

Fundamental Geospatial Data Themes



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April 2016

Workshop Agenda

- Background – why and how
- What is our objective?
- Fundamental data – what are they?
- What are the candidate themes?
- Breakout Session
- Conclusion



Background

- GGIM5 discussed fundamental geospatial data themes
- Agreed there is an urgent need for a set of global fundamental geospatial data themes
- UN-GGIM: Europe asked to take the lead



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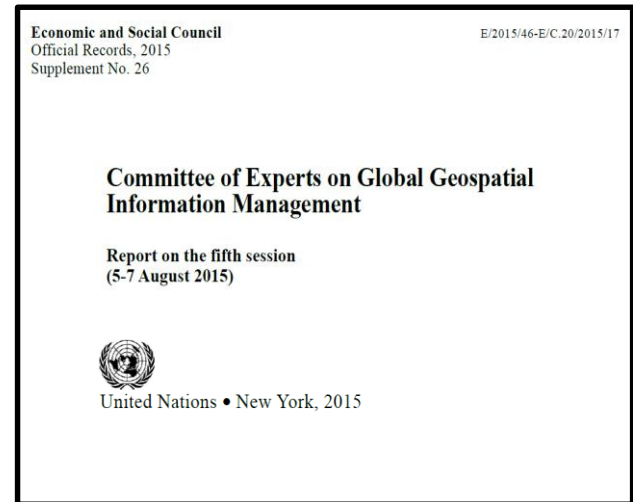


From the GGIM5 Report:

...to establish and lead a **working group**:

- to **liaise** with other regional committees of UN-GGIM
- to **bring together information** on the consideration of fundamental geospatial data themes
- to **lead discussions** between interested Member States and observers
- to **consider the prioritization** of the fundamental data themes, national experiences in the formulation of the data themes and linkages to other data needs within the programme of work of the Committee of Experts

... with a view to developing **an agreed minimum set of global fundamental geospatial data themes...**



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Principles

1. We will draw on existing work from around the world and will not duplicate work
2. We will collate and distil existing work into a set of fundamental geospatial themes which can be agreed on by all Member States.
3. We will plan to complete our task by GGIM7.
4. We will keep the work at a high level to achieve consensus
5. We will work in a progressive way, starting with definitions and outline descriptions and moving to more detail over time.
6. Agreement has priority over detail



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Terms of Reference

Objective

To bring together differing information on fundamental geospatial data themes with a view to developing an agreed minimum set of global fundamental geospatial data themes.

Expected Results

A first draft of a Resolution on Global Fundamental Geospatial Data Themes for the Committee of Experts to consider taking to the General Assembly.



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Activities

The Working Group will:

- Take account of existing activity being undertaken by UN-GGIM regional committees, ensuring that where possible existing resources are used.
- Produce a recommendation for a minimum list of global fundamental geospatial data themes. Each data theme will be supported by a description.
- Consider the prioritisation of the data themes and how they link to other data needs within the UN GGIM programme of work.
- Consider the specific needs and vulnerabilities of small island developing States.
- Ensure that the data themes should be technical in nature as not to raise political concerns.



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Progress to date

1. A Work Group has been set up, led by the UK.
2. Members comprise those who responded to a call by the UN-GGIM Secretariat after GGIM5 and all UN-GGIM Regional bodies have been invited to participate.
3. The Work Programme to deliver against the terms of reference will:
 - extend over 18 months
 - ending with a report, recommendation and draft resolution to GGIM7,
 - with an interim progress report to GGIM6.



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Membership

Those who responded to the call for interest:

Joep Crompvoets	Belgium
Fernand Isseri	Cameroon
Éric Loubier	Canada
Jiang Jie	China
Mena Alla Anwar	Egypt
Bernd Richter	Germany
José Luis Mondragon	Mexico
Uzo Okafor	Namibia
Arvid Lillethun	Norway
Nuria Valcárcel	Spain
Clare Hadley	UK
Tim Trainor	USA
Mark Cygan	esri
Charlie Frye	esri
Dave Lovell	GDSI

Regional Committee Representatives:

Derek Clarke	Africa
tbc	Americas
Mohamed-Ali Amri	Arab States
Hidenori Fujimura	Asia Pacific
François Chirié	Europe



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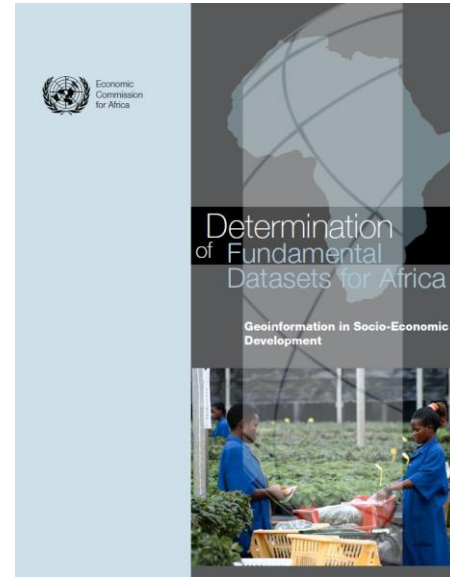


Our objective

- **Is not:**
 - To duplicate any work done by Regions and other organisations on fundamental data themes
- **Is:**
 - To distil a set of themes which all can agree on
 - To draft a Resolution



Examples of regional initiatives



UN-GGIM NIA
Working Group on Trends in National Institutional Arrangements



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Themes or Datasets?



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Themes – or datasets?

- Theme – a high level categorisation of subject matter.
- A theme can be further broken down into sub-themes
- Subject matter – something about which data can be collected
- Dataset – a collection of data about specific features in the theme

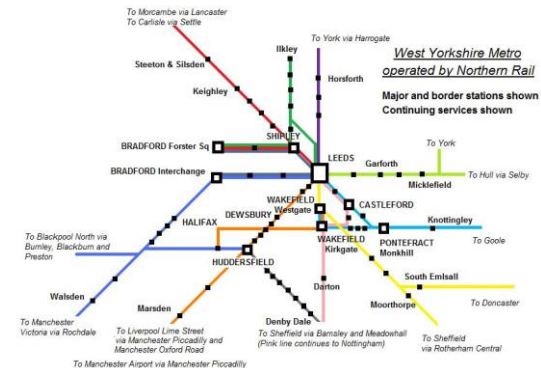


Example 1

Theme: Transport

Sub-theme: Road, Water, Rail ...

Dataset: Rail Network,
Bus stops,
Tarmac surface



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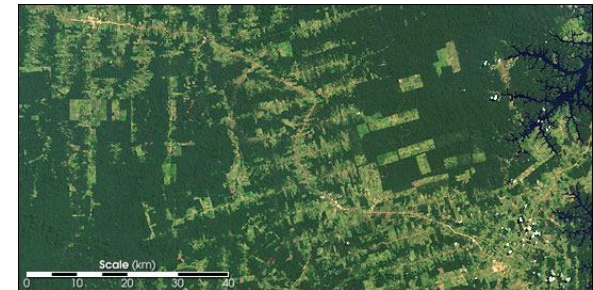
Example 2

Theme: Natural Environment
Sub-theme: Forestry, Soil, Water,
Air ...

Dataset: Soil erosion
(data integration)

Air quality
(sensors)

Deforestation
(imagery
interpretation)



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What is Fundamental?

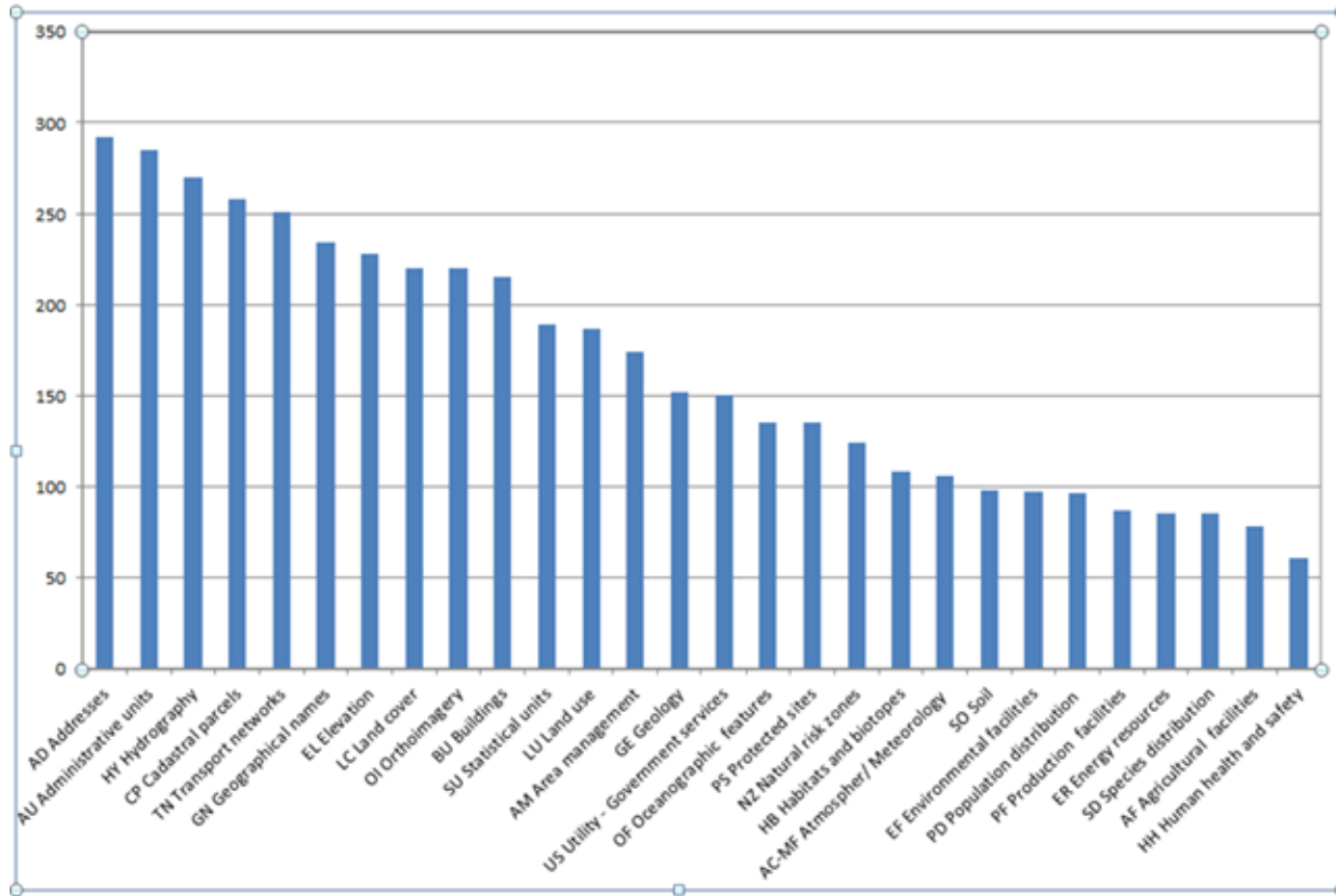
Definition or Description?



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The long tail



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Possible Characteristics

Required across
many sectors

Data others use
to reference
their own data



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Discussion and Live List

Which characteristics do you think are relevant?



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Your thoughts – *captured during discussion*

- Required across many sectors
- Longevity
- Uses global standards
- Interoperable
- Used as reference for other datasets
- One identified source – custodian
- Compliant to GSDI
- Universal – applied across all regions
- Critical data
- Comprehensive coverage
- Transparent – documented methodology
- Official – authoritative – trusted
- Veracity
- Unique
- Reference to GGRF
- Accessibility
- Digital
- Location-based



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Possible Characteristics

Will form a common information framework

Required across many sectors

Common link between applications

Maintained

Trusted source

Enables linking of spatial and non-spatial data

Not domain specific

Data others use to reference their own data

Required for many applications

Not very volatile

Adds value to other data

Defined, endorsed and used by all or many data users

Applies to all or most regions

Underpins other information



Fundamental for what?



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Fundamental for what?

SDG requirements:

- ✓ Baseline measurement
- ✓ Evidence-based policy making
- ✓ Implementation of actions
- ✓ Monitoring and reporting

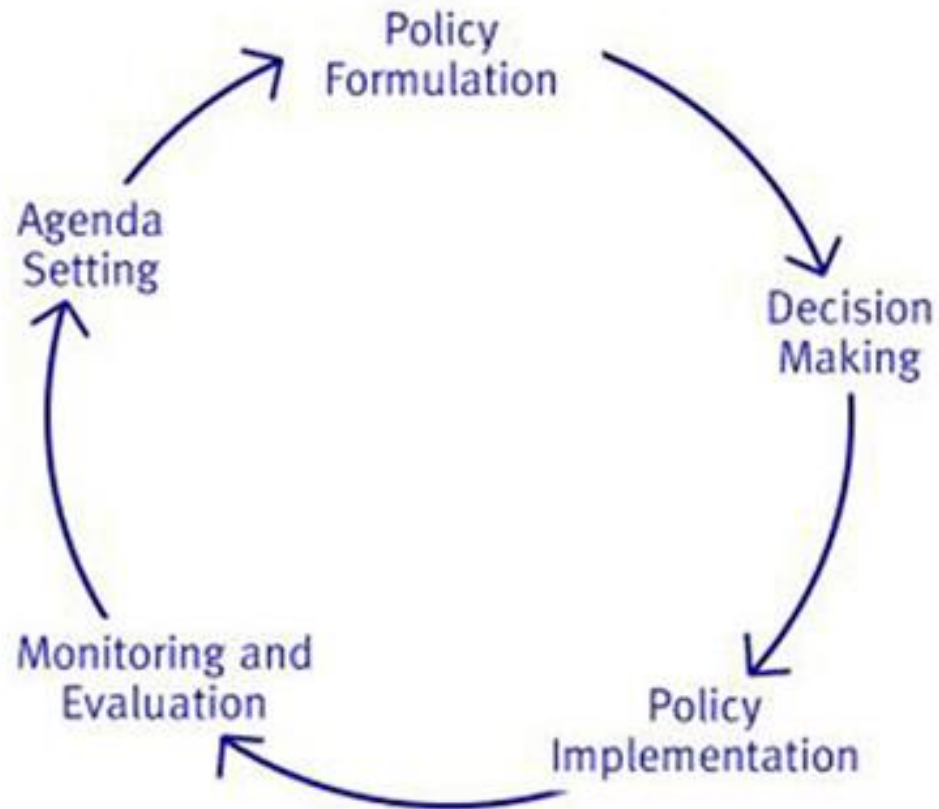


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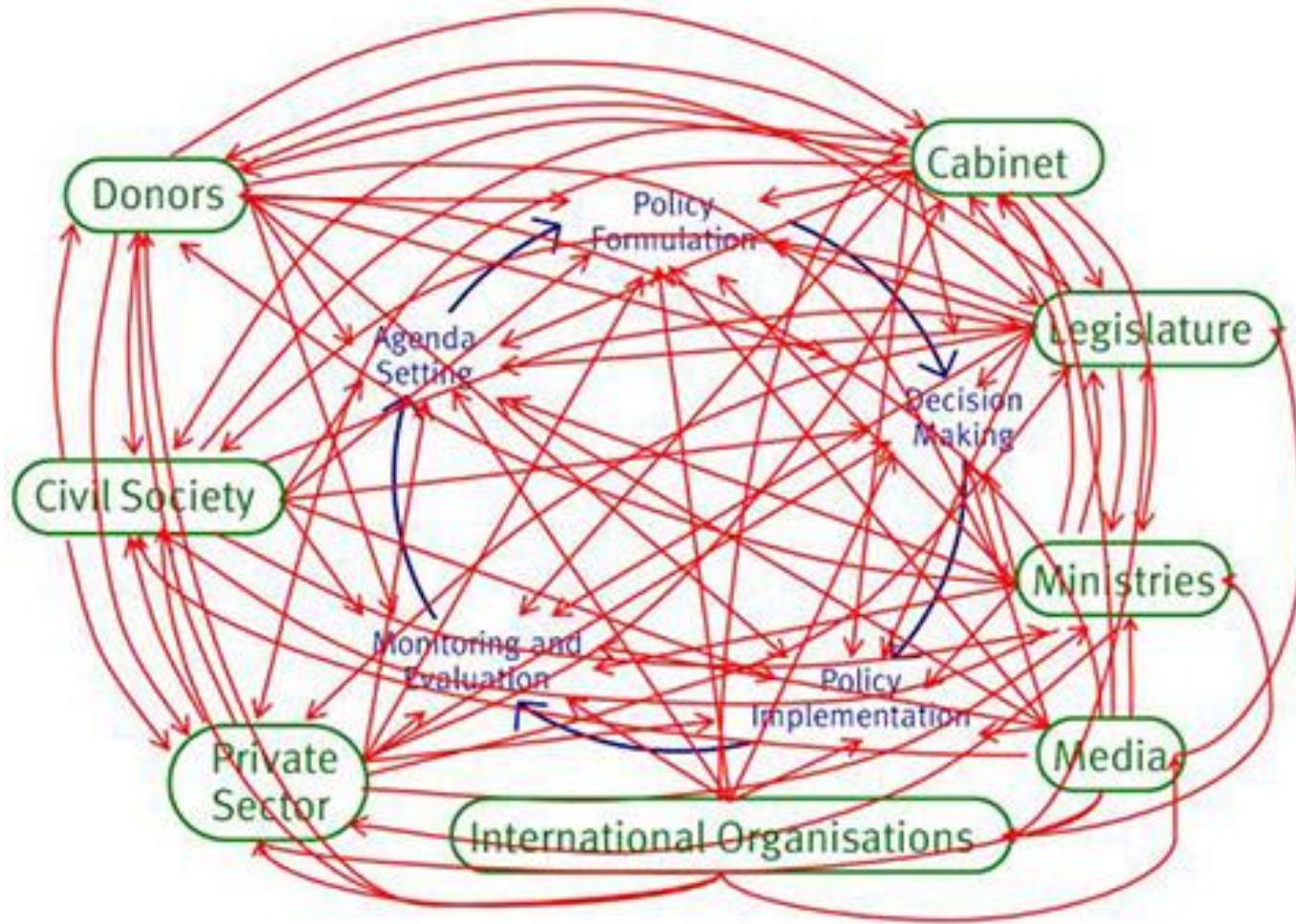
Policy Cycle



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Policy Cycle



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analysis

Assess current resources ; forecast future ones

Forecast propagation of flood, tsunami, pollutions

Understand influence of water on ecosystems, climate change, transport...

Locate where the water is

operational

decision

Decide on protection measures (against pollution ...)

Decide on exploitation measures (drinking water, energy, industry, agriculture...)

communication

Background 2D map

3D models (risk, projects...)

monitoring

Water abstraction permits, water police

Reporting for European Directive (WFD ...)

The Minimum List



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Regional Activity

UN-GGIM: AFRICA

- Work Group 2 are looking at Fundamental Datasets. This work is being led by South Africa.

UN-GGIM: AMERICAS

- As part of their work group on SDI, UN-GGIM: Americas are looking into “Fundamental data sets provision”.

UN-GGIM: ARAB STATES

- Working Group 2 on Fundamental Data and Geo-standards. The group is chaired by Tunisia, vice-Chair is Qatar.

UN-GGIM: ASIA PACIFIC

- UN-GGIM Asia Pacific have included ‘data themes, specifications, and metadata catalogue for regional SDI’ as part of Working Group 3: Regional SDI.

UN-GGIM: EUROPE

- UN-GGIM: Europe are undertaking this work as part of Working Group A which is led by France.



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Regional Perspectives on Fundamental Data

UN-GGIM: Europe WGA	Africa Reports	ANZLIC	UNGGIM NIA
	Geodetic control network	Positioning	
Geographical names	Geographic names	Place names	Geographical names
Administrative units	Boundaries	Administrative boundaries	Administrative units
Addresses		Geocoded addressing	
Cadastral parcels	Land Tenure	Land parcel and property	Cadastral parcels
Transport networks	Transportation	Transport	Transport networks
Hydrography	Hydrography	Water	Hydrography
Area Management	Land management units/areas		
Orthoimagery	Imagery	Imagery	Imagery
Elevation	Hypsography	Elevation and depth	Elevation
Land cover	Natural environment	Land cover	Land Cover
Land Use			
Buildings			Settlements
Statistical Units			
Land Use			
	Utilities and services		
	Drainage		



Breakout Session

Given everything you have heard,
which themes do you think should be
on the Minimum List?



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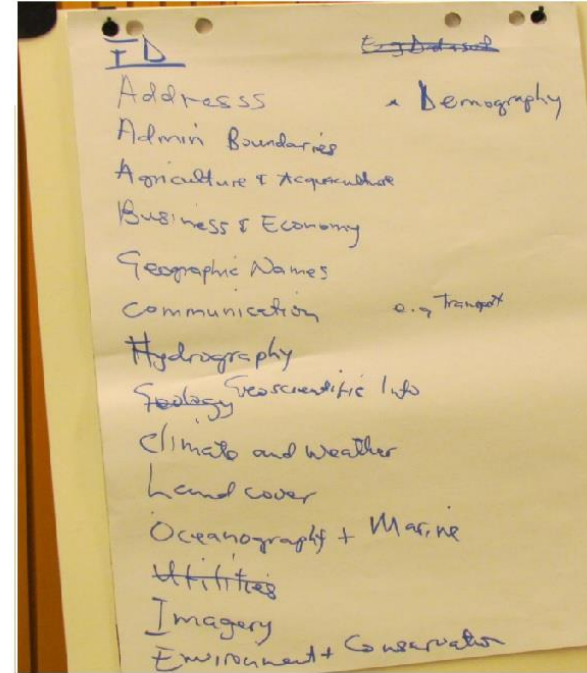
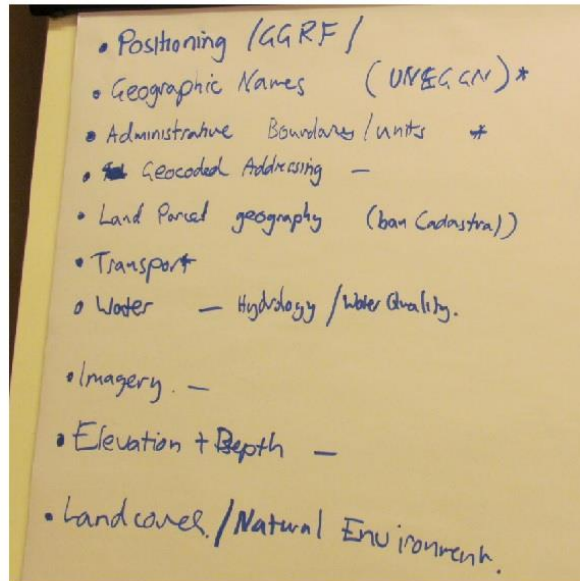
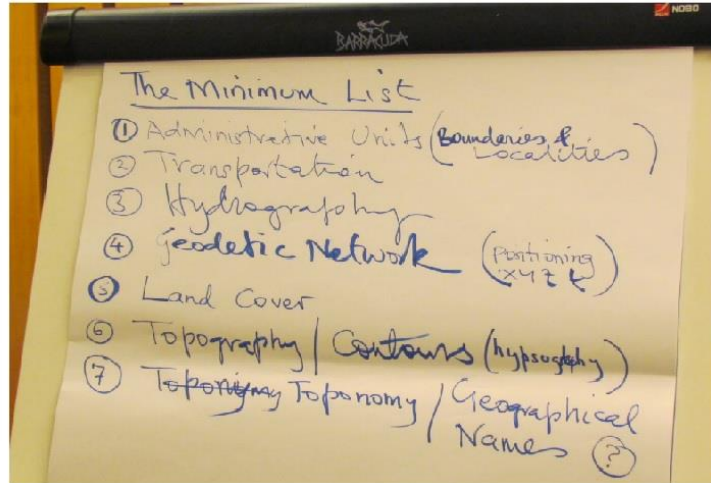
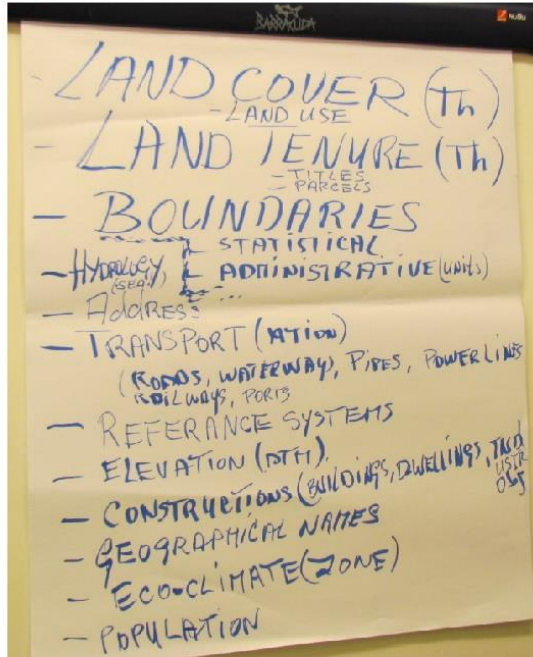
Breakout Session



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Feedback



What happens next?

- Analysis of today's results by WG
- Draft of description of fundamental data
- Draft of Minimum List
- Further workshop at Global World Forum
- Circulate drafts to Regions for review



Thank You for your participation!



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