**IPI4: Driving forces for agricultural changes: understanding the urban/rural development and climate contribution**

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**Project Goals:**

* Understanding the effect of urban development on agriculture in Idaho
* Understanding the effect of climate and weather on agriculture in Idaho

**Key Research question:**

* How is urban development affecting agriculture in nearby rural areas?
* How climate is contribution to this change?
* Which factors play the greatest role in this change?
* Changes in agricultural resources (in terms of annual price and type of production)
* Changes in land ownerships

**Data expected to be used:**

* From USGS we have access to following data: (2017, 2012, 2007, 2002)
* Historical Highlights
* Market Value of Agricultural Products Sold Including Landlord's Share, Direct, and Organic
* Economic Class of Farms by Market Value of Agricultural Products Sold and Government Payments
* Farm Production Expenses
* Net Cash Farm Income of the Operations and Operators
* Government Payments and Commodity Credit Corporation Loans
* Income From Farm-Related Sources
* Land
* Land in Farms, Harvested Cropland, and Irrigated Land, by Size of Farm
* Irrigation
* Selected Characteristics of Irrigated and Nonirrigated Farms
* Vegetables, Potatoes, and Melons Harvested for Sale
* Land Use Practices by Size of Farm
* Summary by Size of Farm
* Summary by Market Value of Agricultural Products Sold
* From census we can get population records (2010-2017)
* For climate and weather data we use TerraClimate: Monthly Climate and Climatic Water Balance for Global Terrestrial Surfaces, University of Idaho
  + - Precipitation
    - Temperature
    - Actual evapotranspiration

**Description of the key deliverable(s) (static data analysis? Re-runnable analysis or application? Report?):**

* **Maps**
* **Jupyter notebook for reading data and analysis**
* **A report**

**Project timeline, milestones, and intermediate deliverables:**

* Weekly or biweekly meetings and updates on the project