The Oceans and Environmental Security

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Worrisome global-level change for ocean: The sky IS falling!

**ECOLOGY**

**Globalization, Roving Bandits, and Marine Resources**

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Overshooting, overfishing, and the world’s oceans are in crisis. *Nature* research has called for increased transparency and support of a new approach to governance and lack of enforcement for conservation objectives. Owing to the critical impact of seabed exploitation, the spatially specific depletion of marine biodiversity and, to a lesser extent, the broader conservation benefits, the options for conservation are limited. Marine conservation requires a more balanced approach to the maintenance of local resources while enhancing the ability of mobile species—roving bands in oceanic ecosystems—to move to other exploited regions. Sequential exploitation of marine resources, ii, is by location of major commercial fisheries, is by location of major commercial fisheries.
Are coral reefs on their way to ecological extinction?

Pandolfi et al. 2003, *Science*
Trend in estimated daily fish catch per municipal fisher for Olango Island

Food security: Approximately 50% of animal protein derived from marine fisheries and aquaculture Filipino coastal communities
Policy response to global problems

Large Marine Ecosystems of the World

LARGE MARINE ECOSYSTEMS are areas of the ocean characterized by distinct bathymetry, hydrography, productivity, and trophic interactions. They annually produce 90 percent of the world’s fish catch. They are national and regional focal areas of a global effort to reduce the degradation of coastal resources and environments from pollution, habitat loss, and overfishing.


http://www.lme.noaa.gov
In response to crisis, ambitious conservation targets are set...
Tropics: a place of social complexity, instability, and moving toward global integration
Pro-Poor Livestock Policy Initiative (PPLPI)
Population and Poverty
PPLPI Southeast Asia Regional Hub
Mekong River Commission (MRC)

Population figures (millions)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total population</th>
<th>Rural population</th>
<th>Rural poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>13.1</td>
<td>10.9</td>
<td>4.4</td>
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<tr>
<td>Lao PDR</td>
<td>5.3</td>
<td>4.3</td>
<td>1.7</td>
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<tr>
<td>Thailand</td>
<td>62.8</td>
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<tr>
<td>Vietnam</td>
<td>78.1</td>
<td>59.3</td>
<td>33.9</td>
</tr>
</tbody>
</table>

Source: The Center for International Earth Science Information Network (CIESIN) - Gridded Population of the World Version 3 (GPW-3)

Rural poverty rates (percent)

Source: World Bank’s Global Poverty and Inequality Database (GPID)
NB: These figures are based on national poverty lines and are therefore not strictly comparable between countries.
Tropics a place of growing poverty
The South subsidizes the North...
Local social processes that determine conservation policy outcome
Title 6-supported classes: Society and Oceans and Environmental Degradation in the Tropics

• What are the historic and ethical underpinnings of how we frame environmental issues and policies?
• What are the societal responses and social processes that influence policy?
• How to integrate social and natural science information?
• Term paper: Socio-ecological impact of tropical commodity