#### **3** BalticWaters ■

## Other countries have successfully rebuilt depleted fish stocks. Why can't we?

Things look bleak for fish in the Baltic Sea, but international examples show that it is possible to reverse the trend. This would not only be good for the Baltic Sea, but would also contribute to Sweden's national treasury and food security already in ten years.

What happens if we continue fishing as we have done so far? Today, there is a fishing ban on cod in both the eastern and western Baltic Sea. Stocks show little sign of recovery while cod's main food, herring and sprat, continue to be heavily fished. If the trend of the last 30 years continues, there could also be a fishing ban for Baltic herring around 2030.



## Fish in the Baltic Sea

Today, we mainly fish for herring and sprat in the Baltic Sea. Cod stocks have been fished down to such low levels that directed fishing is prohibited. Since the 1990s, total catches have declined and continue to do so. The negative trend is also reflected in fishing quotas, which set the total amount of fish each country is authorized to catch.

In total, we have lost almost 75 per cent of fishable quotas in just 25 years.



#### Total quotas in the Baltic Sea 1990-2025 in tonnes

## Some of the good international examples

**Herring in the Gulf of Riga** is the only stock in the Baltic Sea that is doing well and has even increased over the last two decades. Herring in the Gulf of Riga is managed by Estonia and Latvia and fished under strict restrictions. For example, the size of trawlers and fishing gear is regulated, while fishing quotas are divided equally between coastal and large-scale fisheries.

**Icelandic cod** has been managed with a sustainable fisheries policy since the 1980s, when a total allowable catch (TAC) was introduced, which has been kept low, allowing the stock to grow. Today, the total biomass of Icelandic cod is larger than when current systematic measurements began in the 1980s.

**North Sea herring** was heavily overfished in the late 1970s, leading to a six-year fishing ban. Since then, the stock has grown and is doing well.

How did countries work together to rebuild fish stocks? Through active fisheries management.

By **active fisheries management**, we mean proactive management that implements the measures needed to quickly rebuild healthy fish stocks. With active fisheries management, fish stocks recover to a level that provides the best long-term sustainable outcomes for all, with more fish in the sea that we can ultimately fish. We have developed two recovery scenarios for fisheries in the Baltic Sea, both based on active fisheries management. The scenarios show how we can rebuild some of our most important fish stocks, with positive effects for the entire Baltic Sea ecosystem and contributing to the Swedish economy. In one scenario, largescale fishing is limited, while in the other scenario, large-scale fishing ceases completely:

### What is large-scale fishing?





Fishing with large trawlers where the catch mainly becomes feed for salmon farms and chicken farms.

 Trawlers also catch other
species of fish that are not the target of the fishery.

### **Recovery scenario 1** - Fishing with some large-scale fishing

Most of the Baltic Sea is set aside for small-scale fishing, marine protected areas and recreational fishing. For large-scale fishing, a limited contiguous area of 25 per cent of the total area of the Baltic Sea is reserved for fishing. Small-scale fishing and recreational fishing contribute to socio-economic values, while social costs in the form of subsidies to large-scale fishing are reduced when their fishing is restricted. In total, this would result in an annual socio-economic gain of SEK 260 million. The current value of the future gain (present value) is SEK 8.6 billion over 50 years.

In the scenario, stocks have the potential to recover and already in ten years' time, the share of fish caught by small-scale fisheries could contribute 6.5 kg of edible fish per Swede per year. That is almost one meal of fish a week per Swede per year, which is not only an important addition to our food mix, but also strengthens Sweden's civil defence in times of emergency.

# **Recovery scenario 2**- Fishing without large-scale fishing

In this scenario, large-scale trawling ceases completely in favour of small-scale fishing, marine protected areas and recreational fishing. The annual socio-economic gain is estimated to SEK 240 million. The benefits are slightly lower because no large-scale fishing takes place, while small-scale fishing and recreational fishing are at the same catch level as in recovery scenario 1. However, the present value, i.e. the current value of

the future benefit, over 50 years is significantly higher: SEK 13.9 billion.

#### In summary:

A more restrictive large-scale fishing, in favour of small-scale fishing and recreational fishing where the catch is mainly used to feed people, thus has a higher socio-economic value over time. It also helps other species in the ecosystem to recover.

Annual socio-economic gain

SEK 260 million

SEK 240 million

Recovery scenario 1: Fishing with some large-scale fishing Recovery scenario 2: Fishing without large-scale fishing



Recovery scenario 1: Fishing with some large-scale fishing Recovery scenario 2: Fishing without large-scale fishing **By 2035**, the stocks of cod, herring and sprat in the Baltic Sea are estimated to have recovered if any of the recovery scenarios are implemented.

Small-scale fisheries along the entire Swedish Baltic coast are expected, in both scenarios, to be able to fish six times as much after fish stocks have recovered. Fishing opportunities for small-scale fisheries



# Large-scale fishing in the Baltic Sea is and remains a loss-making business

In recovery scenario 1, large-scale fisheries could fish more than today as fish stocks have recovered, resulting in more fish in the sea. But even so, large-scale fishing is socio-economically questionable. The carbon dioxide emissions from dragging heavy fishing trawls around the sea are high in relation to the value of the fish caught to become feed for salmon farms and chicken farms, for example.

Today, large-scale industrial fishing costs taxpayers SEK 137 million a year. If nothing changes, herring and sprat stocks will continue to decline until 2030, when fish stocks will be so weak that fishing will have to stop. The work to introduce active management in the Baltic Sea must start today - we do not have time to wait. The uncertain and weak

stock development must be reversed if there is to be a reasonable future chance of a vibrant and profitable fishery in the Baltic Sea.

## Want to know more?

In the report International role models lead the way towards sustainable fish stocks in the Baltic Sea - great value



**<u>can be created</u>**, written by economist Stefan Fölster, on behalf of BalticWaters, you can find more data that clearly shows that we can rebuild depleted fish stocks.



BalticWaters is an independent foundation with a single goal: to keep our sea alive. The foundation carries out environmental projects and applied research to identify measures that can contribute to a healthier Baltic Sea and sustainable fish stocks. BalticWaters also works to develop and share knowledge about the sea with the public, authorities, and decision-makers. The goal is to raise awareness of the challenges facing the sea and to build public support for action and policy decisions.

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