Irrigation Information System in Afghanistan

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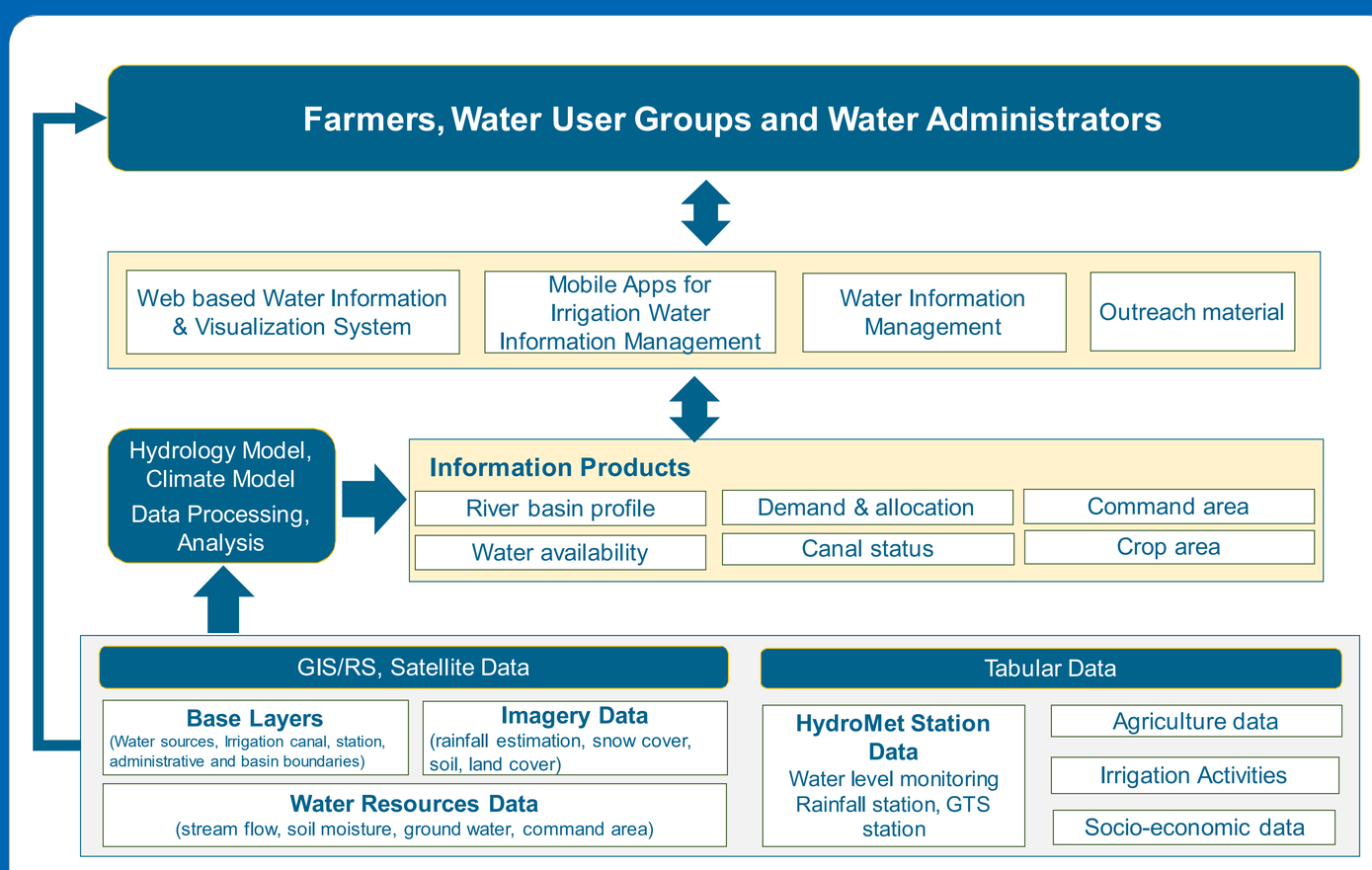
Afghanistan has predominantly arid and semi-arid climates. Here, irrigation is essential for food production – there can be no food security without water security. However, access to baseline data and relevant information is not easily available; an inventory of irrigation infrastructures is not yet in place. The available data on water resources is unstructured and fragmented, and does not provide a good overview. There is a strong need to facilitate data discovery through an improved national catalogue to address these development challenges.

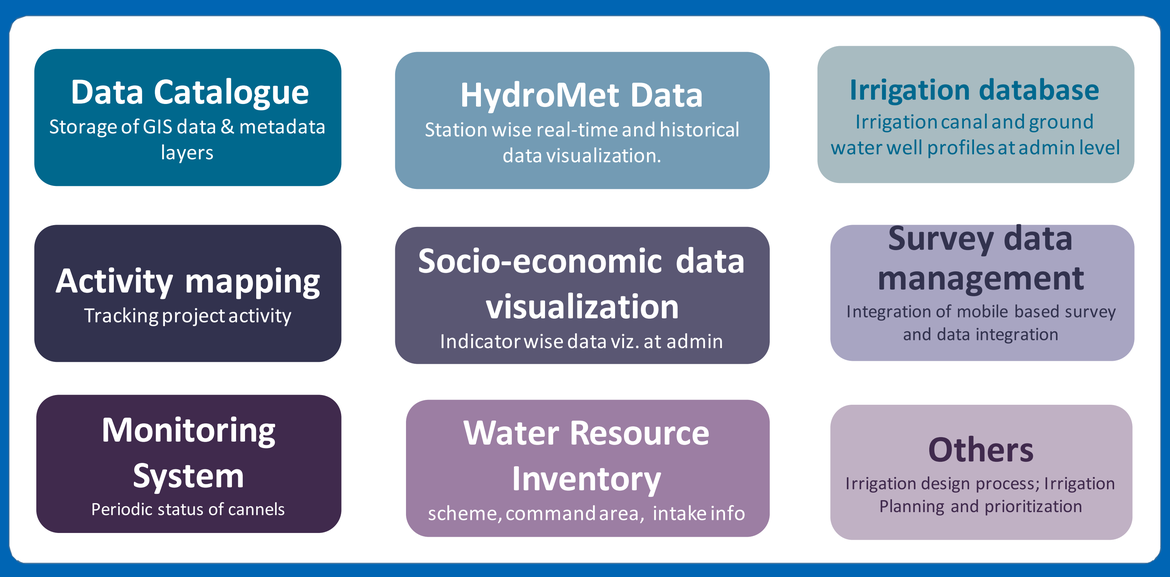
Approach

A GIS based multi-scale data management system will be developed in a web compatible format. The proposed information system will have seven major components based on priorities of the component. Each of these system components, will be divided into three phases of implementation, namely analysis and co-design, codevelopment and deployment, and support and training.



Expected Results and System Components

To streamline information from multiple sources and ensure timely exchange of irrigation information along with HydroMet data, and to enable sharing within and among participating ministries/institutions.



Objective

The primary goal is to develop a digital data infrastructure to support and archive irrigation-related data and information resources.

- To develop a framework for regular acquisition, processing and archiving/integration of water resource related GIS data, ground observation data, and related data
- To facilitate data management tasks through a web based irrigation information system from multiple sources that includes water aspects as well as other activities such as HydroMet data, crop production, status of irrigation canals

Outcomes/Anticipated Impacts

The platform will serve as a single-gateway for data and information useful for irrigation planning and monitoring.

- Facilitating data sharing and access to promote a data sharing culture
- An enhanced ICT infrastructure
- Easy access to harmonized data and easy-to-use visualization features for better analysis to support professionals

Partners

Ministry of Agriculture Irrigation and Livestock (MAIL)

End Users

Ministry of Rural Rehabilitation and Development (MRRD), Irrigation Management (SWIM), FEWS-NET, Kabul University, On-farm water management project (MAIL) supported by WB, HyMap project supported by JICA, Strengthening Watershed and National Environmental Protection Agency (NEPA)

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