

Presentation given at the Marine Katoomba meeting

Katoomba XVI:
**Building a Blueprint to Harness New Investment for the Protection
of Marine and Coastal Ecosystem Services**

February 9-10, 2010
Moore Foundation, Palo Alto, CA

Hosted by the Katoomba Group



This workshop was generously supported by the American people through the United States Agency for International Development (USAID), under the terms of the TransLinks Cooperative Agreement No.EPP-A-00-06-00014-00 to the Wildlife Conservation Society (WCS). TransLinks is a partnership of WCS, The Earth Institute, Enterprise Works/VITA, Forest Trends and the Land Tenure Center. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.



Towards a legal framework to
protect the flow of environmental
services in coastal ecosystems.

Andrea Sáenz-Arroyo
Director of Science

www.cobi.org.mx







1. Parque Nacional Puerto Morelos



2. Reserva de la Biosfera Sian Ka'an



3. Reserva de la Biosfera Banco Chinchorro



How can we make marine conservation a profitable business for coastal communities?

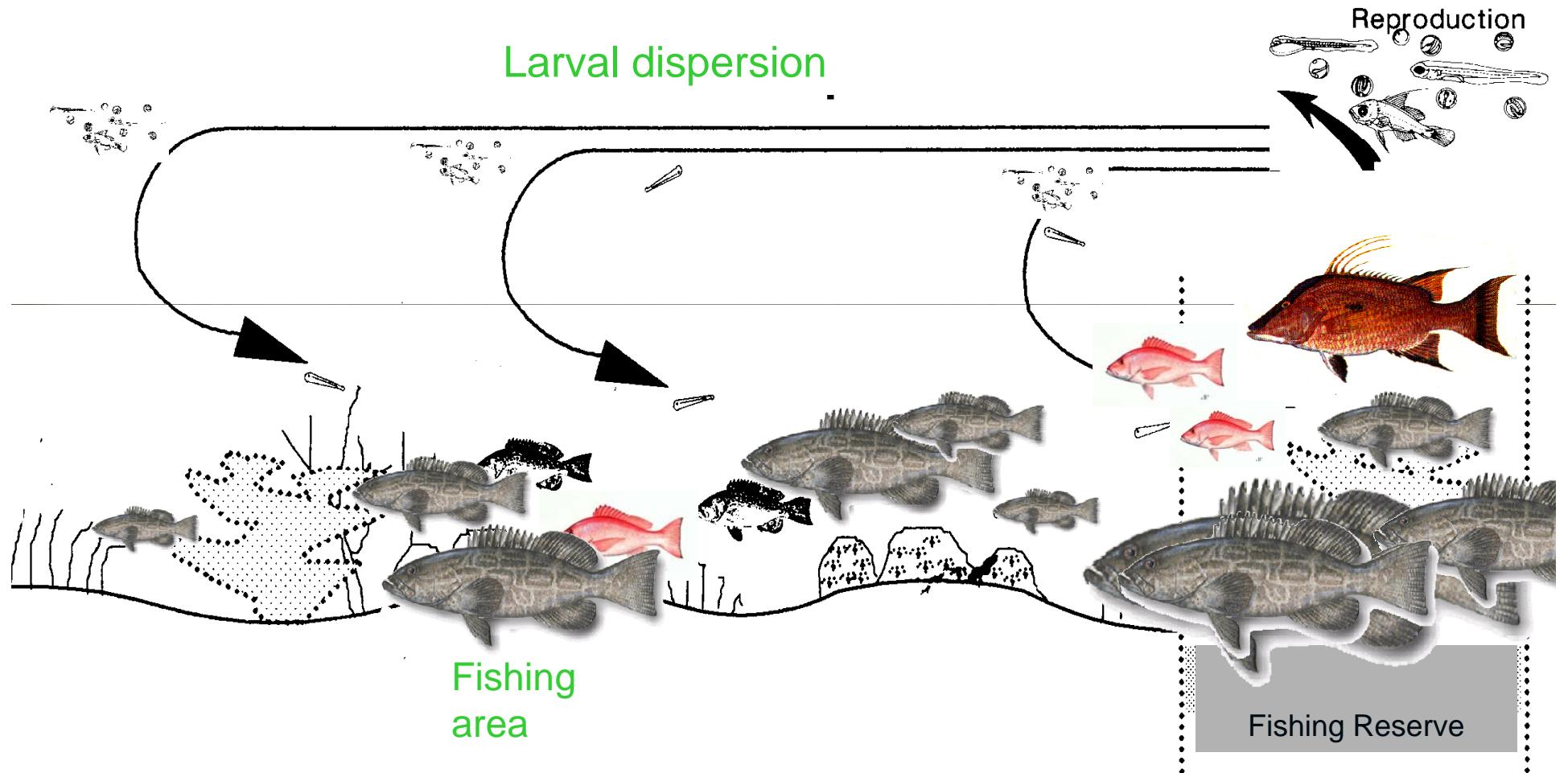


Surplus

Reproduction and dispersion

Larval dispersion

Reproduction



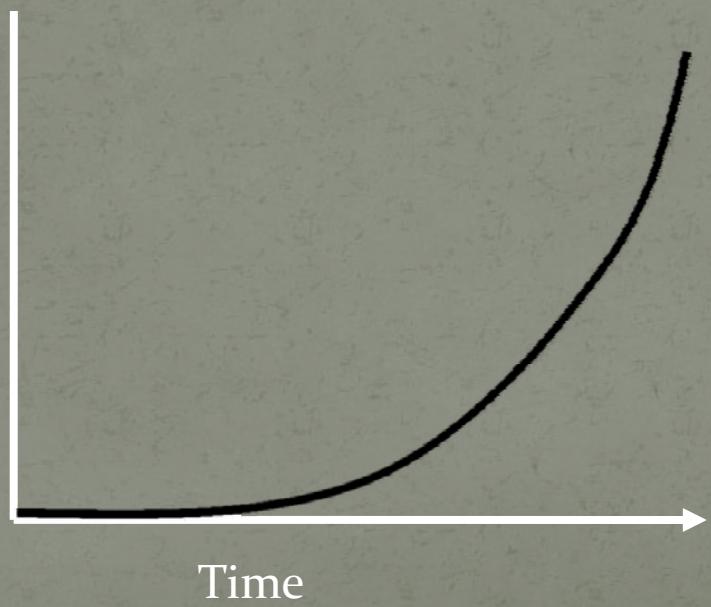
Colonization and growth

Abundance

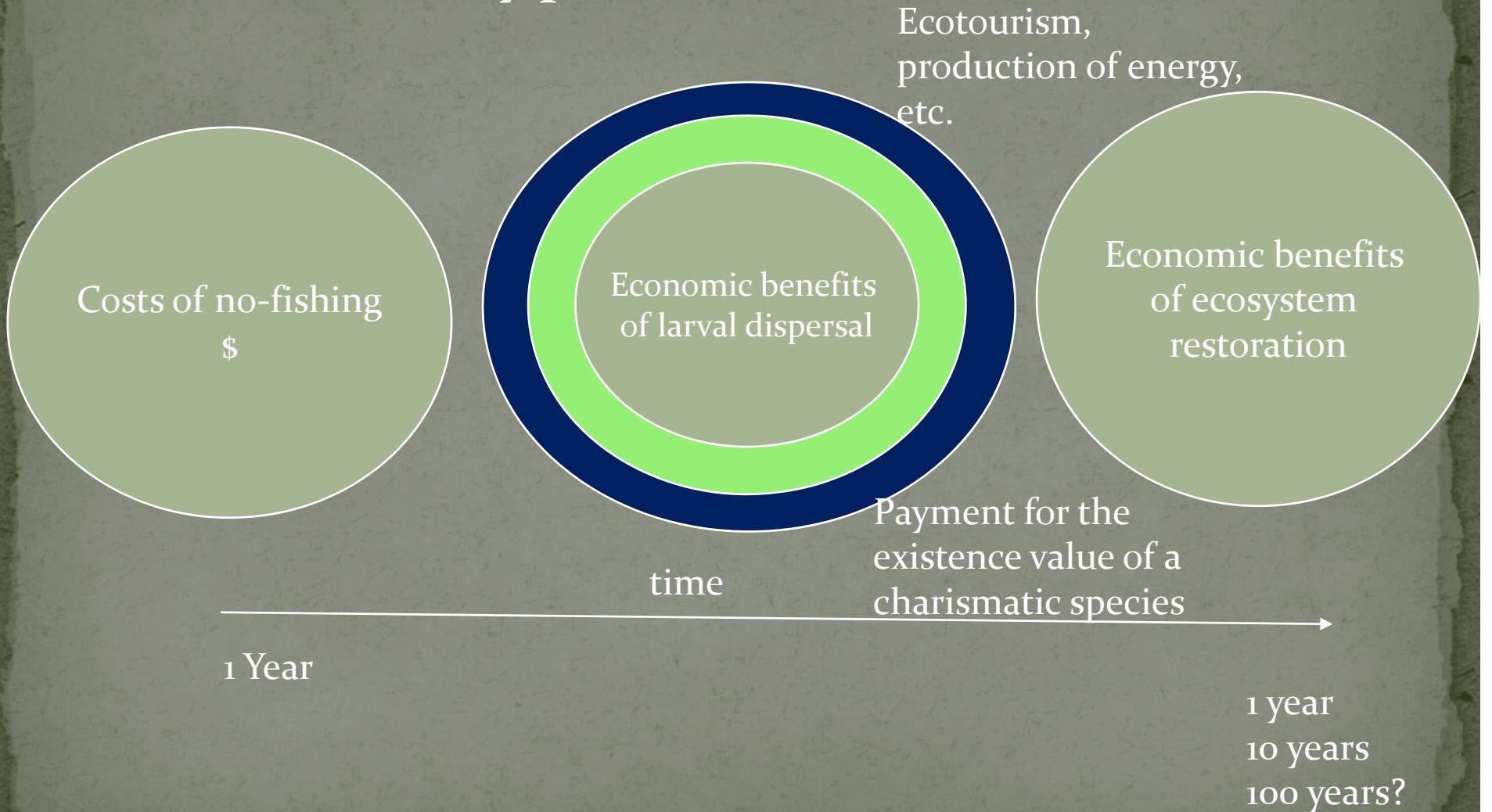
Diversity

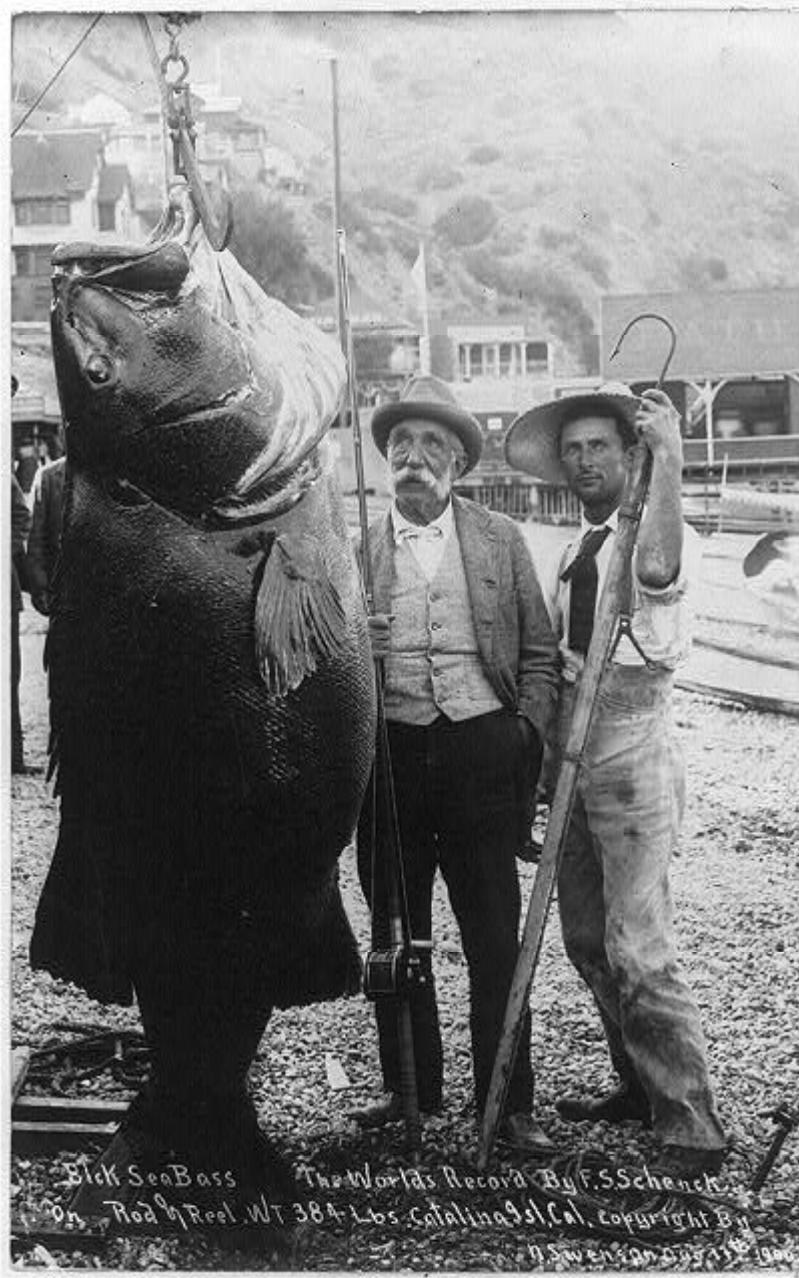
Opportunity cost of no-fishing at the Reserves in Isla Natividad

Biomass/
opportunity cost



Ecosystem restoration economic model with fully protected reserves





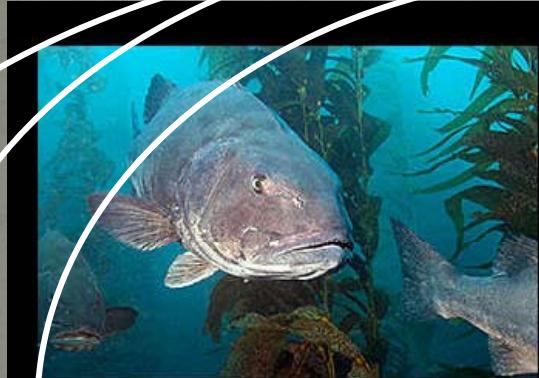
Sick Sea Bass The World's Record By F.S. Schenck
On Rod & Reel WT 384 Lbs Catalina Isl. Cal. Copyright By
A. Swenson Nov 11, 1906



- A market in California willing to pay \$4000 for the existence value

Maximize the value of marine populations

200 kg.
\$ 20 pesos each
for fishing (\$400)



An auction for
game fish that
could sell each
animal in \$ 2000

5 divers each able
to pay \$ 500 USD
for the exclusive
right of diving in
the spot \$2,500

A market in
California willing to
enter into the auction
and pay \$4000 for the
existence value

Examples of Auctions...



- Among \$35 -200,000 USD for animal
- \$ 12 Million dollars for the “art object”



Damian Hirst

Concession Areas for Fishing Cooperatives



Does the current legal framework allow to do this?

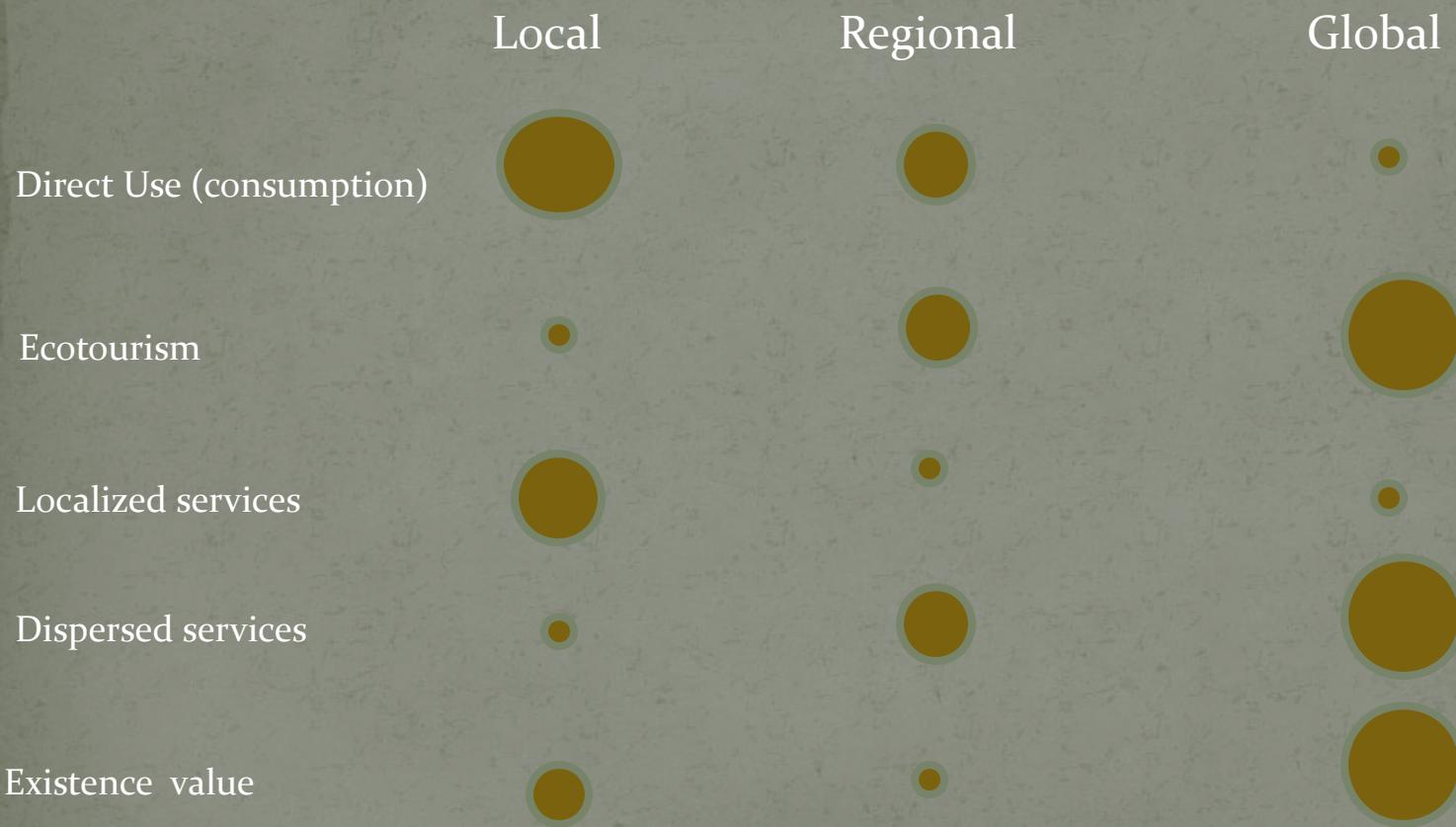


Similar to Ejidos...



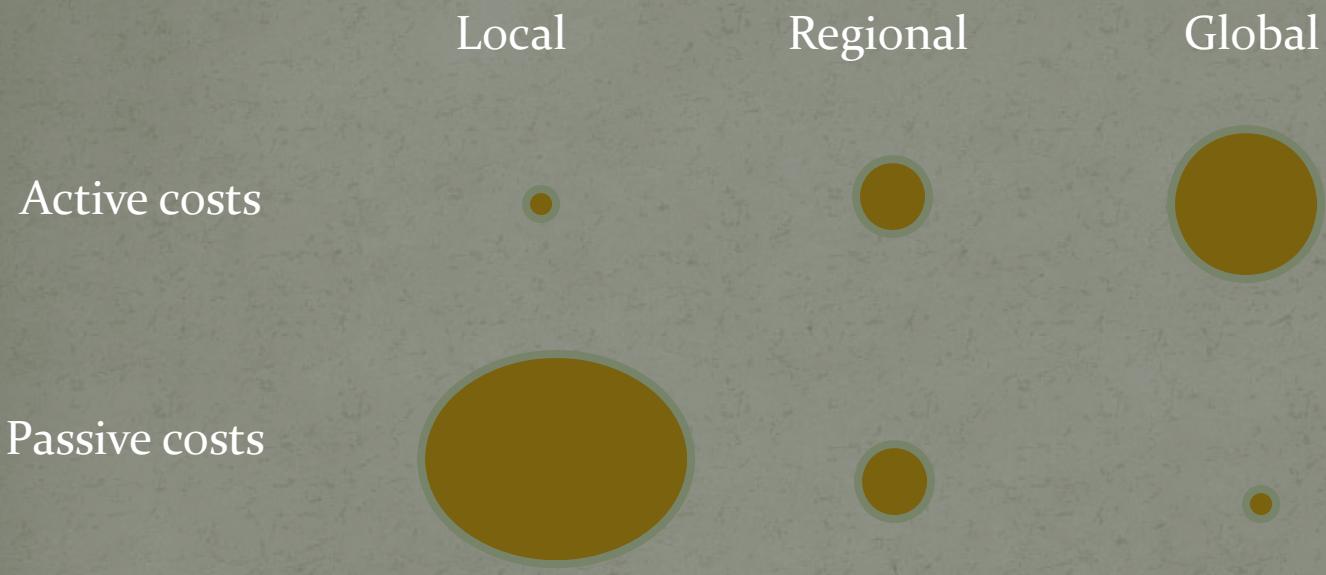
- The system of licenses or concessions for single species in the sea would be equivalent to ejidatarios only having the right to hunt some of the animals in the forest
- They prohibit the adoption a system of payments for environmental services

The benefits of natural ecosystems



Balmford, A. and T. Whitten, *Who should pay for tropical conservation, and how could the costs be met?* Oryx, 2003. 37(2): p. 238-250.

The costs of ecological restoration



Balmford, A. and T. Whitten, *Who should pay for tropical conservation, and how could the costs be met?* Oryx, 2003. 37(2): p. 238-250.

A problem of equilibrium of non-cooperation among the global and the local community



Myerson, R.B., *Nash Equilibrium and the history of Economic theory*. Journal of Economic Literature, 1999. 37: p. 1067 -1082.

An opportunity to offset the costs of restoration

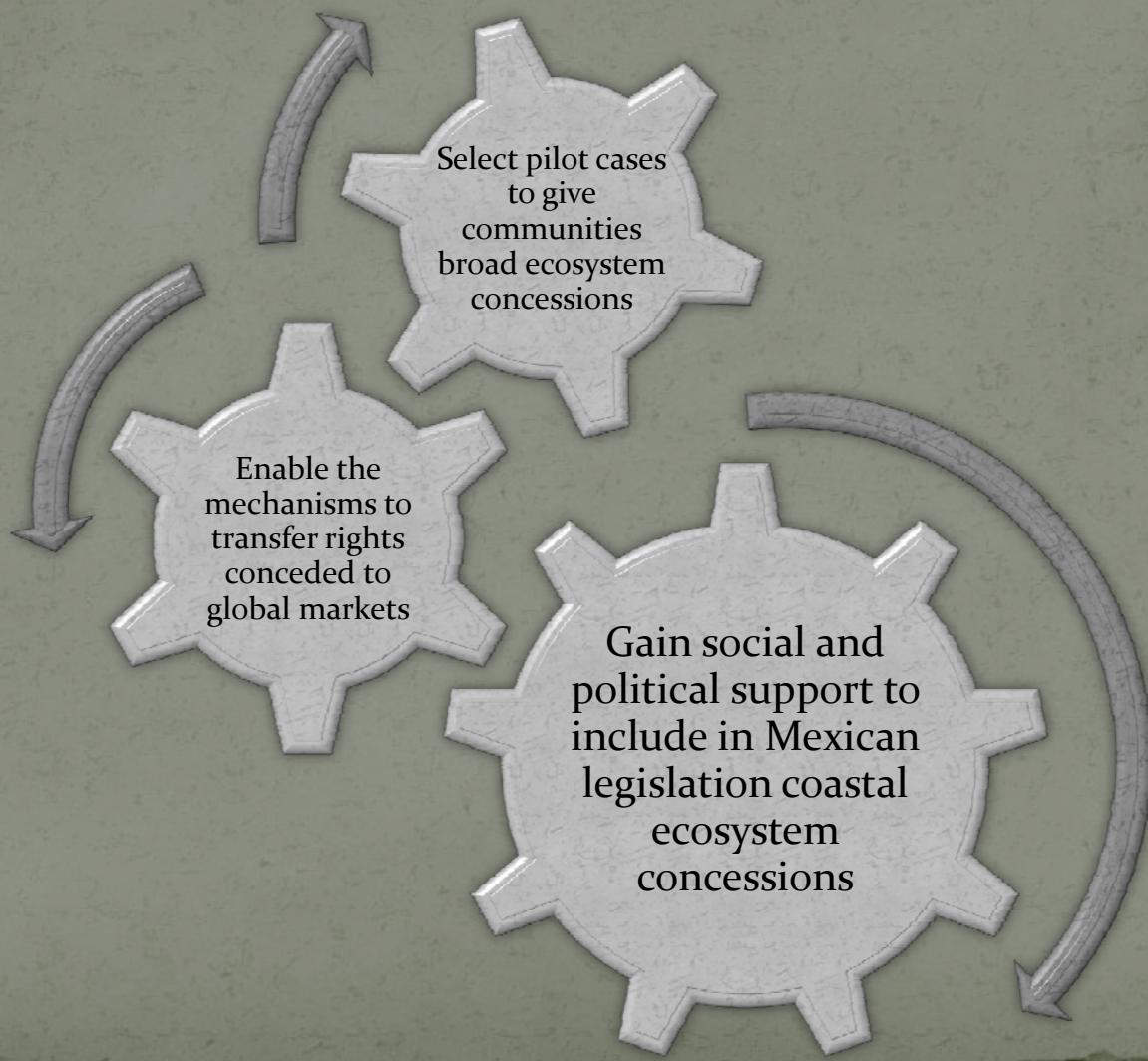


- Fishing
US\$220
- Environmental services
US\$6,075



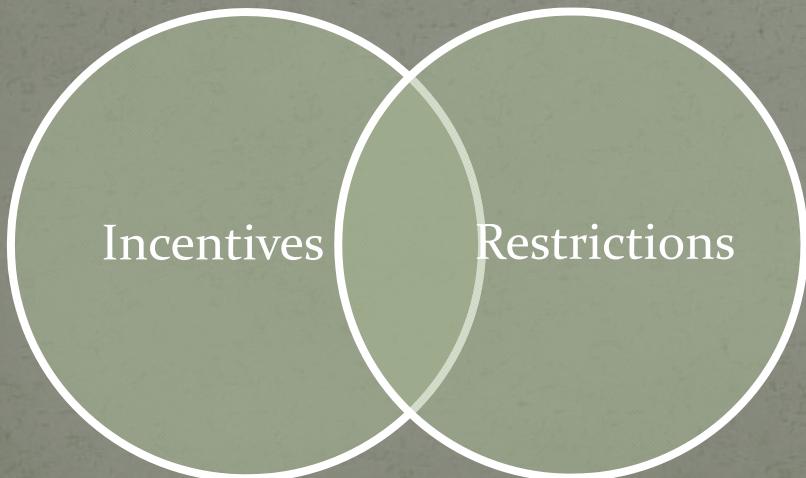
Costanza, R., R. d'Arge, et al. (1997). "The value of the world's ecosystem services and the natural capital." *Nature* 387: 253-260.

Work in progress...



Towards community stewardship of a public good....

- Equity and stakeholders involvement
- Accountability
- Get sure ecosystem use is helping to rebuild the natural capital
- Poverty reduction





Muchas gracias!

www.cobi.org.mx