



The World Bank & the Ocean

A Healthy & Productive Ocean to Help Reduce Poverty

Why oceans matter to the World Bank

NUTRITION

Seafood provides 16% of the world's animal protein

1 billion people in developing countries rely on seafood for their primary source of protein

ECONOMIES

61% of world GNP comes from within 100 km of coast

Tourism is in the top five industries in most island states

Seafood is the most traded agricul. product from developing nations

LIVELIHOODS

97% of fisheries & aquaculture livelihoods occur in developing countries

Resilience to Climate Change Impacts

Habitats protect coastal communities and cities from storms, floods and sea level rise

We cannot end extreme poverty without healthy oceans

West Africa fisheries

- Over 1.6 m tons/yr fish
- Over 3.2 m livelihoods
- Almost 10% GDP in Guinea-Bissau & Sierra Leone
- Over 40% animal protein intake for Gambia, Ghana, Guinea, Senegal & Sierra Leone

Pacific Islands Tuna

- Supplies 1/3rd of the world's tuna
- Worth over \$4 bn/yr
- Over 25% of annual public revenues for a number of Pacific Island countries

Coral Triangle

- 76% of all known coral species
- More than 120 million people in the region depend directly on marine resources for income, livelihoods and food
- Reef-related fisheries in Philippines and Indonesia alone valued at around \$2.2 bn/yr

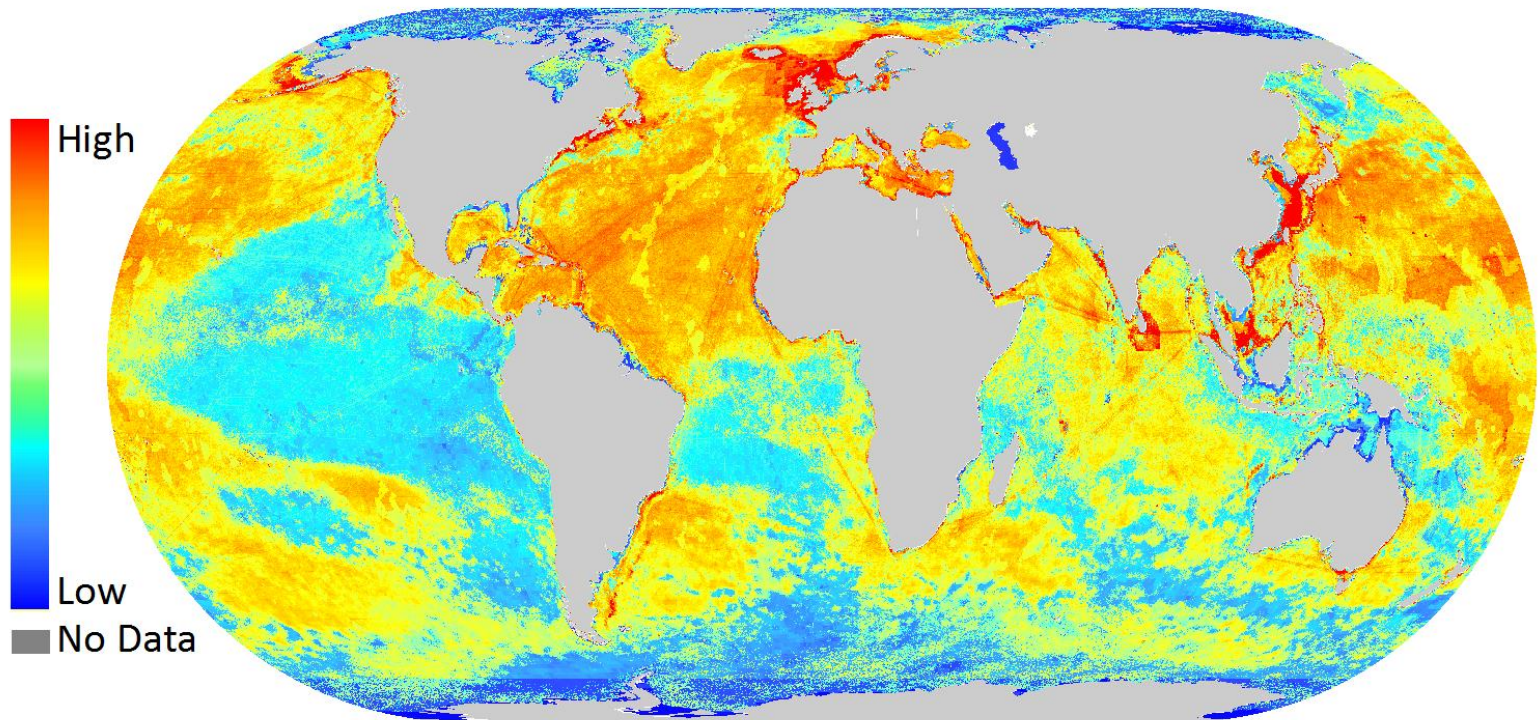
64% of the total territory of our 54 low income countries

is coastal/island client

Countries
incl. ocean area

- Low income (GNI/cap < \$1,035)
- Lower-Middle Income (GNI/cap \$1,036 - \$4,085)
- Upper-Middle Income (GNI/cap \$4,086 - \$12,615)
- High Income (GNI/cap > \$12,616)

Human impact on the ocean is growing ...



Map of Human Impact on Ocean Ecosystems

Source: Conservation International, from Halpern et al. 2008

Map shows areas where pressure on the ocean is greatest: from destructive fishing, pollution, climate change

...representing serious threats to development

Overfishing

- **30%** of the world's fisheries overexploited, depleted or recovering from depletion
- **\$50 to 100 bn** lost economic potential every year from ocean fisheries mismanagement

Sources: *FAO, 2012; World Bank & FAO, 2009*

Habitat Loss

- **60%** of world's major marine ecosystems are degraded or being used unsustainably
- Est. **30 - 35%** of sea grasses, mangroves and coral reefs destroyed

Source: *UNEP, 2012*

Pollution

- **80%** of ocean pollution comes from land: mostly from agriculture run-off from fertilizers and pesticides, waste-water and plastics
- Only **10%** of wastewater in developing countries is treated
- Result: **405** ocean dead zones, covering 95,000 sq. miles

Sources: *UNEP, 2012; Corcoran et al, 2010; Diaz & Rosenberg, 2008*



Healthy oceans are vital to fighting climate change



The ocean absorbs 25% of the CO₂ added to Earth's atmosphere by burning fossil fuels

'Blue carbon' sinks such as mangrove forests, sea grass beds and other vegetated ocean habitats **can sequester up to five times the amounts of carbon** absorbed by tropical forests.

Ocean change is climate change

Ocean warming...

- 0.6°C increase in avg ocean temperature since 1950
- Coral reef habitats will almost certainly not survive a 4°C world

Source: Hoegh-Guldberg, 2013

And acidification.

- Increased uptake of atmospheric CO₂ has decreased ocean pH from 8.2 to 8.1; at current rate a further decrease to 7.7 or 7.8 projected by 2100
- This is fundamentally changing the chemistry of the ocean

Source: UNEP, 2012

Ocean Change will further Climate Change

- At current rate, most coastal blue carbon sinks will be lost in 20 years, leading to a loss of annual carbon binding capacity equivalent to 4 - 8% of total anthro. input
- As a result, total C emissions would need to be reduced by an additional 4 - 8% by 2030 to retain status quo, or 10% by 2050

Source: Nellemann et al., 2009



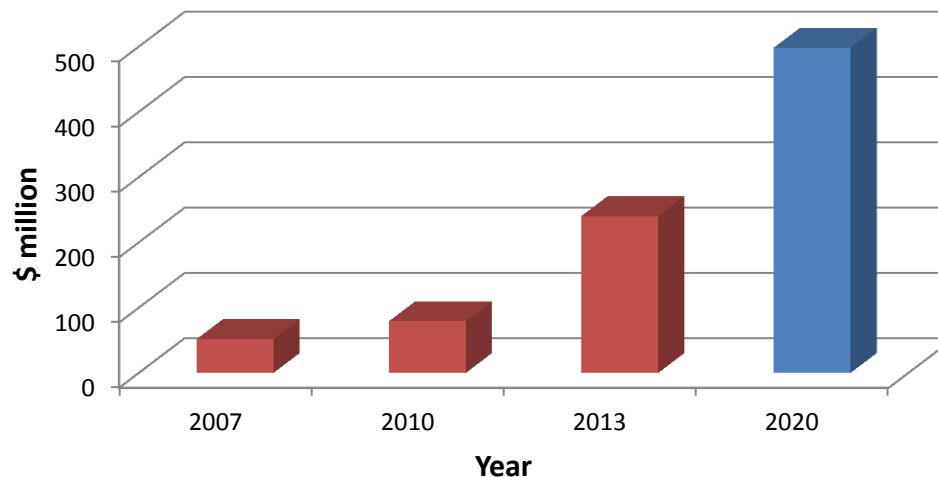
Countries have a lot to gain...

Reforming and strengthening institutions can lead to more sustainable and productive ocean use.

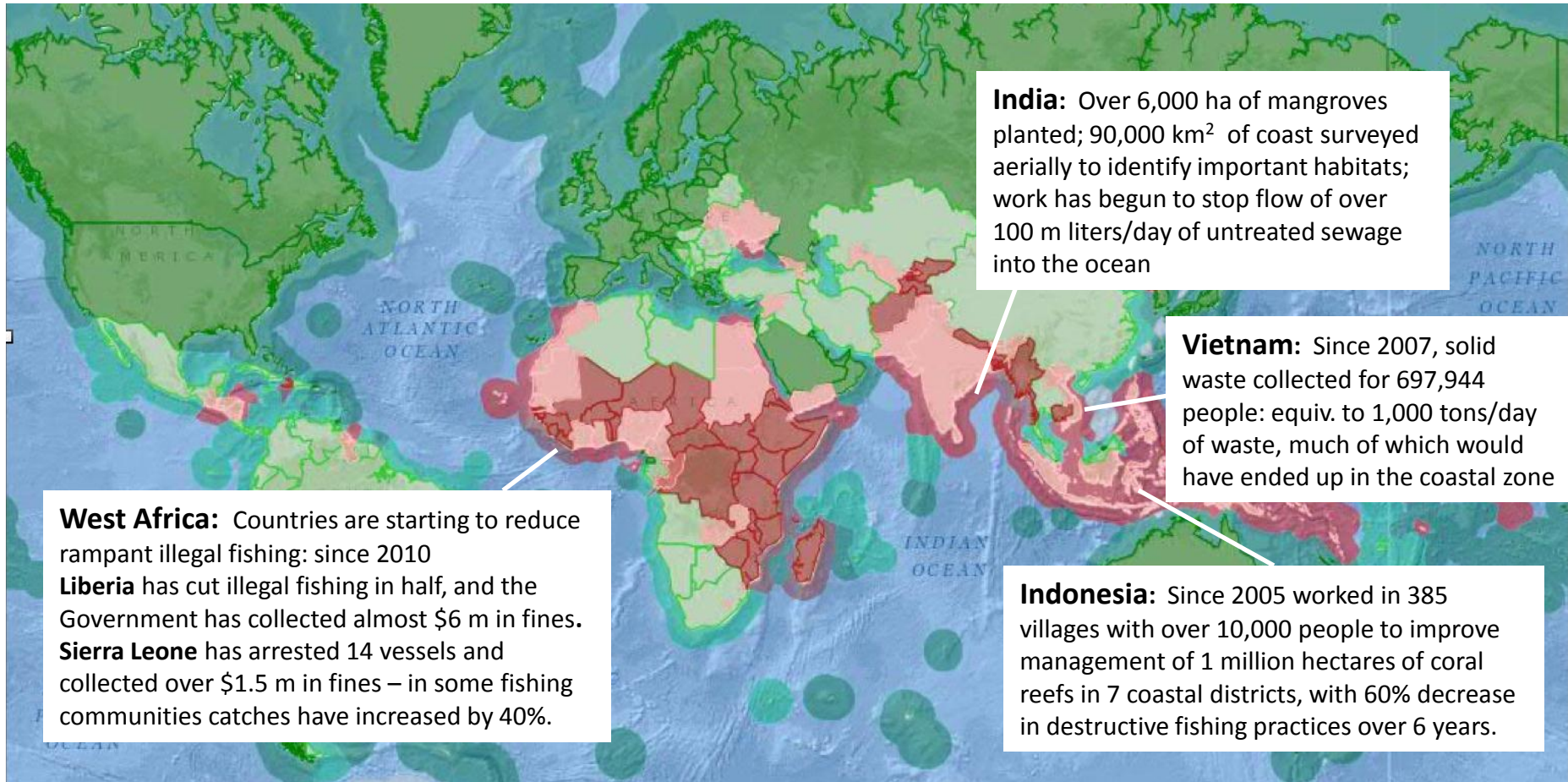
A global governance framework – UNCLOS – is in place. The problem is lack of implementation. This is where the opportunity is.

For example: Pacific Island Countries could gain an additional \$250 m/yr with stronger and more efficient limits on tuna catch – we are currently working with them to help.

Growth in Pacific Island tuna access revenues (\$million)

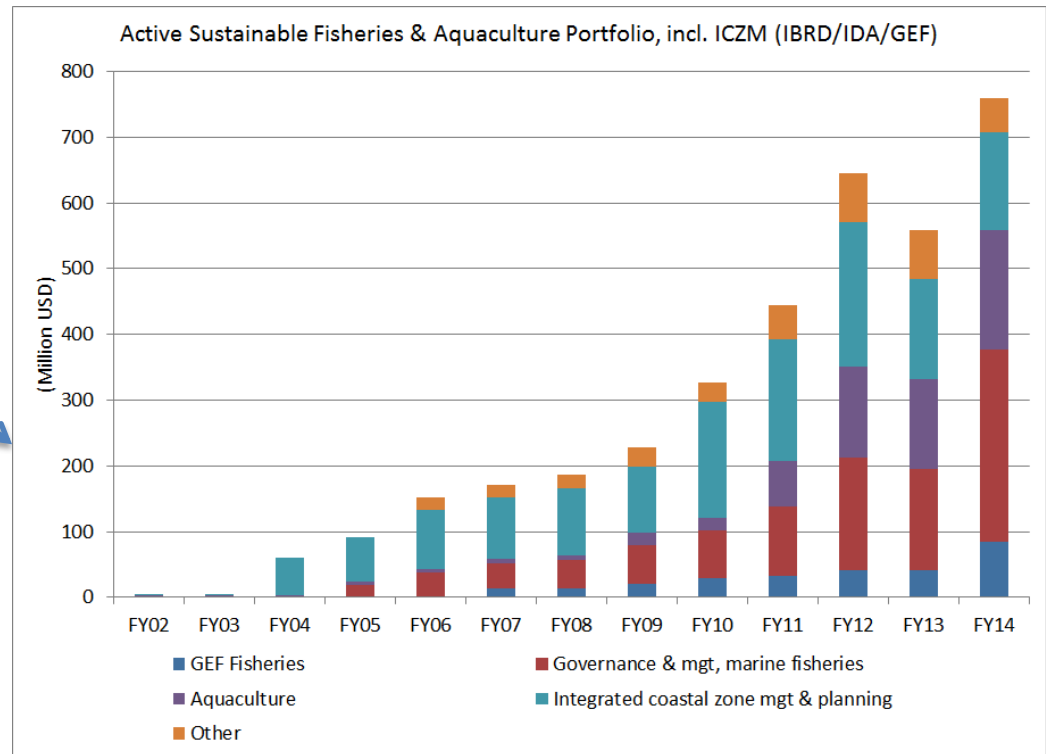
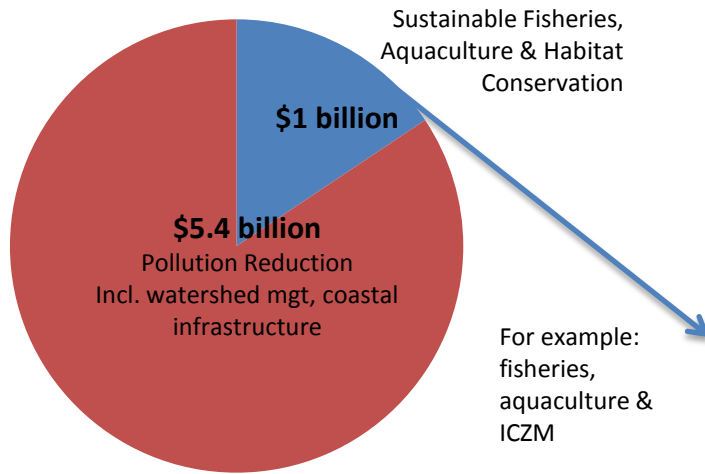


We are working globally to rebuild ocean health



And client demand is growing...

Since 2005 the Bank has grown to become one of the biggest public investors in a healthy ocean, with an active portfolio of \$6.4 billion



Scaling up: the Global Partnership for Oceans



- We are making a difference – but it's not enough.
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- We estimate that investment of around \$100 bn will be needed by 2030 just in aquaculture; and at least another \$500 bn in pollution reduction is needed now
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- No one organization can do this alone – we need greater speed and scale to solve these problems – this is a global challenge demanding global collaboration
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- This is why we launched the GPO at Rio+20 in June 2012 – as a platform for much more finance and collaboration.

10-year objectives

- **Help rebuild the world's overfished stocks, and increase sustainable aquaculture production**
- **Cut current rates of ocean habitat loss in half**
- **Significantly reduce pollution into the oceans**



A coalition of 144 partners and growing

