

Catalogue of fundamental geo-spatial datasets for Africa: Country report for Benin



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1. Background

A continental-wide study was conducted in 2006 to catalogue the existence of fundamental geo-spatial datasets in Africa. This study was contracted to a consortium consisting of the HSRC and EIS-AFRICA as lead organisations and numerous sub-regional partners. It was conducted under the auspices of the UNECA.

The study used a questionnaire to obtain information about the 30 fundamental geo-spatial datasets. This report reflects the findings collected from that questionnaire for Benin.

2. Data availability

Table 1: Availability of fundamental geo-spatial datasets

Dataset	Have it?	Source
Geodetic control points	Yes	Institut Geographique National
Height datum	Yes	Institut Geographique National
Geoid model	Yes	Institut Geographique National
Aerial photography	Yes	Institut Geographique National
Satellite imagery	Yes	Institut Geographique National/ Map Maker Trust/ UNECA
DEM	Yes	Institut Geographique National/ UNECA
Spot heights	No	Institut Geographique National
Bathymetry	Yes	GEBCO
Coastline	No	
Water bodies	Yes	Institut Geographique National/ Map Maker Trust/ UNECA
Government boundaries	Yes	Institut Geographique National/ Map Maker Trust/ UNECA
Populated places	Yes	Institut Geographique National/ UNECA
EA	No	
Place names	Yes	Institut Geographique National/ Map Maker Trust/ UNECA
Feature names	Yes	Institut Geographique National/ UNECA
Land parcels	Yes	Institut Geographique National
Land tenure	No	
Street address	Yes	Institut Geographique National
Postal code zones	Yes	Institut Geographique National
Land use planning zones	Yes	Institut Geographique National

Dataset	Have it?	Source
Roads	Yes	Map Maker Trust/ UNECA
Road centrelines	No	
Railways	Yes	Map Maker Trust/ UNECA
Airports	Yes	UNECA
Bridges	No	
Power	No	
Telecommunication	No	
Land cover	No	
Soils	No	
Geology	No	

Benin has access to 19 of the fundamental geo-spatial datasets and the country therefore has an incomplete access to these datasets. Many of the datasets are also held by international agencies.

2.1 Data characteristics

Data characteristics were very poorly completed and it is therefore difficult to determine whether the geo-spatial datasets available are indeed of good quality. The table indicates for example: satellite imagery is available at the scale of 20 – 80m, it is either less than 25% or fully complete (depending on the agency who keeps the data) and available in a GIS format. Empty cells in the table indicate that no response was received.

Table 2: Dataset metadata

Dataset	Scale at which available (000/ resolution m)	Completeness (%)	Format	Accessibility
Geodetic control points	500-1000	<25	Map	Unrestricted/ Payment
Height datum	500-1000	<25	Map	Unrestricted/ Payment
Geoid model		<25	Map	Unrestricted/ Payment
Aerial photography	>10/ 20-50	<25	Map	Authorisation/ Payment
Satellite imagery	5-20/ 20-80	<25 /100	GIS/ Other	Authorisation/ Payment
DEM	5-50/ 50-125	<25 /100	Map/ GIS/ Other	Authorisation/ Payment

Dataset	Scale at which available (000/ resolution m)	Completeness (%)	Format	Accessibility
Spot heights	12-50/ 125-250/ 500-1000	<25	Map	Unrestricted/ Payment
Bathymetry	All scales	100	Db/ GIS	Unrestricted/ Authorisation/ Payment
Coastline				
Water bodies	12-50/ 125-250/ 500-1000	<25/ 100	Map/ GIS	Unrestricted/ Free/ Payment
Government boundaries	10-50/ 62.5-100/ 500-1000	<25/ 100	Map/ GIS	Unrestricted/ Free/ Payment
Populated places	12-50/ 62.5-100/ 500-1000	<25/ 100	Map/ GIS	Unrestricted/ Payment
EA				
Place names	12-50/ 62.5-100/ 500-1000	51-75/ 100	Map/ GIS	Unrestricted/ Free/ Payment
Feature names	>10	<25/ 100	Map/ GIS	Unrestricted/ Free/ Payment
Land parcels	>10	<25	Map	Authorisation/ Payment
Land tenure				
Street address	>10	<25	Map	Authorisation/ Payment
Postal code zones				
Land use planning zones				
Roads	500-1000	100	GIS	Unrestricted/Free
Road centrelines				
Railways	500-1000	100	GIS	Unrestricted/Free
Airports	500-1000	100	GIS	Unrestricted/Free
Bridges				
Power				
Telecommunication				
Land cover				
Soils				
Geology				

Many datasets with completed data scale characteristics are available at a general scale while others like place and feature names are available at a detailed scale. The data completeness is

not certain, while most data is available in a GIS format and with unrestricted access. A number of data sets require payment.

3. Conclusion

Despite the fact that it seems that Benin has access to many of the fundamental geo-spatial datasets, the lack of data characteristics complicates the final decision on the quality of the data. Based on this it cannot be concluded that the existing geo-spatial data is useful.