

Swedish biosphere reserves as arenas for implementing the 2030 Agenda



Preface



The UN Sustainable Development Goals

This is a short version of the Swedish Environmental Protection Agency Report 6742 “*Swedish Biosphere Reserves as Arenas for Implementing the 2030 Agenda. Analysis and practice*”, written by Lisen Schultz and Malena Heinrup at Stockholm Resilience Centre and funded by Swedish Environmental Protection Agency. The full report can be downloaded here: <http://www.naturvardsverket.se/Om-Naturvardsverket/Publikationer/>

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In September 2015, the United Nations General Assembly agreed on a global agenda for sustainable development – the 2030 Agenda for Sustainable Development. Unique in its kind, the Agenda with its 17 Sustainable Development Goals and 169 targets is tackling a broad spectrum of development issues crucial to human prosperity. It underlines a clear recognition that social, environmental and economic development cannot be treated separately. Rather, they are interlinked and interdependent dimensions of sustainable development that need to be treated in an integrated manner. Hence, the Agenda is, simultaneously, “(...) a plan of action for people, planet and prosperity”. This requires an extensive transformation of our society. This is an issue that spans over all sectors, and strategies and methods for “breaking the silos” need to be developed. Solutions to global challenges are mainly local. Therefore, it is of great importance that communities are empowered to contribute to change. The public’s awareness and engagement is a prerequisite for the implementation of the Agenda.

While addressing the Agenda, conflicts of interest may arise between goals and targets. Biosphere reserves are places where these conflicts are addressed, where needs are identified and analysed, where synergies are explored and where communities are included in finding solutions to sustainability challenges.

With small means and little formal power the Swedish biosphere reserves have achieved a range of results by connecting local initiatives to national and international strategies, by connecting people and nature, and by stimulating new knowledge development as well as education for sustainable development.

The success of the biosphere reserves is based on collaboration, learning and a holistic view on people and nature – connecting local and global perspectives. Their thorough experience of integrated work with sustainable development in practice in a Swedish context make them interesting as strategic areas to learn from, invest in, and support when implementing the 2030 Agenda for Sustainable Development in Sweden.

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◆ A world-wide network of sites at the frontline

Since the 1970's, UNESCO has designated areas throughout the world as biosphere reserves (BRs). When designated, these regions are commissioned to serve as learning sites and role models for sustainable development, crafting local solutions to global challenges. Collectively, the more than 650 BRs in 120 countries (2016) form a world-wide network where best practices are developed, tested and shared across the globe.

The Global Strategy for the UNESCO's Man and the Biosphere Programme (MAB) with its associated Lima Action Plan (2016-2025) underlines the

MAB Programme's instrumental role in the implementation of the 2030 Agenda and the SDGs. This alignment at the international level further supports the potential of the Swedish biosphere reserves to contribute to the implementation of the Agenda.

While the Agenda points out the priorities and the direction of global development, the MAB Programme – with decades of experience in integrated sustainable development – can guide the local, regional and national implementation of the Agenda, by sharing generated know-how.

◆ Broad involvement and holistic approaches

Since 2005, the Swedish Biosphere Programme, with its current five biosphere reserves (BRs) and two candidate areas, has stimulated sustainable development by combining nature conservation, local entrepreneurship, capacity building and societal development in practice.

From the national level to the individual BR level, the programme is characterised by broad involvement of stakeholders, in line with UNESCO's Statutory Framework of the World Network of Biosphere Reserves. These stakeholders represent

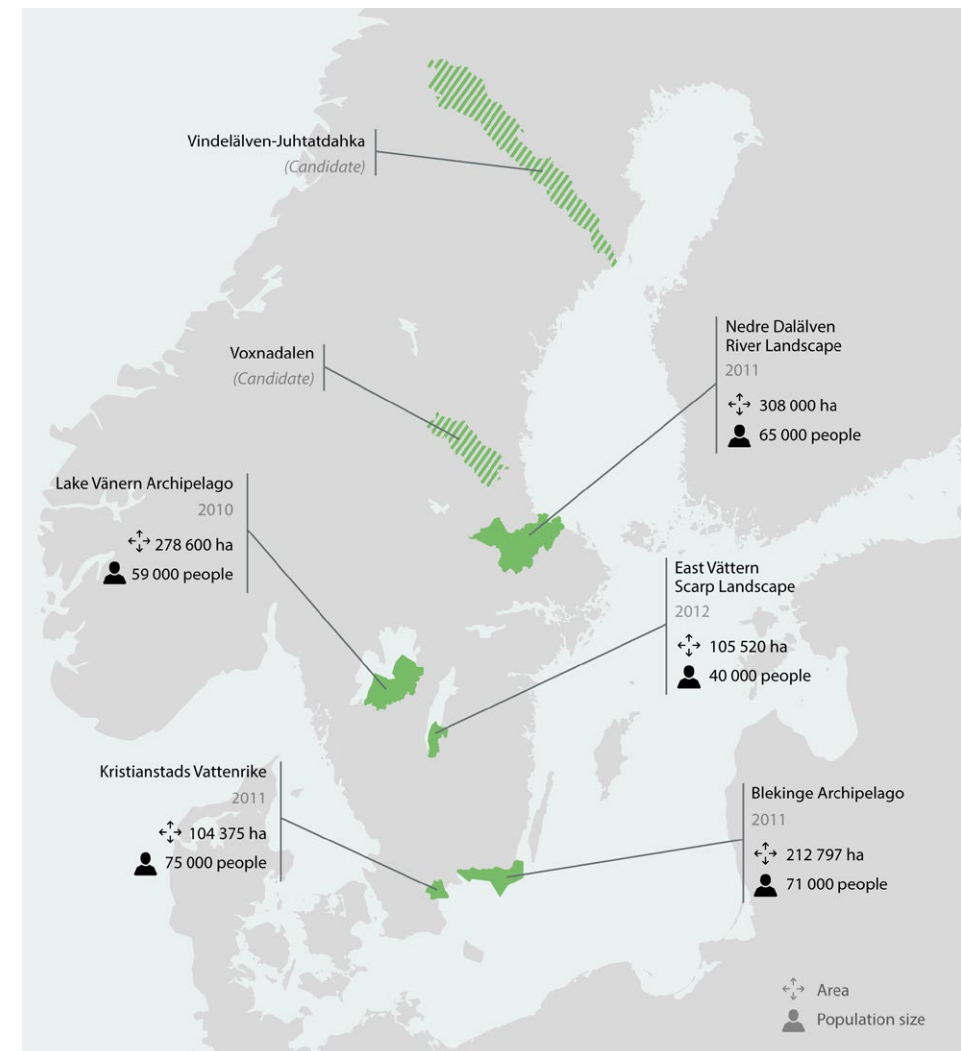
different perspectives and contribute with different kinds of knowledge to the process. The constellation of actors in each BR is locally adapted, but often includes public authorities from different levels of government, land-owners, farmer/forester associations, tourist entrepreneurs, local heritage associations, nature conservationists, the manufacturing industry and representatives from schools/universities and other educational institutions.

Although the BRs' strategies, action plans and vision documents have been

developed independently, through different processes relevant to the local context of the biosphere reserves, the common denominators for these plans illustrate some of its unique functions. They compile, connect and integrate already existing local, regional, national and international policies, plans and steering documents on the social, ecological and economic dimensions of

development to paint a broader, more holistic picture of the opportunities and challenges of the area.

Naturally, the themes and issues that the BRs focus on are developed according to the respective BR's local context. The nature types, opportunities and challenges vary between the sites.



Five biosphere reserves – five examples

Nedre Dalälven River Landscape Biosphere Reserve

Collaborating to restore ecosystem services in floodplain meadows

The River Dalälven flows through Nedre Dalälven River Landscape Biosphere Reserve. The transition zone from the river to the forest has historically been characterized by regularly flooded meadows used for haying and grazing. The river together with the meadows made them an invaluable resource for the local dwellers and created conditions for high biodiversity. Today, the traditional use of the floodplain meadows has halted and the formerly

open landscape is either overgrown or about to become overgrown, which ultimately leads to a loss of biodiversity and ecosystem services, such as water regulation, the production of fodder and recreational values.

When the BR organisation engaged, several activities had already been undertaken, including ecological inventories, selection of areas suitable for restoration, and searches for farmers

with animals that could graze the meadows, but a “unifying force” was missing. The biosphere organization took the lead, brought together actors, coordinated cross-sector activities and secured funding for a three-year project.

The initiative established collaborations between authorities, landowners and entrepreneurs with grazing animals. It also made visible the economic, social and ecological values connected to actively managed floodplain meadows, such as an increase in biological diversity, an open landscape attractive for tourists and local dwellers, cultural history, local entrepreneurship and so forth. Moreover, it increased the general awareness of the multiple benefits of the floodplain meadows.

As a direct result, 170 ha land has been restored, is again actively grazed and long-term management agreements have been secured. Although the project was finished in 2015, collaboration continues between landowners and entrepreneurs holding grazing animals.

Lessons learned for implementing the 2030 Agenda

- Connecting stakeholders in a strategic way can create synergies between the SDGs. BRs can play a unifying role in this regard.
- Conserving and developing floodplain meadows help secure ecosystem services that are essential for human wellbeing.



Nedre Dalälven River Landscape. The formerly overgrown floodplain meadows in Nordmyran, Tärnsjö, have been restored thanks to haying. Grazing cattle also help keeping the meadows open. Photographer: Cecilia Wallinder.

Fostering sustainable tourism through a “potluck” with relevant actors

In Lake Vänern Archipelago Biosphere Reserve, the province’s decision to increase tourism evoked a question: Given that this is an area designated by UNESCO as a model for sustainable development, what are the possibilities to be a “sustainable tourist” in the biosphere reserve?

To answer this question, the biosphere reserve applied a cross-sectoral way of thinking. They identified stakeholders involved in tourism development, both beneficiaries (private enterprises) and those in public sector who are responsible for strategic development of the tourism infrastructure and who have the power and the resources to make systematic changes on a strategic level. Together they discussed the question raised and developed a common vision where everyone could identify their individual role. The biosphere reserve office calls it a “potluck”-concept, where the involved actors all contribute to the bigger picture.

This initiative was the starting point of a continuous strategic sustainable tourism development with a holistic approach, which has raised more than 1 million Euro in project funding to this day.

The result of the initiative can be seen in different types of infrastructure, such as more than 200 km trails for hiking, biking, and horseback riding, trained

local guides, maps, and a web-based portal guiding visitors to choose sustainable experiences. A network for green ecotourism entrepreneurs has also been established, which continuously improves its sustainability profile by, for example, packaging and marketing sustainable tourism activities.

The method of “potluck” has since been successfully applied to other sectors, such as the fishing industry, social entrepreneurship, education for sustainable development, increased influence of inhabitants in spatial planning, and much more.

Lessons learned for implementing the 2030 Agenda:

- Involving a broader range of stakeholders in finding and developing solutions to a sustainability challenge increases the long-term commitment.

- BRs can serve as incubators. They are well positioned to inspire systematic changes that ultimately lead to new praxis with a higher sustainability index, contributing to the achievement of the 2030 Agenda and the SDGs.
- Enhancing access to nature-based experiences and sustainable tourism activities can support human wellbeing while securing essential ecosystem services for the future.



Lake Vänern Archipelago Biosphere Reserve. More than 200 km trails for hiking biking and horseback riding are offered as part of a sustainable tourism experience. Photographer: Nils Axelsson, Skarabild.



Excursion with the project Lövsuccé (Broadleaf success) in East Vättern Scarp Landscape Biosphere Reserve. Photographer: Ola Jennersten.

East Vättern Scarp Landscape Biosphere Reserve

Increasing social capital to improve conditions for biodiversity

In the East Vättern Scarp Landscape, the biosphere reserve designation is a result of a 20-year journey from conflict to cooperation. In the 1990s, a biodiversity conservation group criticised the public authorities for carrying out poor and inadequate inventories of land potentially suited for protection. The land owners, in turn, feared that the identification of valuable areas on their land would increase the “risk” of nature reserves and land-use restrictions.

In 1998, after years of escalating conflict, a collaborative project group with representatives from the different interests was established. Within this group, they could gradually develop a

mutual understanding for each other’s viewpoints. This collaborative process resulted in the BR designation. The interest organizations are represented on the BR board and continue to collaborate in landscape management issues. And today, the public authorities in the area have a more inclusive and transparent approach to farmers and forest owners and a broader perspective on nature conservation.

A recent project is Broadleaf success, which runs 2015-2016 with the objective to break up the monoculture of the landscape by creating segments of green infrastructure consisting of broadleaf trees in different stages of

succession. Both production (the forest owners’ livelihood) and biodiversity conservation (indispensable for the production of ecosystem services), were taken into consideration in designing this project.

The total broadleaf tree cover in the BR was analysed, and future scenarios were projected. Forest owners were informed about management methods that benefit broadleaf tree production, and were motivated to invest in broadleaf or mixed forests. Opportunities for economic compensation were also investigated.

Land-owner associations, public authorities and a biodiversity group are represented in the project’s steering group. Not surprisingly, these are the same organisations as the ones on the BR board.

The BR’s collaborative processes have helped the public authorities to run their projects in a more inclusive and smooth manner, resulting in increased legitimacy and win-win solutions.

Lessons learned for implementing the 2030 Agenda:

- The BR process and working method can increase social capital, which in this case improves the conditions for biodiversity.
- By integrating social, ecological and economic aspects of development in the same project, synergies can be created between the SDGs.
- The BR organisation can function as platforms for mutual and collective learning between stakeholders with different perspectives.

Creating an identity as a responsible tourist region

In 2015, the BR office in Blekinge Archipelago Biosphere Reserve initiated and operated a pilot-study to identify opportunities for developing the outdoors tourism in the area, focusing on the coast and archipelago as a whole. The pilot-study revealed many opportunities for development but a coordinating function, linking and gathering actors and initiatives, was missing.

As a consequence, Blekinge Archipelago applied for, and was granted, funding for a three-year project.

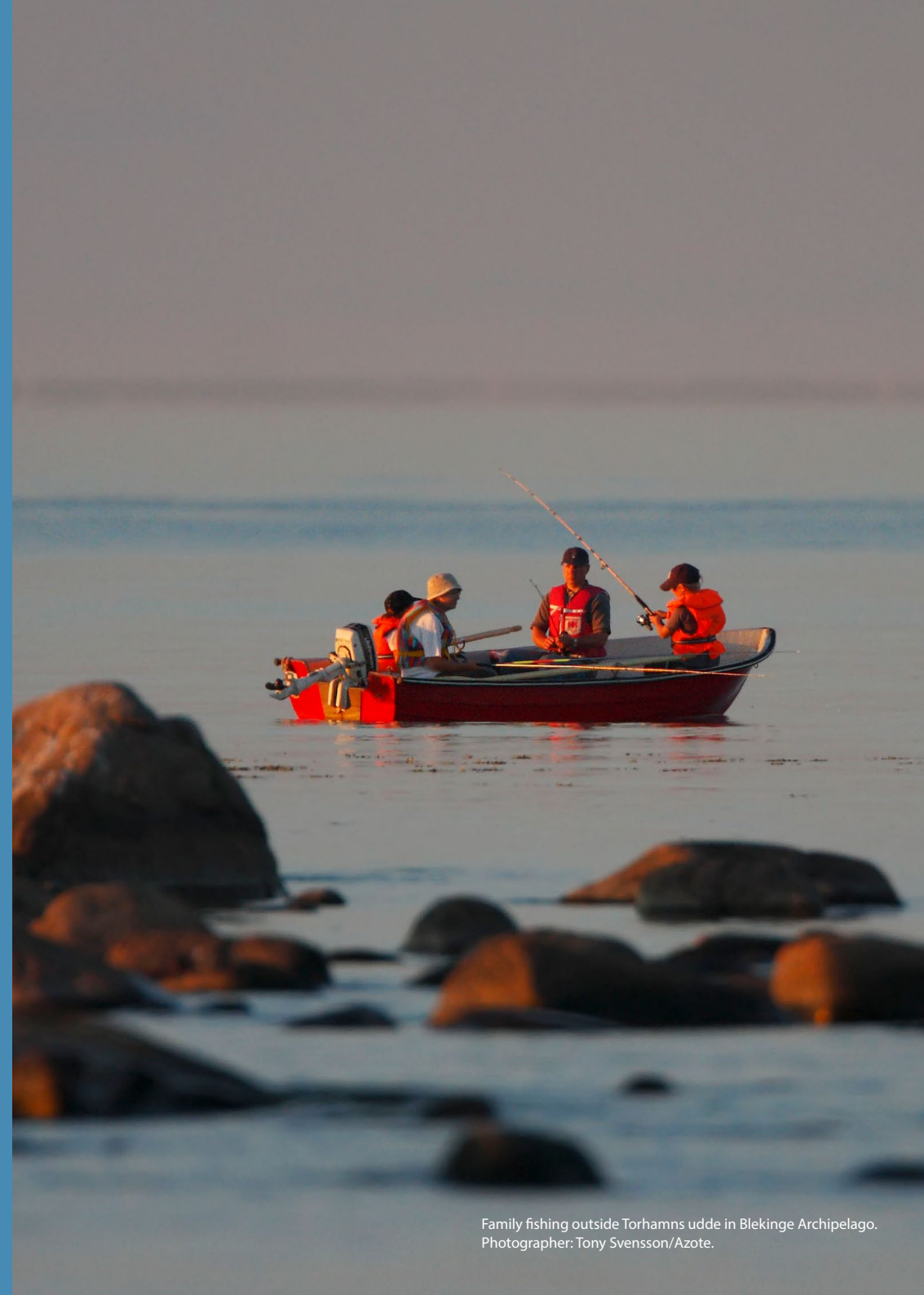
By coordinating existing routes, filling the gaps with new routes and marketing the destination under the brand Arkipelagrutten (The Archipelago route), the project aims to create an identity for, and to increase the attractiveness of, the whole destination. Maps, a mobile application (app) and information points along the routes are produced.

To optimize the possibilities for different kinds of outdoors experiences, investments are made into developing routes for hiking, biking, sailing and public transport in the archipelago. Horseback riding and recreational fishing are also part of the concept. Further, the project aims to develop the local businesses along the routes. By facilitating collaboration between entrepreneurs, packages for the tourist market can be produced. Another

essential goal of the project is to produce a policy for sustainable tourism and to enhance and strengthen the local businesses' internal work with sustainability.

Lessons learned for implementing the 2030 Agenda

- Developing a shared identity for a region and connecting sustainable outdoor experiences across the area can help promote sustainable development through tourism. By gathering private and public actors in a common vision, BRs can enable this to happen.
- Integrated work with the SDGs requires cross-sectoral collaboration. BRs are well positioned to bring different sectors together.
- Conserving and developing the ecosystems and cultural assets of the coast and the archipelago help secure ecosystem services that are essential for human well-being.



Family fishing outside Torhamns udde in Blekinge Archipelago.
Photographer: Tony Svensson/Azote.

Collaborating to conserve and enjoy a red-listed species

In spring every year, Biosphere Reserve Kristianstads Vattenrike is visited by thousands of cranes, taking a break on their long journey from southern Europe to their breeding grounds in northern Sweden. The cranes rest in the floodplain meadows in a nature reserve, Pulken. These meadows were restored by the municipality 30 years ago. Today, cattle graze the meadows, which support many rare plants and animals.

The cranes' time of arrival coincides with the spring sowing of barley and wheat in the area, which is very fortunate for the cranes as they crave that kind of food.

The farmers, however, are not as fortunate as the resting cranes can easily destroy large areas of newly sown fields. At the same time, the cranes interest and attract large numbers of bird watchers and the public. Keeping the floodplain meadows open and grazed is important to conserve the crane, which is a red-listed species and a much appreciated sight for both tourists and the local public.

To identify solutions to the problem, the "Crane group" was created in 1997. The Federation of Swedish Farmers, the County Administrative Board, the Municipality and ornithologists are

represented in the group. Together they came up with an innovative win-win-win-solution.

When the cranes start gathering in the area, the ornithologists set out to count them. If they estimate that there will be many cranes at the time for the spring sowing, the cranes are fed with barley on an abandoned field next to the outdoors museum in Pulken. The cranes can feed in peace and quiet, protected from predators by the water at night, the spring sowing is spared and the bird watchers and the interested public can enjoy the cranes at the outdoors museum. Actually, the time of the cranes' arrival has become a positive event with an estimated 15 000 visitors during the crane period. Local organizations volunteer to count the cranes, guide visitors and sell snacks, and the media covers the happening.

Lessons learned for implementing the 2030 Agenda:

- By bringing together actors with different perspectives in a collaborative problem-solving process, trade-offs between ecological, social and economic can be turned into win-win-win solutions for sustainable development.
- BR organisations can support platforms for mutual and collective learning between stakeholders, enabling synergies between SDGs to be identified.
- BR organisations can function as neutral and independent platforms for collaboration, conflict resolution and trust-building, enabling integrated work with the 2030 Agenda.



How BRs contribute to the Agenda

With small means, the Swedish biosphere reserves aim to inspire processes of change within existing organizations and to break up sectorized work by connecting and mediating between actors, both horizontally and vertically. Their role is complementary to public authorities and organizations, and they form a gathering and coordinative force in the transformation to sustainability, rather than being just another interest group. While other actors focus on their pieces of the puzzle, the BR organizations' function is to have a holistic and cross-sectoral approach, and to bridge, connect and mediate.

The five project examples illustrate some of the functions that the Swedish BRs can fulfil in the implementation of the 2030 Agenda in Sweden. These functions have also been highlighted by the Swedish delegation for the 2030 Agenda as essential for achieving the SDGs.

1. Serving as platforms for collaboration

The BR work builds on structures already in place. By gathering and coordinating existing initiatives, actors and/or experiences, the BRs serve as neutral platforms, or arenas, for collaboration. The broad representation of sectors/actors and interests in the BR organizations and in their projects illustrate this feature.

2. Connecting actors – vertically and horizontally

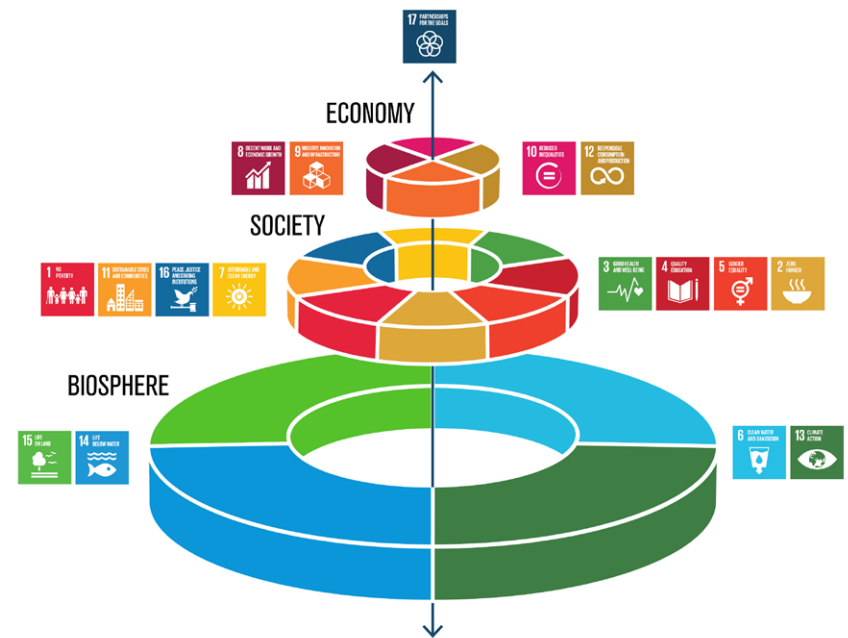
Serving as platforms for collaboration, the BRs offer opportunities for collaboration across administrative or geographic boundaries, across sectors and between different levels of governance. In all five examples, representatives from different levels in society are represented. From land-owners, entrepreneurs, foresters and ornithologists to the Municipalities and the County Administrative Boards. With their actor diversity, the BR organizations “break the silos” of the often sectorized decision making processes.

3. “For people, planet and prosperity” - Integrating the SDGs

The BR organizations have a holistic approach to sustainable development where nature conservation becomes a part of and not apart from development. When stakeholders with different interests are offered a neutral platform where issues and potential solutions can be discussed, it is also likely that the solutions integrate ecological, social and economic aspects of sustainable development.

4. Maintaining healthy ecosystems

The Swedish BRs acknowledge that healthy ecosystems are a prerequisite for human wellbeing and a progressive economic development. This notion is not only at the very heart of the MAB Programme, but is also recognized in the 2030 Agenda.



Healthy ecosystems are a prerequisite for human wellbeing and economic development. Source: J. Lokrantz/Azote in Rockström & Sukdev (2016) and Folke et al. 2016.

The BRs' projects build on the objectives of conserving and developing ecosystems so that they can continue to provide ecosystem services, essential for human well-being.

The MAB Programme sees humans as part of, not apart from nature. This view is reflected in the realization that human practices are often essential to produce desired ecosystem services.

5. Promoting learning and awareness-raising

In order for the SDGs to be met, an extensive transformation of society is needed, according to Sweden's National Delegation for the Agenda 2030. This transformation is a learning processes, where new and innovative models and methods for governance need to be

developed. Furthermore, all actors of society need to be engaged.

Learning and education for sustainable development is a central theme in the MAB programme and in the BRs. The BRs are at the forefront of using and spreading new knowledge and new concepts from the sustainability literature. Simultaneously, studies of lessons learned in BRs are advancing sustainability science. Furthermore, BRs serve as platforms for people to engage with and learn about sustainable development in practice.

The BRs journeys towards the UNESCO designation, and their collaborative approaches are learning and trust-building processes in themselves, where new governance methods are developed and tested.

Conclusions and ways forward

The global challenges addressed by the 2030 Agenda are complex, spanning scales, disciplines, and societal sectors. In order for the SDGs to be met, an extensive transformation of society is needed, Innovative models and methods for governance that integrate the social, economic and ecological dimensions of sustainability and provide cross-scale and cross-sectoral solutions are called for.

Biosphere reserves serve as just that: learning sites and model areas for sustainable development. These models and lessons learnt could be scaled up and applied in other contexts – like ripples on the water.

UNESCO's MAB programme in Sweden has more than ten years of experience with integrated sustainable development and can guide the

process of implementing the 2030 Agenda, locally and regionally. The biosphere reserves can contribute to the implementation of the 2030 Agenda by:

1. serving as platforms for collaboration
2. connecting actors – vertically and horizontally
3. integrating the SDGs
4. maintaining healthy ecosystems
5. promoting learning and awareness rising

The biosphere reserves' thorough experience of integrated work with sustainable development in practice in a Swedish context make them strategic regions to learn from, support and invest in when implementing the 2030 Agenda and the SDGs in Sweden.



More information

Swedish Biosphere Reserves as Arenas for Implementing the 2030 Agenda. Analysis and practice (Full report, no 6742):
<http://www.naturvardsverket.se/Om-Naturvardsverket/Publikationer/>

MAB programme in Sweden:
<http://biosfaromrade.org/>

Kristianstads Vattenrike
<http://www.vattenriket.kristianstad.se/>

Lake Vänern Archipelago
<http://vanerkulle.org/>

Blekinge Archipelago
<http://www.blekingearkipelag.se/>

Nedre Dalälven River Landscape
<http://www.neda.se/>

East Vättern Scarp Landscape
<http://www.ostravatterbranterna.se/>

UNESCO's Man and the Biosphere Programme
www.unesco.org/mab

The 2030 Agenda and the Sustainable Development Goals
<https://sustainabledevelopment.un.org/post2015/transformingourworld>



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