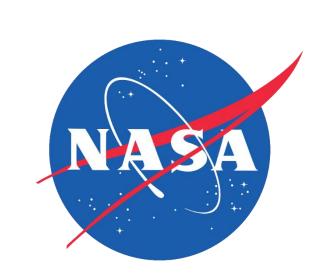
# Córdoba Wildland Fires



# Assessing Fire Risk Factors in Córdoba, Argentina using Earth Observations

### **Community Concerns**

Wildland fires are crucial for the ecosystem but can negatively affect the environment and human society when left unchecked. This phenomenon affects Córdoba greatly. In 2020 alone, more than 300,000 hectares of land was burnt by wildfires. Farmers in the northwest region of the province had an average of 83% of their land affected by these fires. Not only can fires hurt the economy by damaging agricultural holdings but they can also have adverse effects on the natural ecosystem, such as habitat loss. Crucial action is needed for future fire mitigation to alleviate wildfire negative impacts.

### **Environmental Variables**



Evapotranspiration





Surface Temperature



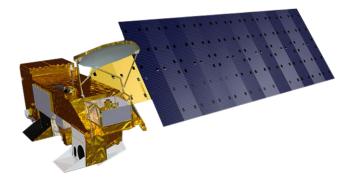
Precipitation/Soil Moisture



Slope/Aspect

Environmental variables were tested using Earth observation data to assess which factors have the most influence on wildfires in Córdoba.

### **Earth Observations**

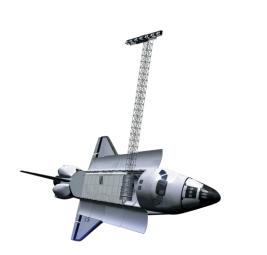




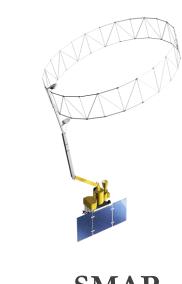
Terra MODIS



**GPM** IMERG

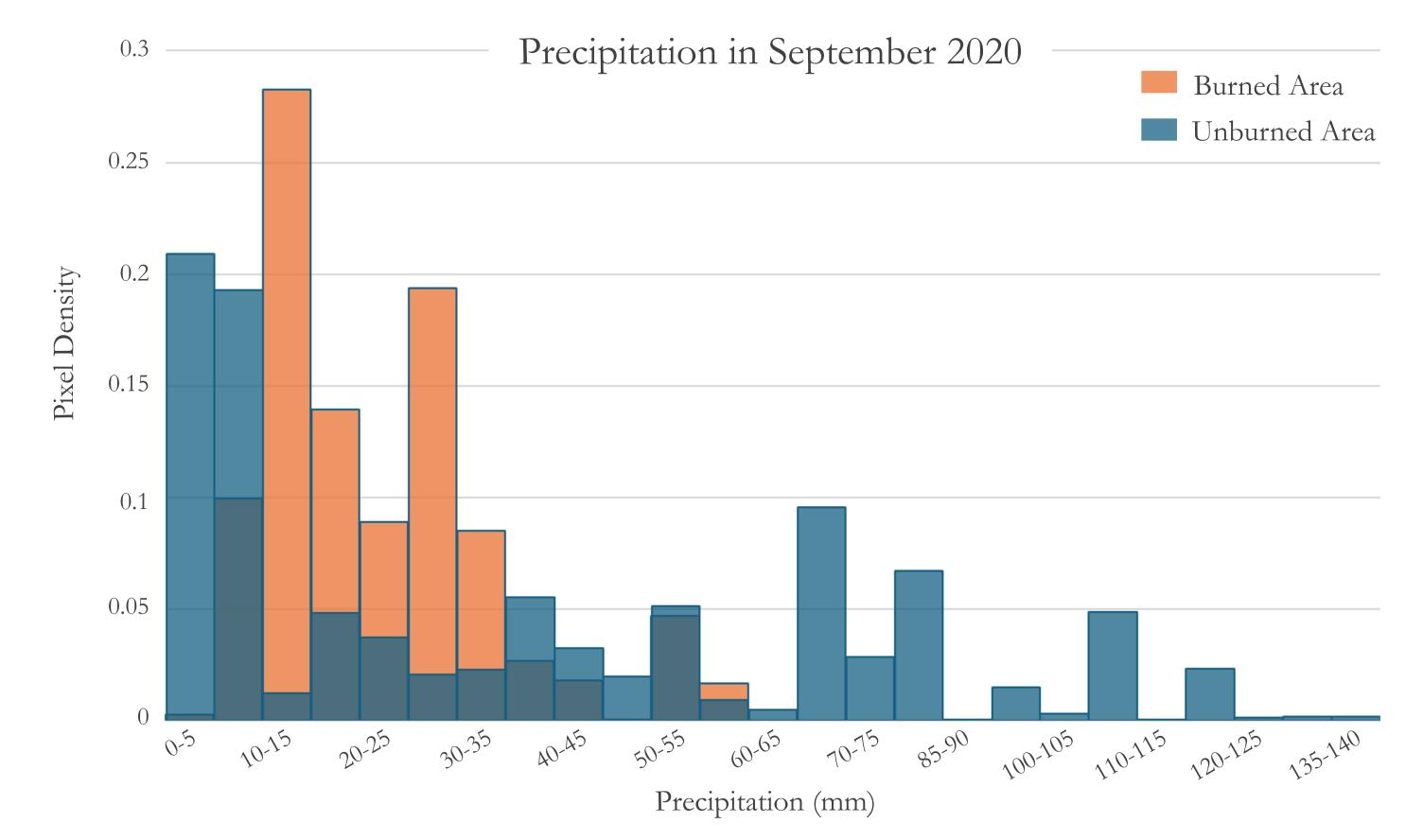


**SRTM** 



**SMAP** 

# **Precipitation Trends**



#### **Team Members**



Chassety Raines Project Lead



Nikita Bhole

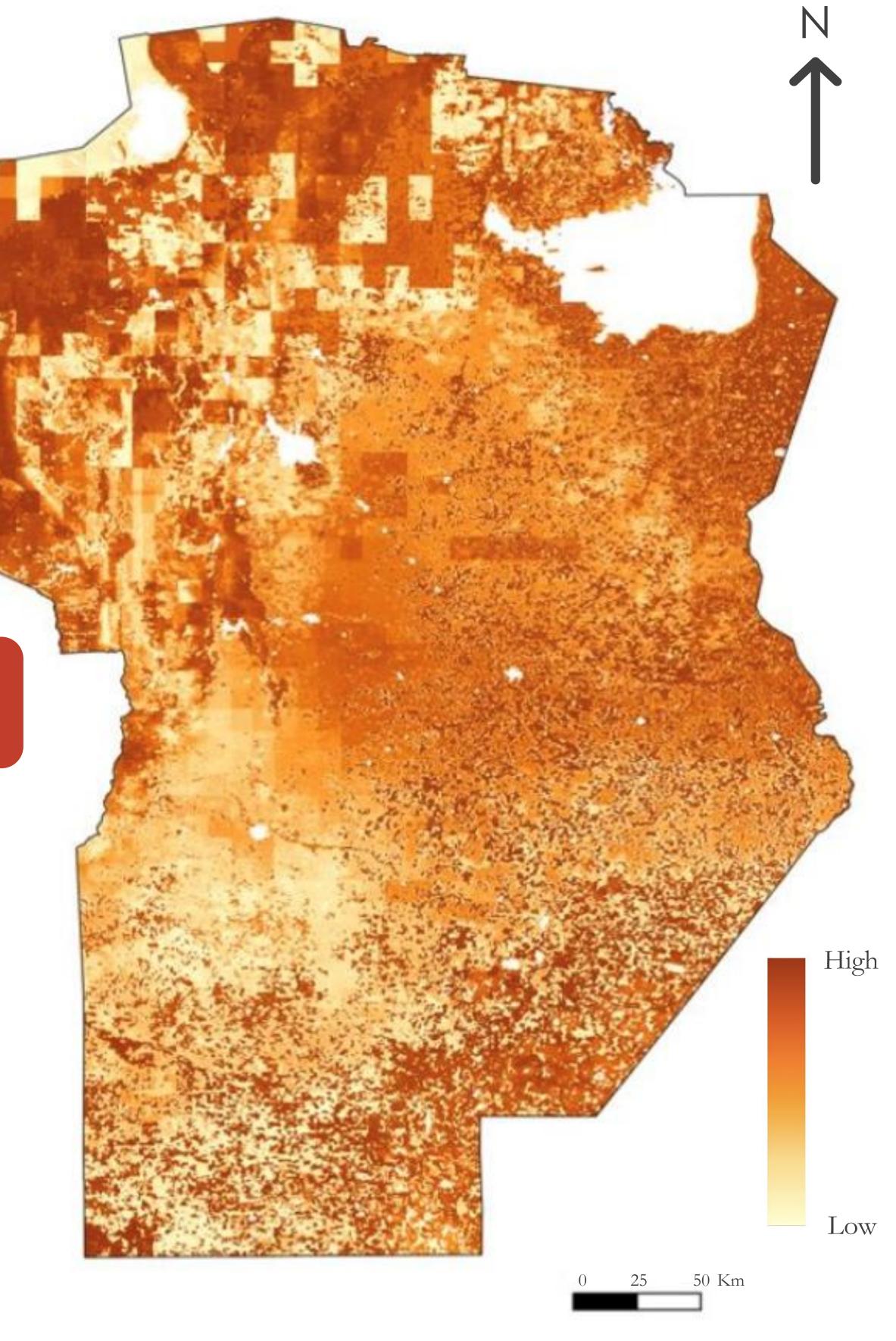


Benjamin Kaster



Yu-Yun Ruan

## Córdoba Wildfire Risk Map



Machine Learning was used to create a wildfire risk map in Córdoba using the environmental variables in this study to help officials with fire management decision making.

### **Project Partner**

Instituto Nacional de Tecnología Agropecuaria

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