

International climate scientists unpack data on Kenyan drought. The message? ‘Expect more’

Thursday, 23 March 2017, Nairobi – Climate scientists from multi international agencies have today released a detailed study of the Kenyan drought, whose main message is: *prepare for more*.

The scientists shared their findings at the conclusion of a three-day conference in Nairobi that brought together representatives from the government, private sector, Red Cross Red Crescent Movement and other humanitarian agencies.

The study says there’s a detectable ‘climate signal’ – a measure of the influence of human-induced climate change – in the atmospheric temperatures behind the drought. Data indicates they were “higher than they would have been without the influence of climate change,” according to a summary of the scientific findings made available online.

The summary cites a January 2017 FEWSNET report noting recent “hotter than normal temperature accelerated forage and water depletion across most of the pastoral and marginal agricultural areas.”

The team, however, found no strong influence of climate change on rainfall in Kenya – regarded as the main determinant of surface water – but say they cannot exclude small changes in the risk of poor rains linked to climate change.

Historically, the Arid and Semi Arid Lands (ASALs) that form 80 per cent of Kenya’s land mass have been vulnerable to frequent weather shocks. At the moment, majority of the 23 counties facing severe drought are in the ASALS.

The scientists looked separately at two regions in the country; the north-west, incorporating weather-station data from Marsabit, and the south-east, incorporating weather data from Lamu.

“We also looked at the influence of the Pacific El Niño and La Niña phenomena that would respectively increase and decrease rainfall in Kenya,” said Dr. Friederike Otto, Deputy Director of the Oxford University Environmental Change Institute. “Our findings indicate the 2016 La Niña diminished short rains in both regions.”

The scientists are part of the global World Weather Attribution ([WWA](#)) programme that assesses whether extreme climate-related events are more likely now than they would be in a world without climate change.

The WWA group, which for the Kenya study included, the Kenya Meteorological Department ([KMD](#)), the Red Cross Red Crescent Climate Centre and the Princeton-based Climate Central group, who are convenors of the WWA programme, as well as specialists from Melbourne and Oxford Universities and the Royal Netherlands Meteorological Institute.

The Nairobi conference wrapped up a year-long [branch of the programme](#) that also included the UK-based Climate and Development Knowledge Network, concentrating on several developing countries affected by climate-related disasters that may be intensified by human influence.

“The humanitarian logic of the attribution effort is that the better that can be understood, the better it can be planned for,” said Dr. Maarten van Aalst, Director of the Red Cross Red Crescent Climate Centre, who is also in Nairobi.

“The techniques involved have improved rapidly in recent years. Scientists can now do such analyses quickly, sometimes within days of an extreme event, using cutting edge computer-modelling and analysis of observations,” he added. “They can tell us how often these events typically occur – their ‘return interval’ – and if climate change is making them more or less frequent.”

As Kenyans wait anxiously for the next rainy season, in scientific if not humanitarian terms, the drought that began in 2016 is not yet as exceptional as the 2011 disaster in the Horn of Africa, whose ‘return interval’ the attribution scientists assessed at 1 in 50–60 years.

“This findings underscores the use of climate information for early warning, early action initiatives to mitigate such disasters,” said Dr. Abbas Gullet, Secretary General, KRCS. With the frequency of such disasters, it is time that we explore the link between climate and disasters and take timely action,” he added.

The Kenya Red Cross Society (KRCS) has been implementing a number of interventions geared towards supporting the over three million people currently affected by drought in Kenya. The drought response initiatives include; provision of direct cash transfers to improve the food security at the households level; livestock destocking; provision of food vouchers; health and nutrition outreaches and rehabilitation of key communal watering points.

With the ongoing drought and the increase in number of the populace affected, the priority is to work to reduce vulnerability both now and over time. The current long-rains outlook from the KMD shows ‘depressed rainfall’ over most of the country, especially the east.

The Nairobi conference ended with a high-level panel that included representatives from the Kenyan government, KMD, the KRCS, and the Red Cross Red Crescent Climate Centre, among others.

Editor’s Notes

In Kenya, the frequency and impact of disasters associated with extreme weather and climate events has provided fertile ground for exploring the link between climate and disasters. Many other climate vulnerable countries and regions across the globe have also had a similar experience. In many areas and across many communities, climate change is responsible for exacerbating existing development challenges, such as poverty and marginalization.

Extreme weather events associated with climate variability and change also create the potential for increasing risks facing communities through the destruction of existing assets, infrastructure and capacities that support resilience and adaptation. As such, it is commonly accepted that impacts of climate change negatively affect the resilience of already vulnerable communities in developing countries such as Kenya.

However, climate science can be utilized to save lives and livelihoods. Climate services and information can be utilized by communities, public authorities and disaster risk management institutions, for early warning and mitigation strategies. Therefore, the development of scientific knowledge and capacities to monitor, predict and provide early warning information provides an opportunity for reducing risks and exposure to weather related hazards.

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