The National Earth Observations and Space Secretariat (NEOSS) provides secretariat services for SA-GEO and its CoPs, and provides the conduit between the SA-GEO community, the DST and GEO/GEOSS.

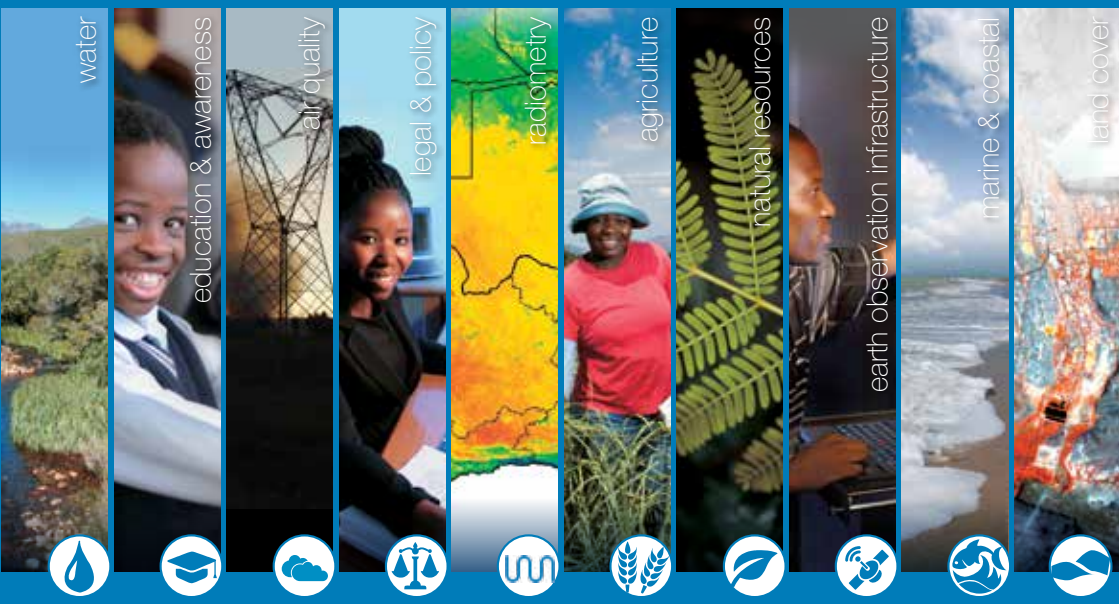
http://sageo.saeoss.org/

For more information, please contact:

Lulu Makapela – Project Manager
Tel: +27 12 841 2644 | Fax: +27 12 841 3012 | Email: lmakapela@csir.co.za

Terry Newby – Manager
Tel: +27 12 841 2266 | Fax: +27 12 841 3012 | Email: tnewby@csir.co.za

SA GEO



Societal Benefits from Earth Observations Applications in South Africa

science & technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

NEOSS
NATIONAL EARTH OBSERVATIONS AND SPACE SECRETARIAT

The role of SA-GEO

One of the challenges, which face decision makers at all levels, is easy and timely access to current and reliable information in a format that they can use and upon which they can base informed sound decisions.

Earth observations data obtained from satellites, aircraft and surface-based systems and innovatively processed, provide the required decision support information. Modern information and communications technology allows this information to reach decision makers timeously.

It is also recognised that one dataset serves many applications and many datasets provide information for a single decision.

In South Africa these datasets are collected, processed, disseminated and used by a large number of Government departments, state agencies, parastatals, academia, NGOs and private industry.

SA-GEO advocates, promotes and facilitates networking of the wider Earth observations community in South Africa. It is funded by the Department of Science and Technology (DST), and hosted and managed by the CSIR.

SA-GEO is a voluntary community of local Earth observations users and suppliers. It is organised around self-organising Communities of Practice (CoPs) which are based on but not limited to the nine GEO societal benefit areas. The National Earth Observations and Space Secretariat is the secretariat to SA-GEO and the CoPs.

SA-GEO objectives

- To advocate the use of Earth observations in decision-making.
- To mobilise a co-ordinated Earth observations community.
- To establish the Earth observations communities user needs.

  To encourage use of the SAEOSS portal.
- To advocate free and open access to Earth observations data.

GROUP ON EARTH OBSERVATIONS

Contributing to and benefiting from GEO and GEOSS

The Group on Earth Observations (GEO) is a voluntary inter-governmental organisation. The organisation's primary objectives are to improve and coordinate observation systems; advance broad open data policies/practices; foster increased use of Earth observation data and information; and build capacity.

The Global Earth Observation System of Systems (GEOSS) is a global, flexible network of content providers allowing decision-makers to access an extensive range of information. GEOSS relies on the systems that are sources of Earth observations data, information and services being discovered and accessed by users.

The nine GEO societal benefit areas are recognised internationally as critical to people and society in addressing environmental challenges and putting in place measures to mitigate natural and human-induced disasters. These are disasters, health, energy, climate, water, weather, ecosystems, agriculture and biodiversity.

AfriGEOSS

Implementing GEOSS in Africa

AfriGEOSS was established to link existing Earth observations capabilities and intiatives across Africa with current and emerging GEO initiatives. The aim is to enhance the continent's capacity to produce, manage and use Earth observations data and information.

AfriGEOSS provides the necessary framework for countries and organisations to access and leverage on-going bilateral and multilateral Earth observation initiatives across Africa, thereby creating synergies and minimising duplication for the benefit of the continent.

Making Earth observations discoverable and accessible

The South African Earth Observation System of Systems (SAEOSS) portal offers the South African Earth observations community the opportunity to discover, access and eventually analyse Earth observations datasets.

South Africa faces the challenge of making Earth observations discoverable, accessible and usable at local, provincial and national levels of government, as well as to the private sector, academia, science councils, and more recently, to educators and learners.

SAEOSS facilitates Earth observations data discovery, access and use to address societal benefit areas. Data include measurements and monitoring of the Earth; its land surface and what lies beneath; its water surfaces and what lies below them; its air and air quality; and its atmospheric conditions. These data are used to measure the health of human, plants and animals within South Africa.

http://saeos.dirisa.org/

Locally relevant, globally connected

SAEOSS is a progressive, innovative and invaluable resource to allow Earth observations specialists and users to access and use datasets for decision-making, policy formulation and monitoring.

As an infrastructure, SAEOSS strives to provide free and open access to timely, relevant and appropriate Earth observations data primarily for South Africans. Derived products such as the Advanced Fire Information System and the Risk and Vulnerability Atlas are linked from this portal. Various decision support systems and models will in time become available and will cover a range of online resources for planners responsible for resource allocation.

Within a global context, SAEOSS contributes to GEOSS by its interconnectivity based on the interoperability of data and data systems.

Engagement with SA-GEO

Communities of Practice (CoPs) form the foundation stones of SA-GEO. A CoP is a user-led community of stakeholders, from providers to the final beneficiaries of Earth observation data and information, with a common interest in specific aspects of societal benefits.

CoP participants identify, gather, and seek agreement on their particular user community requirements. The CoPs provide a forum for cooperation of activities to identify linkages and opportunities for collaborative strategic and technical projects. They also provide an informal point of contact for members or other jurisdictions on the specific benefit or interest area that affect more than one organisation.

The SA-GEO CoPs are built around societal benefit areas.

Communities of practice (CoPs)

Agriculture Earth observations applications and capabilities for sustainable agriculture and food, fodder, fuel and fibre security

Air quality Integration of Earth observations data and systems for pollution monitoring and promoting a healthy environment

Earth observation infrastructure Sustained operation, continuity and interoperability of existing and new Earth observations systems for easy discovery and access to EO data

Education and awareness Targeted Earth observations outreach activities and educational resources to build capacity

Land cover Earth observations-based land cover mapping and monitoring systems for development planning and sustainability

Legal & policy Consideration of legal aspects and policy implications of access to and sharing of Earth observations data

Marine & coastal Earth observations data and systems for sustainable utilisation and management of marine and coastal resources

Natural resources Integration of Earth observations-based natural resources knowledge and monitoring systems for sustained productivity

Radiometry Research and knowledge sharing on radiometry for enhanced Earth observations

Water Data and information products for decision-making on efficient management of water resources

Possible future CoPs include Health, Disasters, Climate & Weather, Built Environment, and Biodiversity & Ecology.