

Challenges That Farmers Face In Accessing And Utilising Agricultural Research Information From Rwanda Agriculture Board: A Farmers' Perspective

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Abstract: This paper explores the challenges that farmers in Rwanda face while trying to access and utilise agricultural research information from Rwanda Agriculture Board (RAB). It focussed on farmers that work with the Rwanda Agriculture Board (RAB) in the Southern Agricultural Zone of Rwanda. In line with interpretive paradigm, the researcher thought of exploring these challenges by letting farmers express them in a discussion about how they get and utilise research results from RAB. The interpretive paradigm, the qualitative approach as well as the narrative inquiry were adopted with focus group discussion as a method of data generation. Farmers that participated in the study were reached thanks to the researchers and extensionists at RAB.

Although many scholars opined that timely and appropriate dissemination of agricultural research results is an integral component of any agricultural research undertaking, farmers that worked with RAB said that they still suffer lack of agricultural research information. They expressed a number of challenges that they face while trying to get and use information related to the research findings from this organisation. These farmers mentioned challenges such as lack of education and skills to use media and technological tools, lack of involvement of farmers in research undertakings, ignoring farmers' real concerns, communication channels that do not effectively target farmers, top-down attitudes and prevalence of ordering and commanding messages, as well as poverty.

Keywords: Researchers, extensionists, farmers, challenges, culture, context, education, poverty, communication, research findings/results/information, agricultural research, agricultural research communication, agricultural extension, participation, interaction

I. INTRODUCTION

Rwanda Agriculture Board (RAB) is an agricultural research institution that was established by LAW N°38/2010 OF 25/11/2010. Its general mission is championing the agriculture sector development into a knowledge based; technology driven and market oriented industry, using modern methods in crop, animal, fisheries, forestry and soil and water management in food, fibre and fuel wood production and processing (RAB, 2017). RAB is the most important institution dealing with agricultural research in Rwanda and

from which farmers expect agricultural research information. This autonomous body is under the Ministry of Agriculture, and was formed from three agriculture agencies, namely the Rwanda Agriculture Research Institute (French acronym: ISAR – Institut des Sciences Agronomiques du Rwanda), the Rwanda Animal Resources Development Authority (RARDA) and the Rwanda Agricultural Development Authority (RADA). The creation of RAB was believed to improve the way research is made relevant and responsive to farmers' needs. This would entail making agricultural research results effectively reach farmers.

In a bid to find out how RAB's research results reach farmers, farmers were given a chance to express themselves and talk about the way they access and utilise these findings as well as challenges they face in that process. The farmers that participated in the study were selected according to whether they work with or happened to work with RAB. RAB staff assisted in this process. The RAB staff identified 50 farmers they worked with in their endeavours and they were approached in their cooperatives or associations in focus group discussions. The discussions that were held with these farmers focussed on Farmers revealed that although they are aware that Rwanda Agriculture Board (RAB) has produced a lot of agricultural research results, they still do not adequately benefit from those research findings. They said that they still suffer from lack of information.

II. PREVIOUS RESEARCH IN AGRICULTURAL RESEARCH COMMUNICATION

Research has revealed that improvements in agriculture and agricultural technologies can play a crucial role in the development of Africa's rural communities (FARA, 2006). Scholars explained that these improvements will depend to a bigger extent on the production, dissemination and the utilization of agricultural research findings in a timely and appropriate manner (Huberman, 1990). Scholars agree that timely and appropriate dissemination of agricultural research results is an integral component of any research undertaking. They posited that the design of any research undertaking should understand the institutional as well as the socio-economic factors that may affect the dissemination of the research findings (FARA, 2006). Existing literature shows that agricultural research communication in Rwanda has almost always been looked at in the framework of agricultural extension.

A. AGRICULTURAL EXTENSION IN RWANDA

'Agricultural extension' describes the services that provide rural people with the access to knowledge and information they need to increase productivity and sustainability of their production systems and improve their quality of life and livelihoods. It includes, but is not limited to, the transfer of knowledge generated by agricultural research. The agricultural extension system in Rwanda has changed substantially since the colonial period, before 1962, and the post-colonial period up to 1980 where the primary focus was on export crops, including coffee, tea, pyrethrum and quinquina. During this earlier period, extension was a very top-down system where farmers were required to follow key production practices as defined by the colonial and post-colonial governments and as implemented by the field extension workers (USAID, 2011).

From 1980 through 1994, the extension system was still dominated by the government using a top-down approach, including Training and Visit (T&V) Extension introduced by the World Bank (WB). At the same time the international NGOs began providing agricultural extension services. After the 1994 genocide, an emergency phase was started (1994-

1998) and both national and international NGOs began creating new farmer associations. Most of these NGOs did not and still do not work closely together in providing advisory service and coordinating their respective extension activities. Then in 1998, "sector-level" MINAGRI extension workers (i.e. agricultural monitors or MONAGRI) were officially removed as national government employees. This removal, however, created a serious gap between MINAGRI institutions and the farmers being served. However, there continued to be extension advisors for key export and cash crops (e.g. coffee, tea, Irish potatoes) (USAID, 2011).

During the past decade, however, new extension approaches have been considered to provide improved advisory services to different categories of farmers. It has become widely accepted that extension services should be provided through a pluralistic extension system including the public sector (i.e. at the national, district and sector levels), international and local NGOs, as well as the private sector. It is also widely accepted that extension service providers should be more participatory (i.e. more farmer-driven) and market-oriented. For example, there is a strong focus on developing commodity chains for key staple crops (e.g. maize, beans, rice, wheat) to achieve national food security, as well as export crops (e.g. coffee, tea, and key horticultural crops) to improve rural livelihoods by increasing farm household income and, thereby, reducing rural poverty. Another key goal is to improve household nutrition by having one cow per family, especially among small farm households (USAID, 2011).

In the comprehensive assessment of extension services that was carried out in Rwanda in 2011, the extension workers in most districts and sectors continue to implement a more top-down extension strategy that has limited impact on farmers. Organizational modifications at the national and zonal level, in the area of agricultural extension, did not address the major linkage problems that still exist between the Ministry of Agriculture and Animal Resources in charge of agricultural sector in Rwanda and the Ministry of Local Government that employs district and sector extension workers. After assessing these different service providers, it was clear that agricultural extension activities are not properly coordinated, especially between the national and district levels (USAID, 2011).

B. CHALLENGES THAT FARMERS FACE WHILE TRYING TO ACCESS AGRICULTURAL INFORMATION

Although there is not enough literature about challenges that farmers face while trying to access agricultural research information, existing literature shows factors that might prevent farmers from accessing and using agricultural research results. K. S. Farid, N. Z. Tanny and P. K. Sarma (2015) observed that factors that may have influence on the extent of adoption of farm practices include characteristics of farm practice; the adopters; the change agent (extension worker, professional, etc.); and the socio-economic, biological, and physical environment in which the communication takes place. The scholars also observed that the socio-psychological trait of farmers as well as the age, education attainment, income, family size, tenure status, credit use, value system,

and beliefs play an important role in the farmers' adoption of farming practices from research institutions.

Agricultural extension has traditionally been defined as the delivery of information and technologies to farmers, which leads to the technology transfer model of extension, seen by many as the main purpose of agricultural extension (Anandajayasekeram, Puskur, Workneh, and Hoekstra, 2008, p. 83). This is based on the idea that 'modern' knowledge and information is transferred through extension agents to recipient farmers. It limits itself to the dissemination of agricultural information. Although, for some scholars, agricultural extension is thought about as the only way to communicate agricultural research results for many organisations, it is basically rooted in westernisation and modernisation paradigm and seldom meets the needs of farmers. It does not empower them to own and make use of agricultural research results.

Anandajayasekeram, Puskur, Workneh, and Hoekstra (2008) say that for a long time, development of agriculture in developing countries mainly consisted of farmers and communities being told what to do, often by institutions and agents who have not taken sufficient time to understand their real needs and practices. This scholar also adds that over the last two decades, government and nongovernmental organizations have recognised the need to move away from instruction and blue print solutions, towards more participatory approaches which involve communities in setting and fulfilling their own development goals and solutions. Hence, the system-oriented and participatory approaches are being increasingly integrated into the emerging research and development (R&D) paradigm.

From the existing literature, it is evident that adoption of technologies in farming practices is affected by certain factors (Ziervogel et al., 2005; Hansen et al., 2007; Salehin et al., 2009). The farmer's attitude towards change, land, sources of information, membership of farmer's organizations, educational level, farm income, farmer's exposure, are the important socio-economic factors influencing adoption of farm innovations (Rousan, 2007). Factors that trigger adoption of new technologies comprise of young and educated male farmers, higher income level, risk orientation and decision making ability of farmers (Feder and Slade, 1984). Factors of limited adoption of technology include conservative old men, illiteracy, weak belief on ensuring high yield of new technologies, etc.

Although the farmers that participated in the study, presented most of the issues above as challenges in their endeavours to access and use agricultural research information, not all the issues presented in the literature constitute important challenges in their endeavours. The following section focuses on the challenges that farmers who participated in the study found more important.

III. CHALLENGES THAT FARMERS IN THE SOUTHERN PROVINCE OF RWANDA FACE WHILE TRYING TO ACCESS AGRICULTURAL RESEARCH INFORMATION FROM RWANDA AGRICULTURE BOARD (RAB)

This section discusses challenges that farmers in the Southern Province of Rwanda encounter while trying to access agricultural research information from Rwanda Agriculture Board (RAB). The farmers that participated in this study are farmers that work with or happened to work with Rwanda Agriculture Board (RAB). These farmers were selected with the help of RAB staff. The data in the study were obtained during a series of interviews and discussions with the farmers that happened to work with this agricultural research institution. During interviews, farmers were asked to talk about how they get research results from RAB and challenges they face while trying to access these research results from RAB.

During the study, farmers were given an opportunity to freely talk about their relations with RAB and how they get and utilise information about the research that RAB carries out. Among the challenges that these farmers said they face while trying to get and use information about research results from RAB, are lack of education and skills to use media and technological tools, communication channels that do not effectively target farmers, poverty, lack of involvement of farmers in research undertakings, wrong assumptions and attitudes about farmers and farmers' needs, as well as ignoring farmers' real concerns.

A. CHALLENGES RELATED TO ACCESS TO AGRICULTURAL RESEARCH RESULTS FROM RAB

The challenges that farmers said they encounter while trying to access information about agricultural research are mainly linked to the way that information is packaged and disseminated. They include lack of education and skills to use the technological devices, communication channels that do not effectively target farmers, limited face-to-face encounters with researchers as well as poverty in general.

a. LACK OF EDUCATION AND SKILLS TO USE MEDIA AND TECHNOLOGICAL TOOLS

While talking about access to agricultural research information from RAB, farmers said that the first concern is where that information is found and means used to disseminate it. They said that leaders and agronomists always encourage them to read books, newspapers and brochures where that information is found. They also said that they are also encouraged to listen to radios and watch TV for programmes dedicated to agriculture. Farmers also mentioned that they were told that there are even ways farmers can get some agricultural information via the phones.

Although farmers agree that these media contain information that might be very useful for them, they also said that they can only benefit the few educated farmers. They said that the sector is predominantly made of illiterate farmers who cannot read and right and with no skills to use technological

devices. They said that it is always good to think about how many farmers own certain devices and can actually use them for the given purpose. For them, most mass media and technological devices will have a logical use when the sector will have literate and averagely educated farmers with somewhat financial stability. They said that they could only listen to nice speeches but little or nothing could benefit them. The following was recorded during a Focus Group Discussion with farmers in Shyogwe:

These days, ISAR staff, agronomists and local leaders always tell us to listen to the radio, watch television and read newspapers for information we need. They tell us that we need to use technology and embrace technology-based communication. A few educated and literate farmers sometimes get some materials such as booklets, brochures and leaflets that leaders say have information about new farming practices, soil preparation and protection. We even hear that farmers with mobile phones can get access to information like market prices via their phones, etc. However, this might not be helpful for some of us. How many of us own radio or television sets? How many own telephones? How many of us can read and write? I even wonder whether the few of us who can access these media can ask questions on those radios, TVs, newspapers or those other reading materials they keep citing (Focus Group Discussion with Farmers at Shyogwe, September 1, 2015 – Translated from Kinyarwanda).

b. COMMUNICATION CHANNELS THAT DO NOT EFFECTIVELY TARGET FARMERS

Although farmers said that they were happy with the way RAB staff and interns were approaching them and what they got from them, they said that physical interaction reduced after ISAR got transformed into RAB. They said that after the creation of RAB, face-to-face interaction with researchers became limited and that more consideration was given to mediated communication. In their narratives, most farmers showed more reliance on personal and face-to-face interaction than mediated and technology-based communication. The following story was narrated by farmers that were approached during the study:

After the creation of RAB, agronomists and local leaders tell us to listen to the radio, watch television and read newspapers for information we need. They tell us that we need to use technology and embrace technology-based communication. A few educated and literate farmers sometimes get some materials such as booklets, brochures and leaflets that leaders say have information about modern farming practices as well as soil preparation and protection. We even hear that farmers with mobile phones access information like market prices via their phones, etc. However, this put us in a non-personal communication environment which might not be helpful for some of us. How many of us own radio or television sets? How many own telephones? How many of us can read and write? I even wonder whether the few of us who can access these media can ask questions on those radios, TVs, newspapers or those other reading materials they keep citing (Focus Group Discussion with Farmers at Shyogwe, September 1, 2015 – Translated from Kinyarwanda).

c. LIMITED FACE-TO-FACE ENCOUNTERS WITH RESEARCHERS

According to the narratives of farmers, the most memorable moments are times when they met researchers face-to-face and were allowed to ask their questions. Their worry is that nowadays face-to-face occasions decreased as farmers are being encouraged to embrace technology and mediated communication. The following was extracted from the discussion held with farmers in Musasu in 2015:

.....who would not listen to those 'wise and humane students'? They would come and meet us in our poor households. They would ask us to provide our ideas on issues such as erosion control and plant diseases. They never forced us to remove our traditional seeds. They never ordered to plant one crop. They never minded walking to the remote households and ask farmers about their farming concerns. They were there for us to demonstrate certain practices and we would ask whatever questions we had. They gave us avocado and agroforestry tree seedlings that we even keep today. They gave us banana seedlings and bean seeds. If they remained around, we would be far by now (Focus Group Discussion with farmers at Musasu, November 11, 2015 - Translated from Kinyarwanda).

However, as farmers emphasised, although farmers said that they were happy with the way ISAR staff and interns would approach them and what they got from them, they said that physical interaction reduced after RAB was created whereas it is the only means that benefit illiterate and poor farmers that predominate in the area. They said that after the creation of RAB, face-to-face interaction with researchers became limited and that more consideration was given to mediated communication. As farmers indicated, for farmers that are not conversant with technology and those with little or no education, the technology-based communication might not be appropriate.

d. POVERTY

In the new, technology and media-based environment, farmers said that poverty is another challenge that prevents them from getting all the needed information. They said that though most of them cannot read and write, some tools like radio and television can help them. However, as they added, their purchasing power does not allow them to own those appliances. They also said that sometimes they feel like going to RAB offices to seek explanations and advice about their issues but they are constrained by the fact that this sometimes requires transport. The farmers that participated in the study appreciated what RAB does but argue that this organisation only works with a few farmers that they select. They said that they envy the crops and domestic animals that are in RAB's farms. However, some farmers believe that RAB can only work effectively with farmers with big plots of land. They said that farmers who can have the trial piece of land and the piece of land that they can keep for their traditional varieties are the ones most likely to work with these researchers. Farmers said that farmers who have this type of land are those that are financially stable. They said that there is a huge gap

between RAB and the very poor farmer in remote and indigent settlements.

B. CHALLENGES RELATED TO THE UTILISATION OF AGRICULTURAL RESEARCH INFORMATION FROM RAB

In their narratives, farmers that participated in the study revealed that they sometimes happen to get information and get reluctant to utilise it in their daily agricultural practices. In their wording, having information that they cannot use is as good as not having it. They said that the reluctance is mainly due to lack of active involvement of farmers in research undertakings, farmers' knowledge ignored, failure to address farmers' real concerns, top-down attitudes and prevalence of ordering and commanding messages.

a. LACK OF ACTIVE INVOLVEMENT OF FARMERS IN RESEARCH UNDERTAKINGS

Farmers that participated in the study talked about the role they play in the research that takes place at Rwanda Agriculture Board. They said that they do not feel that they actively participate in the research in the area of agriculture. They said that they remain passive because even in the rare occasions they get to meet RAB researchers, they only listen to and execute instructions. The following statements were produced by farmers in a Focus Group Discussion in Muhanga District:

We rarely meet these researchers. We only see them during a few occasions such as planned meetings, testing of their research results, announcing cultural seasons, seed distribution, and informal encounter when they are walking around or do some visits, etc., but even when we meet, we are simply told what we have to do. We do not suggest or contribute any ideas (A farmer in a Focus Group Discussion with Farmers in Muhanga, on January 11, 2016 – Translated from Kinyarwanda).

Farmers said that they also encounter researchers when these researchers want to use farmers' plots of land for experiments and tests of their studies. While they agreed that the topics for research that RAB staff choose are important, they said that they sometimes have priorities which are not considered. While trying to show their wish to be involved in the entire research process, farmers that participated in the study said that they have pressing issues pertaining to their everyday life that they should have brought forward if they were soundly involved in the research process.

We cannot say that the topics for research that RAB staff choose are not important. However, there are topics that we think should be addressed before others. How can one invest heavily in storing the harvest when farmers cannot even produce enough for their feeding? When we are together as farmers, we express our needs, for example what we can plant and what we can mix in order to get enough food for our children. We would wish to have supportive studies in this area but these ideas cannot be heard by researchers (Farmers in a Focus Group Discussion with Farmers in Muhanga, on January 11, 2016 – Translated from Kinyarwanda).

b. FARMERS' KNOWLEDGE IGNORED

In their narrative, farmers emphasised that they also have some knowledge that is almost always ignored. They expressed that they feel that they should be taking part in all the discourses about agricultural research. They said that they should be participating in all stages of research, including the planning stage. The following was also recorded during the Focus Group Discussion in Muhanga District:

Most of us did not go far in studies. We cannot claim to have carried out research but we have been living on agriculture for a very long time. We know what has been sustaining us. We know what crops can grow in certain places and in what seasons, at least to a certain extent. However, our voices are almost never heard. We have been planting maize where it does not grow on the orders of our leaders and in spite of ourselves, and we have been harvesting almost nothing. Some families have been living on sweet potatoes but these days they are not allowed to plant them. Had we been part of all the discourses, some famines would have been prevented (An old male farmer in a Focus Group Discussion with Farmers in Muhanga, on January 11, 2016 – Translated from Kinyarwanda).

c. FAILURE TO ADDRESS FARMERS' REAL CONCERNS

While talking about how their concerns are addressed in the research carried out by RAB, farmers said that what they know is that ISAR [most farmers only know ISAR, the former research institute, which got grouped with RADA and RARDA to form RAB] has researchers who do research on crops and domestic animals. They said that these researchers carry out research on topics of their choice and share the results with farmers of their choice, whom farmers refer to as 'lucky farmers'. Farmers associate what RAB researchers and extensionists take to the farmers with government instructions.

Farmers said that they do not play any role in originating research topics. They said that RAB research results that are taken to the "lucky farmers" are in line with the government instructions, which pass as policies that are supposed to be implemented. As farmers indicated, even when they are not comfortable with them or have other ideas that they think should be taken into consideration, they just keep quiet and abide by whatever is taken to them. They said that the only occasion their voice was heard was when they had terrible mosaic in cassava plantations [Kirabiranya]. They said that this is when farmers made a lot of noise requesting help from researchers and they were told that researchers are handling the problem, though, as they indicated, they were yet to get the answer. One of the farmers gave the following statement:

We have been made to feel too inferior to propose what should be done. When you are uneducated, people will always underestimate your ideas. I might be having some ideas but who am I to challenge what the government thinks. However, as old as I am, and having lived here for more than fifty years, I know for example that you cannot plant rice or maize here. I know when to plant potatoes and beans, etc. I know which crops can sustain a family here and which ones need to be associated with others. However, you will come here with

your own ideas and impose certain practices on me. If you feel that you do not need my thoughts, I will simply do as you want. I might even end up harvesting nothing (An old male farmer in a Focus Group Discussion with Farmers in Musasu, November 12, 2015 - Translated from Kinyarwanda).

There is a group of farmers that gave examples of where they feel that messages from researchers do not match their context and situation. In their narratives, farmers would refer to RAB as ISAR, the former agricultural research institute, before it became RAB. The following narrative gives an idea about the farmers' attitudes towards the messages from RAB researchers.

We cannot understand how one can spend weeks teaching people how to store their harvest when they do not even harvest enough for their own food. Some dictated practices leave us hungry. We listen to good words about quality seeds and animals but how many can buy seeds from ISAR with their prices? We make sure that we keep our traditional seeds because even for very few farmers who manage to buy from ISAR, they have to save enough money for the following planting season. Most seeds from ISAR are planted only once. You cannot get seeds from your harvest. You have to go there again to buy other seeds each season and again expensively. However, for our traditional seeds, you can reserve the seeds from your harvest and use them for the following planting season (Focus Group Discussion with farmers in Rusatira, January 10, 2016 - Translated from Kinyarwanda).

d. TOP-DOWN ATTITUDES AND PREVALENCE OF ORDERING AND COMMANDING MESSAGES

Farmers that participated in the study said that they have been treated as people with little or no knowledge, people with traditional beliefs who do not know and always oppose modern practices. They said that all their needs have been reduced to one single concept "technology", which, as their narratives have it, does not explain all their problems. Farmers said that they are not always ignorant. They said that they can at least describe their problems and needs, and set priorities. They said that there are instances where researchers insist on post-harvest technology when people are hungry and cannot even produce enough to feed their children. Farmers also mentioned cases where newly introduced practices have made people hungrier and poorer. Farmers that were consulted said that messages from RAB are often confused with other administrative messages that are always in form of "instructions".

We are always told what to do and what not to do. We are never asked what to do or what not to do. We only get "instructions" about what to do and what not to do. We get instructions from our local leaders; we get instructions from health workers; we get instructions from agronomists; we get instructions from ISAR people, etc. Our life is full of instructions and that is it (Focus Group Discussion with paddy farmers in Huye District, December 10, 2015 - Translated from Kinyarwanda).

Farmers said that most of the messages that they get from RAB people are received like laws, rules or instructions that are supposed to be abided by the way they are. They said that they have always been treated like that and that they have

come to understand that that is the only way they have to live with these staff. However, as they expressed, they sometimes face instructions that they feel are not appropriate and against their indigenous knowledge and common practice but they cannot say anything against them in the presence of officers bringing those instructions. They feel that their say is too inferior and that their knowledge is too basic to be considered by the extremely knowledgeable and suppressing officers.

Farmers said that they happen to accept instructions not because they believe what they are told but because they feel that it is a voice from authorities. They said that in order to please authorities they try to show them that they are abiding by their instructions by respecting their instructions in portions of land that are easily seen by authorities. However, as farmers indicated, most farmers keep some portions of land whereby they do their own practices, for example, mix crops, plant their indigenous crops, etc., in relatively hidden areas that authorities cannot easily see.

We never believed that planting one crop in the entire region can help us but this is the same monotonous song by ISAR and authorities. Our land is too small and not fertile enough. What we harvest is even not enough for our consumption. For years and years, we have been surviving by intercropping and crop mixing. We used to have for example potatoes and sorghum planted together; maize and beans in one plot, etc. In this context, if one crop failed to produce enough yield, then people would feed on the other or they would get small yield for one crop and supplement it with the yield of the other. There are also crops that do not harm each other when planted in the same plot. However, this is considered backward by our authorities. They want us to consolidate our land and plant one single crop throughout the entire region. We take a plot that they can easily see and do as they instructed but find a way of reserving a small portion where we mix as we wish. This saves us when the new approaches fail to produce enough yield as it has been happening in different places (Discussion with farmers in Rubona, December 8, 2015 - Translated from Kinyarwanda).

IV. CONCLUSION

Farmers that participated in the study showed that they appreciate what Rwanda Agriculture Board (RAB) does as a research institution. They said that this organisation has knowledgeable and experienced researchers and that the research results that they generate are very important for farmers. However, farmers said that much as they all need information from the research that RAB carries out, there are challenges that they face while trying to get this information. They said that the challenges they face are mainly related to how agricultural research information from RAB is packaged and disseminated. They said that the new era that RAB operates in encourages farmers to be literate and educated in order to read and listen to the needed information in media. It also requires farmers to own and be able to use technological devices. For the farmers that participated in the study, this does not tally with their situation because they are predominantly illiterate, uneducated and poor, with limited access to and skills to use media and technological devices. In

their narratives, farmers revealed that what can benefit them most is face-to-face encounters with researchers with willingness to explain to farmers in their level of understanding, and willingness to listen to farmers' ideas and real problems.

However, although farmers demonstrated challenges they face as they try to access agricultural research information, they also exhibited issues that make them reluctant to abide by or utilise some of the little information they get from RAB. As they indicated, these issues make some of them stick to traditional practices even when they are aware of the new and modern practices. They include lack of active involvement of farmers in research undertakings, farmers' knowledge that is ignored, failure to address farmers' real concerns, top-down attitudes and prevalence of ordering and commanding messages. Farmers expressed the need to be involved in all stages of research so that they can voice out their concerns, bring their indigenous knowledge on board, and participate in seeking solutions to their real problems.

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