



***Sustainable Development and  
the Environment  
The Future We Want***



# The UN, the Millennium Development Goals and Sustainable Development

The MDGs have been the most successful global anti-poverty push in history and have been one of the greatest innovations in the history of development work.





## *Tracking the MDGs*

### **Several MDGs have already been met or are within close reach:**

- The proportion of people living in extreme poverty has been halved at the global level;
- Over 2 billion people gained access to improved sources of drinking water;
- Mortality rates from malaria fell by more than 25% globally between 2000 and 2010; and death rates from tuberculosis are likely to be halved by 2015 compared to 1990 levels;
- The proportion of undernourished people worldwide decreased from 23.2% in 1990-1992 to 14.9% in 2010-2012.

### The Millennium Development Goals Report 2013





## *Tracking the MDGs*

### **Despite the advances made in terms of the MDGs:**

- Environmental sustainability is under threat, with continuing loss of forests, species and fish stocks, and rapid growth of greenhouse gas emissions;
- Nineteen thousand children under age five die each day, most from preventable diseases;
- Women continue to be denied an equal opportunity in decision-making at all levels;
- There are disparities across regions and between different social groups;
- Climate change and disasters are eroding hard-won development gains.

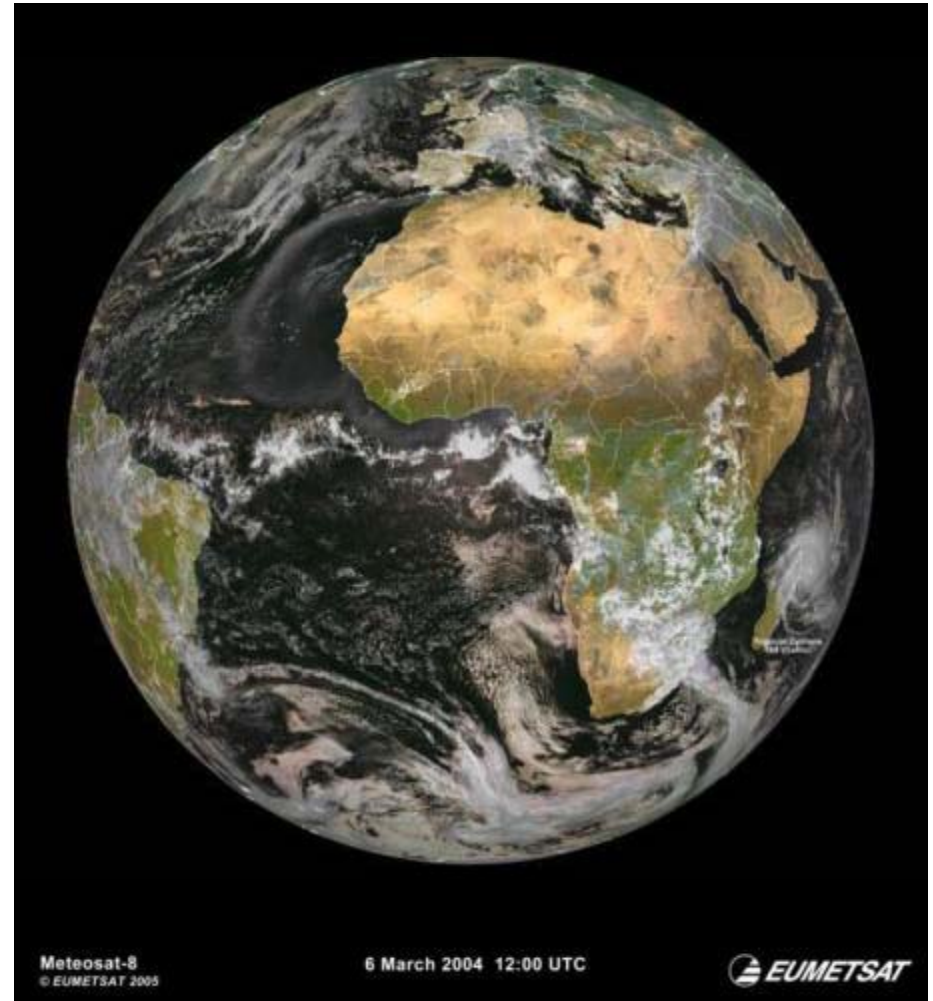




## *A global view to understand the global nature of the challenges we face ...*

Space applications provide us with a global view of the environment and in particular of phenomena and processes taking place in the atmosphere, on land and in the oceans:

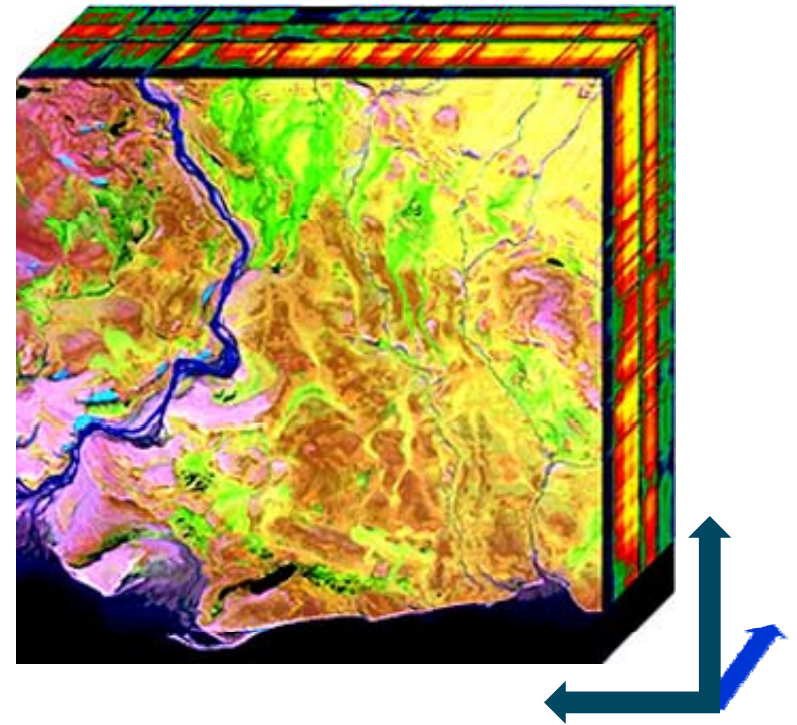
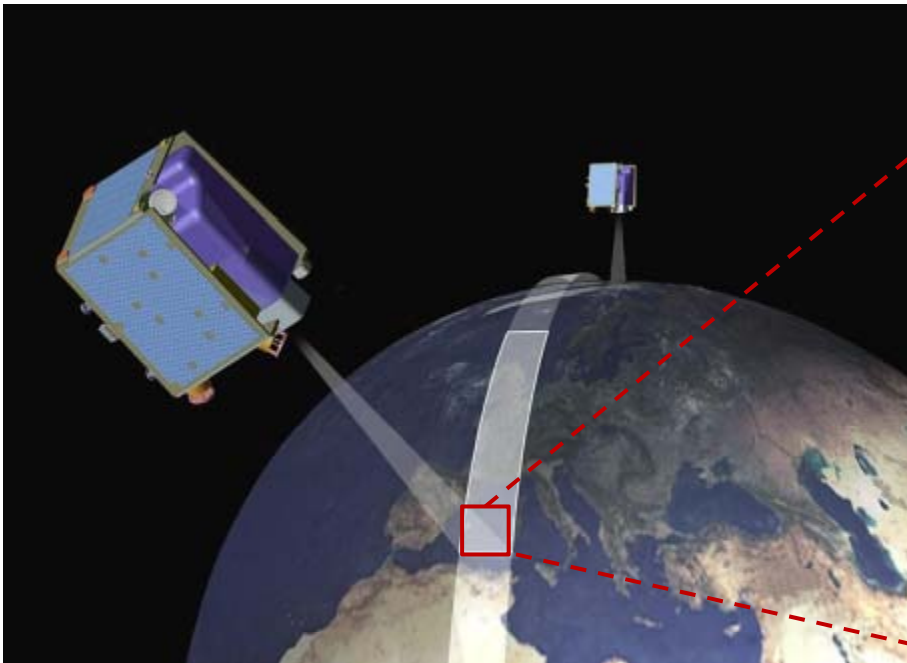
- Climate and Biodiversity;
- Land-use / Land cover;
- Development processes including urban growth;
- Disasters triggered by natural hazards;
- Environmental degradation and Desertification;
- Sea-level rise;





## *Biodiversity & the UNEP Conventions*

Remote Sensing: information gained by analyzing electromagnetic radiation that is reflected by the earth's surface



An artists impression of a satellite receiving electromagnetic radiation

Spatial + Spectral Resolution

used to monitor habitats from space



## *Biodiversity & the UNEP Conventions*

For example: the  
Monarch Butterfly  
(*Danaus plexippus*)



March, 2004

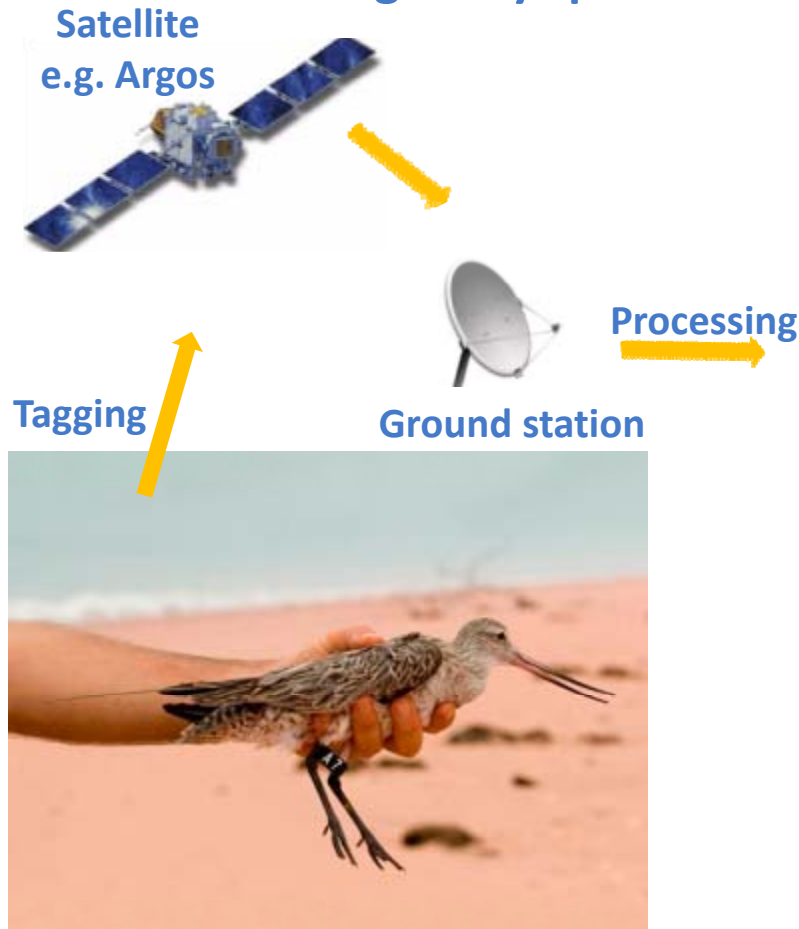


February, 2008

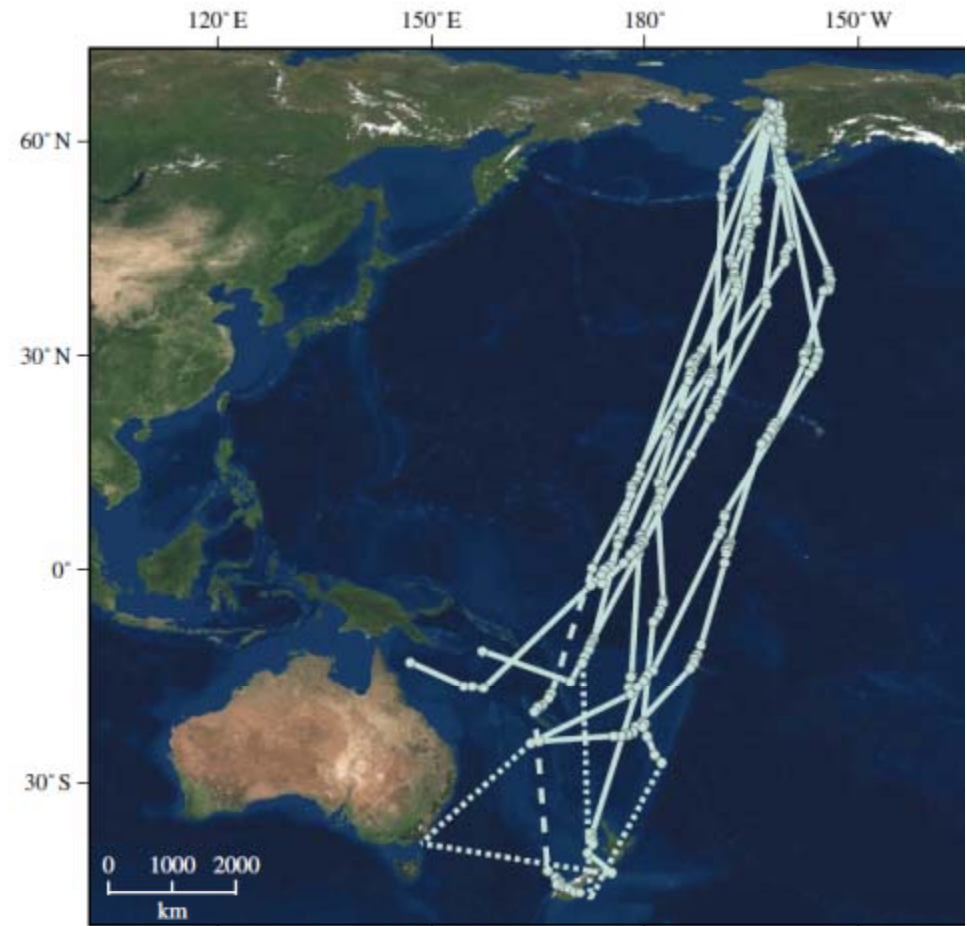


## Biodiversity & the UNEP Conventions

Satellite tracking used to gather information on the movement of migratory species



Bar-Tailed Godwit  
(*Limosa lapponica*)



Next: International Cooperation for  
Animal Research Using Space

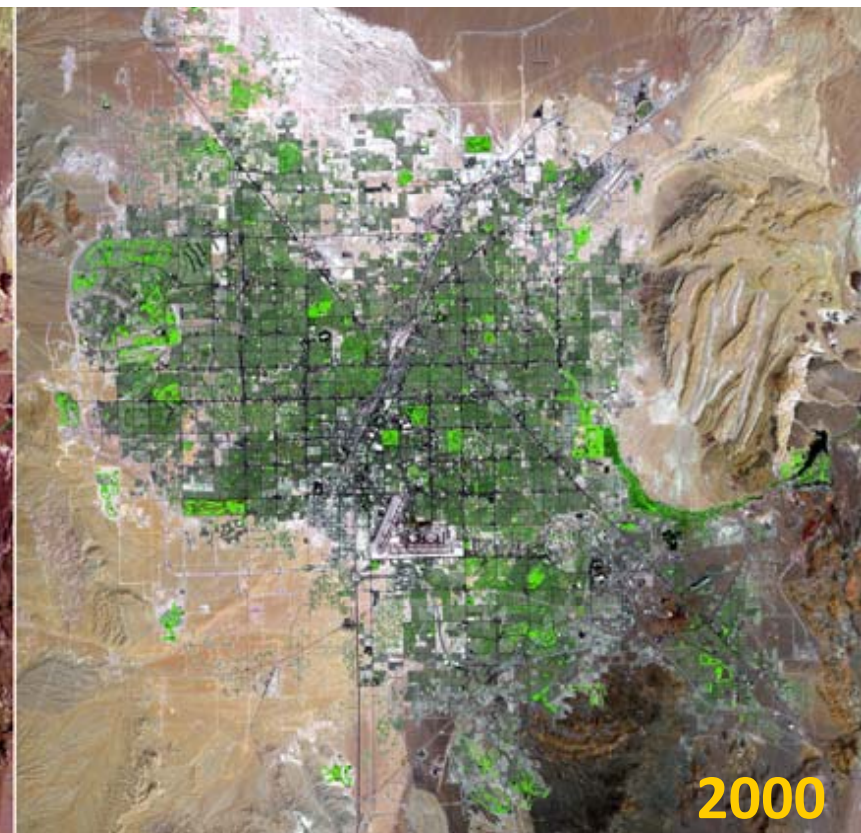
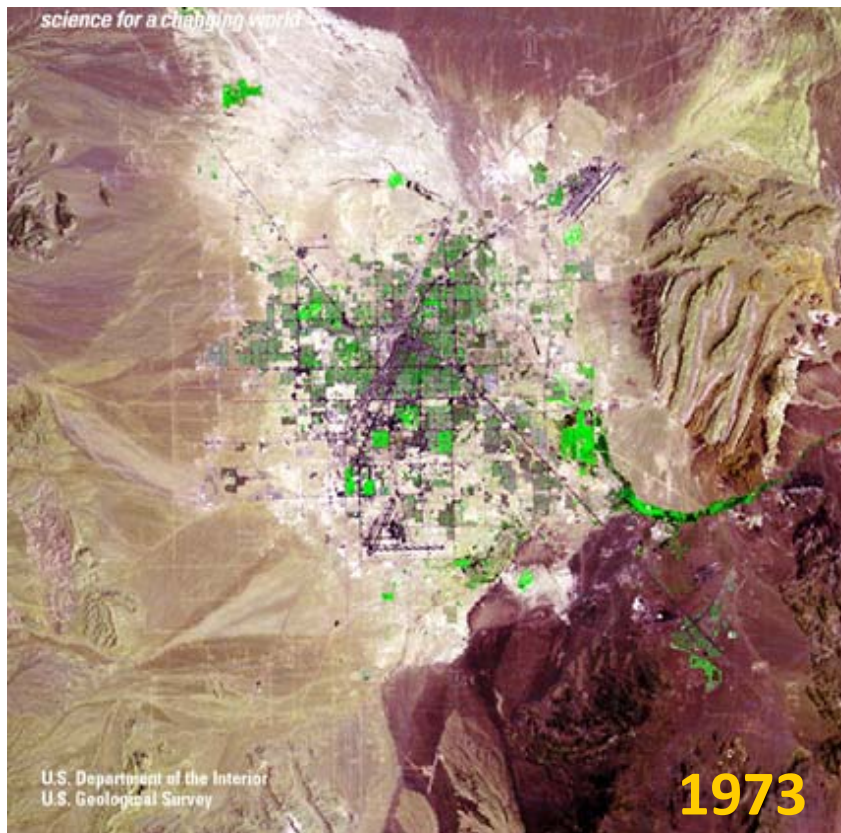






## *Or to track urban growth...*

### Las Vegas, Nevada



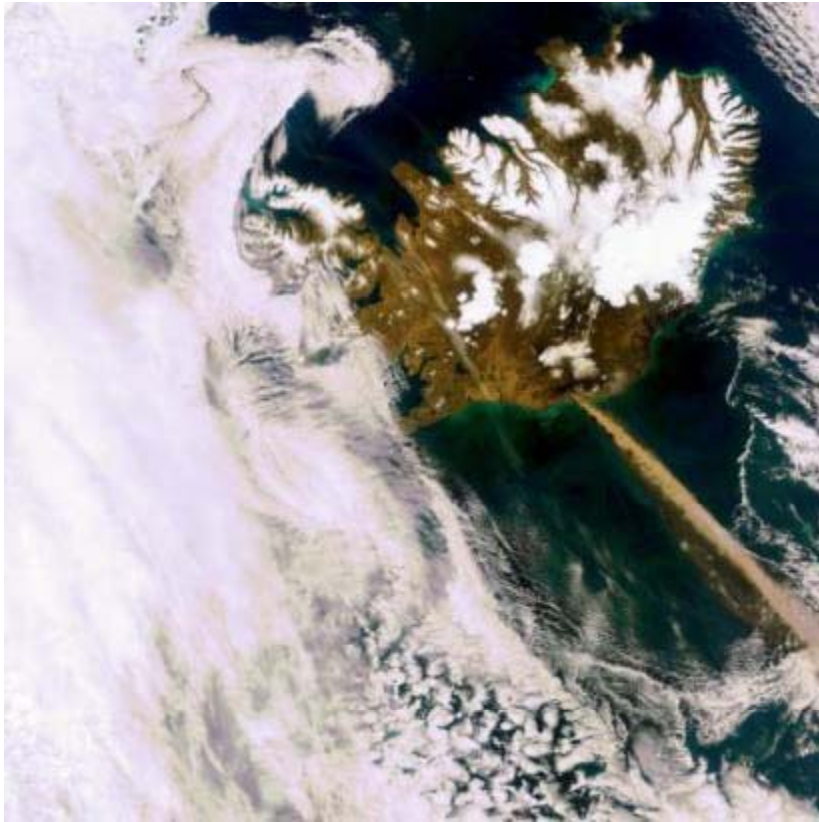
**Population: 358,000**

**1,560,000**



*Or to track hazards that can  
trigger disasters*

**ISDR &  
UN-SPIDER**



Whether volcanoes in  
Iceland and other regions



Or hurricanes in the oceans and  
seas of the world



## *The future we want is about*

- Our commitment to sustainable development; mainstreaming it at all levels; integrating economic, social and environmental aspects;
- Eradicating poverty;
- Sustainable livelihoods and the sustainable use of natural resources and ecosystems;
- Enabling all members of society to be actively engaged in this process;
- Adopting green economy as a way to enhance our ability to manage natural resources sustainably;
- The need for urgent action to reverse land degradation and loss of biodiversity;
- Cooperating to mitigate the effects of climate change and to adapt to its manifestations.

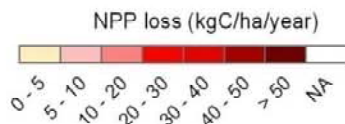
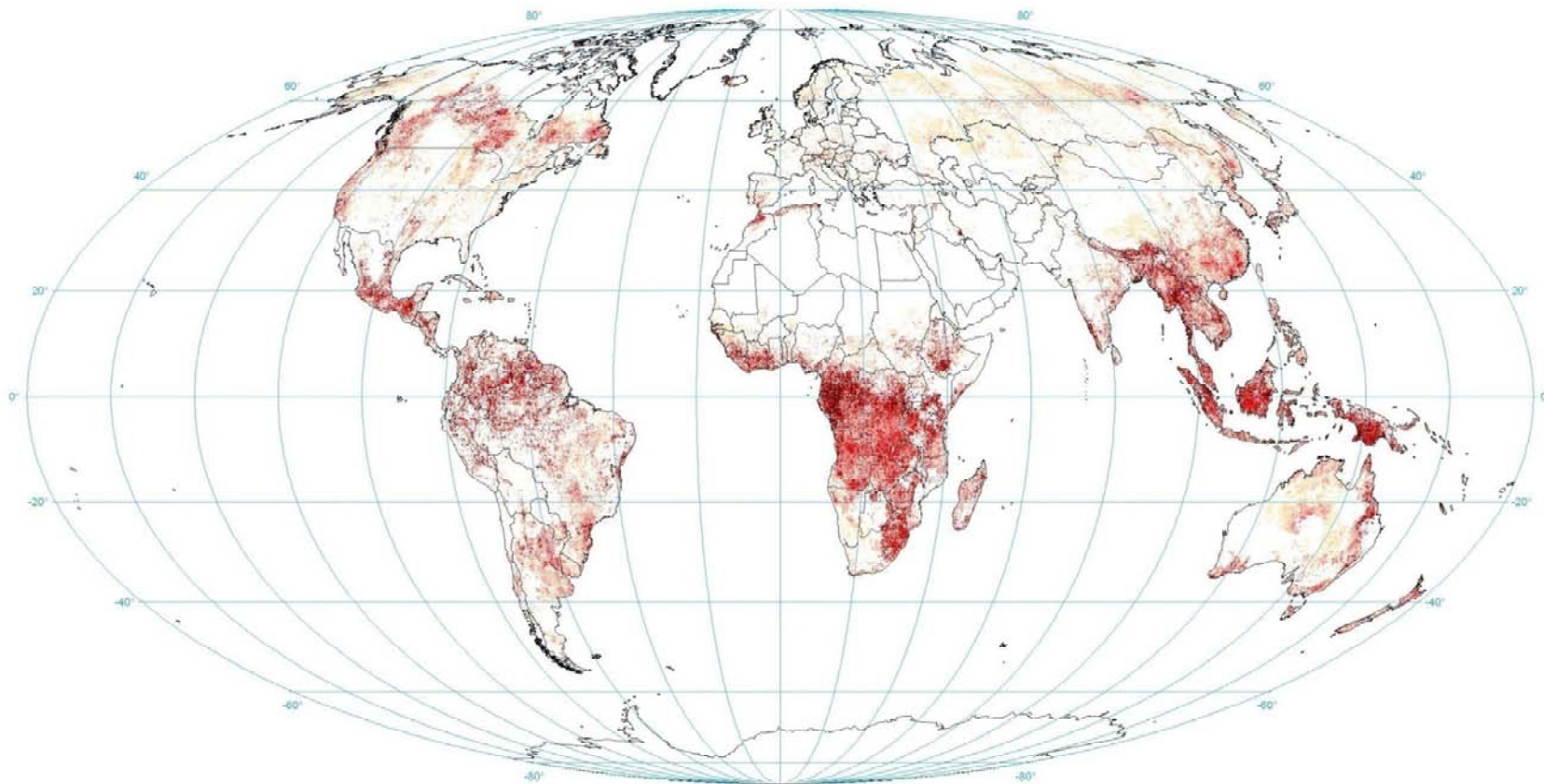




# Managing the problem of Land Vulnerability

UNCCD

## Global Loss of Net Primary Productivity between 1981-2006



Source: ISRIC - World Soil Information  
Mollweide Projection  
Central Meridian: 0.00

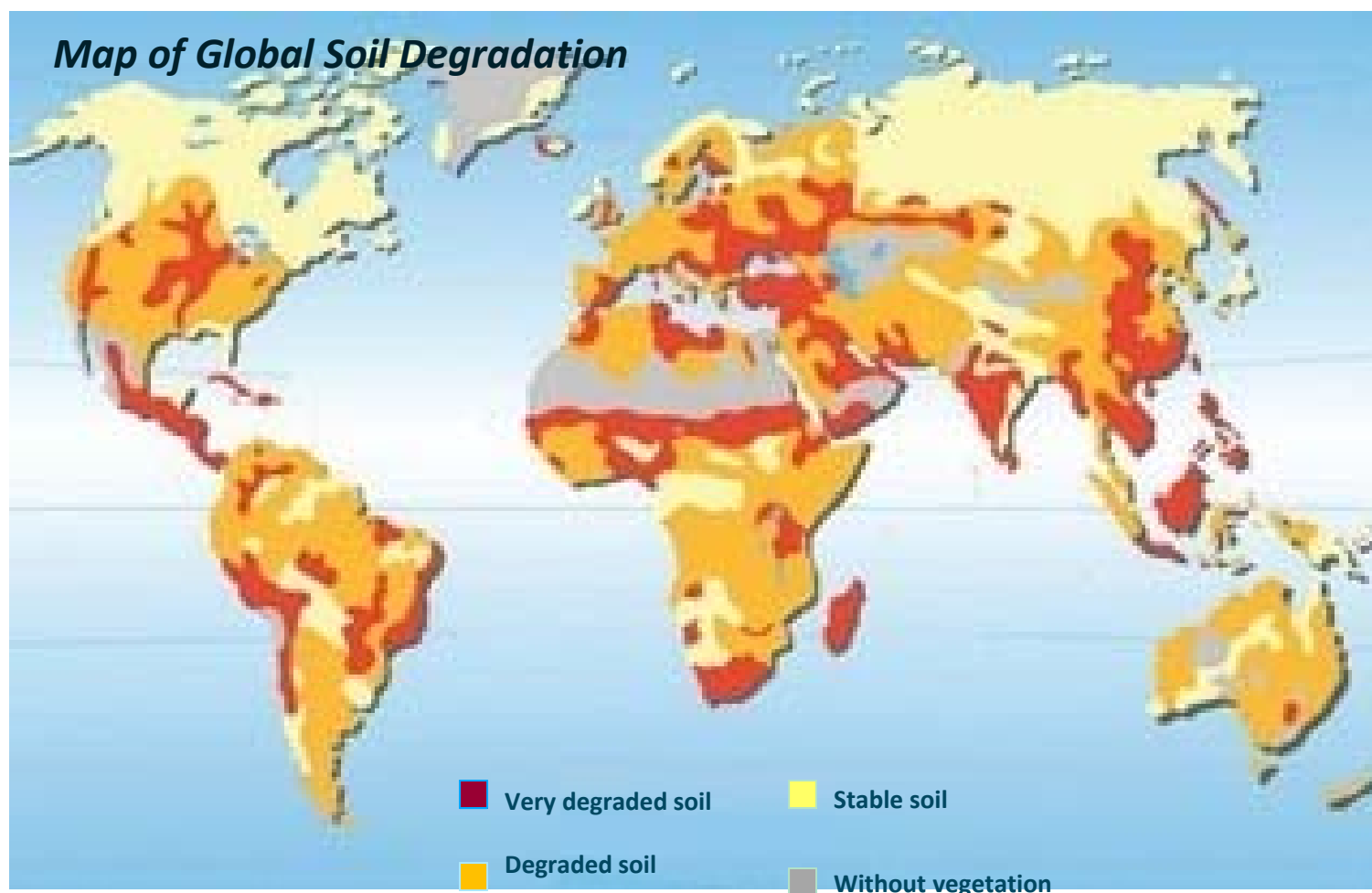


World Soil Information



## *Managing soil degradation worldwide*

**UNCCD**



*From UNEP/GRID–Arendal Maps and Graphics Library  
([http://maps.grida.no/go/graphic/global\\_soil\\_degradation](http://maps.grida.no/go/graphic/global_soil_degradation)).*



# *Improving capacities in Disaster Risk Management & Emergency Response*

**ISDR &  
UN-SPIDER**



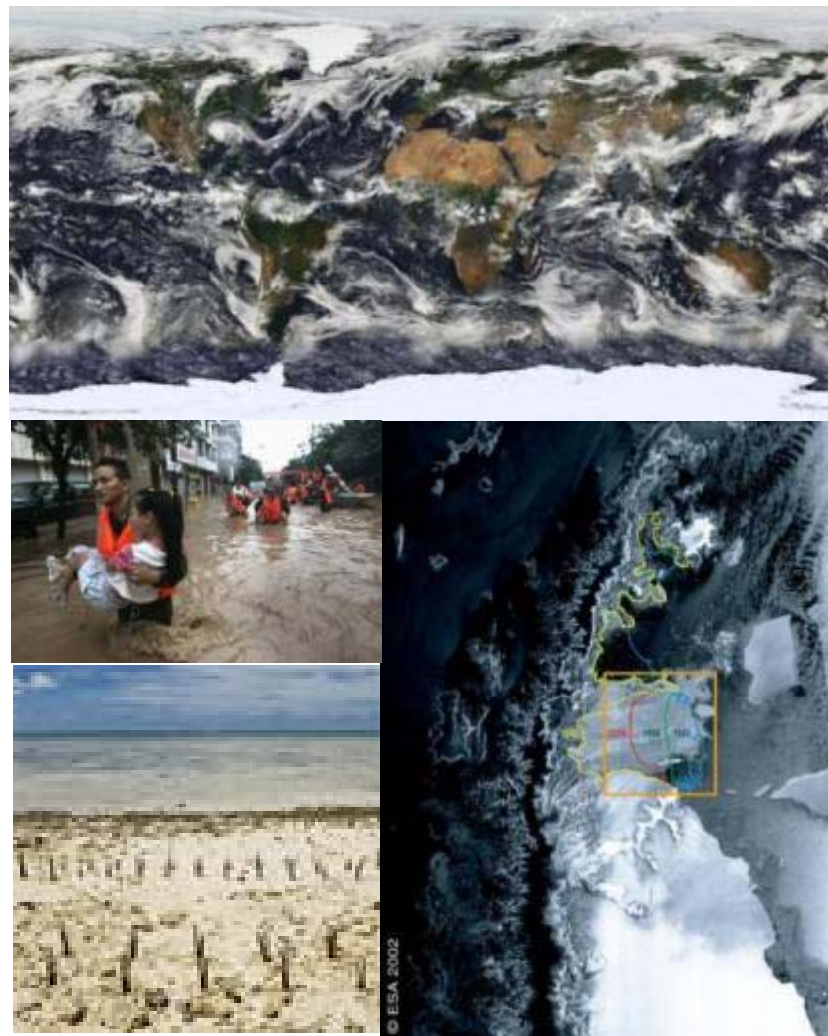


## Climate Change

UNFCCC

In 2009, Mr. Ban Ki-moon, Secretary General of the United Nations, stated that “...*Climate change remains the defining challenge of our time. The journey will be difficult, but it is one we must make. And it is one we must make together. The science demands it. The global economy needs it. And the lives and well-being of billions depends on it....*”

The UN supports governments to pursue mitigation and adaptation programmes aimed at promoting low-carbon, climate resilient development. It helps translate decisions taken at the COPs into actions on the ground.

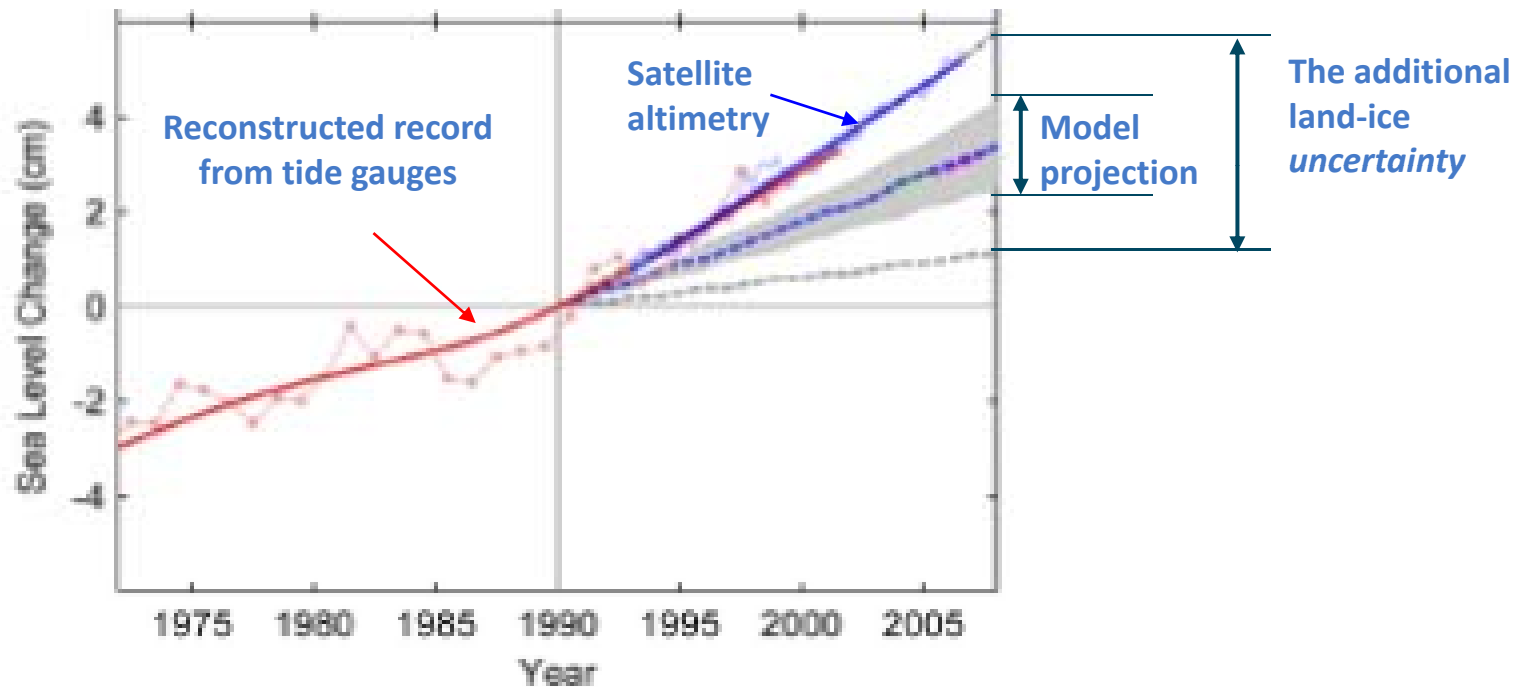




# Climate Change: sea level rise

UNFCCC

*The Intergovernmental Panel on Climate Change projects\* sea level to rise ~30-80 cm by 2100*



*But the observed sea level is rising at the upper limit of the earlier IPCC projection!*

*\* 4th Assessment Report ; Rahmstorf et al., Science, 2007*



### Poverty eradication

Improving livelihood through pro-poor policies on Sustainable Land & Water Management

### Food Security

Land availability & soil fertility improvement at the core of all long term strategies

### Drought & Water stress

Improving water availability & quality through sustainable land & water management

### Climate change

Land is a win-win context for adaptation, mitigation & resilience building

## SYNERGIES

### Biodiversity

Biodiversity conservation through improvement of land ecosystems' conditions

### Avoided Deforestation

SLM & Land rehabilitation / reclamation as an alternative to deforestation

### Bio Energies

Opportunities to invest in/for the people living in the degraded lands & Provide alternative to Biomass

### Avoiding Forced Migrations

Through improving water availability and land productivity



## *The United Nations, Outer Space, the Environment and Sustainable Development*

The **Committee on the Peaceful Uses of Outer Space (COPUOS)** was set up by the United Nations General Assembly in 1959 to facilitate international cooperation in peaceful uses of outer space. COPUOS has two Sub Committees:

- Scientific and Technical Sub Committee;
- Legal Sub Committee.





# UNITED NATIONS Office for Outer Space Affairs

The **United Nations Office for Outer Space Affairs (UNOOSA)** implements the decisions of the General Assembly and of COPUOS; and assists developing countries in using space technology for development.

The core business of the Office is *to promote international cooperation in the peaceful use and exploration of outer space to achieve development goals for the benefit of humankind.*

UNOOSA serves as the Secretariat to the Inter-Agency Group on Outer Space Activities.





## *The future we want is about*

**Our commitment to sustainable development recognizing:**

- The need to eradicate poverty, hunger and diseases;
- The need to recognize that our future depends on our respect for bio-diversity;
- The need to globalize prosperity and human security;
- The need to make rational and sustainable use of land, the oceans, the atmosphere and outer space.





## *The UN in Bonn*

*Don't let our future dry up...*

*and remember the formula:*

*Without ending poverty, we cannot build prosperity. Without building prosperity, we cannot tackle environmental challenges. And without environmental sustainability, we cannot end poverty.*

*(Quote from the UNSG)*

