**Merging data from weather stations with cropping events for site specific analysis.**

Weather is one of the most important factors in agriculture given that it has a strong impact on yields and influence on farm decision making. However, joining weather stations and cropping fields to accurately represent weather conditions experienced by the plants is a challenge and usually requires processing long series of weather records. It is necessary to have many georeferenced points that represents cropping fields but deciding which weather station will better represent the weather conditions of each point is the main problem.

In order to make this process easier and help researchers to follow the adequate steps, we created an R project repository called [Vinculacion\_clima\_lotes\_comerciales](https://github.com/hdorado/aeps_Vinculacion_clima_ciclos_cosecha), where we documented the procedures to join weather stations and cropping events. The level of association is evaluated according to spatial proximity between fields and stations, differences in elevation and number of missing values from the original data in the cropping cycle period (sowing date to harvest date). We also left in this repository an example with simulated data in Chiapas, so that new users can reproduce the process just by adjusting the data to the formats required and following all specifications. The R scripts contained in the repository generates a standard dataset to report availability of weather data, estimates the elevation in georeferenced places, and defines spatial and elevation constrains for the process that joins station-fields. Finally it generates weather indicators to analyze the effects of weather in crops. The outputs can be used to analyze relevant factors that affect the yield variability and to make time series clusters from weather patterns.