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Post-conflict News and Information Needs of West African Farmers: Voices from Côte d'Ivoire and Mali

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Abstract

During the decades following the independence of Sub-Saharan African countries, many farmers were severely affected by armed conflicts. News and information providers could provide important support toward the economic recovery of these farmers and the rebuilding of their communities. This qualitative study sought to explore farmers' perceptions on the role of media and other sources in disseminating news and information after armed conflicts ceased in Côte d'Ivoire and in Mali. The study involved 10 key informants, five from each country. Rigorous qualitative research procedures were used to collect and analyze the study's data. Six themes emerged from the interviews. Farmers perceived the media were interested in reporting about their regions only during the conflicts. They also indicated the absence of Extension or other forms of rural advisory services during and after armed conflicts. However, all 10 key informants perceived the media could assist in recovery and rebuilding efforts and should deliver related information in their local languages as well as provide programs targeting women and youth. Recommendations for policy and practice are offered. In addition, topics are identified on which to train communicators and Extension/advisory agents to meet the information needs of farmers who experience the effects of armed conflict.

Keywords: Côte d'Ivoire, farmers, information, Mali, media, news, post-conflict

Introduction and Background

Côte d'Ivoire (RCI) and Mali, two former French colonies and West African states, experienced armed conflicts during the last two decades that heavily impacted their agricultural sectors and displaced thousands of rural citizens (International Crisis Group, 2014; United Nations High Commissioner for Refugees [UNHCR], 2015). The armed fighting in RCI extends further back in time, starting in 2000 (Akindes, 2004) and ending with post-electoral violence in 2010 (Dabalén, Kebede, & Paul, 2012). Mali's conflict is more recent; it began in 2012 with violent skirmishes and continued through 2015 (Human Rights Watch, 2015; Thurston, 2015).

The Roads to Armed Conflict in RCI and in Mali

RCI gained its independence from France on August 7, 1960; it lies on the Gulf of Guinea with an approximate land area of 322,462 sq. km. The country's population is estimated to be about 22 million with an annual growth rate of 2.13% (Central Intelligence Agency [CIA], 2014). It comprises more than 60 ethnic groups, including the Agni, Baoulé, Bété, Juula, Lagoon, and Sénoufo, among others (CIA, 2014). Christianity and Islam are the major religions with about 35% to 40% of the population identifying with each (The World Bank, 2012).

Agriculture is the economic mainstay of RCI (CIA, 2014). It engages more than 70% of the population and represents 49% of RCI's GDP (United Nations Development Program, 2013). Agriculture also contributes to more than one-half of RCI's exports (The World Bank, 2012). The main cash crops are cocoa and coffee. RCI is known as the world's leading cocoa exporter and ranks fifth in coffee production; the country also produces bananas, cassava, yams, sugar, palm oil,

timber, and rubber (The World Bank, 2012).

RCI's economy was one of the most successful in Sub-Saharan Africa beginning in the early 1960s under the rule of President Felix Houphouët-Boigny (Dabalén et al., 2012). The economy was set back between 1980 and the late 1990s by devaluation of the *CFA franc* and thereafter by a political crisis (The World Bank, 2012). Afterward, the economy was improving when a new crisis occurred in 2002 (The World Bank, 2012). According to the African Development Bank [ADB] (2010), RCI's poverty rate increased from 36.8% in 2002 to 48.9% in 2008 and the poverty rate in rural communities grew even more.

Origins of the politico-military crises in RCI were very profound and complex. In 1994, President Henri Konan Bedie, who succeeded the late President Houphouët-Boigny, initiated a change to the electoral code stipulating that every candidate in the upcoming presidential election should demonstrate his or her Ivorian ancestry (Dabalén et al., 2012; Djehoury, 2007). The concept of *Ivoirieneté* became a central theme of the political discourse; differences in ethnicity and religious background were used by political parties to criticize opposing candidates (Dabalén et al., 2012). This led the country into unprecedented armed conflicts for more than a decade (Dabalén et al., 2012; Djehoury, 2007). After several failed attempts, RCI held a presidential election in 2010 (Apuuli, 2012). The election result was contested by partisans of the two main candidates who embarked on post-electoral violence until the rightfully elected president was inaugurated (Apuuli, 2012; Pettersson & Wallensteen, 2014).

The armed conflict had very negative impacts on RCI's economy, particularly the food and agricultural sector. Cocoa production, for example, which represents the country's major source of income, dropped considerably during the armed conflicts (The World Bank, 2012).

Moreover, access to agricultural inputs and land was extremely difficult causing disruption of agricultural and food production in most of the country (The World Bank, 2012). The rural economy declined significantly, especially in areas where the conflict was widespread between civilians of different ethnic groups (Food and Agriculture Organization [FAO], 2012). Further, the delivery of agricultural advisory services was severely hampered (FAO, 2012; The World Bank, 2012).

Mali became independent in 1960. The country covers a land area of 1,220,190 sq. km. Its population was estimated to be about 16.5 million in 2012 and is divided among several ethnic groups, including Bambara (46.3%, the largest), Peulh (9.4%), Dogon (7.2%), Sonrais (5.6%), and others (CIA, 2014). Mali's predominant religion is Islam (94.8%) [CIA, 2014].

Mali's economy also relies heavily on agriculture; its main agricultural products include cotton, rice, sorghum, sugar, millet, and livestock (CIA, 2014). According to Solomon (2013), Mali was ranked among the 25 poorest countries in the world for 2013 with a GDP per capita of about 700 U.S. dollars; almost two-thirds of the population was considered impoverished in 2004. The poverty rate is even greater in the northern region of the country (Solomon, 2013).

Mali has experienced successive Tuareg rebellions; major uprisings occurred in 1960, 1989, 1992, and 2011 (Solomon, 2013). The most recent conflict started during 2012, which precipitated from a military coup in March of that year (Pettersson & Wallenstein, 2014). The country's Tuareg community perceived being marginalized and that Mali's northern region – the home of most Tuaregs – was neglected by the national government (Solomon, 2013).

In 2012, the Tuareg separatist

movement known as *Mouvement National de Liberation de l'Azawad (MNLA)* and Jihadist terrorist groups fought against government forces in northern Mali (Pettersson & Wallenstein, 2013; Solomon, 2013). Consequent to the political chaos, major cities of northern Mali fell into the hands of rebel and Islamist terrorist groups (Pettersson & Wallenstein, 2014). French and other international forces deployed to Mali during the first few months of 2013 to assist in recapturing its rebel-occupied cities (Solomon, 2013; Wulf & Mesko, 2014). In the aftermath of the violent armed conflicts, the Government of Mali and rebel forces signed a peace agreement in May of 2015.

The armed conflict had serious impacts on Mali's agriculture. According to Kimenyi et al. (2014), because of the conflict, the supply chain of agricultural inputs, i.e., fertilizers, fuel, seeds, and irrigation systems, was disrupted in the northern region; agro-input dealers could not access farmers due to insecurity. The livestock value chain was most affected by the armed conflict; many livestock owners fled to safety in the southern part of the country or to neighboring states (Kimenyi et al., 2014). Due to the armed conflict, in 2013, more than 900,000 people were food insecure in Mali, including much of its rural population (Gourdin, 2012).

Armed conflicts in both countries resulted in internal and trans-border displacement of thousands of people, especially their rural citizens. For example, in Mali, as of July 2014, more than 500,000 people were displaced internally or externally from their homes (UNHCR, 2015).

Pinstrup-Anderson and Shimokawa (2008) stated armed conflicts could result from impoverished socio-economic conditions, including extreme poverty, hunger, food insecurity, and inadequate distribution of income. In addition,

understanding agricultural systems and the needs of farmers is vital in mitigating the risks of conflict associated with rural populations (FAO, 2012). Muehlhoff and Herens (1997) indicated that access to a variety of services, including water irrigation, input supply, and agricultural advisory services, is essential for the recovery of rural economies impacted by armed conflicts. Acker et al. (2001), moreover, concluded substantial investments should be made in the human capital of rural communities, including agricultural education and extension programs, for a sustainable peace process to thrive in post-conflict countries.

Role of the Media and Other Information Sources

Harris (2011) maintained that a significant number of peacemaking and peacekeeping activities occur at the governmental, civil society, and individual levels. In this regard, the media can be a critical tool for supporting socio-economic recovery, peacebuilding, and stability after the cessation of armed conflicts (Swedish International Development Cooperation [SIDA] & The United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2003). Actors, including providers of news and

information, should disseminate and promote peacebuilding activities by making such known and by offering support to develop and make the initiatives more effective (Harris, 2011). All stakeholders, including farmers, policymakers, non-government organizations (NGOs), private sector actors, researchers, aid donors, and communicators, should work together to restore economic livelihoods, ensure food and nutrition security, and build resilience in rural communities after armed conflicts end (International Food Policy Research Institute, 2014).

The Agricultural Knowledge and Information System for Rural Development model (AKIS/RD; see Figure 1) supports this approach (FAO & The World Bank, 2000). The strategic vision of the AKIS/RD model is that farmers and other rural populations will gain increased knowledge, skills, attitudes, information, and technologies if integrated models of research, national policies, physical and human resources, institutional commitments, and communications systems are created and used (see Figure 1). The AKIS/RD approach assists poor rural populations in gathering, sharing, and exploiting information that may be only available from sources outside of their local communities (FAO & The World Bank, 2000).



Figure 1. AKIS/RD model for increasing the interface and exchange of information among stakeholders to empower farmers and other rural people. Adapted from “The Agricultural Knowledge and Information Systems for Rural Development: Strategic Vision and Guiding Principles,” by FAO and The World Bank, 2000, p. 2.

Statement of the Problem

During the decades following the independence of many Sahel countries, the region of West Africa has experienced recurring armed conflicts (Themner & Wallenstein, 2011). de Soysa and Gleditsch (1999) asserted that “[c]onditions affecting agriculture, the main source of livelihood in the rural sector in many poor countries, and the level of poverty and deprivation are linked to armed violence” (p. 19). Rural communities are frequently the most affected by armed conflicts. As a result of the recent conflict in Mali, more than 500,000 people were displaced and, by the end of 2012, it was estimated more than one million remain displaced in RCI due to armed conflict (Internal Displacement Monitoring Centre, 2014; UNHCR, 2015).

Hamre and Sullivan (2014) indicated *four pillars in post-conflict reconstruction*, including *social and economic well-being*, presaged “laying the foundation for a viable economy, and initiating an inclusive and sustainable development program” (p. 91). Moreover, post-conflict reconstruction requires greater attention to the agricultural sector in recovering economic livelihood: “[w]ithout cultivating development – a process highly dependent on favorable

conditions for agricultural production and rural livelihood – there can be no sustainable peace” (de Soysa & Gleditsch, 1999, p. 23). Media and other sources of information, i.e., rural Extension and advisory services and NGO personnel, stand to be important contributors to post-conflict reconstruction and peacebuilding efforts. However, much more assistance is needed, especially media and communication programs developed to support as well as complement post-conflict recovery efforts, peacebuilding initiatives, and the capacities of rural communities to recover after armed conflict ends. More study is needed about this phenomenon, particularly regarding the rural populations of West Africa, including the nations of Côte d’Ivoire and Mali. This investigation sought to do that.

Theoretical Framework

This research study was guided by several media effects theories, including the agenda-setting theory, the uses and gratification model, and the social cognitive theory of mass communication (Bandura, 2001; Bratiae, 2006; Severin & Tankard, 2001). Media effects theories explain how the media can better inform and educate an

audience and the conditions under which it could be more effective.

The agenda-setting model suggests the utility of the media's capacity, through continuous news reporting, for raising the relevance of an issue among its audience members (Severin & Tankard, 2001). Agenda-setting is not an automatic process, rather it involves information processing by audience members (Severin & Tankard, 2001). Research conducted by Hovland (as cited in Bratiae, 2006) found people can gain both information and new attitudes from media programs but receiving information does not necessarily lead to attitude change. Bandura's (2001) social cognitive theory of mass communication posits people learn best from behaviors perceived as beneficial. Bratiae (2006) asserted it is relatively easy to present post-conflict interventions as beneficial and thus stimulate attitudes favoring peace and stability over violence and conflict.

Purpose and Objectives

The purpose of this study was to explore farmers' perceptions on the role of the media and other information sources in disseminating news and information after the cessation of armed conflicts in the West African nations of RCI and Mali. Three objectives guided the study: 1) describe farmers' perceptions about how the media and other information sources assisted in economic livelihood recovery after armed conflict ended; 2) explore farmers' perceptions about how the media and other information sources assisted in rebuilding community resilience after armed conflict ended; and 3) determine farmers' views about how the media and other information sources addressed issues of economic recovery and rebuilding community resilience in regard to rural women, children, and youth affected by armed conflicts.

Methods and Procedures

This qualitative study involved in-depth, semi-structured interviews of 10 key informant farmers (Creswell, 2012; Krueger, 1994), including five from each country. An interview protocol guide was developed to collect data. The interview guide included seven open-ended questions and several probing questions consistent with the study's research objectives. The questions were phrased in an easy to understand format (Creswell, 2012) and asked in the informants' preferred languages. Merriam (2009) suggested using open-ended questions because that provides interviewees more opportunities to elaborate on the topics at hand and also elicits additional descriptive data.

The key informants were selected purposefully from the groups of interest in Mali and in RCI. In both cases, cognizant government officials and NGO personnel suggested the informants. The interviews occurred individually, averaged approximately 45 minutes in length, and were conducted during July and August of 2014. Data were collected until saturation (Creswell, 2012) occurred. According to Newing (2011),

[s]aturation is reached when [the researcher] can 'make sense' of the data in terms of identifying areas of consensus or other patterns, and when collecting more data produces little important new information or understanding that is relevant to [the] research question[s]. (p. 75)

The interviews were translated into English and transcribed verbatim for analysis using NVivo 10.2.0. Procedures of *naturalistic inquiry* (Lincoln & Guba, 1985) were used to analyze the data. The data were coded and recoded to identify emerging themes. The lead researcher's field notes provided context for his reflection as well as

guided data analysis and related interpretations (Creswell, 2012).

To increase the likelihood of validity, Tracy's (2010) eight criteria for ensuring high quality interpretive research were followed, including strategies to mitigate researcher bias. In addition, the lead researcher maintained an audit trail and held peer debriefings as he analyzed the data (Creswell, 2012). The environment in which the interviews occurred also assisted in achieving rigor as did the methods used to conduct the interviews. The lead researcher advised the key informants about the study's purpose and their rights as participants in accord with the Institutional Review Board regulations of Oklahoma State University. No incentives were provided to the informants. The lead researcher and sole interviewer established sincerity by maintaining a transparent and honest attitude during data collection and analysis.

Patton (2002) asserted that a qualitative researcher is considered the instrument and, therefore, needs ways to control his or her bias to build the trustworthiness of the data gathered. To that end, the researcher reflected on his personal background and biases, his relationship to the phenomenon studied, and bracketed himself. In addition, to immerse himself in the data, the lead researcher listened several times to the recorded interviews and also read and reread the transcripts before loading text into the NVivo software (Creswell, 2012). During each reading, the investigator recorded memos as he interrogated the data for future reference and interpretive considerations.

Findings

Ten key informant farmers, including three women, were selected purposefully to participate in this study based on their experience, positions in their communities, and their capacity to provide

in-depth insights regarding the phenomenon (Marshall, 1996). Six major themes emerged from analysis of the informant interviews.

Theme I: Media and other sources of information were not interested in agriculture-related issues or farmers after cessation of the armed conflicts

The study's key informants perceived the media and other sources of information were not interested in assisting farmers in recovering their economic livelihoods after cessation of the armed conflicts. Moreover, they indicated the media did not focus much on agricultural and rural issues even though farmers who experienced armed conflicts needed such programming. For most, the media focused more on urban issues and provided entertainment programs, e.g., music, cinema, and sports, which were not the informants' priorities. An informant from Mali said:

The media did not tell us anything about agricultural practices or what we need[ed] to do to improve our yields. We were left alone. For example, during the conflict many people left this town for safer places, and because of the armed conflicts people lost their cattle. At the end of the conflicts, and when people returned home, neither the farmers nor the cattle breeders received any information from the authorities or media. It was even worse for cattle breeders who stayed in remote areas with very limited access to media.

This farmer described the lack of assistance not only from the media but also government officials. In addition, he pointed out cattle breeders, who are nomadic and live in remote areas looking for pasture to feed their cattle, were the least informed.

Another informant from Mali mentioned she had not recently witnessed any reporting by the media, national or

local, regarding community issues or agriculture in her area. She stated:

I did not see them [the media] for a long time now. Some reporters from the national radio came here about four to five years ago, and that was before the conflict started here. Other than that, I do not recall any visit from any media.

An Ivorian informant, who spoke specifically about television, shared:

Television never talked about agriculture after the conflict. After the conflict, the price of rubber has fallen on the market but the media never told us. Why didn't they tell us? Who will not be happy if they tell us? If it does not make anyone unhappy, they should tell us. We are farmers and we need to know when commodities prices change and that's the role of the media.

In addition, several of the interviewees from Mali and RCI resented that the media were more attentive to their regions during the armed conflicts to report on fighting, deaths, and the displacement of people. An Ivorian farmer said: "The media was only here during the war to tell the world about our miseries. When the war ended, they packed and left us. They did not care about agriculture. This was not their business."

As an anecdote, the lead researcher noticed most of the media channels (national and local) did not have specific agricultural programs targeting farmers who experienced armed conflicts. In addition, several of the media outlet representatives with whom he interacted said they lacked the means to offer such programs, i.e., reporters, logistics, and security.

Theme II: Lack of Extension or rural advisory services during and after the armed conflicts

The study's key informants from both countries expressed rather emphatically that Extension or other forms of rural advisory services were mostly absent during and after armed conflicts in their regions. A Malian key informant stated: "They neither came to find out about our problems or help us to improve our farming practices during or after the armed conflicts. They only organized some farmers' gatherings in bigger cities maybe once in a while. That's it!"

A farmer from RCI expressed disappointment:

I think they should at least call for farmers' meetings to share the information they received from their superiors, [e.g., government agencies and researchers], but sometimes we can spend almost two years without any kind of update about farming issues.

In a similar way, another Malian informant declared:

We go to them [and ask] to come see, but they never come to visit our farms. They always made up reasons for not visiting. Either they say they do not have means of transportation or they simply will recommend us some brands of insecticides to apply. This month, they visited us once because there was an internal conflict between crop producers and cattle breeders.

Extension agents whom the researcher spoke to during the study resided in large towns and said they did not have the means to serve farmers in the more rural areas. In northern Mali, where armed conflicts were still ongoing at the time of the study, some Extension agents indicated they feared for their own security and could not assure field visits to the farmers.

Theme III: Need for more media programs on agricultural issues after cessation of the armed conflicts

A shared perception existed among the 10 key informants that the media could help them in many ways to recover their economic livelihoods and in a number of related areas. A typical statement made by one of the Ivorian farmers was this: “The media could help in different ways. For example, they could help us to organize ourselves, or think about development, they should also facilitate interactions between different farming professions to avoid internal conflicts.” Likewise, another Ivorian farmer asserted:

After the conflict, there were several land disputes here, many people lost their fields because of the conflict. When they returned home they found that the fields were confiscated and used by other farmers. The media could help us solve this problem by reporting about it.

A Malian informant indicated the media could help farmers improve their practices:

I heard some information on the radio that targeted the cattle breeders; the reporter explained what the cattle breeders should do to take good care of the animals. For example, he said that the breeders who have more than one-hundred head should try to sell some, and use that money to feed the rest of their cattle to have well-fed animals. Also, they advised the farmers about how to apply insecticides to prevent pest infestation in their crops.

Another Malian farmer stated: “The media need to tell us about the agricultural calendar, water management, and seed varieties and also about maintenance of motor-pumps. They all need to raise

awareness of farmers about the necessity to maintain their tools.”

Many of the informants expressed that the media, particularly radio and television, could inform farmers about micro-financing systems and cereal banks, i.e., storage of dried cereals kept by farming communities for hunger prevention measures, and also help them with demonstrations from successful farming experiences. A Malian farmer discussed his expectations for radio and television:

Radios, [i.e., their spokespersons], can also talk to us about how to get access to loans. They should help us with marketing processes. They should also teach us about how to establish and manage a cereal bank or to deal with [the] hunger gap here, [i.e., the period between the dry season and the new harvest season]. On television, they can also show us success stories, successful agricultural projects, to show us how these people have been successful.

An Ivorian informant commented:

Farmers definitely need the media’s help. We need someone to talk to us, to educate us, to inform us. We don’t know anything. We did not go to school. They also need to help us to live together in peace.

All 10 informants indicated the media could assist in reconstruction and peacebuilding efforts after armed conflicts end. To this point, a Malian farmer stated: “The information they brought us was to come together to understand each other and to forget about what happened in the past and to move on.” Further, an Ivorian informant shared his expectations of the media: “The media should work to establish peace in our community.” On the same topic, another Malian interviewee said: “The media should help to raise awareness and encourage farmers to live together in peace

and good understanding.” The informants’ statements on this theme, if taken together, emphasized the areas in which the media and other information sources could (and should) assist farmers to recover their economic livelihoods and live peacefully while rebuilding their communities after armed conflict ends.

Theme IV: The media should place more emphasis on issues regarding women, children, and youth

The farmers perceived the media should have more programs focused on issues affecting women as well as children and youth after armed conflict ceases. Most of the informants indicated women are key actors in their communities’ agricultural enterprises and the media should pay more attention to their needs, concerns, and issues. A Malian informant shared:

Women play an important role in our community today; they do all kinds of small activities. The media should talk about their roles in our society. They should emphasize that women should have their place in education, agriculture, and anywhere they can bring their contributions to the society.

Another Malian farmer agreed: “There are some programs on the national television and radio about women. They talk about women rights, about the right to [have] access to land, [and] micro-lending. They also talk about the role of women in peace talks.” Moreover, an Ivorian informant stated: “Women need education and information; radios, television, and newspapers can educate them, [and] they can tell them what is right to do.”

Regarding the issue of child labor and youth development after the cessation of armed conflicts in their regions, an Ivorian farmer stated:

Child labor is a big issue here. Many farmers do not admit its existence. But it is here. The radios must talk about it. Television should come and film the children working on the farm. If everybody knows about this issue, it will end. I don’t know why they don’t have programs about this issue, which compromise the future of many children. Radio, television, and other media should help us.

A Malian farmer shared: “The radio should raise awareness about child labor.” Further, another Ivorian informant perceived television as an important tool to eradicate child labor in his country. He said: “If the national television shows the people who use children to work on their farm, and the miseries the children suffer, they will be ashamed and they will give up this bad practice.”

All 10 informants perceived the media as an essential force for empowering women in the rural areas of Sub-Saharan Africa. They stressed that the media should develop more programs targeting women, especially rural women who experienced armed conflicts. Most also saw the media as important actors in improving the lives of rural children and youth.

Theme V: The media should provide programming in the farmers’ local languages

The farmers expressed their preference to receive information regarding agriculture and food production in their local languages. An Ivorian informant said: “Radio and television should talk to us in a language we understand.” Further, a Malian farmer commented: “They should give us the information in all of our national languages, such as *Bambara*, *Tamacheq*, *Sonrais*, *Peulh*, and *Dogon*.” Another Ivorian farmer questioned: “We have our own language, why do they use other

languages to inform us?” And a Malian informant explained: “I did not go to school to learn French. I want the media to use my native language.”

Theme VI: Loss of trust in the media after cessation of the armed conflicts

Several farmers expressed a loss of trust in the media after cessation of the armed conflicts. An RCI informant expressed this loss of trust with skepticism: “Every night, they give us information on television, but we do not know if this information is true or not? The media always say things that are not true, for reasons I ignore!” Another Ivorian informant explained:

Sometimes, I believe in television but not always. For me, television represents the government. It is the mouth and the eye of the government. But since it is about government, our country, we listen anyway. But they don't always tell the truth and that is the problem.

A Malian informant noted his preference for receiving information from peer farmers because he did not trust the media: “I do not trust what they say on television or radio because they always tell us lies. I prefer receiving news from people I know.” In addition, an Ivorian key informant insisted the media was not fair and neutral in disseminating information. He explained:

The media in Côte d'Ivoire just serves the current government. They only talk about politics and make propaganda for the government. They don't talk about agriculture or commodity prices. They avoid talking about coffee, cocoa, or rubber. They must change. Nobody in our village watches the national television.

Conclusions

Many of the farmers in Mali and RCI reside in remote rural areas severely affected by armed conflicts. However, the key informant farmers said they had rarely benefited from the media or other information sources in regard to recovering their economic livelihoods or much in the way of rebuilding their communities' resilience after cessation of the armed conflicts. Although the media appeared interested in reporting on the violence and suffering associated with armed conflict while it occurred, the informants perceived the media's attention dissipated quickly after conflict ceased. It was during the cessation of conflict that the farmers perceived news and information sources, including Extension/advisory services, could (and should) have helped them. The informants also saw a special role for the media and other information sources in regard to improving the conditions of rural women, children, and youth after the cessation of armed conflicts. The desire for news and information in their local languages was made clear by the informants. A lingering loss of trust in the media and other providers of information was also voiced by the study's 10 key informant farmers.

The media can contribute to society, including to post-conflict reconstruction and resilience building in war-torn communities, if used effectively (Severin & Tankard, 2001; The World Bank, 2012). Further, Fortune and Bloh (2008) asserted the media could promote the management of citizens' expectations, foment a sense of ownership in reconstruction processes, broaden community constituency, strengthen transparency, build credibility of and confidence in government, and improve the quality and coordination of information delivery in post-conflict areas. Findings of this study support their assertions.

Recommendations for Practice

The media and other information providers should develop news and informational programs focused on agriculture and food production, natural resources, and environmental issues targeting farmers who experienced armed conflicts. These programs should be provided in farmers' local languages. Moreover, Extension agents, NGO personnel, and agricultural communicators (see Figure 1) should be encouraged to serve in post-conflict zones, especially in farming areas. However, their security needs *must be addressed* as well as transport and other logistics supporting service delivery.

Media professionals, Extension agents, and NGO personnel should be trained regarding media ethics, trauma mitigation, and crisis communication strategies if they intend to serve farmers recovering from the effects of armed conflict. Ringer (2014) argued such training could facilitate building trust in and reliance on *outsiders* who conduct post-conflict reconstruction and recovery programs in the rural communities of developing countries. Tertiary education institutions, especially those focused on agriculture in post-conflict regions, could play a vital role in developing and teaching curricula (Acker et al., 2001; Maiga, Cartmell, Edwards, & Robinson, 2013) stressing the competencies needed by their graduates to effectively serve these populations. The curricula should include topics such as crisis and post-conflict communication strategies, trauma and stress management practices, and Extension/rural advisory service deliverables suitable for the target audience.

The media and other information providers should also develop programs to address cross-cutting societal issues, including gender sensitivity, child trafficking, girls' education, and income-generating activities targeting women and

youth. Further, the media should conduct informational needs assessments to design programs of the most interest to their respective audiences (Macnamara, 2005). The agenda-setting model suggests *the utility of the media*, as perceived by an audience, stems from it reporting on issues related to their audiences' interests and needs; this also includes individual agenda-setting effects (Severin & Tankard, 2001).

Bandura (2001) maintained the media have two essential roles: a) to inform, motivate, and guide their audiences and b) to influence their audiences to build strong communities. Bratiea (2006) argued that in times of conflict people's information needs increase and they are more vulnerable to the media's influence. Therefore, the media and other information sources should strive to build and maintain trust by conveying neutral and timely information to farmers and other rural citizens during and after armed conflict. Moreover, the governments of Mali and RCI and aid donors should also develop and implement holistic communication plans targeting rural populations who experience armed conflict. Policymakers are encouraged to consider this study's findings to inform their planning and implementation of communications and rural Extension/advisory services targeting farmers who experience armed conflicts.

Recommendations for Additional Research

The voices of media professionals and other information providers also need to be heard on this phenomenon. To that end, research should be conducted on the views of media professionals, Extension/advisory agents, and other information providers regarding their roles in contributing to the economic recovery of farmers and the rebuilding of rural communities after the cessation of armed conflict. The results of such inquiries may be very helpful in

effectively serving the needs of agrarian societies found in many developing countries.

A comprehensive content analysis of the focal areas of media reporting and programming should be conducted in Sub-Saharan Africa (Macnamara, 2005), especially in Mali and in RCI. Such analysis could inform curriculum developers and communications educators about content to include in learning materials for the preparation of agricultural communicators (Maiga et al., 2013) likely to work in rural areas predisposed to experiencing armed conflict.

Implications and Discussion

The media shape our perceptions of armed conflicts (Bratiae & Schirch, 2007). The media often report more on armed conflicts than about peacebuilding or recovery efforts. “Several studies confirm that the effect of media on conflict is greater than the impact of the media on conflict prevention and peacebuilding” (Bratiae & Schirch, 2007, p. 8). However, Moge kwu (2009) argued the media could be useful in educating local people and increase their understanding of, participation in, and accountability for the decision-making processes impacting their community’s welfare. The AKIS/RD model (see Figure 1) encourages using the media to convey accurate information to rural communities to increase citizen motivation to conduct farming enterprises and recover their economic livelihoods after the cessation of armed conflict. The findings of this study support that position.

Unfortunately, of note, the rural communities of some countries with large Muslim populations, for example, parts of northern Mali, have become recruiting grounds for Jihadist terrorist groups, especially in regard to sourcing disaffected youth (Thornberry & Levy, 2011; United

States Department of State, 2013). This reality is additional incentive to assist these communities in economic recovery and in restoring their vitality after experiencing armed conflicts (Kimenyi et al., 2014; Thornberry & Levy, 2011). Increasing the likelihood of their rural citizens being well-informed on a variety of topics, including agricultural and other livelihood-improving news and information, is an essential component of the larger effort to provide alternatives to disaffection, poverty, and further violence (SIDA & UNESCO, 2003; Thornberry & Levy, 2011).

The imperative of post-conflict response requires integrated and inclusive strategies to assist rural populations in recovering their economic livelihoods (Hamre & Sullivan, 2014). Therefore, understanding the views of farmers who endured armed conflict provides a basis on which to develop curricula and programs designed to integrate agricultural education, agricultural communications (Acker et al., 2001; Bertini & Glickman, 2009), Extension (Ringer, 2014), and leadership such that practitioners are prepared to work effectively in post-conflict regions (Shinn, Ford, Attaie, & Briers, 2012). Agricultural education and extension *writ large*, i.e., if viewed as transdisciplinary with global perspectives and responsibilities (Shinn, Wingenbach, Lindner, Briers, & Baker, 2009), has a salient role to play in the economic recovery of rural populations who experience armed conflict (Moore & Harder, 2015). Acker et al. (2001) concluded “the role of education in promoting democratic institutions will offer agricultural educators a leadership role should they choose to accept such a role” (p. 8). Further, Acker et al. (2001) warned “it is in our global collective interest to invest in activities that enhance political stability than have to spend much larger sums on peacekeeping and post-conflict democratization” (p. 8).

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