

WEBGIS PORTAL FOR CROP DIVERSIFICATION IN HIMACHAL PRADESH

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ABSTRACT

Crop diversification has been recognized as an effective strategy for achieving the objectives of food and nutritional security, income growth, judicious use of land and water resources, increase in external input use efficiency and thus, sustainable agricultural development and environmental improvement. In addition to traditional practices for crop diversification, use of modern technologies is also being envisaged as inevitable including geospatial technologies. These technologies (Remote sensing and GIS) have emerged as an effective tool for the macro and micro level mapping & planning of natural resources encompassing agriculture. Himachal Pradesh being a state with highly diversified terrain ranging from low hills to high mountain ranges has provided a challenge in agriculture from further enhancing and utilising the latest technologies as compared to the rest of the states. In this study, number of spatially spread project sites had been chosen for which spatial databases of project sites had been prepared such as project area, khasra boundaries, contours, soil type, land use/cover etc. The study provided an extensive inventory of the assets (proposed and actually constructed) on the field in various project sites which can be accessed and reviewed using the internet by the funding/implementing agencies and the stake holders (beneficiary farmers) at the project sites. A web based GIS portal had been developed using the ESRI Arc server web services technologies which can be updated and queried for any project site and the information including geotagged images can be gathered for any particular asset in the sub-project site. The portal thus developed provides transparency and can be used to easily check the various activities being carried out under each sub-project site. This type of methodology is first of its kind in the state under which the model is being framed to carry out micro level mapping for agriculture.

KEYWORDS: GIS, ArcServer, WebGIS Portal, Agriculture

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