### Swedish Agency for Marine and Water Management

# Swedish efforts for sustainable blue growth and sustainable small-scale fisheries

#### SUSTAINABLE DEVELOPMENT GOALS

#### **TARGET 14.7:**

By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.

#### TARGET 14B:

Provide access for small-scale artisanal fishers to marine resources and markets.



### EXECUTIVE SUMMARY

- The concept of blue growth has developed alongside green economy in order to study and consider the economic benefits generated by coasts and oceans in all aspects of economic activity.
- The concept encompasses a wide range of different sectors, such as mineral extraction, tourism, energy production, aquaculture, fishing, recreation, shipping, culture, and traditional production and processing industries.
- Fishing is one of the sectors in the blue growth concept. It is quite an important sector in many developing countries, especially in small island developing states (SIDS) and coastal least-developed countries (LDCs).
- A great deal of research and development work is being carried out in connection with blue growth within several sectors, not least within energy, shipping, and aquaculture.
- Advanced management models and cross-sectoral cooperation – as well as collaboration between the public and private sectors – are important in order to achieve sustainable blue growth. The Swedish Maritime Strategy is a good example of a multisectoral way of working.

- The Swedish fishing grounds in northern Bohuslän, specifically the Koster väderö area, provide the foundation for a small but profitable coastal fishery that is managed in a sustainable manner. This has been achieved through co-management between local fishermen, researchers, government agencies, and local municipalities.
- Swedish players are actively involved in regional and European cooperation to develop new methods and industries, and are striving for sustainable blue growth. Globally, Sweden supports international bodies in the work to achieve blue growth and sustainable global management of marine resources.
- If blue growth is to be sustainable and more than just a "fluffy" concept, changes are required within a number of areas, such as advanced systems thinking, improved cross-sectoral management models, and political initiatives to regulate and restrict resource extraction.



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### Swedish efforts for sustainable blue growth and sustainable small-scale fisheries

#### Introduction

The concept of blue growth has developed alongside green economy in order to study and consider the economic benefits generated by coasts and oceans in all aspects of economic activity (UNCSD, 2012a). The UNEP (2011) has defined green economy as an economy that "results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities." A widely accepted definition of the concept of blue growth is yet to be agreed upon.

The concept of blue growth encompasses a wide range of different sectors, such as mineral extraction, tourism, energy production, aquaculture, fishing, recreation, shipping, and culture. It therefore has to consider a number of different perspectives in which multisectoral cumulative impacts must be taken into consideration. Blue growth is also linked to traditional production and processing industries.

Fishing is one of the sectors in the blue growth concept but it is quite an important sector in many developing countries, especially in SIDS and coastal LDCs. Over half of the total global fish catch is estimated to come from small-scale fisheries in developing countries. These fisheries support 95 percent of the fisheries workforce and are hardest hit as catch decreases.

#### Swedish efforts

The Swedish governance approach is inclusive and strives to achieve environmental targets in a multisectoral manner. The implementation of policies is based on cooperation and stimulation between different levels and actors within society, such as the state, regions, municipalities, research institutions, civil society, and industry. This is done through governance by assignment, financial means, and dialogue with the actors involved. One good example is the Swedish Maritime Strategy with indicators for follow-up. Another is the co-management of fisheries in the the Koster-Väderö Fjord Agreement. The aim of the agreement is to develop a sustainable fishery compatible with the region's outstanding natural values.

#### Energy

Offshore energy productions comprise a wide range of activities and are experiencing rapid progress. Sweden was one of the first nations in the world to make use of offshore wind power. In Europe (including Sweden), offshore wind power is expanding. At the same time, technological development and research are taking place in parallel, both to improve existing technologies and to develop new ones. New technologies currently being developed in Sweden include mobile wind turbines, wave power, energy extraction from ocean currents, and growing biomass at sea for energy production. Off-shore energy extraction and production generate the need for transporting energy using cables, pipelines, and shipping. Increased off-shore energy production is expected to boost the development of maritime industries and contribute toward an increased proportion of renewable energy and reduced CO<sub>2</sub> emissions. The energy sector is also creating extensive maintenance and service industries.

#### Tourism and recreation

Tourism is one of Sweden's fastest growing industries and is now a basic industry in a number of coastal communities. It is often locally based, small scale, and diversified, and contributes toward a vibrant rural area and growth for small businesses. It is based on cultural and natural experiences. In many cases, tourism strives to achieve locally based development and backing in order to be sustainable.

Cruise traffic in the Baltic Sea consists of around 2 million passengers annually. It is mainly a large-scale operation and has minor positive impact on local society. Cruise ships mainly call at larger port cities. In 2010, Stockholm accounted for 80 percent of ports of call made in Sweden.

#### **Commercial fishing**

The stocks of fish and shellfish are renewable resources that can contribute to a greater degree toward putting useful food on our plates. This assumes that fishing is carried out in a manner that is environmentally sustainable in the long term, ensuring the survival of fish stocks. Local fishing communities are dependent on the fish in the immediate vicinity, and fishing is often carried out on a small scale or seasonally. The sustainable economic development of society and businesses thus requires a diversification to include other activities.



THE FISHING grounds in northern Bohuslän provide the foundation for a small but profitable costal fishery that is co-managed by local fishermen, researchers, the county administration, the Swedish agency for Marine and Water Management and politicians from the local town councils. Shrimp is the most economically important fishing.

Many companies therefore supplement their operations by investing in activities such as smoking and selling fish, camping, and marinas.

Co-management of small-scale fishing in northern Bohuslän The fishing grounds in northern Bohuslän, specifically the Koster väderö area, provide the foundation for a small but profitable coastal fishery that is co-managed by local fishermen, researchers, the county administration, the Swedish Agency for Marine and Water Management, and politicians from the local town councils of Strömstad and Tanum. A large part of the area consists of Natura 2000 areas. The area is marine biology valuable and regarded as Sweden's most species-rich sea area. In the co-managed area sits, since 2009, Sweden's first marine national park, Kosterhavet. In 2011, a marine nature reserve surrounding the Väderöarna islands in the southern part was also formed. Both of these protected areas are located entirely within the waters that are co-managed.

The co-management board has decided on their own operational rules that secure tenure for small-scale fishing operations. The most important rules are a maximum of three days at sea (market driven); no fishing at night; a maximum of three men onboard (sharing the harvest); trawling is not permitted in water shallower than 60 meters in depth; selective trawls with low impact; protected areas; and seasonal stops.

Both commercial and recreational fishing are widespread in the area. Shrimp is the most economically important fishery; around 30 vessels fish shrimp in the area. The fishing can be conducted with relatively small vessels since it takes place close to shore and in protected waters. The fishermen in the area also work with a self-inspection system, tool development, and marketing. The latter has resulted in their own brand, Njord, which helps to promote products from this well-managed fishery. Commercial fishing in the Koster Väderö area is today a long-term sustainable fishery, conducted in a responsible manner to protect the area's high conservation value.

#### Shipping

Shipping is the dominant form of transport for Swedish foreign trade, accounting for approximately 90 percent measured by volume. In addition, around 30 million passengers per year are transported to and from our neighboring countries by ferry. The shipping sector and related businesses employ around 100,000 people. Enhancing the competitiveness of Swedish ports in order to contribute toward a more highly developed transport system is a priority together with improved environment. There is a desire to transfer land transport to sea transport. In 2017, a strategy for how to achieve a fossil-free transport sector will be presented.

Through continued development of means of control, emission reduction, type of fuel used, and improved technology, shipping can be transformed into a more environmentally friendly means of transport with great significance for sustainable blue growth. Authorities and industries in Sweden have cooperated on devising tools such as the Clean Shipping Index and the Zero Vision Tool to make shipping more environmentally friendly. Safety at sea and prevention of transfer of alien species are other example of prioritised topics together with issues around tank washing.

New areas of technology, such as within digital applications, are part of the emerging blue growth. The Västra Götaland region is a cluster area for marine technology, with around 1,000 companies in the region working within marine technology and shipping. Products include everything from material development, design, and consultancy/guidance to the traditional manufacturing industry.

#### Marine spatial planning (MSP)

MSP deals with the marine spatial aspects of all the thematic areas included in sustainable blue growth and can be defined as "...a process to create preparedness within society to meet an uncertain future and to try to shape developments and organise space (and the use of resources) in a desirable direction" (Andersson, Vasab workshop 2016).

MSP is a national process but requires cooperation between states in order to achieve the desired effects. In

Sweden and around the Baltic, there is an ongoing process to develop ecosystem-based marine spatial plans. MSP is an important tool for identifying the most suitable geographic area for an activity. MSP should balance and weigh different interests and should point out future uses. Identifying and highlighting areas worth protecting and the connectivity between them in order to shield them from exploitation are important aspects. MSP also deals with land-sea interactions and relates to the climate target and opportunities for development in the coastal area.

#### **Regional efforts**

Swedish actors from authorities, civil society, and industry are involved in a number of organisations and projects within the framework of regional cooperation, for example within HELCOM, the BONUS research program, Interreg projects, and the Baltic Sea Region Programme. This cooperation involves improving the environment and developing new industries and areas of technology.

> TOURISM IS one of Sweden's fastest growing industries. It is often locally based, small-scale, and diversified. In many cases, tourism strives to achieve locally based development and backing in order to be sustainable.



#### International efforts

Sweden works both bilaterally and through various global and regional organisations to create a sustainable environment and to strengthen local society's capacity for sustainable development in both coastal and marine areas. Via international programs such as the UNDP Water and Ocean Governance Programme (WOGP) 2014–2017, Sweden supports the development of sustainable marine resources management in 10 of the world's most important large marine ecosystems and promotes integrated land, water, biodiversity, and coastal area management in all 33 of the world's small island developing states (SIDS) in the Caribbean and the Pacific, and around the African continent.

Sweden also participates in and works through a number of international organisations, such as the FAO and IUCN, to improve the aquatic environment in general, with an angle toward coastal and marine management and small-scale fisheries. Support for research is an important component, as is support for strengthening cooperation between countries and regions.

In the shipping sector, Sweden is instrumental in the global and regional arenas and is working through conventions and organisations such as SOLAS, MARPOL, and IMO to improve management and environmental standards, rules, and regulations. Sweden is also hosting and contributing to the World Maritime University (WMU) located in Malmö.

### CHALLENGES AND GAPS

Collaboration between the public and private sectors is important in order to achieve sustainable blue growth. If blue growth is to be sustainable and more than just a "fluffy" concept, challenges existing in a number of areas must be addressed:

- balancing the ecosystem's need for reproduction and stability with various industries' resource extraction requirements;
- being able to assess and deal with multisectoral, cumulative consequences;
- facilitating sustainable approaches in activities' indirect use of the ecosystem (mineral extraction, energy extraction, shipping);
- increased knowledge and understanding of the structure, function, and value of ecosystems;

- the development of management models that are able to deal with cross-sectoral perspectives and cumulative consequences of different activities;
- statistical data to substantiate the value of blue growth
- clear political initiatives to regulate and, if necessary, restrict resource extraction.

Most people would agree that allocation mechanisms and transparency are fundamental to effective natural resource management. When it comes to small-scale fisheries, ineffective governance of tenure often constitute a major obstacle to a sustainable, efficient, and equitable use of fishery resources.

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## Compilations made by SwAM for SDG 14, Life below water

- This document represents one out of nine compilations made by the Swedish Agency for Marine and Water Management (SwAM) to highlight Sweden's key efforts and initiatives for Sustainable Development Goal 14 of the 2030 Agenda for Sustainable Development. It has been developed as a part of Sweden's work in support of The Ocean Conference in New York, June 5–9, 2017.
- Several other Swedish agencies and institutions have contributed to the content in these compilations: the Swedish Environmental Protection Agency, the Swedish International Development Cooperation Agency (Sida), the Swedish Meteorological and Hydrological Institute (SMHI), the Swedish Board of Agriculture, the Swedish Chemicals Agency, the Swedish Transport Agency, and the Swedish Institute for the Marine Environment (SIME).
- The documentation focuses on a situation assessment and does not constitute a complete picture of Sweden's initiatives being carried out in order to achieve the goal and targets. A starting point for the content is operational areas within national authorities, but the content has also been expanded to include other significant aspects based upon existing contacts and knowledge.
- Furthermore, the Swedish Environmental Research Institute (IVL) has been commissioned by SwAM to compile initiatives and examples from Sweden's industry and blue growth sector. The Sustainable Development Solutions Network (SDSN) Northern Europe has also composed a complementary compilation of efforts from innovative blue growth initiatives. The result of this work is presented in separate reports.
- The Swedish Institute for the Marine Environment has been commissioned by SwAM to produce two syntheses in support of the conference. One concerns mitigating marine eutrophication in the presence of strong societal driving forces, with a focus on impacts and measures, and the other concerns impacts and measures regarding marine litter in small island developing states.

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