Credibility and Scale as Barriers to Uptake and Use of Seasonal **Climate Forecasts in Bobirwa Sub-District**, Botswana

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Research Questions

How credible and scale-relevant are seasonal climate forecasts that reach communities in Bobirwa sub-district?

How do the credibility and scale-relevance of these seasonal climate forecasts influence decision-making and livelihoods in Bobirwa sub-district?

How have the farmers in Bobirwa sub-district dealt with limitations of credibility and scale relevance of seasonal climate forecasts in their decision-making?





Study Site and Methods

Qualitative data collected from farmers

8 villages in Bobirwa sub-district

Semi-structured interviews





Sources: Top Map: Botswana Second National communication to the UNFCCC Bottom Map: Statistics Botswana

Results

• 47 farmers interviewed

Gender

• 22 male and 25 female farmers

Age

- 68.1% were 56 years and above
- 27.7% in age group of 36-55
- 4.3% youth in the range of 22-35 years

Farming

Subsistence





Source: Botswana Ministry of Agricultural Development and Food Security



How credible are seasonal climate forecasts (SCF) that reach communities in Bobirwa sub-district?

Accessibility: 100% (male & female)

Credibility

- 57.4% respondents trust SCF
- 21.3% partially trust
- 21.3% mistrust SCF
- No major gender differences
- SCF perceived to be generally credible
- Hence majority (76.6%) of farmers were users of SCF, 10.6% were partial users.

But credibility is major constraint to uptake by the few (12.8%) non-users of SCF







ting	Reasons for not Trusting SCF		
ecast	Incorrect or Inaccurate Forecast, dry spells & onset		
orrect	Religious beliefs and Practices		
of	Seasonal variations not captured		
	Misled on crops to plant		
ditional	Poor Distribution in time Areal coverage too broad		



How relevant are seasonal climate forecasts that reach communities in Bobirwa sub-district?

Relevance

- SCF timely,1-month lead time (76.6%)
- Setswana dissemination well understood
- temporal and spatial scale are constraints (64.8%)
- SCF were not scale-relevant to Bobirwa sub-district farmers
- scale limited effective use of SCF by



Source: Botswana Ministry of Agricultural Development and Food Security



users

How have the farmers in Bobirwa sub-district dealt with limitations of credibility and relevance of seasonal climate forecasts in their decision making?

Theme Category	Theme
Local knowlodge	Traditional forecasts
Local knowledge	Farming experience
	Religious practices
Scientific Information	MoA Advice
	Diversify livelihoods
Economic ventures	Markets



- Capacity building to improve spatial and temporal resolution of SCF
- Co-production of SCF between scientists and indigenous knowledge owners as farmers mainly used local knowledge to complement SCF
- Climate proof government programmes to cushion vulnerable groups • like non-users of SCF practicing traditional planting and women dependent on arable farming
 - Further investigate benefits of use of SCF by farmers





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