



The Maasai community's livelihood in a changing climate

Experiences from the Ngorongoro District, Arusha-Tanzania

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Introduction

- ▶ Over history the Maasai community have encountered multiple climatic occurrences that challenged their societal organization. Yet, they've maintained resilience in adapting and mitigating the impacts of climatic changes.
- ▶ Pastoral mobility used to be at the core of indigenous management of climate variability and climatic changes.
- ▶ Mobility/nomadic pastoralism helped the Maasai to avert climatic changes: Through a customary land use management planning by creating seasonal zones for grazing during dry and rainy seasons: Lowlands for the wet season and highlands/forests during the dry season. This helped to reduce overgrazing, fatten livestock, enhance breeding, improve livestock productivity and community well being.
- ▶ Some experts refer it as the “Maasai-land ecology” (Homewood and Rodgers, 1991) which is compatible with wildlife ecology. Maasai people as ecological stewards.
- ▶ The Maasai-land is the last holding grounds for many of the remaining fauna and flora in Tanzania: major national parks and conservation areas such as the Ngorongoro-Serengeti ecosystem, Tarngire-Manyara, Longido-Lake Natron linking to the Loliondo/Northern Serengeti and Masai Mara are found within the Maasai land ecology.



Introduction cont..

- ▶ While there is increasing amount of scientific evidence in support of the Maasai indigenous conservation model, the national/Tanzania policy environment is in diametric contradiction as indigenous pastoralism continue to be discouraged as a land-use model and a livelihood system.
- ▶ The land belonging to the Maasai pastoralists is continuously being grabbed.



- ▶ The current regime is advocating complete sedentarization of the Maasai pastoralists, forceful diversification of livelihood, mass eviction, displacement and land alienation, Livestock seizure by the government. Grazing lands totally limited.
- ▶ These events over the last ten years (social injustices) have caused threats to the manner in which the Maasai approaches climatic changes and variability as the traditional system of managing their lands have been affected.
- ▶ Due to these, climate change i.e. erratic and reduced amount of rainfall, prolonged and frequent periods of drought have affected all dimensions of life of the Maasai pastoralists.

Climate change impacts: On livestock

- ▶ In 2009 about 140,000 cattle died In Ngorongoro due to prolonged droughts (URT, 2009).
- ▶ During the 2017 drought the Maasai of NCAA lost 77,389 herds of cattle, 72,881 herds of goats, and 78,490 herds of sheep (Leweri et al, 2021).
- ▶ In 2021/2022 drought the Ngorongoro Maasai lost about 92,000 livestock (Maleko, 2022)
- ▶ Droughts make livestock more susceptible to infectious diseases which reduce the ability of animals to survive.
- ▶ Outbreak of epi-zoonotic diseases: Ormilo, ndigani kali, orkipei, enkirowaj
- ▶ Decreased livestock productivity: milk, meat, low price.
- ▶ Invasive grass species on critical rangelands.



Food insecurity

- ▶ There is prevalence of food insecurity in Ngorongoro. The community experiences anxiety and uncertainty about food supply, and insufficient food intake (Safari et al, 2022).
- ▶ Climate change and conservation policies are the key drivers of food insecurity in Ngorongoro.
- ▶ Climate change cause poor livestock health which in turn lead to poor milk/meat production as well as very low livestock prices.
- ▶ Malnutrition is increasing (Navaya, 2021).
- ▶ Maternal and infant mortality rates are increasing due to nutrient's deficiency.



Water scarcity

- ▶ Climate change is causing Water Scarcity/unreliable water supply.
- ▶ Dependence on rain water for livestock and human in the lowlands.
- ▶ Poor water supply affects livestock and human health.
- ▶ In the highland areas with rivers and streams- the NCA restricts community members to access.
- ▶ A few cattle watering troughs often have no water.
- ▶ Women and children suffers due to long distance walking in search of water.



On education

- ▶ For the semi-nomadic pastoralist community like the Maasai, there is a relationship between climate change and access to education.
- ▶ During the drought season some school kids relocate with their family members in search of better pasture land. This affects children's school attendance and usually results into drop out.
- ▶ Destitution resulting from climate change i.e. food insecurity, loss of income, death of livestock etc. increases the possibility of children not to access education as they lack crucial necessities such as food, uniforms, stationary and psychological support.
- ▶ Once parents are not able to make ends meet due to climate change impacts, it is common to pull their daughters from school and marry them off for a dowry.

On health

- ▶ Climate change affects the environmental determinants of health.
- ▶ Outbreak of infectious diseases e.g In 2018 cholera outbreak in Ngorongoro fueled by inadequate and unsafe water.
- ▶ Cases of non-communicable diseases are now prevalent in the community: cancer, blood pressure etc. Before the 2000s it was very rare to hear someone has died or suffering from NCDs. Diversification of food/reliance on imported maize with preservatives, increased zoonotic diseases/vector-borne diseases that could transmit to humans.
- ▶ Air pollution i.e dust
- ▶ Malnutrition due to food insecurity.
- ▶ Temperature extremes.

On community cultural organization

- ▶ Maasai used to believe that climate change/prolonged drought is caused by misfortunes. Therefore the community organizes rituals to please and repent to their God; rain making rituals, rangeland rituals etc. Many of these ritual sites have been restricted access to the local community in NCAA.
- ▶ Climate change, therefore, is threatening our cultural identity.
- ▶ Due to climate change the community cultural practices are disrupted as people are not well settled to be able to run their cultural activities routinely. E.g. sometimes initiation rituals are postponed due lack of enough rainfall to enable availability of livestock yields crucial in the performance of such ceremonies.
- ▶ Forced evictions, displacement, land grabbing—leading to cultural genocide. The state is deliberately waging a war on our way of life—our cultural organization.

Climate change coping strategies

- ▶ Rural-urban migration.
- ▶ Warriors in towns- watchmen.
- ▶ Women as casual laborers and Beggars (kuhemea) in harvesting maize at the neighboring districts.
- ▶ Diversification of livelihoods

Way forward: Possible interventions

- ▶ Capacity building on climate change mitigation and adaptation in the context of enforced sedentarization.
- ▶ Capacity building on climate smart pastoralism: to improve livestock productivity within limited rangelands.
- ▶ Humanitarian assistances i.e. food relief to the impoverished households.
- ▶ Advocate Maasai cultural heritage conservation as a crucial model for environmental stewardship.
- ▶ Maasai land rights/social justice means climate justice.
- ▶ Socio-economic interventions i.e. education, women economic empowerment etc.
- ▶ Climate smart interventions i.e. bee keeping.

ASHE NALENG'!

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