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“Bridging the gap between increasing knowledge and decreasing resources”

Changed Weather Pattern and the Impact on Feed Security for Livestock

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Abstract

India is the leading milk producer in the world with regard to smallholder farmers. Especially for women, milk production is an important way to earn an additional regular income and improve household food security. As India's milk production is subject to climate change, smallholder dairy farmers will have to find strategies to cope with this change to secure their livelihoods.

This study aimed to identify and analyse the coping strategies of smallholder dairy farmers in Uttarakhand, Northern India. Available climate data was analysed to establish the change pattern of rainfall and temperature for past 3 decades. To analyse farmers' perceptions regarding climate change and their coping strategies, qualitative research methods, in particular participatory rural appraisal (PRA), were combined with a quantitative survey with 120 households. The data analysis includes a comparison of farmers' perception and available climate data and an assessment of the farmers' coping strategies.

Results of this study show that farmers in the study area consider climate changes as a main factor which affects the availability of fodder. 90% of the questioned households think that there is an impact of weather on the feeding pattern. The recorded variations in weather pattern include insufficient and untimely rains along with high temperature. The variations in this climate reduced the availability of fodder and deteriorated its quality; and also there is a decreased biodiversity of fodder species. This effect is same for all the Land holding categories and also same for both the regions studied. The workload mainly for women is rising because more time is needed for fodder collection as the collected fodder is contributing more than 50% of feed. Some of the coping strategies were buying fodder from others, renting additional land or introduction of new grass species in their private grass land or cultivated land. Since land is a limiting factor in these hilly areas, other ways are explored by the farmers to prevent wastage of fodder. In this respect the use of feed troughs and chaffing fodder are seem to be promising approaches.

Keywords: Climate change, feed security, livestock