Briefing

Fish

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Policy pointers

Restoring overexploited fish stocks to sustainable pre-overexploitation rates is important. National, regional and global processes to determine the 'pre-overexploitation' rate of threatened fish species should start and accordingly set targets at the relevant level.

Technical capacities of developing country governments to improve fishery catch statistics are a prerequisite for mainstreaming fisheries in their national development and adaptation plans should be enhanced.

Targets to devise international frameworks to tackle illegal, unregulated and unreported fishing, eliminating tariff and non-tariff barriers to fish trade barriers and harmful subsidies, and filling the governance gap in the high seas should be prioritised.

Marine ecosystems support a diversity of living resources that sustain the livelihoods of millions of people. Fish trade provides an important source of revenue to service international debt, fund national governments, and pay for food imports for domestic consumption in many developing countries. But world fish stocks are running dangerously low. If current trends continue, we are likely to see 'fishless oceans' by 2050 and millions of livelihoods lost. Therefore, as countries debate and define goals and targets for development after 2015, fisheries must be central to the agenda.

Towards healthy oceans and sustainable fisheries

Global fish stocks are in a dire state. According to the UN Food and Agriculture Organization, 52 per cent of fisheries are fully exploited with no further increases anticipated, 19 per cent are over exploited and 8 per cent depleted, with only a small number having the chance to recover from depletion (1 per cent).[1] The debate around what will happen after the end of the Millennium Development Goals (MDGs) in 2015 is a key moment to draw attention to this situation and bring fisheries to the forefont of the development agenda.

The main drivers of deterioration in the state of global fisheries are factors caused by humans such as overfishing, pollution and habitat destruction, and climate change or variability factors that affect the biology and ecology of fisheries due to physical changes — ocean acidification, for example — or biological and chemical changes.[2] Table 1 summarises the 'current state' and 'desired state' of global fisheries to set out a clear and achievable vision for the post-2015 development era. A desired state means healthy ocean ecosystems and sustainably managed global fisheries.

Framing fisheries in the post-2015 development agenda

It is not yet clear what the post-2015 development agenda may look like — whether it will be a continuation of the MDG goals or a totally new set of targets. For fisheries the post-2015 debate should consider what is best for the sector: its own specific set of goals or the sector's incorporation into other goals and targets, such as achieving food security and alleviating poverty. A siloed approach to sectors and themes — the specific focus — repeats the MDG approach and may not be desirable; the cross-sectoral 'mainstreaming' approach could be more sustainable. Ultimately, whatever the approach, it must result in healthy fish stocks and resilient fisher communities in the long term.

An expert workshop with fisheries scientists and researchers was held in IIED in November 2013 to define priority issues pertaining to framing fisheries in the post-2015 development agenda.

Fisheries must be central to the post-2015 agenda

In the following section we highlight the issues related to fisheries that the intergovernmental process on the post-2015 development framework needs to address and prioritise.

Priority issues

Restoring depleted or overexploited fish stocks. More than one billion people — most of whom are in the developing world — rely on fish as their only or main source of animal protein. In Senegal, for example, the proportion of dietary protein coming from fish is as high as 75 per cent,[4] and in Sierra Leone fish supplies 63 per cent of the total animal protein consumed. Healthy fisheries also directly or indirectly employ millions of young people and women.

Restoring depleted or overexploited fish stocks to 'sustainable' pre-overexploitation rates (which varies depending on species, country or the nature of the aquatic environment) is extremely important. A national, regional and global process to determine the 'pre-overexploitation' rate of particularly threatened and commercially important fish species should start and accordingly set targets at the relevant level.

Improving fishery catch statistics. One of the principal problems underlying poor fisheries management is lack of reliable fishery catch statistics. This leads to poor understanding about the scale of degradation of world fisheries and consequent wrong policy and investment decisions. While catch levels from commercial or industrial fisheries are usually recorded, most of the fishery catch supplied by small-scale or artisanal fisheries is often (if not always) under-reported, undervalued, and difficult to manage because of its dynamic, diverse, and complex nature. As a result, these small-scale and artisanal statistics do not feature in policy dialogues. National governments must build their technical and institutional capacity to record this data effectively.

Mainstreaming fisheries in national development plans. The contribution of fisheries to economic growth and livelihoods is often ignored. A study that analysed poverty reduction strategy papers (PRSPs) produced by 29 sub-Saharan African countries found that the fisheries sector has been a significant motor of economic growth, and yet the sector was effectively mainstreamed by only Ghana, Guinea and Senegal.[5] In addition, with increasing evidence of the impacts of climate change on

Table 1. Current and desired state of global fisheries

Current state	Desired state
The majority (almost 80 per cent) of fish stocks are either depleted or overexploited.	A significant majority of fish stocks have been restored.
Critical habitats such as mangrove trees and coral reefs have been degraded and continue to be degraded at an alarming rate. For example, the Philippines lost 70.4 per cent of its mangrove forest from 1968 to 1990 primarily caused by human activities.	Conversion or degradation rates of critical habitats are reversed and significant regeneration achieved.
Physical, chemical, and biological changes due to climate change have been having significant impacts on fish migration, reproduction and mortality rate.	Actions to limit the magnitude of climate change are taken and the adaptive capacity (human, financial and technical) of vulnerable coastal communities is enhanced.
Only 1.17 per cent of the world oceans or about 2.86 per cent of economic exclusive zones (within national jurisdiction) are designated as marine protected areas.	At least 20–25 per cent of global oceans are protected. This is more than double the size that has been agreed at the CBD COP10 in Nagoya[10]
Generally poor fishery data management system, which leads to lack of sufficient attention to the sector by policymakers.	Improved fishery data management system particularly in developing countries. Consequently the contribution of fisheries (small-scale in particular) to national economies and food security is recognised.
Lack of technical capacities of many governments in the developing world to safeguard their fishery resources (combat illegal fishing) and a governance vacuum in managing the high seas (beyond national jurisdiction).	Enhanced technical capacities of developing countries to tackle illegal fishing, and creation of an equitable global governance structure for the high seas.

Global employment in the fishing industry

Fisheries alone support millions of impoverished coastal communities, who rely on them for both food and employment. Some 43.5 million people — mostly in the global South — are directly employed in fisheries; a figure that rises to nearly 200 million if you also consider those who work in associated processing, marketing, distribution and supply industries.[3]

aquatic ecosystems, the consequences for food security and fisheries livelihoods are likely to be significant, but remain a neglected area in climate adaptation policies.[6] National governments should give utmost priority to an economic appraisal (valuation) of the contribution of fisheries to national economies and livelihoods and to mainstreaming the sector into national accounts and development policies.

Understanding climate change impacts on fisheries. Even though there have been several studies based on projections and simulation models that predict the potential impacts of climate change on fisheries, the understanding of the magnitude and rate of the impact is far from accurate. The effect of climate change on fisheries is also complex as this will depend on geographical location, type of species, the nature of aquatic environment and so on. Enhanced understanding is critical to the ability of national governments and multilateral international organisations to devise effective approaches and new mechanisms to mitigate climate change and to enhance the adaptive capacity of vulnerable fishery-dependent communities.

Eliminating harmful subsidies. Governments and public bodies make direct or indirect financial contributions — subsidies — which provide a private benefit. Global fisheries subsidies are estimated at US$30–34 billion annually, with fishing equipment and fuel subsidies accounting for US$ 20–24 billion[7] of that sum. Subsidies are often provided when costs exceed revenue, making too many fishing activities artificially viable financially, leading to overfishing.

Fish stock depletion globally has been driven in part by high levels of fishing subsidies;[8] a retreat from this approach would make a difference to the conservation and sustainable use of fish stocks.[9] It should be noted, however, that some fishery subsidies provided in the developing world have made positive contributions to the overall wellbeing of fisher communities and poverty alleviation, even if their effect on fish stocks has been negative. Therefore, international frameworks that tackle the wide use of fishing subsidies particularly by high-income countries need to be strengthened. At national level, governments should have clear targets to curb harmful subsidies and eventually eliminate them.

Creating more safe havens for threatened fish species. Currently, only a tiny fraction of the world oceans are designated as marine protected areas (MPAs). While there are many cases where MPAs have had significant positive ecological outcomes, it is also feared that this is done at the cost of fisher communities whose livelihoods are directly or indirectly affected by total or partial closures of some fishing grounds. To avoid such social costs, MPAs should be complemented with economic instruments such as the provision of incentives as compensation or reward to affected fisher or coastal communities.

At the Convention on Biological Diversity COP10 in Nagoya, it was agreed that "by 2020, 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider seascapes".[10] We suggest that by 2030, globally, 20–25 per cent of coastal and marine areas within the national jurisdictions of coastal and island states should be designated as protected areas.

Tackling illegal, unregulated and unreported fishing. Global losses due to illegal, unregulated and unreported fishing, commonly known as 'pirate fishing', are estimated to be between US$9 billion and US$24 billion annually, representing between 11 and 26 million tonnes of fish — between 10 and 22 per cent of total fisheries production. Developing countries are most at risk from illegal fishing, with total estimated catches in West Africa being 40 per cent higher than reported catches.[11] This means a significant loss in government revenue (landing fees, export earnings, taxes, etc.), which would have otherwise been used for development projects.

These losses can be severe, particularly in developing countries that rely heavily on fisheries for domestic consumption and export earnings. Therefore, illegal fishing is not only harmful to fish

stocks but also to national economic development and overall societal wellbeing. An international effort to strengthen the technical capacities of developing country governments to monitor and control fisheries within their national jurisdiction should be enhanced.

Eliminating tariff and non-tariff barriers to fish trade. Fish is one of the most traded food commodities in the world. Nonetheless, a number of tariff and non-tariff barriers still hinder fish trade. Some of these barriers include tariff and non-tariff measures, sanitary requirements, access to ports, regulations of foreign investment, and regulations of trade in fishing services.[12] This has forced many developing countries to lease fishing rights to foreign vessels — European, for example — sometimes preventing them from maximising the benefits from their fisheries resources. An obvious loss would be employment opportunities for many citizens in harvesting, processing and packaging. Eliminating fish tariff and non-tariff barriers can be interpreted as more government revenue and more local employment opportunities. Clear goals and/or targets to curb or completely eliminate fish trade barriers need to be put at the heart of the post-2015 development framework.

Clearly defining use rights of coastal communities. The issue of use or fishing rights is often (if not always) nested under coastal and marine resource use rights. A growing number of different user groups are seeking greater access to coastal resources, leading to overcrowding, ecosystem service degradation and community dissatisfaction. There are user groups with diverse rights such as harvest rights, use rights (recreation, conservation rights and management rights, for instance) with different degrees of exclusivity. This makes fishing and property rights very complex. The situation is further complicated by governments' lack of capacity to enforce property rights[13] and lack of willingness by governments to recognise customary use and access rights. It has long been recognised that lack of clearly defined property rights of coastal ecosystems or fishery resources leads to unsustainable natural resources use such as overfishing.[14] Therefore, the most viable option for national governments would be to recognise customary use/access rights of fisher communities where they exist, or to create a new institutional structure that allocates use rights to fisher communities where traditional or customary rights do not exist.

Effective governance of the high seas. There is a governance gap in marine environments that falls beyond national jurisdiction — usually called the high seas. While these parts of the world oceans were not under threat until recently, technological advancements have enabled many interest groups to go beyond exclusive economic zones and intensify extractive activities, including deep sea fishing and mining. Fishing on the high seas has increased over recent decades as a result of the overfishing of coastal waters and in response to growing market demand for seafood products.[15] It is more important now than ever that national governments start working towards establishing an equitable global oceans governance framework that would fill the governance gap.

Essam Yassin Mohammed

Essam Yassin Mohammed is a researcher in environmental economics with IIED's sustainable markets group.

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Contact
eymohammed@iied.org

80–86 Gray's Inn Road
London, WC1X 8NH
United Kingdom

Tel: +44 (0)20 3463 7399
Fax: +44 (0)20 3514 9055
www.iied.org

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Notes

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