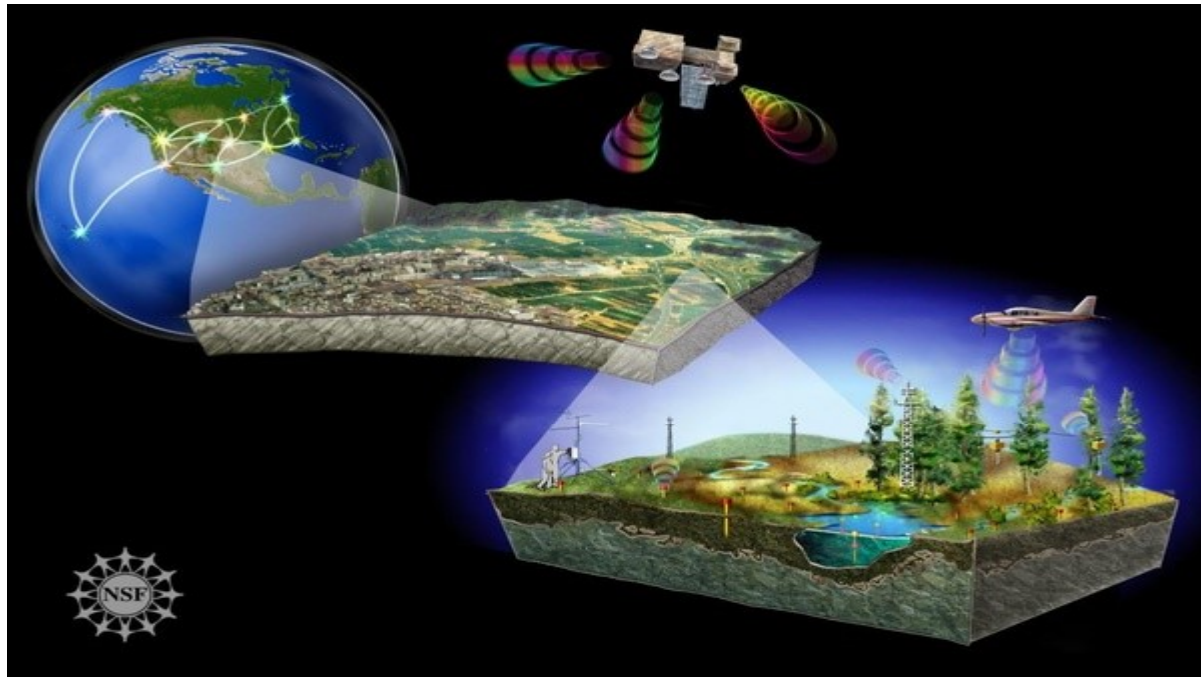# GIS&RS

PRESENTATION PRESENT
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Geographic Information System(GIS)

- Geographic Information System

  ☐ A GIS is a particular form of **Information System** applied to geographical data.

  ☐ An Information System is a set of processes, executed on **raw data(Longitude, Latitude)** to produce **information** which will be useful when making **decisions**.

  ☐ A system is a group of connected entities and activities which interact for a common purpose.

➢ A GIS is an organized collection of computer hardware, software, geographic data, and personnel to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.

What is GIS?

➢ A GIS *integrates* spatial and other kinds of information within a single system to provide a consistent framework for analyzing geographic (spatial) data.

➢ A GIS makes connections between activities based on *geographic proximity*.

➤ The digital data structure can be conceptualized as a set of **"floating electronic maps"** with a common registration allowing the used to "look" down (drill down) and across the stack of maps.

➤ The spatial relationships can be summarized (data base inquiries)

Problem Definition

➤ Unavailability of Geological information.

➤ Improper information guidance.

Existing Systems

➢ There are various existing systems such as Google maps, MapQuest, etc.

➢ This systems provide inadequate information about user needs.

Advantages

➢ With help of GIS, we can easily analyze and identify the Expected Location.

➢ Easy to Use

➢ General Purpose Solving Application.

➢ Allocates the map(How to reach).

➢ Estimate the Availability of end user(visiting office).

APPLICATION AREAS OF GIS

1. Agriculture
2. Business
3. Electric/Gas utilities
4. Environment
5. Forestry
6. Geology
7. Hydrology
8. Land-use planning
9. Local government
10. Mapping

11. Military
12. Risk management
13. Site planning
14. Transportation
15. Water / Waste water industry

Table 1.5 Major Areas of GIS Applications

Area	GIS Applications
Facilities Management	locating underground pipes & cables planning facility maintenance telecommunication network services energy use tracking & planning
Environment and Natural Resources Management	suitable study for agricultual cropping management of forests, agricultual lands, water resources, wetlands etc. environmental impact analysis disaster management and mitigation waste facility site location
Street Network	car navigation (routing & scheduling) locating houses and streets site selection ambulance services transportation planning
Planning and Engineering	urban planning regional planning route location of highways development of public facilities
Land Information System	cadastre administration taxation zoning of land use land acquisition

Erosion modeling
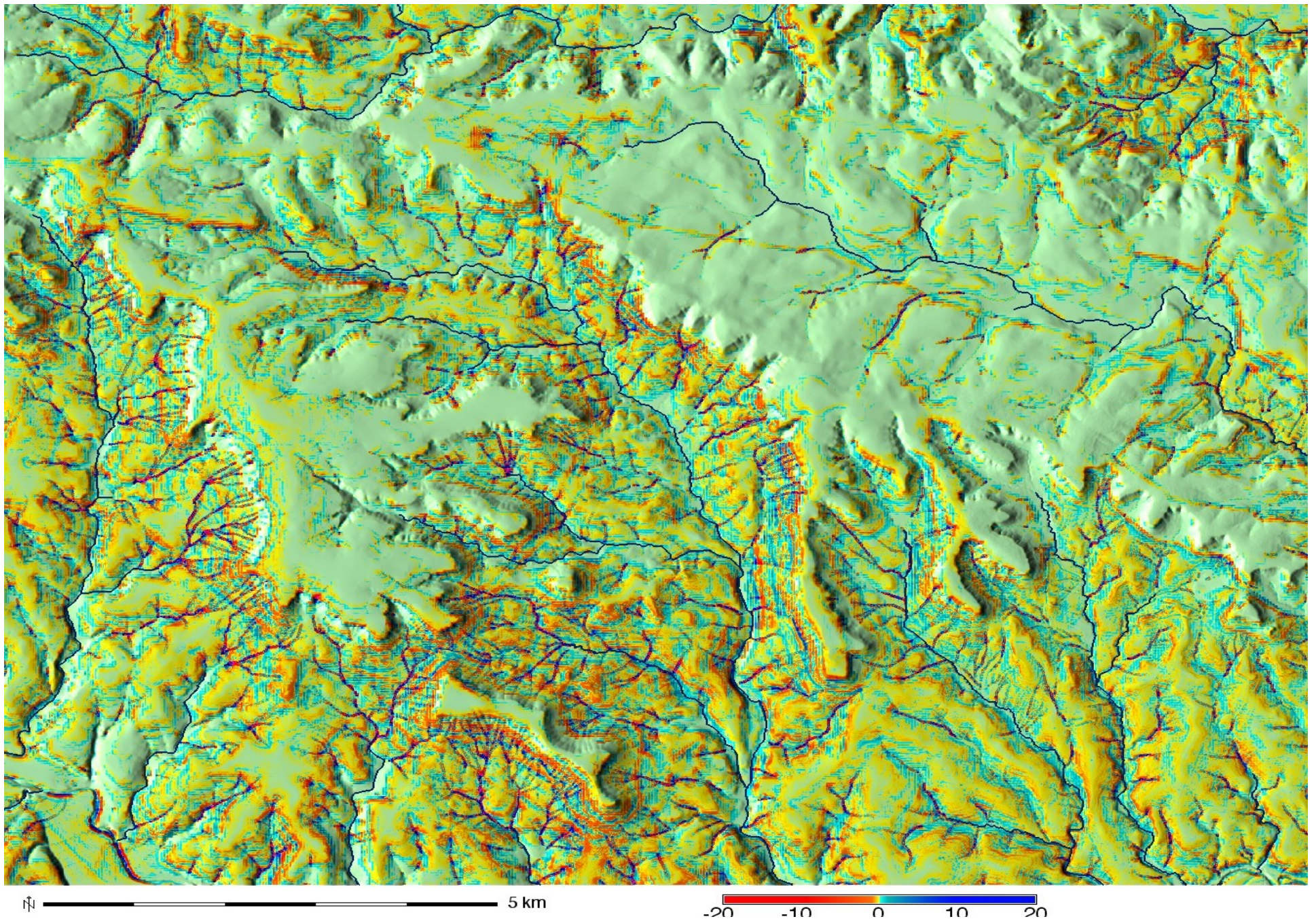
GIS – Program Flow
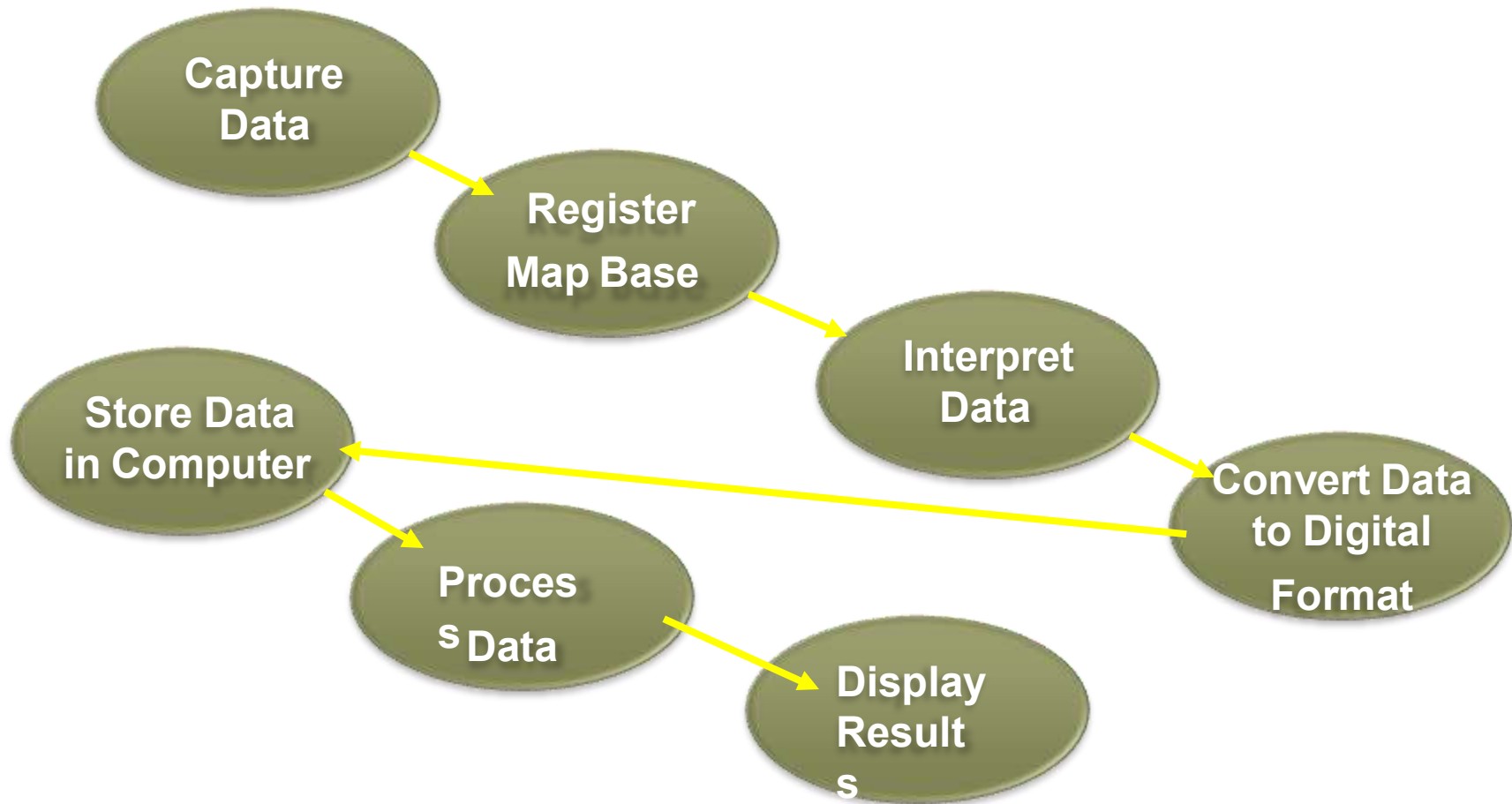
Conclusion

- User can print and save the image of the required map.

- User can view different parameters of particular area.

- User can get path from source to destination.

- GIS will also provide working hours.

THANKS