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RESEARCH BRIEF

Communicating Agricultural Biotechnology in Africa: What Role for Radio?

The use of biotechnology tools to improve agricultural production has been a subject of heated debate, especially in Africa where the technology has been received with much suspicion.The debate has generated more heat than light, largely because of the limited understanding by the media, policy makers, farmers and other players in the sub-sector who rely on the media for agricultural information.

Misinformation remains one of the key factors that have hindered the adoption of agricultural biotechnology to improve farming in Africa. Yet, the media – specifically the radio – has the potential to address this challenge by providing timely and accurate information due to its wide reach and use of local dialect. This research set out to establish how the radio can be used as an effective tool to relay the correct information to various players in the sector. The study was titled: Assessing Utility of Radio in Communicating Agricultural Biotechnology in Africa: *Case Studies of Burkina Faso and Kenya*. The research focused on the use of radio because it has the widest reach among rural families, a majority of whom are involved in agriculture.

PROJECT OBJECTIVE

1 To establish the nature, trends and motivation for radio programs on agricultural biotechnology

PROJECT OBJECTIVE

2 ***To explore the extent of radio use for disseminating agricultural biotechnology information and its advantages over other communication modes***

The project team with farmers in a Bt cotton field in Burkina Faso.

TIME AND PLACE

The research sought to find ways of informing farmers in Africa about new innovations in agricultural biotechnology raise awareness about the innovations and encourage farmers to make informed choices on the technology.

The research was conducted in Burkina Faso and Kenya between September 2008 and April 2011. The two countries were chosen because of their diverse cultures. Kenya is an Anglophone nation in East Africa, while Burkina Faso is a Francophone nation in West Africa. Both are grappling with the challenges and opportunities in embracing agricultural biotechnology.

WHY BURKINA FASO AND KENYA?

Unlike many other countries in sub-Saharan Africa, Burkina Faso and Kenya have taken key steps towards adopting innovations in agricultural biotechnology.

With a view to transforming its cotton farming into a more competitive venture, Burkina Faso has already commercialized the growing of biotech cotton after South Africa and Egypt (maize). These are the three African countries that had commercial biotech crops as of 2008. Kenya, on the other hand, has been promoting the application of tissue-culture techniques in banana and other crops since 1996. The country also has a biotechnology development policy, approved in 2006. In 2009 Kenya enacted the Biosafety Act to regulate the use of biotechnology in agriculture and other sectors of development. A National Biosafety Authority was set up in 2010.

HOW WE DID IT

The study analyzed the use of media in passing on information about biotechnology in Burkina Faso and Kenya. It specifically examined how radio use influenced changes in knowledge, attitude and practices (KAP). Put simply, the study examined how radio use, influenced formation of opinions and perceptions on agricultural biotechnology among two culturally different communities.

Several approaches were adopted, including:

i. desk reviews and situational analysis to document past and current practices in radio use;

ii. cross-sectional and longitudinal surveys to compare radio with other communication modes and their influence on perceptions about agricultural biotechnology;

iii. participatory discussions to identify and analyze how different stakeholders were served or affected by different sources of information, and

iv. a three-month experimental radio campaign aimed at imparting knowledge on agricultural biotechnology.

A control group was used to gauge the degree of change on a set of cognitive, attitudinal and behavioral attributes after exposure to the radio campaign. Program content was informed by the findings of the various participatory approaches adopted.

The content was further peer-reviewed by a team of experts and knowledge partners in diverse disciplines for accuracy and balance.

PROJECT OBJECTIVE

3 To determine stakeholders' biotechnology information needs, expectations and how radio can be used to address them effectively.

WHAT WE DISCOVERED

From the literature reviewed, the research found that reporting about agricultural biotechnology was mainly confined to newspaper articles, a majority of which were discussing GMO technology in Europe and America. There was little reporting on the broader field of biotechnology on radio.

Even where biotechnology in agriculture was reported in newspapers or on radio, the information was not sufficient to adequately inform and shape public opinion or influence the policies that public officials would adopt in this field.

There were hardly any broadcasts focusing solely on agricultural biotechnology. Of particular concern was that knowledge of biotechnology among broadcasters was very low.

This drawback was compounded by misconceptions and lack of knowledge about the use of biotechnology in general and about GMOs in agriculture. This challenge was not restricted to farmers. Radio presenters and producers, policy makers and extension officers were also found to have scant knowledge about this technology.

Where the researchers found experts in the field, these experts were reluctant to share their knowledge with farmers for two reasons:

a. They did not know how to translate the knowledge in a simple language that the farmers listening to radio programs could understand; and

b. They were unwilling to be interviewed on the same shows with activists who campaign against the use of modern biotechnology. Their main worry was that the arguments would end up splitting hairs, or generating more heat than light. They cited one particular show, which degenerated into heated arguments, as having confirmed their fears.

Despite this disconnect, the willingness to learn more about the use of biotechnology in agriculture was widespread among all the groups, from the farmers and extension officers to the policy makers and the media.

This is how we do it, or so says a farmer during a focus group discussion in Burkina Faso.

WHAT WE LEARNT

The researchers found that the credibility of the person making presentations on radio had a great impact on the number of people who tuned in to the program.

They also found that farmers preferred tuning in to programs between 7p.m. and 9p.m. rather than those slotted for mornings. This could be because listeners had more time for leisure in the evenings while mornings were dedicated to achieving core tasks. They further argued that this would give women a chance to complete their evening chores after which they would listen to the programs.

Whereas farmers in both countries were unanimous that they wanted programs on biotechnology in agriculture aired in the evenings, extension officers and researchers preferred the programs aired on weekends in the afternoons, with 2p.m. scoring as the most ideal time.

This was an indication of the demands of their professions on weekdays, which left them with only weekends to listen to radio.

A majority of farmers also preferred that the programs be broadcast in their vernacular languages as this enhanced their understanding of the content and also their identification with the radio presenters.

One of the key differences between Burkina Faso and Kenya was that in the former, men owned a majority of the radios and would often carry them to their farms or other social gatherings. They also controlled the choice of programs. In Kenya, on the other hand, women had greater ownership of radios and also controlled program choice.

It is instructive to note that once all the stakeholders were briefed and invited to take part in the radio campaign, there was a marked increase in the quality of debate on biotechnology in agriculture.

Indeed, even the experts were more willing to take part in subsequent programs. Other groups like extension agents and broadcasters showed increased knowledge in their discussions on the subject. Some radio stations even increased the amount of time they allocated to such programs, an indication of rising demand among listeners.

It was noted that due to misinformation about biotech cotton in Burkina Faso, farmers blamed the low quality cotton they harvested on the technology. Ironically in Kenya, although the level of awareness about biotechnology went up after the broadcasts, so too did the apprehension among listeners. This was traced to the heated debates generated by discussions about the Biosafety Bill during the radio campaign period.

In both countries, however, the debates became more open-minded after the programs. More farmers also wanted to learn about the risks involved in agricultural biotechnology.

Interestingly, availability and access to other ICTs such as cellphones, internet and support services like batteries and/or electricity highly reinforced farmer interactions with radio presenters during the campaign period.

PROJECT OBJECTIVE

4 To examine institutional arrangements available for improving the effectiveness of radio in promoting biotechnology among key stakeholders.

It also emerged that farmers took the information broadcast on radio as "the gospel truth", a fact that highlighted the need for radio producers to verify the content of their broadcast and, the need for a peer review to verify program content. The aim of such review would be to ensure balance and fairness to all sides of the debate.

CHALLENGES AND OPPORTUNITIES

One of the challenges the researchers encountered from the outset was lack of past radio broadcasts on biotechnology in Africa. Even accessing the available material was difficult, which underlined the need to create an archival system for reference purposes. Such a system can help improve the quality of current and future programs.

The technical nature of the subject also had an impact on the quality of the programs, especially when they were broadcast in languages other than English. One way to overcome the challenge posed by the technical nature of the subject, the study found, was to develop a vernacular glossary of the key terms.

The fact that the few experts in the field were unwilling to engage farmers through radio presented another challenge. In Burkina Faso, this led to anti-biotech activists misinforming farmers about management of their biotech cotton crop with serious consequences of low quality grade harvested. But because the farmers also tuned in to vernacular radio stations, they had the opportunity to get the correct information about agronomic practices of biotech cotton albeit at the later stages of the crop.

The challenge of experts being unwilling to be interviewed for radio programs could be overcome by improving the relationship between radio journalists and the experts, which has been

characterized by suspicion and apathy. This can be achieved by equipping the journalists with more information and exposing them to laboratories and countries with advanced activities on the technology.

MOVING FORWARD

The study found there was need to address the issue of language and terminologies. Due to confusion about biotechnology and genetic engineering in agriculture, the two terms have been used interchangeably on radio programs, fuelling the confusion among farmers. Developing a glossary of terms can end this misperception, enhance the confidence of the radio journalists and improve their knowledge while enhancing the quality of the programs.

There is need to develop a professional network of experts on the use of biotechnology in agriculture. This group would also give professional views on radio programs. Likewise, the experts can work with media councils in their respective countries to monitor the content broadcast on radio for accuracy. This will ensure that the public gets the correct information.

Another way to ensure accuracy on radio programs on the use of biotechnology in agriculture is to invest in journalism training in this field. Such training should also incorporate editors so that they can prioritize coverage of agricultural biotechnology as a public agenda item.

In addition, engaging editors will ensure that media organizations strengthen the associations of journalists involved in covering agricultural biotechnology, including setting up biotechnology desks in their organizations.

Equally important, scientific experts need training in communication to equip them with the skills to disseminate their knowledge to the public in simple and effective messages.

PROJECT OBJECTIVE

5 To recommend policies to guide development of radio programs and inform decision-making about agricultural biotechnology

The point is... one of the knowledge partners being interviewed for a radio bulletin

RESEARCH BRIEF

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