





# Fisheries

Investing in natural capital

# Acknowledgements

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## List of acronyms

BAU	Business-as-usual
CBD	Convention on Biological Diversity
CTQ	Community Transferable Quota
EC	European Commission
EEZ	Exclusive Economic Zone
EFR	Environmental Fiscal Reform
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GFF	Global Fisheries Fund
ITQ	Individual Transferable Quota
IUU	Illegal, unreported and unregulated
MCS	Monitoring, Control and Surveillance
MEY	Maximum economic yield
MPA	Marine Protected Area
MRA	Marine recreational activity
MSY	Maximum sustainable yield
NRC	National Research Council
OECD	Organisation for Economic Co-operation and Development
PPP	Public-private partnership
RFMO	Regional Fisheries Management Organization
SCFO	Standing Committee on Fisheries and Oceans
SSF	Small-scale fisheries
T21	Threshold 21 model
TAC	Total allowable catch
TURFs	Territorial rights in fisheries
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
WTO	World Trade Organization



# Key messages

**1. *The world's marine fisheries are socially and economically vital, providing animal protein and supporting food security to over 1 billion people.***

An estimated half of these people live in close proximity to coral reefs, relying on them not just for fish, but also for livelihoods – from small-scale fishing to tourism. Currently, the world's fisheries deliver annual profits of about US\$ 8 billion to fishing enterprises worldwide and support 170 million jobs, directly and indirectly, providing some US\$ 35 billion in household income a year. When the total direct, indirect and induced economic effects arising from marine fish populations in the world economy are accounted for, the contribution of the sector to global economic output amounts to some US\$ 235 billion per year.

**2. *Global marine fisheries are currently underperforming in both economic and social terms.***

Society at large receives negative US\$ 26 billion a year from fishing, when the total cost of fishing (US\$ 90 billion) and non-fuel subsidies (US\$ 21 billion) are deducted from the total revenues of US\$ 85 billion that fishing generates. This negative US\$ 26 billion corresponds roughly to the estimated US\$ 27 billion in subsidies a year (including US\$ 21 billion in non-fuel subsidies), the latter of which contributes directly to over-fishing and depletion of fish stocks.

**3. *Investing to achieve sustainable levels of fishing will secure a vital stream of income in the long run.***

Greening the sector requires reorienting public spending to strengthen fisheries management, and finance a reduction of excess capacity through de-commissioning vessels and equitably relocating employment in the short-term. Thus, measures to green the sector will contribute to replenishing overfished and depleted fish stocks. A single investment of US\$ 100-300 billion would reduce excessive capacity. In addition, it should result in an increase in fisheries catch from the current 80 million tonnes a year to 90 million tonnes in 2050, despite a drop in the next decade as fish stocks recover. The present value of benefits from greening the fishing sector is about 3 to 5 times the necessary additional costs. In a scenario of larger and

deeper spending of 0.1 to 0.16 per cent of GDP over the period 2010-2050, to reduce the vessel fleet, relocate employment and better manage stocks to increase catch in the medium and longer term, 27 to 59 per cent higher employment would be achieved, relative to the baseline by 2050. In this same scenario, around 70 per cent of the amount of fish resources in 1970 would be available by 2050 (between 50 million tonnes and 90 million tonnes per year), against a mere 30 per cent under a business-as-usual (BAU) scenario, where no additional stock management activities are assumed.

**4. Greening the fisheries sector would increase resource rent from global fisheries dramatically.** Results outlined in this chapter indicate that greening world fisheries could increase resource rents from negative US\$ 26 to positive US\$ 45 billion a year. In such a scenario, the total value added to the global economy from fishing is estimated at US\$ 67 billion a year. Even without accounting for the potential boost to recreational fisheries, multiplier and non-market values that are likely to be realised, the potential benefits of greening fisheries are at least four times the cost of required investment.

**5. A number of management tools and funding sources are available that can be used to move the world's fisheries sector from its current underperforming state to a green sector that delivers higher benefits.** Aside from removing environmentally harmful subsidies, a range of additional policy and regulatory measures can be adopted to restore the global potential of fisheries. Economic studies generally demonstrate that marine protected areas (MPA), for example, can be beneficial under specific conditions as an investment in the reproductive capacity of fish stocks. Currently, MPAs comprise less than 1 per cent of the world's oceans. To fully utilise MPAs as a management tool, the 2002 World Summit on Sustainable Development set a target to establish a global network of MPAs covering 10-30 per cent of marine habitats by 2012. This deadline was extended to 2020 and the target lowered to 10 per cent at the CBD meeting in Nagoya, Japan in late 2010.

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