



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

## SUSTAINABLE DEVELOPMENT GOALS

### TARGET 14.7:

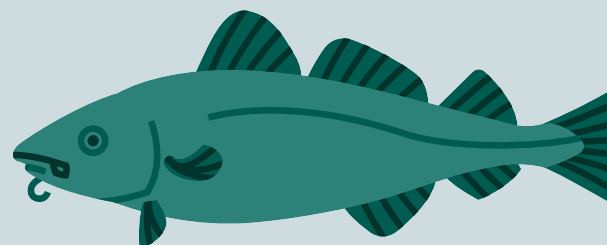
By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.

### 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 promote economic growth, social inclusion, and the preservation or improvement of livelihoods while at the same time ensuring environmental sustainability of the oceans and coastal areas.
- › 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.
- › Small-scale fisheries is one of the traditional sectors in the blue growth concept. They are of significant importance as they comprise 90 percent of the world's capture fisheries. The vast majority of small-scale fisheries are located to developing countries. The small-scale fisheries are the hardest hit as catch decreases.
- › 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 fishers, researchers, government agencies, and local municipalities.
- › Sweden is actively involved in regional and European cooperation to develop new methods and industries, and is striving for sustainable blue growth. Globally, Sweden supports international bodies in the work to achieve blue growth and sustainable global management of marine resources.
- › Blue growth needs to be operationalized in order to have a real impact and several existing challenges must be addressed. Improvement 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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## 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. The United Nations Environment Programme, UNEP, 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 and the term therefore can include different meanings and approaches, depending on the social contexts in which it is used.

The concept of blue growth is a call for a more holistic management of complex marine social-ecological systems. It encompasses a wide range of different sectors, such as mineral extraction, tourism and recreation, energy production, aquaculture, fishing and shipping. Therefore, a number of different perspectives has to be considered, including cumulative impacts from different sectors. Blue growth is also linked to traditional production and processing industries.

Small-scale fisheries is one of the traditional sectors in the blue growth concept. They are of significant importance as they are environmentally and socially preferable to large-scale fisheries and comprise 90 percent of the world’s capture fisheries. The vast majority of small-scale fisheries are located to develop countries where they contribute to over half of the fish and invertebrate catch. The small-scale fisheries are the hardest hit as catch decreases.





*The fishing grounds in northern Bohuslän 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. Shrimp is the most economically important fishing.*

## 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 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. This does not count for the cruise traffic, which 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. Stockholm accounts for the majority 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 nutritious 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. The last hundred years, the fishing sector has decline

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substantially in Sweden. Around 1945, there were about 25 000 professional fishers in Sweden. This number has constantly declined since then and the small-scale fishing sector is the most affected. In 2017, the number of small-scale Swedish fishers was estimated to be around 400.

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

## **CO-MANAGEMENT OF SMALL-SCALE FISHERIES 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 fishers, 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 has a valuable marine biodiversity and is regarded as Sweden's most species-rich sea area. In the co-managed area lies, 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 established. 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; use of 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 fishers 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 neighbouring 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 800 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

Marine spatial planning deals with the marine spatial aspects of all the thematic areas included in sustainable blue growth. It is commonly defined as "...a public and coordinated process of mapping, evaluating and assigning marine areas to different human activities in order to achieve ocean health and transform marine governance". Marine spatial planning 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. It is important to identify the most suitable geographic area for an activity and the objective is to balance and weigh different interests and to 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. Further, it is also necessary to deal 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 industries are involved in a number of organisations and projects within the framework of regional cooperation, for example within HELCOM (the Baltic marine environment protection commission), the BONUS research program and its successor BANOS, and the Baltic Sea Region Programme. The cooperation involves improving the environment and developing new sustainable industries and areas of technology.

## International efforts

Sweden works both bilaterally and through various global and regional organisations to respond to challenges, primarily to coastal communities in coastal least-developed countries (LDCs) and small island developing states (SIDS) contributing to the fulfilment of SDG 14 and its sub targets. This includes more than 30 contributions and around SEK 400 million annually to the World Bank, The Food and Agriculture Organization of the United Nations (FAO), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), the International Union for Conservation of Nature (IUCN) and others. livelihoods and resource base for poor coastal communities and marine pollution in LDCs and SIDS. By supporting the work with a Sustainable Blue Economy by key players such as the World Bank through ProBlue (The World Bank's blue economy program), UNDP, and UNEP the economic sectors are integrated to improve the marine environment and to strengthen local society's capacity for sustainable development in both coastal and marine areas. Efforts to reduce the pollution by plastics are widely implemented and the UNDP Ocean Innovation Challenge is a new mechanism designed to accelerate progress on SDG 14.

In the shipping sector, Sweden is instrumental in the global and regional arenas and is working through conventions and organisations such as SOLAS (the international convention for the safety of life at sea), MARPOL (the international convention for the prevention of pollution from ships) and IMO (International Maritime Organization) to improve management and environmental standards, rules, and regulations. Sweden is also hosting and contributing to the World Maritime University located in Malmö.





## Challenges and Gaps

Collaboration between the public and private sectors is important in order to achieve sustainable blue growth. Blue growth needs to be operationalized in order to have a real impact. Several existing challenges must be addressed:

- › Ensuring ecosystem's need for reproduction and stability while not excluding all resource extraction requirements from the industry.
- › Develop approaches and technology to minimize impact on marine ecosystems from mineral extraction, energy production and 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 multisectoral cumulative consequences.
- › Statistical data to substantiate the value of blue growth.
- › Clear political initiatives to regulate and, if necessary, restrict resource extraction.

It is important to have proper allocation mechanisms and ensure transparency in order to develop 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. Challenges concerning the sustainability of small-scale fisheries include:

- › To stop and reverse the decline in the Swedish small-scale fisheries sector without disregarding the value of new economic profitable and sustainable marine industries.
- › To recognize and integrate small-scale fisheries societal values, economic and non-economic, in the implementation of the Marine Spatial Planning Directive.
- › To improve the economic profitability of small-scale fisheries without compromising the sustainable exploitation of marine resources and through access to new (local) markets for their products.
- › To replicate and learn from the lessons of the co-management model of small-scale fisheries in northern Bohuslän.
- › To take measures to alleviate the competition between seals and cormorants' populations and the small-scale fisheries
- › To simultaneously implement the Blue Growth agenda and the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries.

## 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. This report has been developed as a part of Sweden's work in support of The Ocean Conference in Lisbon 2020. It is based on the report developed for The Oceans Conference in New York 2017 and has been updated by the Swedish Institute for the Marine environment together with researchers and experts from universities, organisations and agencies including the Swedish Agency for Marine and Water Management.

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.