

What is climate information?

Climate information describes data on temperature, rainfall, wind, humidity, sunshine hours, and other factors.

We usually distinguish between weather, which is the situation over a short time period, and climate, which describes long-term weather patterns or ‘average weather’.

For the purposes of this prize competition, *climate information* includes data ranging from short term weather-related information over days and weeks, to information that cover longer time spans.

Climate information may be from different sources, and may combine scientific as well as traditional knowledge.

For the purposes of this prize competition, it is important that timescales are relevant to decisions made by individuals, households and communities in Kenya.

Climate information may be combined with various services to help people interpret and use climate information to improve their livelihoods, in areas such as health, agriculture, energy or water.

Examples of climate information are¹:

Short term (days to weeks)

- Observed rainfall and temperature
- Forecasts for rainfall and temperature for up to one week in advance
- Alerts on pests and diseases
- Early warning of extreme rainfall, flooding

Medium to long term (months to years and decades)

- Likelihood of seasonal rainfall and temperature conditions
- Early warning of seasonal rainfall patterns
- Information about dry spells, onset of rains, duration of rainy season
- Historical data for rainfall, temperature, wind, extreme events

¹ See e.g. https://ccafs.cgiar.org/sites/default/files/images/CCAFS-Climate_Services_Infographic-BLOG-final.jpg

How is climate information used?

Climate information may be used by people, communities and governments to make short, medium and long term decisions to support their livelihoods. Importantly, climate information is only one of the factors that affects decisions.

Short term decisions may include, for example, decisions on whether and how to protect lives and valuable items from floods or other extreme weather events, decisions on choice of preparation, planting, application of inputs like fertilizers and pesticides, or harvesting. It may also include taking precautionary measures to protect from pests and diseases such as cholera and malaria.

Medium term decisions include decisions of what crop varieties and inputs to buy for the coming season, and whether or not to sell or buy livestock, or whether and how to improve water storage.

Long term decisions may include investments in irrigation to prepare in case of a drier climate, improve house structures or move location in case of increased risk of flooding, investments in water storage, what to farm and where, and whether or not to continue farming or pursue alternative livelihoods.

What are the common barriers to being able to use climate information?

A lot of climate information is available in databases and organisations all over the world. People all over Kenya have access to climate information through radio, printed newspapers and, increasingly, through mobile phones and online.

But even when accessible, the ability to use climate information depends on many factors, such as whether it is

- relevant to people's decisions (focused on locally important weather and climate factors)
- reaching everyone who wants or needs it (e.g. not excluding particular genders or social groups, not requiring people to travel far to get information, available to mobile phones or those who don't have access to mobile phones)
- detailed enough to give enough information to base decisions on (e.g. not covering too big an area)
- accessible at the right time (giving enough time to avoid negative effects or take advantage of opportunities)
- in a form that can be understood (not requiring prior knowledge or education to interpret it)
- trustworthy (do people know and trust the source?)
- culturally acceptable (not contravening locally held beliefs and values)
- accompanied by other services to help make use of the information (such as availability of seeds, fertilizers, malaria bed nets)
- affordable (in cases where information is only available at cost)