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The Role of Egypt Agricultural Channel in the Enhancement of Farmers' Agricultural Knowledge in Kafr El-Sheikh Governorate, Egypt.

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Today's media plays an important role in the development and modernization of societies in various aspects of life, Television is acknowledged as the most important medium for communicating with the rural populations in developing countries Accordingly, Egypt Agricultural Channel was established to serve the agricultural sector in the Arab Republic of Egypt. This channel targets a at least 20 million Egyptians working in the agricultural sector directly and indirectly. The study was carried out to examine the impact of Egypt Agricultural Channel (EAC) and to evaluate its role as an educational tool in the enhancement of farmers' agricultural knowledge, Descriptive research design was used, This research was conducted in Kafr El Sheikh Governorate, A multi-stage sampling technique was used, Research data were collected through personal interviewing questionnaire with 331 respondents representing 13.4% of the total number of holders of the three chosen villages, Research data were collected through personal interviewing questionnaire during the period from February till May 2017. Results showed that 30.2 % of the respondents obtain agricultural information from television, and 59 % of them did not watch EAC before, Results also showed that 35.3% of the channel's followers saw channel programs as not useful, This clearly indicates that the channel did not succeed in reaching a large segment of the farmers, which is the purpose for which the channel was established. Results also showed that 42 % of them prefer programs in the dramatic format, and 24 % of them prefer talk shows programs, which necessitates channel operators to pay more attention to the Agricultural programs formats Preferred by the respondents. Results also revealed that many problems facing the respondents who watched EAC programs, lack of content attractiveness as mentioned by 76.5 %, Followed by the Poor-coverage for farmers' knowledge needs (72.8%), Which requires the intervention of officials to solve these problems So that the channel can play its role in serving development issues to the fullest extent.

Keywords: Role, Egypt Agricultural Channel, Agricultural Knowledge, Kafr El-Sheikh Governorate .

INTRODUCTION

Sustainability and productivity of the agricultural sector worldwide largely depend on the quality and effectiveness of Agricultural

extension services (Kimaro et al., 2010). It is known that agricultural extension service is the out-of-school educational process to help farmers solve their day to day agricultural problems. It disseminates agricultural research findings to

farmers to improve their analytical capacity and communication skills to help them in their farming and farming related activities (Bruin and Meerman, 2010). In fact, Agricultural extension uses many methods and channels such as: extension agent individuals visits, Extension meetings, but the limited coverage of conventional extension methods necessitated the use of mass media methods in extension communication. Mass media enables the extension staff to operate more effectively. (Agbamu, 2006) So that Agricultural Extension System (AES) should focus on print media (news papers, magazines, news letter, pamphlet and posters) and electronics media (Radio, television, and films trips) to disseminate information to farmers (Olowu.2000)

Information and communication technology (ICT) has allowed for new approaches and strategies for disseminating information to rural farmers in order to increase agricultural productivity.(Abubakar, Ango and Buhari, 2009). Hence the mass media are considered to be an effective tool in disseminating agricultural information among farmers and they constitute the most powerful mass media for disseminating information quickly (Kakade, 2013). Media communication is also very essential and plays an important role in disseminating information at a very fast rate to rural and far flung areas, many miles away from areas where decisions regarding farming activities are made. This is especially true in underdeveloped countries (Lwoga, 2010).

It is no secret that agricultural development programs success in developing countries largely depends on the nature and extent of use of mass media in mobilization of people for development. The planners in developing countries realize that the development of agriculture could be hastened with the effective use of mass media (Purushothaman C. 2003). Where the media can play an important role in disseminating information towards agriculture development and, hence, poverty alleviation. They are seen as a critical resource in the promotion of agricultural development, with a power to alleviate poverty (Gopalakrishna, 2005).

Badodiya et al., defined Mass media as a channel of communication which disseminate the information to the large number of people at the same time (Badodiya et al., 2010: 109). Television and radio is one of the most powerful media which disseminate information about agriculture, education, health and rural development. (Ekoja, 2003)

Agriculture development mostly depends on

sharing the knowledge and information about new agricultural technology transfer among farmers. Nowadays the farmers have needed to be timely informed about use of new technologies and upcoming warnings regarding pesticides and other diseases by media. (Prathap, 2010) Radio and television has been acclaimed to be the most effective media for diffusing the scientific knowledge to the masses. In countries where literacy level in rural areas is low, the choice of communication media is of vital importance. In this regard, the television and radio are significant, as they transfer modern agricultural technology to literate and illiterate farmers alike, within a short time (Nazari and Hasbullah, 2008).

Television is acknowledged as the most important medium for communicating with the rural populations of developing countries (FAO, 2001).TV is one of the most influential channels of the communication; For such reason, television is used in a planned manner so that it can motivate the people to participate in developmental programs. (Chaudhry, 2011). Television has also gained popularity among farmers due to its ability to combine both the audio and visual effects, effectively making it the preferred medium by both the private and public agencies in the dissemination and transfer of modern technology in agriculture. (Zia and Khan, 2012).

The impact of television varies from one society to another depending on the economic, social, political and educational conditions of each society. The following is a brief overview of the development of radio and television in Egypt.

Historical review of Radio and Television in Egypt:

Before the start of the official television and radio broadcasting, a number of national radio stations were established, there was no law or decree defining the systems of operation of these radio stations or imposing any kind of censorship at the outset, until the decision of suspend the broadcasting of private radio stations completely on July 13, 1932, The official Egyptian radio started its first broadcast at 5:30 pm on May 31, 1934 , for television, Studies indicate that the decision to start broadcasting to Egyptian television took place in the mid-fifties, but the tripartite aggression on Egypt caused the delay in the establishment of television until late 1959, where Egypt signed a contract with the American Broadcasting Corporation To provide them with a television network, the first Egyptian television broadcast was on July 21, 1960, Which covered

at its beginning the city of Cairo and the surrounding areas up to a distance of one hundred kilometers in all directions, The Egyptian television set it up with one channel. The transmission time was set at six hours per day. The average transmission time was increased to 13 hours per day after the start of a second television channel on 21 July 1961, A third channel was sent in October 1985 and the average transmission hours on the three channels were between 25-30 hours per day.(<https://www.maspero.eg>)

The Egyptian TV presented various arts and media contents that reflected people's needs and interests from cultural, educational and recreational programs. In the early 1980s, the Egyptian television witnessed many developments in more than one field, Where the principle of media sovereignty began to be activated through the geometric and geographical expansion of the TV coverage field, and the Egyptian television channel was sent to all the governorates , Egypt became the first Arab country had a satellite channel in December 1990 and in April 1998 became the first Arab country to own a satellite Nile sat, As for the specialized channels, the specialized Nile channels were launched in 1998 with 10 channels. <https://www.maspero.eg/wps/portal/home/egynews/files/egypt/details/871f1839-c664-4227-8c3c-4ff70c98fe0f/>

Egypt Agricultural Channel (EAC)

In 2011, Law No. 1493 was passed, which

stipulates that a television channel should be established for agricultural extension services works to alleviate the suffering of the Egyptian farmer and be the tool and the link between the farmer and the Ministry of Agriculture, especially after the Egyptian revolution, This channel was established in accordance with Ministerial Resolution No. 2276 of 2011 on the selection of the organizational structure of the channel and the establishment of a channel under the name of Egypt Agricultural channel <http://misr.alzeraya.tv/aboutus>

Egypt Agricultural Channel Goals

Egypt's agricultural channel targets at least 20 million Egyptians working in the agricultural sector directly and indirectly (<http://misr.alzeraya.tv/aboutus>). By achieving the following objectives :

- Transferring agricultural events on a national level through a highly skilled professional team.
- Providing modern extension service and full support to all agricultural sector workers.
- Address rural issues affecting farmers' lives such as irrigation, and environmental issues.
- Helping farmers and producers to choose the best agricultural, animal, poultry and fish production requirements.
- Helping disadvantaged and marginalized groups of small farmers to increase their incomes by shedding light on them and working on their integration into agricultural projects announced by the Ministry of Agriculture and Land Reclamation.

Conceptual Framework

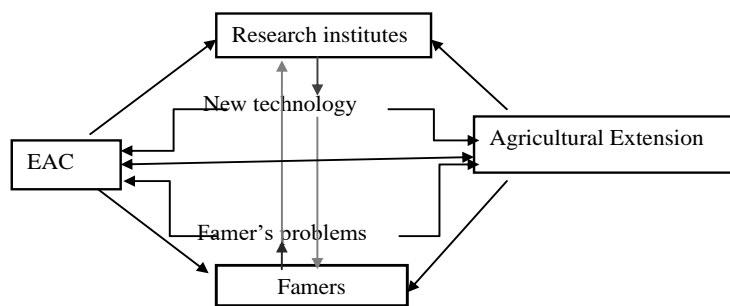


Fig.1 source (author, 2018)

Figure.1 source (author, 2018)

EAC transfers modern technology produced from research institutes in universities or research centers to farmers and also transfers the problems of these farmers to the research centers to try to find solutions, which is the same role played by the AES , and no wonder that the

channel is one of the most important arms of the extension in Egypt Although there is no organizational link between the channel and the agricultural extension, there is coordination between them aims to serve the farms, albeit below the expected level .

Research problem :

Television has an important position in the development and modernization of societies in various fields of life and despite a large number of Egyptian TV channels, there is a weakness in agricultural media, where there is only one Egyptian channel specialized in agriculture plays an important role in light of the sharp decline in the number of agricultural extension workers, With the rare studies that dealt with the Extension role of Egypt Agricultural Channel , this study was trying to identify the impact of EAC and to evaluate its role with farmers in Kafr El Sheikh, Egypt.

Research goals:

The purpose of this study was to study the impact of EAC and to evaluate the role of EAC as an educational tool to enhancement of farmers' agricultural knowledge.

Objectives of the Study were specifically to:

Identify the different sources of mass media used by farmers to access agricultural information.

Identify EAC programs watching frequency

Determine the most EAC preferred agricultural programs for farmers interviewed who watched the channel.

Assessment of benefits derived from EAC programs.

Determine agricultural programs formats preferred by respondents.

Determine Type of information that farmers

would like to access.

Determine the Main Problems for farmers interviewed who watched the channel programs.

Justification of the study

This research was motivated by the lack of documented evidence on the impact of EAC programs despite the important educational role that can be played by the channel in light of the sharp decline in the number of agricultural extension workers and the reduction of the budget directed to the extension system in the Arab Republic of Egypt

MATERIALS AND METHODS

This study was conducted in Kafr El Sheikh Governorate, Descriptive research design was used, a multi-stage sampling technique was used, First stage of sampling was for the selection of district, where three districts (Kafr El Sheikh, Qaleen and Desouq) were selected in a random manner.

In the same way at the second stage, one village from each district was also randomly selected using similar method, these villages were Al Rawdah, Tawilt nashart, and Kufr al-Arab respectively, The total number of farmers in the three villages was 2,395 farmers, 880 of them were in Al-Rawdah village and were in Tawilt nashart 695 farmers; while 820 farmers in Kafr El-Arab village According to the Agricultural Cooperative Society's inventory of each village, at the final stage respondents were chosen.

Table 1: distribution of respondents according to their percentage in the sample and study population

Village	Number of Holders(N)	%	Number of respondents (n)
Al Rawdah	880	36.7	121
Tawilt nashart	695	29	96
Kufr al-Arab	820	34.3	114
Total	2395	100	331

Source: Directorate of Agriculture Kafr El Sheikh (2017), Ministry of Agriculture and Land Reclamation,(Unpublished data) Egypt.

Sample and Data Collection

According to Krejcie & Morgan's (1970) table for determining sample size, for a given population of 2400, a sample size of 331 would be needed to represent a cross-section of the population, and In order to achieve the research objectives a random sample of 331 respondents representing 13.4% of the total number of holders

of the three villages was selected, Distributed over the three villages according proportion of farmers in each village to the total number of farmers, Research data were collected through personal interviewing questionnaire during the period from February till may 2017.

Data analysis

Collected Data subjected to descriptive statistics were tabulated and analyzed with the help of simple statistical techniques like frequency, percentage, etc. Results were analyzed using the IBM SPSS software version 20.

RESULTS AND DISCUSSION

Characteristics profile of the farmers surveyed:

The results (table2) showed that the vast majority of the respondents were men, among all the participants there were 87.9% men and 12.1% women. This is a natural result in the Egyptian countryside, where men still control the possession of agricultural land. However, the role of rural women in agricultural decision-making should not be overlooked, and agricultural programs should focus more on rural women. The results also showed that Only 25.4 % of the respondents were over 40 years of age, meaning

that the vast majority of the farmers were young people who were more willing to accept new ideas in agriculture, which is the role that should be played by the agricultural media.

Media is the appropriate means for illiterate people to obtain agricultural information, the results showed that 38.1 % of the respondents were illiterate. 9.1 had Primary Education, only 18.1 % of the respondents received university education, agricultural media should therefore play a greater role in simplifying agricultural information and transferring it to farmers. As for the agricultural tenure, most respondents (58.9%) had less than feddan (feddan is 4200 m² or 0.42 hectares.)

This situation of fragmentation in agricultural areas is due to the legacy consider one of the obstacles that faces modernization in the Egyptian agriculture in general, the farmers often do not have the ability to take risk and try new ideas and here comes the role of the media in making these ideas a reality for farmers so that these new ideas and methods can be adopted.

Table 2: distribution of respondents according to agricultural information sources through mass media

characteristics		N	%
Gender	male	291	87.9
	female	40	12.1
Age	<30 year	97	29.3
	(30 - 42 year)	150	45.3
	> 42 year	84	25.4
Educational status	Illiterate	126	38.1
	Primary Education	30	9.1
	Intermediate	115	34.7
	University	60	18.1
Land size	Less than feddan	195	58.9
	feddan - less than 2 feddans	107	32.3
	2 feddans and more	29	8.8
Farm experience (Years)	Less than 5 years old	23	7
	5- Less than 10 years	67	20.2
	10 Years and over	241	72.8

Source: Filed study 2017. (N=331)

Finally, with regard to the agricultural experience of the respondents, the results showed that the majority of the respondents (72.8%) have great agricultural experience, here is the responsibility of the channel to build on these experiences and guide them to serve the agricultural development in the region. (table.2)

Source of agricultural information:

For source of agricultural information, the results in Table 3 showed that (40.5%) of the respondents obtain agricultural information from the Internet, While 30.2 % rely on television as a source of agricultural information, As for the Print sources they were delayed as sources of

information for the respondents. These results clearly indicate the weak role played by the media, especially television, in spreading agricultural awareness, which requires more efforts in this field.

EAC programs watching frequency:

The results in Table 4 indicated that the majority of the respondents (59 %) did not watch EAC before and that 20.5% of them are rarely seen it. 12% of them said they watch sometimes, The channel has a permanent follow-up of only 8.5% of the respondents on a continuous basis, this indicating that the channel did not succeed in reaching a large segment of the farmers, which is the purpose for which the channel was established.

Preferred programs for farmers interviewed who watched the channel:

In the forefront of the favorite programs by the surveyed farmers was Secret of the land series, where 88% of the respondents who watch the channel programs prefer, and 36.8% prefer the farmer voice program, while Our country's technology program came in the last place (14.7%) in terms of viewers preferences, These results reflect the tendency of viewers to follow programs of a dramatic nature, followed by the of Talk show programs more than others.(table5)

Assessment of benefits derived from EAC programs:

The results in Table 6 showed that 16.9 % of the respondents who watch the channel's programs saw it as highly beneficial, and 27.9% of them saw it as beneficial, 19.9 of respondents who watch the EAC programs saw it as somewhat beneficial, while more than a third of viewers (35.3%) saw channel programs as not useful, which requires work on the content development and make it more attractive so that the channel could reach the target group and the disseminate its message more effectively.

Agricultural programs preferred formats:

Results (Fig.2) showed that More than two-fifths of the respondents (42 %) prefer programs in the dramatic format, and nearly a quarter of them (24 %) prefer talk shows , while the preference of the respondents to the documentary programs ranked last by 8%, which necessitates channel operators to pay more attention to the Agricultural programs formats Preferred by the respondents.

Type of information that farmers would like to access:

Results (Fig.3) showed that information related to Pest control and diseases information came first in terms of the information needed by the respondents, as the majority of respondents need information in this field (87%) followed by information related to crop varieties (66.2%) Then information on fertilization and those related to weather (57.1%), while Preservation of crops and vegetables information came in last place by 12.6 %, in this context that Agricultural Extension System (AES) and EAC officials should provide farmers with the information they need, especially in priority areas so that agricultural development achieves the desired goals.

Main Problems facing the respondents who watched EAC programs:

Results in Table 7 revealed that there are many problems facing the respondents who watched EAC programs, and was the most important of these problems is the lack of content attractiveness as mentioned by 76.5 %, Followed by the problem of non-coverage for the knowledge needs of farmers (72.8%), While the problems of poor image quality (17.6%) and poor diversity in the content of the channel (14.6%) in the last ranks for these problems, Which requires the intervention of officials to solve these problems So that the channel can play its role in serving development issues to the fullest extent.

Table 3: distribution of respondents according to agricultural information sources through mass media

	Agricultural information sources	F	%
1	Television	100	30.2
2	Radio	70	21.1
3	Newspaper	36	10.9

4	Posters	17	5.1
5	publications	25	7.6
6	Internet	134	40.5

Source: Filed study 2017. Multiple responses (N=331)

Table4: distribution of respondents based on EAC programs watching frequency

EAC programs watching frequency	N	%
Always	28	8.5
Sometimes	40	12
Scarcely	68	20.5
Never seen	195	59
Total	331	100

Source: Filed study 2017. (N=331)

Table5: Preferred programs for farmers interviewed who watched the channel

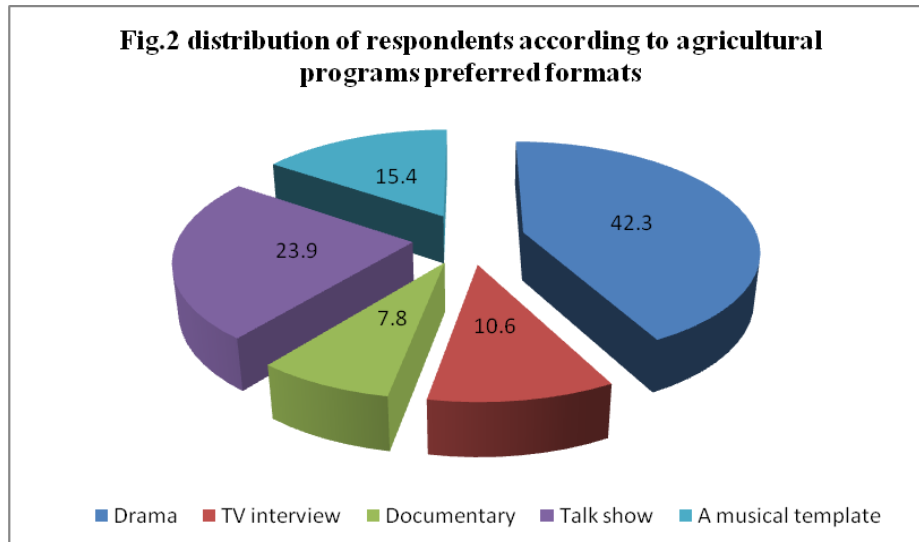
Program Title	frequency	%
Secret of Earth Series (sir al'ard)	120	88.2
Farmer voice (sawt alfalah)	50	36.8
Extension worker agenda(ajandat murshid)	35	25.7
Livestock(altharwat alhiwania)	38	27.9
Our country's technology (tknulujia bldna)	20	14.7
Inside the field (jwh alghit)	27	19.8

Source: Filed study 2017. Multiple responses (N=136)

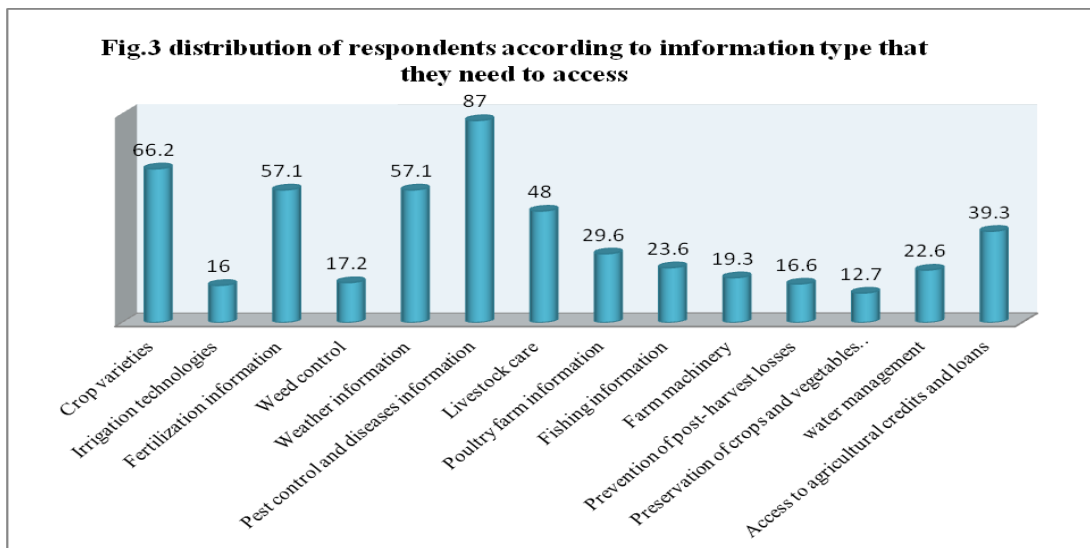
Table 6: distribution of respondents according to the extent of benefiting from EAC programs

Relevance of EAC programs	N	%
Highly beneficial	23	16.9
beneficial	38	27.9
Somewhat beneficial	27	19.9
Not beneficial	48	35.3
Total	136	100

Source: Filed study 2017. (N=136)



Source: Filed study 2017. (N=331)



Source: Filed study 2017. Multiple responses (N=331)

Table7: Main Problems for farmers interviewed who watched the channel programs

Problems	frequency	%
The content is unattractive	104	76.5
Inadequate feedback mechanism	48	35.3
Broadcast time for important programs is inappropriate	38	27.9
knowledge Needs of Farmers are not covered	99	72.8
Weak diversity of channel content	20	14.7
poor Image quality level	24	17.6

Source: Filed study 2017. Multiple responses (N=136)

CONCLUSION

Based on the findings of the study, it can be concluded that although mass media are considered to be an effective tool in disseminating agricultural information among farmers, results clearly indicate the weak role played by the media, especially television; in spreading agricultural awareness only 30.2 % of the respondents obtain agricultural information from television, and the majority of them (59 %) did not watch EAC before this indicate that the channel did not succeed in reaching a large segment of the farmers, which is the purpose for which the channel was established which requires more efforts in this field.

It was also observed that more than a third of viewers (35.3%) see channel programs as not useful, which requires work on the content development and make it more attractive so that the channel could reach the target group and the disseminate its message more effectively. As for the preferences of the respondents to the TV programming formats Results showed that 42 % of the respondents prefer programs in the dramatic format, and 24 % of them prefer talk shows programs, which necessitates channel operators to pay more attention to the Agricultural programs formats Preferred by the respondents. Results also revealed that there are many problems facing the respondents who watched EAC programs, and was the most important of these problems is the lack of content attractiveness as mentioned by 76.5 %, Followed by the problem of non-coverage for the knowledge needs of farmers (72.8%), Which requires the intervention of officials to solve these problems So that the channel can play its role in serving development issues to the fullest extent

Based on the findings of the study, it is deemed necessary to draw the following recommendations:

Coordination between agricultural extension and agricultural media workers in the channel to produce good content that attracts the public of farmers.

Channel operators should pay more attention to the Agricultural programs formats Preferred by the respondents (drama, talk shows).

There should be a mechanism to identify the farmers reaction to the content presented to them.

The channel, in coordination with agricultural extension, Should identify the knowledge needs of the farmers; especially those related Pest control

and diseases information, crop varieties, fertilization and information related to weather and give it priority in media coverage.

CONFLICT OF INTEREST

The authors declared that present study was performed in absence of any conflict of interest.

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AUTHOR CONTRIBUTIONS

All authors contributed equally in all parts of this study. All authors read and approved the final version.

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