



## **TO MSY AND BEYOND: REBUILDING STOCKS TO ACHIEVE HEALTHY SEAS**

May 2012

The marine environment is a common resource, and it is in the public interest that activities having an impact on the state of fish stocks and the wider marine ecosystem are sustainably managed. The future CFP must set adequate targets for abundance levels for fish stocks and ensure that fishing limits do not exceed scientific advice. Ensuring recovery of fish stocks and healthy marine ecosystems is a precondition for achieving economic and social sustainability of EU fisheries.

OCEAN2012 therefore calls on EU Fisheries Ministers to support the following objectives:

- to restore and maintain populations of harvested species above levels which can produce the Maximum Sustainable Yield (MSY) by 2015 (Article 2(2));
- to ensure that the fishing mortality rate is immediately reduced to levels that will restore and maintain populations of all harvested species above levels which can produce MSY by 2015, and to set a timetable for achieving these population levels for each stock for which production at MSY by 2015 is biologically impossible (Article 2(2b[new]));
- to implement the precautionary and ecosystem-based approach to fisheries management (Article 2(2) and 2(3)).

We also call on EU Fisheries Ministers to amend the Commission's proposal to ensure that:

- environmental sustainability is understood as a prerequisite for healthy and economically viable fisheries;
- fishing limits do not exceed the scientifically recommended catch levels; and
- measures under the CFP contribute to achievement of the objectives of the Marine Strategy Framework Directive, in particular Good Environmental Status.

### **What is the issue?**

Healthy seas and productive fish stocks are preconditions for a sustainable and profitable fishing sector. However, of the assessed stocks in EU waters, 63 per cent in the Atlantic, 82 per cent in the Mediterranean and four out of the six stocks for which scientific advice is available in the Baltic<sup>1</sup> are overfished.

Exploitation levels have been kept too high, disregarding the limits of the ecosystem and scientific advice. This is primarily the result of decision-making that is based on short-term considerations and

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<sup>1</sup>Communication from the Commission concerning a Consultation on fishing opportunities (COM(2011)298)

meant to cushion the economic and social impacts of reduced fishing opportunities. As a consequence, the health of our seas and the sustainability of fish stocks are compromised by overfishing and the long-term viability of the sector is undermined.

A continuation of this scenario is not an option – only 9 per cent of EU stocks are likely to be sustainable by 2022 if this persists<sup>2</sup>. Moreover, the current management model has resulted in a continuous loss of jobs in the fishing sector: 4–5 per cent annually since 1996/1997<sup>3</sup>. For several Member States, the decline has been so severe that the fisheries management costs exceed the total value of the fish landed<sup>4</sup>. The reform of the Common Fisheries Policy (CFP) can reverse this disastrous trend of overexploitation.

### **What are the solutions?**

To end the overexploitation and rebuild our fish stocks, we need to balance what we take out of the seas with what they can replenish. Fishing opportunities must be set in accordance with the available resources and the limits of the ecosystem.

The reformed CFP must ensure that harvested populations remain above levels that can produce the maximum sustainable yield by 2015.

### **Why Maximum Sustainable Yield?**

Maximum Sustainable Yield (MSY) is the largest yield, or catch, that can theoretically be taken from a stock over an indefinite period under constant environmental conditions<sup>5</sup>.

The status of a harvested stock depends on the size of the fish population (biomass [B]) and the rate of exploitation (fishing mortality [F]). The MSY concept is therefore used to determine catch levels relative to the size of the stock below a fishing mortality ( $F_{MSY}$ ) that – eventually – results in a population size at the point of maximum growth rate ( $B_{MSY}$ ).

A viable and thriving fishing sector requires healthy fish stocks above levels where they can produce the Maximum Sustainable Yield. Therefore, the EU must fully incorporate into the CFP the internationally agreed target of managing stocks above  $B_{MSY}$  no later than 2015, where possible<sup>6</sup>. While the EU implementation of MSY-based management has been slow, a number of stocks, such as North Sea Plaice, Baltic sprat, eastern Baltic cod, mackerel and Norwegian spring-spawning herring, could reach or maintain biomass levels above those able to produce MSY by 2015.

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<sup>2</sup>[http://ec.europa.eu/commission\\_2010-2014/damanaki/headlines/speeches/2011/06/20110622-speech-nofishleftontheplate\\_en.pdf](http://ec.europa.eu/commission_2010-2014/damanaki/headlines/speeches/2011/06/20110622-speech-nofishleftontheplate_en.pdf)

<sup>3</sup>European Commission (2010) A diagnosis of the EU fisheries sector.

<sup>4</sup>European Commission (2008) Reflections on further reform of the Common Fisheries Policy.

<sup>5</sup>For a more detailed explanation of the various terms related to the MSY concept and the OCEAN2012 views, see: [MSY Explained](http://assets.ocean2012.eu/publication_documents/documents/253/original/MSY-explained.pdf) [http://assets.ocean2012.eu/publication\\_documents/documents/253/original/MSY-explained.pdf](http://assets.ocean2012.eu/publication_documents/documents/253/original/MSY-explained.pdf)

<sup>6</sup>The EU is legally bound to restore fish populations to  $B_{MSY}$  under the 1982 United Nations Convention on the Law of the Sea (UNCLOS, Articles 61.3 and 119.1(a)), the 1995 UN Fish Stocks Agreement (UNFSA, Article 5 and Annex II), and the FAO Code of Conduct for Responsible Fisheries (Article 7.2.1). It is also committed to do so “where possible not later than 2015” under Article 31(a) of the 2002 Johannesburg Plan of Implementation of the World Summit on Sustainable Development. The UNFSA establishes that  $F_{MSY}$  is a minimum limit reference point, which means that MSY levels should be considered a limit – not a target.

Once at or above  $B_{MSY}$  levels, stocks should be fished at rates slightly below the corresponding fishing mortality ( $F_{MSY}$ ), to account for scientific uncertainty and fluctuations in stock sizes. Fishing below  $F_{MSY}$  would also bring economic benefits, due to the reduced costs of fishing on abundant stocks. In the Atlantic and North Sea, 28 out of 60 stocks for which sufficient data are available are already exploited at or below  $F_{MSY}$ .

Due to low biomass levels, some stocks will biologically not be able to recover to levels higher than  $B_{MSY}$  by 2015. For these stocks, the fishing pressure needs to be reduced even further and timetables for reaching  $B_{MSY}$  need to be set for each stock, preferably within the framework of a Multiannual Plan. The larger the reduction in fishing pressure, the faster the recovery.

The majority of the stocks fished in EU waters are currently assessed as 'data-poor'. However, there are no biological or scientific reasons for why fishing mortality cannot be set at rates below  $F_{MSY}$  or below a proxy in the case of data-poor stocks, as is done in other countries such as Australia, New Zealand and the United States. In mixed fisheries, fishing limits should be set according to  $F_{MSY}$  for the most vulnerable stock. It is possible to have all stocks above  $B_{MSY}$  at the same time, but not exactly at  $B_{MSY}$  levels.

### **The role of scientific advice**

The reality is that the Council of Fisheries Ministers, in a number of cases, still sets fishing limits above levels advised by scientists. This is one of the principal failings of the current policy. We urge the Fishing Ministers to ensure that the reformed CFP stipulates that once sustainable objectives for abundance levels are set, Council does not have the opportunity to exceed scientific recommendations. This is the case in other jurisdictions, for instance in the United States. While the current Fisheries Council might be committed not to exceed scientific advice, this is by no means certain of future Councils. We urge you to seize this unique opportunity to commit Council to this now.

### **Benefits of stock recovery**

A reformed CFP has the potential to end overfishing while significantly contributing to the EU 2020 Strategy. Healthy fish stocks help prevent biodiversity loss and result in more consistent and higher catches at a lower cost. This would improve employment in fisheries and related industries. Given that fishing activities often take place in remote coastal regions, a more robust fisheries management could transform these communities into centres of sustainable development.

Recent research demonstrates that significant gains can be made by managing fisheries responsibly. Globally, the World Bank and the FAO estimate that the difference between potential and actual net economic benefits from marine fisheries is in the order of \$50 billion per year<sup>7</sup>. Another recent study found that restoring 43 European stocks to  $B_{MSY}$  would generate 3.53 million tonnes of additional landings and could support around 100,000 new jobs<sup>8</sup>.

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<sup>7</sup>The World Bank/FAO (2008) The Sunken Billions – The Economic Justification for Fisheries Reform.

<sup>8</sup>nef (2012) Jobs lost at sea – overfishing and the jobs that never were. Online at:

<http://www.neweconomics.org/node/1968>

## How to go beyond MSY and achieve Good Environmental Status (GES) of marine waters?

MSY is an intermediate objective to achieving healthy stocks and healthy seas. We must go beyond the single species approach of MSY and implement an approach to fisheries management which considers the interactions between fish stocks, other species and associated ecosystems in an integrated manner. This would contribute to the achievement of the objectives of the Marine Strategy Framework Directive (MSFD, Directive 2008/56), namely to reach or maintain Good Environmental Status (GES) in the marine environment by 2020 at the latest.

It will require the CFP to go beyond the objective of the recovery of fish stocks and to contribute, under the MSFD, to a number of management objectives, including the recovery and maintenance of:

- biodiversity;
- fish stocks exhibiting a population age and size distribution that is indicative of a healthy stock;
- a functioning ecosystem and marine food web; and
- seafloor integrity.

In other words, the CFP must incorporate a holistic ecosystem-based approach to fisheries management.

*OCEAN2012 is an alliance of organisations dedicated to transforming European Fisheries Policy to stop overfishing, end destructive fishing practices and deliver fair and equitable use of healthy fish stocks.*

*OCEAN2012 was initiated, and is co-ordinated, by the Pew Environment Group, the conservation arm of The Pew Charitable Trusts, a non-governmental organisation working to end overfishing in the world's oceans.*

*The founding members of OCEAN2012 are the Coalition for Fair Fisheries Arrangements (CFFA), the Fisheries Secretariat (FISH), nef (new economics foundation), the Pew Environment Group and Seas At Risk (SAR).*