Environmental information management in Africa
Meeting the information need of decision-makers

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1. The context

The SISEI concept is also based on the principles of balancing supply and demand in respect of information, and adoption by the national players concerned. The establishment of SISEIs is starting to be included in national programmes such as national development plans, national environmental action plans and action programmes for combating desertification.

Development and appropriation of technological tools for the accessing, exchange and circulation of useful information relating to sustainable development in general and the environment in particular

- Increased use of Internet-based information sources in support of processes intended to assist in decision-making through improved ergonomics of the access gateways;
- Better integration of the different players in participative decision-making processes;
- Easier access for the different institutions and the general public to environmental information in the public domain, such as legal texts;

2. Collaborative sharing platform

A SISEI takes the form of a website which serves as an environmental gateway at the national, subregional and regional levels, offering the user a one-stop information shop comprising several specialized gateways such as:

An institutional gateway, with each partner owning its own website enabling it to become acquainted with other partners. The general information on the body in question (contact details, terms of reference and prerogatives, objectives, resources, results, available services, products) is arranged according to a pre-established and homogenous format. The institutional portal, which is structured on the basis of a typology of the partners, provides access to the web sites of the various partner bodies.
A thematic gateway, in which the information is organized according to sectors of activity (forestry, animal breeding, agricultural production, irrigation, etc.). Thematic groups, formed around institutions involved in the field in question, are responsible for structuring the information and disseminating it via the SISEI gateway, taking care to balance the information supply and demand.
Information management tools supporting decision making processes are developed based on Open Source technologies. It includes:

A virtual library that, under the auspices of documentation centers, gradually opens up to direct online access to reference materials. Using keywords, the virtual library allow the visitor to search for specific database, to list results per theme or authors, to display documents in html format, and to download documents in pdf format.
Anyone is able to identify a reference document and related metadata.

A Map server: composed of a catalog of geospatial data and metadata allowing the user to search for existing data over a specific area, and to visualize their footprint.

Georeferenced data available on this map server are about desertification and other environmental issues. Data constitutes resources organized into datasets: Metadata provides information on both data and resources following the FGDC standard. Metadata are built following the structure of the Global Change Master Directory (GCMD) from the NOAA – domain / theme / sub-theme. Search can be made using the associated thesaurus.
This server allows to:

- **search** for data and resources into the geocatalog according to their geographic footprint and main attributes;
- **get** exact data footprint, main figures and characteristics, and an overview of the related dataset;
- **visualize** model resource for each dataset if available into the geocatalog
- **visualize** comprehensive metadata for each dataset;
- **download** dataset resources if available in the geocatalog and if they are free of right.

An array (tableau de bord), real decision making tool, presenting in a very synthetic way data and information useful for monitoring and evaluating environmental protection actions undertaken for instance in the framework of international agreements – NAP, NEAP, etc... Built on indicators developed in those frameworks, it allows to:

- Monitor and follow the evolution of an ecosystem;
- Compare current status to a reference situation or to a specific objective;
- Assess impact of activities undertaken on specific issues – desertification, climate change, biodiversity;
- Issue early warnings when indicators reach critical points thresholds
- Edit summaries of state of the environment on a regular basis for a given area.