



Farmer's Perceptions about Climate Change in Southern Somalia*

Background

The agricultural sector in Somalia is largely dependent on rain-fed. Subsistence farming and livestock are the main sources livelihoods for communities in Mogadishu (Banadir Region), Balcad and Jowhar districts of (Middle Shabelle region) of Somalia. Like other farmers in Somalia, these communities are vulnerable to current climate variability, rises in temperature, frequent floods, degradation of forests rangeland and insecurity. Evidence has shown that climate change impacts crop production with direct effect on quality and quantity of yields [1, 2]. Since the world attention was drawn by Fourier in 1824, climate change has been an academic discussion and a menace to global economy especially poor nations. According to Food and Agricultural Organization [3]. Maise, Sorghum and Cowpea are the most important stable foods in Somalia. The Middle Shabelle communities predominantly practice farming. The region is considered highly potential for crop production with primarily rain fed making this livelihood extremely vulnerable to climatic hazards. Above average temperatures in the first quarter of 2021 and pest infestations (desert locust, stalk borer, black field earwig and crickets) have all contributed to low crop yields in target districts of Middle Shabelle region. Furthermore, farming activities have been impeded by the delayed and poor start of the 2021 Gu seasonal rainfall and low levels of the Shebelle river. The Gu seasonal cereal production in Somalia has seeing 20-40 percent below average. Most farmers had very limited adaption measures to address the adverse

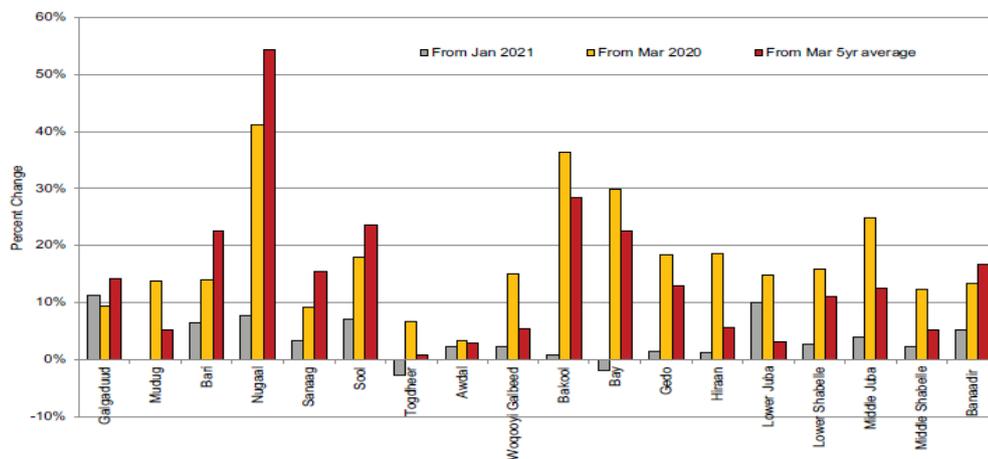


Figure 1 Cost of Minimum Expenditure Basket (MEB) 2021. Source FSNAU

effects of climate change. This study aims to assess farmers perception on climate change, cropping experiences, levels of adaptation and barriers to practice such adaptations.

Data and methodology

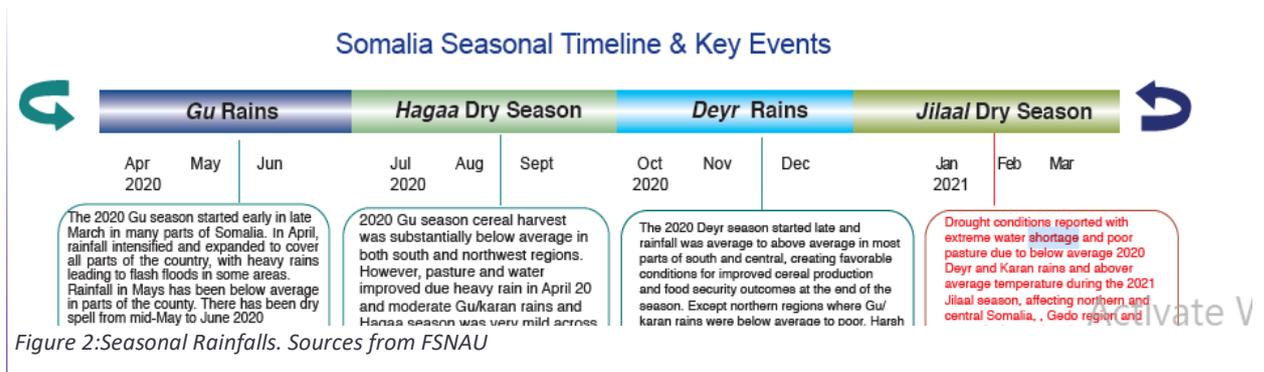
This study has employed both primary and secondary data. The primary data has involved Semi-Structured Questionnaire, Key Informants (KIIs) and Focus Group Discussions (FGD) with farmers in selected agricultural settlements in Mogadishu, Balcad and Jowhar districts of Southern Somalia. A sample of 60 farmer respondents were interviewed using administered questionnaire in each of the district. Interviews were held with households with farming practices aged above 40 years. Both qualitative and Quantitative data were triangulated Furthermore, Climate data, food security and market updates were retrieved from FSNAU website in target locations.

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Findings

Somalia has two main seasonal rains i.e., Gu' rains that starts between April to June and the Deyr rainy season that's seeing between October to December. In between, farmers experience two dry seasons, i.e. the Haggaa Dry Season in between July to September and the Jilaal Dry Season i.e. January to March. Between January to April 2021 most parts of the country have experienced moderate to severe drought as a result of poor seasonal rainfall. Interview with rural farmers opined that temperature in general has become warmer compare to last five years.



Farmers had concerns about the climate changes due to frequent droughts, floodings and warming. The increase of water levels of Shabelle river from the upper catchments of Southern Ethiopia highlands as well as increased rainfalls inside Somalia often contribute to floods that could trigger lost in harvest and access to farms.

Interviews with farmers revealed that pasture, browse and water availability has continued to deteriorate/or deplete with widespread reliance on the use of water-trucks. Overall, communities were concerned about the worsening food security situation due to extended impact of the drought between December 2020 and late April 2021. Communities have reported high levels of debt, food consumption gaps which is also in line with FSNAU prediction of classifying the region as IPC Phase 3 between April and September 2021 [4]. There is limited income generating activities and limited household purchasing power. Majority of the farmers perceive that climate change are natural rather than human induced. There is no change to adjustment of farming behaviour and no/limited access to financial markets. Poor infrastructure and lack of technologies are the main drivers to the worsening situation. Households with Women-headed farmers were mostly affected compared to households that were led by male counterparts. Farmers believed that climate change has affected their health, agricultural production and subsequently caused food consumption gaps.

Conclusion

Findings in this study has provided some critical insights based on local perceptions of climate change and further studies are needed to understand adaptive responses and cognitive believes.

References

1. Sowunmi F, Kintola J: **Effect of climatic variability on maize production in Nigeria**. *Research Journal of Environmental and Earth Sciences* 2010, **2**(1):19-30.
2. Renard D, Tilman D: **National food production stabilized by crop diversity**. *Nature* 2019, **571**(7764):257-260.
3. Shaw DJ: **World Food Summit, 1996**. In: *World Food Security*. edn.: Springer; 2007: 347-360.
4. Food Security and Nutrition Analysis Unit-Somalia: **Monthly/Quarterly Briefs**. In.; 2021.