

# Climate changes posing danger on pastoralist: *How to manage excess of its adversity*

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The main purpose of this article is merely to open up discussions among pastoral actors on the growing danger of climate changes on pastoral livelihood and prompt the decision makers to quest the adverse situation the pastoralists are facing. The sources of information are various reports and news, which are organized by the author to satisfy the purpose of ESAP Newsletter. So, I would like to ask the readers to interpret any information in this article with caution.

## **What is climate change and why should we care?**

Climate refers to the average weather experienced over a long period, typically 30 years. This includes temperature, wind and rainfall patterns. The climate of the Earth is not static, and has changed many times in response to a variety of natural causes. The term 'climate change' usually refers to changes that have been observed since the early 1900s. The observed changes in global climate are likely to be due to a combination of both natural and human causes.

If countries around the world do not reduce emission of greenhouse gases, the manmade cause of climate change, the following would be the probable scenario by the end of the 21st century.

- Temperature will have increased by 1–3.5 °C depending on population and economic growth. The higher the temperature the harder it will be to survive on Earth.
- Sea level will be 15–90 cm higher, threatening about 92 million people with floods.
- Rainfall would have decreased and there would be a reduction of food production.

The new findings follow recent warnings from the UK Met Office that if current trends continue one-third of the planet will be desert by the end of 2100. The scientists modeled how drought is likely to increase globally during the coming century because of predicted changes in rainfall and temperature around the world. At present, according to their calculations, 25 per cent of the Earth's surface is susceptible to moderate drought, rising to 50 per cent by 2100. In addition, the areas susceptible to severe drought - 8 per cent - are expected to rise to 40 per cent. And the figure for extreme drought, currently 3 per cent, will rise to 30 per cent. So is it not high time the world woke up to the seriousness of the problem?

## **Pastoralism and climate change in Africa**

A study report has revealed that African pastoralists are the first people to be wiped out by climate change. According to research commissioned by the charity Christian Aid, three million pastoralists of northern Kenya, whose way of life has sustained them for thousands of years but now facing eradication. Hundreds of thousands of these seasonal herders have already been forced to forsake their traditional culture and settle in Kenya's northeastern province following consecutive droughts that have decimated their livestock in recent years. On the other hand, the recent study conducted in Mandera district, home to 1.5 million people, discovered that:

- Incidence of drought has increased fourfold in the Mandera region in the past 25 years.
- One-third of herders living there - around half a million people - have already been forced to abandon their pastoral way of life because of adverse climatic conditions.
- During the last drought, so many cattle, camels and goats were lost that 60 per cent of the families who remain as herders need outside assistance to recover. Their surviving herds are too small to support them.



A Kenyan pastoralist walks past carcasses in drought stricken Wajir, in north-eastern Kenya: 'Only God knows how we will survive'

What is doubly worrying about this research is that it has revealed that a system of pastoralism that has, over the centuries, been able to cope with unpredictable weather patterns and regular drought has been brought by climate change to the point of utter extinction. While pastoral systems are resilient because they enable people to cope with unpredictable environments, they are also dependent on maintaining a delicate and constantly changing balance between pastures, livestock and people. Pastoralists use a range of strategies to maintain that balance. Central among these is livestock mobility - moving herds to areas with better grazing conditions, and securing access to critical resources during the dry season and in times of crisis.






For a long time, lack of understanding and negative perceptions of pastoral systems resulted in unfavorable policies – particularly policies constraining herd mobility. In many parts of the Sahel, mobility is also hindered by agricultural encroachment on livestock tracks. As a result, many pastoralists have become more “sedentary”, and some have lost their traditional contacts in dry-season and refuge areas. Decades of research have challenged negative perceptions of pastoralism, however. Herd mobility is now recognized as a rational strategy in unstable environments, and some countries have taken steps to facilitate it (see for instance the “pastoral” legislation recently adopted by some Sahelian countries).

### **Impact of climate change on pastoral communities**

No doubt that climate change is affecting drylands and pastoral livelihoods in Africa. As a result, these areas will tend to become drier, and existing water shortages will worsen. In addition, climate change is likely to bring about even more erratic and unpredictable rainfalls and more extreme weather conditions such as longer and more frequent droughts. Where this happens, the delicate balance on which pastoral systems depend is undermined. The quality, quantity and spatial distribution of natural pastures are mainly shaped by rainfall. Predicted changes in rainfall patterns are bound to result in increasingly scarce, scattered and unpredictable pastures. The number, distribution and productivity of permanent pastures and water points, which are so critical for livestock survival during the dry season, are bound to decline. Scarcer resources, coupled with current levels of demographic growth, are likely to lead to stronger competition between pastoral communities and between these and other groups - possibly resulting in conflict and even violent clashes. As a result, access to pastures becomes more difficult, leading to loss of livestock and of livelihoods.

### **Policy implications**

Tackling these issues requires action at local, national and international levels. Long-standing negative perceptions of pastoralism as a backward production system must be replaced by a recognition of the rationale of such systems in dryland areas, and by policies and programs to support local resilience and adaptive capacity to climate change. According to one of the senior researcher, the key areas of policy intervention include:

-  Enabling herd mobility, both seasonal and as a response to drought, while securing rights to critical resources (dry-season pastures and water).
-  Supporting pastoral livelihoods through better water access and tailored service provision, and supporting livelihood diversification, for instance in the areas of eco-tourism and conservation.
-  Building robust conflict management institutions and effective drought mitigation systems, including early warning, insurance and safety nets.
-  Strengthening the capacity of pastoral groups to engage with debates on policy issues directly affecting their lives and livelihoods.
-  As most pastoralists live in some of the poorest countries in the world, efforts by national governments must be supported by richer countries-particularly as these bear the main responsibility for climate change.