

The Region of Interest (ROI) was chosen as Kirinyaga due to its closeness to Kenya's weather conditions as well as its small scale farming productivity. Kirinyaga has an average annual temperature of 25° with that of Kenya ranging between 20°C and 28°C. A favorable study area temperature would be considered to be at 24°C, thus Kirinyaga would prove sufficient in its temperature conditions ([Context](#)). Additionally, Kirinyaga's rainfall is estimated to be 574 mm annually, with Kenya's average rainfall standing at 680mm. [Refer here!](#)

The county is best known for **rice production at the Mwea Irrigation Scheme**. Mwea Irrigation Settlement Scheme (MIS) falls within two sub counties i.e. Mwea East and Mwea West sub counties. The scheme lies along the drainage basins of Rivers Nyamindi and Thiba which supply the irrigation water. There is still potential of up to 10,000 acres for expansion within the surrounding areas. However, this is constrained by lack of sufficient water for irrigation. The scheme area is largely plane and predominantly covered with black cotton soils, with a few raised spots of red soil. Rice paddies have been developed on the low areas that are covered with black cotton soils while the high spots covered with red soils have been reserved for settlement and production of upland crops.

The types of crops grown include Tomatoes, onions, French Beans, Maize and other horticultural crops. Coffee and tea are also grown in the cooler areas of Ndia, Gichugu, and Kirinyaga Central constituencies. Other crops grown in the area include maize, beans, tomatoes, French beans and other horticultural crops ([Refer](#)). Rice is the main crop grown in this region and Mwea is one of the [major farming towns](#).

Mwea West Subcounty was chosen as the AOI (Area of Interest), under which research would be undertaken.