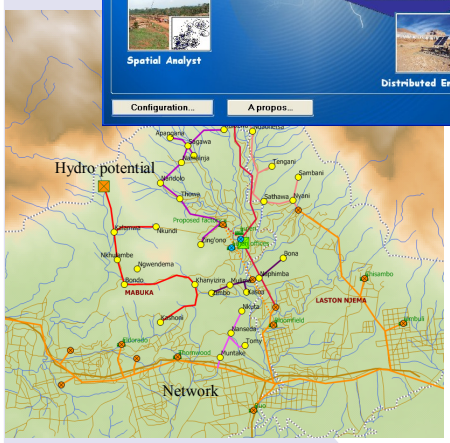
GeoSim

Planning Rural Electrification

Strengthened by a rich heritage based on rural electrification planning experiences and developed in several countries, GEOSIM is now used by numbers of organisations, consultant companies and public institutions in Asia and Africa. With a fully documented set of 4 main modules, GEOSIM has become the most innovative and powerful GIS based planning tool software exploiting all the power of the GIS capability.

- ♦ GEOSIM provides an easy-to-use graphical user interface that simplifies the management and publishing of rural electrification planning results.
- ♦ The customisation of every aspect of rural electrification scenarios and the rapid integration of specific parameters and hypothesis is today accessible to all.
- ♦ A wide range of renewable options is studied for rural electrification planning allowing a maximal flexibility to users for designing effective plans taking into account ground realities.

The Geographical Information Systems power to serve the rural electrification planning



GEOSIM© is divided into four interdependent modules :

- SPATIAL ANALYST©: Through the concepts of **Development Poles and hinterlands** (or attraction areas), GEOSIM Spatial Analyst® identifies and analyses settlements with **high potential for social and economic development** which should be electrified first, so as to **maximise impact** of rural electrification.
- DEMAND ANALYST©: The module aims at modelling and forecasting the demand for electricity at the village level, in a context of countries in which macro data is not always reliable.
- NETWORK OPTIONS©: The module finds the **best decentralised options** (micro-hydro, biomass, solar, interconnected, diesel genset, wind…) to supply electricity to previously identified Development Poles and their surrounding settlements, using one of the following methods: Selected projects are those with the lowest actualized cost of electricity or technologies are ranked by preference.
- DISTRIBUTED ENERGY©: Distributed Energy strategies aim at **improving access to modern forms of energy** (electricity but also mechanical power for productive uses) in areas where accessibility, lack of available financing and other socio-economic constraints render electrification through grid extension or isolated mini-grids impossible in the near future.

Each module provides cartographic and analytic outputs improving project understanding and issues evaluation.

Tool recommended by ASEAN, and deployed already in various countries such as: *Laos, Cambodia, Ethiopia, Burkina Faso, Ivory Coast, Cameroon, Mali, Niger, Benin, Madagascar, Tanzania...*

Minimal Configuration :

- ♦ GIS software Manifold© compatible MAPINFO, ESRI, AUTOCAD…
- ♦ Windows XP, Vista,7
- ♦ Plateform .NET 2.0

For additional information, please visit our website at:

http://www.geosim.fr

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