



The UNESCO-IUGS GARS Programme on the Geological Applications of Remote Sensing

Stuart Marsh¹

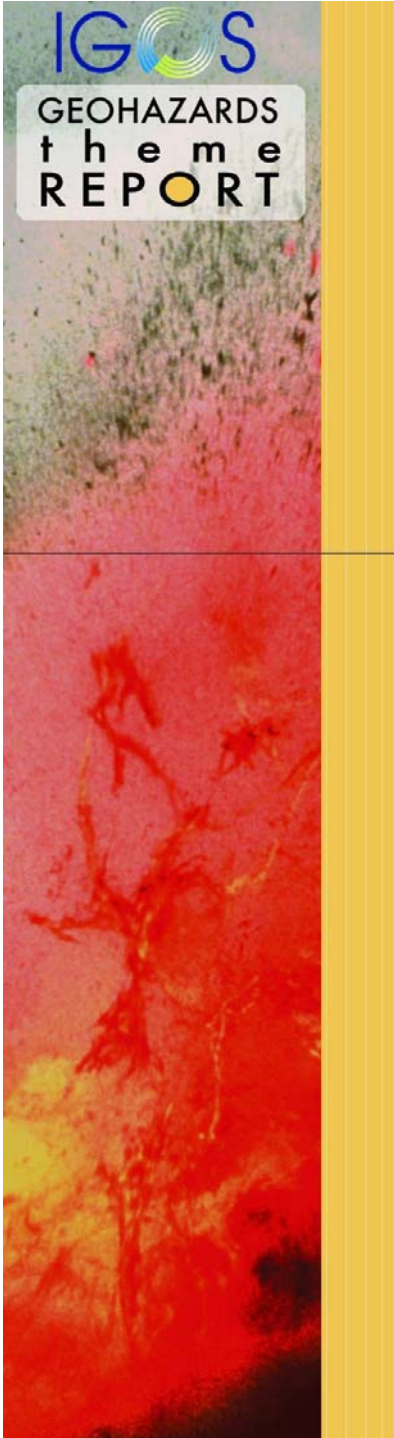
Robert Missotten²



¹British Geological Survey

²United Nations Educational, Scientific
and Cultural Organisation





Aims & Objectives



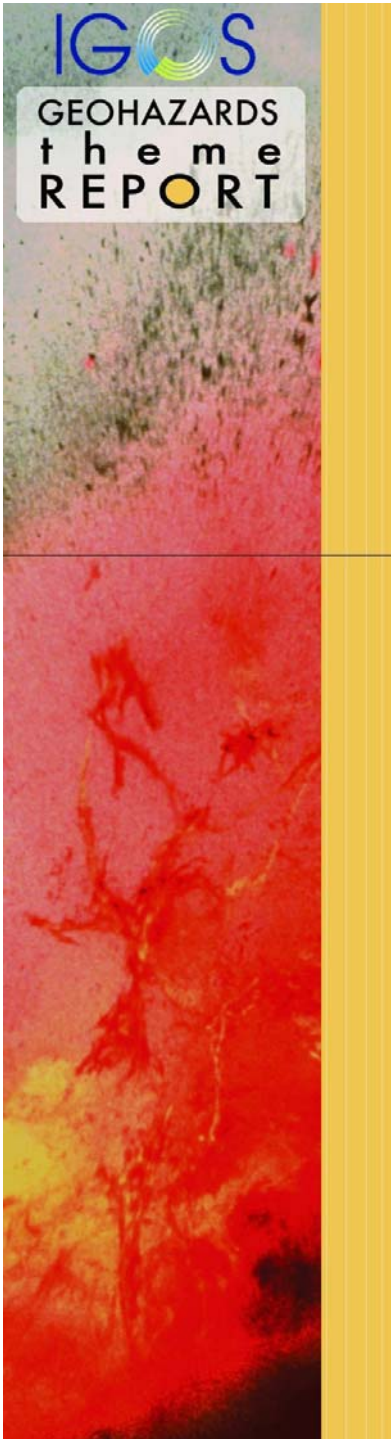
UNESCO-IUGS have funded and run GARS for 20 years

The GARS Programme aims to:

- Assess the value and utility of remote sensing for geoscience
- Build capacity, by assisting geoscience institutes in developing countries apply remote sensing techniques and technologies

To achieve this GARS has three objectives:

- Demonstration of geological remote sensing applications
- Transfer of remote sensing technology to developing countries
- Dissemination of research results to enhance knowledge



GARS Programme



GARS is chaired by scientists from geological surveys:

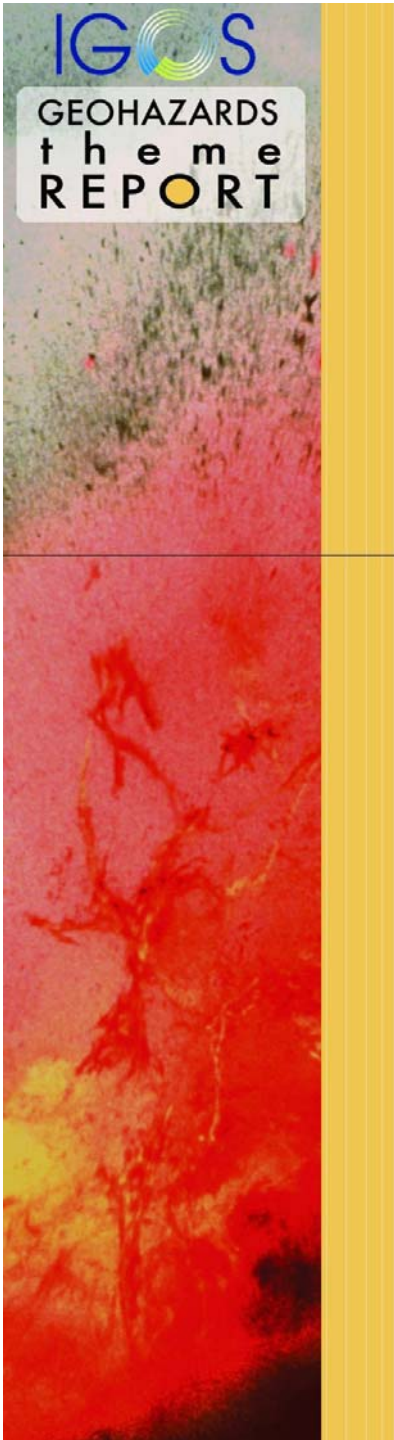
- BRGM (France)
- BGR (Germany)
- Currently BGS (UK)

It is steered by geoscience institutes and space agencies:

- The ground-based geological community
- Geological remote sensing applications specialists
- Space agencies with programmes on and interest in geology

International collaborative programmes from 1985-2001:

- Geological mapping (Africa)
- Landslide hazards (Latin America)
- Volcanic hazards (Asia)



Focus from 2002 on...



GARS decided to focus on two issues from 2002 onward:

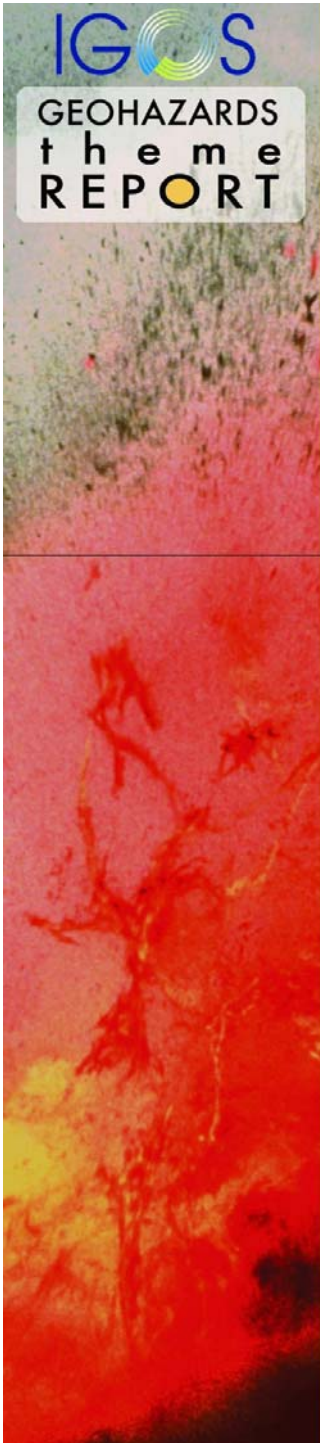
- Develop Integrated Global Observing Strategy for Geohazards, transition IGOS Geohazards to Group on Earth Observations & implement it as part of the GEO Disasters Societal Benefit Area
- Groundwater & transboundary aquifer issues in Africa/M.East

For the IGOS Geohazard Theme, GARS has:

- Contributed several members of the Theme Team
- Provided financial support for developing country participation
- Supported travel of IGOS Geohazards Chairman and members

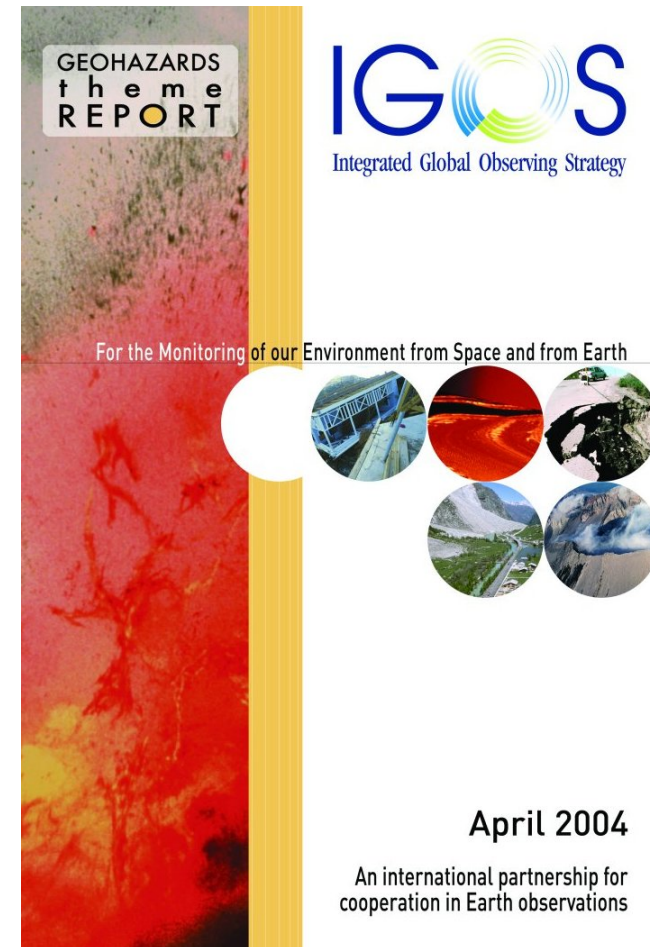
On groundwater and transboundary aquifers, GARS has:

- Scoped a project in North Africa and the Middle East
- Cooperated with ESA/TIGER, UNESCO SHIP, IGOS Water Cycle



Geohazard Theme Report

- Published by ESA in April 2004
- Reviewed in 2007
- Basis for a Geohazard Community of Practice in GEO
- Available online at:



➤ www.geohazcop.org

GEO – building on IGOS

Key differences between IGOS and GEO/GEOSS

IGOS is an **inter-agency** cooperation to develop **strategies**

GEO is an **inter-governmental** mechanism to deliver **GEOSS**

The “Global Earth Observation System of Systems”

What should GEO/GEOSS bring that IGOS cannot?

Political engagement

Additional resources



Some challenges facing GEO... and potential partners

Delivering **early achievements** to maintain the political interest

Avoiding wheel reinvention by incorporating **existing initiatives**