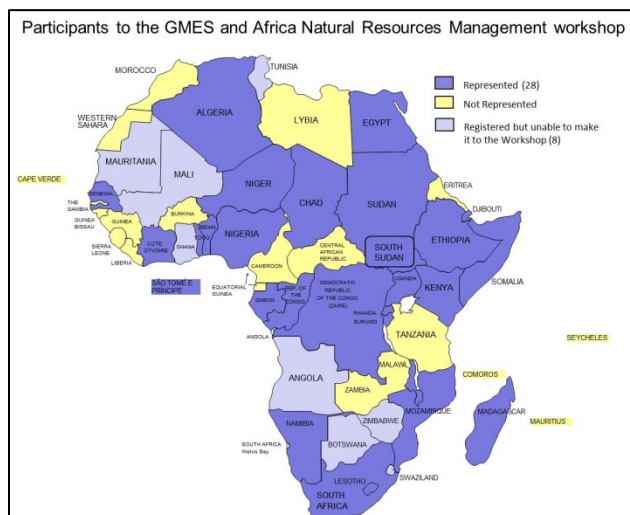


Report on the 3rd GMES and Africa Workshop on “Long-term management of natural resources”. 25-26 June 2013, Sharm-el-Sheikh, Egypt

Hannah Jaenicke and André Bassolé



The workshop brought together 44 experts from 28 African and seven European countries. The morning of Day 1 was dedicated to background information about GMES, including several projects that benefit from Earth Observation (EO) and about the specific GMES and Africa baseline study chapter on natural resource management (NRM). Thereafter, detailed discussions on the draft chapter took place in three working groups, followed by a plenary exchange and the formulation of recommendations on Day 2.

DAY 1

The workshop was opened by Prof. **Ayman El-Dessouki** on behalf of the Chairman, NARSS, who welcomed the participants on behalf of the Egyptian host institution, NARSS, and wished the group fruitful discussions. He invited the delegates to work hard on the workshop agenda and then take some time to discover and enjoy the beauty of Sharm El-Sheikh in this bright summer time. Mr. **Paolo Roggeri** welcomed the delegates on behalf of the European Commission/Joint Research Centre. He mentioned that GMES and Africa was a long-term and challenging process that was now proceeding to a concrete Action Plan including concrete and implementable items. A validation workshop was being planned to be held later this year in South Africa, expected to move towards clear operational recommendations. He thanked BRAGMA for its important bridge-building function.

Dr **Ahmed Hamdy** then expressed his warm welcome on behalf of the Africa Union Commission/Scientific, Technical and Research Commission. He informed the participants how the agenda of science information and space had not been a priority for many AU member States, but that many had now been convinced of its importance for sustainable development, culminating in a call for an African Space Agency. He urged the delegates to keep in mind that the next Heads of State meeting EU/Africa will be a good opportunity to brief policy makers of the progress of GMES and Africa.

Dr **Hambani Masheleni** of AUC/Human Resources Science & Technology Department then provided an overview of GMES and Africa, followed by a presentation on BRAGMA by Dr **Ana Morgado**, Coordinator of the BRAGMA project.


The following four presentations, respectively, by Dr **Jolly Wasambo** (about MESA/AMESD), Dr Luc André (about PROMINES), Dr **Johannes van der Kwast** (about

AfroMaison) and Dr **Peter Zeil** (about G-Sextant and SYMIN) provided the participants with practical on-going examples demonstrating the need of Earth Observation technology and infrastructure for practical implementation in the mining, biodiversity and land & forest resources sectors.

The technical session was followed by an introduction into the GMES and Africa chapter on long-term natural resource management by Dr **André Nonguierma**, one of its original authors. Dr **Hannah Jaenicke** and Mr **André Bassolé** then provided the participants with an outline of the consultation process up to now, the gaps that had been identified and incorporated into the present pre-Workshop draft of the chapter, as well as an introduction to the three working groups (land and forest resources, non-renewable natural resources, biodiversity) and discussion points for the three groups.


The three working groups spent the rest of the afternoon discussing pertinent issues. The groups were fairly well balanced, with the WG on Biodiversity attracting 13 participants, the WG on Land and Forest Resources 16 participants and the WG on Non-Renewable Natural Resources 15 participants.

A debriefing took place in the evening with the Chairs and rapporteurs of the three groups, BRAGMA representatives and the two consultants. This short meeting revealed that all three groups, although each taking a different approach, were progressing well along the given tasks.



Your expert input requested

- Review entire chapter of course – but in specific detail:
- Needs analysis (5.2.2), especially on EO applied to non-renewable NRM
- Existing capacities and programmes (5.4, Tabs 4-5)
- Future planned activities (5.5, Tabs 6-7)
- **Action Plan (5.6 Building GMES & Africa)**
- Recommendations (5.7)



DAY 2

Participants continued in the working groups and prepared short presentations for the plenary session.

Working Group on Biodiversity

The group, from their report in plenary, made a needs analysis to ascertain where Earth Observation can play an important role with respect to biodiversity, including the impact of land use on biodiversity, information about illegal activities (poaching, overgrazing), wild fires and invasive species. The list of important policy drivers with relevance to biodiversity included the MDGs, RAMSAR convention, UNCCD and UNFCCC. With regard to human capacity development, the group pointed at the existing MESA programme and its training component and to national universities and training centres. Gaps were identified in the lack of *in situ* data and in the use of electronic devices for local data collection. GMES and Africa could provide important support in filling these gaps. Recommendations included a strong emphasis on training, the use of international standards to facilitate data management and sharing, the recognition of the importance of protected areas and ecosystems in land use planning processes and the support of Earth Observation in natural resource management.

Working Group on Land & Forest Resources

The group's report in plenary provided very detailed information about required changes to several sections of the chapter. They highlighted the need for information across Africa and therefore the requirement of facilitated information exchange, possibly through Open Access

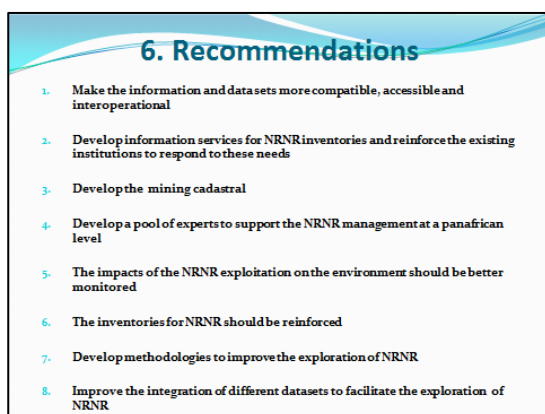
arrangements. They also noted that the current version of the chapter was in parts too focused on detailed information from the mining sector and requested that this be balanced off with further details about ecosystem services and land management. On the other hand, the group mentioned that the current version contained a lot of very specific information in the tables about individual projects and suggested that this information be either removed or moved to an annex, as there was great danger that the lists were remaining incomplete and thus provide an unbalanced account of existing initiatives.

Working Group on Non-Renewable Natural Resources

This working group started their report to plenary by defining the terminology and suggesting that the term NRNR included hydrocarbon resources, mineral resources and non-surface water resources. They mentioned that NRNR had requirements for data at several levels, namely satellite, aerial and *in situ*. Data needs were for both exploration and monitoring of on-going and closed concessions. The group highlighted the need for more African capacity in the sector, which is at present unequally distributed, and requires both expertise from other countries (both European and African) as well as the development of new capacity, for example through the pan-African universities. A list of recommendations completed their presentation.

An open discussion session followed. The following topics were covered:

- Data exchange across borders requires strong policies; these are currently not in place but should be developed.
- Currently, the ICT infrastructure in Africa for EO is weak. This is a cross-cutting issue, not only related to NRM but it needs to be addressed at the level of the GMES and Africa cross-cutting themes.
- Also at higher level, a clear definition of EO needs to be provided, to clarify that it does include *in situ* observation alongside satellite-based and aerial surveys.
- There is a need to redefine borders in order to enable clear information exchange for the management and exploration of NR. This will require cross-national collaboration and strengthened geodetic networks.
- A call was made to ensure that the chapter did not contain too much baseline detail but focused instead of developing an Action Plan with clear guidelines.
- The issue of data quality and standardization was discussed by several participants. A suggestion was made that more African countries join the Open Geospatial Society. Although data quality is a cross-cutting item relevant for other GMES and Africa themes, it has also particular relevance to NRM. UNECA is already active in defining data standards, using specific NRM examples.
- It was mentioned that rangelands were an important example for the need for EO, as their sustainable management depended on large-scale monitoring of vegetation cover and animal stocking rates and movements.
- Validation of data services is important.
- The recommendations should target specifically AUC/EC decision makers in order to be more powerful.




The participants then looked at the eight recommendations presented by the NRNR group. It was recognized that these recommendations were relevant for all three thematic groups and there was general agreement that these could be used, in slightly reformulated version, as the recommendations for the NRM chapter.

One participant called for a section (pre-amble) on defining principles, beyond the policy drivers already included in the chapter. It was mentioned that there are specific policy principles related to

NRM in Africa which are important to set the scene of how the NRM team will work within GMES and Africa. These principles are related to research, innovation and NRM, how Africa can itself take the available opportunity to create its own tools and S&T framework. Specifically it was mentioned that Earth Observation can:

- play an important role in creating/acquiring information for proper land use planning processes, thus maintaining existing biodiversity levels;
- provide information and services;
- feed alert systems for example on illegal exploration (ivory, timber, minerals).

The session ended by looking at the immediate next steps towards completion of the revisions to the chapter:



Next steps






5 July:

- Submission of Chair's reports to Hannah/André
 - abassole@fasonet.bf
 - Hannah.jaenicke@t-online.de
- Any additional comments by participants submitted/posted
- Post comments on blog: <http://capacity4dev.ec.europa.eu/africa-eu-part-gmes/minisite/3-long-term-management-natural-resources-workshop>

Mid/end July:

- Revised version circulated to SC for comments

Early/mid August:

- Final version submitted to     

During the Closing Session, Dr **Islam El-Magd** congratulated delegates for their attendance and the representation of 28 African countries to the workshop. He reminded the participants of the slow but significant progress GMES had made since its inception in 2007. More development is needed in Earth Observation and in setting out an African Space Policy. Questions need to be addressed, such as “how can we disseminate data amongst each other?” Also, the other six thematic areas from the baseline document warrant closer review. The next step will be the validation workshop planned for later this year in South Africa.

Further closing remarks were made by Mr. **Paolo Roggeri** on behalf of the EC, Dr **Ahmed Hamdy** on behalf of AUC and Prof. **Ayman El-Dessouki** on behalf of the Egyptian workshop hosts who thanked the delegates for their participation and wished everyone a safe journey back home.