

Maximum sustainable yield



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Maximum sustainable yield (MSY) is the optimal catch that may be taken from a fishing stock year after year without endangering its capacity to regenerate for the future. The EU Member States, along with many others, made a political commitment to manage their fish stocks for MSY at the World Summit on Sustainable Development in Johannesburg in 2002. Now, this commitment is being put into practice.

Under this new approach, the management goal is to produce stable and sustainable catch levels, rather than to maintain an ideal stock size. After all, the size of a fish stock is easily influenced by factors other than fishing, and so can vary widely from year to year. To target a precise stock size is therefore a recipe for creating instability for the fishing sector.

In July 2006 the Commission published a Communication outlining how it proposed to move towards managing EU fish stocks for MSY. And indeed, MSY already provides the benchmark used in a number of the EU's long-term management plans.

MSY in practice: the role of long-term planning

At present, most EU fish stocks are fished at levels well above MSY. In these circumstances, to reduce fishing mortality

to MSY levels from one year to the next could bring about a brutal economic and social shock. The Commission has therefore opted for a gradual approach, based on the introduction of multi-annual plans for particular fish stocks or fisheries. Each plan aims to reduce fishing mortality progressively over a number of years, without jeopardising the stock's health along the way, until a level compatible with long-term sustainable yields has been achieved.

All such plans are developed on the basis not only of in-depth scientific advice, but also detailed consultation with stakeholders. They are subject to rigorous impact assessments to make sure all their social, economic and environmental implications are taken into account. They are also tailored to take regional differences into account, such as the composition of the local fleet, the proportion of overfished stocks in the waters concerned, the area's level of economic dependency on fisheries and the financial health of the sector. As a result, the impact of introducing the concept of maximum sustainable yield may be very different from one area to another. Existing plans will be revised as necessary to align them more closely with this approach.

More information on long-term management can be found on the separate fact sheet on that subject.

Wide-ranging benefits

There are many advantages of an MSY approach for both fish and fishermen:

FISH: The gradual reduction of fishing mortality to achieve MSY can prevent vulnerable stocks from collapsing, help depleted stocks to rebuild and allow the development of larger fish of all species leading to less discarding of juveniles. Lower levels of fishing effort will also reduce by-catches of species such as dolphins, porpoises and seals, since these are directly related to the length of time nets are left in the water or the distance over which a trawl is dragged.

FISHERMEN: More stable catches will reduce operating costs, especially for fuel, while the same or less overall fishing input will bring greater yields. This should lead to increased productivity and competitiveness, more secure employment and a more certain future. In situations where quasi-MSY strategies have been followed, fisheries usually become highly profitable. This has been the case for North Sea herring, mackerel in the North-East Atlantic and, outside the EU, for the sablefish fishery in eastern Canada.

TRADE: Increases in the EU's fisheries resource base will help the industry to compete with imports and improve the EU's balance of trade. In recent years, some 60 % of fish consumed in

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Current levels of overfishing

For the North-East Atlantic and adjacent waters, the International Council for the Exploration of the Sea (ICES) has evaluated the exploitation rate on fish stocks with respect to high long-term yields. The following table summarizes the situation by main fishing area:

Area	No of stocks	No of stocks where an evaluation was made	No of stocks exploited consistently with MSY	No of stocks overfished with respect to MSY
North Sea, eastern channel, Skagerrak and Kattegat	23	12	4	8
West of Scotland	10	3	1	2
Western waters	26	14	1	13
Iberian Atlantic	11	7	2	5
Baltic Sea	13	2	0	2
Widely distributed	5	5	0	5
Total	88	43	8	35

the Union is imported – the equivalent of ten million tonnes annually.

Before stocks reach MSY, there will need to be a transition period during which catch levels for certain stocks will decrease. Choices will need to be made and Member States will have to decide the extent to which they will help cushion the impact on their fleets. Where they choose to permanently decommission vessels, financial assistance is available from the European Fisheries Fund.

Next steps

In implementing the MSY approach, the Commission is giving priority to those fisheries where the industry has supported a specific approach through RACs and to those where the most rapid economic benefits are to be expected. As a first step, the Commission believes the Union should ensure that there is no increase in the fishing rate for any stock already overfished.

Putting a complete set of long-term plans in place will take time. While these are being negotiated, the EU's annual management decisions will have to take the 2015 target into account and, at the very least, not make it more difficult to achieve.

In 2007, the EU stocks that were not being overfished with respect to MSY were herring in the North Sea and West of Scotland, saithe in the North Sea, West of Scotland and the Skagerrak, sea bass in the Atlantic, haddock in the North Sea, plaice in the Irish Sea, and Iberian megrims.

Documents

Communication from the Commission to the Council and the European Parliament: Implementing sustainability in EU fisheries through maximum sustainable yield, Brussels, 4.7.2006 COM(2006) 360 final.

Commission staff working document: Implementing sustainability in EU fisheries through maximum sustainable yield, Brussels, 4.7.2006 SEC(2006) 868.