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ECONOMIC COMMISSION FOR AFRICA

United Nations Global Geospatial Information Management for Africa (UN-GGIM: Africa)  
Inception Meeting

Tunis, Tunisia  
**10-12 December 2014**

**United Nations Global Geospatial Information Management  
(UN-GGIM)  
African Cluster**

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**Inception Meeting**

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**Report**

## **1. Introduction**

1. The United Nations Secretariat has launched the Global Geospatial Information Management (UN-GGIM) initiative, establishing a formal mechanism to coordinate geoinformation activities involving member States as the key players.
2. In August 2011 an African GGIM Preparatory meeting recommended African member States, the Economic Commission for Africa (ECA) and the African Union Commission (AUC) to implement a continental framework toward the active participation of African countries in the UN-GGIM initiative.
3. Furthermore, the third session of the Committee on Development Information, Science and Technology meeting (CODIST), 13th March 2013, resolved that the oversight and supervisory functions of the CODIST geoinformation subcommittee (CODIST-Geo) be transferred to an equivalent subcommittee of StatCom Africa with the name of UN-GGIM: Africa.
4. It is against this background that ECA organized an inception meeting in Tunisia in December 2014 on UN-GGIM in Africa, in parallel with StatCom, to:
  - Discuss the critical aspects and agree on a basic set of concepts, practices, standards and guidelines for establishing an African regional entity of UN-GGIM.
  - Create a road map outlining an action framework of related responsibilities, timescales and costs.

## **2. Meeting objectives, format and outcomes**

5. The primary objective of the meeting was to discuss, adopt and endorse a regional body to coordinate UN-GGIM activities in Africa. The meeting had the expectation that this continental caucus could inherit much of the same governance mechanism and goals as those of the former CODIST-GEO. Simultaneously, the regional efforts would be strengthened by aligning specific needs and interests of Africa with international mechanisms.
6. Specifically, the meeting discussed the desirable avenues to develop a broad action plan to steer the future implementation of the initiative.
7. During the meeting, member States and selected experts were invited to present a brief perspective based upon current geospatial information developments in their country or region. The presentations were discussed in relation to the African situation and international status.

## **3. Attendance**

8. The meeting was attended by over 30 participants, including delegates from 15 African countries, as well as observers from international organizations including the AUC, ECA, the United Nations Secretariat, academia, industry organisations and the private sector.
9. Delegates from the following African member States participated in the meeting: Algeria, Burkina Faso, Cabo Verde, Cameroon, Côte d'Ivoire, Ethiopia, Niger, Nigeria, South Africa, Togo and Tunisia. A full list of participants is at Annex A.

## 4. Opening

10. Mr. Stefan Schweinfest, Director of the UN Statistics Division, United Nations Department on Economic and Social Affairs chaired the opening session. He welcomed all participants to this important event to discuss the establishment of an African chapter of the UN-GGIM initiative. He sees this as providing an opportunity for the uptake of African issues at the global level where relevant and benefitting from the experiences of similar efforts in other regions.
11. Mr. Ahmed Adouni, President Director General of the Office of Topography and Cadastre (OTC) of Tunisia also welcomed participants and underscored how the government and people of Tunisia are proud to host this parallel event to StatCom Africa. He further outlined the current efforts of Tunisia to develop digital geospatial data, products and services for the community of users.
12. Mr. Rob Gray, Chief of the Geoinformation and Sectoral Statistics Section, as part of the African Centre for Statistics within the Economic Commission for Africa, presented the objectives of the meeting. He also welcomed the participants on behalf of the Officer-in-Charge of the African Centre for Statistics and thanked them all for making time in busy schedules to attend the meeting. He noted that this was a unique opportunity to build upon the efforts of CODIST-Geo, develop African geospatial information and contribute to, as well as benefit from the synergies available through UN-GGIM.
13. The meeting received two goodwill messages as follows:
  - a. Mr. Derek Clarke, ongoing Chair of the previous CODIST-Geo bureau, commended ECA for organizing the meeting and enabling experts from geoinformation related fields – including statisticians and cartographers – to work together to determine national and international institutional frameworks for geoinformation management. He mentioned that we are transitioning from the previous structure of CODIST-Geo to UN-GGIM: Africa. He stressed that we are not starting from scratch and therefore must ensure that we collectively build the UN-GGIM: Africa we want, based on what has been achieved so far. He also underscored how critical it is in today’s world to link geospatial information and statistics.
  - b. Mr. Stefan Schweinfest delivered a goodwill message on behalf of Ms. Vanessa Lawrence, a co-Chair of the UN-GGIM. She would have been delighted to attend the meeting, but unfortunately had an accident the week before and therefore requested Mr. Schweinfest to deliver the goodwill message on her behalf. Mr. Schweinfest said that this meeting gathering member state representatives, observers and partners of all geoinformation sectors, provides an opportunity to exchange experiences and prepare the establishment of the UN-GGIM: Africa. He concluded his remarks by extending his gratitude to conference participants and the meeting organizers for their engagement to organise this meeting and wished a successful deliberation.

## 5. Sessions

### 5.1. Session 1 – Keynote Address

14. The meeting received the keynote presentation by Mr. Stefan Schweinfest on behalf of Ms. Vanessa Lawrence, providing a global overview on the needs, prospects and vision for geoinformation governance in Africa. He described the starting points and the

justification for the creation of UN-GGIM, including the significant gap in the management of geospatial information globally and that the gap is increasingly being filled by non-governmental actors. He stressed the current challenges, bringing together fragmented groupings and the process leading up to the UN-GGIM.

## 5.2. Session 2 - Setting the Scene

15. Mr. Amor Laaribi, representative of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) Secretariat at the United Nations Statistics Division explained the benefits pertaining to the global mechanism, also outlining the ECOSOC resolutions and subsequent decisions leading to the establishment of UN-GGIM. This is the 20<sup>th</sup> UN Committee, reflecting the importance of geospatial information at the global level. He also stressed the need for and genesis of a global/regional architecture, leading to the establishment of UN-GGIM for Africa.
16. During this session, presentations on regional and national experiences were made, forming the basis of subsequent discussions.
17. Mr. Derek Clarke made a statement reviewing the work, management structure and established working groups of the former CODIST-Geo. He stressed the importance for the meeting to build on these efforts and not to reinvent the wheel.
18. Ms. Samira Ouadday of the Institut National de la Statistique (INS) made a very informative presentation on the national statistical framework of Tunisia and its' use of geoinformation.
19. Opportunity was given to member States to introduce themselves and make a short statement on the status, issues and challenges of geospatial information management in their respective countries. Activities and challenges raised are summarised at Annex B.
20. **Nigeria** representative reported on a number of recent activities such as topographic map revision, Electronic National Atlas, digital gazetteer, road maps and state capitals "Street Guide Maps". Other major foci at the moment include preparation for upcoming elections and working with the Ministry of Environment on desert encroachment. He solicited assistance from any member states on the development and implementation of national spatial data infrastructure (NSDI) and 1:50,000 mapping. The importance of surveying and mapping to the government of the country was highlighted.
21. **Cote d'Ivoire** presented the geoinformation activities undertaken by the Centre de Cartographie et de Teledetection (CCT), the national mapping agency, such as production of fundamental topographic datasets and maintenance of the country geodetic reference frame. They also highlighted research cooperation with universities and that Defence was one of their major clients. Lack of resources was identified as the major challenge.
22. **Burkina Faso** informed on the establishment of the national geodetic reference frame, forming the basis for all geospatial activities in the country. The country also developed its' national land cover and land use maps at the scale of 1:50 000.
23. **RECTAS** (Regional Centre for Training in Aerospace Surveys) outlined the centre's capacities and facilities for geospatial professional training. This covers all geospatial science and technology fields and is primarily aimed at member countries, but is also looking to expand this to professionals of other countries as well.

24. **South Africa** outlined that to ensure a functional NSDI, some of the key issues they had identified included:
  - a. Data sharing (related actions necessitated building of systematic metadata);
  - b. Ensuring data availability to the community of users (related actions are spatial awareness raising and capacity building).
25. South Africa has launched several initiatives to develop products and services for key development sectors. One of the primary aims is to ensure that whatever is produced is functional and usable, suiting the users' requirements. An example is the e-Cadastre for the digital management of lands.
26. **RCMRD** (Regional Centre for Mapping of Resources for Development) reported on the centre's scope of work in building individual and infrastructural capacities for their member States in the area of geoinformation and its application. Several training sessions have been conducted and many projects implemented. RCMRD has also embarked on assisting its member States in the development and implementation of NSDI.
27. **Tunisia** presented the ongoing effort to develop the country's geographic reference frame. The country is making efforts to modernise its geodetic network as well as an ongoing project conducted by the National Centre for Cartography and Remote Sensing to establish an NSDI. They stressed that harmonised standards are essential and requested guidance on such.
28. **Togo** reported on the support received from Japan to update the country's topographic base map. They also identified the Sustainable Development Goals (SDG) of the post 2015 agenda as an area in which geoinformation can and should make significant contributions. This includes baseline measurements, modelling, analysis, monitoring and evaluation as well as investigating interactions of the many variables.
29. **Morocco** reported on the cyber strategy of Maroc Numeric 2013 with the programme eGov including eFoncier and e Cadastre. A major initiative identified as requiring attention but yet to be established is an institutional framework for spatial data management.
30. **Algeria** reported on the country's large scale topographic base map efforts as well as ongoing efforts to modernise the national geodetic reference frame. The country has recently established the national council on geographic information which will oversee and coordinate all related geoinformation activities in the country.
31. **Egypt** reported on the challenge of utilising geoinformation to display statistics and how to use NSDI. They are using dynamic mapping applications to display and distribute some statistics as well as mobile collection applications.
32. **Cameroon** discussed the challenges currently faced, highlighting data availability and lack of standards.
33. **Ethiopia** highlighted that they are currently focussed on integration of efforts with other departments and coping with massive changes in population towards urbanisation. They are attempting to create 3D cadastre, but without a fully functional NSDI this is difficult.

34. **Nigeria** mentioned that they are attempting to combine statistics with geoinformation but a legal framework would greatly assist these efforts.
35. **Ghana** reported that they are grateful for the opportunity to share experiences with others as they and others have a lot of experiences to learn from. They also highlighted that an NSDI should be a priority.
36. **Burkina Faso** is currently focussed on topographic mapping updates and in the process creating a digital topographic database. The lack of a national data sharing policy was identified as the major hurdle they are currently facing.
37. **JICA** (Japan International Cooperation Agency) presented that it has been strongly involved in geospatial activities for 30 years, particularly in 10 African countries over the last decade. This included two geospatial workshops in West Africa over the last four years, suggesting that ECA should join such events to promote UN-GGIM: Africa.
38. **Common** issues identified from the countries' presentation are summarised at Annex B. The strongest correlations were in the areas of:
  - a. data sharing, including policy guidance and metadata standards;
  - b. standards;
  - c. collaboration with National statistics organisations; and
  - d. NSDI.

### 5.3. Session 3 – Regional initiatives

39. **UNGEGN:** Ms. Naima Friha made a presentation on the work of United Nations Group of Experts on Geographical Names (UNGEGN) in developing standardised geographic names. She recalled that UNGEGN was created in 1967 and is one of the seven standing ECOSOC expert bodies, with over 400 members from over 100 countries. She explained that UNGEGN functions through 24 geographical/linguistic divisions and 10 working groups, including an African task team and a toponymic guidelines coordinator. She gave an overview of different issues tackled by UNGEGN as well describing the role of UNGEGN in promoting the adoption of a standardised format for geographical names in Africa. Ms. Friha stressed the importance of this dataset, also noting that many elements had a cultural basis and often were dynamic. The presentation contained recommendations to assist the geographical names progress in Africa and to include the topic of geographical names in UN-GGIM: Africa meetings.
40. **AFREF:** Mr. Hussein Farah, Director General of RCMRD and Chair of the CODIST-Geo working group on the African Geodetic Reference Frame (AFREF), delivered a presentation on AFREF. The programme was conceived as a unified geodetic reference frame for Africa, fully consistent and homogeneous with the International Terrestrial Reference Frame (ITRF). This will be the basis for national and regional three-dimensional reference networks. The reference frame will comprise a geodetic network of continuously operating precise observation stations to define a Terrestrial Reference Frame, resulting in a best-fit datum over Africa. This requires data and computational centres to continuously save, analyse and update the parameters.

41. The network is envisioned to be at such a density that positioning professionals (surveyors, engineers, environmentalists, agriculturalists, mineral prospectors, etc) will always be within a reasonable distance of a control point at any place in Africa, with the relevant parameters freely available. In the first phase, the programme aims that there be at least one station per country, registered and in compliance with International GNSS Service (IGS) standards. In subsequent phases, the programme will increase the network density to the level that no user will be more than 500 km from a control point at any place in Africa.
42. He further explained that the realization of AFREF has vast potential for geodesy, mapping, surveying, geoinformation, natural hazards mitigation, earth sciences, etc. Its' implementation will provide a major springboard for the transfer and enhancement of skills in surveying, geodesy, GNSS technology and applications.
43. Mr. Farah finally reported on the outcomes of the AFREF expert group meeting held over the last two days. He informed that recommendations had been made calling upon ECA and AUC to continue support of the programme and urging member States to fully participate in the Global Geodetic Reference Frame (GGRF).
44. **SALB:** Mr. Rob Gray made a presentation on the Second Administrative Level Boundaries (SALB) Database. The UN has embarked on a project to compile a digital database of administrative divisions at sub national levels, globally led by UNSD and the Cartographic Section (UNCS) with ECA as the African focal point. The purpose of this database is to assist in the analysis of data and identification of administrative areas for a plethora of projects. He further highlighted that where individual countries had not provided validated data, organisations such as the Food and Agricultural Organisation (FAO) and International Committee of Red Cross (ICRC) created their own databases, sourcing information from sites such as Wikipedia or GoogleMaps. It was therefore important for the sake of consistency that each country provide their official boundaries to one system.
45. **GEOSS:** Mr. Andre Nonguierma made a presentation on the AfriGEOSS (Group on Earth Observations System of Systems) initiative, launched in November 2013, providing a platform for focussing African participation to coordinate the implementation of GEO. The AfriGEOSS implementation approach is twofold, “bottom-up”, enabling coordination of national activities into sub-regional and continental level, and “top-down” by tailoring GEO global initiatives to meet African needs. He noted that ECA has been actively involved to ensure that the efforts of GEO adequately reflects African issues, however African country participation remains low.
46. Mr Andre Nonguierma further discussed the topic of geoinformation and hydro infrastructures for sustainable development during the forthcoming 21<sup>st</sup> COP in Paris in 2015. The African geoinformation community should ensure the visibility of Geo and Hydro infrastructures in the sustainable development agenda.

#### **5.4. Session 4 – Action Plan for UN-GGIM: Africa**

47. The road toward the establishment of a UN-GGIM: Africa Action Plan was presented by Mr. Andre Nonguierma from the Economic Commission for Africa. He explained that in order to achieve optimum results from the establishment of UN-GGIM: Africa, a clear road map relying upon common frameworks, standardization and capacities is needed. The major topics for consideration included:

- a. Capacity and capability (including training);
  - b. Funding, sustainability and awareness;
  - c. Standards;
  - d. Application of technology; and
  - e. Policy and governance.
48. After discussions, the participants recommended:
- a. Commence with a minimum set of goals and not be overly ambitious;
  - b. Identify achievable actions with timescale, roles and costs;
  - c. Begin with national level institutional arrangements; and
  - d. Ensure that the process includes the involvement of Regional Economic Commissions (REC).

#### **5.5. Session 5 – Establishing UN-GGIM: Africa**

49. Mr. Amor Laaribi outlined the practical steps in establishing UN-GGIM: Africa. The approach could immediately proceed as follows:
- a. Establishing a transitional bureau;
  - b. Identifying the priority working group themes and leaders; and
  - c. Formulate a recommendation to UN-GGIM-5 and the Conference of Ministers via StatCom Africa, regarding the establishment of UN-GGIM: Africa.

#### **5.6. Other points**

50. Several other points were raised during discussions and these included:
- a. The importance of both SALB & UNGEGN to contribute to UN-GGIM: Africa should be noted, particularly with respect to fundamental datasets. Whilst they are separate entities or projects in their own right, the incorporation of their efforts and full support should be given.
  - b. The point was raised of some North African countries already being members of UN-GGIM: Arab States. Mr Stefan Schweinfest confirmed that this point had been raised at UN-GGIM4 where it was concluded that it is permissible for countries to be members of more than one grouping. He further added that he saw this as a potential positive, encouraging the sharing of ideas and efforts.
  - c. It was noted that UN-GGIM is comprised of member states. It was further noted that there is much experience and knowledge to be gained from the inclusion of other interested parties such as academia, the commercial arena and geospatial organisations should be strongly encouraged.



- d. It was presented that there are numerous geospatial initiatives, projects and programmes currently being undertaken on the African continent from regional to local scales. Whilst it is not the intention, nor mandate of UN-GGIM to control these, there should be an effort made to identify them and collaborate or cooperate where possible to create synergies.
- e. C<sup>4</sup> was highlighted as being critical to the success of the initiative. The four C's being:
  - i. Communication
  - ii. Cooperation
  - iii. Collaboration
  - iv. Coordination
- f. It was highlighted that access to documents and information is very important. ECA will therefore create a website to ensure that all documents and presentations will be available online, along with links to other relevant resources.
- g. The availability of both funds and time for respective members to travel to meetings is always limited. It was agreed that wherever possible, meetings should be organised to coincide with other African geospatial events such as AFREF, AARSE, etc. This will minimise costs and also provide synergies with other interested parties also being able to attend and contribute.

### **Transitional Bureau**

51. The following assignments were defined for the transitional bureau:
  - a. Finalise and formalise the statutes and Rules of Procedure.
  - b. Steer the process until formalisation and the inaugural meeting.
  - c. Organise the inaugural meeting.
  - d. Liaise with UN-GGIM New York concerning any documentation or input required
  - e. Follow up with StatCom to ensure resolution is passed and adopted by the Conference of Ministers.
52. The meeting agreed that the term of the UN-GGIM: Africa Transitional Bureau should be for the interim period until the next session of the Committee. It was also agreed that as StatCom is a biennial meeting, the UN-GGIM: Africa should meet before then, preferably following the successful completion of resolutions with the Conference of Ministers and UN-GGIM5. The following bureau was elected by the National representatives present:
  - Chair: Ethiopia
  - Co-Chairs: Burkina Faso, South Africa, Tunisia
  - Secretariat: Economic Commission for Africa (ECA)

## Working Groups

53. The meeting discussed and agreed upon the immediate establishment of the following working groups with convenors. Although many other areas were identified as deserving, and there was much initial enthusiasm, it was felt that at this point, limiting the number and scope would be beneficial.

Working Group	Convenor	Members
WG1: African Geodetic Reference Frame	Ethiopia	RCMRD
WG2: Fundamental Datasets	South Africa	
WG3: Institutional arrangements and Legal frameworks	Algeria	
WG4: Capacity and capability development	Cote d'Ivoire	RECTAS

54. All African countries are encouraged to contribute and become active members of any of these working groups.

### 5.7. Session 6 – Resolution on the establishment of UN-GGIM: Africa

55. Recommendation to be included in the StatCom Outcomes and Resolutions

Acknowledging that geospatial information science and technology and related disciplines are now commonly found as the driving force of many applications and services in industrial and socio-economic development, offering a radically different way in which we produce and use information required to manage our communities and economic activities.

Acknowledging the key role of ECA in providing a regional focus and leadership for geospatial information activities in Africa,

Noting decades of ECA and Members States' efforts and progress in building Spatial Data Infrastructures in Africa,

Taking cognizance of the global initiative to bring statistics and geospatial information together through the Global Geospatial Information Management (GGIM) initiative,

Taking into account the specificities of legal frameworks existing in each participating country,

Realising the need for the African voice to continue to be heard in the global arena of geospatial information management,

The Participants at the inception meeting of Global Geospatial Information Management (GGIM) concluded and resolved as follows:

- (1). Expresses support for mainstreaming geospatial information infrastructures (all the way through training, data and processes) into national statistics offices activities in Africa and their linkages with national statistical development strategies (NSDS) in line with the GGIM initiative and the recommendation of StatCom Africa.
- (2). Declare the creation of the African Caucus of the United Nations Global Geospatial Information Management initiative, so-called UN-GGIM: Africa, with ECA as Secretariat of the entity.

- (3). Recommends that UN-GGIM: Africa take over the functions of CODIST-Geo in line with the resolution of the former geoinformation subcommittee of CODIST (ECA/CODIST/1/INF/3).
- (4). Reiterate the request to ECA to retain specific programmatic activities in the field of geoinformation, particularly the advance of holistic geospatial information management and governance, the promotion of national spatial data infrastructures, the development of partnership and international and regional cooperation on space science and technology, the promotion of geographical names standardization and common geodetic reference frames (AFREF), the fostering of streamlined online applications, the development of core and fundamental datasets in support of regional initiatives, the promotion of geospatial standards and interoperable common tools, and the building of a comprehensive, holistic, vision-driven, long-term transformative development of capacities.
- (5). Encourages member States to participate in and contribute to the work of the UN Committee of Experts on GGIM.
- (6). Request StatCom to bring these recommendations to the consideration of the Conference of African Ministers of Finance, Planning and Economic Development for adoption and endorsement.

56. Recommendation to UN-GGIM for cooptation of UN-GGIM: Africa

We, delegates from member States, representatives from regional organisations, partners and observers, met, agreed and resolved:

- To create the African caucus of the United Nations Global Geospatial Information Management, hereafter referred to as UN-GGIM: Africa,
- To establish the Economic Commission for Africa of the United Nations as the caucus Secretariat.
- To request the formal endorsement of the African cluster of UN-GGIM during UN-GGIM-5.

57. Recommendation: ECA to draft terms of reference for each working group and distribute to member States for review, expressions of interest and willingness to participate.

58. Recommendation: ECA to send letter requesting countries to support the GGRF.

## 6. Conclusions

59. The meeting recalled the importance of the UN-GGIM initiative and endorsed African participation to the overall process. It was agreed that ECA as the Secretariat should continue to coordinate and provide the necessary support to the African participation in the global initiative through the UN-GGIM: Africa chapter.

60. It was underscored that the UN-GGIM: Africa initiative shall ensure the consolidation of previous efforts, building upon the achievements of existing initiatives and strive to establish synergies and linkages with other networks and initiatives at regional and national level.

## Participants

Country	Title	Name	Organisation	email
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## **Important topics**

Representatives were asked to identify topics that they considered of immediate importance to their country or organisation. Whilst the specific wording may have differed slightly, the responses have been generalised to permit grouping and identify common themes. They have been further separated into policy and governance type issues and operational matters.

### **Policy & Governance**

Integration of Statistics \*\*  
NSDI implementation \*\*  
Legal Frameworks \*\*  
Data Sharing \*\*  
Cooperation / Alliance with academia  
Lack of resources \*\*  
Geodetic Reference Frame \*\*  
Standards \*\*  
Metadata \*\*  
Political will \*  
Awareness \*

### **Operational**

Environment / SDGs\*  
Utilisation of technology – mobile apps, data collection, digitisation etc. \*\*  
3D cadastre  
Defence  
Elections \*  
Training \*\*  
e-cadastre  
Topographic mapping \*\*  
Producing useful products \*

\* - identified by two or three parties.

\*\* - identified by four or more parties