

Geographical Information Systems

What is a geographical information system?

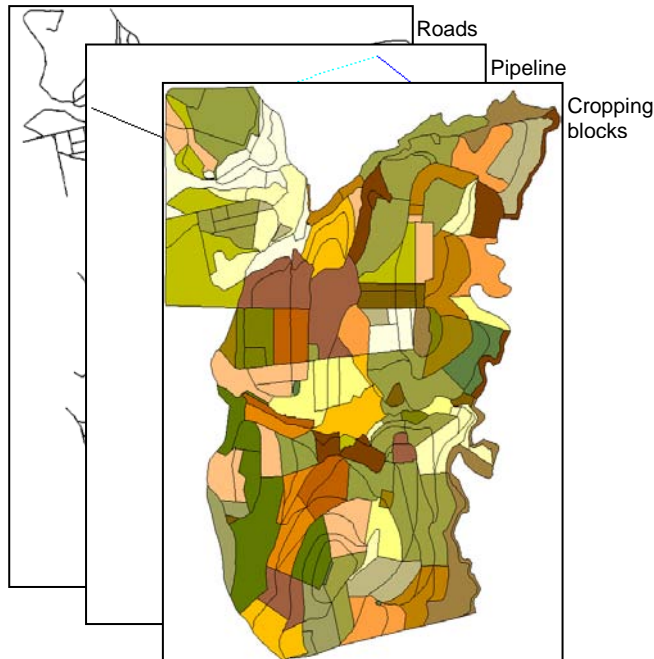
A GIS is a computer based information management system which enables you to:

- Prepare maps and reports
- Store large amounts of digital data (all data is geo-referenced)
- Examine data spatially (i.e. in map format)
- Undertake spatial and statistical data analysis

What does this mean?

- ◆ You can prepare a set of baseline maps at convenient scales of your areas of interest, covering topics such as: contours, cropping blocks, soil types, roads, buildings, housing, factories, water systems, electrical systems, other infrastructure, etc.

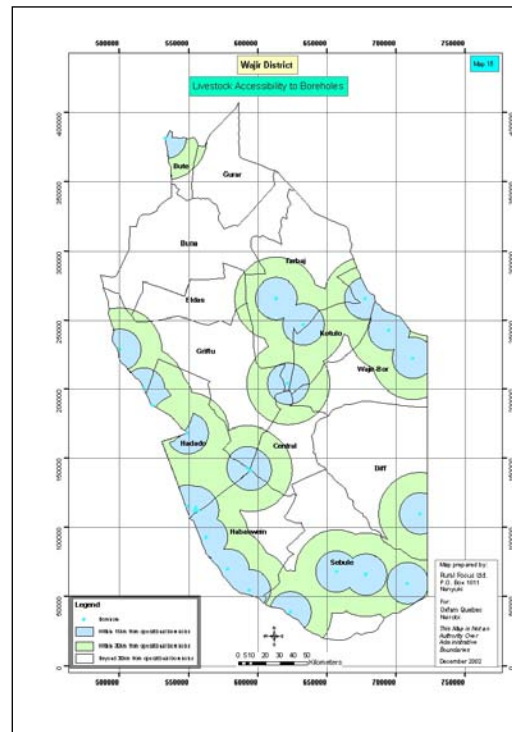
This information is stored in layers which you can turn on or off to suit.



- ◆ You can store information such as:
 - seasonal yield per cropping block
 - seasonal chemical treatments per block
 - labourers per block

and you can look at this information spatially (i.e. on a map) in conjunction with any of the baseline information

- ◆ You can generate information, by undertaking simple spatial analysis, such as:
 - determine yield per hectare for each block
 - determine labourers per hectare for each block
 - establish cropping blocks with steepest slopes
 - project spending per capita for an area
 - distance travelled by community members for water
 - potential sites for business or service/facility



Do I really need a GIS?

A GIS is ideal if:

- you have rooms full of records and may want to introduce digital record keeping. A GIS, being at heart a database, can help.
- you frequently need to check information from your records, then you probably want a digital database. Especially if that information is spatially related, then a GIS will allow you to present the information in a map.
- you are trying to improve your production efficiency, then you may need to evaluate information regarding your production costs or yields, across your area of interest.
- you are the type of manager who appreciates having information presented concisely and legibly (not just pages and pages of numbers)
- you need to be able to communicate development plans to those who do NOT have intimate knowledge of the area

GIS SERVICES OFFERED BY RURAL FOCUS

- Establishing an operational GIS workstation in your organisation
- Integrating GIS in the management and operations of your organisation;
- Designing and implementing tailor-made GIS capacity building programs for your organisation;
- Mapping and capturing spatial data to build up a GIS to meet your needs.

About Rural Focus Ltd.

Rural Focus Ltd. is an engineering and development consulting company, based in Nanyuki. *Rural Focus Ltd. was formed in 1995 to provide long term professional services to individuals, communities, private companies and NGOs. We aspire to provide appropriate and sustainable solutions to challenging problems in partnership with our clients.* Rural Focus has undertaken a variety of traditional civil engineering projects (mainly in the water sector) and community based projects (mainly focused on management training and capacity building for community run projects).

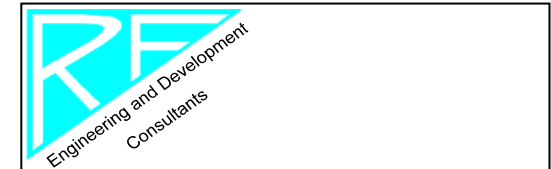
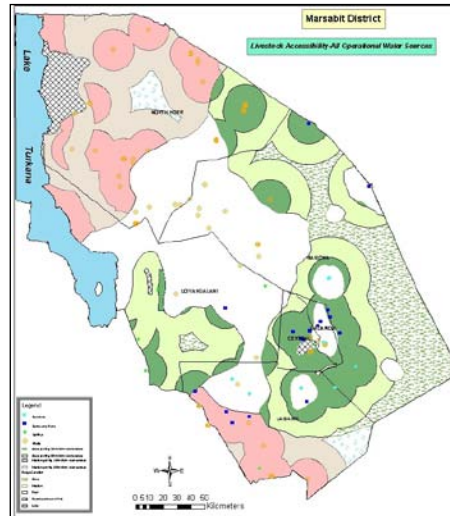
Since we are involved in infrastructure development and management training, we are uniquely placed to offer a GIS service with an appreciation of its application in management.

Rural Focus would be pleased to help you build your own GIS and to train your staff on how to use, maintain, and develop your own GIS. We can also run the GIS and/or do mapping for you.

Examples of GIS work done by Rural Focus

- ◆ Turkana, Garissa, Mandera, Wajir, Marsabit & Moyale Districts Water Sources Mapping & GIS databases-Unicef, AAH, Oxfam Quebec
- ◆ Training of GIS Operators in Garissa, Mandera, Marsabit, & Wajir Districts.
- ◆ Institutionalisation of GIS at District Level in Garissa, Mandera, Marsabit, & Wajir Districts.
- ◆ GIS training of Northern Water Service Board Staff, NWSB.
- ◆ Mapping for OBA World Bank/Athi Water Services Board Community Water Projects
- ◆ Mapping for WRMA Aquifer Delineation Exercise.
- ◆ Mapping. Water Allocation Plan for Lake Naivasha basin. LNGG
- ◆ Mapping, Lewa Wildlife Conservancy-Lewa Downs
- ◆ Development of Water Source GIS. Arabuko-Sokoke Forest Management & Conservation Project – Malindi/Kilifi.

- ◆ Mapping. Gravity-fed water projects: Mutitu (Nyeri), Kathita-Kiirua (Meru Central) & Mbaranga (Meru North)- European Union
- ◆ Mapping. Nguuru Gakirwe Irrigation Project in Tharaka - CDTF
- ◆ Mapping. Hydrological Report for Likii River Farm- Nanyuki
- ◆ Mapping. Mugie groundwater surveys - Mugie Ranch, Laikipia
- ◆ Londiani water resource survey for African Highlands Produce – Kericho
- ◆ Rainwater Harvesting study for Laikipia district for ASAL-Laikipia
- ◆ Drought Preparedness Intervention & Recovery Programme (DPIRP) reports – Nanyuki
- ◆ Kitui sand dams for Maji na Ufanisi publication “Where There is No Water”- Nairobi
- ◆ Mapping. Ngare Nything/Sirgon Water Resource Users Association – Timau/Isiolo
- ◆ Mapping. Ngusishi Water Resource Users Association- Timau



GEOGRAPHICAL INFORMATION SYSTEMS (GIS)



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