

Citizen's Summary

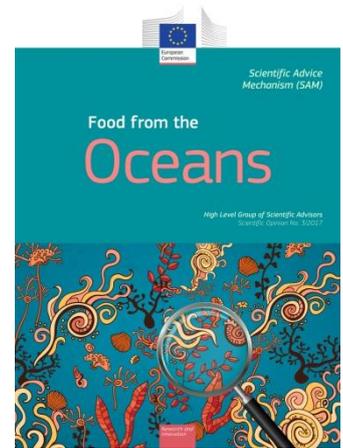
Food from the Oceans

Why do we need more food from the oceans?

Oceans account for almost 50% of new plant and animal biomass produced annually on the planet. However, ocean-derived food provides on average only 2% of the daily per capita calorie intake and 15% of protein intake in the world. This is worrying in view of a global need for 70% more protein by 2050 to satisfy the nutritional demand of a growing population. Ocean-derived food can and should account for a much bigger proportion of overall food consumed. It is not only a source of proteins and healthy fats, but also a unique source of essential micro-nutrients, including long-chain omega-3 fatty acids, iodine, vitamin D and calcium. This makes it not only very healthy in general, but, in some areas of the world, essential to fighting hunger and malnutrition. Furthermore, in the oceans fewer resources are required (energy, nutrients, space, water) to produce a kilogram of usable food than on land. Increasing the proportion of food from the ocean should therefore reduce some of the pressure from agriculture on land-based resources. In this way, the impact of food production on the overall biosphere can be kept in check – more so if combined with a reduction of food waste.

What practical possibilities are there?

According to the best available scientific knowledge, by far the biggest potential for increasing seafood production in the foreseeable future is through the farming of marine species (i.e. mariculture), especially those at lower levels in the ocean food chain which are much more abundant than the top-level predator fish currently accounting for most seafood. A conservative estimate is for an increase of between three and four times the current level in the next twenty years - more if innovative approaches take off and consumer demand for seafood increases. However, at the same time, it is essential for many different socio-economic, ecological and other reasons to continue efforts such as those under the EU Common Fisheries Policy to return traditional fishing to sustainability, reversing the decline in fish stocks. This will also permit increased harvest in the future. For both "culture and capture" (i.e. farming and fishing), the key is to ensure responsible and sustainable practices and move to lower levels in the food chain. However, some of the possibilities for increased harvest are uncertain given gaps in current knowledge. For example, commercial harvesting of zooplankton and mesopelagic fish is considered to be too risky pending improved understanding of ecosystem effects. Technical and economic barriers are holding back full deployment of off-shore mariculture and a potentially environmentally friendly form of mariculture in which waste from one aquatic species serves as food for another.¹ In addition, unfavourable regulatory conditions act as a business disincentive, as does the uncertainty of the market demand and consumer preferences.



¹ Integrated multitrophic aquaculture (IMTA)

Why did the European Commission consult the High Level Group of Scientific Advisors?

Given the broad nature of the question and the potential implications for different areas of policy at both EU level and nationally, the Commission asked its top-most scientific advisors for their view on the question posed. The recommendations in the Opinion should be considered in the wide context of sustainable food and biomass production. They should inform maritime, fisheries and aquaculture policy development and its implementation in the coming years, to increase the quantity of sustainable food coming from the ocean.

On what does SAM base its scientific opinion?

The existing scientific evidence was reviewed and summarised in an accompanying report by working groups of scholars as part of the SAPEA consortium. Other inputs were provided by experts and stakeholders.

What are the main elements of the SAM Scientific Opinion?

The Opinion contains five sets of recommendations. The main ones can be summarised as follows:

- Make "responsible culture and capture of food from the ocean" an explicit EU and global policy priority by integrating EU fisheries and mariculture policies into an overall food production policy framework (which takes into account producer and consumer needs, and the expansion of consumption of species lower in the food chain - e.g. shellfish and algae)
- Enable the full potential of seafood farming (mariculture) by developing a comprehensive EU mariculture policy framework. In so-doing, ensure fair and favourable implementation of relevant legislation such as the 2014 EU Directive on Marine Spatial Planning. Include also mariculture in fisheries partnership agreements between the EU and southern partner countries
- Sustain wild-capture by improving the implementation and enforcement of existing regulations and supporting best practice (e.g. ensuring that fishing by-catch is properly recorded, landed and used)
- Enable these improvements via increased policy cooperation between Member States and EU initiatives such as the Blue Bio-economy Forum
- Future-proof policy and extend knowledge by further developing the Common Fisheries Policy's science advice system, and by facilitating pilot fishing of as-yet unexploited species.

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