

The potential of using radio as a communication channel for climate services

Learning from three years of agrometeorological research and innovation in Zambia

Introduction

Climate variability and change are increasingly impacting small-scale farmers in many countries. Climate conditions, including timing and amounts of rainfall as well as extremes in temperature, have a strong impact upon the outcomes of crop and livestock enterprises. This means that climate information and associated decision-making support is essential for small-scale farmers. Currently, farmers in Zambia and across the region have limited access to essential information on the climate in their location. Radio is a powerful tool for delivering critical information and education to rural farmers in Zambia, who often have limited access to information sources such as internet or agricultural extension services. Radio programmes are accessible and affordable, making them an important medium for reaching remote communities.

Purpose

The purpose of this learning brief is to outline the potential for agrometeorological radio programmes in rural Zambia. Whilst the findings are mainly from work undertaken under the Climate Risk Insurance and Information in Zambia (CRIIZ) project, implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), they are relevant elsewhere in sub-Saharan Africa. The brief includes recommendations regarding audience, programme format, types of radio stations as well as necessary capacity building for station staff.

Radio as a preferred medium for agrometeorological services

Radio has a critical role in providing timely and relevant climate and agricultural information for smallholder farmers. A needs assessment carried out by the CRIIZ project, provided evidence of high demand from Zambian farmers for information and advice to aid both their long-term planning and more immediate decision-making (Clarkson et al., 2021).

The same work identified a gap between the climate and weather information that are provided by Zambia Meteorological Department and those that farmers are using. Whilst short and medium range forecasts are produced they are not accessed by a large number of farmers. Radio was identified as the preferred source of information for both men and women farmers in Eastern (m: 77%; w: 68%) and Southern (m: 69%; w: 68%) Provinces (Figure 1) and the majority of men (92%) and women (74%) either owned or had access to and control over a radio.

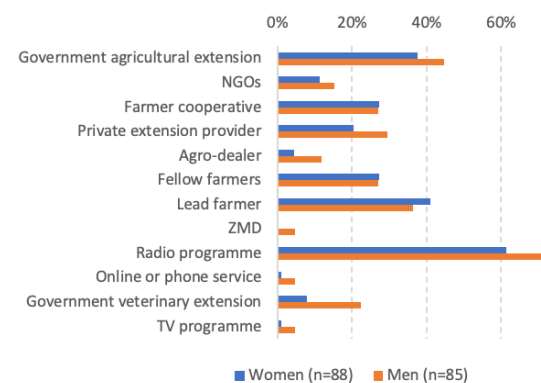


Figure 1: Preferred source of agricultural information (source:Clarkson et al. 2021)¹

Farmers preference for radio as an information source and its accessibility for men and women means that investing in radio programmes is an important initiative. It supports small-scale farmers' adaptation efforts and promotes sustainable agriculture in Zambia.

It is, however, important to consider the complexities involved in communicating climate information for decision-making. Farmers face a variety of complex challenges that are context-specific and include a wide range of different decisions. This means that radio programmes must aim to support farmers in their decision-making as opposed to attempting to provide solutions 'for' farmers.

Developing agrometeorological radio programming should engage a range of complimentary approaches and link the expertise of extension workers, meteorological staff and farmers. A key part of this contextualisation is ensuring that radio producers and staff have the necessary capacity to be able to understand and clearly communicate climate information and its uncertainties as well as associated decision-making tools.

Programme formats

There are a range of programming formats that can be used for climate-centred agricultural radio programmes. These include:

Drama

- Using fictional stories to engage and educate listeners
- Creating relatable characters that face similar challenges as listeners
- Using characters to model positive behaviours and provide examples of how to address climate challenges

Discussion and phone-in shows

- Engaging with agricultural extension staff, meteorologists and other key stakeholders to cover key issues
- Encouraging interaction with radio hosts and invited experts with farmers and farmer groups

Forecasts

- Providing regular weather forecasts and updates to help planning and decision-making
- Enabling experts to explain and provide context to long and short-term forecasts and, in the case of extreme events, provide advice on how to prepare and what actions may be necessary

News bulletins

- News updates on climate-related events such as droughts or floods, and discussions as to how they may impact local agriculture
- A mix of local, regional and national news on climate-related events to help farmers understand the broader context, regarding climate and agriculture.

Possible programme content

There are a range of possible programming contents that can be used for climate-centred agricultural radio programmes. These include but are not limited to the following:

- Weather forecasting and alerts
- What forecasting terms mean, how to interpret different types of forecasts and how to consider their uncertainty
- Understanding climate variability and change and its implications for agriculture and planning
- Climate-resilient farming practices, including soil and water conservation, drought-resistant crops and agroforestry
- Opportunities for diversifying farming and reducing risks
- Livestock management, including dealing with increased temperatures, disease control and breeding practices
- Integrating decision-support tools (budgeting, calendars etc.) into planning and farming strategy
- Crop pests and diseases, their interactions with climate, and methods of prevention and control
- Market information, including price fluctuations, market access and marketing strategies
- How climate can impact men and women farmers differently and the scope for gendered approaches and youth empowerment to help address climate related challenges and opportunities
- Success stories and experiences from other smallholder farmers

Commercial radio stations vs community radio stations

Commercial radio stations

Advantages	Disadvantages	Opportunities
<ul style="list-style-type: none"> • Often have greater financial resources and more advanced equipment • Potential for greater reach due to increased resources and marketing 	<ul style="list-style-type: none"> • Can be more focused on profit than community service and so not always relevant to farmers needs • Often targeted at urban, more affluent audiences 	<ul style="list-style-type: none"> • Can use advertising and sponsorship to fund programming

Community radio stations

Advantages	Disadvantages	Opportunities
<ul style="list-style-type: none"> • Often serve a specific community or region, allowing programmes to be highly relevant • Can be run by and for the community, resulting in greater trust and participation 	<ul style="list-style-type: none"> • May have limited financial resources and equipment which may affect quality • Can have limited reach due to a smaller broadcasting range and smaller marketing budgets 	<ul style="list-style-type: none"> • Can provide a platform for marginalised or unrepresented voices to be heard and for important social and environmental issues to be addressed • Can operate more flexibly and respond more quickly to local issues than commercial radio stations

Key points and recommendations

Radio is a powerful tool for promoting agricultural development in rural Zambia. Developing climate-centred agricultural radio programmes can help farmers adapt to the impacts of climate variability and change and improve their livelihoods. This learning brief serves as a call to action for all stakeholders to work together in supporting this development. In practice, the different stakeholders should:

- Ensure that agricultural content is broadcasted at times when rural farmers are more likely to be listening, such as early mornings or in the evening.
- Increase funding for climate-centred agricultural radio programmes in rural areas with a focus on supporting community radio stations that are run by and for local communities.
- Provide training opportunities for radio producers on best practices for creating effective, climate-centred agricultural programming.
- Encourage the hiring of local producers and reporters to help ensure that programming is culturally appropriate and relevant to the local context.
- Develop the capacity of local language experts to ensure that climate informed agricultural programming is accessible to rural communities who may not speak the national language.
- Encourage radio programming that emphasises informing and capacity building, rather than 'prescribing' specific agricultural practices.
- Provide opportunities for regular feedback and input from farmers to help ensure that programming is relevant and effective.



References

1. Clarkson G, Dorward P, Poskitt S, Mambwe D, Mtonga R K, Below T. (2021). User Needs Assessment for Climate Services in Zambia. CCAFS Working Paper no. 399. Wageningen, the Netherlands: CGIAR Research Programme on Climate Change, Agriculture and Food Security (CCAFS).

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