
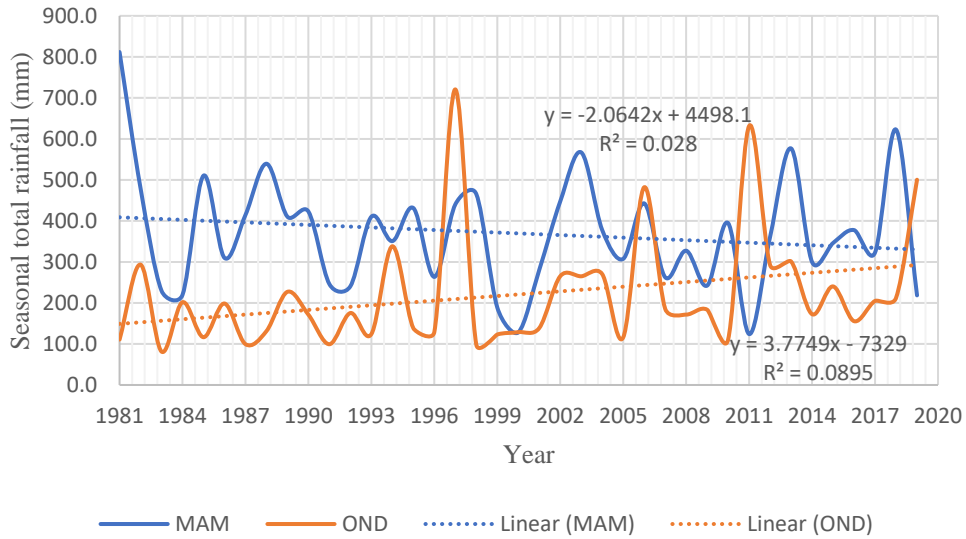


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	<p>Title of thesis: Impact of climate variability on livelihood choices and gender roles among the pastoral and Agro-pastoral communities in Marsabit county, Kenya.</p> <p>Summary of work done</p> <ul style="list-style-type: none"> ● Trends analysis of rainfall and temperature in the study area for a period of 40 years. There is observed variability of rainfall and temperatures in the area which affect the likelihoods choices of local pastoral and agro-pastoral communities in Marsabit county. ● Impact of this climatic variability on livelihood choices and gender roles. Due to variations in rainfall and temperature in the region, most of the pastoral and agro-pastoral communities are unable to planned for their activities. The gender roles are equally affected hence there is shift of roles of gender in terms of resource ownership, use and control.
<p>Marsabit County is experiencing significant rises in minimum temperature, maximum temperature, mean temperatures and temperature range during both MAM and OND seasons, though at different rates of warming for both geographical locations and seasons.</p> <p>All study regions irrespective of their geographical locations depicted decreasing trends in mean seasonal total rainfall during MAM season, implying declining total rainfall and consequently dwindling chances of sustained rainfall dependent economic activities and livelihoods in the county. In OND, all the regions exhibited increasing trends in mean seasonal total rainfall season, signifying increasing seasonal total rainfall and hence increasing prospects for</p>	 <p>Figure 1: Time series of mean seasonal total rainfall for Sololo station</p>

investments in water dependent sectors in the county.

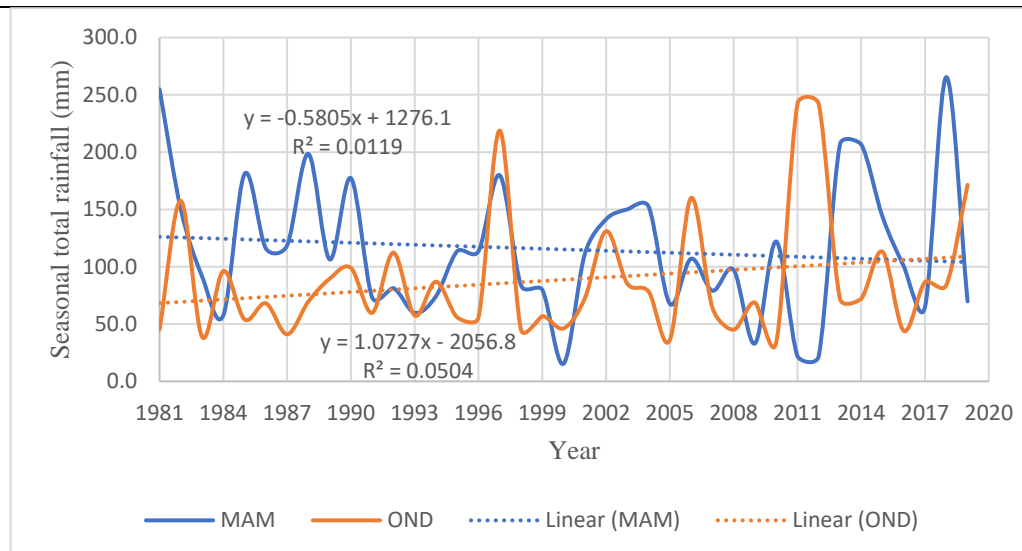


Figure 2: Time series of mean seasonal total rainfall for Kargi station

The increasing warming of Marsabit County over and above the already high temperature that threaten to stretch crops and livestock systems to the limits of their survival would aggravate the water balance parameters of evapotranspiration and soil moisture loss, putting constraints rangeland productivity, availability of surface water for human and livestock needs leading to loss of income and livelihoods. The impact of global warming on crops and livestock has been primarily blamed for the decline of livelihoods in most rural Kenyan areas over the last two decades (Mutimba et al. 2010; Obando et al. 2010).

The declining seasonal rainfall noted over Marsabit County will adversely impact the continued availability, quantity, and spatial distribution of natural pastures (Bai and Bent 2006). This would result into animals wasting, limited water and pasture resources that would be catalytic to resource based conflicts and civil strife. Dwindling rangeland resources would result into increased livestock losses due to the compounding influence of rising temperatures leading to heat stress, and increased incidences of animal pests and diseases. The steadily rising rainfall in the OND season, increasing prospects of crop cultivation in that season should not be misconstrued to imply crop extensification but enhance crop intensification within the traditional cropping lands to safeguard rangeland resources that would support livestock production. This findings is in agreement with the observations by Oxfam (2008); Elasha et al. (2007); Seo and Mendelsohn (2008). Pastoralism would remain to be the most common farming system in Marsabit County due to herd mobility in search of pastures and water in distant and wide geographic area coverage.