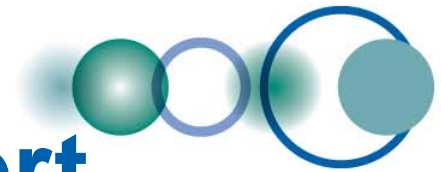


WA-06-07 Task Report

Prepared by Rick Lawford

September 2008



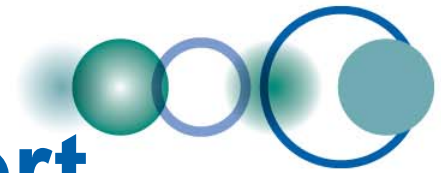
WA-06-07 Task Report

- **Short Background and objective (Strategy Actions/GEO CB Targets being addressed)**

This task arose from a Workshop on Capacity Building hosted by CONAE in Argentina in October 2005. The workshop was one of three regional events planned and organized by IGWCO and TIGER. Task WA-06-07 was initially included in the 2006 Work Plan with a Latin America only focus.

Subsequently the objective was broadened to include the excellent work being undertaken by ESA in Africa (through the TIGER project) and by JAXA in Asia (through the Asian Water Cycle Initiative). In the 2009-2011 work plan it will be broadened further to include other activities in Africa, East Europe and possibly the mid-East.

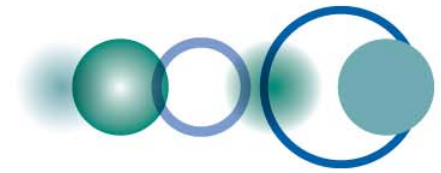
The activities of WA-06-07 support the objectives of the Capacity Building Committee in a number of ways.



WA-06-07 Task Report

- **Milestones achieved to date:**

- A number of briefings and discussions about the plan have taken place at IGWCO and GEWEX meetings.
- APN has provided funding for capacity building efforts related to drought and floods in Southeast Asia. These projects are being carried out in conjunction with the Asian Water Cycle Initiative.
- ESA is completing the first phase of TIGER activities and established a Secretariat in Africa. They are now working with UNESCO to determine how these activities can best be made self-sustaining.
- NASA has developed a draft plan outlining the capacity building activities they plan to undertake in Latin America. This plan will be a major contribution to the GEO Capacity Building efforts.



More Milestones:

- Latin American CB activities are becoming part of the GEOSS in the Americas initiative. The draft LA CB proposal has been rewritten to include NASA Decision Support Tools.
- During July and August 2008, AWCI sponsored a series of CB workshops in Indonesia, Bangladesh and other countries in SE Asia.
- EUMETSAT has contributed to AMESD, the African component of GMES.
- Funding obtained from FW-7 for a CB activity related to water management in Eastern Europe

IGWCO CAPACITY BUILDING: TIGER AS A POSSIBLE MODEL



Mission

“Develop sustainable earth observation information services and decision support tools for integrated water resource management in developing countries.”

Key requirements

Sustainability → strategic partners needed

Appropriateness → level of technology must fit user’s capabilities

User engagement → driven by Latin American users

Main Sponsors

CONAE?, others?

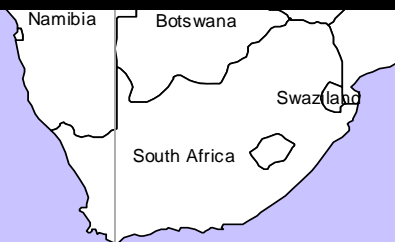
 Potential Member States of LCB

 Other African States

1000 0 1000 Km



0 GM



40 E



Regional Visualization & Monitoring System ('SERVIR')

SERVIR The Mesoamerican Regional Visualization and Monitoring System

WED, MAY 17, 2006

● Español
● English

SERVIR Data | **Online Maps** | **GEOSS Decision Support** | **3-D Visualizations**

Home
User's Manual
Downloads
What's New
About SERVIR
Gallery
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Partners
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Contact Us

Your "One Stop Shop" for Decision Support, and Information on Mesoamerica Today, Tomorrow, and the Future

Go to SERVIR Real-time Image to view the Latest GOES image

17 May 2006 14:15 UTC

Disasters	Fires
Ecology	Hurricanes
Weather	Volcanoes
Climate	Earthquakes
Oceans	Food Security
Water	Floods
Agriculture	Landslides
Human Health	
Energy	

Cloud free, very warm surface temperatures

Weak, warm cloud tops, low altitude

Intense, cold cloud tops, high altitude

SERVIR Movies

- A Vision of the Future (Quicktime movie 18.2 MB). Click image to view movie.
- Video Tierra ceniza... o bosques saludables (WMV file). Click image to view movie.
- Time Lapse of Fires (MPEG 17.89 MB). Click image to view movie.

Web Site

<http://servir.msfc.nasa.gov/>

Four Main Sections

- 1) SERVIR Data
- 2) Online Maps
- 3) GEOSS Decision Support
- 4) 3-D Visualizations

Highlights

- Real-time views of weather around Mesoamerica.
- Tools to monitor wildfires, floods, volcanoes, harmful algal blooms and ecological changes

GEOSS Asian Water Cycle Initiative (AWCI)

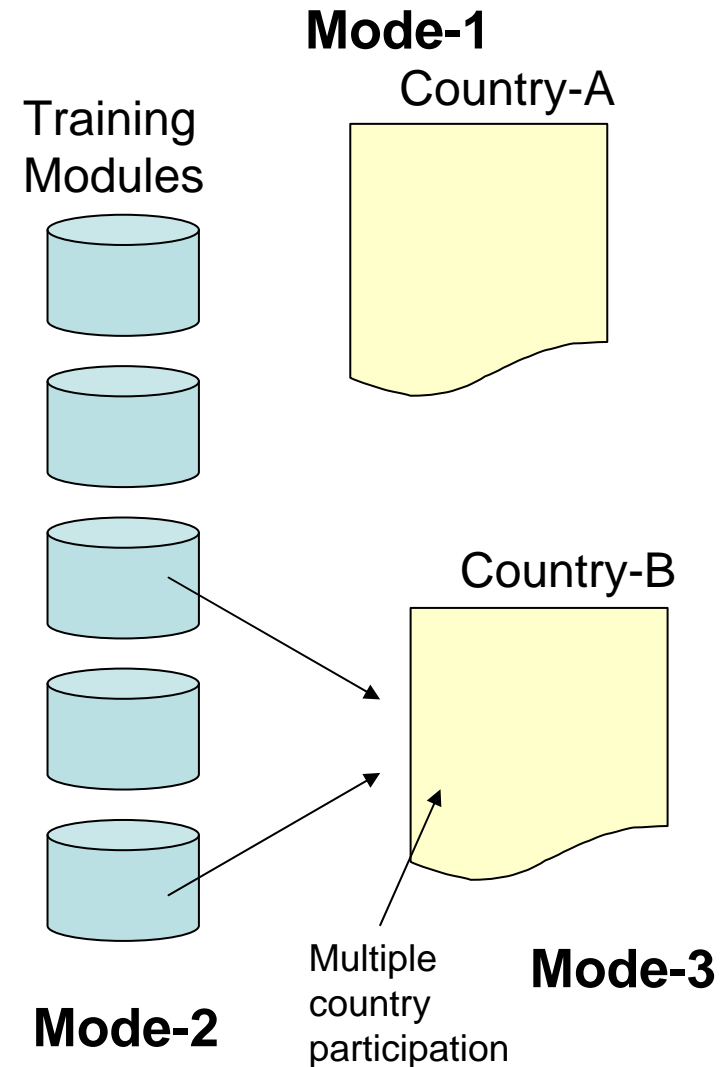
17 River Basins for Initial Demonstration





Modes of CB Pilot Project (in Asia)

- Mode-1: Country based PP (Roving seminar)**
 a local catchment + number of training modules within a country
ex. Flood forecasting training seminar in Indonesia
- Mode-2: Training module based PP**
 Modules in intensive workshop
ex. Training modules at UNU, AIT
- Mode-3: Country data + training module based PP**
 one country data+multiple country participation
ex. IWRM Pilot in Huong river, Vietnam





GEOSS Asian Water Cycle Initiative (AWCI)

Targets

1. Professional/Practitioners:

Introducing new methods, tools, standards

2. Administrative/Local Governors:

Over view of technology and science

3. Researchers/Scientists:

Customizing existing knowledge to suit local conditions supported by global experiences



Caravan training class scene in Sri Lanka, December 2005



A Scene from Mini-Project Fieldwork in Philippines, 2005



Discussion and Suggestion at AIT, 2005 Mini-Project Final Presentation



-Initiated in 2002 by ESA.



-Goal: **“assist African countries to overcome problems faced in the collection, analysis and dissemination of water related geo-information by exploiting the advantages of Earth Observation technology”**.

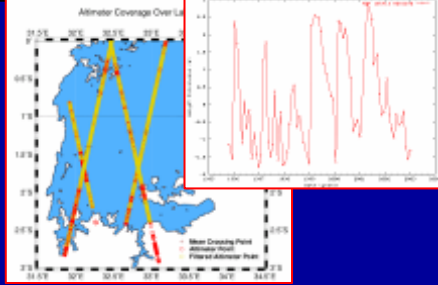
-Objectives:

- Support improved governance and decision-making.**
- Contributing to enhance institutional, human and technical capacity, and**
- **Fostering sustainability.**

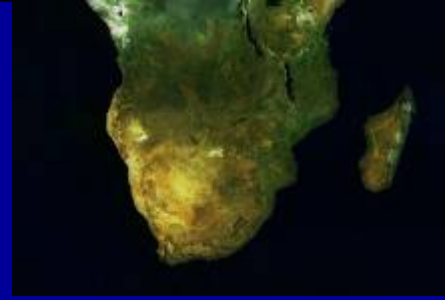
Contact: Diego Fernández-Prieto, diego.fernandez@esa.int



Wetlands Mapping



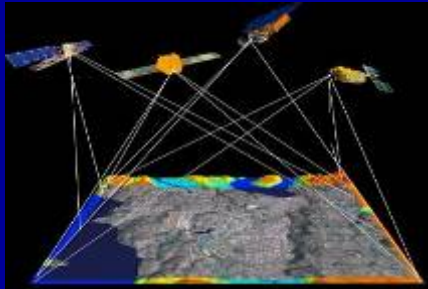
Rivers-Lakes-Water levels



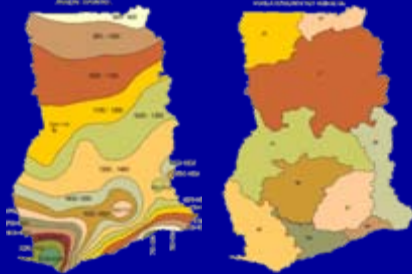
Soil Moisture-SADC



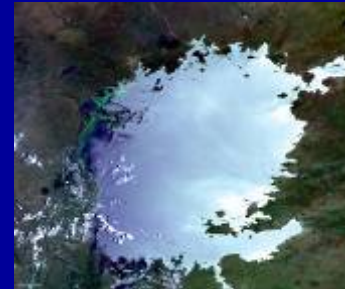
Nile Awareness Kit



Land and Topo. -Ghana.



Hydrogeo. Model-Ghana



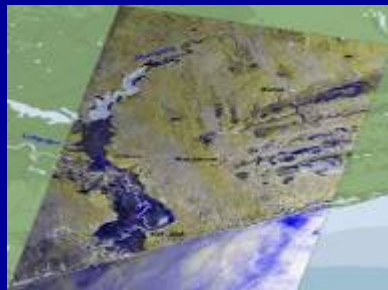
Lake Quality-Victoria



Lake Quality-Egypt



IS for IWRM-Morocco



IS for IWRM- Mozambique



IS for IWRM-Zambia



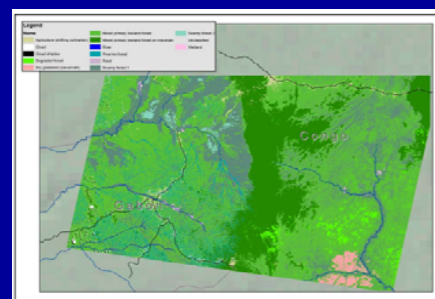
IS for WRM-Burkina Faso



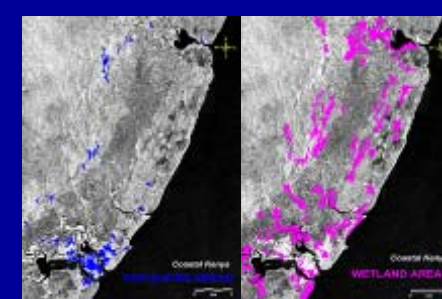
AQUIFER



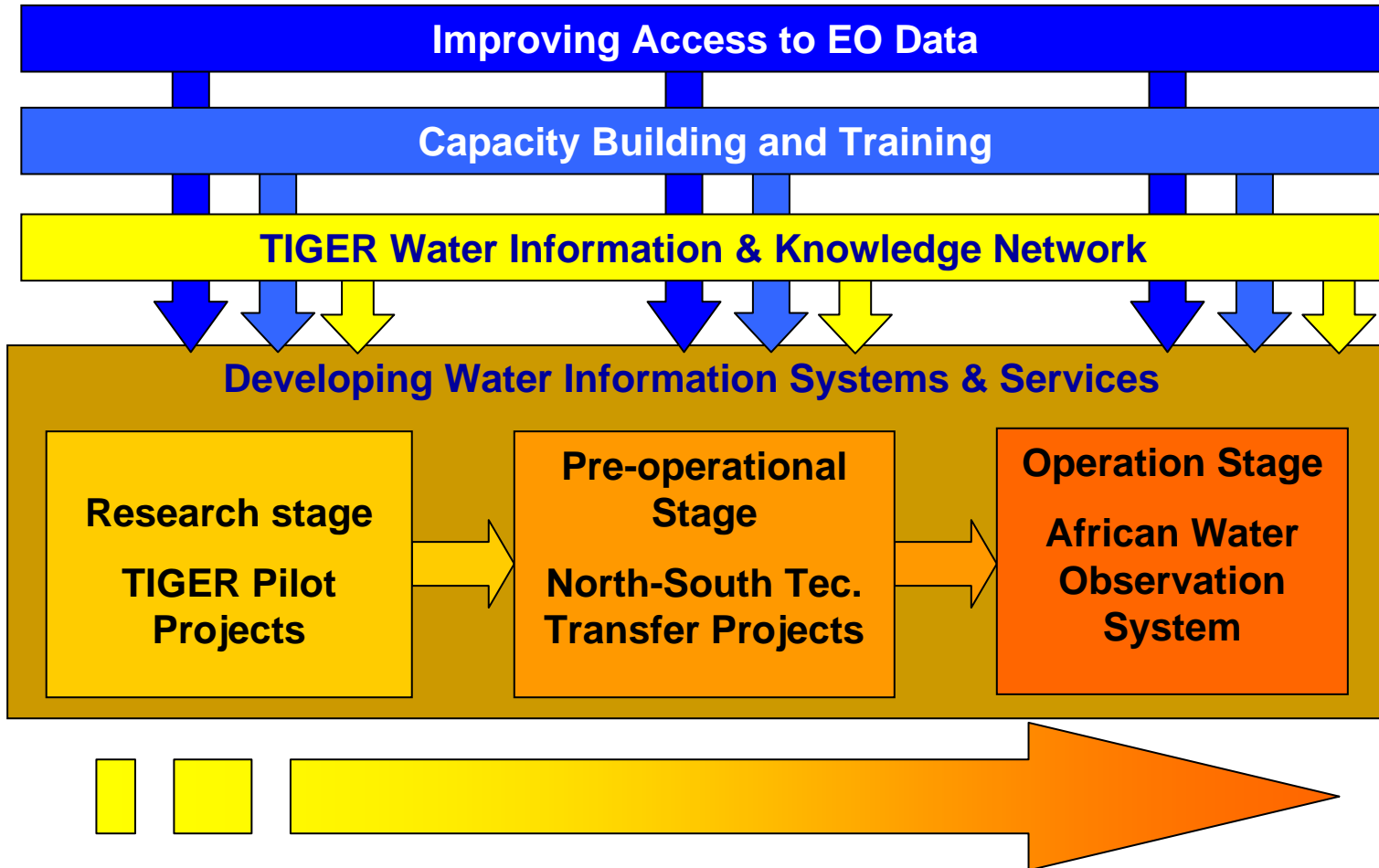
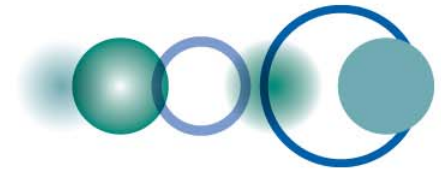
Water & Ground str.-Niger

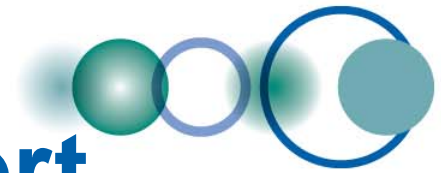


EPIDEMIO



Malaria-mapping





WA-06-07 Task Report

- **Expected milestones for 2008/2009:**

November 2008:

- Meetings in Washington DC to inform potential donors of CB opportunities in the water sector.

December 2008:

- Completion of the proposal for GEOSS in Americas Capacity Building in the Water Resources Sector. This proposal will highlight DSTs as well as the basic Earth Observation data and products.

January 2009:

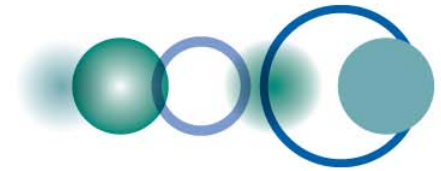
Japan will sponsor a capacity building workshop in Tunisia for an African Water Cycle Initiative.

Spring 2009:

Workshop being planned for the Water Cycle CB for GEOSS in the Americas

Summer 2009:

- Completion of a small Islands water cycle capacity building workshop



GEOSS African Water Cycle Symposium

Tunis, Tunisia, 6-8 January 2009

Workshop Objectives:

- 1) to introduce the science themes related to the water cycle in Africa and their possible operational applications
- 2) to introduce planned and on-going operational and pre-operational projects and systems related to African water cycle as well as the on-going AMMA, GWSP and TIGER initiative demonstration projects.
- 3) to discuss the different systems interoperability and the way to move toward observation convergence in Africa.
- 4) to demonstrate the value of the global integrated data sets to decision makers through the actual use of the data by the on-going GEOSS, TIGER and AWCI initiative demonstration projects.
- 5) to identify ways in which these activities can contribute to the critical targets in the Water cycle societal benefit area of GEO.

WA-06-07 Task Report



- **Coordination points with other GEO work plan tasks:**

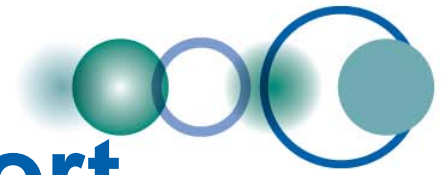
- This activity serves as the Capacity Building component of IGWCO and GEO Water Tasks, consequently it is strongly coordinated with these activities, especially WA-07-01, WA-08-01 and DA-07-06.

- **Potential risks that may impede completion of task:**

Americas: The lack of resources and commitment for supporting a coordinator or secretariat service in Latin America has slowed the development of this project. Options for a coordinator(s) will be broadened by the inclusion of the activity in GEOSS of the Americas.

- **Potential Contributions to the CB and GEO web portals:**

- Opportunities of contributions will be explored as Task participants become more familiar with the opportunities. Funding possibilities will be explored with international funding agencies with interests in Capacity Building.



WA-06-07 Task Report

- **Expected products:**

- Tools and analysis techniques that users can apply to Earth Observation data sets to facilitate analyses needed to support water management decisions.
- Training programs to show how to access and apply various EO products,
- Demonstration projects to show how remote sensing data can be applied to water resources in various parts of Latin America.

- **Expected date of completion of task:**

- It is expected that most of the program development actions will be completed with the implementation of the LA Capacity Building program in 2009 or 2010. Implementation will require ongoing support and activity and evolve as the capabilities and services offered by GEO expand.

- **Expectations of task lead from CBC:**

- None specified to date.