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GEO Disaster Management Clearinghouse

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GEO Secretariat

WHY?

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"The Myanmar cyclone and Chinese earthquake disasters demonstrated that the world has plenty of imaging satellites to monitor disasters but is still unable to make imagery and other data easily and widely available to emergency-response teams"

"The two Asian disasters illustrate the danger of a duplication of effort among response teams **turning imagery into usable maps** for relief workers".

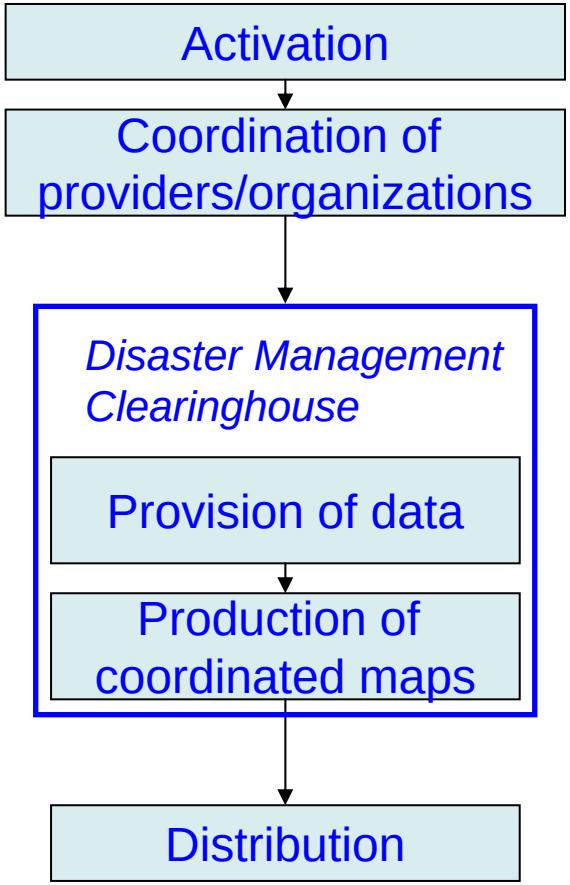
"There is an overwhelming amount of products available", and organizations involved, that require coordination.

(Space News, 9 June 08)

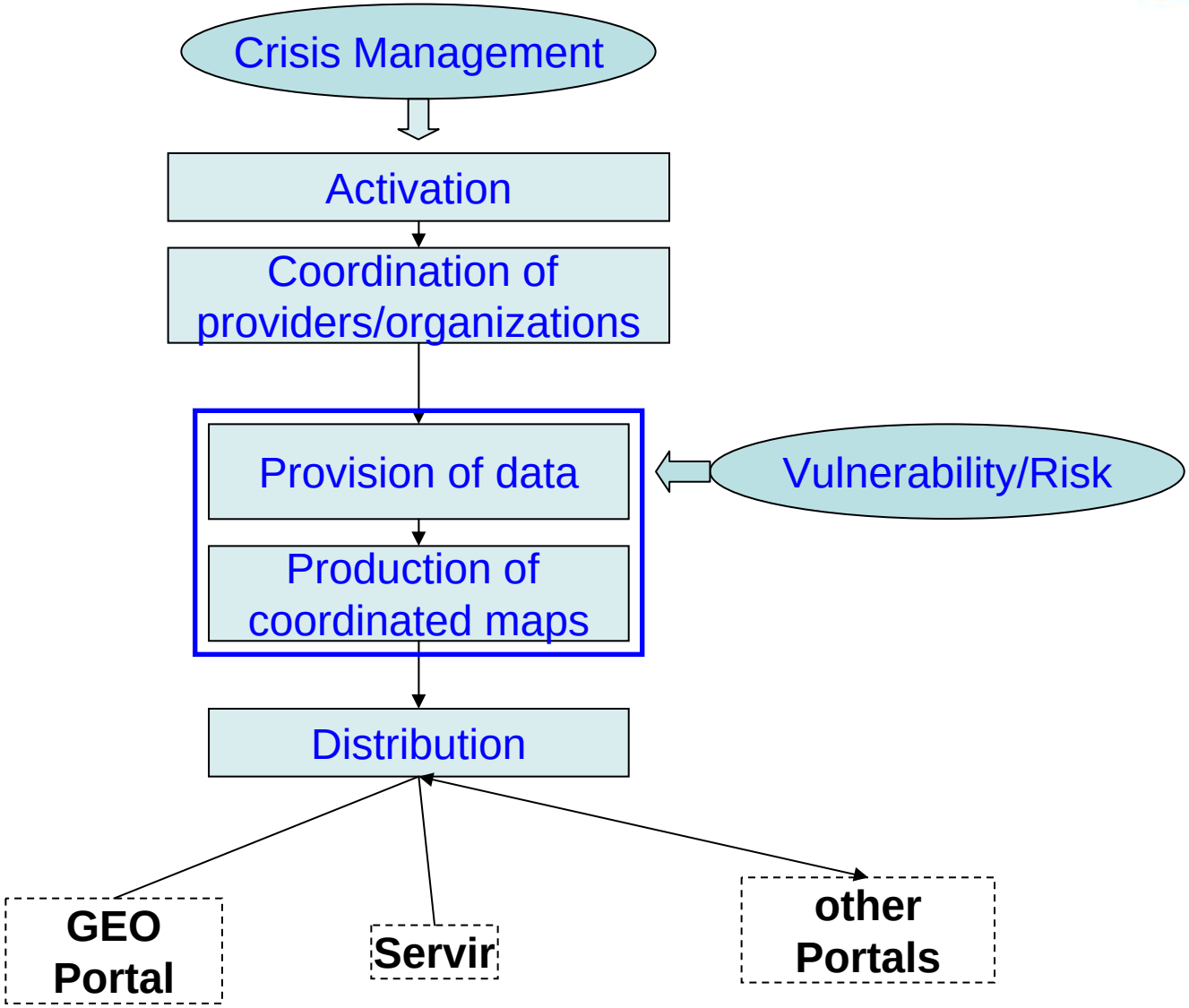
The Group on Earth Observations (GEO) proposes to coordinate all the providers and products developers and establish a service permitting disaster-response teams to benefit from all available space-based observations through maps of affected areas. This Disaster Management Clearinghouse would be a component of GEOSS and accessible via the GEO Portal or any other.

WHAT?

Building on existing efforts

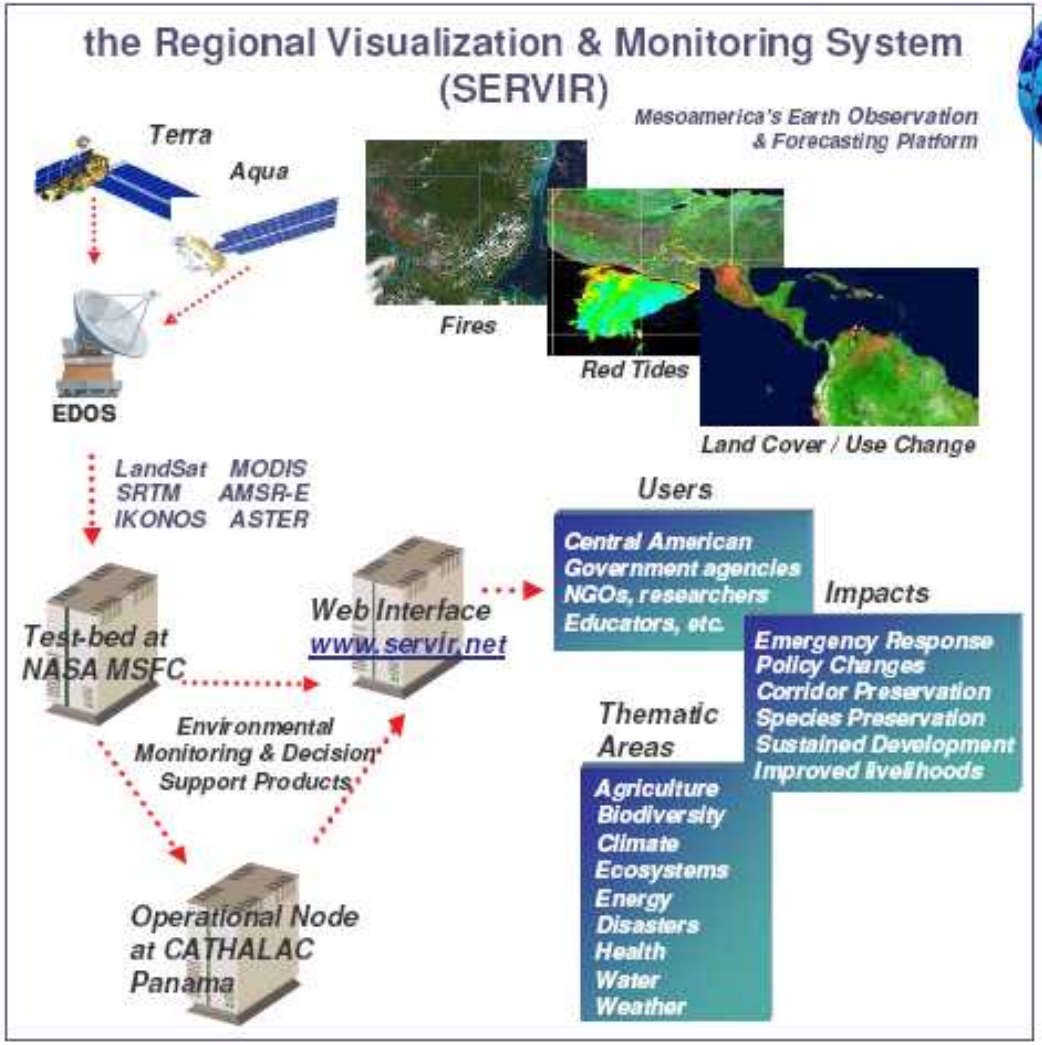


WHAT?

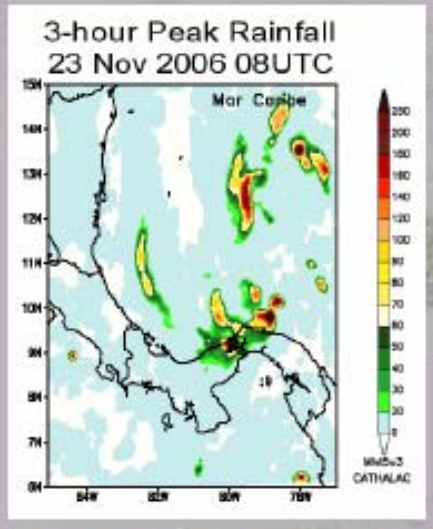


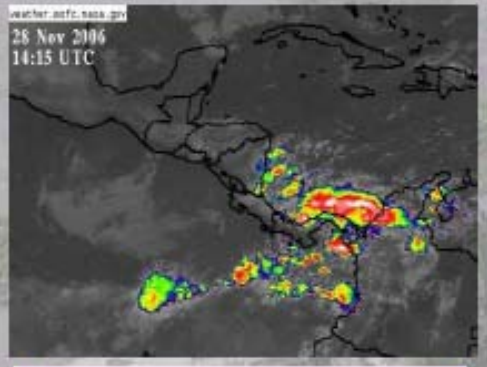
Regional vs. Global

A succesfull example: Servir



SERVIR Response to Flooding in Panama, November 2006



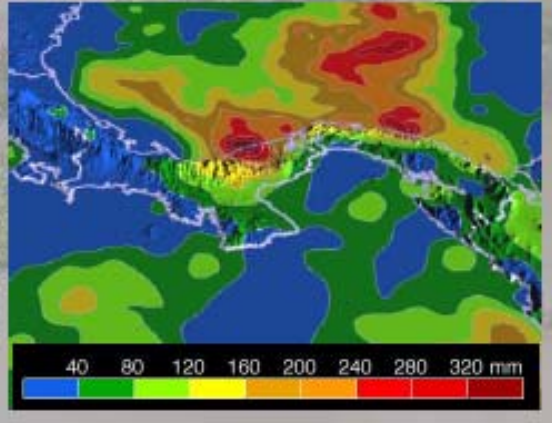


Met products such as MM5 (left), WRF, and SPoRT model outputs, along with GOES imagery (above), provide a continuous support mechanism for decision makers.

Panamanian President Martin Torrijos (left) consults with meteorologist Annette Quinn and Director of CATHALAC Emilio Sempres at the SERVIR facility in the City of Knowledge, Panama.

Change detection analysis (above) based on RADARSAT data near Rio Indio, Panama. These images help the Panamanian disaster response agency to focus their efforts in the areas of the flood's greatest impact.

TRMM data (below) are used to show total rainfall accumulation over the period November 20-28, 2006.



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Disaster Management Clearinghouse

Building upon Servir

To coordinate providers and product developers for disaster management
(prevention, preparedness, mitigation, response, recovery and restoration):

1. Vulnerability/Risk assessment

2. Crisis Management

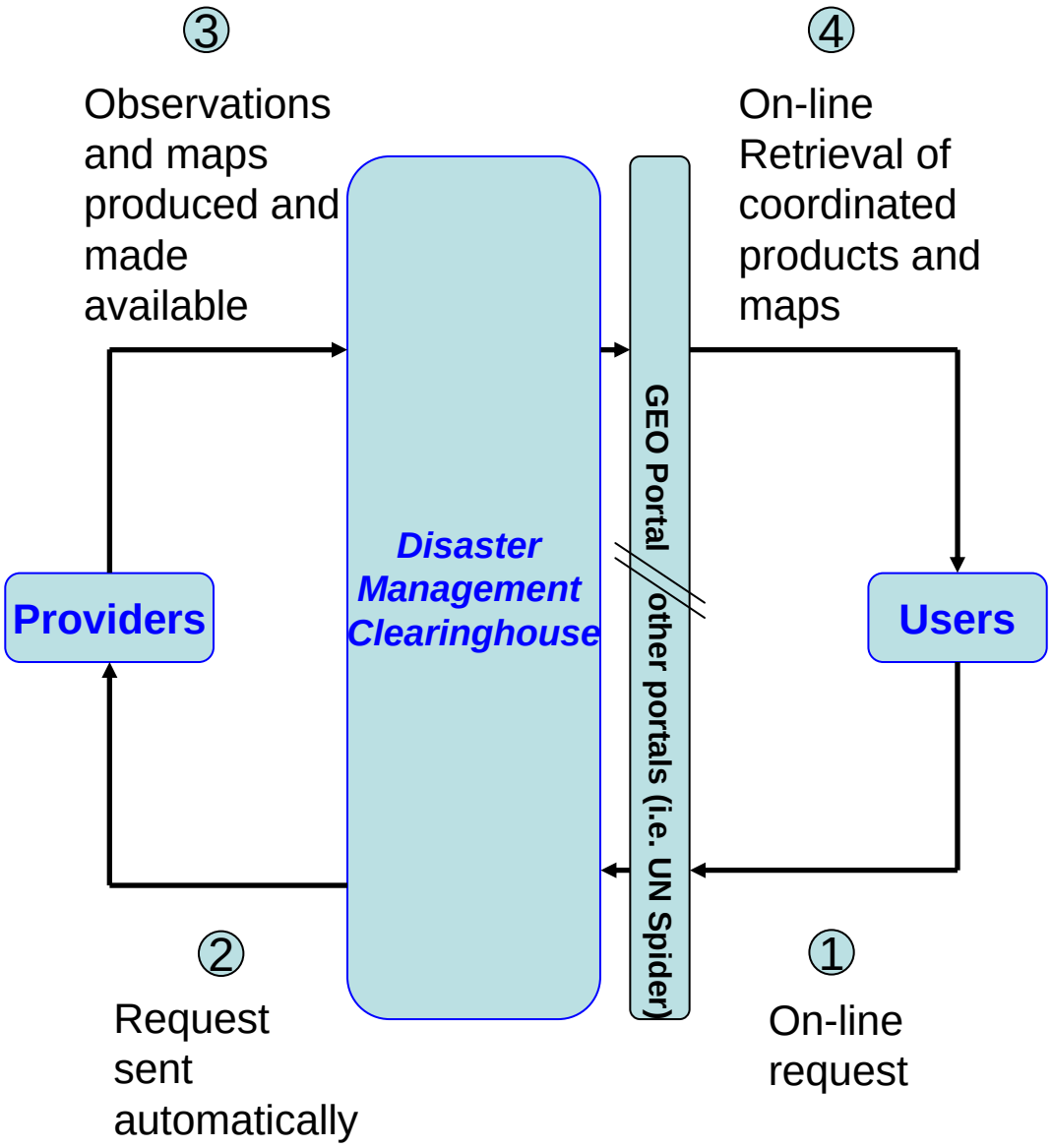
3. Related Forecasts

WHAT?

The GEO Disaster Management Clearinghouse aims to become a centralized source of information products for disaster management by providing *integrated* and *interoperable* observations and derived maps for:

1. Vulnerability/Risk assessment: Relevant observations and derived maps will be made available and easily accessible through the Disaster Management Clearinghouse. The Clearinghouse will interface with the GEO Portal or other portals and it will be accessible and searcheble on-line through key-searches (thematic, by GLIDE identification number, etc).
2. Crisis Management: Users will be able to request information on-line, via the GEO Portal or else. The request will be sent to all providers that will contribute the data/products through an agreed mechanism to the GEO Disaster Management Clearinghouse which will generate maps and other products and publish them through the GEO Portal or any other portal that users can access.
3. Related Forecasts (i.e. weather, population migration, fire risk etc): Forecast products in support of disaster management will also be made available in standardized formats through the Clearinghouse.

HOW?


③
Observations and maps produced and made available
④
On-line Retrieval of coordinated products and maps
Providers
Disaster Management Clearinghouse
GEO Portal
other portals (i.e. UN Spider)
Users
②
Request sent automatically
①
On-line request

HOW?

Characterisitics of the GEO Disaster Management Clearinghouse for production of disaster management products and derived maps (for 1.vulnerability/risk; 2. crisis management; and 3. related forecasts):

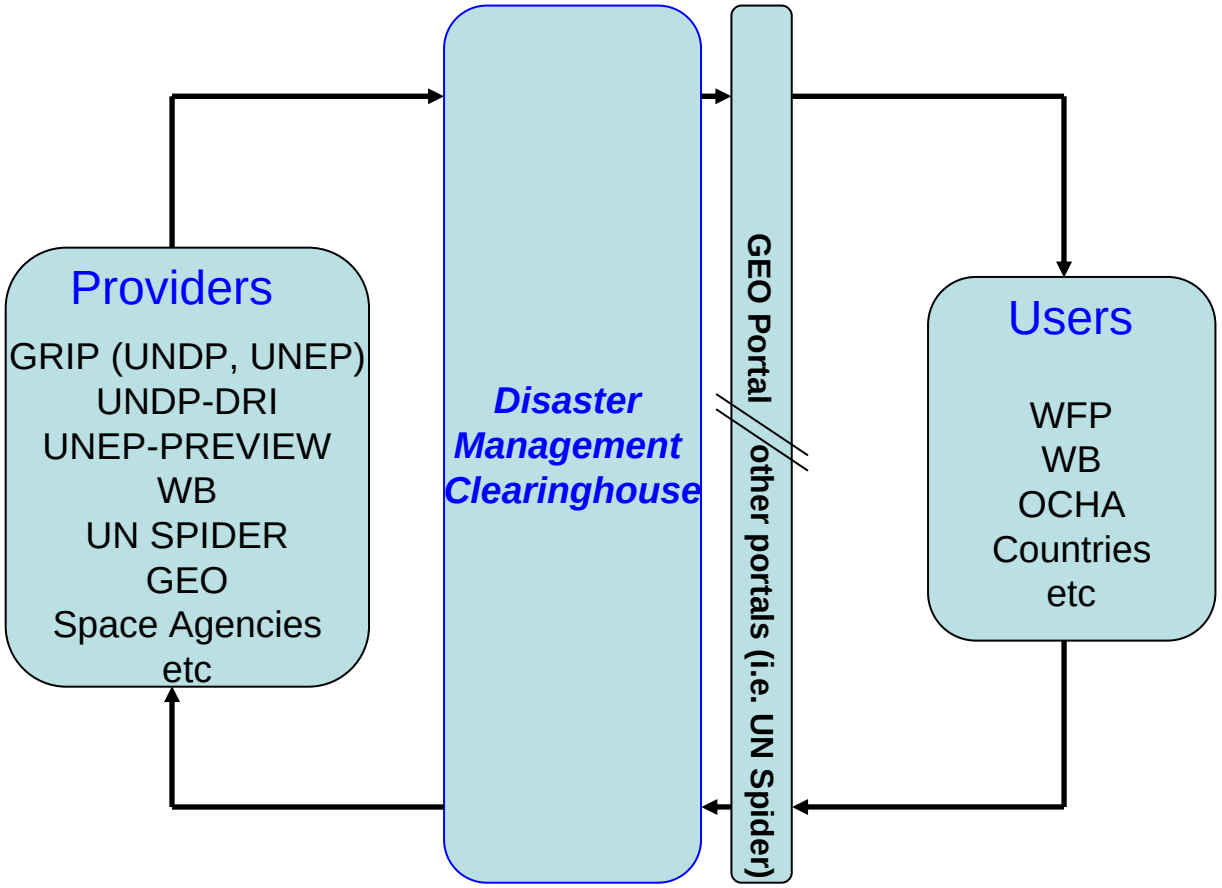
- **USERS: Can Request/Download data/products On-line**
- **PROVIDERS:**
  - **Receive request**
  - **Produce and make data/products available to the Clearinghouse**
- **DISASTER MANAGEMENT CLEARINGHOUSE:**
  - ***Interoperability*: Observations and derived maps are all made interoperable (georeferenced, calibrated, etc)**
  - ***Flexibility*: additional providers can join (and be integrated in the system) at anytime**
- **DISTRIBUTION:**
  - **through GEO Portal or any other portal**
  - **Additional users can have access to the information**

HOW?

Operational Concept

1) Vulnerability/ Risk:

Vulnerability and Risk Maps, Historical catalogue of loss and damage assessment maps and Hazards Impacts maps etc

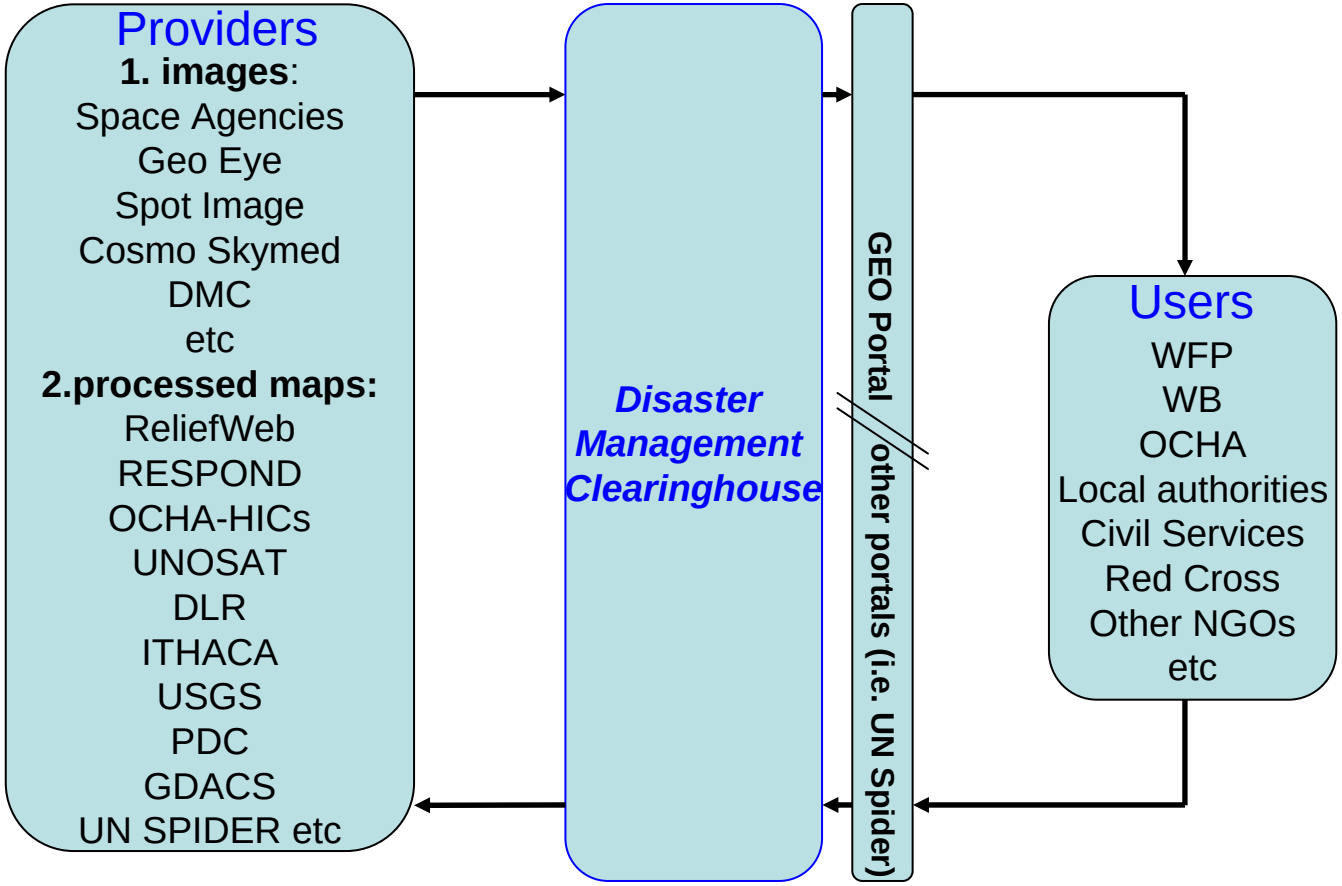


HOW?

Operational Concept

2) Crisis Management:

Impacts maps, flooding maps, loss and damage assessment, etc



HOW?

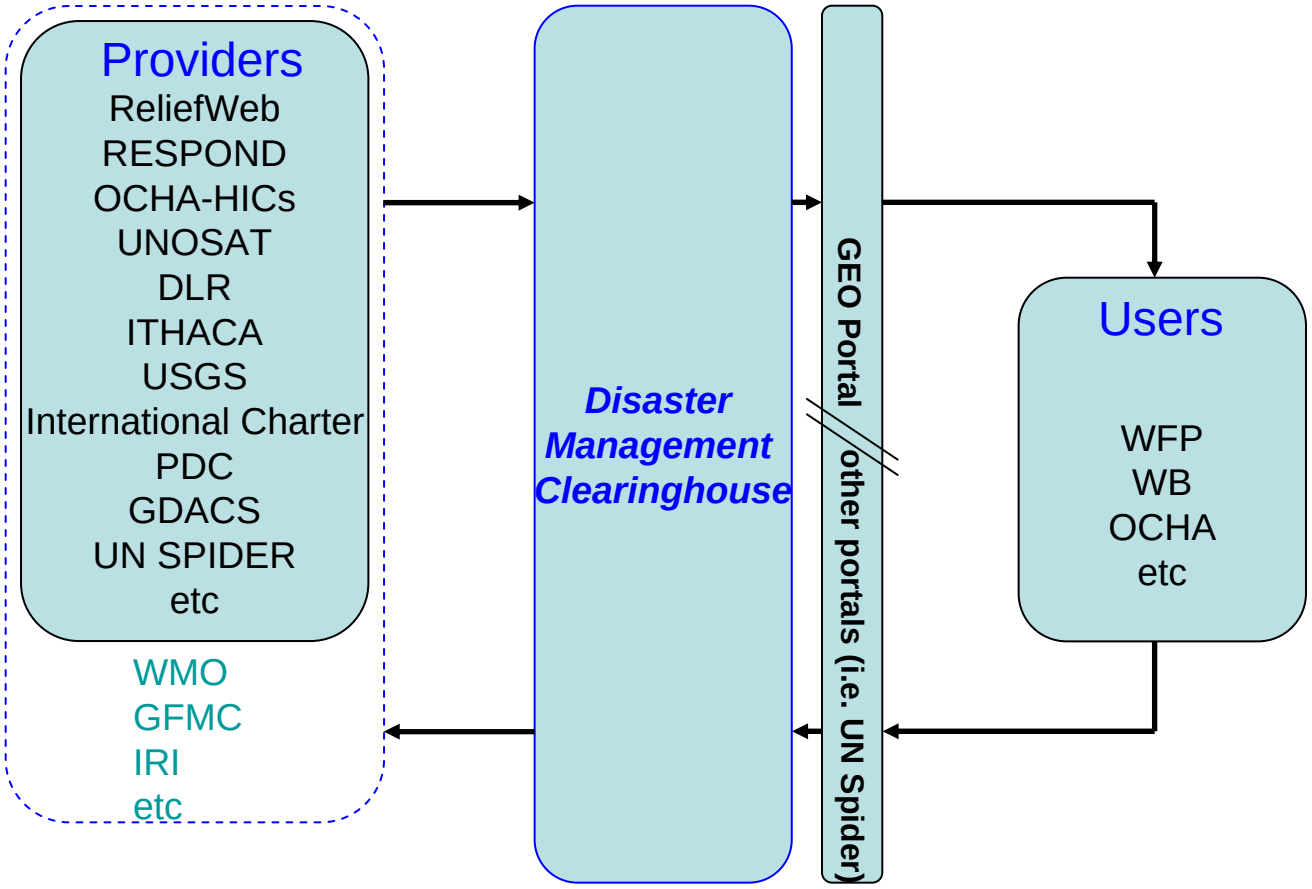
Operational Concept

3) Related Forecasts

(Phase 2) **:**

weather forecasts (WMO), fire risk maps (GFMC), population migration, etc

(integrated with observations and derived maps)



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Thank You!

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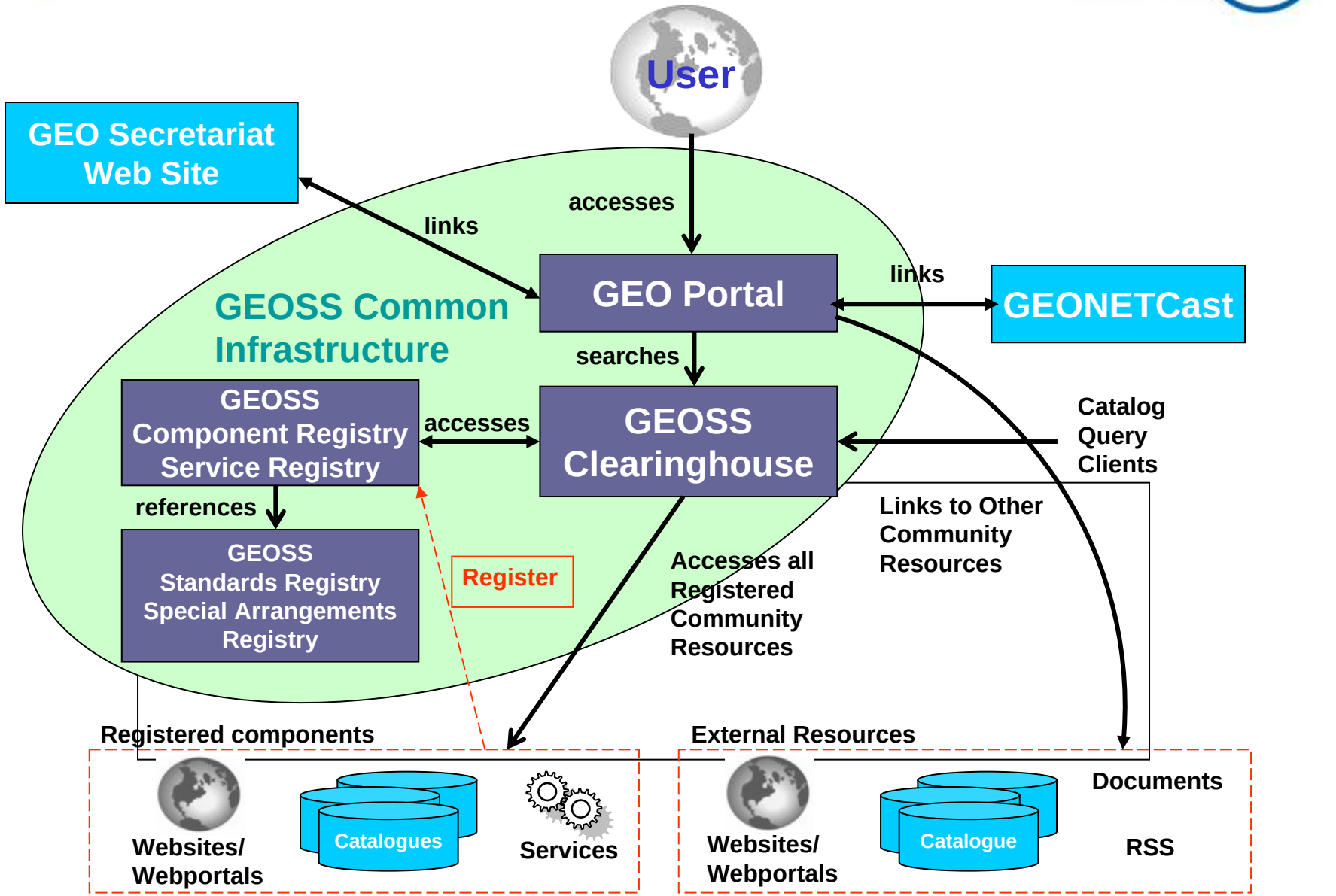
Simplifying and Discovering Information

GEO Web Portal (and Clearinghouse)

- **Offering Access to Data and Services**
- **Providing Calibration and Validation**
- **Providing Tools**

GEOSS Common Infrastructure (GCI) Overview



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GCI Component Providers

Potential Component provider	Portal	Clearinghouse	Component and service registry	Standards and Special Arrangements Registry
ESA/FAO [EU-UN] Public Sector	**X**			
ESRI [USA] Private Sector	**X**	**X**		
Compusult [Canada] Private Sector	**X**	**X**		
George Mason Univ. [USA] Public Sector			**X**	
IEEE [International] Public Sector				**X**
FAO/GeoNetwork [UN] Public Sector		**X**		

GEO Portal Infrastructure
- Current Prototype -

Today three prototype GEO Portal web interfaces together with the various associated infrastructure components are open and can be accessed through their URLs:

- **http://www.geoportal.org , developed by ESA and FAO**
- **http://keel.esri.com/Portal , developed by ESRI**
- **http://www.geowebportal.org , developed by Compusult**


GEOPortal - Home - Windows Internet Explorer
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GEO Portal
HOME
ABOUT GEOPORTAL
CONTACTS
NEWS
MAP VIEWER
ADVANCED SEARCH
DOWNLOAD GEOPORTAL
ABOUT GEO
BREAKING NEWS
FLOODS IN IOWA, USA
WELCOME TO GEOPORTAL
DISASTERS
HEALTH
ENERGY
CLIMATE
WATER
WEATHER
ECOSYSTEMS
North America
South America
Europe


GEO Portal - Windows Internet Explorer
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GEO Portal
Provided by:
COMPUSULT
Welcome! Home - Language - Sign In
GEO Portal
Discovery/View
Browse
Agriculture
Welcome to the GEO Portal
The Group on Earth Observation Portal (GEO Portal) was implemented using Compusult's Web Enterprise Suite (www.compusult.net) a suite of applications, based on open standards, that work together to provide one of the most comprehensive, data discovery, access, retrieval and delivery systems. This site has been implemented to work with, and build upon, existing national, regional, and international systems. The GEO Portal provides comprehensive, coordinated, Earth observations from thousands of services, instruments, collections, libraries and catalogues worldwide, transforming the data collected into vital information for society.
This portal provides access for geospatial data in support of GEOSS. It is a secure web site that will host geospatial data focusing on the Group on Earth Observations (GEO), Social Benefit Area's (SBA).
Societal Benefits Area
GEO societal benefits consist of:
Reducing loss of life and property from natural and human-induced disasters.
Understanding environmental factors affecting human health and well-being.
Improving management of energy resources.
Understanding, assessing, predicting, mitigating, and adapting to climate variability
Welcome to GEO PORTAL
Create an Account!
Create an Account to access many additional portal features! Save Search Results, Save Maps, Participate in Discussion Boards and more. Create an account Now!
Provide Feedback
Please provide GEO with your feedback by selecting the button below.
Feedback
Data & Services
GEOSS Clearinghouse - Search the GEOSS Clearinghouse
GEOSS Registry - Register


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GEO Portal
Provided by ESRI
Search the Portal below or search the Clearinghouse (CSW)
GEOGlobe: GeoRSS Viewer

GEOSS Common Infrastructure (GCI)
Initial Operating Capability (IOC) Task Force (TF)

- GCI IOC TF Governance
  - reports to GEO Executive Committee
  - GEO Committee representatives
  - One year period of performance (1 July 2008 - 30 June 2009). Interim report to GEO-V and final report to the GEO VI Plenary.

- GCI IOC TF Objectives
  - develop Concept of Operations Plan
    - operational requirements, responsibilities and interactions
  - evaluate of GCI Components
    - provider and user requirements
    - reliability, suitability, sustainability, and quality of service
    - maintenance, enhancements, access control and security
    - intellectual property rights
  - Recommendations for Long-term GCI Operations