

# Planning, Implementation and Introduction of Information Management Systems in Selected African Geological Surveys: Background, Experiences, Case Studies

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## Abstract

Geological investigations have a long and famous history in most of the African countries. Billions of private and public Dollars have been spend to get a unique collection of a wide variety of geo-scientific information. Geological information has filled up big archives. Initially, in most cases, the National Geological Surveys were hosting this inestimable treasure as hard copies of maps, reports, borehole logs and field data.

With the growth of information technology, starting in the late 1980s, data became digitised. First, geological maps were digitised, national legends were developed, geochemical and geophysical data were transferred to spreadsheet programs and data processing algorithms were introduced.

Later, with the growth of data storage technologies, reports were scanned and different types of databases were developed and introduced. Today, geological information is transferred, copied and saved in almost any kind of format and structure. The result is a jungle of information: In many cases, data are stored on individual computers; catalogues of available information do not exist; data are not known to potential users. Sometimes data exist even in different versions.

To improve this situation, many African Geological Services have started to introduce national centralised information management systems that are able to store, systematise and distribute information. Based on a differentiated user rights concept, according to the national regulations, data are available to different user groups and at least partly published in the Internet.

The understanding of making data available, as a pre-requisite to foster development rather than to handle it as a secret, is growing widely. The well-known African European Georesources Observation System (AEGOS) initiative is the latest and probably most known attempt in that direction.

The presentation focuses on experiences gained during the practical development, introduction and maintenance of comprehensive information management systems in various African countries. The paper discusses the background of comprehensive information management systems, success and difficulties of system implementation and maintenance including the daily "little" problems such as unreliable power supply, personnel fluctuation, data capture problems, training issues, system lifetime, user expectations, data coding standards, inadequate funds, etc.

These issues and the way to solve them provide a view to the reality of system implementation and maintenance including all its successes and problems. Case studies are provided from:

- Ghana (Geodatabase Ghana GDG),
- Namibia (Earth Data Namibia EDN),
- Uganda (Unpublished Documents Information System UDIS),
- Rwanda (a unique national data set, compiled through an exploration project).

A special view of investor's needs and expectations concludes the presentation.