

7 Views and Themes: definitions and characteristics

In the previous chapters we have seen that Views are interactive maps to show Themes that represent real objects having a geographic location and a representative shape (like a district, a sub-district, a town).

ArcView can work with three types of data sets:

- Shapefiles, which represent a geographical location. Data in the form of a table can be linked to these.
- Grid files, which already contain data in the form of a raster of pixels whereby each pixel represents a certain value – the parameter represented by the Grid.
- Images files⁴, for images obtained from, for example, satellites.

The different characteristics of data sets determine the way they can be used in GIS and set the limits of their use in different types of analyses. Therefore, they are discussed more in detail in the next chapter.

There are in principle three different types of shapefiles:

- Polygon features, which are closed figures, enclosing a certain area and can represent a country, district, lake, forest, etc.
- Point features, indicating an exact location (of tube wells, schools, villages, etc).
- Line features, indicating the location, length and direction of for instance rivers, roads, canals, etc.

Basically, Point and Line features have no area, but are related to locations, while Polygon features always have a location and an area.

⁴ Not further discussed in this manual.