



# Climate Change and Disaster Risk

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Cairo, 2009

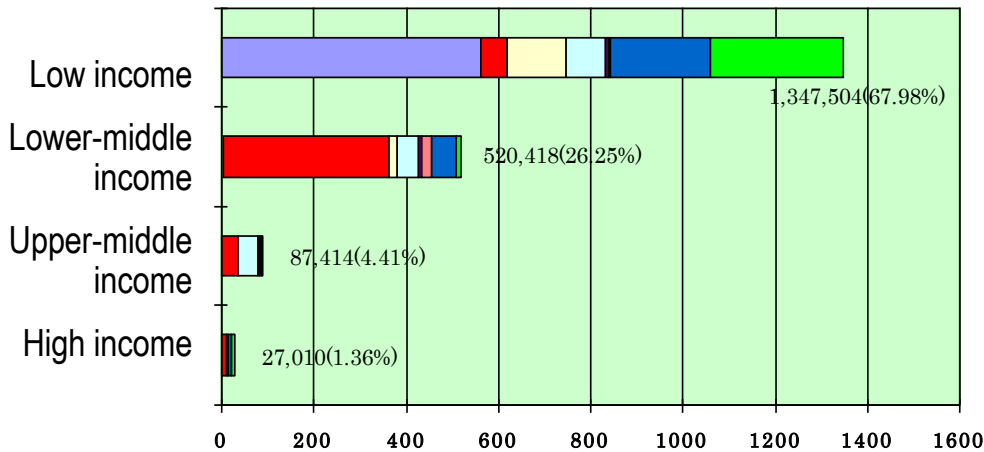
# Outline

- Increasing risk
- DRR and CCA
- Climate change negotiations
- IPCC Special Report
- UNISDR initiatives
- Your initiatives



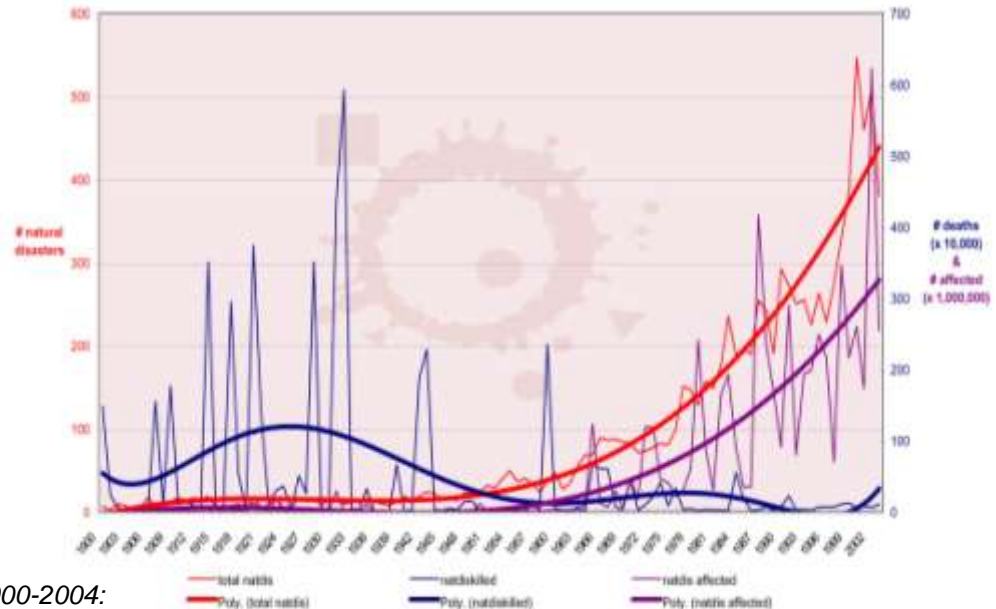
**CC impacts: more risk superimposed over increasing-risk pattern...and increasing inequality**

**Number of People Killed(Income Class/Disaster Type)  
(1975-2000) World Summary**



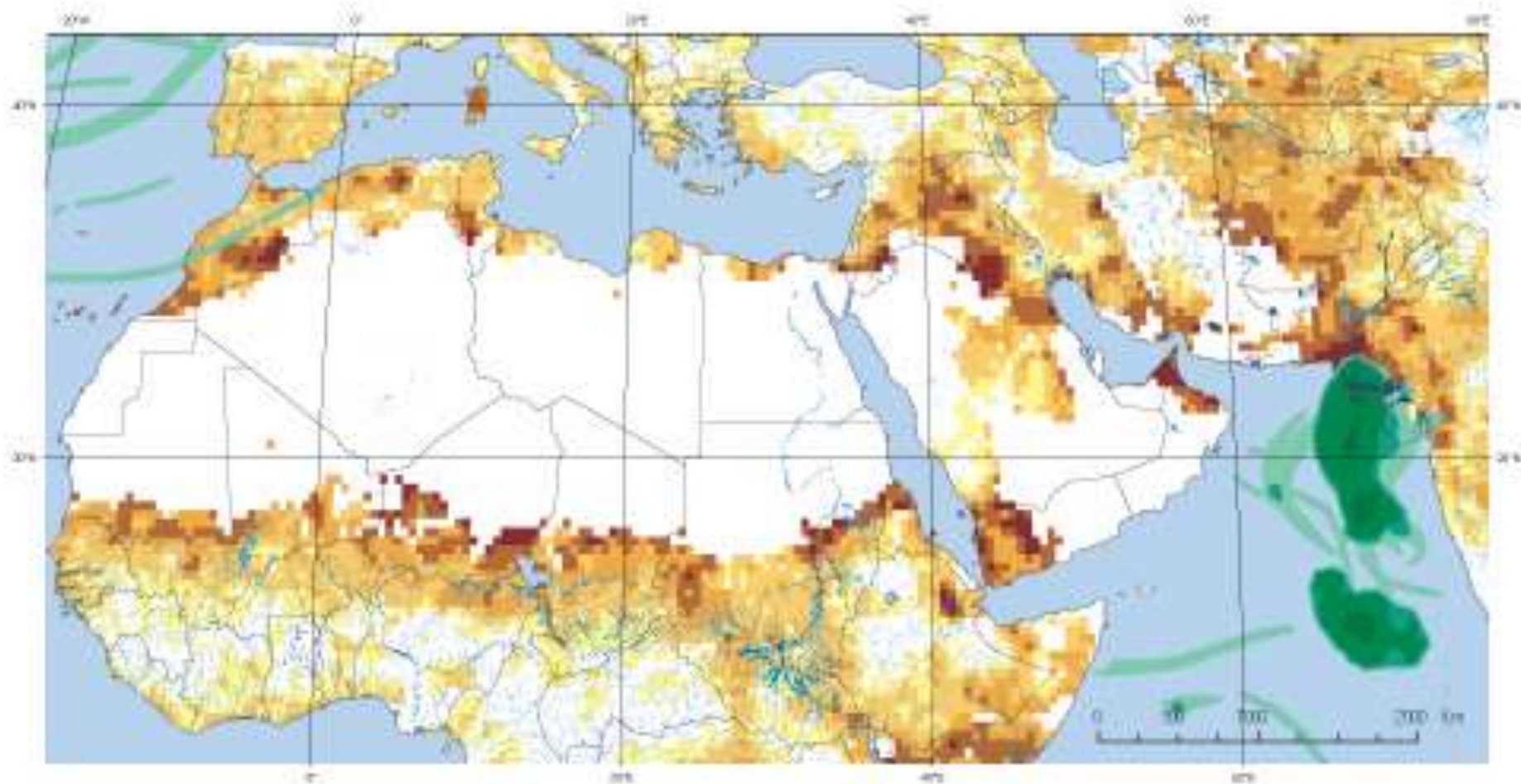
**Number of People Killed('000s)**

■ Drought 
 ■ Earthquake 
 ■ Epidemic 
 ■ Flood 
 ■ Slide 
 ■ Volcano 
 ■ Wind



www.unisdr.org

Source: EM-DAT, OFDA/CRED, Brussels, world data 1900-2004:

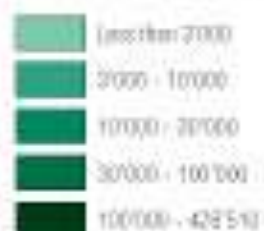


### Weather-related hazards

#### Drought (average annual frequency)



#### Tropical Cyclones (size of winds in km / year)



#### Flood (average annual frequency)



Urban and coastal

#### Data sources

Tropical Cyclones: UNEP/WHO-Europe  
 Floods: made from UNEP/WHO-Europe + abstract from  
 Earthquake Flood Observatory and Wageningen Rural Flood  
 REVEAL UNEP/WHO-Europe  
 Drought: model from FE, Columbia University  
 Cartography: P. Polozov, UNEP/WHO-Europe, 2009

## Climate change impacts on our Region

- IPCC Fourth Assessment Report, 2007A two degree increase in average temperature will increase drought risk in North Africa region
- Crop production / yields of Maize, in N.Africa by 15 to 25 %
- FAO : yields of predominant crops may fall by 25-35% under weak carbon fertilisation scenario if 2-3 degree C increase
- Bahrain, Djibouti and Coastal cities in Low Elevation Coastal zone : e.g Alexandria, Port Said, : 50 cm rise may displace 2 million people

# International Climate Change Processes

## IPCC

3 Working Groups:

- Science
- Mitigation
- Adaptation

## UNFCCC

United Nations Framework Convention on Climate Change

Signed 1992, in force 1994, “common but differentiated responsibilities” principle  
**mitigation and adaptation**

## KYOTO PROTOCOL

Signed 1997, took effect 2005  
**Creates 3 mechanisms for mitigation**

**CDM: Clean Development Mechanism**

**Joint Implementation**

**Emissions Trading**

# International Climate Change Processes



## IPCC

- Fourth assessment report 2007
- Fifth assessment report prep
- Special report “Managing the Risks of Extreme Events and Disasters to Advance Adaptation”  
Out 2011  
Promoted by UNISDR and Norway

## UNFCCC

Conference of the Parties = COP  
Kyoto Protocol meets as  
COP/MOP

Decision  
1/CP.10

Nairobi Work  
Programme

Bali Action  
Plan

## The Bali Action Plan

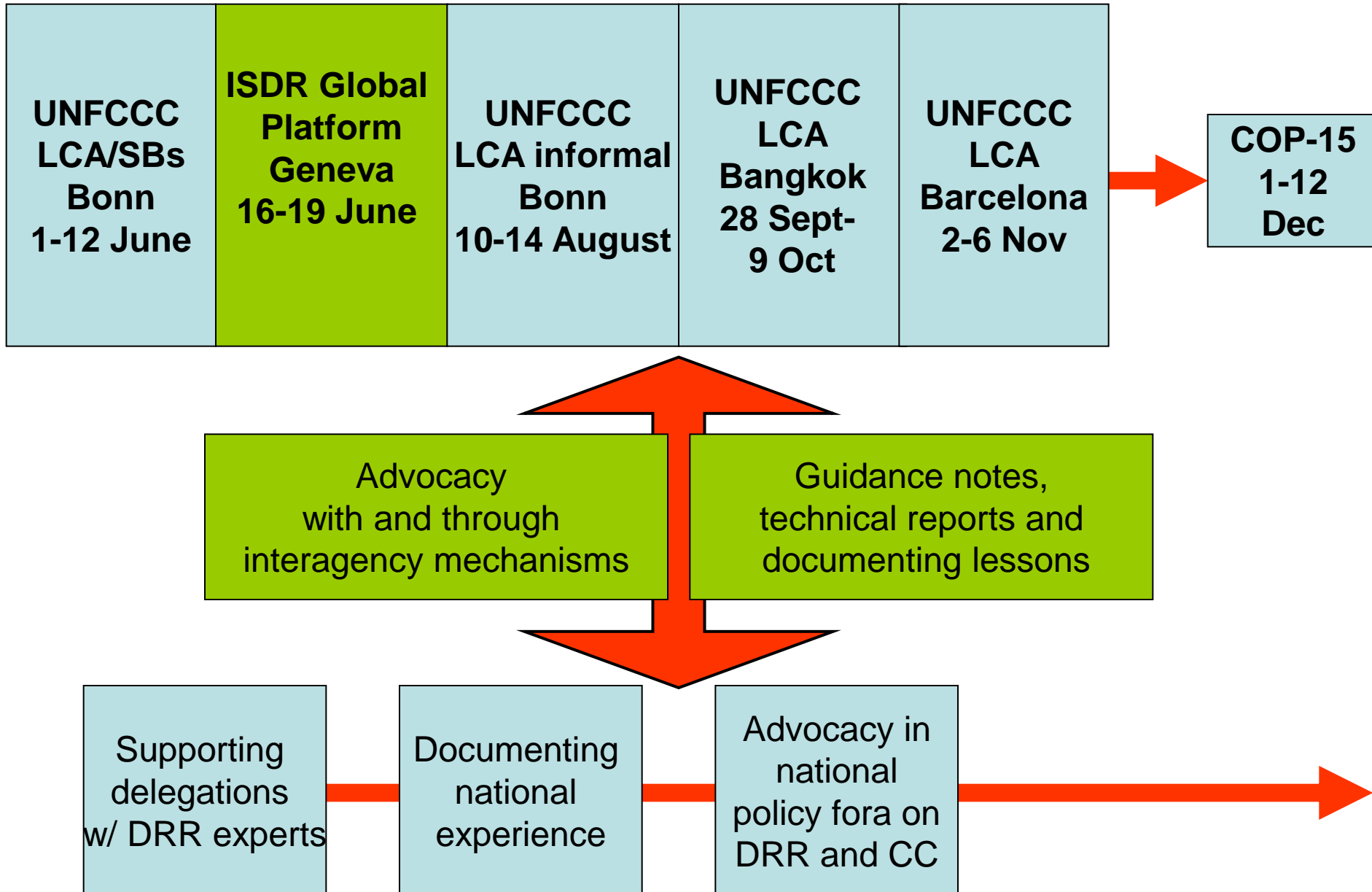
- Adopted by Governments at UNFCCC/COP-13, Bali, December 2007
- Roadmap towards a new international climate change agreement post-2012 (Kyoto Protocol)
- Disaster risk reduction as part of enhanced action on climate change adaptation. Calls for:
  - *“Disaster reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change”*

The inclusion of disaster risk reduction reflects:

- Recognition that climate change adaptation should benefit from experience in reducing disaster risk
- Opportunity to build synergies: e.g., disseminate existing tools, scale-up successful risk reduction efforts







# IPCC: Understanding the problem



2500+ scientists : human influence on climate  
greenhouse gases (GHG) accumulated in  
atmosphere since industrialization (1867) from  
burning of fossil fuels and deforestation.

Projected:

- Temperature increase up to 6.4°C
- Sea-level rise from 50 to 95 cm.
- ENSO more frequent and intense
- Increase in extreme events: drought, storms, floods
- Current is warmest period in 10,000 years and probably last 650,000

# IPCC Special Report

- Proposed by UNISDR and Norway 2008
- Scoping meeting hosted by Norway 2009
- Agreed unanimously by IPCC in April 2009
- Report “Managing the Risk of Extreme Events and Disasters to Advance Adaptation” to be completed mid-2011
- 9 chapters including 1 on case studies

# UNISDR support of IPCC Report

- Participation of developing country experts as authors
- Access to relevant DRR data and info
  - Contract tech organizations to build thematic bibliographies
  - Support completion and publication and peer-review of papers in key topics
  - Disseminate and promote use of final Report

## UNISDR support to negotiations and national implementation

- Support for adaptation planning and implementation
- Knowledge sharing: climate-risk info and know-how
- Developing partnerships and mobilizing resources

### *Examples*

- Participation of DRR advisors in national UNFCCC delegations, advocacy on negotiations text
- Highest level advocacy: UNSG, GP, parliamentarians
- Guidance notes on sector-specific adaptation
- Subregional assessments of risk info and capacities



## What you can do for DRR-CCA integration--1

- Provide literature for Special Report assessment: see [www.preventionweb.net](http://www.preventionweb.net)
- Nominate and support experts for IPCC 5th Assessment Report & submit literature
- Generate and “translate” climate risk information and engage with users to ensure it can be applied
- Report climate change activities in Hyogo Framework implementation report & HFA Monitor
- Strengthen DRR national platforms with institutions working in climate change
- Ensure climate negotiators include DRR in negotiations text
  - Meet your counterpart; call often; share progress in DRR; review texts together



Ban Ki Moon, UN SG, 29  
September 2008

"We should not take longer... if we are slow to adapt to climate change, we risk making disasters even more catastrophic than they already are. We should build on the HFA and DRR awareness to protect vulnerable populations against climate change."