornal (Spain) and designated in 2013.

erves (2022, Eberswalde) resulted in the publication of the *Eberswalde Declaration* to strengthen science, indigenous and other knowledge systems, as well as research in, for and with UNESCO Biosphere Reserves (Aschenbrand et al. 2022). The MAB Secretariat in Paris has endorsed the declaration. To further promote research in biosphere reserves and the recommendations of the *Eberswalde Declaration*, the BRI continues to organize international workshops on this topic.

Biosphere reserves can serve as real-world laboratories for sustainability transformations.

A new turn – UNESCO Category 2 Institute designation

Since June 19th, 2024, the BRI is officially a Category 2 Institute under the auspices of UNESCO. Category 2 Institutes and Centres advance the mission of UNESCO in specific areas (box 2). While UNESCO has designated 138 Category 2 Institutes and Centres worldwide, the BRI is only the second in Germany and the first as part of a higher education institution. As such, it is in a unique position to offer not only research and professional development programmes, but also to award university degrees.

The UNESCO designation gives the BRI international visibility reinforcing its contribution to the UNESCO work in natural sciences, by supporting the realiza-

tion of the *Sustainable Development Goals* and advancing science, technology, innovation and research to address contemporary social and environmental challenges (cf. UNESCO 2022). As a central part of its governance structure, the BRI will establish a governing board composed of representatives of key organizations (UNESCO, the German Government, the German Commission for UNESCO, and HNEE), the Institute privileged partners, as well as representatives of UNESCO

Member States. At the same time, the BRI will have increased opportunities for international collaboration with other UNESCO bodies, *inter alia*, with the UNESCO Headquarters and Field Offices, other relevant Category 2 Institutes, National Commissions, National MAB Committees, and relevant UNESCO Chairs.

Future directions and conclusion

The BRI is new in its organization, form and scope. We look back on five years of experience, during which HNEE colleagues have striven to establish a governance structure, research collaborations and educational programmes. These past five years demonstrate what can be achieved in a small university in a comparatively short time, with a dedicated bud-

gets and a highly committed team and partners. We are confident that the BRI can contribute to sustainable transformations for biosphere reserves and beyond.

The role of biosphere reserves as model regions for sustainable development is becoming more relevant as they function as real-world laboratories of change, providing exemplary spaces for new and innovative pathways. The integration of the BRI into the international UNESCO family, with its extensive network of biosphere reserves and stakeholders around the world, facilitates enhanced collaboration, exchange, and learning on a larger scale. We feel privileged to be part of international transformation movements and stand ready to advance sustainable development through education, research and collaborative endeavours. We invite further collaborative initiatives to enhance the impact of science in, for and with UNESCO Biosphere Reserves.

MORE INFORMATION:

www.biospherereserves.institute

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