

CURRENT STATUS OF NGDI STANDARDIZATION IN KENYA

By

Prof. G. C. Mulaku

Department of Surveying
University of Nairobi

NATIONAL GEOSPATIAL DATA INFRASTRUCTURE (NGDI)

A combination of technology, institutional arrangements, policies and people that enable the discovery, evaluation, access and application of geospatial data for users from all sectors of the economy, plus the general citizenry.

STANDARD



- A documented agreement containing technical specifications or other precise criteria to be used consistently as rules, guidelines or definition of characteristics to ensure that materials, products and services are fit for their intended purpose
- Standards are the gist of GDI

GDI STANDARDS

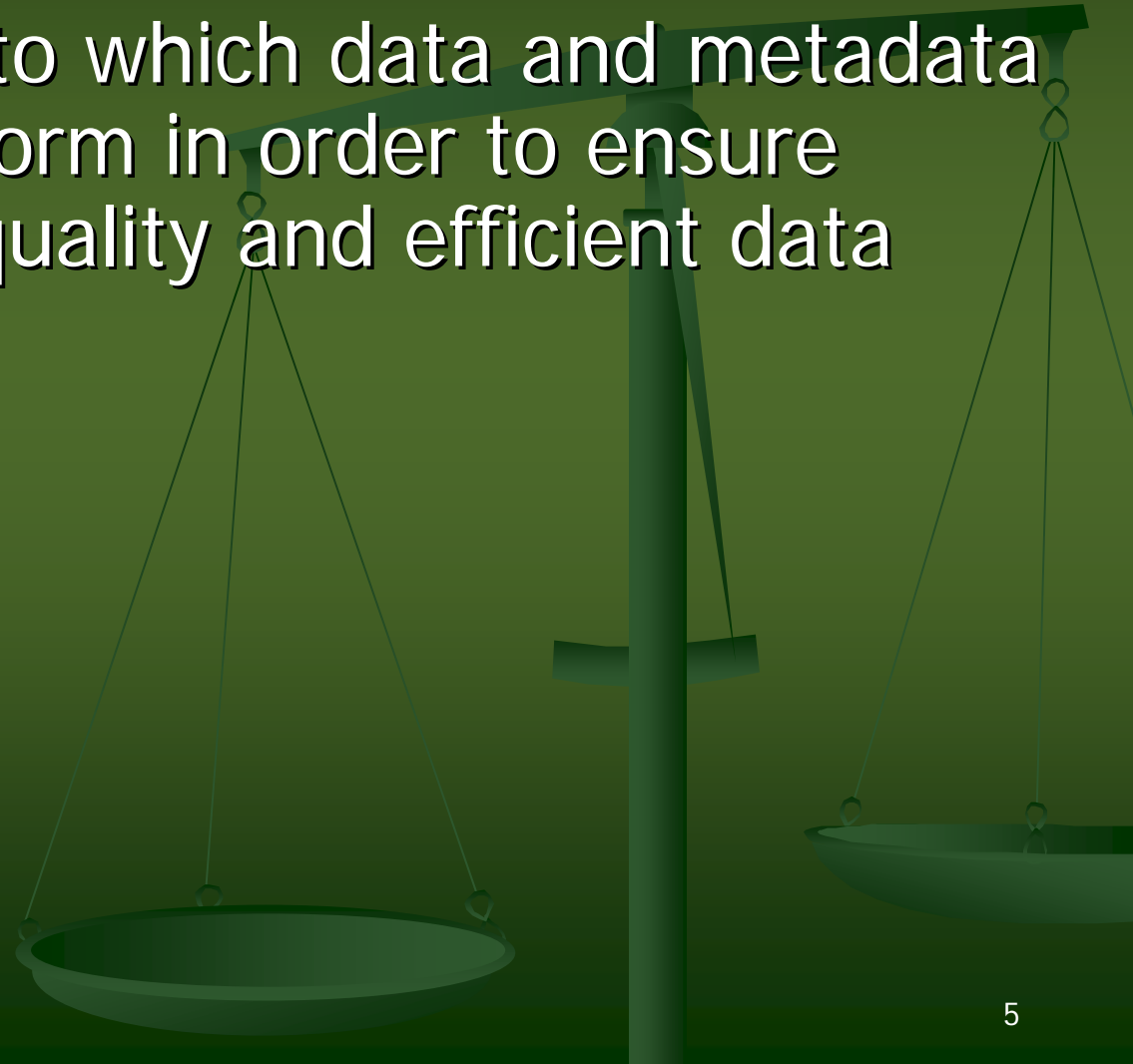
Are needed in respect of:

- Data
- Information and Communication Technology (ICT)
- Organization of standardization
- Education
- Performance evaluation

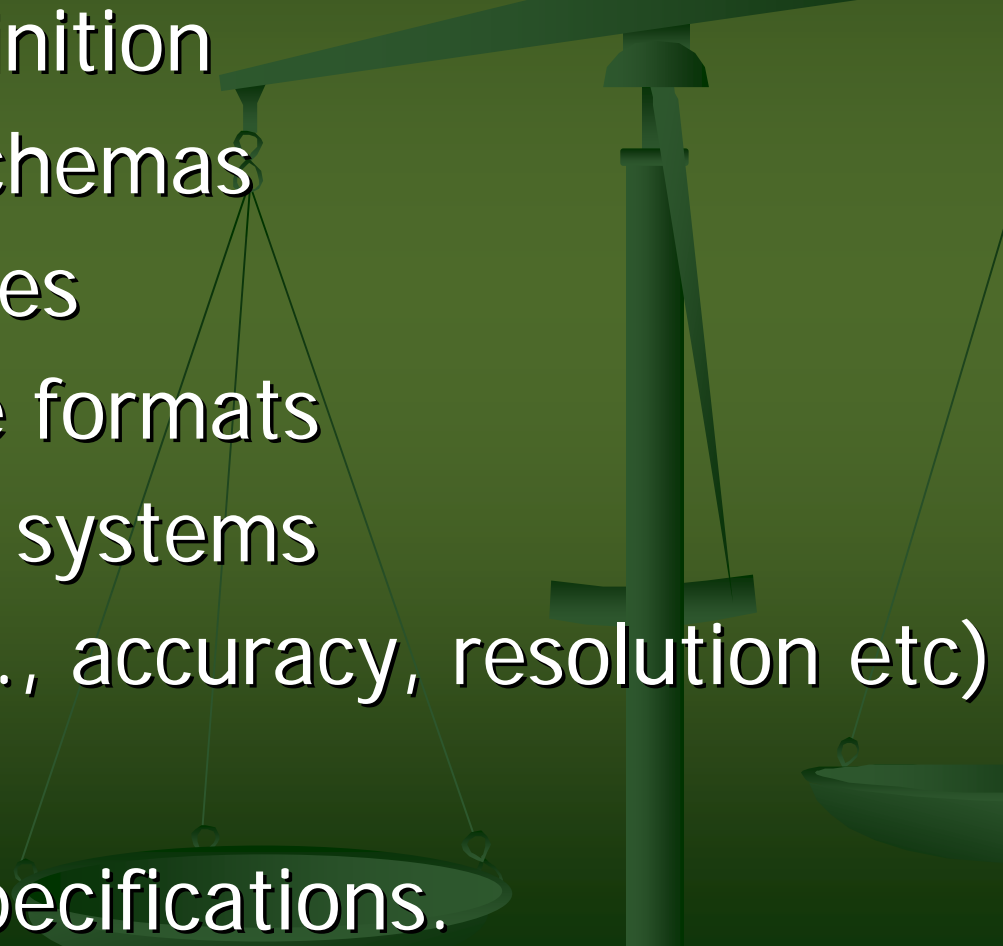
Data standards are the focus

DATA STANDARDS

Standards to which data and metadata should conform in order to ensure consistent quality and efficient data interchange

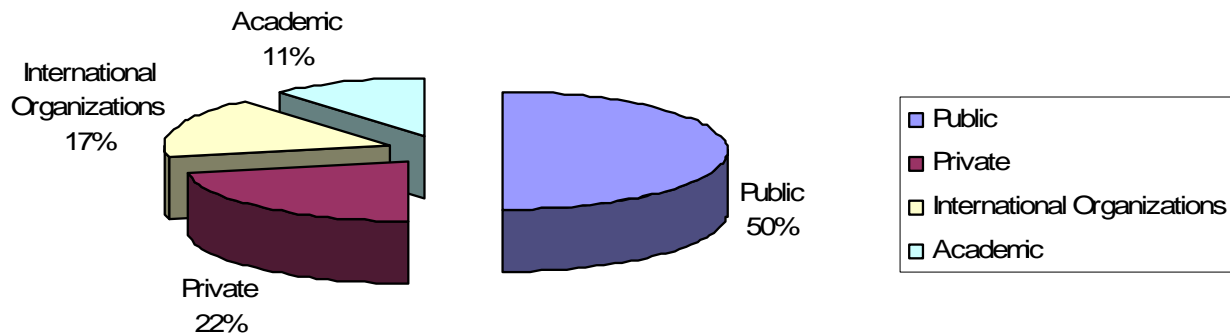


SOME COMMON DATA STANDARDIZATION ITEMS

- Feature definition
 - Database schemas
 - Feature codes
 - Interchange formats
 - Co-ordinate systems
 - Quality (e.g., accuracy, resolution etc)
 - Symbology
 - Metadata specifications.
- 

STATUS OF DATA STANDARDIZATION IN KENYA

A Survey Carried out in 2002/2003 on about
60 GIS installations



KEY DATASETS FOUND

Dataset	Availability	Remarks
Geodetic control	Yes	Analogue. 80% of monuments destroyed
DEM	Yes	Limited Coverage
Orthoimagery	No	RCMRD can take lead in development
Administrative and electoral boundaries	Yes	In digital form
Topographic mapping 1:50,000	Yes	About 67% coverage of which about 20% is digitized
Topographic mapping 1:250,000	Yes	Full national coverage; nearly all digitized
National Gazetteer	Yes	Analogue
Transportation	Yes	Analogue, mainly on roads
Cadastre	Yes	Covers mainly high potential agricultural areas; digitization going on
Land use/cover	Yes	Digital at medium scale
Hydrography	No	Survey of Kenya could do with a hydrographic section
Soil mapping	Yes	In digital form
Population	Yes	Digitization going on
Topographic mapping at large scales	Yes	In digital form for most of major towns

DATASET SUITABILITY FOR GDI

Suitability Index	Foundation		Framework		Application	
	Number	%	Number	%	Number	%
Very suitable	2	5	0	0	2	4
Suitable	23	52	11	46	17	36
Unsuitable	19	43	13	54	28	60
Very unsuitable	0	0	0	0	0	0

- ❖ **Very suitable:** Available, accessible, digital, catalogues, complete or nearing completion
- ❖ **Suitable:** Available, digital, accessible
- ❖ **Unsuitable:** Available, not in digital or not accessible
- ❖ **Very unsuitable:** not available

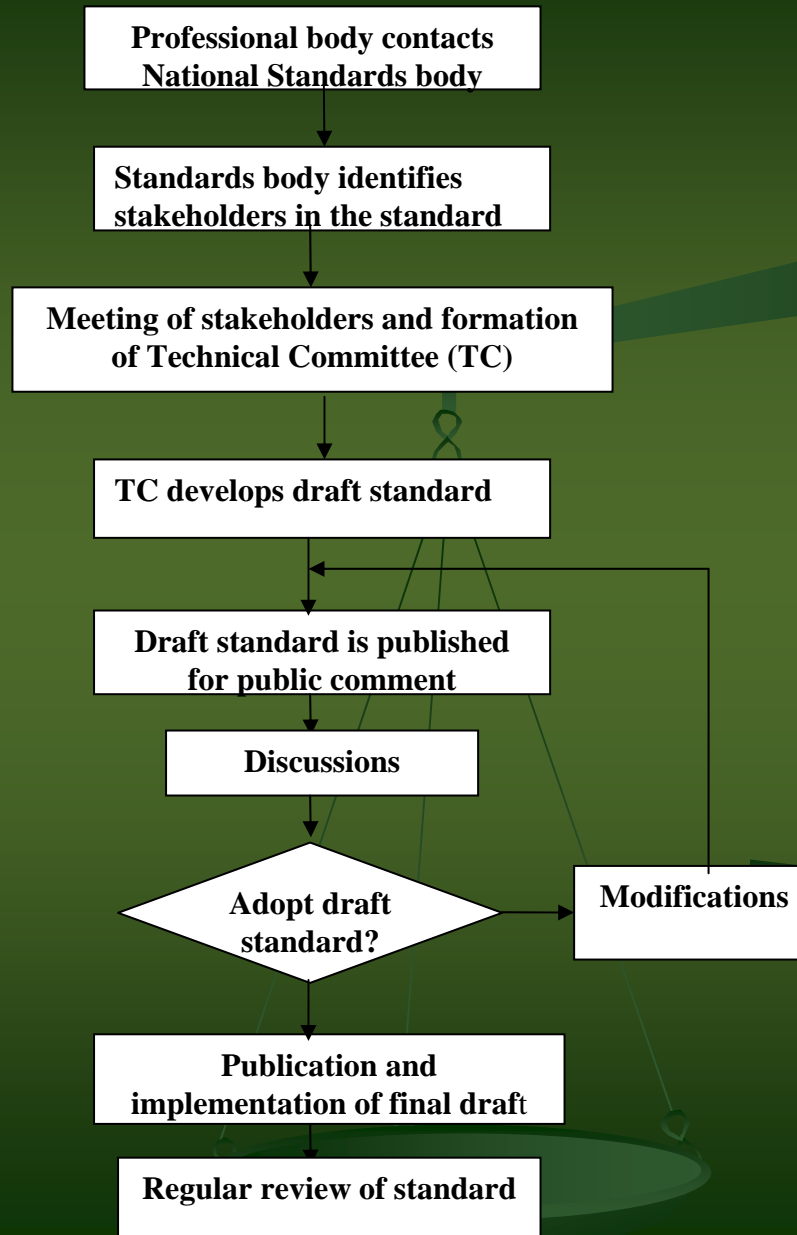
IS THERE DATA STANDARDIZATION?

- ❑ No formal and systematic standardization found
- ❑ There is some de-facto standardization, e.g. UTM, DXF, TIFF, map symbology, Windows, ESRI GIS software etc.
- ❑ KEBS observer member of ISO/TC 211

WAY FORWARD

- Enable KNSDI **Standards WG** and other WGs to work
- Set out prioritized work plan
- Work from existing standards as much as possible
- Learn from those who have already done it
- KEBS to be more active in Geoinformation standardization

STANDARDIZATION PROCESS



((((Thank You))))

