

# Cooperation in the Group on Earth Observations (GEO)



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# Cooperation in the Group on Earth Observations (GEO)



GEO and GEOSS  
background

Ministerial Earth  
Observation Summit

Accomplishments

Future opportunities

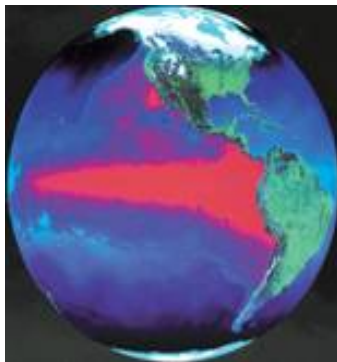
# Earth Observation Imperative

Understanding the Earth system is fundamental for well informed economic decision making

A global approach to Earth observation is required

All countries can benefit from the Global Earth Observation System of System

## GEOSS





# Initiative for GEOSS

## President's Statement on Earth Observation Summit July 31, 2003

“....Working together, our nations will develop and link observation technologies for tracking weather and climate changes in every corner of the world, which will allow us to make more informed decisions affecting our environment and economies. Our cooperation will enable us to develop the capability to predict droughts, prepare for weather emergencies, plan and protect crops, manage coastal areas and fisheries, and monitor air quality.”



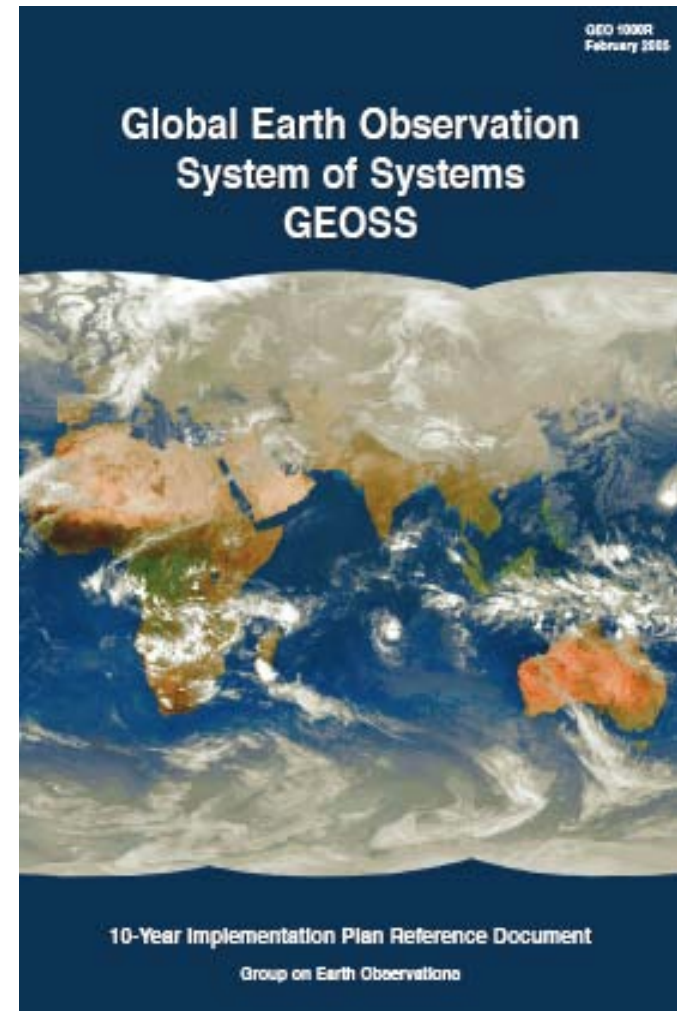
Secretary of State Colin Powell  
opening the first Earth  
Observation Summit



# GEO and GEOSS

GEO - The intergovernmental Group on Earth Observations involving 72 Member Countries, the European Commission and 48 Participating Organizations – four co-chairs (US, EC, China, South Africa)

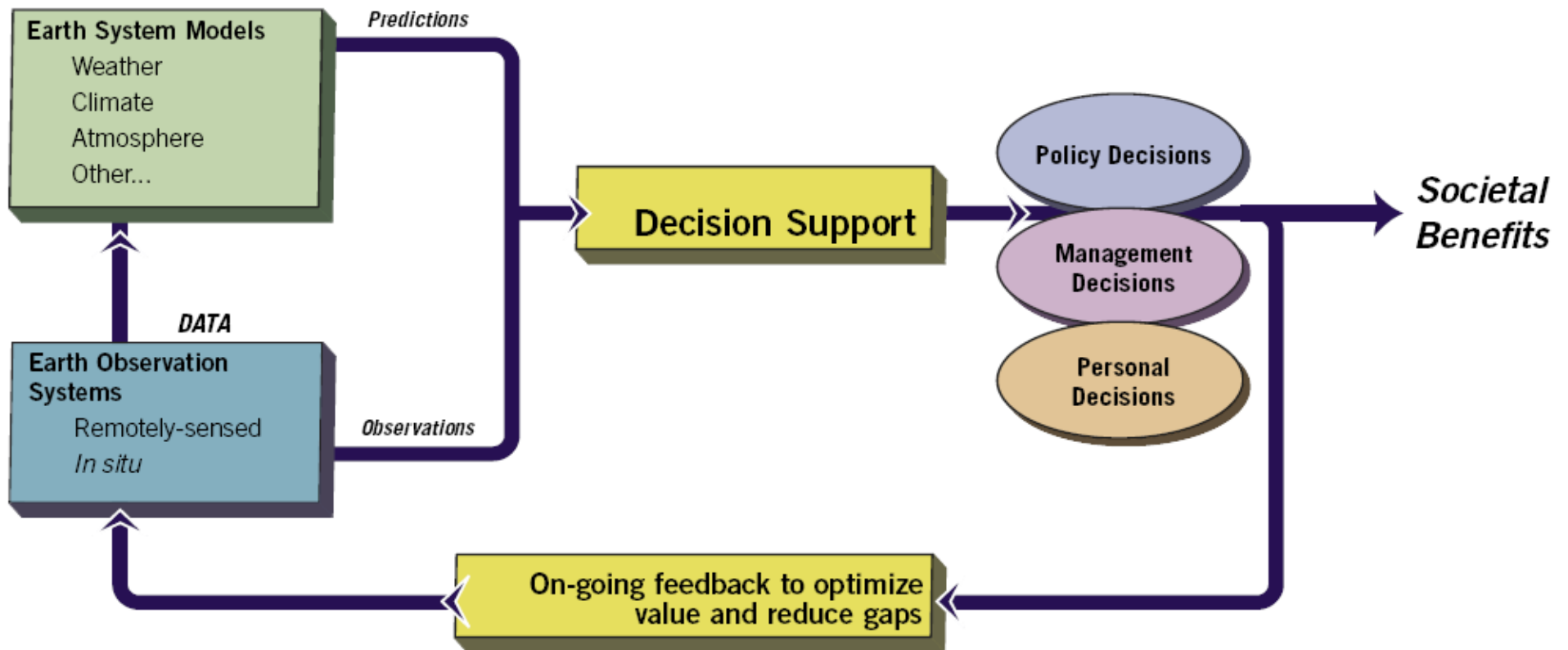
GEOSS - The objective of GEO is to implement a Global Earth Observation System of Systems (GEOSS) over 10 years to provide comprehensive, coordinated Earth observations



# Example GEOSS Observations



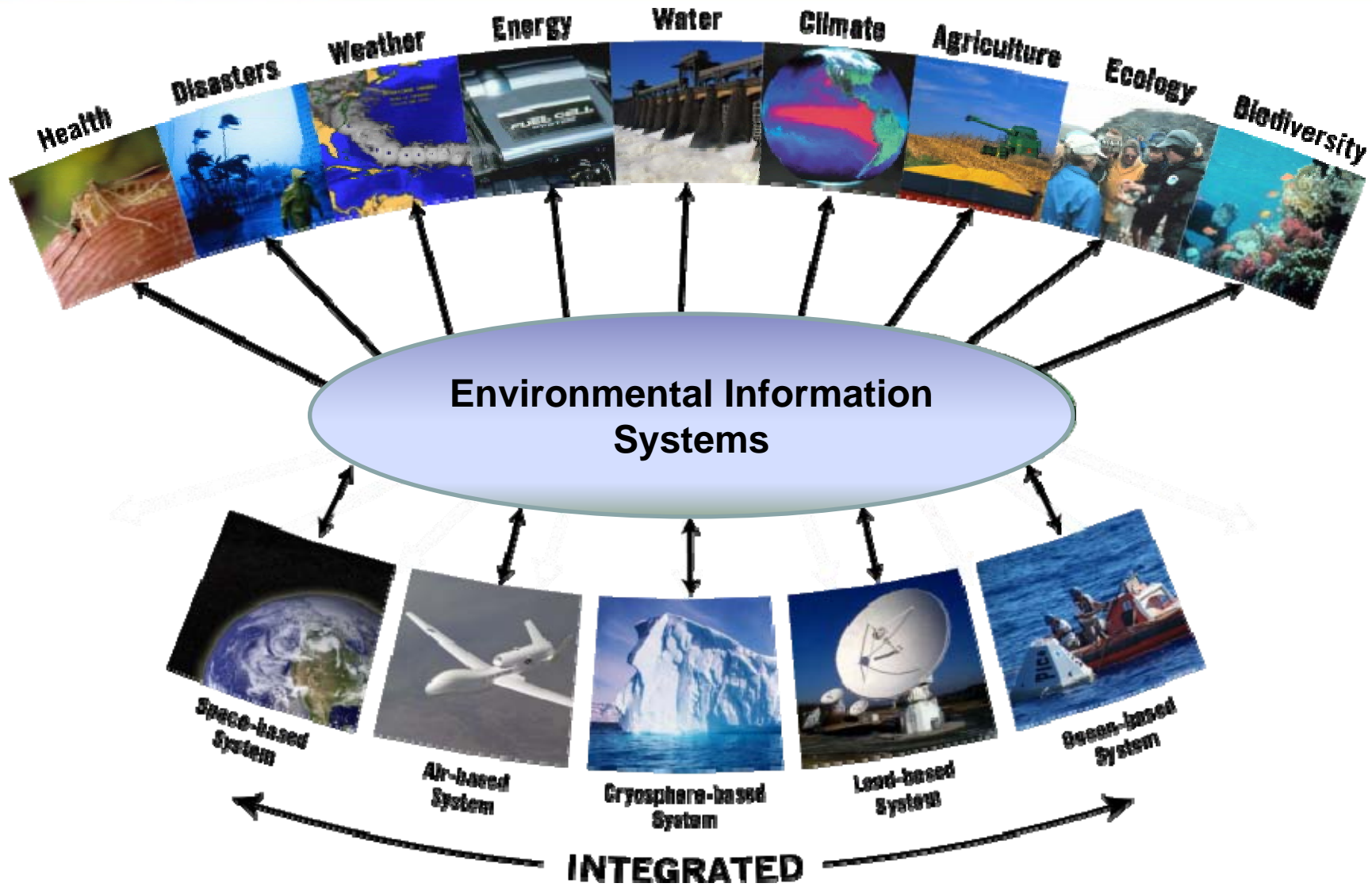
# GEOSS Decision Support Model





# GEOSS

Global Earth Observation System of Systems



# USGEO Strategic Plan



**Vision:** “Enable a healthy public, economy, and planet through an integrated, comprehensive, and sustained Earth observation system.”

**Purpose:** “to provide a management, planning, and resource allocation strategy for a U.S. Integrated Earth Observation System”

<http://usgeo.gov>





# China Earth Observation Plan

CIEOS

## China Integrated Earth Observation System

(Ten -Year Plan)



November 2007

CIEOS

## 中国综合地球观测系统

(十年规划)



二〇〇七年十一月



# GEO History and Progress



## EOS I – July 2003, Washington

- 34 Members + 20 International Organizations

## EOS II – April 2004, Tokyo

- 47 Members + 26 International Organizations

## EOS III – February 2005, Brussels

- Nearly 60 Members + 34 International Organizations

## EOS IV – November 2007, Cape Town

- 73 Members + 52 International Organizations
- First Ministerial Meeting Since 10 Year Plan Adopted



# 2007 GEO Plenary and Ministerial Summit Outcomes

## Adoption of the Cape Town Declaration

- Data Interoperability and Sharing
- Common Alerting Protocols
- Radio Frequencies for EO

## New GEO Executive Committee Members

- Argentina, Australia, Norway, Panama/Belize, Uganda

## GEOSS in the Americas Caucus side meeting:

- nominated Executive Committee members from region
- Discussed Americas organization structure

Global Drought Warning System task initiated through side meeting

Air Quality monitoring system for GEO initiated through side meeting

GEO Progress Report approved including emerging themes:

- Climate Change
- Water Security
- Changing Landscapes, Ecosystem Health and Biodiversity
- Disaster Mitigation and Response

IGOS Partnership folded into GEO structure-science themes preserved

Next Plenary: Nov. 2008 in Beijing;

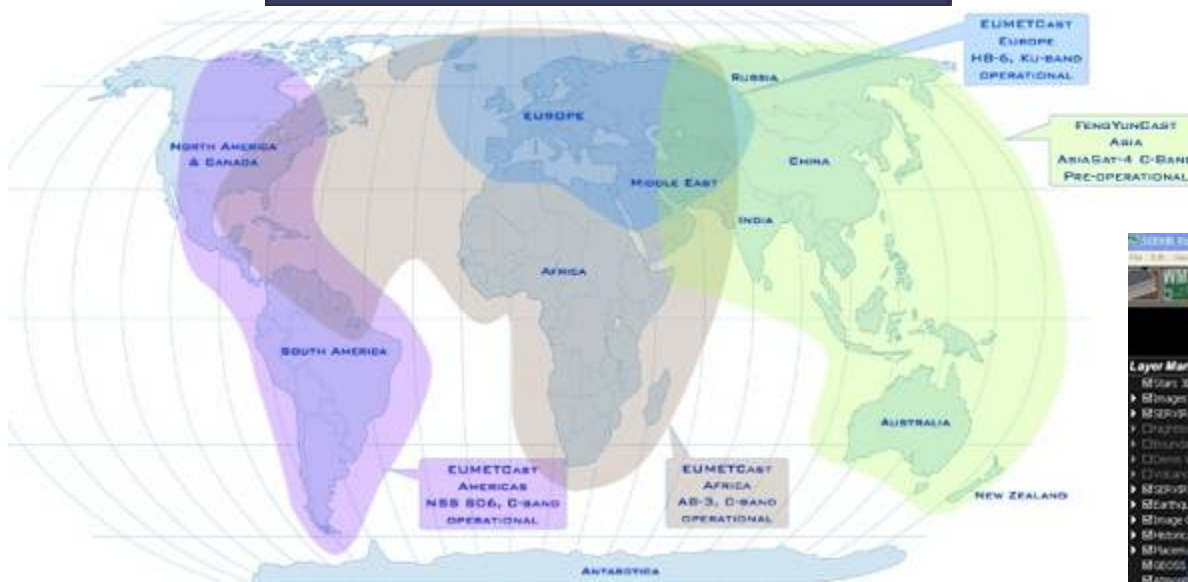
Next Summit: By end of 2010



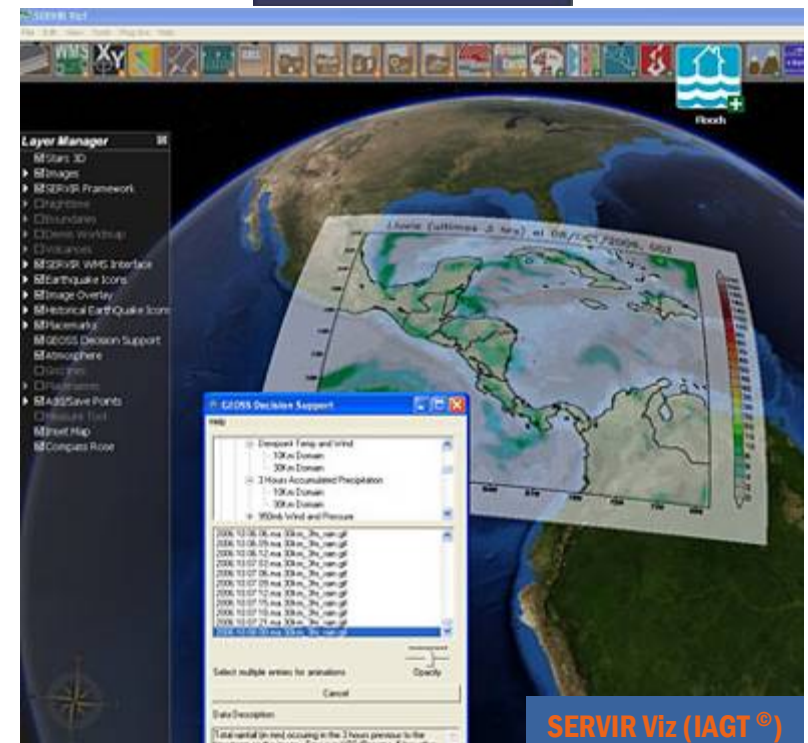
# GEOSS Achievements

## GEONetCast & SERVIR

### Current GEONetCast Coverage



### SERVIR Project



SERVIR Viz (IAGT)

GEONETCast and SERVIR address key issues -- data access and utilization -- which are critical to every member of GEO



# GEOSs Achievements

*AIRNow International*

## Goals

International collaboration and knowledge exchange on air quality

Develop AIRNow observation system internationally

Promote local, national and international data exchange

Support and enhance other GEO initiatives (SERVIR, GEONETCast)

## Next Steps

User needs & Pilot projects:

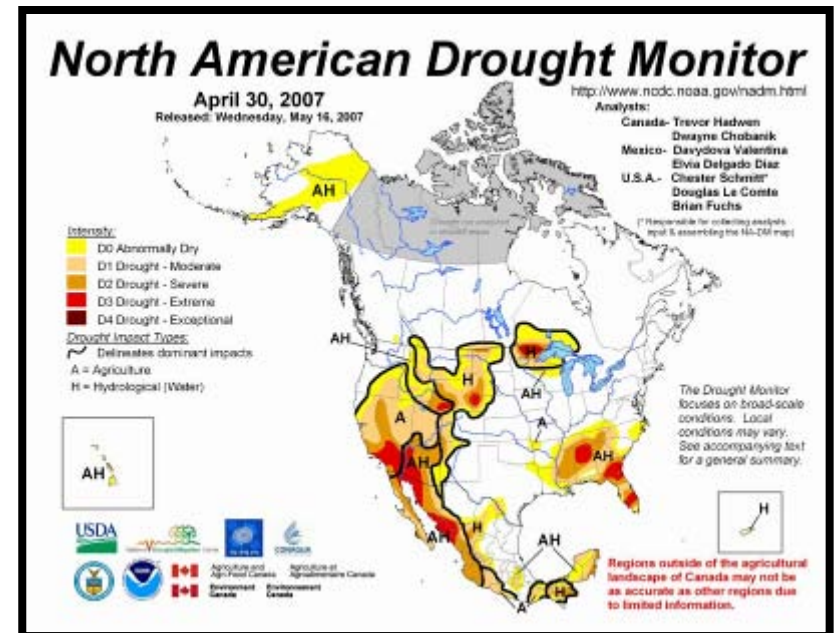
- Shanghai Environmental Protection Bureau (EPB)
- Guangdong EPB, Hong Kong EPB (pending)
- South Africa (pending)



# GEOSS Achievement Drought Early Warning System

Development of an International Drought Early Warning System that will:

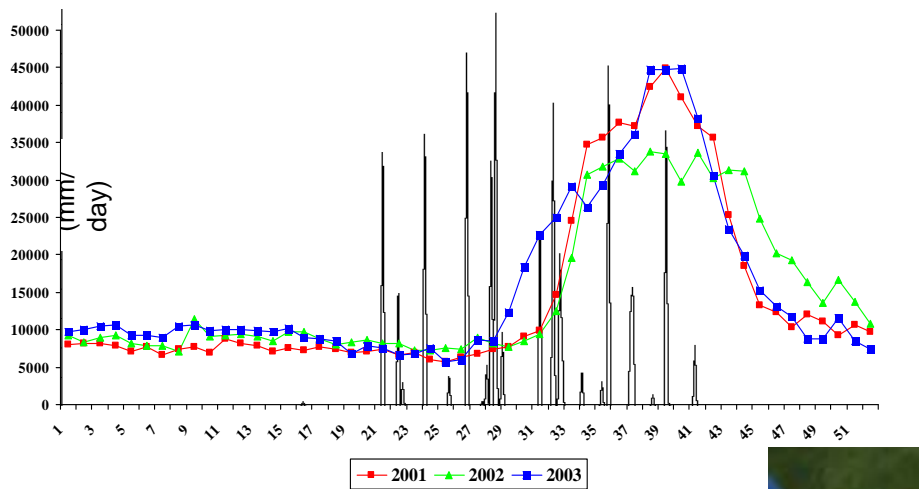
- Enable the production of a global drought monitor
- Provide information for drought response, planning, mitigation, and recovery
- Act as a data integrator to complement and support United Nations programs related to drought



**North American Drought Monitor**  
Concept to be expanded internationally

# Future GEOSS Benefits

## *Africa Regional Health*



**Rainfall and Malaria**  
*Weekly Cases in Niger from 2001 to 2003*





# GEOSS Next Steps

Begin Global Earth Observing Systems Inventory

Develop GEO Data Policy Principles

Fully implement an operational GEONETCAST

Develop GEO global drought and air quality initiatives

Establish data and observation architecture of GEO

**Provide Earth observations for more informed socio-economic decision making**





# Contributing to the Global Mission



Natural & Human Induced Disasters



Water Resources



Ecosystems



Human Health & Well-Being



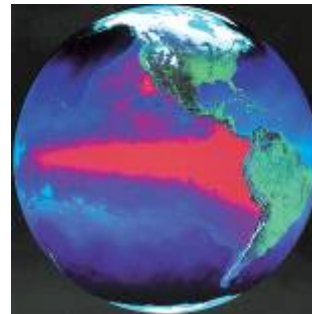
Energy Resources



Sustainable Agriculture & Desertification



Weather Information, Forecasting & Warning



Climate Variability & Change



Oceans

