



A Review of the status of Spatial Data Infrastructure (SDI) Implementation in Africa.

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Introduction

A Spatial Data Infrastructure (SDI) is a framework of users, data, metadata, policies and communication systems for ease of spatial data sharing

There is a lot of Informal SDI activity (e.g. NGOs) and they normally surface with a different name (*Lance, 2003*)

For Full benefit at National Level, it is essential to formalise the NSDI Initiative and make it part of the broader National Agenda



Brief Background

Since the late 1970's, many NSM's began to recognize the need to justify the large public investments they had received by improving access to and encouraging wider use of the spatial information in their custody (*Groot, 1997*).

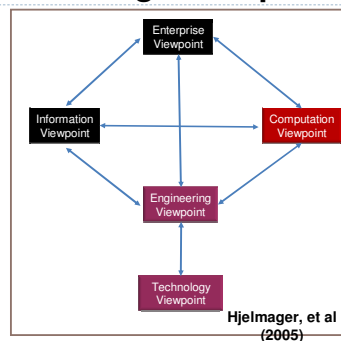
The National Information Infrastructure (NII) Initiative in the US in 1992 has had a major contribution to the face of SDI today.

SDI are key for National development

They are capital Intensive and there is therefore a need to assess them



SDI Design Viewpoints



Research Methodology

SDI are complex systems and their design requires a multiple view point approach

Henver (2004) shows that the business environment establishes the requirements upon which the evaluation of an artefact is based

Therefore if a multiple viewpoint approach is ideal for SDI Design, a multiple viewpoint approach is appropriate for their assessment



Previous SDI Assessments

1. World Status of NSDI Clearinghouses (Crompvoets et al, 2003)
2. Assessing an SDI Readiness Index (Delgado et al, 2005)
3. INSPIRE State of play: Generic approach to assess the status of NSDIs (Vandenbroucke & Jansse, 2008)



Indicators used in the study

| Indicator Class | Indicator |
|-----------------|---|
| Organisational | There is a National SDI Coordinating body (Government, Voluntary) |
| | There is maximum stakeholder participation (Government, Private Sector) |
| | There is an SDI Champion at the Highest Political Level |
| Funding | There is a reasonable budget to fund SDI activities |
| | The SDI initiative is self-sustaining |
| Legal | There is a legal framework governing spatial data |
| | There is a legal framework governing spatial data use |
| | There is a legal framework governing spatial data creation |

Indicators used in the study

| Indicator Class | Indicator |
|-----------------|--|
| Technical | There is a reasonable level of interagency coordination of spatial data creation efforts |
| | The data creation process is formally standardised for all data creators |
| | There is ready access to electronic spatial data through a Geo-portal, CDs and other forms |
| Metadata | Metadata is captured for most of the spatial data that is created |
| | Data creators create metadata according to a prescribed standard |
| | There is a clearinghouse(s) that communicates most of the available data resources |

An extract from the Questionnaire

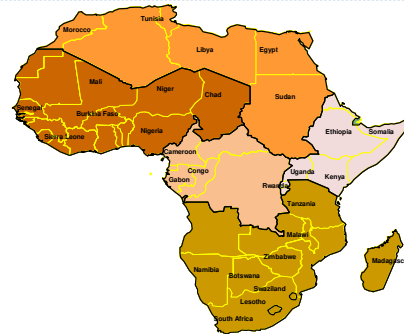
b) There is a National SDI Coordinating body (Government, Voluntary)

| | | |
|----------------------|---|---|
| Absolutely | 4 | Comment There is an active body that is coordinating SDI activity at National Level. There are..... |
| Very True | 3 | |
| Slightly False | 2 | |
| Absolutely | 1 | |
| False | 0 | |

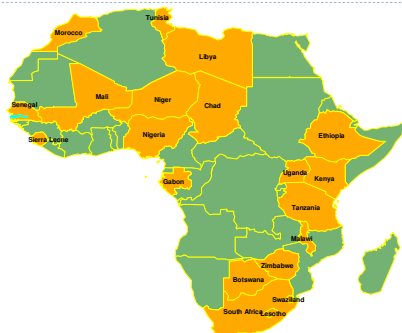
Cross the correct response to the question

Type comments that support your response in the text box

Countries Used in the Survey



NSDI Implementation Agency



Reasonable level Political Support



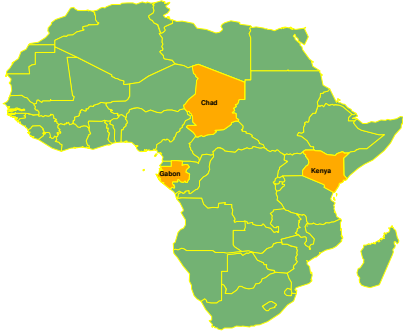
Adequate Financial Support



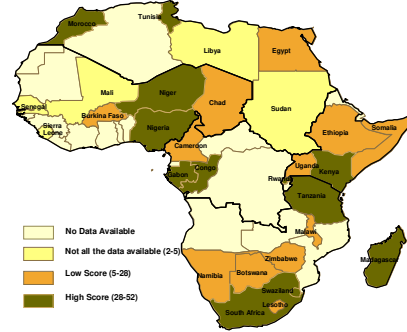
Legal framework implemented



National Clearinghouses



National SDI Scores



Recommendations

Bottom Up Approach

make use of existing structures to cement institutional relationships and partnerships to make SDI's work with minimal political support

Hand Over Strategy

"while some SDI components appear to be in development, ultimately it is the handing over that is the critical aspect" Von Hagen (2006)

FOSS4G Evangelism

Outreach efforts should go beyond just offering free software for SDI but rather also communicating SDI through the tangible benefits

Areas of Further Research

- ▶ Quantifying Informal SDI activity
- ▶ Funding Models for SDI in an African Context
- ▶ How to make SDI development sustainable projects
- ▶ Models for handing over informal SDI activity to governments