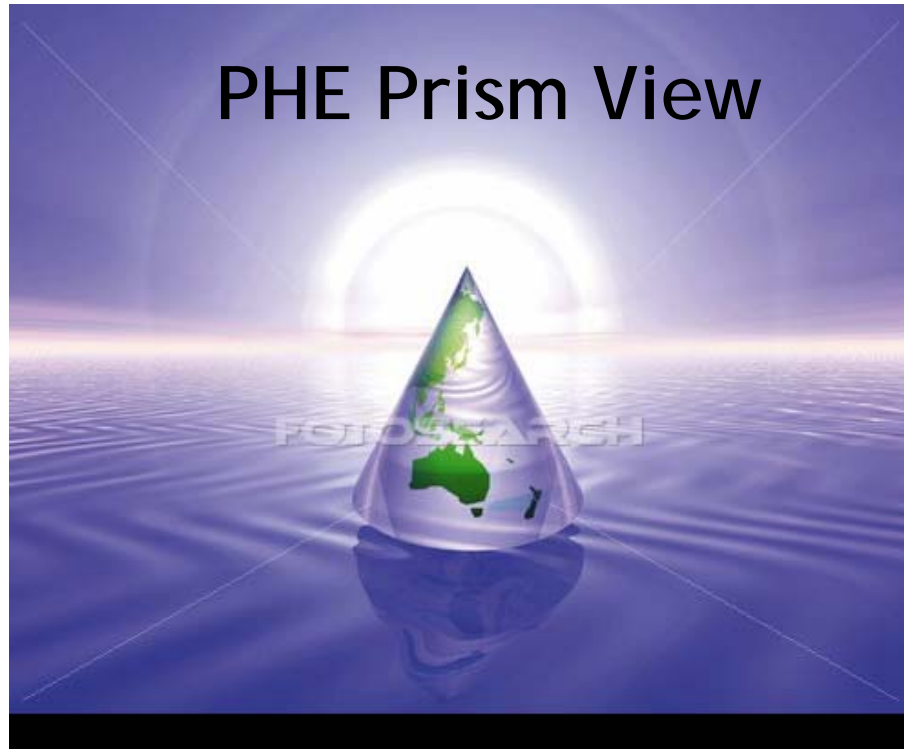


# Asia's Future



Leona D'Agnes  
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# **P-H-E**

Focuses on the interactions among  
Population, Health, and Environment  
dynamics in biodiversity-rich areas

# Biodiversity Hotspots



- Over 1.1 billion people live in biodiversity hotspots
- 12% of planet's land area ~ 20% of people
- Population growth is nearly 40% greater than globally due to both high fertility and migration

# Hotspots – Higher Population Density

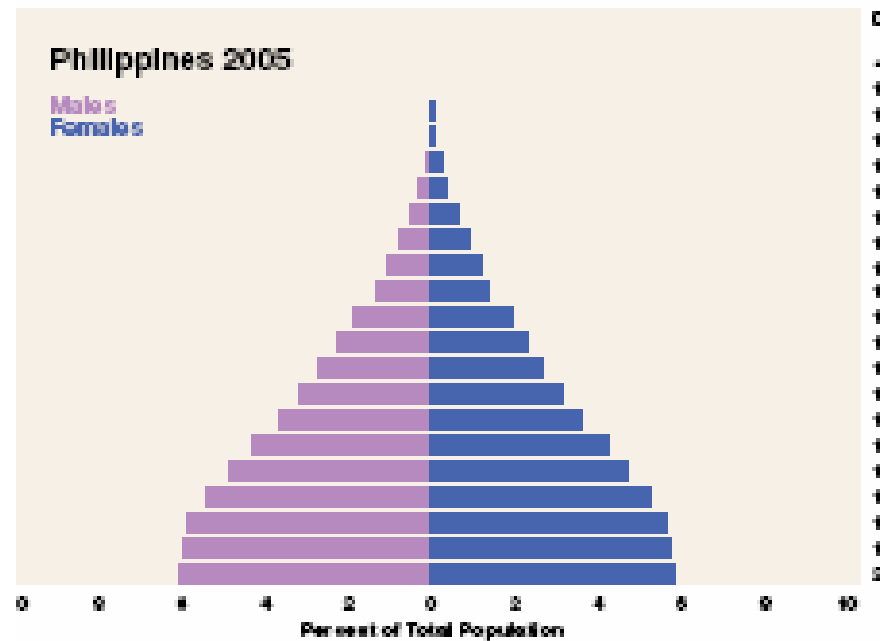
Coastal Asian hotspots with major cities are suffering the worst from overpopulation

	Worldwide	Global Hotspots	Planet's Most Crowded Hotspots
<b>Pop Growth</b> (average per annum)	1.2%	1.8%	
<b>Pop Density</b> (persons/km <sup>2</sup> )	42		336 (Japan) 273 (Philippines) 261 (W. Ghats & Sri Lanka) 155 (Caribbean Is) 153 Sundaland

Source: Conservation International // [www.biodiversityhotspots.org/xp/hotspots\\_in\\_peril](http://www.biodiversityhotspots.org/xp/hotspots_in_peril)

# Hotspots – Youth Bulge

- Main driver of future population growth
- Largest generation of young people in world history
- Reproductive behavior of these youth will determine the planet's future

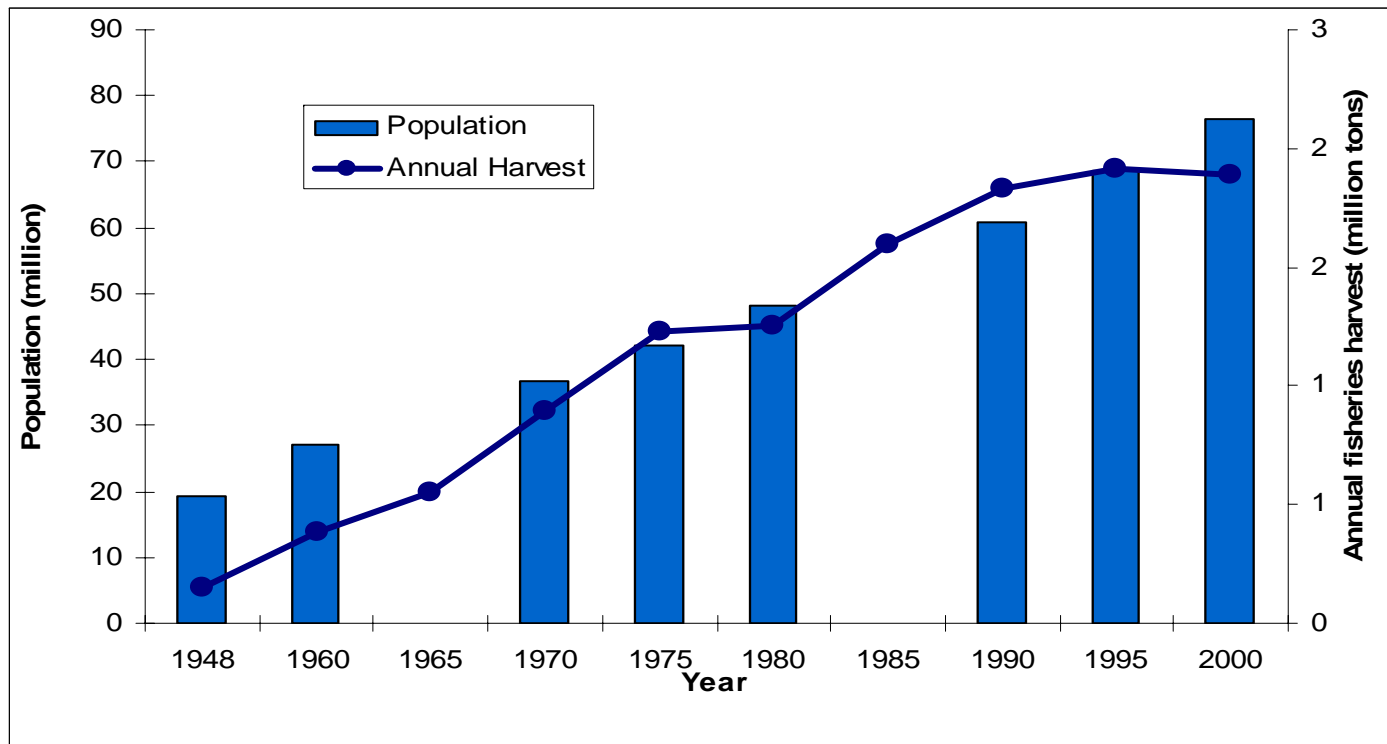


# Population Pressures on Biodiversity

- Played a major role in the loss of biological resources
- Human activities - accelerated the normal pace of species extinction by 1,000 to 10,000 times (depending on the specific species)
- Natural habitat loss
  - greatest in areas of high density (200 person/km<sup>2</sup>)
  - least in low-density areas (29)

*SOURCE: (2000) Population Reports Vol. XXVIII, No 3 Special Topics Population Pressures on Biodiversity.  
The Johns Hopkins School of Public Health, Baltimore, MD*

# Implications for Food Security



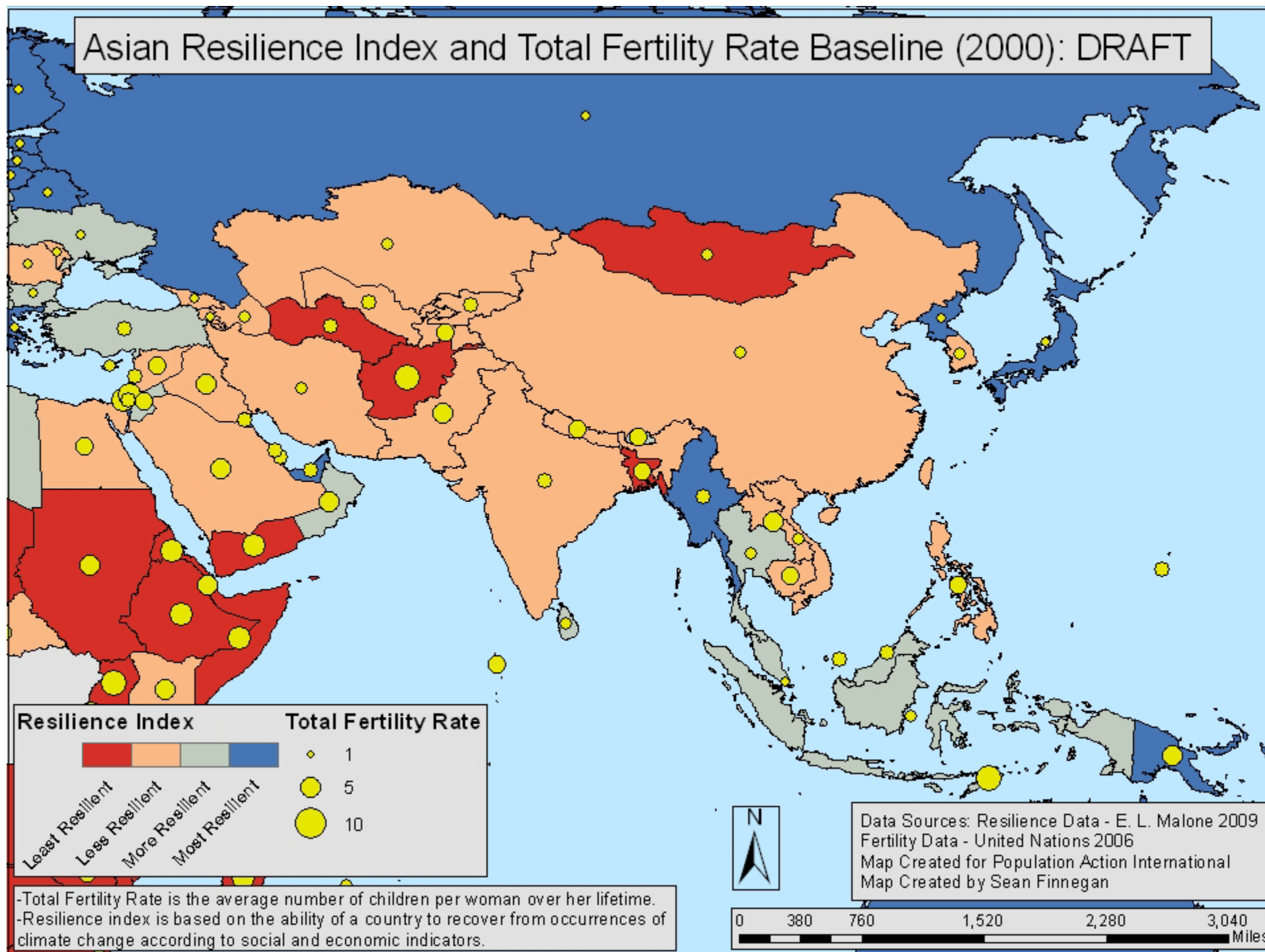
Annual trend of Philippine marine fisheries harvest & human population  
Tetra-Tech/USAID: FISH Project (2006)

# Implications for Future?

**Population growth trends in Asia  
factor largely in current  
anthropogenic stresses and are  
expected to exacerbate the impacts of  
climate change for years to come**



## Asian Resilience Index and Total Fertility Rate Baseline (2000): DRAFT



# Environment and Health Dynamics

- Environmental factors -root cause of 25% global burden of disease
- Major environmental hazard with disease impacts
  - Unsafe water & sanitation (2 billion people lack access to sanitary fecal waste disposal)
  - Indoor air pollution (associated with solid fuel use)
  - Urban air pollution (respiratory infections and cancers)
  - Climate change
    - ✓ extreme weather events
    - ✓ impacts on food production
    - ✓ changed transmission patterns of vectorborne diseases

# The Surprises?

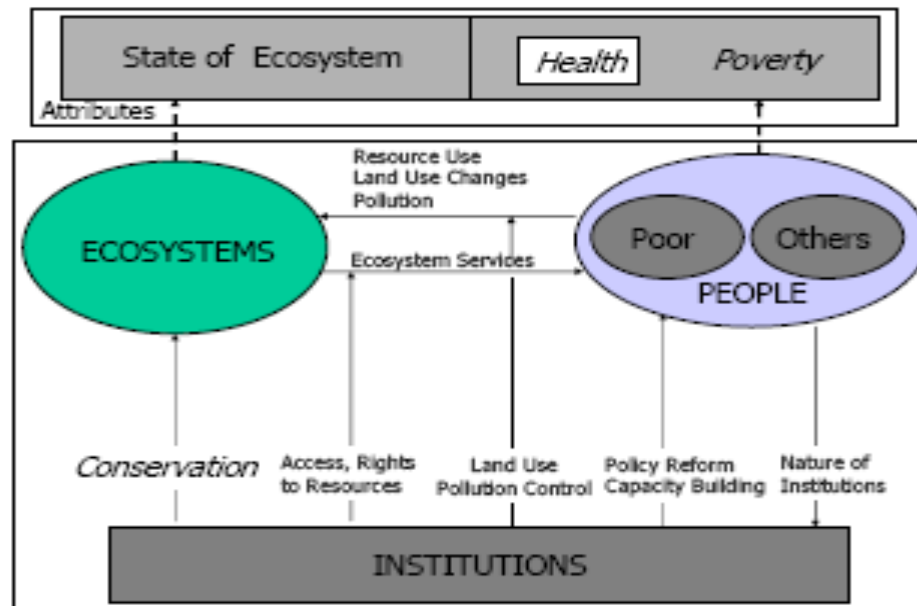
New & re-emerging disease outbreaks  
caused by ocean pollution

Example:

**Global 7<sup>th</sup> Pandemic of Cholera (1991)**

Vibrio cholera hibernating in egg sacs of algae  
that originated in coastal Bangladesh and spread to  
Latin America via huge “red tide” or algae blooms

# Integrated PHE Approaches



- Focus on the dynamic interaction between humans and ecosystems mediated through institutions
- Linked interventions delivered in a coordinated manner

# Integrated Approaches

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**P** = Family Planning, Reproductive Health

**H** = W&S, Malaria, HIV, Indoor Air Pollution

**E** = Biodiversity conservation, NRM, climate change

*Amenable to other sectors*

**+E** = Education (non-formal education)

Energy (improved cook stove, biogas)

Eco-tourism development

Environment-friendly enterprise development (EED)

# Integrated Population and Coastal/Fisheries Management (USAID/Philippines)



**Community-based FP**



**Community-based CRM**



**Social Marketing**



**Alternative Livelihood**



# Integrated Population, Health and Forest Management (USAID/Nepal)



- Non-formal Education  
(with FP, HIV/AIDS & PHE topics)



- Community-based  
Family Planning

- Alternative Energy



**Low cost, fuel-efficient  
smokeless stove**



- Community forest management and governance

# Why Link?

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- **Family Planning is essential to assure sustainability of conservation gains in biodiversity hotspots**
- **NRM provides a context for better understanding of the need to limit family size**
- **Integration makes sense and cents**
- **Integrated approaches generate higher impact than sectoral approaches (via synergy and feedback loops)**



# BALANCED Project

- New 5-year PHE Initiative
- By USAID Office of Population & RH
- To promote wider adoption and use of effective PHE approaches worldwide
- TA to USAID Missions, NGOs, etc.



# Thank you !

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**PATH Foundation Philippines Inc.**  
**<http://www.pfpi.org>**