

Money Grows on Trees And Wealth Swims in the Seas

Pavan Sukhdev

McCluskey Fellow, 2011, Yale University

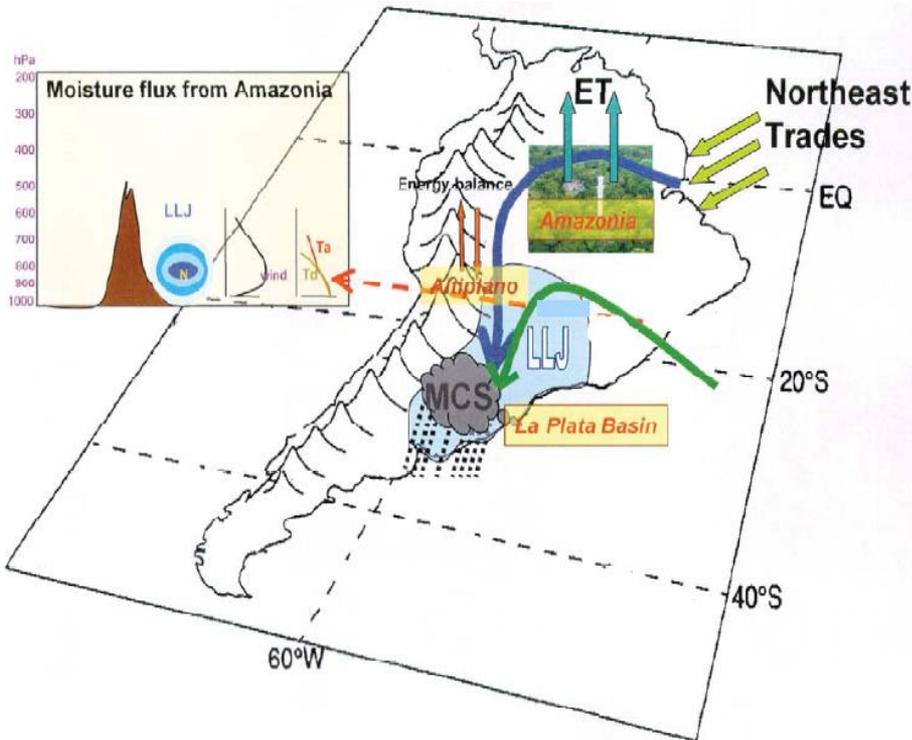
Founder-CEO, GIST Advisory



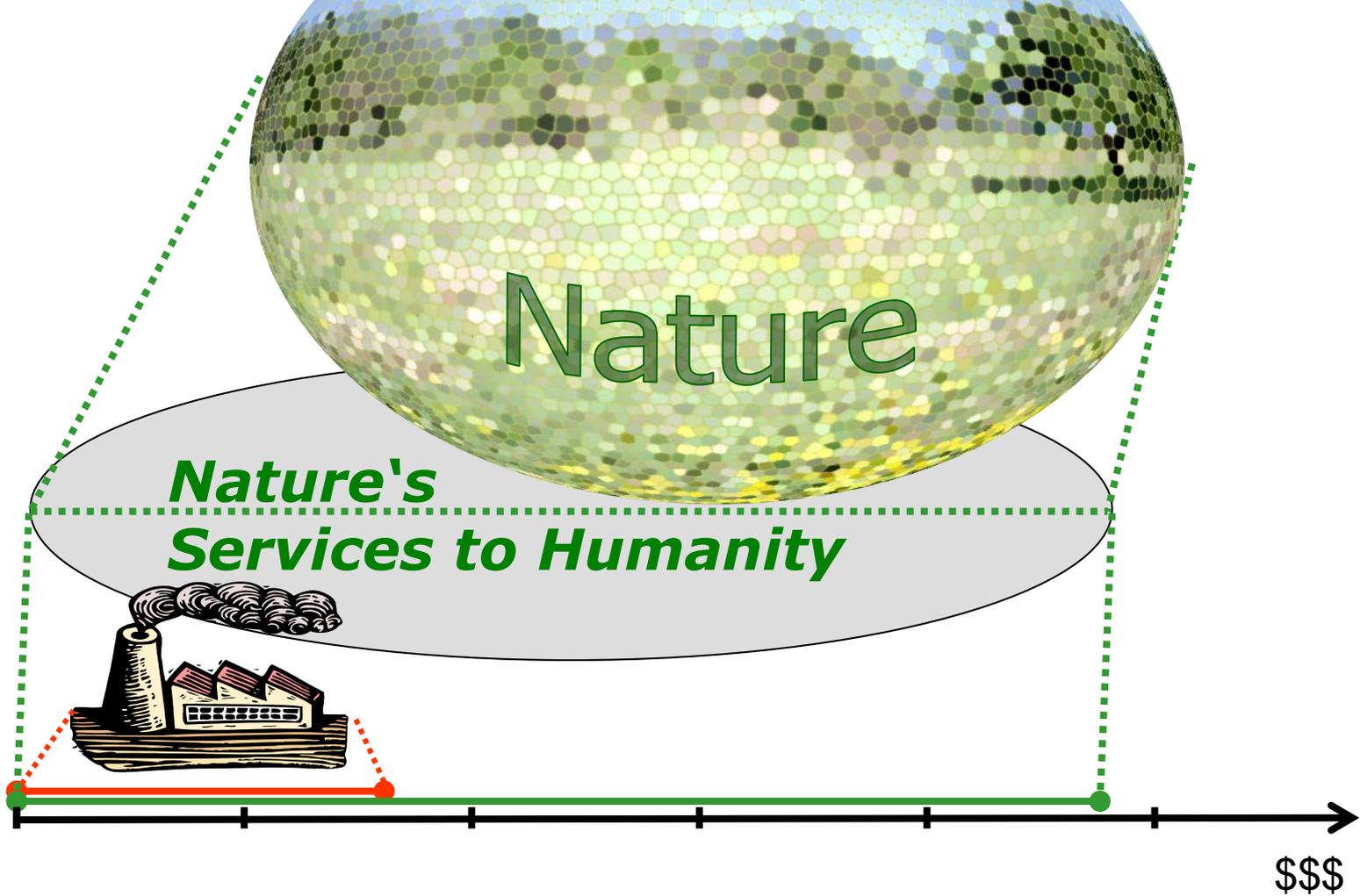
The Economics of Ecosystems and Biodiversity



The Economic Invisibility of Nature



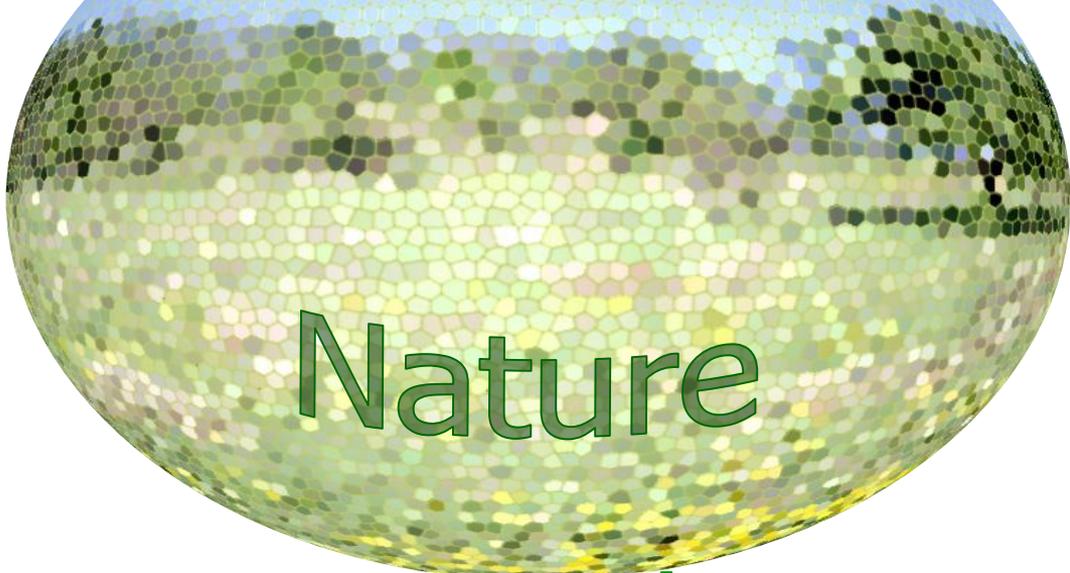
What does the Granary of Latin America pay for its freshwater?



1/19/2016

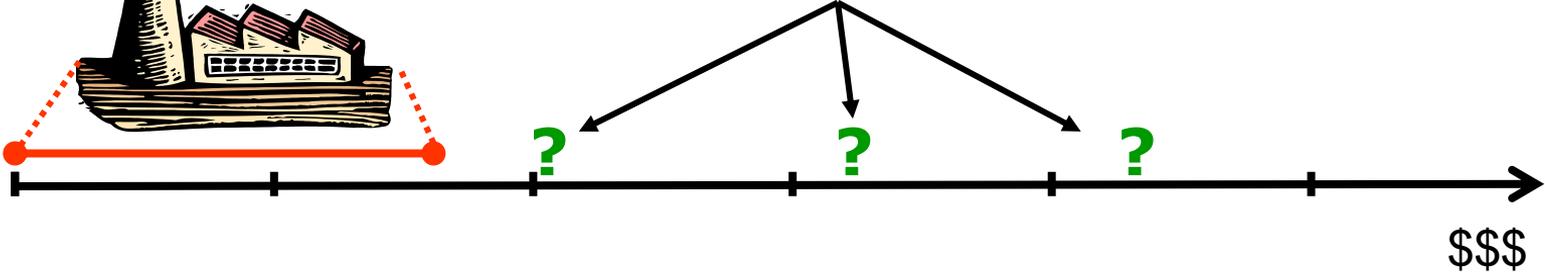
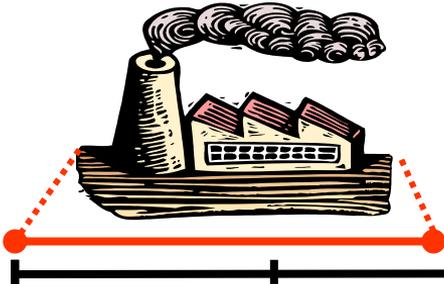
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Photo: C.Neßhöver, UFZ



Nature

**No Value =
No Counterweight !**



1/19/2016

5

Photo: C.Neßhöver, UFZ

**How bad will
things get?**

1970



PBL Netherlands Environmental
Assessment Agency



Mean Species Abundance (%)



0 20 40 60 80 100

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

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2000



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Assessment Agency



Mean Species Abundance (%)



0 20 40 60 80 100

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
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2010



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Mean Species Abundance (%)



0 20 40 60 80 100

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
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2030



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Assessment Agency



Mean Species Abundance (%)



0 20 40 60 80 100

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2050



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Assessment Agency



Mean Species Abundance (%)



0 20 40 60 80 100

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

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**Why is this
happening?**

**How can we
stop this?**

Example : Kampala Wetland

Nakivubo swamp provides natural water purification and sewage treatment

**Nature Services
of swamp equal
USD 1 million -
1.75 million / year**



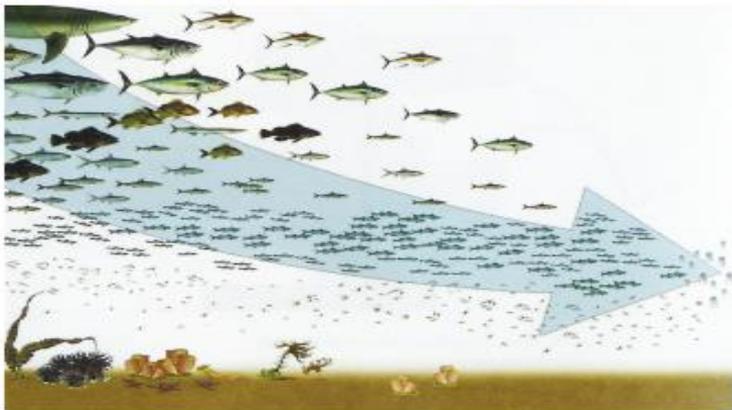
(Nakivubo now part of
city' s greenbelt zone)

**Can we make
sea fish last?**



GLOBAL LOSS OF FISHERIES IS THERE A SOLUTION?

Open access & perverse
subsidies drive fisheries losses



We are fishing down the food web to
ever smaller species

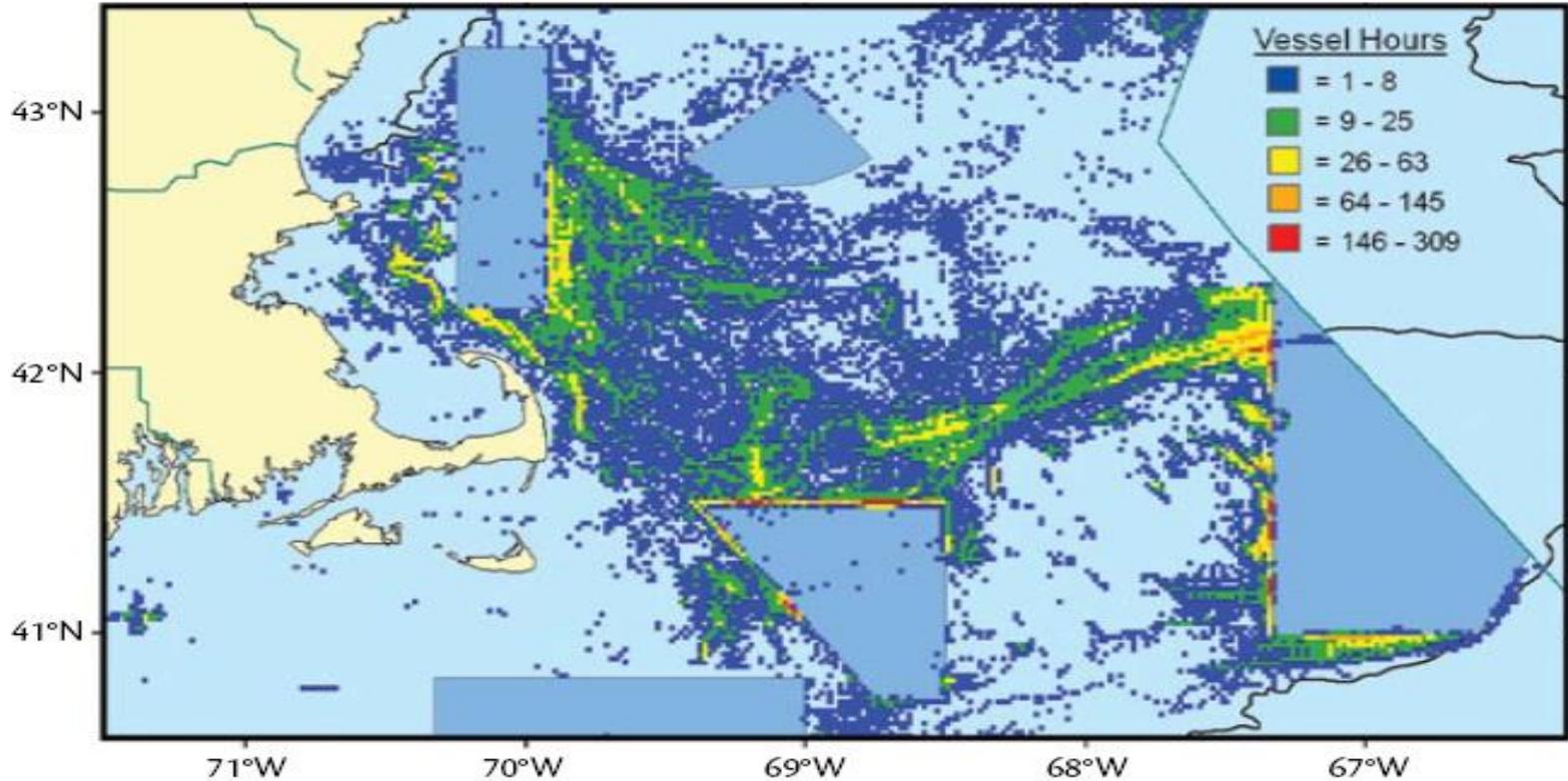
And do reserves work ?



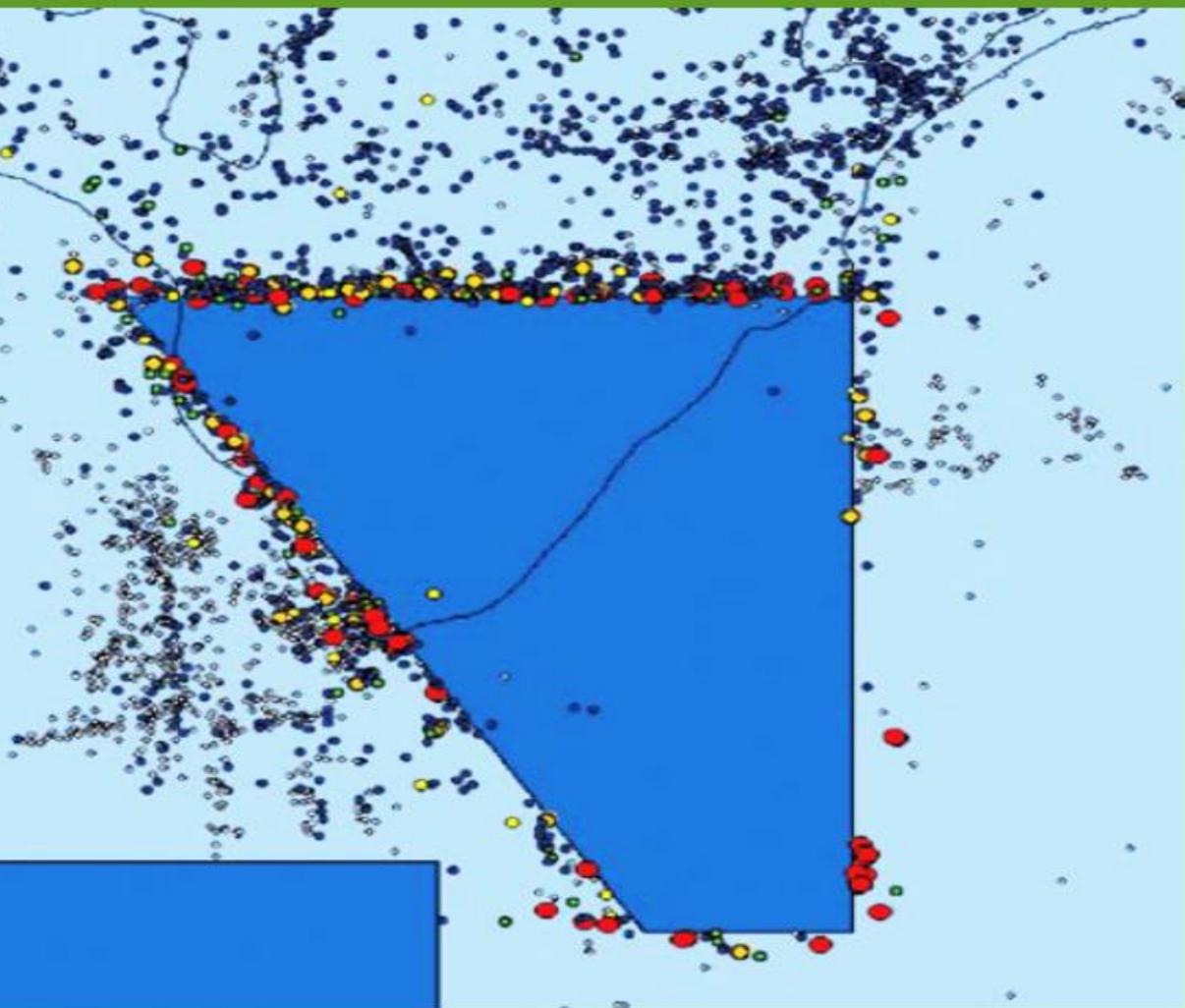
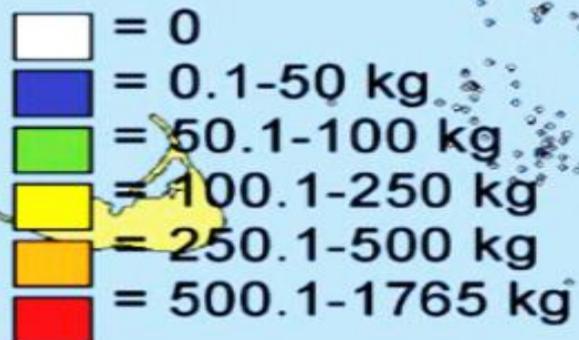
Reserves all over the world show
large increases in spawning stocks



Distribution of fishing effort around Georges Bank closed areas

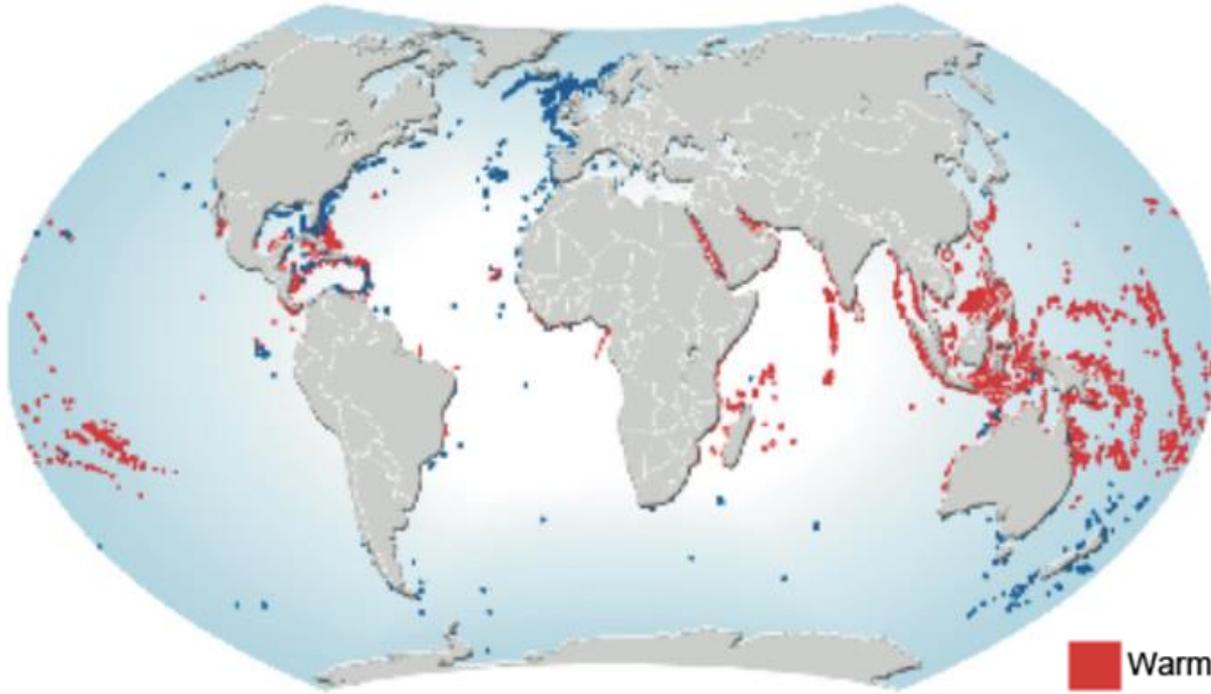


Haddock catch



Source: Fogarty et al. (2007)

And what's too late to stop?



 Warm water
 Cold water

We target:

**450 ppm CO₂
(not 350 ppm)**

**2 °C increase
(not 1.5 °C)**

Recognize & value “Natural Capital”



Thank You

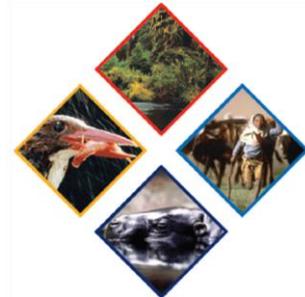


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