

# Integrated Ministry Quality (IMQ) Forum

World Vision Learning Event • Bangkok, Thailand • 11-15 August 2008

# PLANET PREPARE

Photo: Paul Willows/NASA

**Presentation available:**

<http://luetz.com>

*“Climate change is not just an environmental issue, as too many people still believe. It is an all-encompassing threat.”*

*—Kofi Annan, former UN Secretary-General*

“ For tomorrow belongs to the people who **PREPARE** for it today. ”

*–African Proverb*

1. Climate Change
2. Climate Storms
3. Climate Preparedness



## Megacities

Photo: Amio Ascension

1. “Urban Millennium”
2. 5 Billion people in cities by 2030
3. 12 Megacities in Asia by 2015



Photo: Andrea Dearborn

## Mega-Challenges

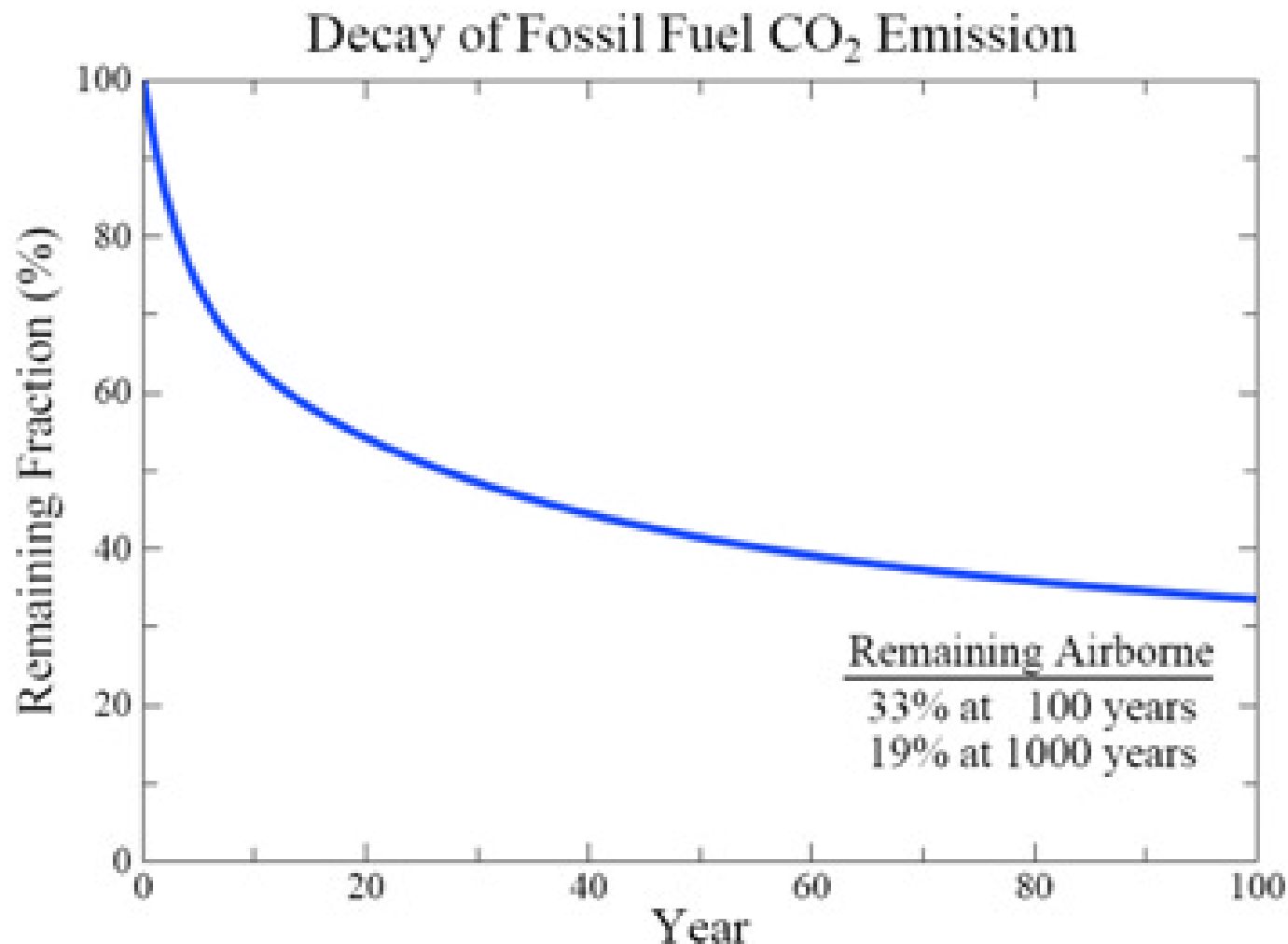
1. Coastward urbanisation: 50% of world pop < 100 km by 2030
2. Proliferation of slum settlements: 2 billion slum dwellers by 2030
3. Sinking cities (“over-development” and groundwater extraction)



## Mega-Pollution

Photo: Clint Spencer

1. Cars increase in China (15x) and India (13x) within 30 years
2. Carbon Dioxide growth from 23 (1990) to 32 gigatonnes (2008)
3. Requirement: Decreases by 50-85% by 2050 (IPCC)  
Projections: Increases by 51% by 2030 (EIA)



The fraction of CO<sub>2</sub> remaining in the air, after emission by fossil fuel burning, declines rapidly at first, but 1/3 remains in the air after a century and 1/5 after a millennium (*Atmos. Chem. Phys.* **7**, 2287-2312, 2007).

*“A level of per capita income comparable with that of the industrialised countries would, on today’s model, require a level of energy use beyond the world’s energy resource endowment and the absorptive capacity of the planet’s ecosystem.’ ... It is impossible to go on as now.”*

*—Michael Richardson, Institute of Southeast Asian Studies, synthesising the World Energy Outlook 2007 of the International Energy Agency, IEA*





## Mega-Poverty

Photo: Jacqueline M. Koch

1. **946 Billionaires (\$3.5 trillion) > Africa's GDP (\$2.2 trillion)**  
[Share of world pop.: 0.0000143%]
2. **8.7 Million Millionaires (\$33.3 trillion) = 50% of world GDP**  
[Share of world pop.: 0.13%]
3. **98% of climate disasters in developing world (262 million p.a.)**



## Mega-Eco-Collapse

Photo: NASA

1. 83% of mangroves destroyed in Irrawaddy Delta (1924-1999)
2. 73,000 square kilometres of forest burned-slashed-hacked p.a.
3. 20% of global greenhouse gas emissions from forest slashing



Photo: Abi Hardjatmo

- + More Urbanisation
- + More Vulnerability
- + More Pollution
- + More Disparity
- + More Degradation

**= 21st Century Climate  
Change Context**

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## VIDEO

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An Inconvenient Truth

Scene 1: Greenhouse gas chart

Scene 2: Wind Storms



## POLE POSITION

Photo: Erlend Kvalsvik

There could be no more serious threat than for the world's most rapid warming – 0.5 degrees Celsius per decade – to occur in the region with the world's largest ice mass – Antarctica. “Antarctica and Greenland [hold] 98-99 percent of the world's freshwater ice.” Severe signs of melting are being observed in both places, and the UNEP has warned of “severe consequences.” (United Nations Environment Programme, World Environment Day 2007)



## Sea Level Rise Potential:

1. Greenland: 7 metres
2. West Antarctic ice sheet: 6 metres
3. East Antarctic ice sheet: 50 metres

## POLE POSITION

Photo: Jan Will

**Tipping Points:** “Ominous tipping points loom. West Antarctic and Greenland ice sheets are vulnerable to even small additional warming. These two-mile-thick behemoths respond slowly at first, but if disintegration gets well underway it will become unstoppable ... if emissions follow a business-as-usual scenario, sea level rise of at least two meters is likely this century. Hundreds of millions of people would become refugees. No stable shoreline would be reestablished in any time frame that humanity can conceive.”

—Dr. James Hansen, Director of the NASA Goddard Institute for Space Studies and Adjunct Professor at the Columbia University Earth Institute



## PACIFIC ATLANTIS

Photo: Johannes Luetz

**J. Kela:** “What will the future hold for us?” Island chief John Kela (right) doesn't understand the science of climate change. But he sees that the ocean surrounding his island is rising.





## Climate Refugee Potential:

100,000 people displaced p.a.

65 million (1 m)

92 million (3 m)

128 million (5 m)

## Bhola Breakdown

Photo: Johannes Luetz

“Bhola – Bangladesh’s biggest island – is eroding at a phenomenal rate. From a size of 6,400 square kilometres in the 1960s, Bhola is now only half its original size.”

—Mohammad Shamsuddoha, General Secretary Equity and Justice Working Group



## CYCLONE NARGIS

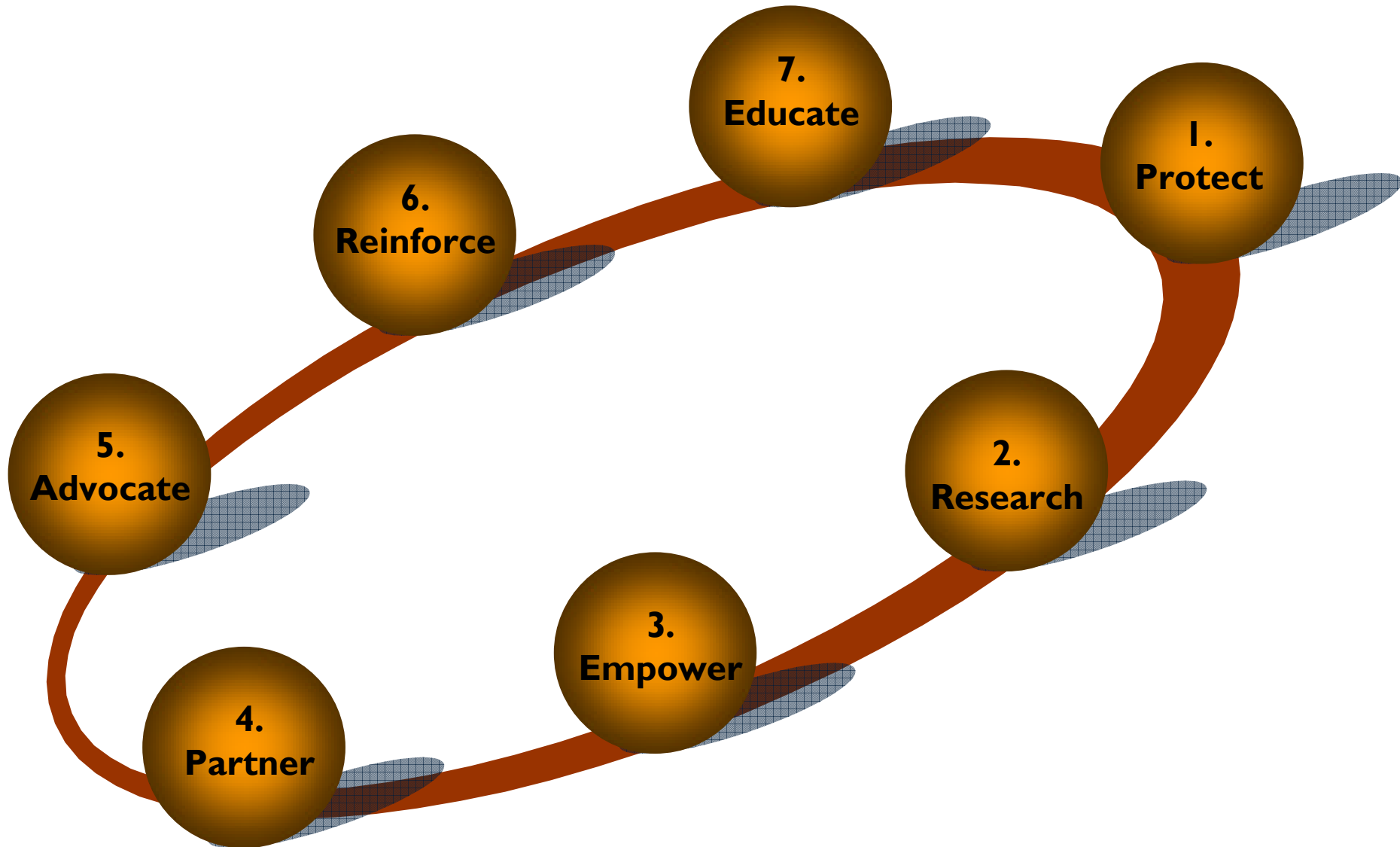
Photo: NASA

“What we are witnessing is not an aberration, but rather a ‘curtain raiser’ on the future. These events are not abnormal; they’re what I call the ‘new normal.’ The number of recorded disasters has doubled from approximately 200 to over 400 per year over the past two decades. Nine of out every ten disasters are now climate related. Last year, my office at the UN issued an unprecedented 15 funding appeals for sudden natural disasters, five more than the previous annual record. 14 of them were climate-related.” —Sir John Holmes, Under-Secretary General for Humanitarian Affairs and Emergency Relief Coordinator

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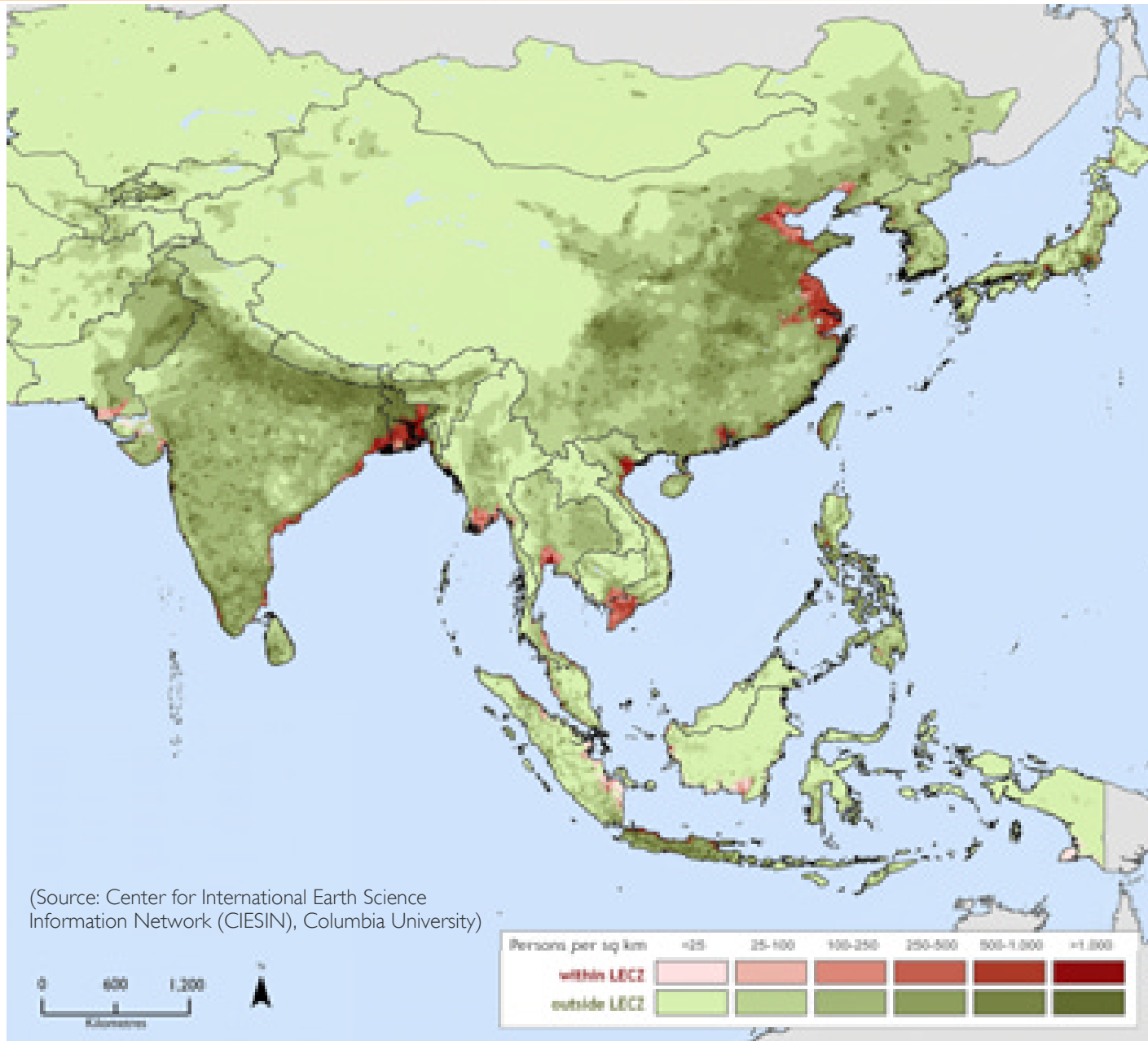


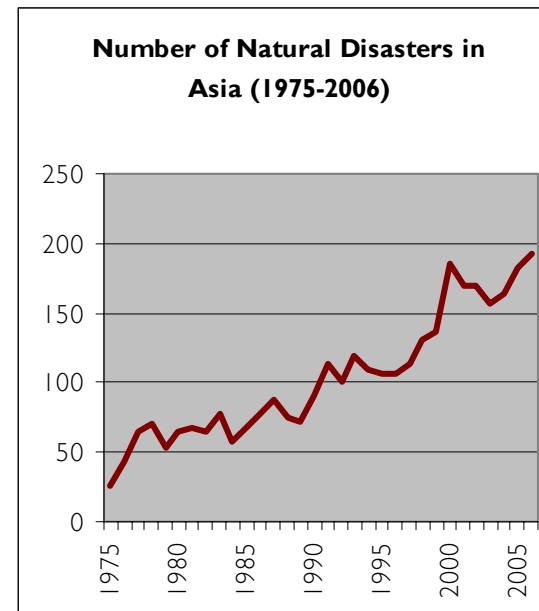
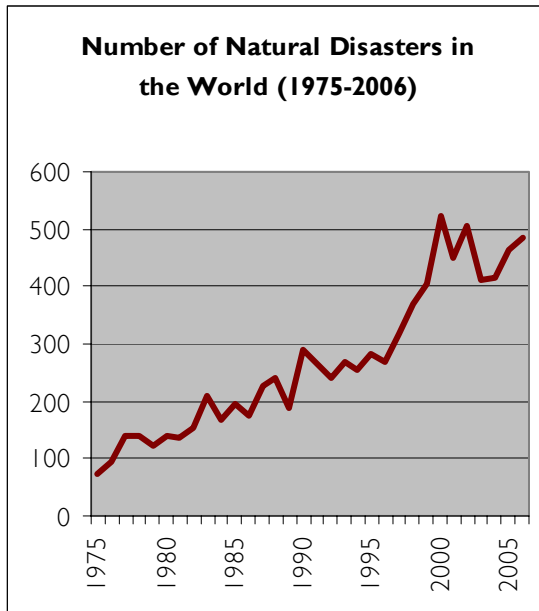
## Protect

Photo: Maida Erawani

1. Disasters destroy development
2. Preparedness protects progress
3. Climate change: potential to undo 50 years of human development

# RESEARCH PRIORITIES







## Empowerment

Photo: Amio Ascension

1. Communities: “first responders”
2. Communities: intrinsically powerful and resourceful
3. Championing local level leadership





Photo: NASA

1. One Earth
2. One Atmosphere
3. One Chance



1. “Climate Change Refugees”
2. Hyogo Framework for Action
3. Avoided Deforestation, Reforestation, Afforestation



## Reinforce

Photo: Amio Ascension

1. Software and Hardware
2. Disaster shelters, flood defences, etc.
3. Microinsurance



## Educate

Photo: Kit Shangpliang

1. School Safety
2. Disaster risk education
3. Societal transformation

**P**rotect Development

**R**esearch Priorities

**E**mpower Communities

**P**artner And Network

**A**dvocate Justice And Change

**R**einforce Disaster Defences

**E**ducate Children



Photo: Paul Willows/NASA

“Thank you!”

***In the last one hour of this presentation,***

*more than 3.6 million barrels of oil were "consumed", the majority was burned and has been absorbed by the Earth's thin atmosphere (87 million barrels are consumed daily).*

*—International Energy Agency (IEA)*

***In the last one hour of this presentation,***

*More than US\$ 400,000,000 in revenue were generated by the burning of these 3.6 million barrels of oil (US\$10 billion a day, US\$ 3.6 trillion a year)*

*—Last night's price of oil*

***In the last one hour of this presentation,***

*more than 3.6 million metric tonnes of Carbon Dioxide were emitted into the atmosphere (87.7 million metric tonnes daily, 32 billion metric tonnes annually)*

*—International Energy Agency*



***In the last one hour of this presentation,***

*more than 8 square kilometres of forest were cut down,  
slashed or burned (200 square kilometres daily, 73,000  
square kilometres annually)*

*—UN Human Development Report*

***In the last one hour of this presentation,***

*11 people in Bangladesh lost their homes due to river erosion (274 daily, 100,000 annually)*

*—Mohammad Shamsuddoha, General Secretary Equity and Justice Working Group*

***In the last one hour of this presentation,***

*1,200 children have died from poverty-related causes  
(30,000 daily, 10 million annually)*

*—UN Human Development Report*

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“Thank you!”