

yield in North China. The traditional productivity simulations based on crop models are normally site specific. To simulate regional crop productivity, the spatial crop model is developed firstly in this study by integrating Geographical Information System (GIS) with Environmental Policy Integrated Climate (EPIC) model. (Wu Bingfng and Liu Chenglin .2000) worked on Crop Growth Monitor System with Coupling of AVHRR and VGT data.

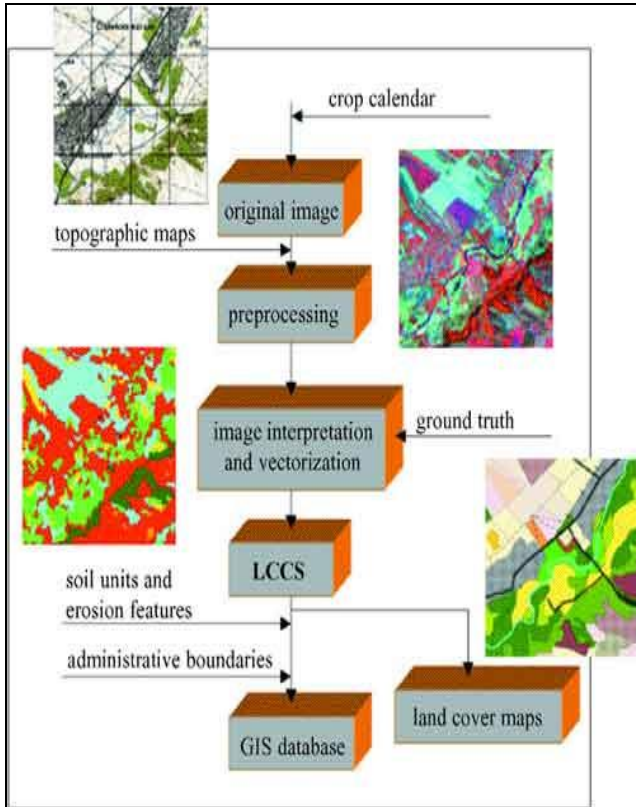


Figure 9: GIS in Agriculture

5. Conclusion

Internet based geographical data services involve management spatial and non-spatial (attribute) data. Geographic Information System (GIS) has come to be an indispensable tool for analyzing and managing spatial data. Data pertaining to spatial attributes can be efficiently managed using Relational Database Management System (RDBMS). The development of a Web-based system by integrating GIS and RDBMS would serve two crucial purposes. Firstly it would allow the user to operate the system without having to grapple with the underlying intricacies of GIS and RDBMS technology. Secondly, it would allow sharing of information and technical expertise among a wide range of users. In the present paper we describe the salient features of spatial database that was developed by integrating the Open Source Software (OSS) GRASS GIS and Posture SQL Object-Relational database into a Web based client/server environment. The system described in this paper aims at providing a web-based platform for collaboration and data sharing between specialists, planning agencies, citizens, and private entities. In order to access the spatial database, the user need only have a Web browser and access to the Internet. The system can be used to readily build and manage spatial databases pertaining to landslides and is presently being adapted to suit

other applications such as a Water Infrastructure Inventory System. Since the system is developed using OSS, it can be easily implemented in a distributed spatial database environment at a low overall cost. In this presentation we discuss salient features of an online system that offers public access to landslide information related to Japan. Further, we also present an overview of our ongoing efforts to improve the interoperability and compliance with the Open GIS Consortium (OGIS) Web Mapping Testbed (Web Mapping Testbed).

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