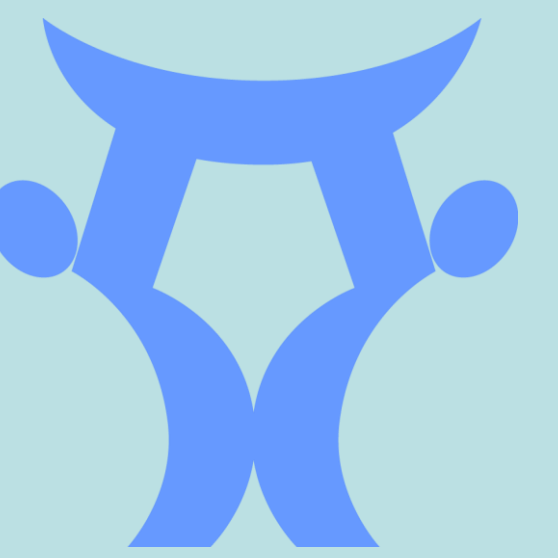




GIS Urban Slum Mapping



Need for location based data (spatial data)

There existed no detailed maps or location based data for the Agbobbloshie Slum area. This was a hindrance in developing and implementing support schemes and further in evaluation of work done

Aims

- To better manage SISS' resources via location based knowledge and carry out estimations and projections
- To understand underlining trends that are prevalent to the urban slum

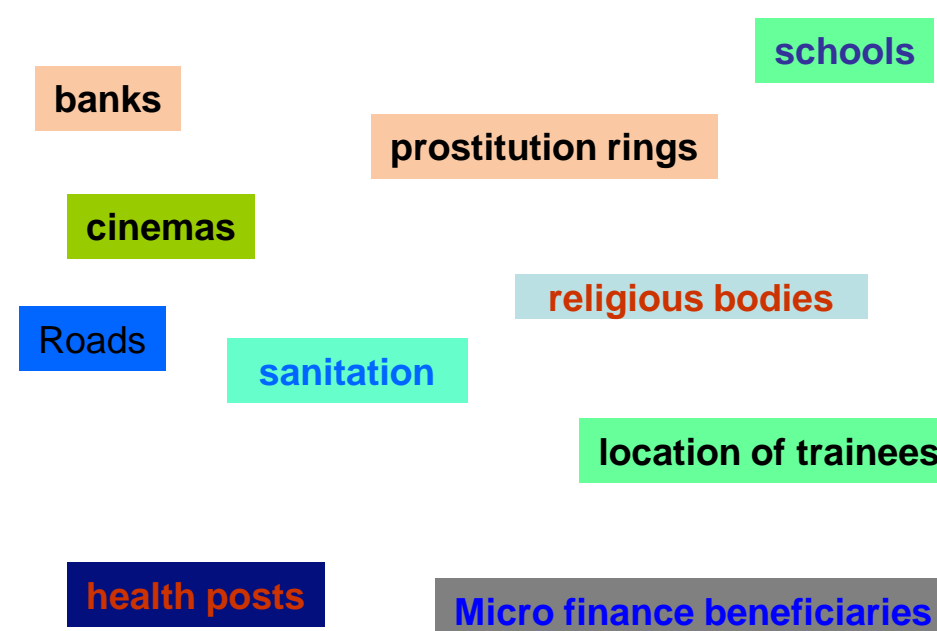
GIS as a solution model

Objectives

- To spatially reference facilities and other point of interest within and near the urban slum (Agbobbloshie)
- To link past, present and future activities, understand and better plan future activities.
- To affirm assumptions made during planning of previous projects
- To create a system that can integrate data from diverse sources (aerial images, GPS location data, pictures, files, documents, Excel etc. etc.) and create up-to-date dynamic maps and assist staff in generating reports that will facilitate intervention, planning and implementation
- To compare actual (on the ground) demographics to estimates provided by government and private agencies*
- To create spatial queries on population, proximity, density, housing schemes and sleeping patterns *

WORK FLOW

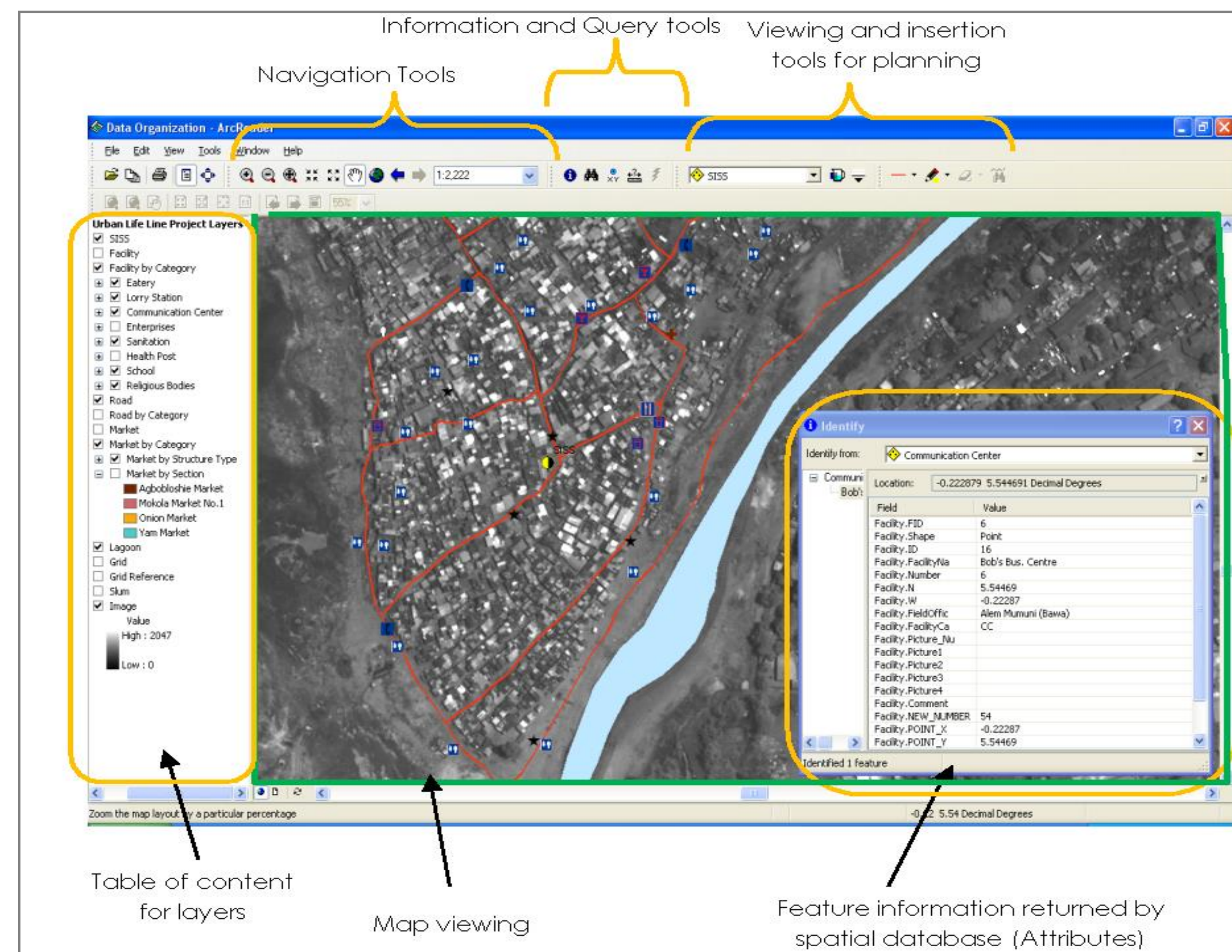
A. Data collection: youth in the slum where trained to use hand held GPS units to collect spatial data



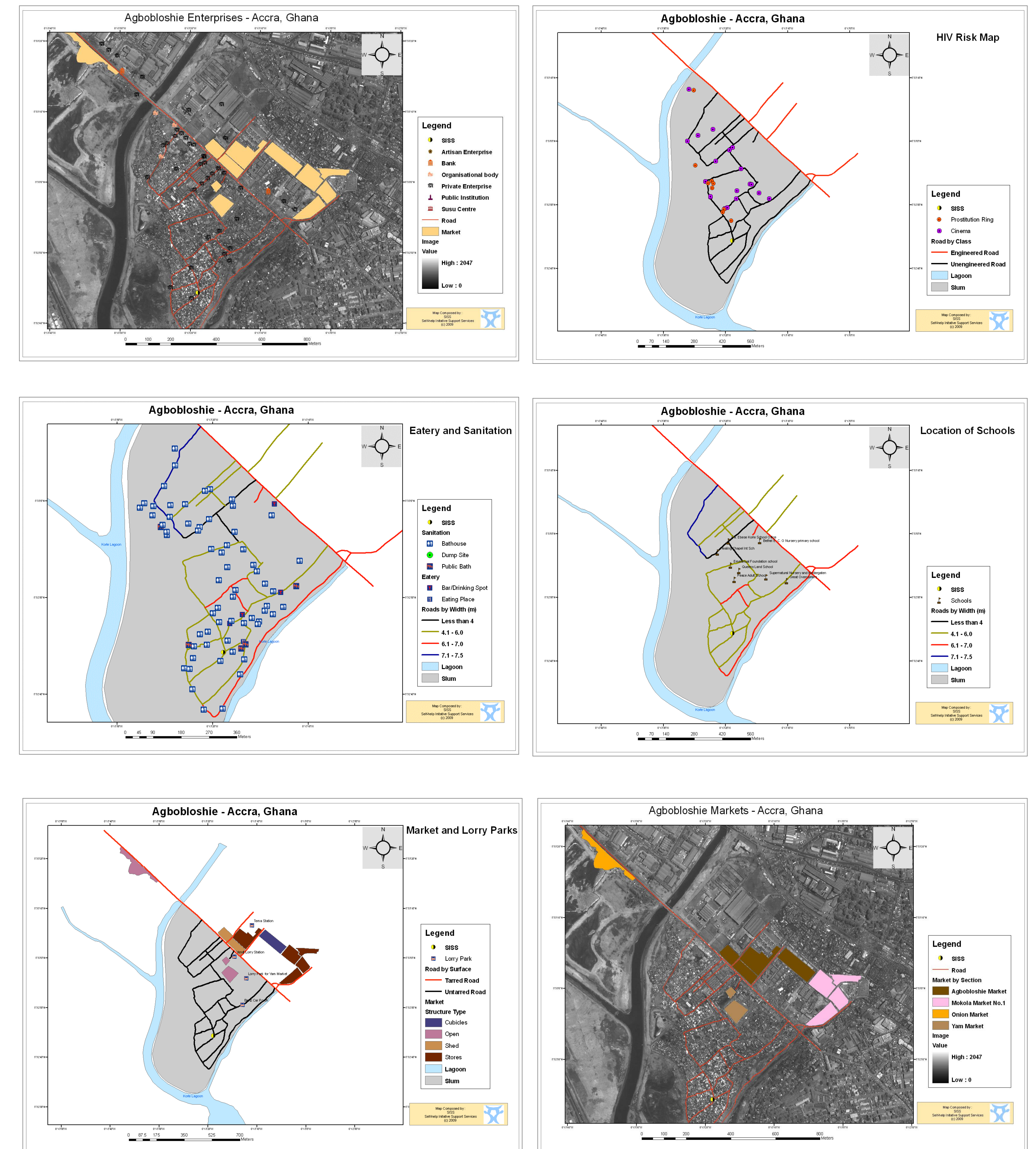
B. Data entry: youth dwelling in the slum where trained to enter data



C. Data processing: data was structured with ArcGIS and published to ESRI's ArcReader Application



D. Sample outputs



Current Studies Aided By GIS System (2010)

- HIV studies
- Evacuation & disaster management studies
- Demographic and sleeping patterns
- Slum dweller need assessment

Future Plans

- enable online access to live data via Web mapping
- use GIS to create weighted models to automate the need index determination of dwellers in the slum. The aim is to provide skills training and loans to those who need it the most
- carry out dweller migration analysis and determine underlying trends