

ENVISIONING A CLIMATE CHANGE-PROOF FUTURE

Adaptations of Daasanach livelihoods

Harsh climatic conditions and human-driven activities, such as water infrastructures and conservation policies, have worsened the livelihoods of the Daasanach people around Lake Turkana, which entered the UNESCO List of World Heritage in Danger in 2018. As a result of growing barriers to pastoral mobility, they have increased fishing and shifted their crops.

Underrating environmental and cultural impacts

Environmental and cultural impacts were underestimated during the design of the Gilgel Gibe III Dam, as were the conservation policies of Sibiloi National Park. Top-down interventions tend to undervalue and overlook the interplay between biocultural heritage and its impacts on local communities.

Intergenerational challenges

Multifaceted social-ecological pressures threaten herding and the traditions of the Daasanach people. Although the local community identifies the need for conservation policies, the priority species to be protected differ from the policies adopted. In addition, disagreements arise between the older and younger community members, with the younger members more willing to suggest changes to adapt their cultural practice to align with conservation policies.

PARTNERSHIPS WITH LOCAL COMMUNITIES

The Daasanach communities wish to be heard and take an active role in the planning of infrastructures and conservation programs that could potentially impact their territory, whether directly or indirectly. Their holistic understanding of the environment as a complex ecosystem that impacts their livelihood activities, the survival of the existing fauna and flora, and the drivers of change should not be overlooked.

LEARNING ABOUT ADAPTATION WITH THE DAASANACH PEOPLE

The livelihoods of the Daasanach people are closely tied to climatic conditions and the availability of natural resources. They have continuously adapted their ways of life around a harsh and somewhat erratic climate, coping with water scarcity, flooding, and the disappearance of food resources. Thus, they provide good practices that can serve as an inspiration to other communities and territories.

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LICCI is a European Research Council (ERC) funded project aiming to bring Indigenous and local knowledge to climate change research. Visit the project website for more details and research results.
www.licci.eu

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Credit: Daniel Burgas

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Local Indicators of
Climate Change Impacts



Daasanach, Ileret Ward Lake Turkana, Kenya

The Daasanach agropastoralists of northern Kenya report overlap between severe droughts and scarcer and unpredictable rainfall resulting from climate change and decreased access to freshwater following the construction of large infrastructure projects recently established in the Omo River. Their synergistic effects drive multiple and cascading impacts on the Daasanach social-ecological system.

Credit: NASA Earth Observatory, Joshua Stevens, using MODIS data.

THE DAASANACH PEOPLE

Seminomadic and agropastoralist community living in southern Ethiopia, northern Kenya and South Sudan. They number 19,000 people in Kenya.



Men search for pastures and herd the livestock.



Women take care of crops and fetch water.



ACTIVITIES



Herding: mainly cattle, also sheep, goats, donkeys and camels.



Agriculture: sorghum, maize and beans.



Fishing is increasing as herding becomes more difficult.

TERRITORY AND CLIMATE

Semi-arid CLIMATE



32 °C avg.



<200 mm /year

Changes in the climate

Gradual rise of temperatures: warming trend since early or mid-twentieth century.

More severe droughts and changes in the rain distribution: a wetter spring season and a drier fall season, with occasional pronounced floods.

ACCESS TO NATURAL RESOURCES



Traditional wells and water holes in riverbeds. Animals drink directly from the lake.



Flooding and receding lake waters create fertile communal land for pasture and crops.

Changes in the territory

Gilgel Gibe III Dam (Ethiopia): The dam has disrupted the natural water flow to Lake Turkana, receding water levels by up to 70% and increasing salinity.

Sibilo National Park: the protected area has restricted access to communal lands and limited grazing and hunting of endangered species, such as cheetahs and leopards.

VOICES OF LOCAL KNOWLEDGE

The Daasanach people have complex knowledge about climate change-induced impacts and how they interact with human activities such as water management infrastructures or conservation interventions. Through their voices, we have a better understanding of the biological and sociocultural effects of climate change.



Credit: André Braga Junqueira

"Drought and hunting have killed all the big animals."

"Before there were rhinos, zebras, lions, giraffes, leopards and cheetahs. I saw them all when I was a kid, now there are none of these."

"Now there is less grass and less fish in the lake, and the droughts are longer."

"Rain showers in the dry season are not occurring anymore."



Credit: André Braga Junqueira

**Climate
change**

**Demographic
changes**

Infrastructures

*"The lake floods do not happen as before."
"They need to dig deeper wells to fetch water."*



Credit: Joan de la Malla

"Now the livestock are producing less milk because the lake water is more salty."



Credit: André Braga Junqueira



Drivers of change

IMPACTS ON LIVELIHOODS AND CULTURE



Credit: Miquel Torrents-Ticó

Biocultural collisions

Wildlife loss has led to strict conservation policies that locals do not always perceive positively, as they interfere with herding, limiting access to pastures and protecting predators responsible for livestock losses.



Credit: André Braga Junqueira

A fragile ecosystem equilibrium

The Gilgel Gibe III Dam, designed to bring power to and improve irrigation in the area, has caused a reduction in the quality of cattle milk and fishing yields.



Credit: André Braga Junqueira

Fishing against all odds

As a pastoral herding community, fishing had always been a minor and undervalued activity. However, droughts and food shortages have led to an increase in fishing at a time when fish stocks are already declining.