

Changed Weather Pattern and the Impact on Feed Security for Livestock

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Introduction

- India is the leading milk producer in the world with regard to smallholder farmers
- Dairy is one of the livelihood option for women and food security
- 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 research was part of the IFAD funder MilkIT-project of ILRI

Objective of the study:

- 1) Assess perceptions of dairy farmers to climate change
- 2) Compare farmers perceptions with climate data
- 3) Identify adaptation strategies that dairy farmers have, so far, adopted in response to climate change and assess the effectiveness of these strategies
- 4) Derive recommendations for development activities and further research

Materials and Methods

- Two districts in Uttarakhand, northern state of India
- Qualitative research methods: Participatory Rural Appraisal (PRA)
- Tools: Timeline/trend analysis, seasonal calendar, Matrix Scoring and Ranking
- Quantitative household survey with 120 farmers
- Weather data from national agriculture information centre

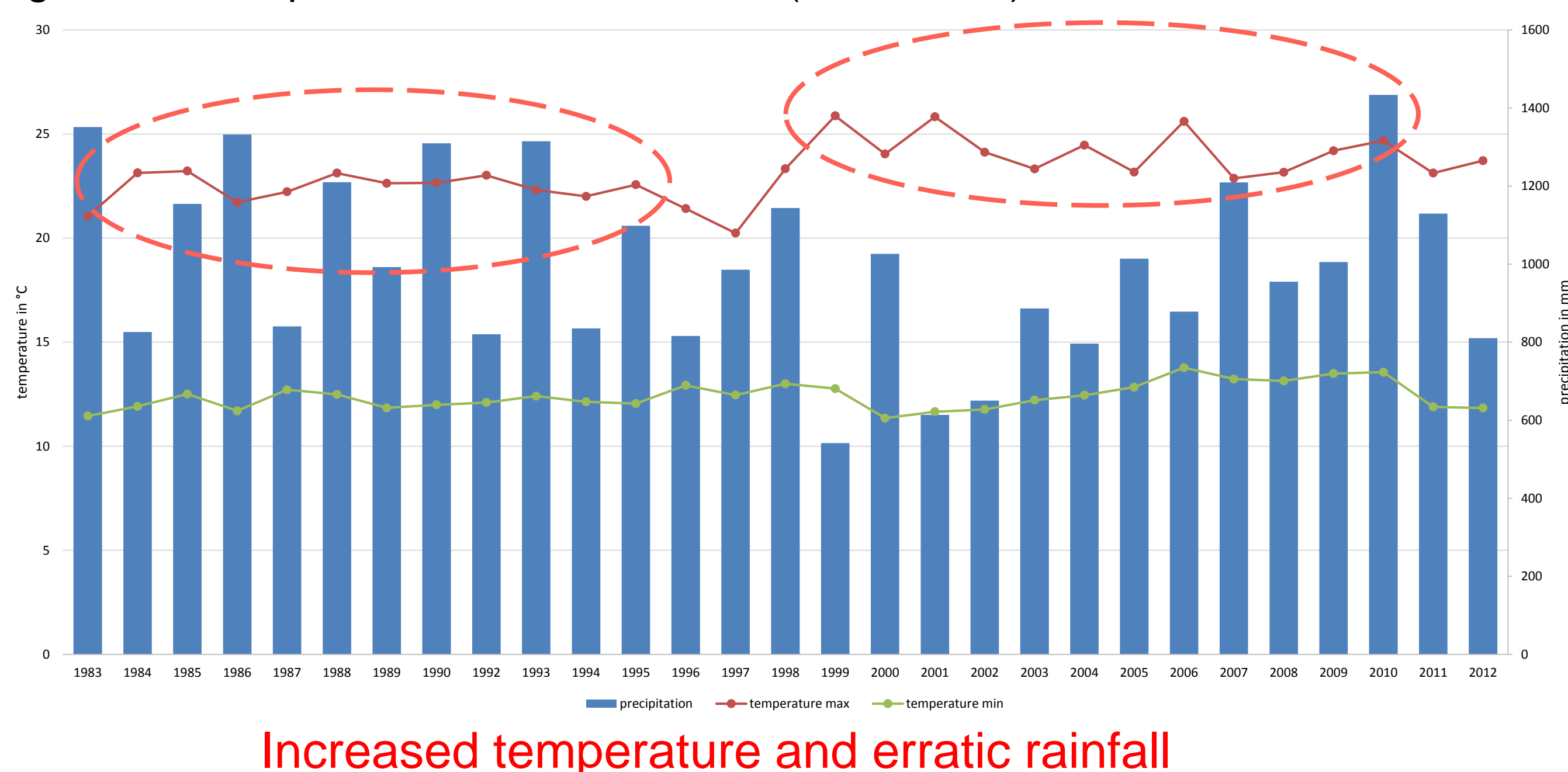


Results

Table 1: Does the weather change influence livestock, fodder and feeding pattern?

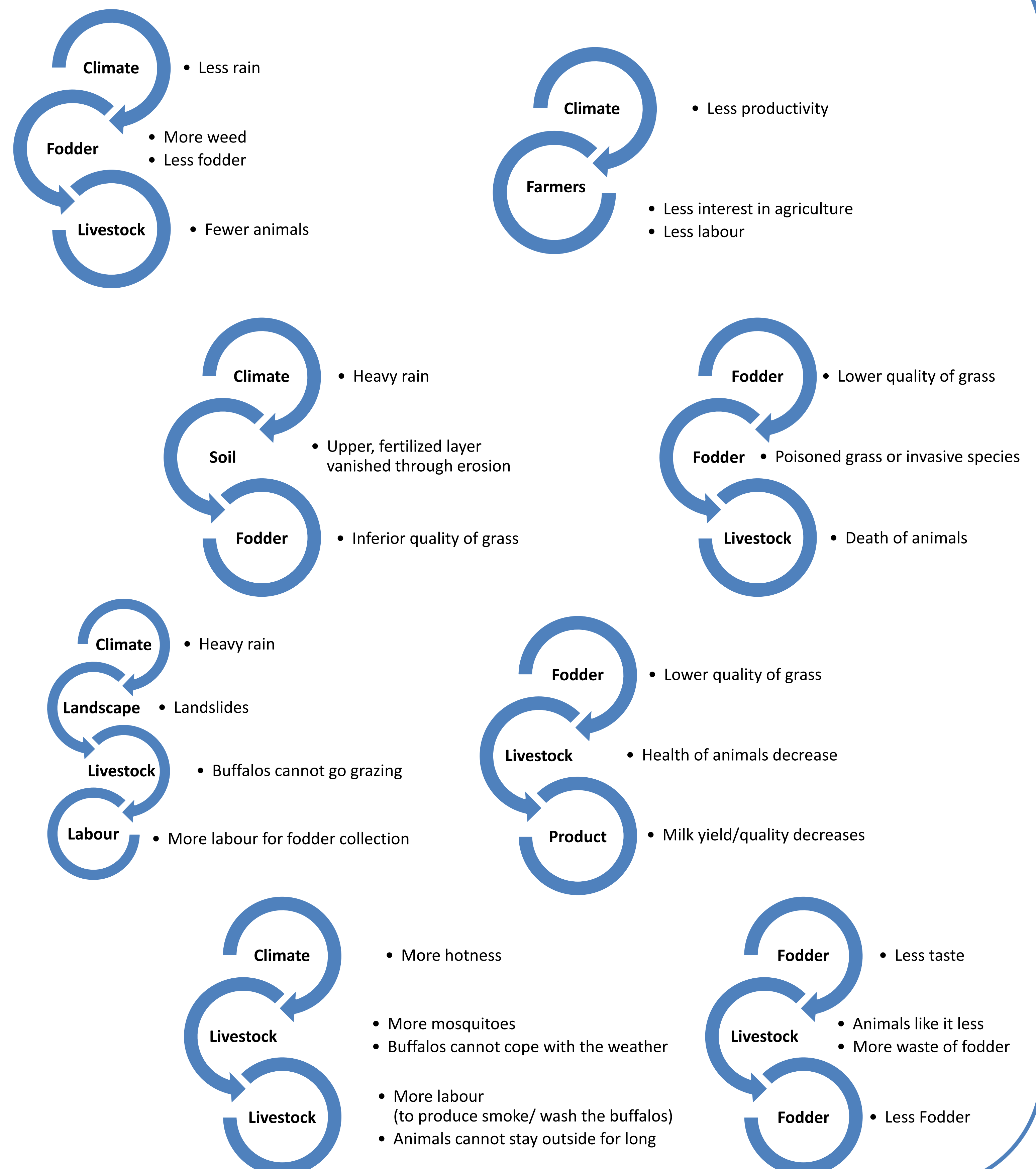
Weather influences livestock		Weather influences fodder		Weather influences feeding pattern	
Yes: 58	No: 62	Yes: 79	No: 41	Yes: 109	No: 11
More diseases		Less grass, More grass		Lack of fodder availability	
Lower health of animals		Longer grass, Shorter grass		Less fodder in forest	
Less milk production		Thinner grass		Less or no grazing	
Lower quality of milk		Inferior quality grass		Fewer crop residues	
Less fat in milk		Storage problem		Depends more on tree leaves	
More water in curd		Decreased variety of grass Fewer crops		More purchased fodder/feed	
More mosquitoes		Early dry period		Increased feed cost	
Heat problem for buffaloes		Less shrubs, Fewer trees		More labour- fodder collection	
Dung smells more		More weed		More cut and carry system	
Bullocks are weaker to work		Less resources in forest		Change of livestock species	
Animals like fodder less		Animals like it less		Semi-intensive feeding than extensive	
Change of species (cow to buffalo)		More waste of fodder			

Fig 1: Weather pattern for Almora district (1983-2012) - VPKAS, Almora



Increased temperature and erratic rainfall

Impact chains: Influence of climate



Conclusions

- Farmers perceive climate change as a main factor for less fodder
- Erratic rainfall and increased temperature
- 90% of households perceives weather affected feeding pattern
- Climate change impacts livestock through change of fodder and feeding pattern

Recommendations

- Introduction of cultivated fodder, dual purpose crops for more fodder
- Community based interventions for prevention of fodder wastage while feeding
- Policy support for the credit facility, feed interventions and livestock insurance