**A Web GIS Application for Integration of Socio-economic, Biophysical and Atmospheric Variables: A Case Study of Punjab**

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**Abstract:** Maps are symbolic representation of the world in a simple, visual way. Not only do they tell you where to go but they also convey a story. Static maps are informative but you are limited to the creators provided information and cannot extract much information out of it. On the other hand, you have web-maps which are interactive and can provide you with much information as compared to static maps. Hence web-maps are better in comparison to static maps in decision making and for the purpose of efficient decision making this project was chosen. Four (4) variables namely Population, Precipitation, Land Surface Temperature (LST) and NDVI over the time of 2010-2020 for the region of Punjab province were selected to monitor the change over the years. These variables would be represented on web-maps through the use of JavaScript and the Leaflet, these maps would be represented on a geospatial web-portal. This web portal could be used for decision making purposes and more.

**Specialized Tools:** *HTML, CSS, JavaScript, ArcMap and Leaflet*

**Project Supervisor:**  *Ms. Aneeqa Abrar*

**Co-Supervisor:**  *Dr. Hammad Gilani*

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