

AfriGEO– Implementing GEO initiatives in Africa

GEO Work Programme 2020 - 2022

1. EXECUTIVE SUMMARY

The development and uptake of Earth observation (EO) data, information and knowledge is critical to improving the socio-economic status of the African continent. The Group on Earth Observations (GEO) Member States and Participating Organizations in Africa, comprising of 27 countries and nine regional institutions, recognize the need to improve and coordinate observation systems across Africa. Strong advocacy of open data-sharing policies and practices, as well as for increased use of EO data and information, are the foundation of moving forward in these vital areas. Similarly, focusing significant effort on building human, institutional and technological capacities and capabilities will ensure that all parts of the African continent benefit from better access, understanding and use of EO data, products and services. From these products and services information can be derived to better inform policy and decisions.

AfriGEO is an initiative of the African community in GEO aimed at providing a coordination framework and platform for Africa's participation in GEO. In addition it is a:

- Pan African initiative to raise awareness and develop capacity on EO for governments, research organizations and the commercial sector;
- Framework for strengthening partnerships and collaborations within Africa;
- Gateway into Africa for international partners; and
- Support mechanism for the implementation of GEO objectives and programmes in Africa.

For nearly a decade, a number of GEO programmes, initiatives and projects have focused on or included Africa in their scope. These activities included response to societal benefit requirements as well as access to Earth observation (EO) data, tools and products. Part way in to the next decade of GEO, GEO initiatives need strengthened connections and to support the continuously growing African Earth observation community and the ongoing national and regional programmes in Africa. AfriGEO, aims to support GEO activities to strengthen linkages between current GEO activities and existing capabilities and initiatives in Africa. The initiative will provide the necessary framework for African countries and organizations to contribute to the GEO Work Programme. In addition, AfriGEO, through the decision of the 26th African Union Summit, will support the development and implementation of the African space programme and contribute to relevant environmental, socio-economic, science and technology African agendas.

The Secretariat has presently been moved to the Regional Centre for Mapping of Resources for Development (RCMRD) based in Nairobi. RCMRD was established in 1975 under the auspices of the United Nations Economic Commission for Africa (UNECA) and the African Union (AU) as a non-profit intergovernmental organization hosted in Kenya and presently has twenty (20) contracting member States in Eastern and Southern Africa; Botswana, Burundi, Comoros, Ethiopia, Eswatini, Kenya, Lesotho, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Somalia, South Africa, South Sudan, Sudan, Tanzania, Uganda, Zambia and Zimbabwe though services portfolio cut across the whole African Region. RCMRD's mission is to strengthen the member States and our stakeholder's Capacity

through Generation, Application and Dissemination of Geo-information and Allied Technologies for sustainable development. Ref www.rcmrd.org

The points of contact for AfriGEO in the 2020-2022 timeframe will be Phoebe Oduor-poduor@rcmrd.org and Byron Anangwe-banangwe@rcmrd.org.

2. PURPOSE

2.1. Objectives and planned way of attaining them

The AfriGEO objectives are to:

- Strengthen connection with the current GEO Principals in national government agencies in Africa, participating organizations and enlarge the GEO partnership in the Regional Economic Communities (RECs): ECOWAS (Economic Community of West African States), AMU(Arab Maghreb Union) , COMESA (Common Market for Eastern and Southern Africa), CENSAD (Community for Sahel Saharan States) , EAC (East African Community), ECCAS (Economic Community for Central African States), IGAD (Intergovernmental Authority on Development), SADC(Southern African Development Community) and with the African Union;
- Increase uptake of EO in Africa through the promotion of long term Human Capital Development programmes;
- Facilitate and drive programmes towards achieving the Global, RECs and Africa wide goals and objectives i.e. AU Agenda 2063, 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction and the Paris Climate Agreement;
- Support international collaboration by connecting national and regional institutions and programmes with GEO and Regional GEOs;
- Foster creation of synergies to reduce duplication of efforts across Africa;
- Liaise with the GEO secretariat to ensure synergic and streamlined operations;
- Advocate for the uptake of EO in decision making and raise awareness on benefits of Earth observations for the continent;
- Develop a strategy of access and dissemination of Earth observation data and information throughout Africa;
- Ensure communication, outreach, awareness, user engagement, and mobilization of resources.

The objectives will be met through the implementation of the identified six Action Areas:

- a) Continental, Regional and National Coordination;
- b) User Needs and Applications;
- c) Data and Infrastructure;
- d) Human Capital Development;
- e) Resource Mobilization;
- f) Communication and Outreach.

2.2. Expected outcomes

The expected outcomes are, increased and strengthened:

- Focus on African issues at international and regional events;

- Engagement in African policy platforms and other African cooperative efforts, promoting uptake of EO to inform policy decisions towards sustainable national and regional development;
- Synthesized GEO priorities at national level and the associated coordination mechanisms;
- Engagement with networks within and outside the Earth observations community;
- Participation in training courses, skills development and human capital development activities (regional and international);
- Resource mobilization, including through in-kind contributions from African member states and response to calls for proposals;
- Increased GEO membership of African countries, regional and national institutions;
- Attendance at GEO events and official meetings in Africa and elsewhere;
- Sharing the AfriGEO initiatives and lessons learnt with other GEO regional GEO's;
- More visible private sector engagement

3. PREVIOUS ACHIEVEMENTS

3.1. PRIORITIES FOR THE 2017-2019 PERIOD AND THEIR STATUS

- Establishment of Coordination teams for the priority tasks:
 - Food Security and Agriculture- through AfriGAM (coordination activity for GEOGLAM activities), action plan and concept developed.
 - Sustainable Forest Management-main objectives here were bring together stakeholders and institutions that deal with forest management and get them talking and sharing best practices for forest management and monitoring, as well as MRV.
 - Water Resource Management-through GEOGLOWS
 - Sustainable Urban Planning and Growth- SANSa leading to identify Urban growth
 - Land cover for Africa- Inventory for Land Cover activities in Africa Developed this will be continuously updated
 - Soil moisture Mapping and Agricultural Outreach Support Project- soil moisture maps developed for the period 2010-2015. The project however stalled after funding ended therefore it's no longer possible to access the maps online. An offline location has been provided though
- AfriGEO Symposia
- Engagement with Africa Space Policy Programme
- Increased Participation in GEO activities and events
- Capacity building through the working group on capacity building
- Alignment with GEO flagship Initiatives- GEOGLAM, GEOGLOWS, Globeland Cover

3.2. ACHIEVEMENTS

The key achievements for the 2017 to 2019 time period are as indicated:

- GEO Membership of African countries increasing from 22 to 27 Members and regional institutions increasing from 5 to 9 Participating Organizations;
- Increased African participation in GEO Boards and Working Groups;
- Participation in AfriGEO coordination mechanisms such as Working Groups started with

- 13 Members (now has over 30 active members);
- African attendance at GEO events and official meetings (improved attendance at GEO Plenaries);
 - Three AfriGEOSS symposiums held: 2017 in Sunyani- Ghana and 2018 in Libreville-Gabon; and the upcoming 2019 Symposium to be held in Nairobi at RCMRD.
 - Participation in training courses (regional and international) through GEO's Working Group on Capacity building;
 - Coordination teams for all application areas developed;
 - Response and participation in Calls for Proposals (AfriGEO Secretariat plays a match-making role and connects the African community to international and regional consortia);
 - Increased awareness and capacities built; and

3.3. LESSONS LEARNT

The lessons learnt include:

- Need for continuous engagement with users and stakeholders
- Transition of secretariat should be seamless to avoid gaps in engagements
- More coordination with regional programs required
- Continuous capacity building

4. DESCRIPTION OF ACTIVITIES AND THEIR RELATIONSHIP TO GEO ENGAGEMENT PRIORITIES AND OTHER WORK PROGRAMME ACTIVITIES

The AfriGEO's Action Areas ensures a basic level of coordination, identification of user needs and development of an action plan; allows for a progressive increase in the number of activities and allows for their scope to grow to that of stand-alone GEO Community Activity, GEO Initiative and/or GEO Flagship at the same time responding to the GEO priorities on the Sustainable development Goals of 2030, the Paris Climate Agreement and the Sendai Framework for Disasters Reduction.

4.1. Tasks description based on AfriGEO Action areas

4.1.1. Continental, Regional and National Coordination

2020-2022 Activities:

1. Establish connection with the current GEO Principals and enlarge the GEO partnership in the Regional Economic Communities (ECOWAS, UMA, COMESA, CENSAD, EAC, ECCAS, IGAD, SADC) and AU;
2. Maintain contacts with GEO Secretariat, GEO Africa Caucus, other regional GEO coordinators;
3. Establish national coordination (GEOs) mechanism, including appointment of national coordination focal points;
4. Member states to align their programmes and activates to support implementation of the AfriGEO Objectives. (The Steering Committee Member countries can champion this i.e. Egypt, Gabon, Madagascar, Senegal, South Africa and Uganda)

Outputs:

- strengthened national and regional coordination
- increased GEO Membership for African countries
- participation in GEO meetings
- synchronized communication with GEO
- development of projects in support of policy decisions;

4.1.2. User Needs and Applications

Meeting user needs and coordinating the development and demonstration of related applications, is the ultimate objective of GEO and, by definition, AfriGEO. We shall greatly rely on existing surveys conducted such as the one done by EO4SDG to identify the specific needs at country level in this implementation period. However, needs assessment is a continuous process and we shall continuously be update the priorities as we engage with the community.

The AfriGEO shall focus on the below application areas:

a) **Food Security and Agriculture;** in response to SDG2

The activities under this application area will coordinate GEOGLAM activities through AfriGAM to ensure countries have access to food security information allowing for evidence-based decision making by African governments. Upscaling of National crop monitors to cover more countries; Capacity building to strengthen national governments and Communication of GEOGLAM Regional and National Bulletins to key stakeholders.

Contributors: ARC South Africa, National POCS (Lead Institutions) for the countries covered. Other partners expected to join in in due course.

b) **Sustainable Forest Management;** in response to SDG15 and the Paris Climate agreement that encourages creation and conservation of carbon sinks through REDD.

The activities under this thematic task will be performed under the AfriGEO Sustainable Forest Management (AfriGEO SFM) Initiative. The main activity under this put will be to identify and connect all Sub Regional forest organizations in a network so that they are able to share best practices and challenges. Further, we shall make connections to GFOI and capacity building opportunities through SilvaCarbon. We also plan to create linkages to existing databases of Forest information through initiatives such as OFAC, OFESA etc.

Contributors: Observatoire des Forêts d'Afrique Centrale (OFAC), AGEOS, SilvaCarbon, GFOI, GEO WG-CD.

c) **Water Resource Management;** in response to SDG6 and the Sendai Framework

for Disasters

The activities under this thematic task will be performed under the AfriGEO Water Resource Management (AfriWRM) initiative aiming at ensuring connections with GEO water activities such as GEOGLOWS and GLOFAS, Digital Earth Africa water service and GEODARMA. Specific activities will include but not limited to: Dissemination information on water to countries; Utilization initiatives in Africa to facilitate human capital development; Develop a network of Africans organization for cooperation and sharing of knowledge for enhancing the Global Water Sustainability (Sustainable Development Goals Water, SDGs), Minimizing the Risk at regional/basin scale and the understanding Essential Water Cycle Variables;

Contributors: The Co-leads are Chouaib Doukkali University (UCD), Morocco and University of Energy and Natural Resources (UENR), Makerere University, RCMRD, Coordinating Teams

d) **Sustainable Urban Planning and Growth**; in response to SDG11

The main activity for this thematic area is to assess the spatial extension of some of the major African cities and map the key patterns of urbanization through mapping of urban development using EO and sharing of methods and tools for building and geo-visualizing geographic urban infrastructure, extracting key urban features; and detecting patterns and trends. Specific activity will be to work through the coordination teams to engage with the appropriate urban development and planning authorities to fully understand user requirements and best mechanisms to develop fit-for-purpose products and services

Contributors: SANSa, UN Habitat, Ghana (GSSTI), ARCSSTE-E and South Africa (The Housing Development Agency).

e) **Land cover for Africa**; in response to SDG15

The purpose of the application area is to contribute to the development of a land cover programme which includes monitoring land cover change and land degradation for Africa at medium and high resolution. Specific activities will include: Standardization of land cover mapping processes and validation of final products; raising awareness of existing data and tools for land cover and land degradation; encourage utility of LC and LD data as catalytic tools for policy decisions, capacity development and community of practice; and engagement with GEO LDN,

Contributors: The Executive Board is chaired by RCMRD with regional members as follows: Morocco (Chouaïb Doukkali **University**), Aghrymet, Democratic Republic of the Congo (**OSFAC**), South Africa (DRDLR), Madagascar (University of Antananarivo). The TAG is co-chaired by Senegal (CSE) and United States (NASA SERVIR) with

contributions from, ARCSSTEE, China (Tsinghua University), Egypt (NARSS), European Commission (JRC), GOF-C-GOLD, Botswana (Department of Surveys and Mapping) Kenya (ICIPE), OSS, RCMRD, South Africa (CSIR), UNECA, UNCCD, UNEP, United States (NASA) and ESA.

f) **Climate services and adaptation;** in response to SDG13 and the Paris Climate agreement

The main aim of this application area will be to provide climate information to government for decision making purposes. We shall leverage on national efforts made towards dissemination of climate information, Early Warning eXplorer (EWX) that is producing downscaled climate information on rainfall, and partner programs implementing activities that benefit the region such as SEACRIFOG program. SeacriFOG is a Horizon 2020 Coordination and Support Action, supporting EU-African Cooperation on Research Infrastructures for food security and Greenhouse gas observations.

Contributors: National Governments, ICPAC, RCMRD, SEACRIFOG

4.1.3. Data and Infrastructure

This activity area complements the ability of the GEOSS Platform and GEO Knowledge HUB to provide end users with access to data, information, products and services. The progressive implementation of the GEOSS Data Sharing principles is creating the proper conditions for the definition and subsequent successful implementation of a number of coordinated initiatives that have the objective of building an historical archive of satellite data over Africa (such as DEA and ARDC) and of ensuring sustained access to ongoing missions' data using regional and national data cubes.

The provision of education and training programmes focusing on the development of open source software and open systems, and the development of acquisition and dissemination mechanisms, need to take into consideration the challenges of limited bandwidth in many developing countries. To accurately identify the scope of data and infrastructure capabilities and needs, this component needs to include engagement with other non-Earth observation entities, such as, the National and Regional Research Networks (NRENS) and the Infrastructure Consortium for Africa (ICA), to ensure that issues of connectivity across the continent are addressed in support of Earth observations data dissemination, access and use.

GEOSS is not only concerned with satellite observations but also in-situ observations. There is a need to bring attention to this element with regard to data acquisition activities in Africa. Further, though the GEO data sharing principles have had major successes in opening access to satellite observations, the same cannot be said for in-situ observation data and information for Africa.

Africa, unlike Europe, for example, does not have an institution responsible for coordinating access to in-situ measurements. This is something for which Africa can aspire. This sub-component will bring in-situ data custodians and providers into the GEO community and promote open access to in-situ measurements and information.

Contributions: Egypt (NARSS), Gabon (AGEOS), Ghana (GSSTI), Nigeria (NASRDA), OSS, South Africa (SANSa), RCMRD, NASA, ESA and JAXA, and the private sector entities such as Digital Globe, Planet etc.

4.1.4. Communication and Outreach

Raising awareness and outreach to African communities on a continuous basis, using the existing networks and through specific measures such as updating of the AfriGEO website, exhibitions, side events and a periodic GEOSS in Africa conference, participation in conferences such as AARSE, EIS in Africa, the AfriGEO annual Symposia are key elements of the communication and outreach strategy. The GEO secretariat will also form a great deal of our communication team as we shall utilize their communication channels and resources time and again.

Contributors: South Africa, Coordinating Team Leads, RCMRD, GEO Secretariat.

5. STAKEHOLDER ENGAGEMENT AND CAPACITY BUILDING

5.1. STAKEHOLDER ENGAGEMENT

We shall adopt a user needs identification strategy discussed in the action area 4.1.2. Development of coordination teams for each of the application areas identified in 4.1.2. The coordination teams shall have bi-monthly meetings. They shall develop action plans and shall be tasked to ensure implementation of these action plans.

5.1.1. HOW ESTABLISHED USER COMMUNITIES LINK TO, OR PARTICIPATE IN AFRIGEO

AfriGEO is coordination focused with the aim to make the available Earth Observation data, products and services useful and meaningful to the user community. The focus of the initiative therefore is to engage and connect data and information providers with end-users.

5.1.2. HOW THE ACTIVITY WOULD BENEFIT STAKEHOLDERS

Through coordination of activities in the African continent, the initiative aims to strengthen efforts geared towards the uptake of Earth observations in evidence based decision-making; to build synergies and reduce duplication of efforts.

5.1.3. HOW IT FEEDS INTO DECISION-MAKING PROCESSES

Promotion and awareness on the value of Earth Observations for decision making, through engagement with policy structures in the continent, building on already undertaken engagements and decisions, such as the African Union 26th Ordinary Session, January 2016, African Union STC-EST, October 2015, 3rd AMCOMET, February 2015, SADC Joint Ministers

STI and ET, June 2014 and AU-EU Summit, April 2013. A feedback mechanism to these political structures on the progress made in the implementing the decisions taken will be developed.

5.2. CAPACITY BUILDING

Capacity building activities will be focused to strengthen participants and institutions and build human capital through various capacity building programmes based on needs. We shall rely on willing contributors to offer capacity building through training of trainers and champion for programs to incorporate capacity building as a requirement for programmes implemented in the region.

We shall leverage the GEO Working Group on Capacity Building and the Sustainable Development Solutions Network (SDSN) to prioritize some to the capacity needs identified in Africa in their work programmes.

The current GEO Participating Organizations in Africa and national Universities, each with extensive experience in geospatial activities and have academic programmes, will contribute to this component by using their programmes and networks to ensure that effective and well-coordinated education and training activities are strengthened to realize an Africa with skilled workforce.

This activity area shall also implement mentorship activities that nurture our youth and women.

Planned Activities include:

1. Develop strategic partnerships to that are focus provide capacity building and training of trainers;
2. Champion for inclusion human capital development in as many funded programs for Africans;
3. Conduct one regional capacity building activities annually i.e. Regional Training for Open Source scheduled in Swaziland for 2019. Training for subsequent years will be planned accordingly;
4. Innovation Challenges for the youth for the AfriGEO member countries;
5. Support and mentorship to youth and women through programs such as WISCI, ALC Youth Forum, Woman in Space, Nigeria, Woman in Science and Engineering, SA, etc.

Contributors: RCMRD supported by AARSE, ARCSSTEE, OSS, DEA, Universities, WG-CD, CEOSS.

6. GOVERNANCE

6.1. Organizational structure

The main function of the AfriGEO Management Arrangement is to coordinate the execution of the agreed activities in each of the areas of intervention, and to ensure the achievement of the agreed objectives. The Management Arrangement includes:

- Africa Caucus (AC) – responsibilities include the nomination of the Members of the Steering Committee;

- Steering Committee (SC);
- The Secretariat (RCMRD).

6.2. Project coordinator and supporting organization

The coordination of the Initiative is undertaken by the Secretariat, with guidance and leadership the host institution (RCMRD).

6.3. Advisory / steering committee

The Steering Committee (SC) will provide policy and strategic guidance for the implementation of AfriGEO including priority actions, Coordination Team activities and resource allocation. The SC will meet at least once a year and or when needed. The SC decisions will be taken by consensus.

The Africa Caucus nominates the Members of the SC on the bases of:

- a) African country is a Member of GEO;
- b) One Member State per geographical region (Northern, Western, Central, Eastern, Southern and Indian Ocean Countries (IOC);
- c) Member State representation at GEO Principal or Alternate level;

At its first meeting, the Steering Committee will nominate two Co-Chairs to serve for the duration of the two-year term of the Steering Committee.

The current, 2020 – 2022, AfriGEO Steering Committee members are: Egypt (Co-Chair), South Africa (Co-Chair), Gabon, Madagascar, Senegal, Uganda and AfriGEO Secretariat (RCMRD).

6.4. Communication with partners and participants

The communication with partners and participants is routed through the Secretariat and the office of the Caucus Chair at the time. We have leeway to work with the communication at GEO and we shall rely on this avenue when appropriate.

7. RESOURCES

To enable the implementation of the AfriGEO Initiative, resources are required. Budget line items were identified as:

- Secretariat / coordination office/Steering Committee;
- Secretariat operations budget;
- African participation in GEO activities outside Africa;
- Coordination teams operational budget for implementation of the activities in the Action Areas;
- Hosting of meetings and the annual symposium;

The AfriGEO initiative is heavily implemented through in-kind resources (human time resources) from the Members, Participating Organizations and the private sector. Contribution are made through commitments to Coordination Teams, Task Force, Working Group and the governance structures of AfriGEO. The AfriGEO Working Group, though not officially in the AfriGEO governance

structure, provides a platform for continuous engagement with the community and it is a pool of in-kind resources when required. The resource mobilizations action area aims to mobilize financial resources to supplement the available in-kind resources.

RCMRD in its tenure (2020-2022) to host the secretariat shall provide an office for the secretariat, staff to support the secretariat activities as required, POCs that shall be in charge of the communication and handling on behalf of the secretariat, and its normal contributions aligned to being a member of the steering committee as of 2020, and a member of GEO.

South Africa through SANSa has committed to support the running of secretariat by providing financial support on an annual basis for the period 2020-2022 as part of its commitment to seeing through a successful AfriGEO.

7.1. RESOURCE MOBILIZATION (one of the AfriGEO action areas)

Resource mobilization shall be required to fulfill some of the proposed activities. The current contributions cannot meet all the requirements of the proposed implementation plan. We shall focus on bringing together and engaging with all main actors having Africa-focused support programs and plans. The networks at GEO secretariat shall be helpful in establishing rapport with potential funding sources. Further, better coordination, partnership and one voice in priority issues of focus will give us better ground when seeking funding opportunities.

Activities:

1. Engagement of the steering committee to develop strategic plans for resource mobilization;
2. Develop a framework for consideration by Caucus Members to indicate where and how they can contribute towards the identified budget line items. Action: Steering Committee Members to engage their leadership on financing AfriGEO; this is still working progress for a lot of the member countries so far South Africa has come through with their support.
3. Investigate the requirements of the African Renaissance Fund to support AfriGEO activities;
4. Investigate the programme of the African Development Bank and alignment with AfriGEO action areas and develop a funding proposal to the bank, (Secretariat, South Africa, Steering Committee Members);
5. Response to calls for proposals aligned to the AfriGEO action areas (Coordination Teams)

7.2. COMMERCIAL SECTOR ENGAGEMENT

The commercial sector shall play a key role in bridging gaps identified in data provision and implementation. Partnering and promotion of private sector entities builds economies, creates jobs and provides a strengthened and diversified solutions provisions.

8. DATA POLICY

The AfriGEO is a coordination initiative; it is not yet expected to generate datasets. It will however advocate for adoption of GEO data management and data sharing principles by its Members.

In addition, within the scope of the Data & Infrastructure action area, the secretariat will engage

with African institutions to contribute their datasets to the GEOSS Data Core, to have their data portals brokered by the GEOSS Platform and to develop a portal interoperable to the GEOSS Platform.

LIST OF TABLES (Updated Annually)

Please refer to the appended Tables.

ANNEXES

Annex: A AfriGEO Coordination Framework

Building a proper and sustained coordination framework is essential to ensure that AfriGEO's objectives will be met.

Once in place, this framework will enable coordination inside the continent, allow the definition and implementation of coordinated African contributions to global initiatives, and ensure greater benefits for Africa from initiatives at the global scale.

The coordination framework needs to address geographical representation, political representation and functional areas.

The proposed AfriGEO coordination framework is comprised of two different but cooperating components:

1. A standing Coordination Network of national and regional coordinators, ensuring systematic geographical representation;
2. A dedicated coordination structure, referred to as the AfriGEO Management Arrangement, which, in this initial phase, constitutes the continental coordination layer and covers the political representation and functional areas.

The Africa Caucus will provide oversight of the development and implementation of the AfriGEO coordination framework.

The Coordination Network of national and regional coordinators

The main function of this network is to ensure continuous, two-way communication from national to regional to continental levels, and vice versa.

The network will be used to circulate very different types of communications, such as general information of potential interest to the different countries/organizations (e.g., newsletters), progress reports on AfriGEO coordinated initiatives, and definition and consolidation of new initiatives and projects. More specifically, the Coordination Network will serve to:

- a) Engage all stakeholders at the national and regional level;
- b) Provide linkages between AfriGEO coordinated activities and national and regional initiatives;
- c) Provide national and regional contacts as may be required by the AfriGEO Management; and
- d) Undertake communication and outreach activities at the national and regional level, such as dissemination of information.

The components of the Coordination Network include the following:

- a) National Coordinators (NCs), appointed by the GEO Principals where the country is a GEO Member, or through an exchange of letters between the GEO Secretariat and the interested institution;
- b) Regional Coordinators (RCs), based on partnerships with Regional Economic Communities (RECs) and other regional representative structures where applicable (for example, the RC may be nominated from the NCs); and

- c) Continental Coordination, constituted by the AfriGEO Management in this initial phase of AfriGEO Implementation. In the medium-long term, this planned through continental institutions, such as the African Union Commission (AUC), or UNECA, when dedicated internal structures have been established in those organizations (e.g., the space secretariat within AUC).

It is important to underscore that the identified national coordinators will have the responsibility of ensuring involvement of all national institutions interested and/or involved in the use of EO for decision making, thus building a permanent national coordination.

The network will be progressively built by incorporating representatives from countries and organizations ready and willing to join, keeping in mind the need to have balanced geographical coverage of the continent.

Annex: B

Acronyms

AARSE	African Association of Remote Sensing of the Environment
AGEOS	Gabonese Studies and Space Observations Agency
AfriGEO	Implementing the Global Earth Observation System of Systems in Africa Initiative
AfriGAM	AfriGEO Agricultural Monitoring
AMCOMET	African Ministerial Conference on Meteorology
AUC	African Union Commission
ARC	Agricultural Research Council
ARCSSTEE	African Regional Centre for Space Science and Technology Education - in English
CBERS	China–Brazil Earth Resources Satellite program
CEOS	Committee on Earth Observation Satellites
CNES	Centre national d'études spatiales
DE Africa	Digital Earth Africa
EO	Earth observation
EST	Education, Science and Technology
GCI	GEOSS Common Infrastructure now GEOSS Platform
GEO	Group on Earth Observations
GEOBON	Group on Earth Observations Biodiversity Observation Network
GFOI	Global Forest Observation Initiative
GEOGLAM	Group on Earth Observations Global Agricultural Monitoring
GEOSS	Global Earth Observation System of Systems
GSSTI	Ghana Space and Technology Institute
NASRDA	National Space Research and Development Agency
NARSS	National Authority for Remote Sensing & Space Sciences
NRENs	National and Regional Research Networks
OSS	Observatoire du Sahara et du Sahel (Sahara & Sahel Observatory)
PO	Participating Organization
SADC	Southern African Development Community
SANSA	South African National Space Agency
SBAs	Societal Benefit Areas
SPOT	Satellite Pour l'Observation de la Terre (Satellite for observation of the Earth)
STC	Specialized Technical Committee
STI	Science, Technology and Innovation
UNECA	United Nations Economic Commission of Africa
RCMRD	Regional Centre for Mapping of Resources for Development

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