

**Revisiting Radio, Newspapers and Mobile Phones as Mediums of Enhancing  
Agricultural Productivity: A Review.**

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**Abstract**

Several approaches are used by extension systems to disseminate agricultural information and these approaches depend on the objectives of the extension systems, locality and available resources. Radio, newspapers and mobile phones have been used for the dissemination of agricultural innovation but it is necessary to revisit these mediums in this era where there is fast technological improvement. This review aims at suggesting ways of improving on the use of radio, newspapers and android phones in enhancing agricultural productivity. From the documents reviewed, radio and newspapers are good mediums of creating awareness to the general public on agricultural innovations but it has been politicized. Also, android phones though seen as individual extension method, can be adapted and used as a group method. It is suggested that in order to improve these mediums, more agricultural programs should be initiated especially in community radios, creating a column in public newspapers for agricultural information and strengthening agricultural newspapers publishers, connecting newspapers houses with agricultural research centres, creating 'WhatsApp' groups for farmers, and the government partnering with the mobile communication companies to be sending agricultural updates to the general population through short messages. Therefore, we recommend that the government should encourage private radio stations and newspapers houses by funding agricultural programmes and also that mobile telephone and radio signals should be upgraded and adult education encouraged.

**Keywords:** Radio, Newspapers, Mobile Phones, Enhancing and Agricultural Productivity

31

32 **Introduction**

33 Effective listening and learning depend upon effective teaching and animation. Effective  
34 teaching and creation of learning environment in extension largely depend upon the teaching  
35 methods or extension teaching methods used by extension agents. Proper selection and skilful  
36 handling of extension methods bring out expected changes in the members of a community

37 There are several approaches use by extension agents to disseminate agricultural information:  
38 the individual or household approach, the group approach and the mass extension  
39 approach (Omogor, 2013; Haliso & Ajayi, 2014). None of these methods can be singled out as  
40 being the best one; all of them have their advantages and disadvantages (Tengnas, 1994). The  
41 choice of any method depends on the locality, objectives of the extension agents and  
42 resources available. However, the mass extension methods stand out as the best method in  
43 terms of coverage and creating awareness. It involves the following elements radio, posters,  
44 drama, television, films, slide shows, and print media to inform the public.

45 Nowadays, with the improvement on radio network, most communities are having at least a  
46 radio station or have applied for the creation of one. It is worth nothing that the advancement  
47 in technology has made it possible for most of our appliances; radio set, phones, TV, headset  
48 and musical sets to be receiving radio signals. More to that most of these appliances are either  
49 chargeable or using solar system and this has made it possible for most people (farmers and  
50 mostly the youths) in rural areas to be using them. However, the youths and most farmers  
51 preferred mostly radio channels and radio programs that play mostly music and gives football  
52 commentaries without focussing on agricultural programs that can improved their lives.

53 More so, little attention is given to agricultural incline programs in most radio channels  
54 which is the backbone of Africa development instead our radio channels keep on discussing  
55 politics day-in day- out. Even the so call community radio channels which are at the helm of  
56 the farmers have been politicized by political leaders and this has diminished rate of  
57 broadcast of agricultural programs and the love of farmers following programs on most of  
58 these channels. They only tune- in when they know the channel is playing music or  
59 animating.

60 Public newspapers are another important tool in information dissemination even though they  
61 carry little or no agricultural information (daily or monthly commodity national and

62 international prices, successes of farmers in other localities, agricultural innovations, new  
63 breeds of crops and livestock, and new market openings for agricultural products). According  
64 to Ogessa & Sife (2017), coverage of agricultural information in Tanzania's newspapers  
65 published between 2009 and 2013 show that out of the 63,609 news articles published only  
66 836 (1.3%) articles were on agriculture. Furthermore, in most countries, there are few  
67 publishing firms specific for agricultural world. The few that are there lack specialist in this  
68 field to be providing them with the latest happenings thus little is being published.

69 Mobile telephones are use as individual method of agricultural information dissemination by  
70 extension systems but can be adapted and used as extension mass method of communication.  
71 It is very common nowadays seeing farmers with android phones in rural areas of most  
72 countries not to talk of urban areas. Extension systems can exploit this advancement in  
73 mobile communication technology to assist farmers to create 'WhatsApp' groups containing  
74 hundreds of farmers. This will enable the extension systems to disseminate agricultural  
75 information (prices, new markets, etc) to a large number of farmers in lesser time. Therefore,  
76 the flow of information between the farmers and the extension systems can be facilitated  
77 especially in times of emergencies.

78 **It should be noted that radio, newspapers and telephones are just mediums of communication**  
79 **and what comes out of these mediums is the message being introduced by the users or**  
80 **controllers base on their thoughts and or objectives which can greatly shape the societal**  
81 **pattern of life (McLuhan, 1964).** With all the above argument and taking into consideration  
82 that the only way we can escape from this alarming poverty is through agriculture, it is  
83 necessary for these mediums to be well harness by the extension systems and the government  
84 so as to improved agricultural productivity and enhance poverty alleviation.

### 85 **Radio as Medium of Improving Agricultural Productivity**

86 Radio is an electronic audio- medium for broadcasting programs to audience. **According to**  
87 **McLuhan (1964), it is considered as 'hot medium' because it favours analytical precision,**  
88 **quantitative analysis and sequential ordering.** Also, it is one of the mediums of mass  
89 communication and an effective tool for giving information and entertainment (Nazari, Bin,  
90 Hassan & Parhizkar, 2013). Though mostly located in towns, its waves cover large surface  
91 area. Over the years there has been increasing demand for radio services in rural areas and  
92 this has led to the creation of community radio stations in most rural areas. Also, there has  
93 been an improvement in technology making it possible for almost all musical appliances to be

94 receiving radio frequencies. However, politicians and business men have taken this advantage  
95 to woe the population especially those in the rural areas. It is important to note that extension  
96 agents on their part has taken this advantage to disseminate agricultural innovations to famers  
97 since it is suitable for communicating to millions of people widely dispersed especially those  
98 in the remote areas. According to information exchange, radio is more accessible and also the  
99 major source of agricultural technologies to the farmers (Ariyo, Okelola, Aasa, Awotide,  
100 Aaron, & Oni, 2013). This medium has also been proven to be suitable for creating  
101 agricultural awareness amongst the populace which is the first and very strategic step in  
102 innovation introduction. Furthermore, in community radios, dialect or 'pidgin' are mostly use  
103 for broadcast and in most situation, the programs are re-broadcast. This makes it possible for  
104 those who missed the program or never understood certain things in the program to follow it  
105 again. Moreover, people with no education or little education and those who are not in a  
106 position to attend extension programmes personally take advantage of this medium and build  
107 up adequate knowledge about a practice. Also, there are some interior areas in the rural  
108 milieu which are not motorable especially in the rainy seasons and this is the only medium to  
109 reach to them. Most importantly, programmes can be listened by the people while doing work  
110 in their fields or at home.

### 111 **Newspapers**

112 Newspapers are one of the mass methods of information dissemination. Most of them cover  
113 business, political and economic issues and are mostly available and read in towns and cities.  
114 They are not widely available in rural areas but agricultural newspapers commonly called in  
115 some areas; for instance, Cameroon as the 'The Farmers Voice' is mostly seen in some rural  
116 areas especially in farmers groups. This is one of the most important print media mostly  
117 printed in colours and carries several messages for farmers (Farooq, Muhammad, Chauhdary,  
118 & Ashraf, 2007). However, it creates awareness of new ideas and to inform people of what  
119 other groups or communities are doing. Moreover, it provides precise and reliable scientific  
120 agricultural information in simple language and also carries accurate, motivating, creditable  
121 and distortion-free information to farmers and other audience. This medium can be use at the  
122 farmer 's convenience and serves as future references. Apata (2010) added that majority of  
123 farmers mostly men in Ekiti State, Nigeria are using newspapers for the following reasons; to  
124 gain knowledge about appropriate type of fertilizer to apply and methods of application of  
125 such fertilizer, gain knowledge on timely crop planting, to gain knowledge about easy access  
126 to credit, and to gain knowledge on disease, insect and pest control.

## 127 **Mobile phones**

128 Mobile phone is an electronic device that helps us to relate with other people elsewhere by  
129 placing a call. This device has been evolving over the years; from a simple phone to android  
130 phone with several functions. It is common to see both male and female farmers with mobile  
131 phones for personal and farming purposes (Haliso&Ajayi, 2014; Prihandoyo, Muljono,  
132 &Susanto, 2014). In another demonstration, Masuki,Tukahirwa,Kamishuga,Mowo, Tanui,  
133 Mogoi, &Adera(2011) and Chhachhar&Hassan, (2013)addedthat rural communities  
134 appreciate the use of phone as easy, fast and convenient way tocommunicate and access  
135 information on agriculture, natural resources management and marketing.However, apart  
136 from calls, nowadays these phones are commonly used for ‘facebook’ and most importantly  
137 ‘whatsApp’ which can link hundreds of people at the same time. Most people now are  
138 scrambling for this new technology with some communities already having at least one  
139 android phone per household. According to Ariyo et al (2013), mobile phone technology has  
140 provided multidimensional benefits to the rural people and it helps in interaction,  
141 accessibility, and quick information exchange or timely information exchange. Therefore,  
142 mobile phones save energy and time of farmers and possibly improved their income  
143 (Chhachhar& Hassan, 2013). An event happening in Nigeria now can be snap or film and  
144 send to so many people in other countries at the same time, same with agricultural innovation  
145 in picture format. It is worth noting that most illiterate can interpret the messages pictures  
146 carries especially agricultural pictures. This medium is relatively cheap compare to calls and  
147 it is high time farmers and extension agents take this advantage for faster information  
148 dissemination.

## 149 **Problems militating against Effective use of Radio, Newspapers and Mobile Phones for** 150 **Agricultural information Dissemination in Africa**

151 Most of our agricultural research institutions do not provide research results to publishing  
152 houses to be published and this makes it difficult for them to be publishing up- to-date  
153 information and on time (Apata, 2010). Even what is published does not reach the rural  
154 farmer on time due to inaccessibility of some of rural areas and most often, the newspapers  
155 are costly (Apata, 2010).

156 Furthermore, the lack of signal and poor telephone network coverage in many communities in  
157 Africa has greatly reduced the use of telephones in economic activities especially in  
158 agriculture. This is further aggravated by the high charges levi on users and the cost of a

159 mobile telephone (Chhachhar and Hassan, 2013; Masuki et al, 2011). Above all the main  
160 problems impeding the use of mobile phones and newspapers are language barrier and  
161 illiteracy (Masuki et al, 2011).

162 Limited Coverage or Transmission range, poor signals and frequent power failure or absence  
163 of electricity supply are the paramount constraints militating against the use of radio channels  
164 for the dissemination of agricultural information in most Africa countries. Most often, their  
165 wavelength does not reach the rural areas. Also, the Lack of Sponsors of Agricultural  
166 Programmes and limited number of Agricultural Professionals also post a serious problem  
167 (Donye, 2018).

### 168 **Suggested ways of improving on agricultural programmes on these mediums of** 169 **information dissemination**

#### 170 **Radio**

171 Since this medium is widely followed by most people, especially for entertainment (music)  
172 programmes, extension agents should use the advantage of these programmes to convey their  
173 innovations. That is short agricultural records can be play before a programme starts and  
174 immediately when it ends or even in the middle of the programme. Extension agents can also  
175 programme their talks during these periods.

176 Also, farmers, group leaders (especially young farmers) should be encourage to be  
177 developing sketches on their successes and experiences so that they be play and re-play in the  
178 radio for others to be encourage. They can also share their experiences 'live' in the radio  
179 channels. With these they farmers will be happy that their voices are being heard and since  
180 the messages are from their fellow members, they will easily adopt them.

181 Most importantly, national and international prices and market openings of agricultural  
182 commodities should be announced either daily or weekly. This will motivate even those who  
183 are not in agriculture to start producing and also farmers to be following radio programmes.

#### 184 **Phones**

185 In this android generation, most farmers or a family member in the rural area has an android  
186 phone maybe not necessary for calls but to snap pictures and 'WhatsApp'. Therefore, farmers  
187 should be encouraged to form 'WhatsApp' groups where they can easily circulate  
188 information. Majority of those who have basic education in the rural areas operate android

189 phones especially when it concerns 'WhatsApp' and Facebook. Considering the fact that  
190 pictures transmit a lot of information, agricultural pictures can be snap of film and share to  
191 farmers or sent to extension agents for immediate suggestions and reactions. Therefore, with  
192 this before extension agent get to the fields, farmers must have taken short term measures to  
193 rescue their crops and livestock. This medium may also help farmers to be able to update  
194 themselves on the latest happening (prices, outbreaks of diseases and new markets) and the  
195 decisions to take.

196 Government or the ministry of agriculture can partner with mobile communication companies  
197 so that they can be sending daily or weekly agricultural updates to the entire population. This  
198 will encourage some people to invest in agriculture and some to continue in the sector since  
199 they are able to receive fresh ideas.

200

## 201 **Newspapers**

202 Agriculture remains the back bone of Africa's development and if Africans are thinking of  
203 developing, they should give agriculture the value it deserved. Apart from publishing mostly  
204 political issues on our public newspapers, a regular page or column should be created on  
205 these newspapers for agricultural updates. This column can carry information on; prices of  
206 agricultural commodities, output of commodities, innovation, success stories of famers in  
207 other communities, sources of micro and macro finances to farmers, and market openings.  
208 Our argument is that, there are some politicians and wealthy people who have money and  
209 land and are not aware of the openings in the field of agriculture and if they tumble on  
210 agricultural information, they may end up investing in it. Therefore, the number of investors  
211 in this sector will increase thus reducing unemployment and increasing output for agricultural  
212 industries and GDP.

213 Moreover, the governments of African countries should create and subsidies public  
214 newspapers only for agricultural information. More so, international agricultural newspapers  
215 should be created where farmers can easily share their views and experiences internationally  
216 especially on food preservation and storage so as to reduce, they quantity of post- harvest  
217 food loses in other countries. Just like the 'Farmer's Voice in Cameroon,' captivating names  
218 should be given to these newspapers so that farmers especially rural farmers should feel  
219 belonging.

220 Furthermore, the link between publishing houses and agricultural research institutions should  
221 be strengthen so as to initiate the flow of information.

## 222 **Conclusion**

223 Several methods have been identified and use by extension agents to disseminate agricultural  
224 innovations in rural and urban areas in order to boost agricultural productivity. The choice of  
225 these methods depends mostly on the locality, culture and the available of resources. Radio,  
226 newspapers and telephones are mostly use as extension methods of information dissemination  
227 but have been politicized by our political leaders since the beginning of this decade.  
228 Therefore, revisiting and modifying programmes in these mediums can lead to improvement  
229 in agricultural productivity and poverty alleviation especially in this era where there is fast  
230 advancement in technology. The government and policy makers should therefore strengthen  
231 these media alongside encouraging farmers to be using these media for their update.

## 232 **Recommendations**

- 233 ➤ Government should encourage private radio stations by funding agricultural  
234 programmes so that the number of days they are broadcast can be increase,
- 235 ➤ Adult learning commonly called school without walls should be encourage so that  
236 farmers can be able to use mobile telephones and newspapers,
- 237 ➤ Since it is difficult for farmers in rural areas especially those in the interior to have  
238 access to newspaper, a link should create between farmers in the semi- urban areas  
239 and those in the interior for easy flow of information, and
- 240 ➤ Mobile telephone and radio signals should be upgraded and antennae established in  
241 rural areas.

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