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?
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

<table>
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<tr>
<th>Reasons for Trusting SCF</th>
<th>Reasons for not Trusting SCF</th>
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<tr>
<td>Correct/Accurate Forecast</td>
<td>Incorrect or Inaccurate Forecast, dry spells &amp; onset</td>
</tr>
<tr>
<td>Improved forecast (correct use of technology)</td>
<td>Religious beliefs and Practices</td>
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<tr>
<td>Trained and Supplier of Forecast Information</td>
<td>Seasonal variations not captured</td>
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<tr>
<td>Warns Farmers</td>
<td>Misled on crops to plant</td>
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<tr>
<td>SCF Agrees with Traditional Indicators</td>
<td>Poor Distribution in time</td>
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<td>Areal coverage too broad</td>
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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 users

Source: Botswana Ministry of Agricultural Development and Food Security
How have the farmers in Bobirwa sub-district dealt with limitations of credibility and relevance of seasonal climate forecasts in their decision making?

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<th>Theme Category</th>
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Recommendations

• 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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