

Climate Change; Effect of Farming systems on farm production in Machakos County.

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ABSTRACT

Climate change is a phenomenon which has affected over 60% of world population affected (Ngaira, 2004). The greatest number of people affected live in third world countries even though they contribute less to climate altering factors (IPCC, 2007). Scholar argues that this is likely to increase in the next few decades and will be reflected in extreme weather effects such as floods, prolonged dry spells increase the number of populations at risk (ISDR, 2005). Though there have been a lot of efforts by international bodies such as UN little effect is being experienced by farmers in grassroots level (Jaetzold&Schmidt,1983) mainly because of poor flow of information to the farmers or it does not reach to the farmers in a format that farmers can apply(GoK,2008c). On the other hand, there are farmers based factors that compound the issue making it hard for farmers to adjust accordingly (Davies & Buchanan, 1991). In Kenya alone, last two decades has seen significant climate changes attributed to increasing famine and drought episodes putting over 9.6 million people at risk of starvation (Mugalavai & Huho, 2010). The major findings included: the mean household farm size being 3.05 acres. Thirty four percent (34%) earned between 6001 and 20000, 23% earned between 3001 and 4500, 18% earned 1501- 3000, 15% earned 4501-6000 and 3% of the respondents earned 20001 and above, Ninety nine percent (99%) of respondents were affected by drought and Eighty-six percent (86%) of respondents observed a change in the timing of rainfall. Almost half of the farmers (48%) defined drought as shortage of rain during the rainy season and twenty percent (20%) as cessation of rain during the rainy season. Ninety two 92(%) percent of the respondents attributed planting cassava to improved farm production and 19% (69 farmers) recommended planting of drought resistant variety of crops . Seventy one percent (71%) said that multicropping increased farm production to a large extent. There is therefore a positive relationship between the strategies used by farmers and farm production. The findings of the study are useful to agricultural policy makers, government agencies dealing with drought, organizations working in drought prone areas in their search for solutions to drought impacts in Kenya.

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