



Land and Water management

The Southern African Development Community (SADC) aimed in the development of a system that will provide planners and policy makers easy access to information necessary for revitalizing agricultural and natural resources growth, enhancing food security and promoting rural development.

Land and water management issues have been identified to play a vital role in many aspects related to the economic well-being and growth of the Southern Africa region such as food security, agricultural production, soil sustainability and water resources' conservation.

This led to the development of the Land and Water Management Information System (LWMIS) and portal. Nieuwland had an active role by developing a web mapping application, used to visualize spatial information about the SADC Member States in a highly interactive and user-friendly way.

The application's main characteristics are:

- Is based on completely open-source components such as Mapbuilder and Mapserver.
- It makes extensive use of the AJAX technology in order to provide a quickly responsive interface that offers a pleasant user experience.
- It makes use of open standards published by the Open Geospatial Consortium (OGC) such as the Web Map Context (WMC) and Web Map Service (WMS) which facilitates the extension of the application by attaching to it standard-compliant services by additional providers.
- The size of the application as well as the amount of data transferred have been optimized to reflect the potential restricted network capabilities in some areas.

