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A low-cost BRIM (Biosphere reserve integrated monitoring)? The example of the Salzburger Lungau & Kärntner Nockberge BR (Austria)

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UNESCO Biosphere Reserves are model regions for sustainable development per definitionem. Its management is oriented towards meeting the SDGs and to develop practical and innovative solutions on the ground and study interlinkages between global development and local impacts.

Monitoring is thus an essential tool for the effective management of a biosphere reserve. However, resources and capacities at local level are often limited. The authors outline the major conceptual challenges in developing a long-term monitoring system. In the Salzburger Lungau & Carinthian Nockberge UNESCO BR, a BRIM was elaborated between 2011 and 2013 to map the development and performance of the BR based on only 12 indicators. This system allows for collecting data at BR-level to increase the local ability to detect and link long-term social, economic and ecological changes in an easy-to-apply manner. These datasets can provide a valuable contribution to interpret local impacts of global changes and the related impacts of management actions.

The presenters reflect on the practical experiences and outline as well as a way forward towards future options for viable monitoring systems. The presenters assume that the future of biodiversity monitoring will lie in autonomous or semi-autonomous systems. In this context, disruptive technologies (for example, high-resolution remote sensing, bio-acoustics or genetic techniques such as e-DNA, etc.) will play a central role.

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