Abstract

The District Management System (DMS) program involves research and development of GIS-based tools for total irrigation district management and optimization. The program, initially focused on a systemic mapping of irrigation districts, has evolved into a database of GIS and related decision tools to assist irrigation managers. The DMS program is currently comprised of several research and development projects:

- GIS implementation in districts
- Regional GIS use and activities
- Water use strategies
- US CID working committee

GIS Implementation in Districts

We offer a step-by-step program that involves GIS development and implementation in districts. Our program is broken into three main components:

1. **Understanding Data and GIS**, which includes: Data management and GIS training, software selection, GIS data collection and management, and data sharing and collaboration.
3. **Supporting Stakeholders**, which includes: Supporting stakeholders, training stakeholders, and communicating with stakeholders.

Regional GIS Use and Activities

In the past decade, GIS has been increasingly used in irrigation districts for various purposes, such as:

- **Water Use Strategies**: Mapping water use patterns, monitoring water use, and identifying water saving opportunities.
- **USCID Working Committee**: Supporting stakeholders, training stakeholders, and communicating with stakeholders.

Water Use Strategies

In recent years, irrigation districts have been focusing on water use optimization. This involves:

- **Monitoring Water Use**: Regular monitoring of water use patterns and identifying water saving opportunities.
- **Using GIS for Decision-Making**: GIS can be used to make informed decisions about water use, such as identifying water saving opportunities and optimizing water use.
- **Supporting Stakeholders**: Supporting stakeholders, training stakeholders, and communicating with stakeholders.

USCID Working Committee

The USCID Working Committee focuses on:

- **Supporting Stakeholders**: Supporting stakeholders, training stakeholders, and communicating with stakeholders.
- **GIS Applications for Irrigation Projects**: Promoting the use of GIS in irrigation projects and identifying water saving opportunities.
- **Using GIS for Decision-Making**: GIS can be used to make informed decisions about water use, such as identifying water saving opportunities and optimizing water use.
- **Supporting Stakeholders**: Supporting stakeholders, training stakeholders, and communicating with stakeholders.

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