



# CHANGES in developing countries

CHANGES meeting, April 2014



# Outline

1. Changes: case study from Nepal
2. Climate change?
3. Population and land use changes
4. No changes – some things just don't change..



# 1. Changes: case study from Nepal

# Story from Nepal about change..





# People on the move need roads..



# People on the move need roads..





## and changing landscapes..

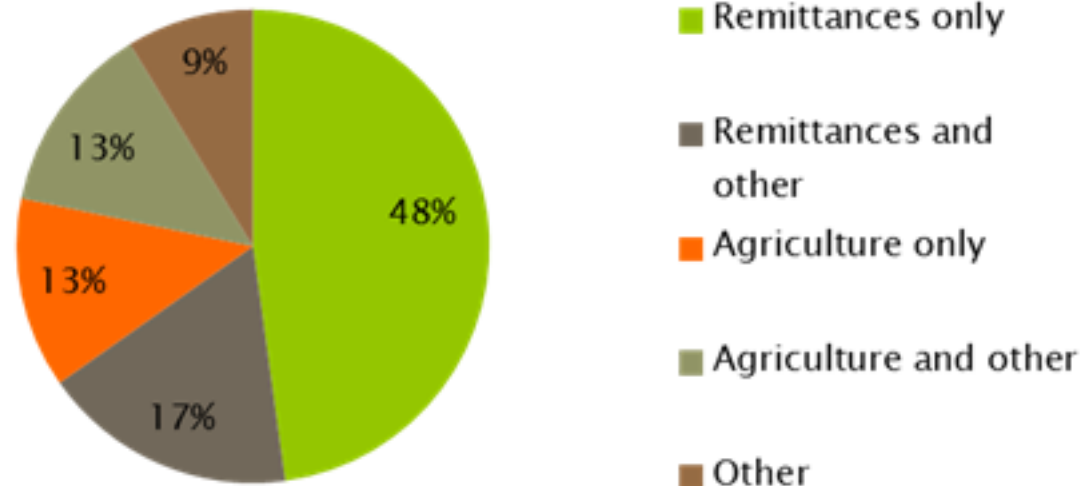


Phewa lake is  
disappearing

# Changing local economies..

## Sources of income

- Many households live mainly on remittances
- 78% have more than 50% of off farm income
- Agriculture has become a smaller part of household income
- Land abandonment >> opportunity for low caste families to rent land

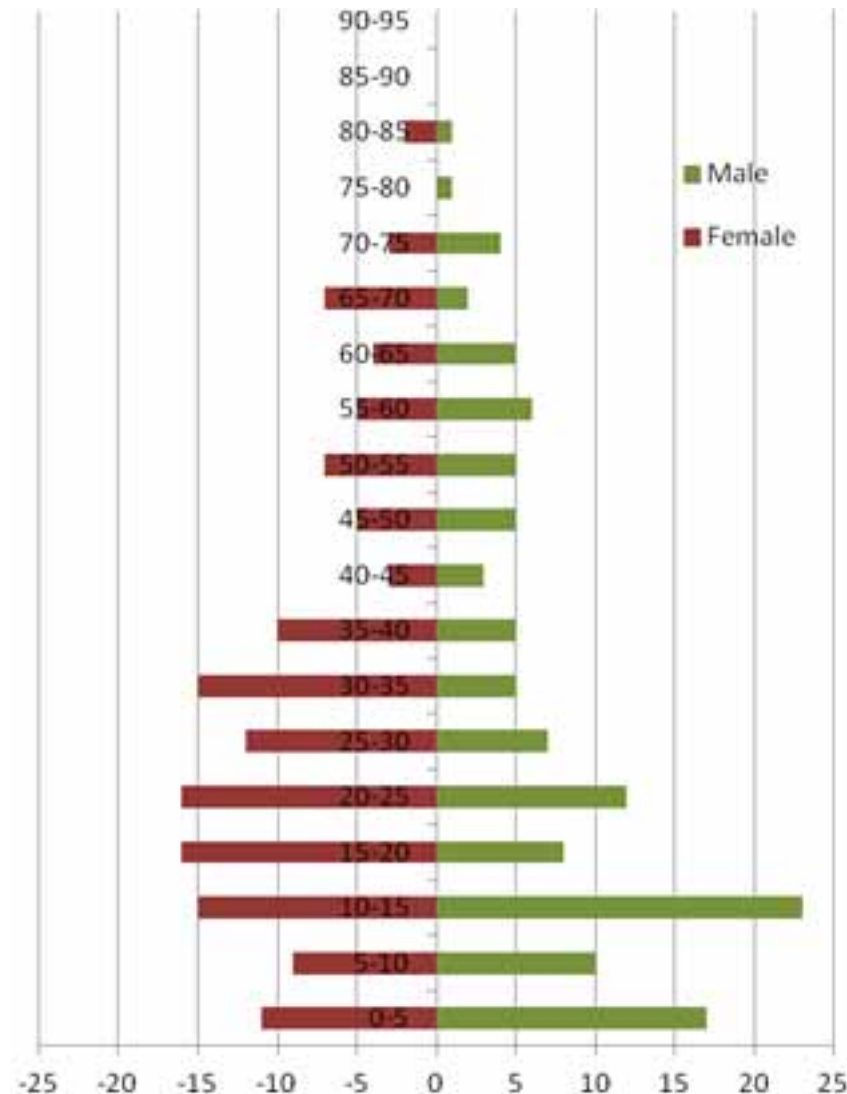


Source: Jaquet, 2013



# Migration effects..

- 63% of the households surveyed in Kaski District have at least one member living somewhere else in Nepal or abroad
- Population in some districts is declining by 8-10%
- \$3.7 billion in remittance income 2011



Source: Jaquet, 2013

# Migration effects..

- Links between land and migration:
  - Long term migration
  - Feminization
  - Less labour force
  - Less land management
  - Increased or decreased soil erosion?
  - Climate change?



# Migration and new technology..



How social media transform migrant networks and facilitate migration?



THE WORLD BANK

Working for a World Free of Poverty

PRESS RELEASE

## Mobile Phone Access Reaches Three Quarters of Planet's Population

July 17, 2012



# Migration - reducing or increasing vulnerability?



- 30% of population received remittances in 2008
- \$3.7 billion in 2011 > more than ODA
- Raising standard of living for some families

**theguardian**

## Nepalese workers in Qatar: exploitation of migrants starts at home

Labourers say recruitment agencies in Nepal often deceive them about jobs in the Gulf, and authorities are doing little to help



## 2. Is it all about climate change?

# Climate change?



Knowledgeallianz.com



www.keywordpicture.com



2004hurricanes.com



# Climate change ?





# Climate change?





# Climate change ?





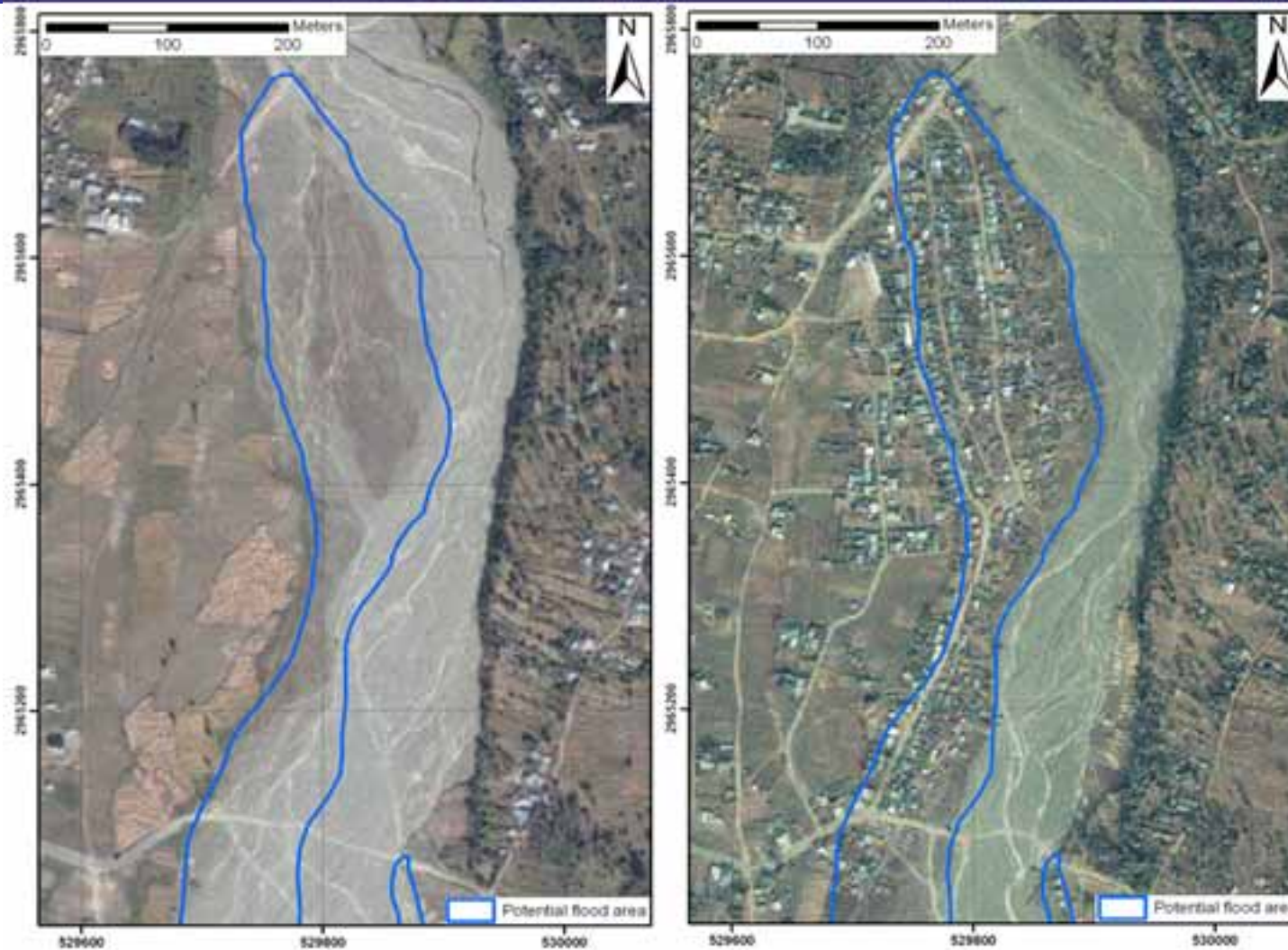
# Climate change?



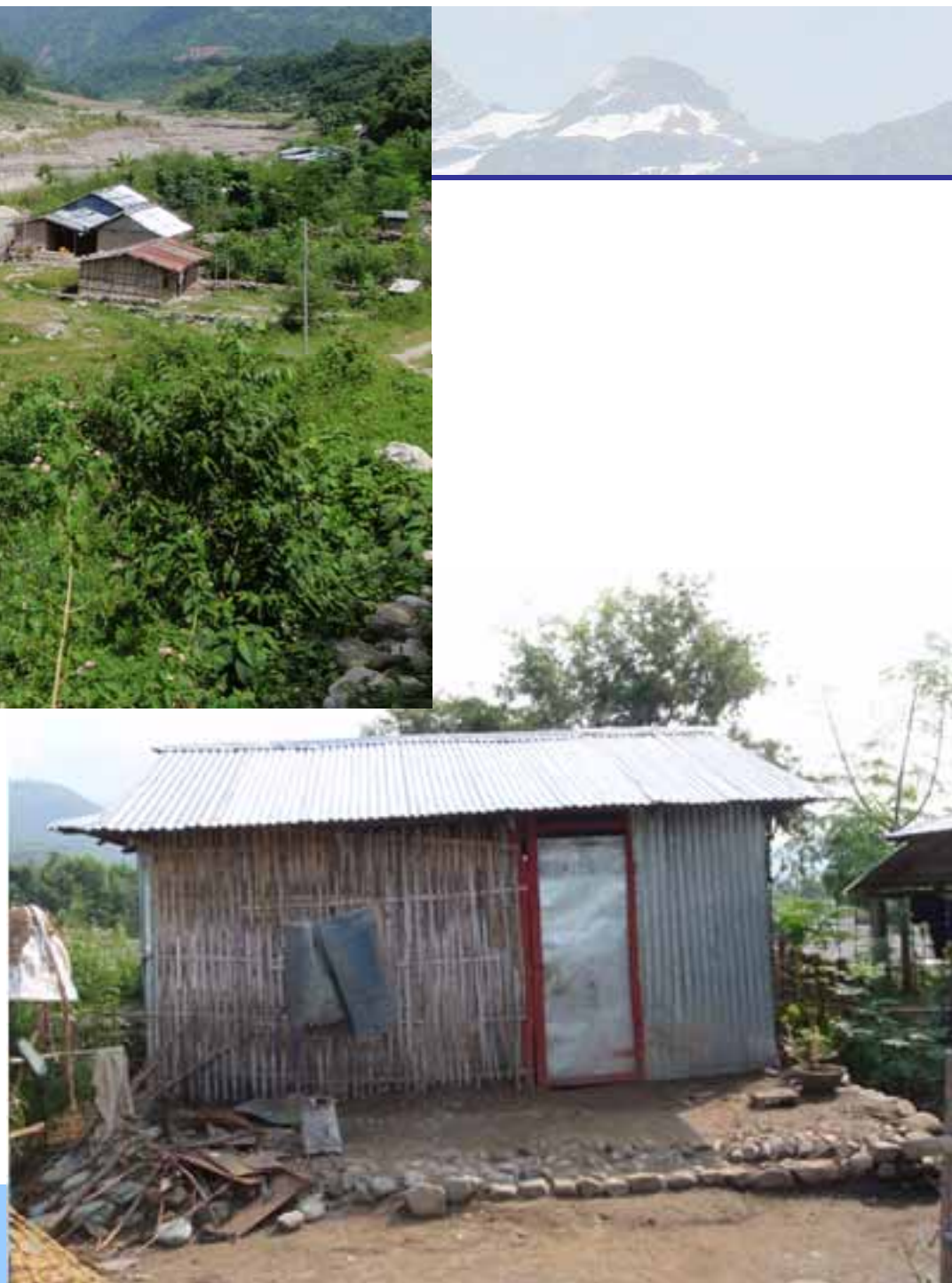
Dharan,  
Eastern  
Nepal

September  
2013

# Climate change?









# Déjà vu...



**Davos 1900**

**Davos 2000**



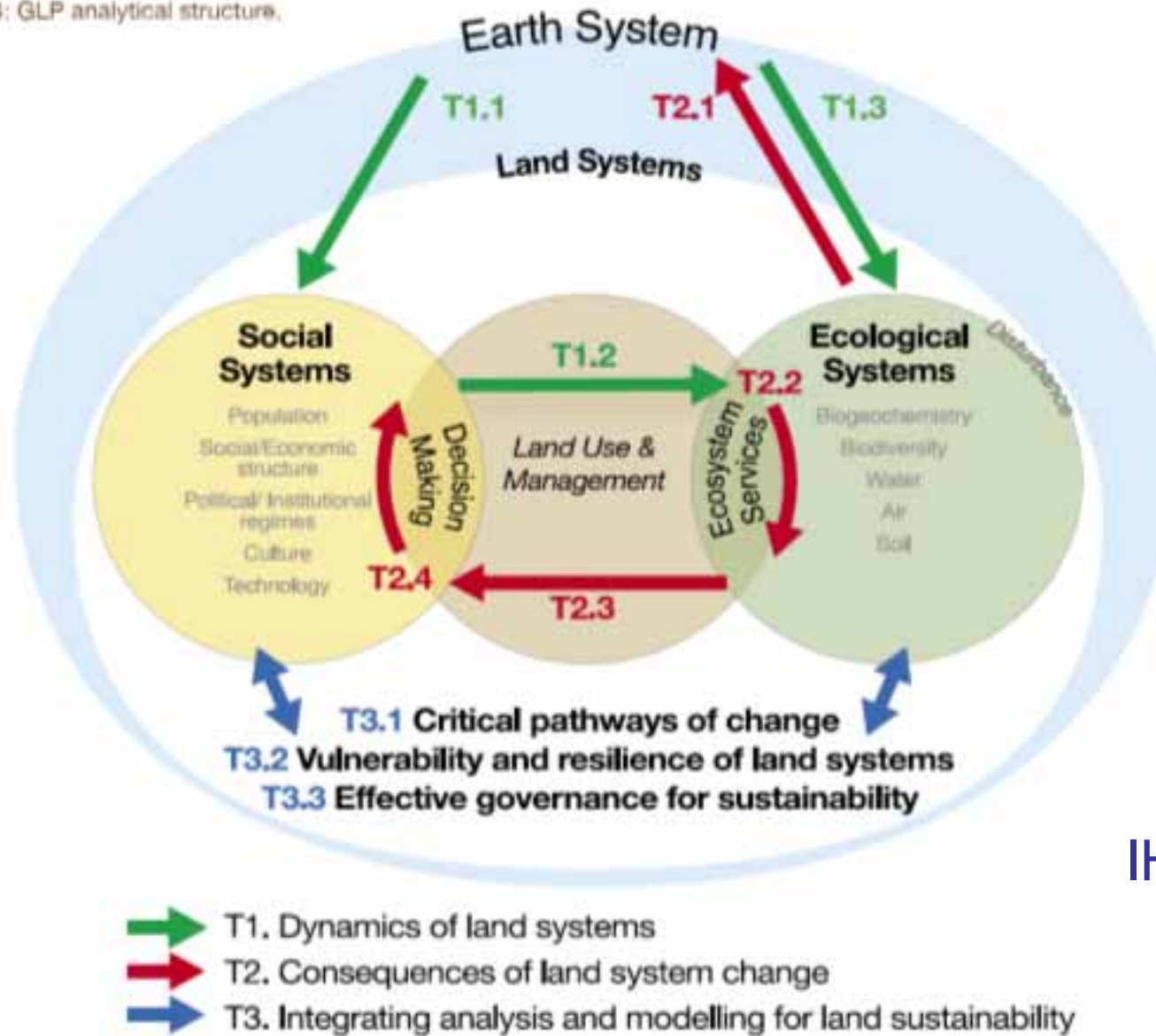
**PEDRR**

Ecosystems for Adaptation and Disaster Risk Reduction



### 3. Population and land use changes

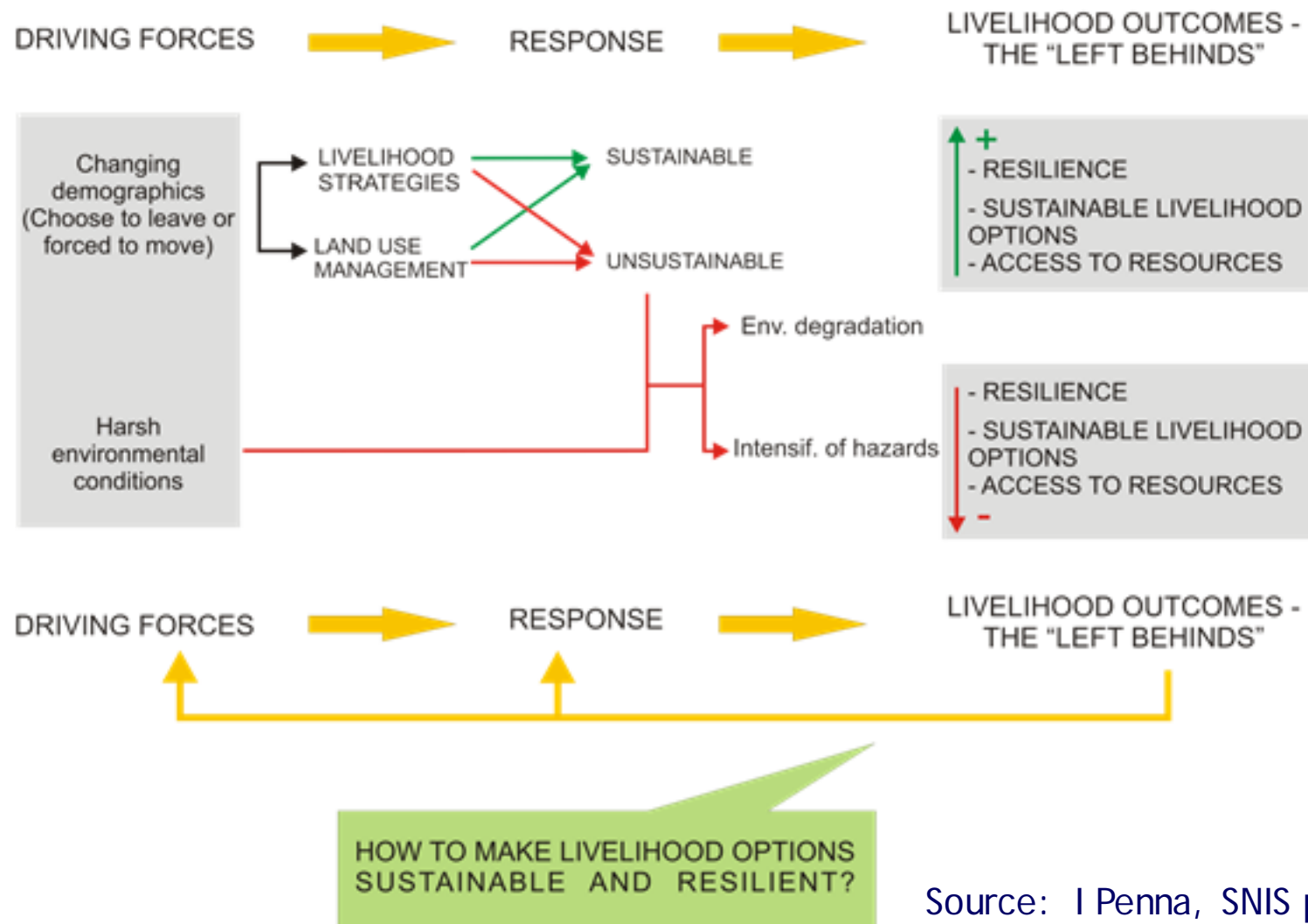
Figure 4: GLP analytical structure.



IHDP, 2009

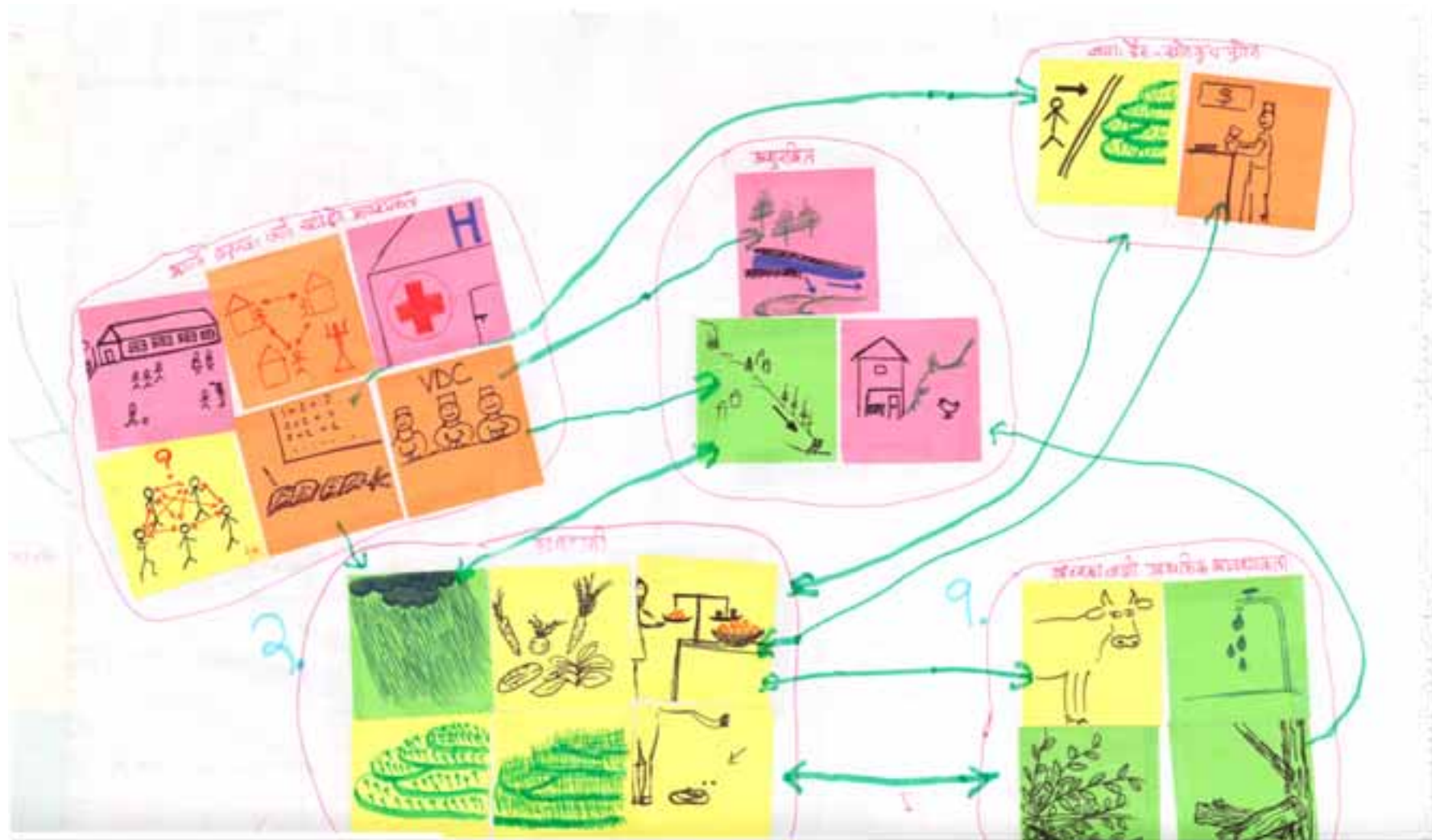


# Need for better understanding of dynamic systems ...

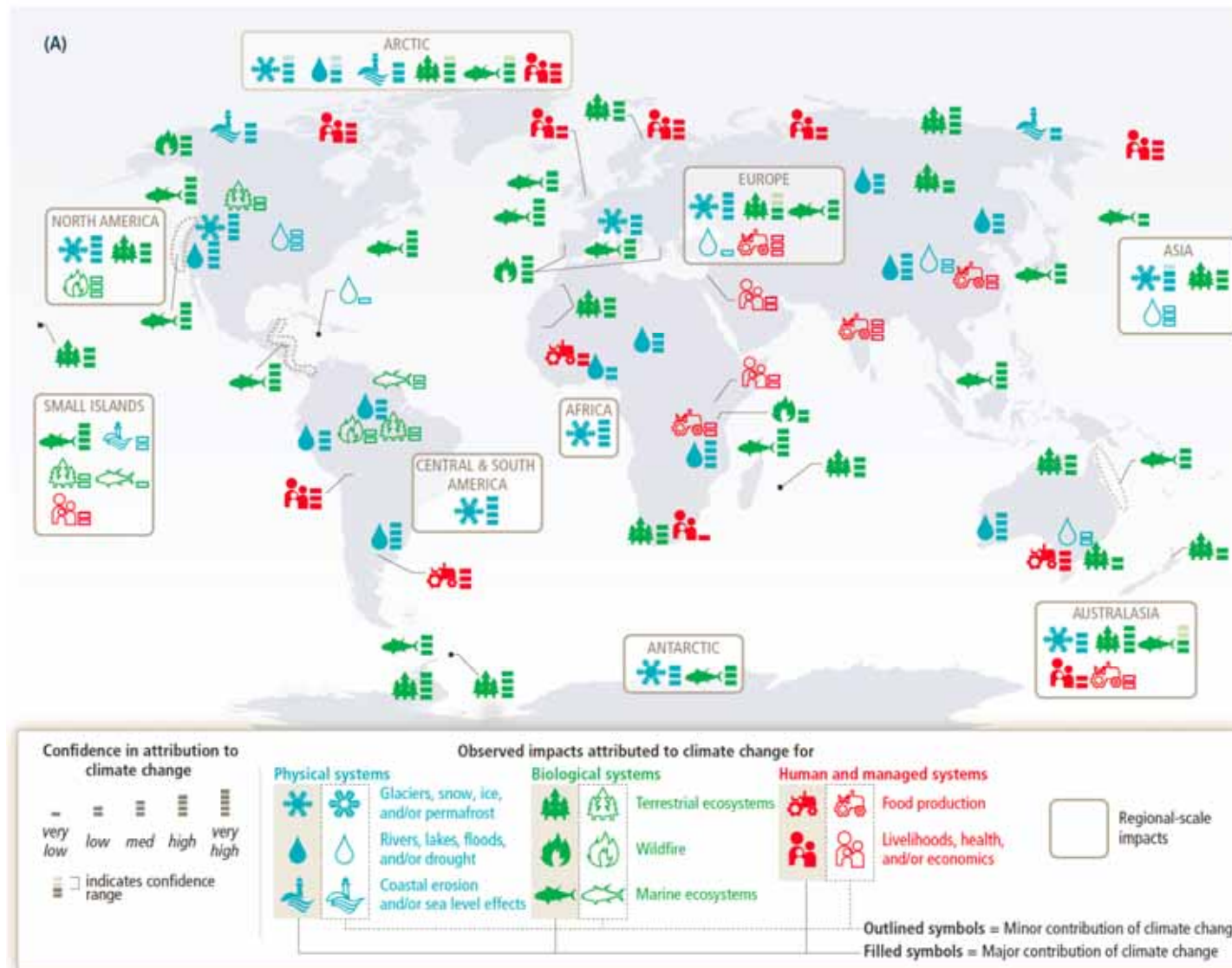


Source: I Penna, SNIS project

# Need for better understanding of dynamic systems ...



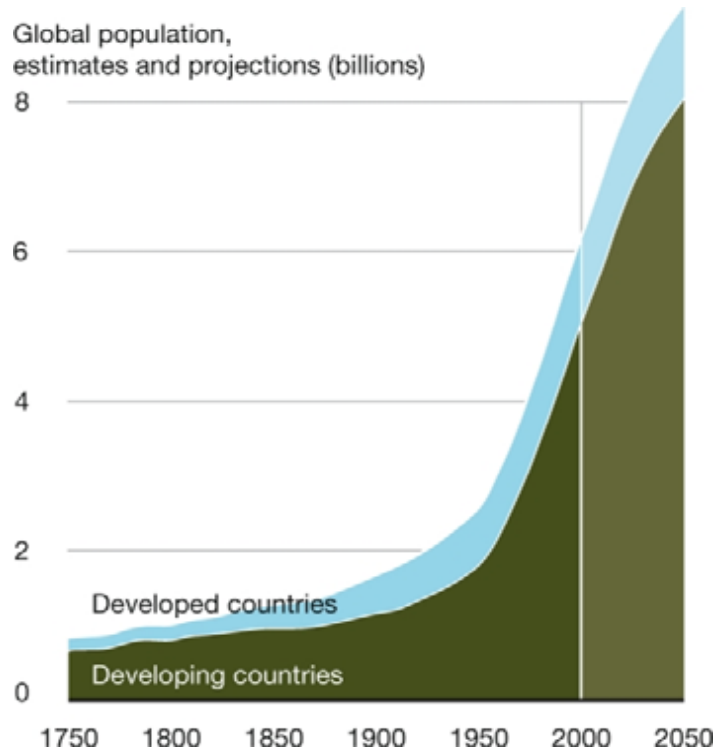
# Climate change is a reality, but...



IPCC,  
March  
2014



# Urban growth...



- The world's human population has increased near fourfold in the past 100 years; it is projected to increase from 6.7 billion (2006) to 9.2 billion by 2050 (UN Population Division, 2007)
- High demand for housing, food and other natural resources
- The largest population increase is projected to occur in Asia, particularly in China, India and Southeast Asia, about 60% of the world's population by 2050

Hugo Ahlenius, UNEP/GRID-Arendal

[http://www.grida.no/graphicslib/detail/trends-in-population-developed-and-developing-countries-1750-2050-estimates-and-projections\\_1616](http://www.grida.no/graphicslib/detail/trends-in-population-developed-and-developing-countries-1750-2050-estimates-and-projections_1616)

# Where are changes and disasters occurring?

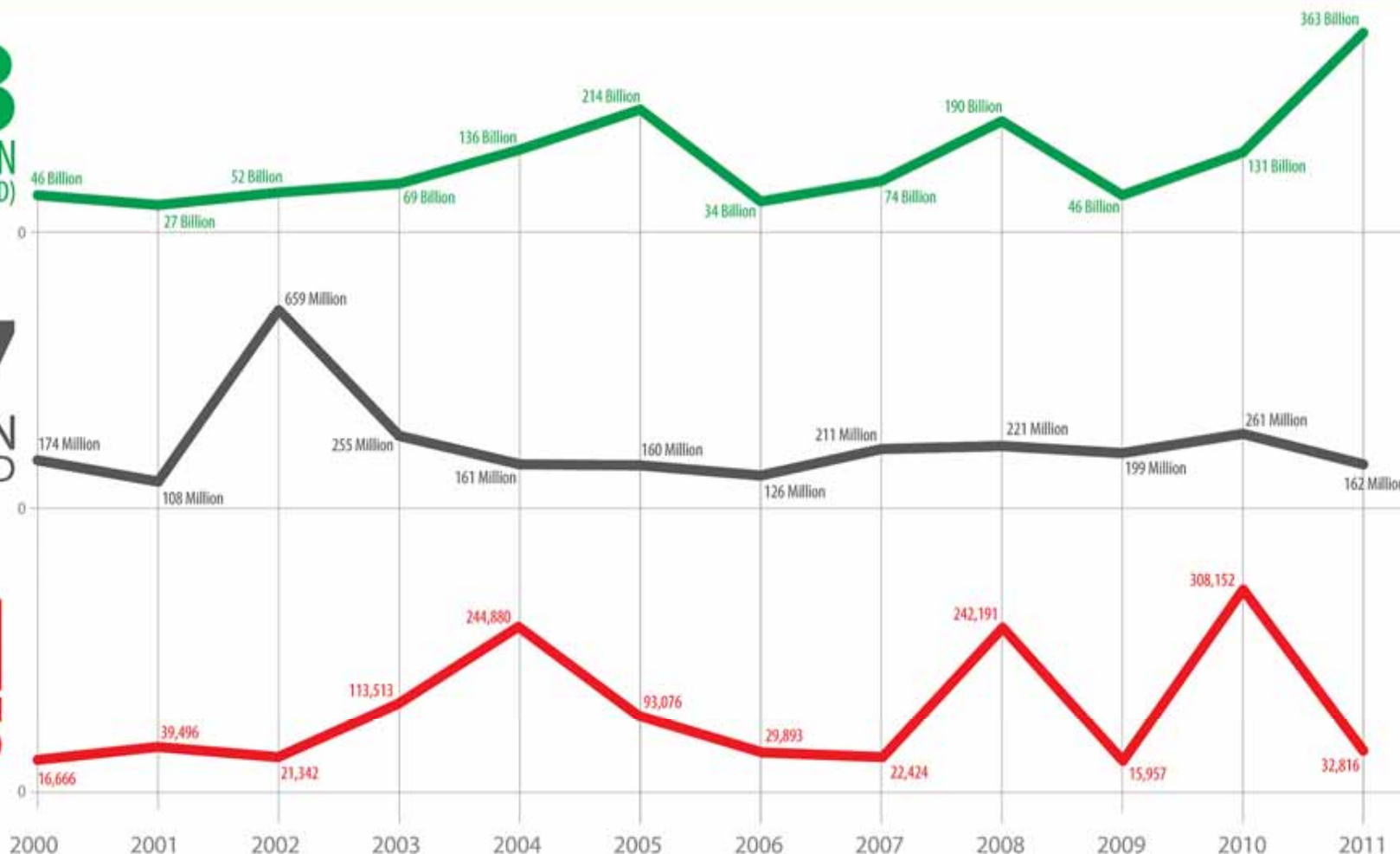


# The Economic and Human Impact of Disasters\* in the last 12 years

**\$1.3**  
TRILLION  
DAMAGE (USD)

**2.7**  
BILLION  
AFFECTED

**1.1**  
MILLION  
KILLED



\*Disasters refers to Natural Disasters as categorized in EM-DAT  
Data source: EM-DAT: The OFDA/CRED International Disaster Database  
Data version: 10 January 2012 - v12.07  
Humanitarian Symbol Set (2008): <http://www.unisdr.org/inap/guideline.php>

KEY  
DISASTER  
EVENTS



South Asia  
July 2002



Europe  
Aug 2002



China  
Aug 2002



Indian Ocean  
Dec 2004



Bam (Iran)  
Dec 2003



Kashmir  
Oct 2005



Katrina  
Aug 2005



Sadr  
Nov 2007



Sichuan  
May 2008



Nargis  
May 2008



Pakistan  
July 2010



Haiti  
Jan 2010

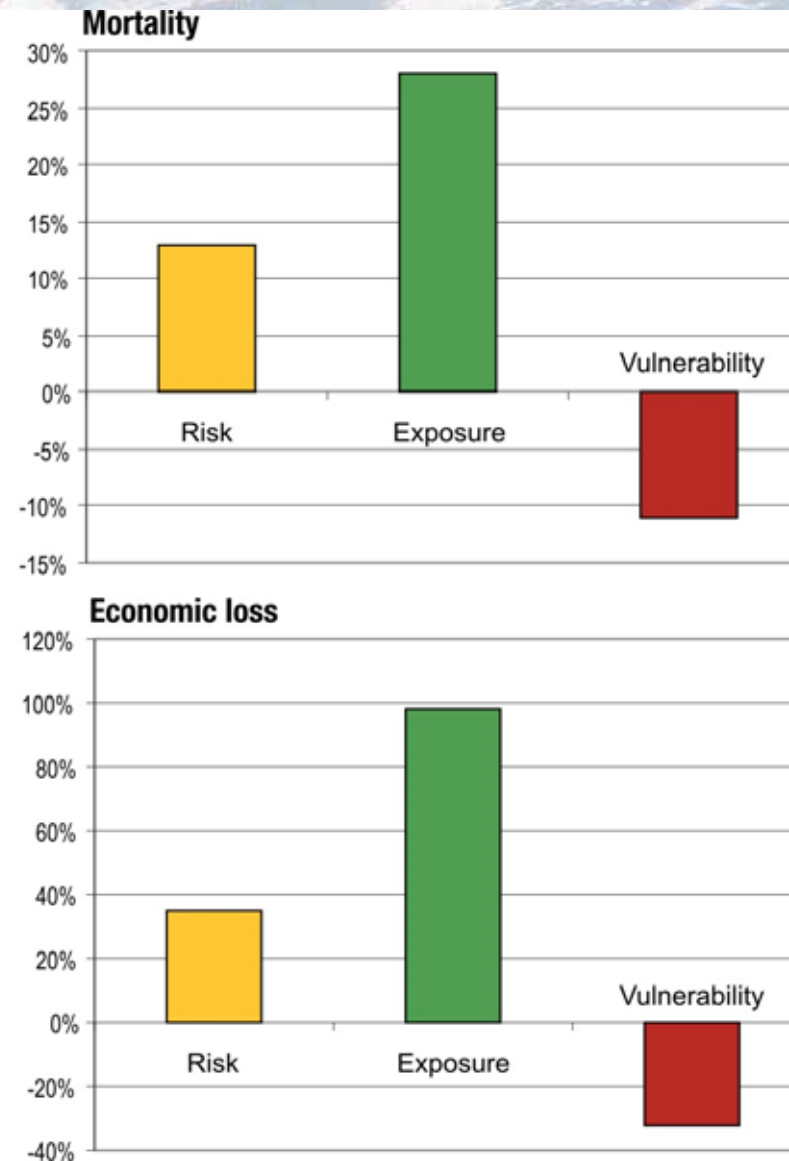
Japan  
March 2011





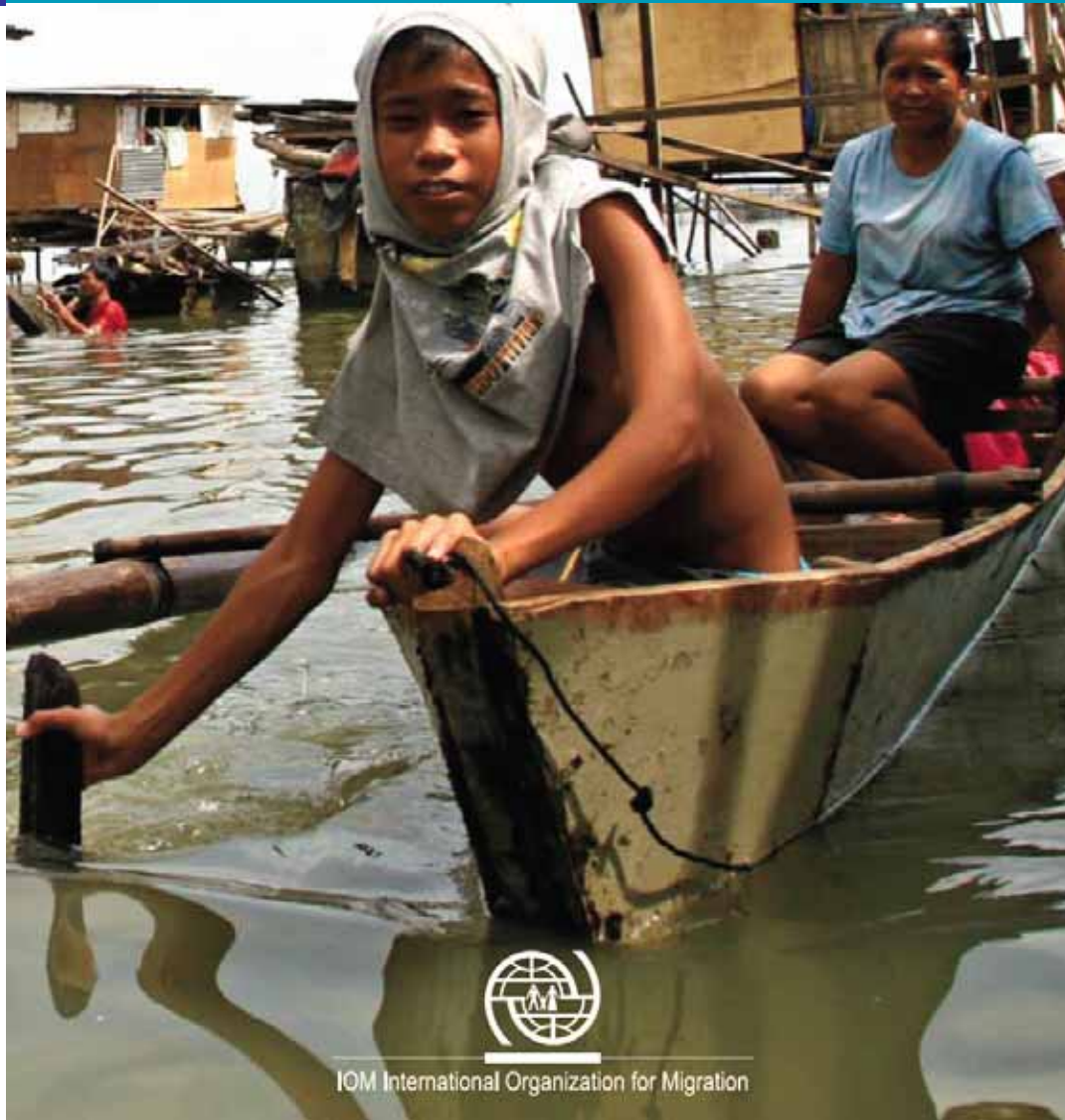
# What is driving disaster occurrence?

**Increase in global  
flood risk  
1990-2007**



Source: UNISDR,  
2011

# People on the move.. disasters and climate change?



- One person out of seven in the world on the move
- 140 million people were displaced by disasters: for many of them, moving was life-saving

IOM, 2013



### 3. Some things do not change...



# Why did this happen? ..



2004



2009

Dubois & Sudmeier-Rieux, 2009

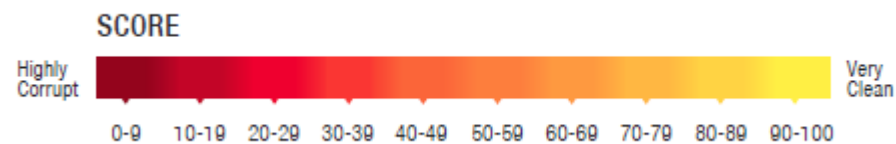
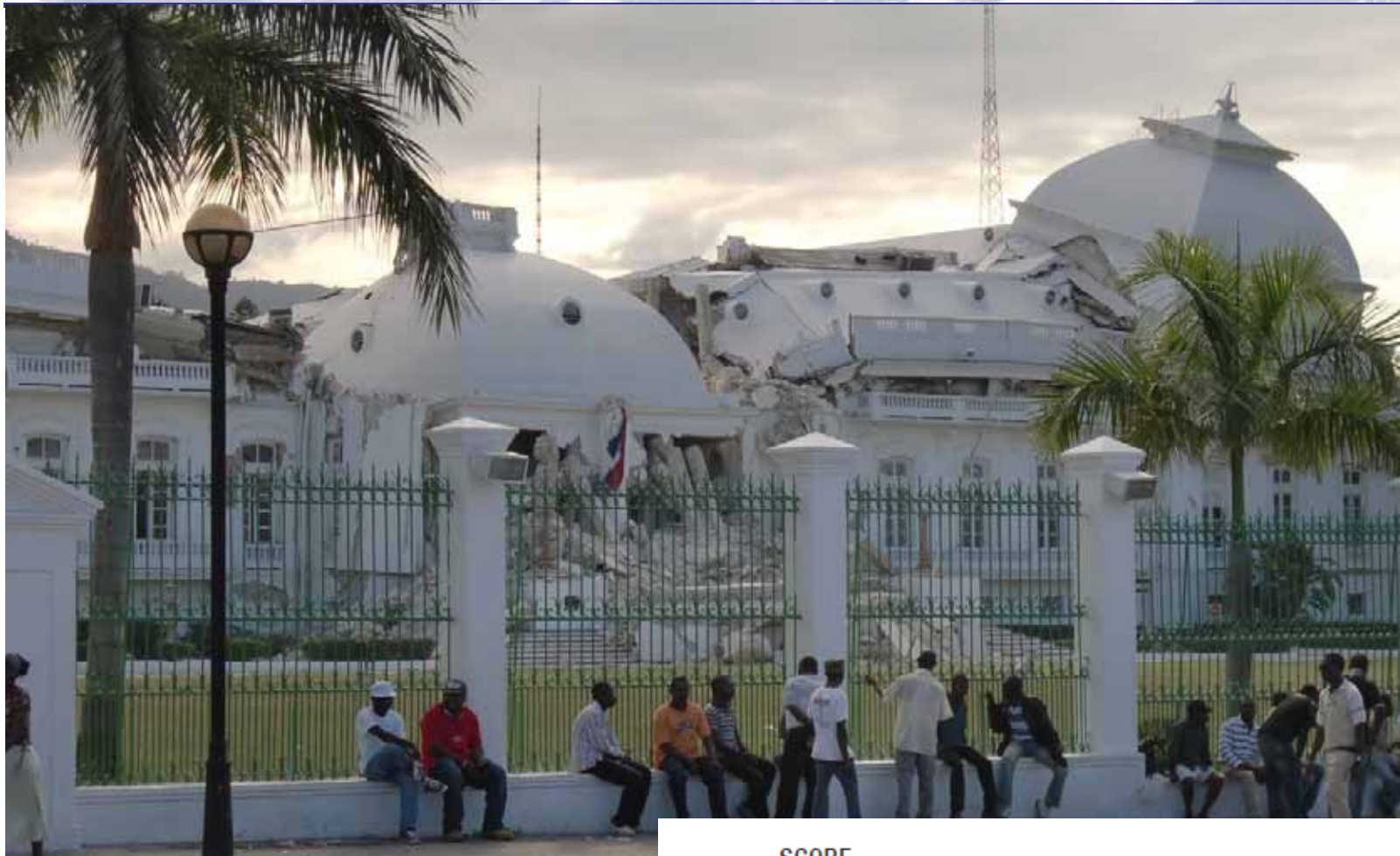


# Why did this happen?





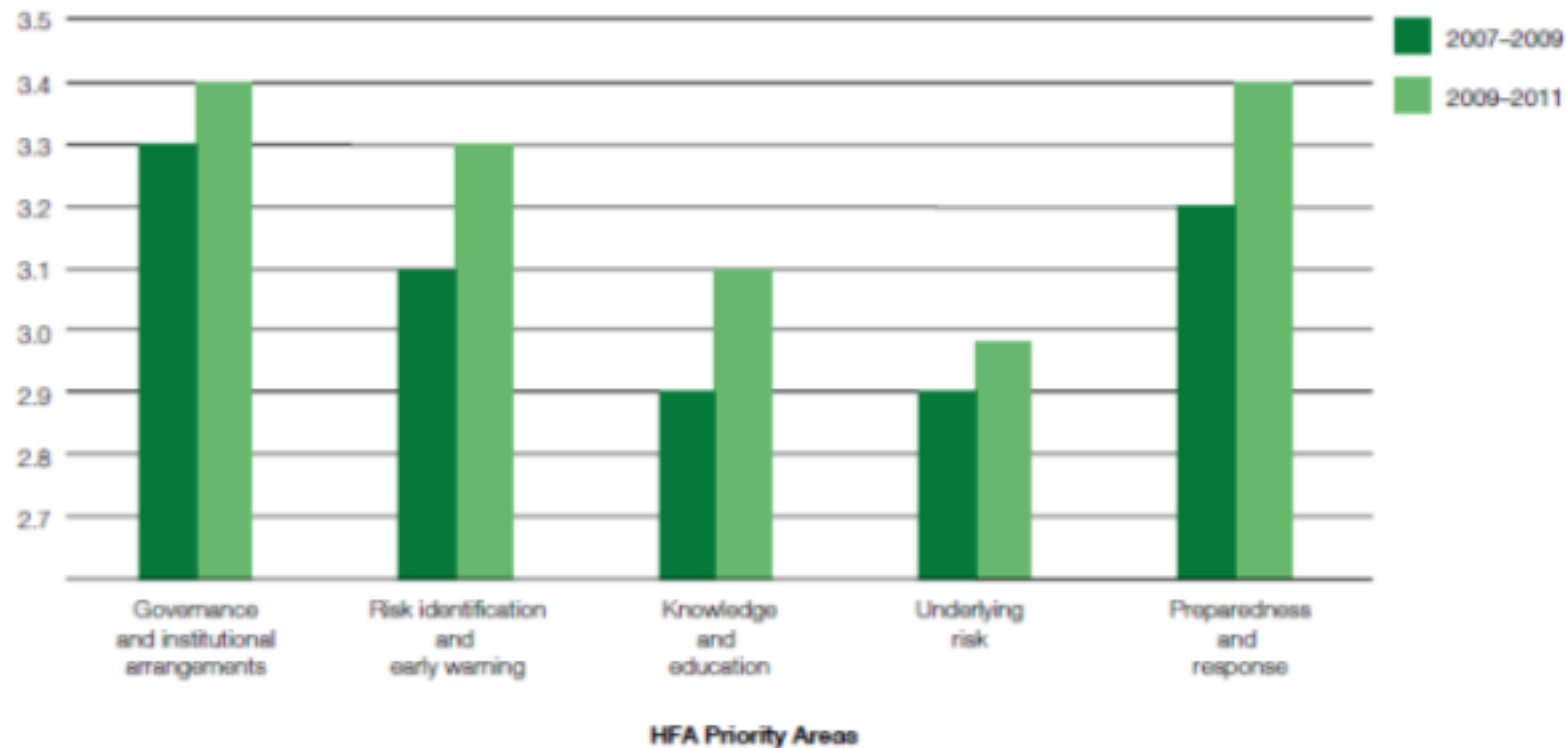
# No change in poor governance...





# Government progress toward HFA goals ..

Average score of progress



UNISDR, 2011

# Some governments do not change ..



# Concluding questions for us researchers..

How can we best understand and analyze dynamic complex systems and interactions between natural and human systems?

How can we best overcome some of the challenges in working in interdisciplinary teams and achieve acceptability?

How can we best communicate our findings as recommendations and policy options?

How can we effectively work with communities – as researchers – as professionals?

How can we become effective agents of change?