

# ***Pelagic ecosystem service assessments can reveal an underappreciated source of ocean wealth***

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Lida Teneva, Conservation International

# Value of the ocean

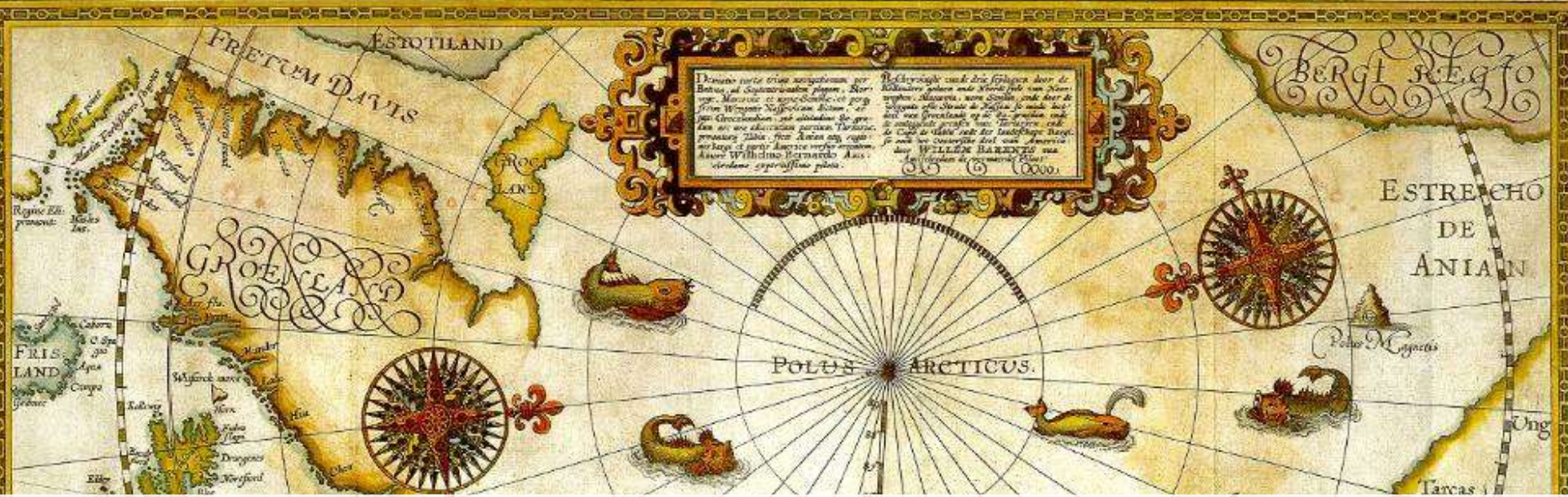
Direct outputs from the ocean:	\$6.9 T
Trade and transport:	\$5.2 T
Adjacent assets:	\$12.1 T

<b>TOTAL:</b>	<b>\$24.2 T</b>
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WWF, Reviving the Ocean Economy, 2015.



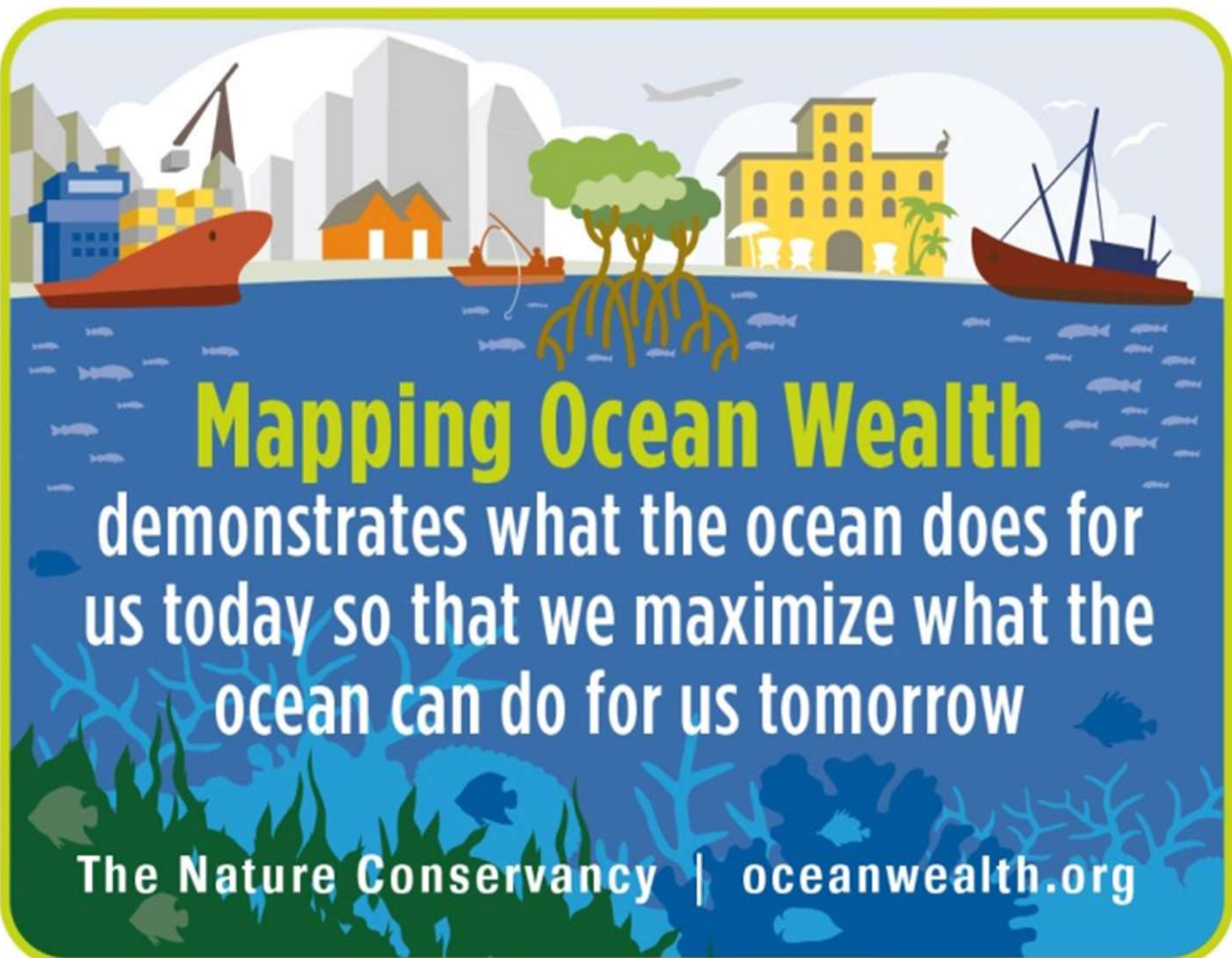




WHERE IS THE OCEAN'S VALUE FOUND?







# Mapping Ocean Wealth

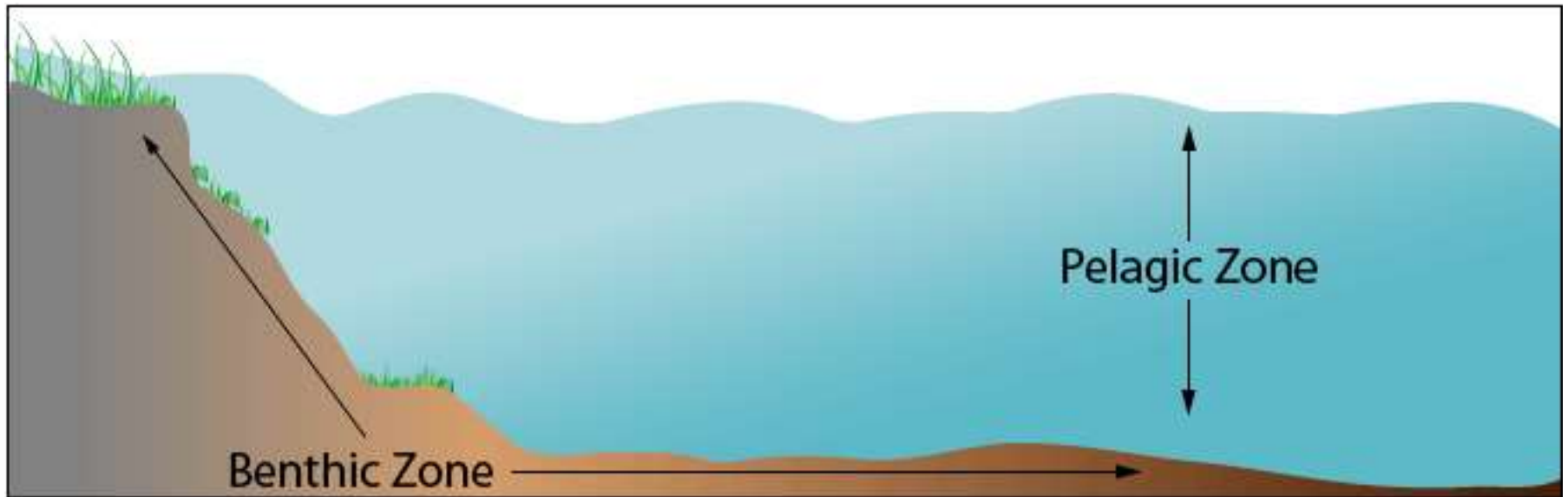
demonstrates what the ocean does for us today so that we maximize what the ocean can do for us tomorrow

The Nature Conservancy | [oceanwealth.org](http://oceanwealth.org)



<http://oceanwealth.org/atlas>  
[maps.oceanwealth.org](http://maps.oceanwealth.org)

# What is pelagic





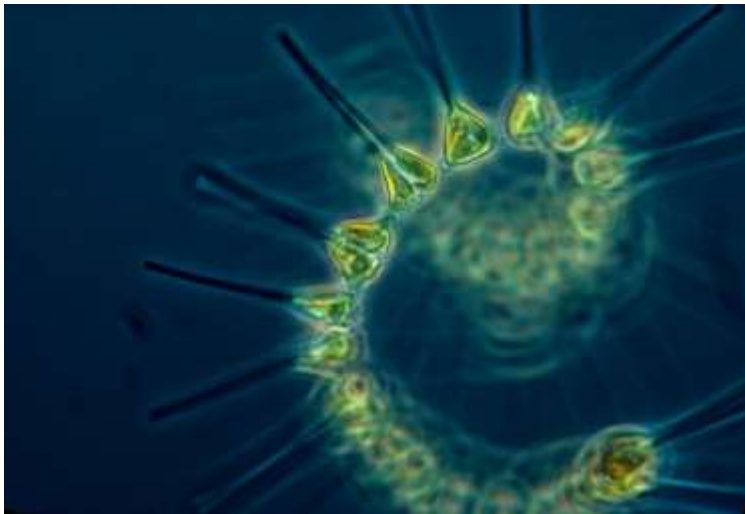
## PROVISIONING



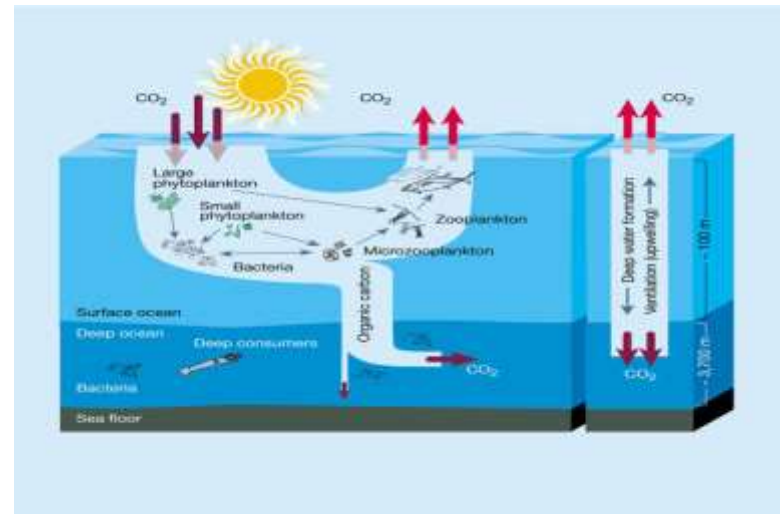
## CULTURAL



## SUPPORTING



## REGULATING





# HUMAN ACTIVITY & BLUE ECONOMY SOARING





# Threats to services

- Putting too much in:
  - Nutrient, plastic, toxic waste, carbon pollution
- Taking too much out:
  - Overfishing, habitat destruction

# Challenges: Limited Appreciation



*"I don't know why I don't care about the bottom  
of the ocean, but I don't."*

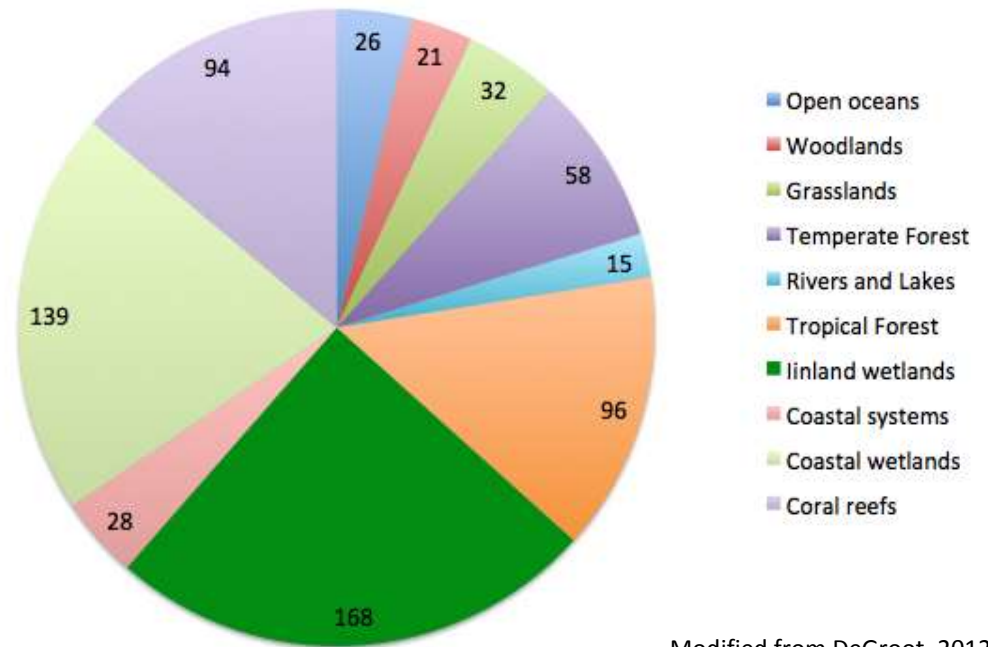


# Challenges: Limited Data

70% area

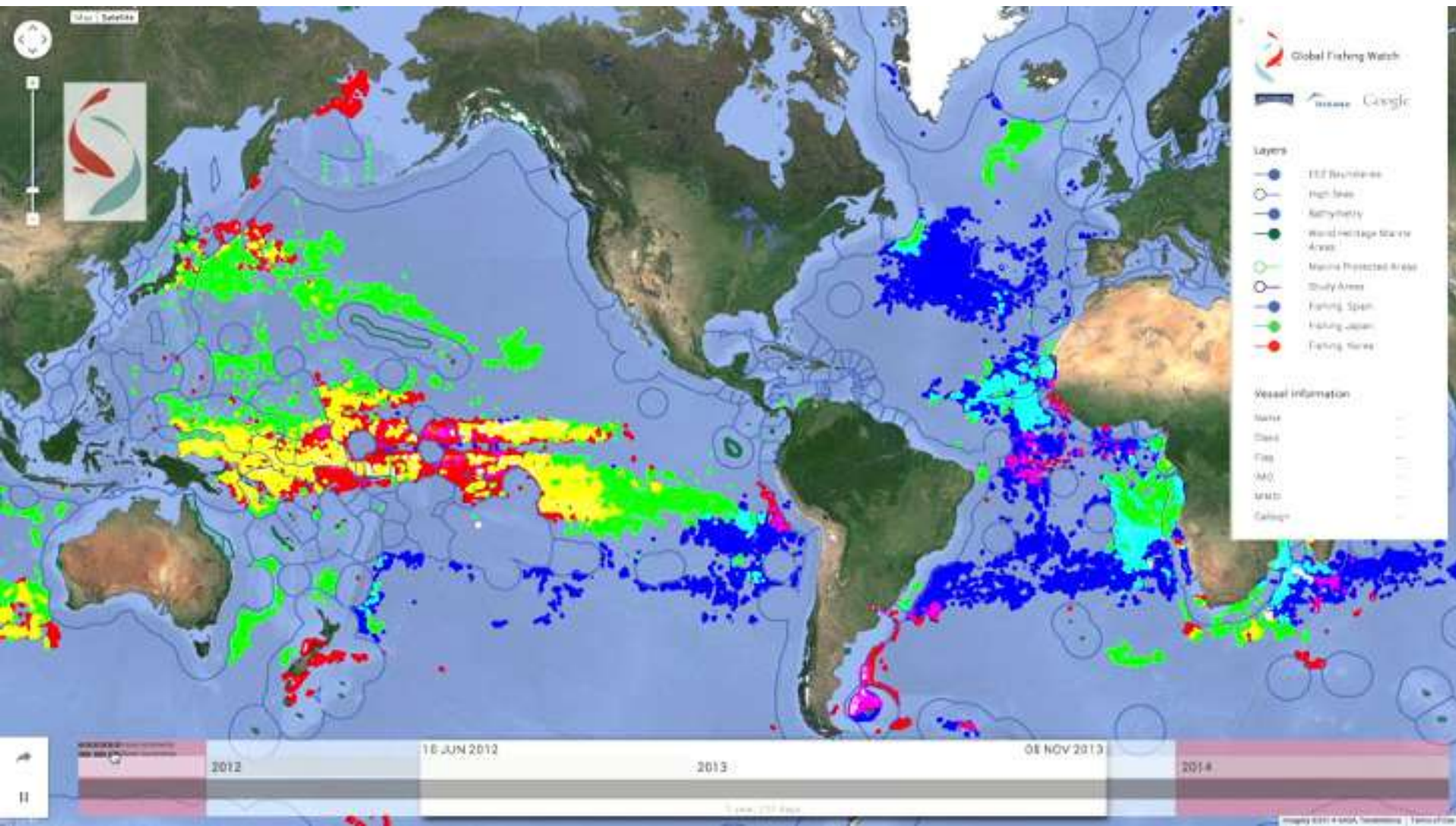


4% research



Modified from DeGroot, 2012

# Challenges: limited tools, mismatch between scales







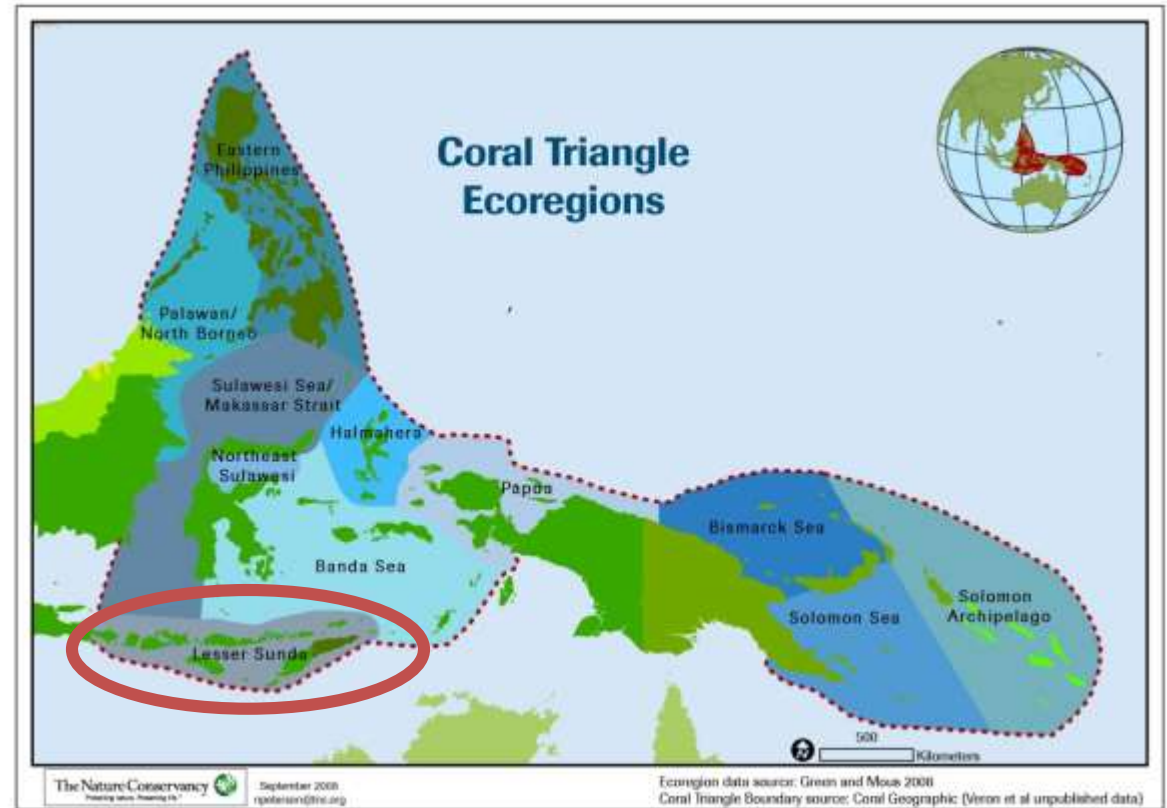
**SUPPLY**



**SERVICE**



**VALUE**



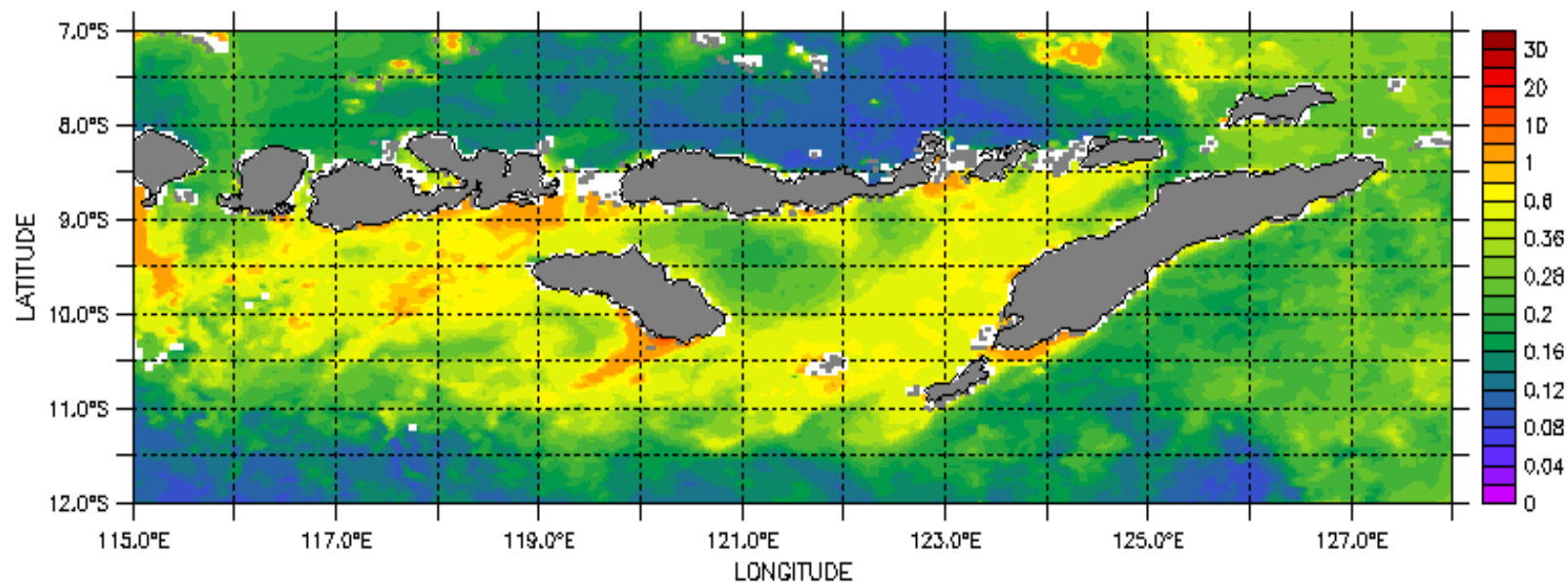
NOAA OceanWatch – Central Pacific L.A.S.

DOOS URL: <http://gaucha.pic.govt8080/thredds/data/aqua/>

TIME : 01-SEP-2013 00

DATA SET: monthly

MODIS Aqua – Monthly Ocean Color



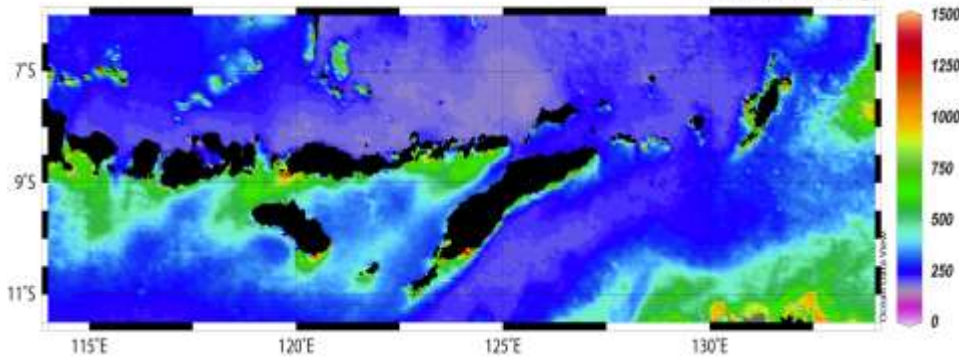
Chlorophyll-a Concentration (Milligrams per cubic meter)





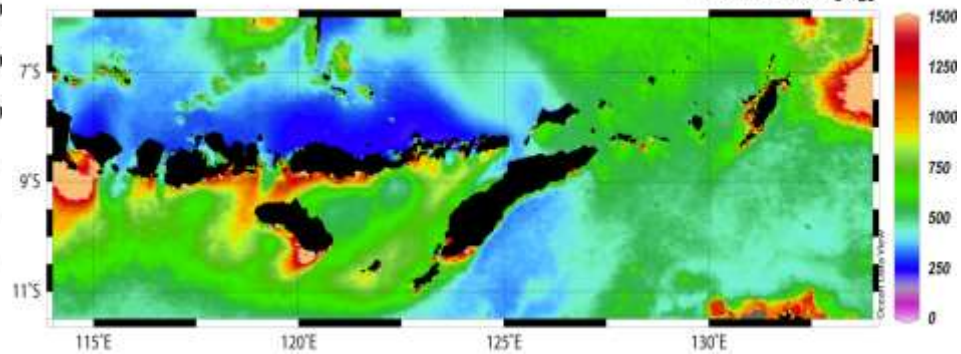
May

Fish Biomass [Kg]



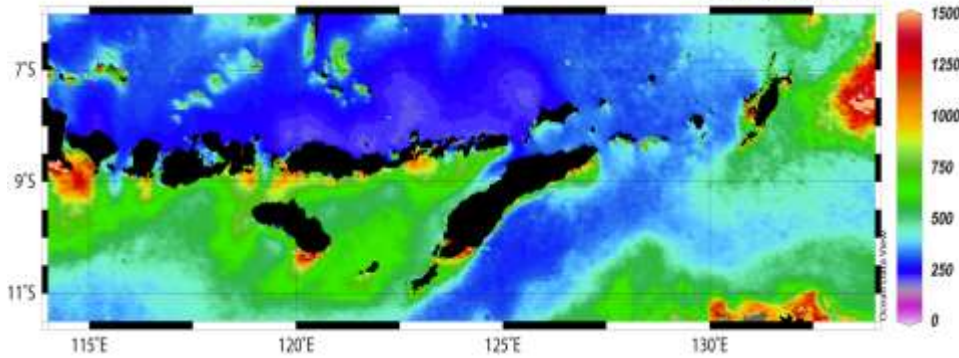
Aug

Fish Biomass [Kg]



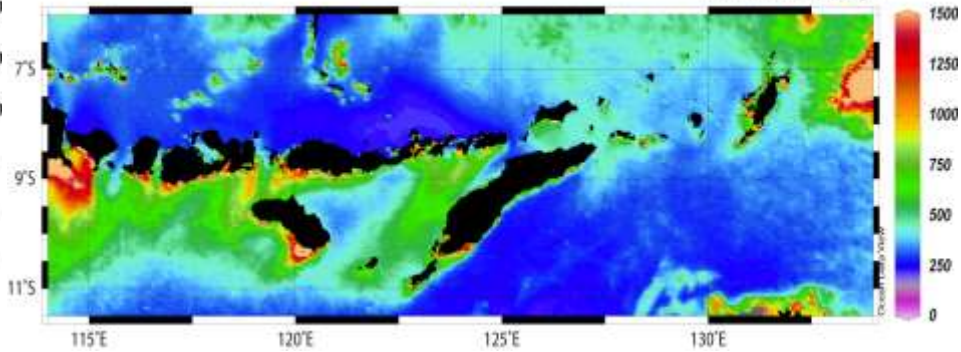
Jun

Fish Biomass [Kg]



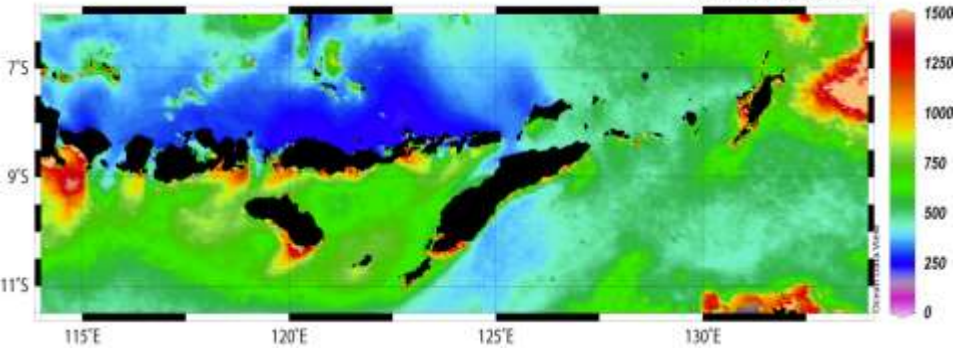
Sep

Fish Biomass [Kg]



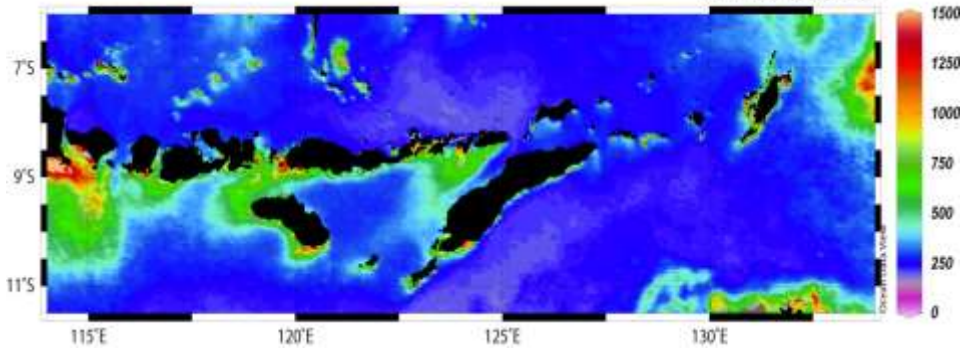
Jul

Fish Biomass [Kg]



Oct

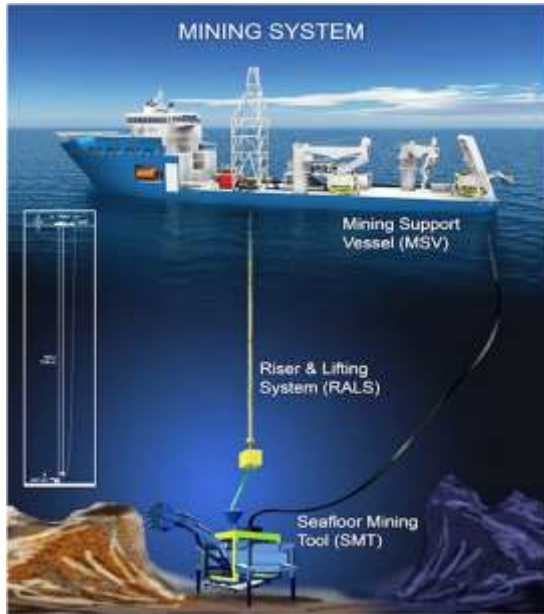
Fish Biomass [Kg]



Mean of Fish Biomass Distribution 2004-2014



# Governance examples



Mining System







## HUMAN ACTIVITY & BLUE ECONOMY SOARING

*We need to ensure that conservation has a voice in ocean and coastal development to place oceans on a sustainable path.*





"The open ocean is at the top of my environmental concerns, and it should be for you, too!"



Thank you  
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