In Turkey, UIS is a land information system containing a record of interests in land. Many geospatial data can be examined at the same time in UIS. However, if such data is in a digital form, it could be more valuable for an UIS digital national cadastral database. Because there is no digital national cadastral database, UIS studies start with digitizing of cadastral maps in Turkey. However, there are important problems in digitizing cadastral data.

Some of the main causes of these problems are:

a) different surveying and mapping methods
   - graphical
   - polar
   - orthographic
   - photogrammetric
   - digital

b) different coordinate systems
   - local coordinate system
   - national coordinate system
   - ITRF coordinate system

C) different scale factors
   - 10 different scales range from 1/200 to 1/10,000
   - most common of them are 1/1,000; 1/2,000 and 1/5,000

d) different base materials
   - transparent
   - aluminum
   - paper-carton

Because of the inefficiency of former fundamental geodetic network, the Turkish National Fundamental GPS Network (TUTGA) was constituted. TUTGA is in ITRF coordinate system and has ±±1-3 cm accuracy. It has 394 points which have three dimensional coordinates. The distance between these points is about 25-30 km.

This project was completed in April 2001.

The cadastral maps of Turkey are solved in a partnership manner with cadastre directorships in a partnership form. However, this situation is still a problem where cadastral maps can not be digitized in required accuracies.

Nowadays, some local authorities are solving these issues via special protocols with cadastral directorships in a partnership manner.

In Turkey, some projects have been undertaken for implementation of the cadastral activities in digital environment.

- Turkish National Fundamental GPS Network (TUTGA)
- Turkish Land Register and Cadastre Information System (TAKRIS)

These projects are the most important ones.
The general objective of TAKBIS project is to establish the Turkish Cadastre Information System throughout the country.

- The pilot area of the project is the city centre of Ankara and its vicinity.
- It is still under development.

The main purposes of TAKBIS are:
- Providing reliable land information to decision makers,
- Maintaining up-to-date land information and re-evaluating them within the information technologies,
- Providing spatial data for central and provincial public organizations.

Without completely realizing the TAKBIS project, effective resolutions cannot be realized in most land-related issues. Some of them are:
- Cadastre-related information system studies (like UIS),
- Developing of land-based credit market,
- Fair taxation,
- Supervision of land use,
- Land readjustment applications,
- Fair and rapid expropriation, etc.

Conclusion

- Cadastre is a fundamental data source for many information systems.
- Forming and sustaining of information systems in an effective manner depends on construction of the up-to-date and accurate cadastral data in digital environment.
- Therefore, in the areas where this can not be realized with existing cadastral maps, there is need for re-cadastre in digital format.
- In Turkey, however, while current legislation is permitting renovation of the cadastral bases, it does not allow the re-cadastre.
- So, there is a need to re-arrange current legislation with spatial information system requirements.