



Earth Observation for Water Management, a GEONETCab toolkit

Andiswa Mlisa



The Group on Earth Observation Network for Capacity Building (GEONETCab) Project

General Info

- Duration 3 years: Nov 2009 – Oct 2012
- Budget: 1.2 million Euro
- Funding: European Commission + own contribution
- Regional focus
 - Southern Africa
 - French-speaking countries in Africa
 - Central & Eastern Europe
 - Spin-off to Latin America & Asia



- ITC – NL (coordinator)
- CNES - FR
- IRD - FR
- SRC - PL
- CU – CZ
- CRASTE LF – MA
- SANSA – ZA
- UMVOTO – ZA



Advisory Board

- Ana Casals, AEMET
- Fernando Ramos, GEO Sec
- Hilcea Ferreira, INPE
- Tyra Brown, NOAA
- Simonetta Cheli, ESA
- Yuping Yan, CMA
- Tumisang Sebitloane, DST
- Klaus Briess, SEOCA representative



Key Aspects

- Create conditions for improvement and increase of GEO capacity building
- Identification of CB needs
- Specifications for CB in EO
- Identification of resource providers
- Sustainable brokerage between stakeholders
- Mechanism to facilitate cooperation between stakeholders
- Global base of technical expertise for education & training in EO
- Monitoring & evaluation mechanisms for CB in GEO



Workflow

- Inventory current situation (WP 1)
- Identify opportunities & bottlenecks (WP 2)
- Connecting & building (quick-win projects & capacity building web) (WP 3)
- Awareness & dissemination (general & targeted workshops) (WP 4)
- Evaluation & follow-up: continuous brokerage (WP 5)

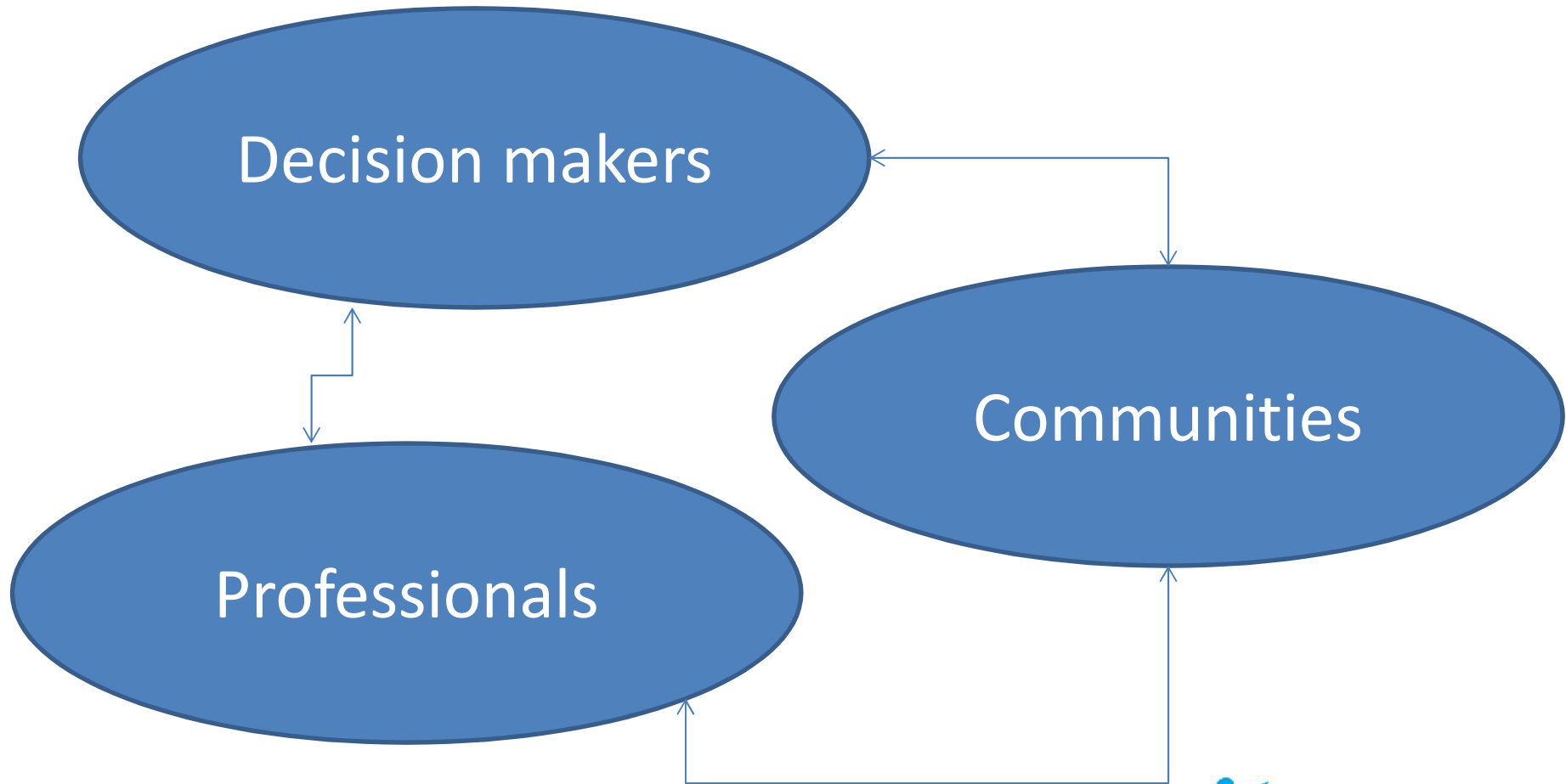


EARTH OBSERVATION

- Available to new groups of end-users
- Potential to involve (and empower) these users in Societal Benefit Areas
- To achieve this: build on strengths to address weakest links in the chain from provider to user
- GEOSS: (technical) platform for all users
- GEONetCab: facilitate capacity building & brokerage



Target Groups



Overview

**Marketing of Earth
Observation Products &
Services (framework study)**

**Regional Studies (Poland,
Czech Republic, French-
speaking Africa, Southern
Africa) + Synthesis**

Capacity Building Strategy

Success Stories, Toolkits,
Roadshow, Quick Win
Projects, Workshops,
Capacity Building Web



Capacity Building Strategy

Analysis of capacity development in general and outline of strategy and tactics that work for capacity building in earth observation

GEONETCAB
CAPACITY BUILDING STRATEGY

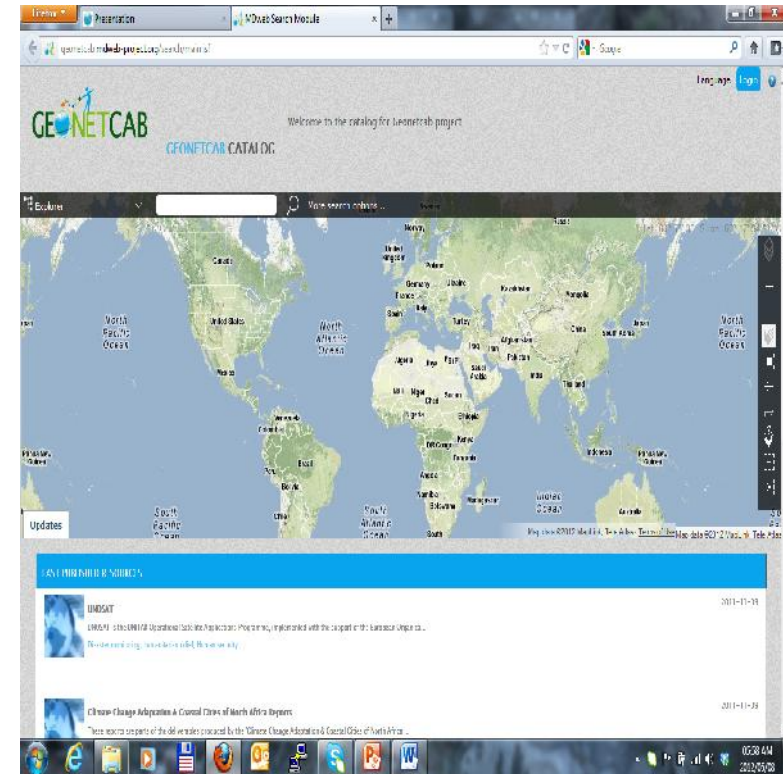


More detailed information @
www.itc.nl/library/papers_2012/general/noort_capacity.pdf

GEONETCAB

Capacity building web

- Guide to free and low-cost software
- Tutorials and references to training courses
- General information and references to earth observation applications and marketing toolkits



<http://geonetcab.mdweb-project.org/search/main.jsf>



Success stories

Description of successful applications of earth observation in a language that potential clients understand



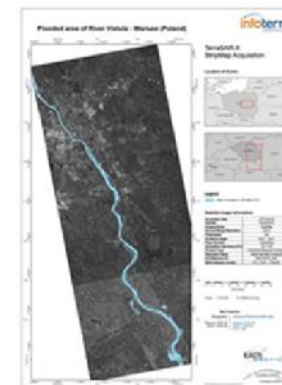
SUCCESS STORIES

FLOODS IN POLAND MAY- JUNE 2010

SUCCESSFUL IMPLEMENTATION OF EARTH OBSERVATION-BASED SUPPORT

In May and June 2010 heavy rains caused serious flooding, affecting the people and infrastructure in many cities and villages of (mainly) southern Poland. It was one of the biggest floods in Polish history and caused 25 fatalities and losses of PLN 12 billion. On 19th May and 7th June the National Headquarters of the State Fire Service activated the project SAFER, which implements and validates pre-operational versions of the GMES Emergency Response Service. Thanks to processing of satellite images the flood crests could be predicted in the form of ready-to-use products, including topographic reference, risk, rescue and other thematic maps.

At least 22 Polish institutions (mostly public) used the satellite maps and additional products, such as national, regional and local crisis management centers, the fire service and the army, but also insurance companies and scientific units. The maps were also used by the biggest Polish media (television and web portals) to create public awareness about the scale of the problem.



KEYS TO SUCCESS

ADDED VALUE OF THE SATELLITE-BASED MAPS:

- ◆ Satellite-based maps give the most up-to-date geographical information of the region.
- ◆ During the floods the maps provided full visualization of the crisis situation, as complement to in-situ methods.
- ◆ The products are not dependent on the weather, as during floods rainy and cloudy conditions usually prevail.
- ◆ The maps were easy to integrate with other systems that support decision makers and crisis management (including Google Earth software).



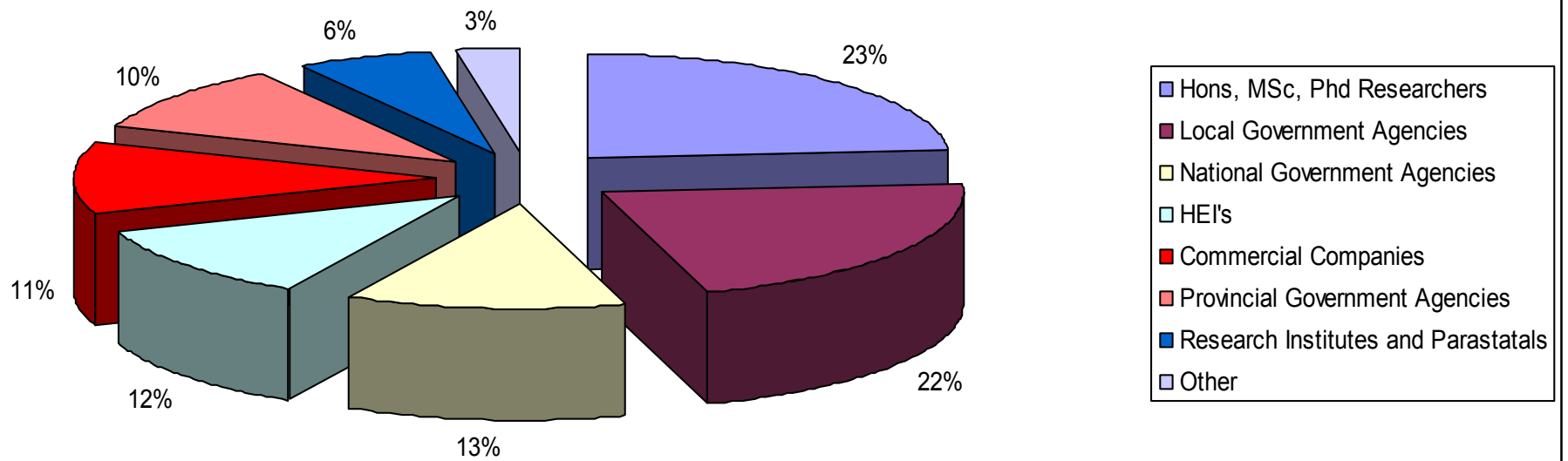
Success Stories (WP3)

SPOT 5 Multi-User License

- Sustainability
- Feasibility
- Replication Potential
- Societal Benefit



Breakdown of the 144 Spot 5 users

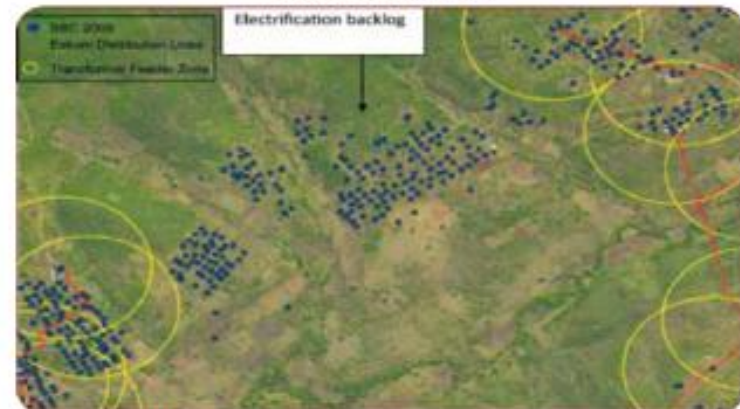


SPOT 5 Multi-User License

- Societal Benefit
 - SANBI: updated disturbed / transformed land on their NLC 2009
 - SKA study signal interference from communities
 - DWA water access project
 - Dept. of Human Settlement updated their RDP's and informal settlements database



Updated SBC base layer - 2006 (blue), 2007 (green) and 2008 (red).



SBC 2009 update showing buildings (blue points) outside the transformer feeder zone (yellow circles)

Marketing Toolkits

- International trends and developments in a GEO societal benefit area
 - Promotion of earth observation applications
 - How to get funding?
 - Capacity building
-
- Disaster toolkit
 - Crop modelling toolkit
 - **Water toolkit**



Earth Observation for Disaster Management Toolkit

International trends & developments
How to promote earth observation applications?
How to get funding?
Capacity building?

