

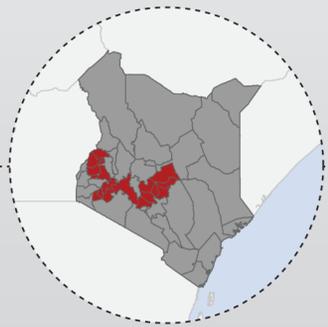


FROST MAPPING, MONITORING, AND FORECASTING SYSTEM IN KENYA

The Kenya **tea industry** supports **10 percent** of Kenya's population, around **3 million families**. This industry is prone to **damage by frost** due to the altitudes in which it is grown. SERVIR, in partnership with its regional partner the Regional Center for Mapping of Resources for Development, developed **a tool to map the frost potential with up to three days' warning**.

1 Kenya is the **third largest tea exporter** in the world, producing 10% of the world's black tea.

60% of Kenya's tea comes from more than **600,000 smallholder farmers** across the country.



2 On average, smallholder tea farmers lose around **USD200** worth of their crop to **frost**.



4 SERVIR is working with the national meteorological and hydrological center (Kenya Meteorological Department, KMD) to **share frost warnings with farmers** through their county directors of meteorology (CDMs), radio/TV, mobile messaging, tea collection centers (TCC), and neighboring farmers. This system ensures that **more than 90% of tea farmers have access** to these warnings.



3 The **SERVIR frost forecasting tool** provides daily maps of frost potential with a capability for **72 hours pre-frost warning**.



5 With a **40% accuracy rate**, a 3-day warning enables preventative actions that reduce average annual losses by **USD83**. Equivalent to:



25 days of household **food** spending



60 days of household **health** spending



A full year of **school** tuition for one child

SERVIR connects space to village by helping developing countries use satellite data to address critical challenges in food security, water resources, weather and climate, land use, and natural disasters. A partnership of NASA, USAID, and leading technical organizations, SERVIR develops innovative solutions to improve livelihoods and foster self-reliance in Asia, Africa, and the Americas.

