
Comparative Analysis of Use of Videos versus Traditional Extension Agent and Techniques in Dissemination of Rice Cultivation Practices in Ogun State, Nigeria**O. Idowu Oladele**

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Abstract

A comparative analysis of the use of videos versus traditional extension agent techniques (in dissemination of rice cultivation practices in Ogun State, Nigeria) was conducted during the growing season of 2006. A multi-stage sampling procedure, a quasi-experimental pre and post test, and control design was applied. The first group was exposed to training on rice cultivation practices on a one hour video presented in the local language. The second group was taught by an extension agent. Primary data were generated between March and June 2006 through an interview with individual farmers based on a four-page structured questionnaire. The data were analyzed using frequency counts, percentages, t-test and one-way analysis of variance. The results showed that video was preferred to the traditional extension agent. A significant difference existed in the knowledge gained after training between video and agent-taught groups ($t = 1.95$, df_{71} $p < 0.05$). One-way analysis of variance showed that there was a significant difference in the knowledge gained after the three exposures to video training ($F = 5.78$, $p < 0.05$). The author recommends that video be used to disseminate agricultural information as a supplement to agent contact, in order to alleviate the problems of low extension agent-farmers' ratios and to promote beneficiary funding of extension services as farmers buy the videotapes.

Keywords: Video, Extension agent, Training techniques, Information dissemination, Rice cultivation practices, Quasi experimental design, Nigeria

Introduction

“In many parts of the developing world it is noted that many farmers have not been properly reached by agricultural extension services” (Ehien, Oladele & Ogunfeditimi, 2004, p. 276). The usefulness of research results is generally achieved through an efficient mechanism of information transfer to appropriate targets which is usually seen as the function of agricultural extension. Clients of agricultural research organizations are more aware of the importance of information than ever before. In most developing countries, farmers are realizing the impact information has in decreasing the knowledge gap between the farmer and researcher and increasing knowledge about crop and animal performance. Increased yield and production and better economic returns are the main reasons why agricultural practitioners are constantly searching for information. With more and improved technology, access to information has become much easier and faster however there are still constraints limiting access to information in many developing countries.

Olowu (1991) reported that farmers’ productivity was affected by technical efficiency (how and what to plan) allocative efficiency (how to manage farm resources optimally) and innovative efficiency (how to obtain and use information). It is glaringly obvious that farmers require information for effective production practices. These informational prerequisites to farmers’ productivity have been met through a multidimensional flow of information via diverse channels. Adams (1982) reported that learning is made easier when ideas are expressed in pictures and that 70% of communication to individuals is non-verbal such that visual presentation helps to overcome illiteracy and language barriers. According to Barkman (1991) the percentage of learning proportion was 1, 1.5, 3.5, 11 and 83% through taste, touch, smell, hearing and sight respectively. Similarly, the proportion of remembrance was 19% of

what is read, 20% of what is heard, 30% of what is seen, 55% of what is seen and heard and 90% of what is said as a thing is done. The use of technology in support of learning has been studied extensively over the years and interest has moved to the use of multimedia in support of learning (Wilcockson, 1995).

Barkman (1991) noted that the methods of instruction determine the extent of recall at different intervals. After three hours, 70% is recalled when telling is used alone, 72% when showing is used alone and 85% when a blend of telling and showing is used. However, after three days, 10% is recalled when telling is used alone, 20% when showing is used alone, and 65% when a blend of telling and showing is used. Video provides a means of bringing a complementary well organized presentation to the learners. Hiel and Herrington (1997) reported that instructional video cannot only improve short range recall but can also aid in retention.

Extension information services remains the pivot of development of agriculture in Nigeria such that the quality of these services is largely dependent on the quality of instruction provided by extension services, hence the need to pay proper attention to improvement of instructional strategies. To improve communication with farmers, extension agents have incorporated traditional method of teaching approaches such as inquiry, discovery, and expository, deductive and inductive methods. None of these however take cognizance of the individual differences among farmers. The traditional system of instruction in particular is already out model and out of tune with the modern system of instruction although still in use by Agricultural Development Programmes (ADP) in Nigeria. There has been a realization that traditional approaches are not in line with the principles of modern learning theory which stresses the role of active involvement and feedback. They do not account for individual differences in

cognitive style, prior learning and the rate of acquisition (van den Ban & Hawkins, 1996).

Theoretical Framework

Moore (1986) noted that

self-directed learning is described in some detail in terms of its relevance for adult education. Adults are especially interested in learning that arises from the roles they play as they pass through the stages of human development. Such learning is described as being particularly well-supported by distance teaching, and by a proposed learning advisory network. (p. 24)

Ramirez and Stuart (1994) reported that farmers are the ones who must control the learning and be able to access information according to specific needs, times and means as most of adult learning in rural settings falls under the rubric of “non-formal education which can be defined as any organized, systematic educational activity carried on outside the framework of the formal system to provide selected types of learning to particular subgroups in the population” (p. 6). Non-formal education is flexible and open, with content dedicated to concrete issues for application in day-to-day life.

Presently, in Nigeria the Presidential Initiative on Rice (PRI) seeks to improve rice production through information supply. This is based on the fact that rice production in Nigeria is dominated by small holder farmers with 0.5–1.5 hectare per farmer using manual labour for virtually all its operations. Presently, over 52 rice varieties with yield potentials of 2–8 tonnes of paddy per hectare and maturity periods of between 95–140 days had been developed by both National and International Research Institutions, yet, a yield gap exists between farmers’ actual and expected yield (Oladele & Sakagami, 2004).

The Agricultural Development Programme (ADP) constitutes the single

largest agency charged with the responsibilities of agricultural extension in Nigeria which was tri-partitely funded by The World Bank, Federal and State Governments. Ehien et al. (2004) reported that the activities and job performance of ADP and extension agents respectively have decreased after the final withdrawal of the World Bank loan in 1999. The extension agents-farmer ratio has gone back to the pre-ADP periods. A ratio of 1 to 2000, 1 to 3000 and 1 to 3500 were reported for Oyo, Lagos and Ogun states respectively (Adebowale, Ogunbodede, Adesehinwa, & Salawu, 2001). Similarly, the economic reforms program is attempting to cut public funds for extension services and the concept of beneficiary funding and privatization of extension is considered. With the above scenario, there is need for alternative methods of dissemination because farmers are still dependent on timely and appropriate information in order to increase their production.

Omotayo and Isiaka (2006) reported that video as a medium of disseminating agricultural information for the purpose of training, entertaining, educating, situation analysis and advertising has been practiced in many developing countries in Latin America, Asia and Africa. The video self-training method is an innovative and cost effective method of training many farmers quickly with minimal distortion of facts. This method involves packaging agricultural information in videotapes in a culture-specific, farmer-participatory and farmer-friendly way. Agricultural information could be presented in varying styles such as demonstration, interviews, documentary, discussion, or real-life events. The video cassette is sent to the farmer groups that watch the farm practice on the television or in a video viewing center. In the absence of the extension agent, farmers (who have been trained) operate the video cassette player and television, and generate discussion about the subject matter they had watched. Feedback is received by the extension

organization via audio cassette or by personal contact when the extension agent pays his regular visit. The effectiveness of multimedia aids, including videos, as extension teaching tools, is a settled matter in the literature; video can be used as supplement in Nigerian situation.

Polson (1999) noted that 69% of the producers who borrowed video specifically named one or more practice changes they adopted as a result of watching it. Several weeks after watching the video, 75% of the producers identified additional specific practices they were still considering adopting. Israel and Ingram (1991) reported that the

use of videotapes and workbooks would be influenced by a number of factors, including access to the educational materials and availability of alternatives. Farmers who own or have access to a video cassette recorder (VCR) would be more likely to participate in a self-study program than those who do not. (p. 2)

Video is an ideal medium for use with individual learners, particularly now that most homes contain video players. With video, extension is easily made. An individual can derive the same benefits from an expository video sequence as could a large group—with the additional advantages of being able to stop and start the sequence at will, and replay parts whenever this is found necessary or useful.

Self-study educational programs are not new to extension, but what is new is using videotapes to deliver extension messages in Nigeria. However, little is known about the potential of video use on farmers' knowledge and the impact of multiple exposures to video on knowledge.

Purpose and Objectives

The purpose of the study was to compare the effect of video and traditional extension agent techniques as means of

information dissemination on farmers' knowledge of agricultural innovation in Ogun State, Nigeria. Specific objectives include to:

1. Compare knowledge gained by farmers through video and extension agent training method
2. Determine the impact of multiple exposures to video on farmers' knowledge.

Methods

The study was carried out among rice farmers in Ogun State, Nigeria. The state was selected because it is the leading rice producing state in south western Nigeria (PCU/FMARD, 2001). Ogun State has a total land area of 17, 084.3 km² extending between latitudes 6° 30' and 7° 95' N and longitudes 2° 80' and 4° 60' E with annual rainfall ranging from 1000mm to 2000mm. The state has a bimodal rainfall pattern which allows two cropping seasons for most annual arable crops especially when the rainfall extends beyond August. Farming is a major occupation of the majority in the state with sole cropping of rice as a common practice among the farmers. Sole cropped rice is usually followed by other crops after harvest.

The study population includes all rice farmers in Ogun state. Farmers were selected using a multi-stage sampling procedure. The state is divided into four agricultural zones by the Agricultural Development Programme (ADP): Abeokuta, Ikenne Ilaro and Ijebu zones. Abeokuta and Ikenne zones were purposively selected due to their prominence in rice production in the state. The two zones have 10 blocks out of which seven blocks are prominent in rice production. There are 19 cells from the seven blocks. A list of rice growers was obtained from the growers' association which is inclusive of all farmers due to service providers' arrangement of farmers grouping and two groups of 36 rice growers were drawn independently from the same population. The sampled growers were

exposed to a quasi-experimental pre and post test and control design. Cohen, Manion, and Morrison (2003) noted that quasi-experimental designs are compromise designs where a near true experimental design in which total/maximum control over the variables of study is not possible. Quasi-experimental designs have been in use to determine the effectiveness of extension teaching methods, learning and retention. Cohen et al. (2003) stated that

The most common quasi-experimental design is the comparison group pre-test/post-test design. This design is the same as the classic controlled experimental design except that the subjects cannot be randomly assigned to either the experimental or the control group, or the researcher cannot control which group will get the treatment. In other words, participants do not all have the same chance of being in the control or the experimental groups, or of receiving or not receiving the treatment. (p. 276)

A quasi-experimental design was selected for this study. Cook and Campbell (1979) stated that

The task confronting persons who try to interpret the results from quasi-experiments is basically one of separating the effects of the treatment from those due to the initial non-comparability between the average units in each treatment group; only the effects of treatment are of research interest. (p. 6)

Dougal and Gonterman (1999) compared the effect of three teaching methods on learning, and retention using quantitative, quasi-experimental design examined relationships and/or differences between variables or groups. Cognitive learning and learning retention outcomes were measured by pre-, post- and one-week post-tests which were

later subjected to statistically significant difference tests

The first group was exposed to training on rice cultivation practices on video which lasted for one hour on issues of land preparation, weeding, farm hygiene, weed control, type of herbicides, herbicide handling and application rates presented in local language, while the second group was taught by an extension agent on the same subject. Two groups sampled from the same population was subjected to different treatment using the video and agent teaching methods but the same training subject. Primary data were generated for the study between March and June 2006, through an interview schedule conducted by the author on individual farmers, based on a four-page structured questionnaire covering knowledge gained, adequacy of training method and selected socio-economic characteristics. The questionnaire was subjected to face validity among experts in the Department of Agricultural Extension and Rural Development, and Educational Technologists. The instrument gave a reliability coefficient of 0.90 using the test-retest method with an interval of 21 days.

Knowledge was measured at interval level through a knowledge test covering every aspect of the training on rice cultivation as contained in the video and extension agent curriculum. Twenty-five questions covering different aspects of rice cultivation as presented in the training. Right responses were scored 1 and wrong responses 0. The socio-economic characteristics include sex and marital status, measured at nominal level while age, educational level, labour sources, farming experience, total rice farm size, income, and household size were measured at interval level. The adequacy of training methods was measured at ordinal level on a three point scale. Frequency counts and percentages were used to describe the data while a *t*-test was used to ascertain the differences in knowledge between video-taught and agent-taught farmers and one-way analysis of

variance was used to determine differences in knowledge after several exposures to the video message.

Findings/Results

Table 1 presents the socio-economic characteristics of video-taught and agent taught rice farmers in Ogun state. The majority of the farmers in the two groups are male. It implies that rice production is dominated by male farmers in the state. The age distribution shows that a greater proportion of the farmers in the two groups are between 40 and 50 years and this is also in relationship with the marital status of the farmers whereby the majority are found to be married. Educationally, the majority of farmers in the groups did not pass through any formal training or school. This may be an indicator of why many of them find it difficult to understand message from agents easily. The use of hired labor predominates among the video-taught farmers while family labor is commonly used among the agent-taught farmers.

In both cases, however, their labor sources were supplemented with exchange labor. The majority of farmers from the two categories have farming experience between 10 and 30 years. This will enhance sufficient familiarity with rice cultivation practices they have been earlier exposed and also serve as a premise to compare the different information dissemination methods. Farm sizes that are not up to 10 acres are the most common among the two groups of farmers. This may be due to the subsistence nature of production among farmers. Similarly, the majority of farmers in the two groups have income less than ₦ 50,000 (\$1 = ₦130). Video player ownership is very prominent among the two categories of farmers; this may be due to the prevalence of the use of home video as a reflection of the increase of rural electrification project in the study area and expansion of the film industry that present different theatre performance on videotapes at low prices.

Table 1

Selected Socio-economic Characteristics of Farmers in Ogun State, Nigeria (2006)

Socio-economic characteristics	Video taught (n = 36)	Agent taught (n = 36)
Sex		
Female	8 (22.2)	12(33.3)
Male	28(77.8)	24(66.7)
Age		
Less than 40 years	13(36.1)	12(33.3)
40-50 years	16(44.5)	13(36.1)
Above 50 years	7(19.4)	11(30.6)
Education level		
Non-formal	20(55.6)	23(63.9)
Secondary	11(30.6)	10(27.8)
Tertiary	5(13.8)	3(8.3)
Labour Sources		
Family	12(33.3)	18(50.0)
Hired	14(38.9)	10(27.8)
Exchange	10(27.8)	8(6.2)
Farming Experience		
Less than 10 years	5(13.9)	17(47.2)
10-30 years	20(55.6)	17(47.2)
More than 30 years	11(30.5)	2(5.6)
Rice Farm Size		
Less than 10acres	31 (86.1)	23(63.9)
Above 10 acres	5(13.9)	13(36.1)
Income		
Less than N50,000	25(69.4)	25(69.4)
Above N50,000	11(30.6)	11(30.6)
Video player ownership		
Yes	27(75.0)	23(63.9)
No	9(25.0)	13(36.1)

Note. Figures in parentheses are percentages.

In Table 2, out of all the indicators used to rate the adequacy of the two methods of message dissemination, only time for training, content of training materials and relevance of training materials are accepted to be adequate by the extension agent-taught group. Some other indicators such as clarity of message from training, adequacy of training, duration of training, ease of retrieval of information from training

and method of training delivery are rated to be inadequate. Conversely, the video-taught group rated the entire indicators as adequate except feedback provision on training. The results in Table 2 show that the use of video to disseminate new technologies to farmers will be more effective and preferred by farmers to the use of extension agent.

Table 2

Farmers' Rating of the Adequacy of Training Methods in Ogun State, Nigeria (2006)

	Video (n = 36) Adequate	Extension Agent (n = 36) Adequate
Duration of training	24(66.7)	13(36.1)
Access to training materials	33(91.7)	3(8.3)
Method of training delivery	35(97.2)	16(44.4)
Availability of time for training	24(66.7)	19(52.8)
Retrieval of training information	34(94.9)	4(11.1)
Listenership effect	34(94.4)	22(61.1)
Content of training materials	35(97.2)	13(36.1)
Relevance of training materials	27(75.0)	19(52.8)
Participatory funding in training	27(75.0)	23(63.9)
Adequacy of training	27(75.0)	12(33.3)
Feedback provision on training	1(2.8)	14(38.9)
Timeliness of training	27(75.0)	14(38.9)
Clarity of training message	34(94.4)	19(52.8)
Flexibility of training	29(80.6)	5(13.9)
Group influence on training	35(97.2)	23(63.9)

Note. Figures in parentheses are percentages.

Table 3 shows that greater percentage of the farmers in the video taught group got all the constructed items right while few farmers got the items right in the agent taught group. This is a general trend in land preparation, weed prevention and control and the use of herbicides sections. This might be due to the features of video as a medium of information dissemination that is being explored. On the item (recommended spacing for weed precaution) where only one farmer got it wrong under the video-taught group, a greater percentage (52.8) of farmers in the agent -taught group got it wrong. This can be adduced to the training at learner's pace, adequacy of training and clarity of message from training

as characteristics of a message in a video type medium.

From the result, it could be observed that message transferred on the use of herbicide in rice farm was understood better by farmers in the video-taught group than the farmers in the agent-taught group. This could be seen glaringly from the table where greater percentage of the farmers in the video-taught group got all the constructed items for the herbicide knowledge test right. The questions on the types of rice farm herbicide, sources of herbicides, time to apply herbicide, mixing ratio were obtained right by the farmers in this group showing that the message was adequately sent across to the farmers.

Table 3

Farmers' Knowledge of rice cultivation practices after training in Ogun State, Nigeria (2006)

Cultivation practices	Video taught (<i>n</i> = 36) Right responses	Agent taught (<i>n</i> = 36) Right responses
Land Preparation		
Use of tractor	33(91.6)	19(52.)
Manual clearing	21(58.3)	17(47.2)
Bush burning during land preparation	35(97.2)	13(36.1)
Weed prevention and control		
Flooding method for weed prevention	31(86.2)	9(25.0)
Recommended spacing for prevention	35(97.2)	17(47.2)
Rice varieties for prevention	35(97.2)	18(50.0)
Weed categories	23(63.9)	26(72.2)
Weeding methods	29(80.6)	9(25.0)
Control of weed to start from land preparation.	17(47.2)	17(47.2)
Number of weeding period	22(61.1)	12(33.3)
Time of first weeding	21(58.3)	11(30.6)
Time of second weeding	21(58.3)	16(44.4)
Weeding benefits	28(77.8)	11(30.6)
Use of herbicides		
Types of rice farm herbicide	23(63.9)	6(16.7)
Sources of herbicides	35(97.2)	16(44.4)
Time to apply pre-emergence	35(97.2)	16(44.4)
Time to apply post-emergence	34(94.4)	17(47.2)
Usage of herbicide	35(97.2)	16(44.4)
Combination of herbicides	34(94.5)	17(47.2)
Use of ozadiazone singly	23(63.9)	11(30.6)
Use of Butacol alone	35(97.2)	17(47.2)
What type of herbicide is Rota 25DC	23(63.9)	16(44.4)
Importance of sprayer nozzle	21(58.3)	17(47.2)
Time to spray	35(97.2)	16(44.4)
Herbicide mixing ratio	22(61.1)	15(41.7)

Note. Figures in parentheses are percentages

Table 4 presents the results of t-test statistics on selected socio-economic characteristics of video and agent-taught farmers groups in Ogun state (2006). There is no significant difference for all the variables subjected to the test. It implies that

the two groups of farmers are not significantly different in terms of their socioeconomic characteristics before they are subjected to treatment–training on rice cultivation technologies.

Table 4

Analysis of differences in selected socio-economic characteristics of video and agent-taught farmers groups in Ogun State, Nigeria (2006)

Variables	<i>M</i>	<i>N</i>	<i>SD</i>	<i>SEM</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Age								
Video-taught	42.0	36	2.43	1.06	-1.00	1.10	35	0.15
Agent-taught	43.0	36	2.90	1.24				
Educational level								
Video-taught	25.10	36	3.11	1.29	-2.20	1.50	35	0.12
Agent-taught	27.30	36	2.07	0.88				
Farming experience								
Video-taught	27.50	36	0.18	1.18	2.10	1.26	35	0.30
Agent-taught	25.40	36	0.14	0.88				
Farm size								
Video-taught	9.80	36	4.51	0.94	0.40	0.12	35	0.90
Agent-taught	10.20	36	4.59	0.94				
Income								
Video-taught	42000	36	5.10	0.97	3.00	0.18	35	0.21
Agent-taught	45000	36	3.69	0.88				

Table 5 presents the results of t-test statistics on the pre and post test of knowledge among video and agent-taught farmers. There was no significant difference in the knowledge of farmers in the video and agent-taught groups before the training ($t = 1.82$, $df_{71} p > 0.05$). However, a significant difference existed in farmers' knowledge after training by extension agent ($t = 41.38$, $df_{35} p < 0.05$). The knowledge mean score after training (43.22) by extension agent was higher than before training (38.91). Similarly, farmers' knowledge after training with video (54.63) was greater than knowledge before training (41.58) leading to a significant difference in the knowledge before and after training with video ($t = 20.44$, $df_{35} p < 0.05$). This is an indication

that video tape if used adequately can be used to disseminate information on farming technologies to farmers. The comparison between farmers' knowledge after training with video and extension agent shows that knowledge gained by video-taught group (54.63) is higher than the knowledge gained by the agent-taught group (43.22), thus a significant difference exist ($t = 1.95$, $df_{71} p < 0.05$). The results imply that farmers are receptive to the use of video as a mean of disseminating agricultural information. The mode of presentation, ease of retrieval of information from training, training at learners' pace, and flexibility of training might as well be responsible for the results.

Table 5

Pre- and Post-test of Knowledge among Video- and Agent-taught Farmers on Rice Technologies in Ogun State, Nigeria 2006

	Agent –taught group		Video-taught group		Pre-treatment video versus agent		Post-treatment video versus agent	
	KBT	KAT	KBT	KAT*	KBT _V	KBT _A	KAT _V	KAT _A
<i>M</i>	38.91	43.22	41.58	54.63	41.58	38.91	54.63	43.22
<i>N</i>	36	36	36	36	36	36	36	36
<i>SD</i>	31.67	31.95	32.35	30.92	32.35	31.67	26.08	32.35
<i>SEM</i>	5.27	5.32	5.39	5.15	5.39	5.27	4.34	5.39
<i>MD</i>	4.30		13.05		13.55		0.12	
<i>t</i>	41.38		20.44		1.95		1.82	
<i>df</i>	35		35		71		71	
<i>p</i>	0.00		0.00		0.054		0.32	
Remarks	Significant		Significant		Significant		Not significant	

Note. *KBT –knowledge before training, KAT –knowledge after training, KBT_V–knowledge before training by video, KBT_A–knowledge before training by agent.

Table 6 presents the results of one-way analysis of variance on farmers' knowledge after three exposures to video training. The results show that there is a significant difference in the knowledge gained after the three exposures to video training ($F = 5.78, p < 0.05$). The Duncan Multiple range test further differentiates the groups based on the number of exposures. Knowledge gained after first and third exposures are not significantly different while after second exposure, there is a significant difference. This might be due to the fact that farmers assumed familiarity with the items of the training after second exposure only to discover that they had a wrong response on the items.

The fact that the highest mean score was recorded after third exposure emphasizes the importance of the ease of retrieval of video messages as farmers can always play back to reinforce their knowledge which is particularly important due to the low literacy level among farmers in the study area. This might not be possible with the extension agent as different messages are scheduled for different meetings. Also, there is a greater flexibility to the learning time and pace with video than with extension agent. Farmers can choose to watch the video any time of the day and as well reduce the speed to the actual pace desired.

Table 6

One– way Analysis of Variance on Farmers' Knowledge after Three Exposures to Video Training in Ogun State, Nigeria (2006)

	Sum of square	<i>df</i>	Mean square	<i>F</i>	<i>p</i>	Duncan Multiple Range Test	
Between groups	7226.07	2	3613.03	5.78	0.004	Groups	Means
Within groups	65625.36	105	625.00			First exposure	55.13 ^a
Total	72851.43	107				Second exposure	41.58 ^b
						Third exposure	61.13 ^a

Conclusion, Recommendations and Implications

The paper has clearly shown that video can be used for dissemination of agricultural information in the face of dwindling funds for extension services in Nigeria, low extension agent-farmers ratios and the other advantages it has over the traditional face-to-face medium. The results should remind extension personnel of the importance of repeated contacts and follow up with the same information to help secure adoption that the farmers were able to get through repeated viewing or reviewing of the video. It also shows that farmers rated video higher in terms of adequacy for training than extension agent and thus their preference for video as means of dissemination. Knowledge gained on the same subject of training was higher among the video-taught group than the agent – taught group. It further revealed that farmers had a thorough mastery of the subject after the third exposure to the training on video. The implications of the findings are that

1. Video can be used to alleviate the problems of low extension agent - farmers' ratio,
2. Video can be used to promote beneficiary funding of extension services as farmers buy the videotapes,
3. Video can be used to disseminate agricultural information,
4. The use of video will allow farmers to learn at their pace,
5. The ease of training information retrieval will be enhanced through video after several exposures, and
6. Information dissemination through video can be supplemented by extension agent visits for feedback purposes.

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