

Information and Communication Technologies (ICT) in the Implementation of Participatory Agricultural Reforms and Rural Development Initiatives in the South-Eastern Nigeria

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Abstract

This study was intended to examine the policy imperatives of participatory agricultural reforms and rural development initiatives through effective application of the technologies of information and communication. Four research questions and two null hypotheses were raised for the study. A structured questionnaire was used for data collection. T-test and ANOVA were used to test the hypotheses, while Mean and Standard deviation were applied on the research questions. Findings show among others that non-involvement of rural people in needs identification and policy formulation, and poor communication network were responsible for the failure of previous programmes. It was recommended that the government and other stakeholders should initiate a model that would encourage the joint use of modern and traditional technologies in disseminating agricultural reforms and rural development information to the rural people

Introduction

Rural development strategies can realize their full potentials only through the motivation, active involvement and organization at the grass-root level of rural people in conceptualizing and designing policies and programmes meant for their. And if development strategies are to be successful, they must aim at engendering understanding and awareness of the problems and opportunities of rural people at all levels and at improving the interaction between development personnel and the masses through an efficient communication system. The above declaration by the World Conference of Agrarian Reform and Rural Development (WCARRD, 1979) form the point of departure for this discourse.

Results of agricultural and rural development projects in Nigeria have too often been disappointing, falling well short of the intended objectives. Such projects failed on the human level: the attitudes and behavior of the people they were set out to help did not change sufficiently for them to integrate the innovation into their daily life and work. Or, equally important, perhaps the innovations were inappropriate to their needs, at least as they saw them (Food & Agricultural Organization (FAO), 1992).

Amadi (2000) and Onweagba (1997), variously see community development initiatives as an attempt at improving the lives of the peasants through the introduction of innovative farming and socialization techniques to capitalize on endogenous development of the people. Participatory development implies the active involvement of the target beneficiaries, right from the initiation stage. Tangermann (1995) has blamed the less than desirable results of earlier attempts in many

developing nations on this missing link. He therefore warns: "No amount of investment or provision of technology and inputs will bring any lasting improvements in the living standards of rural people unless they change their attitude and behavioural patterns." It is people that bring about development, and there can be no change for the better without their informed participation, without mobilizing their capacities and energies, and without increasing their knowledge and skills.

Communication is an imperative in agricultural reforms and rural development because it encourages knowledge sharing, rather than the traditional one-way process of information transfer. The ultimate purpose of communication and knowledge sharing is to assist rural people to take informed decisions over their environment, and over agriculture, health, habitat and the other factors, which impinge so critically upon the quality of their life. Failed rural development oriented projects in Nigeria include the Family Economic Advancement Programme (FEAP), Family Support Programme (FSP), Directorate for Food and Rural Development Infrastructure (DFFRI), Better-Life Project (BLP) to mention a few. The failure of these projects amounted to colossal economic and social wastes, to the nation.

State of the Problem

The bold initiatives taken by the government to enhance agricultural reforms and rural development has yielded less than expected results. This is because purposeful communication between development agents and rural people seldom takes place spontaneously. It is this failure that this paper is poised to address. The following specific objectives were therefore addressed:

1. Identify the causes of communication failures in agricultural and rural development projects.
2. Identify Information Technology (IT) strategies to improve rural development communication.
3. Identify ways by which communication can enhance agricultural and rural development processes.
4. Make policy recommendations that can redress the perceived anomalies

Research Questions

In line with the study objectives, the following questions were raised:

1. What are the causes of failure of agricultural reforms and rural development initiatives in Nigeria?
2. How has poor communication contributed to the failure of agricultural (rural) development initiatives in Nigeria?
3. In what ways can communication be used to enhance agricultural and rural development in Nigeria?
4. What Information Technology strategies can enhance communication in rural development settling?

Two hypotheses stated in the null form and tested at 0.05 confidence limited were used for the study.

Research Hypotheses

The following null hypotheses were tested at 0.05 confidence limit guided the study:

Ho: 1 Responses on Agricultural Reforms and Rural Development Initiatives in Nigeria will not differ significantly based on location of Respondents.

Ho: 2 Responses on Reform and Rural Development Initiatives in Nigeria will not differ significantly among civil servants, teachers of agriculture and Farmers/Entrepreneurs

Area of the Study

The study was conducted in the five eastern states of the Federation namely, Abia, Anambra, Ebonyi, Enugu and Imo. One urban and one rural community was chosen from each of the states.

Population/Sample for the Study

Teachers, civil servants, and farmer-entrepreneurs whose exact number could not be ascertained formed the population for the study. A total of fifty (50) respondents purposively selected from the above different classes of people constituted the study sample.

Instrumentation

A structured questionnaire rated on a 4-point scale was used for data collection. And with reliability coefficient of .86, .72, .65 and .89 for the four sections respectively rated on the Cronbach alpha scale the entire instrument was deemed reliable enough for the study. Mean and Standard Deviation were used to analyze the data so as to answer the research questions. Hypothesis 1 was subjected to t-test analysis while hypothesis 2 was subjected to the test of Analysis of variance (ANOVA). Decisions were made on the basis of the apriori established mean cut-off point of 2.50. Hence only items that received mean ratings of 2.50 and above were accepted.

Results

Following analysis of the data generated by the study, results are presented in the tables below:

Research Question 1: What are causes of the failure of Agricultural Reforms and Rural Development Initiatives in Nigeria?

Table 1: Probable Causes and Failure of Agricultural/rural Development Initiatives

S/N	Item	SA	A	D	SD	X	SDV	Decision
1	Poor communication network	27	23	-	-	3.54	50	Accepted
2	Non-participation of target beneficiaries	30	30	-	-	3.6	49	Accepted
3	Failure to identify local needs, interest and peculiarities	20	25	5	-	3.3	64	Accepted
4	Failure to brace up to environmental socio-cultural realities	29	21	2	-	3.58	49	Accepted
5	Misappropriation of funds	16	32	-	-	3.38	53	Accepted
6	Improper feasibility studies	50	-	-	-	4.00	0	Accepted
7	Failure of local people to perceive the potential benefits of projects	42	8	-	-	3.84	37	Accepted

The table above indicates that all the seven items were accepted as possible causes of the failure of the various past agricultural and rural development programmes in Nigeria.

Research Question 2: How has poor communication contributed to the failure of Agricultural and Rural Development Initiatives in Nigeria?

Table 2: Contributions of Poor Communication to the Failure of Agricultural Reform and Rural Development initiatives

S/N	Item	Response N = 50						Decision
		AS	A	D	SD	X	SDV	
1	One-way information process has been in use in most extension work.	31	17	1	1	3.56	.64	Accepted
2	No room for feedback.	45	5	-	-	3.9	.30	"
3	Target audience could not relate local experience to development agents.	30	15	35	-	3.5	.67	"
4	Extension/development workers neglect rural communication media	37	9	3	1	3.64	.69	"
5	Poor communication hinders grass root mobilization of beneficiaries	16	27	7	-	3.18	.66	"
6	Poor communication hinders proper context analysis.	42	8	-	-	3.84	.37	"

With mean ratings all above the 2.50 cut-off point, the six items were accepted as ways by which poor communication impact on agricultural and rural development initiatives

Research Question 3: In what ways can Communication be used to Agricultural and Rural Development in Nigeria?

Table 3: Mean Responses on Ways by which Good Communication can enhance Agriculture/Rural Development

S/N	Item	Response N = 50						Decision
		AS	A	D	SD	X	SDV	
1	Creating opportunity for dialogue with stakeholders	41	9	-	-	3.82	.38	Accept
2	Relaying information from specialists to local people using multimedia devices	35	15	-	-	3.7	.46	Accept
3	Making local broadcasts in local languages	41	9	-	-	3.82	.37	Accept
4	Training locals in effective communication strategies	38	8	4	-	3.68	.62	Accept
5	Using local leaders and information bearers	38	8	4	-	3.80	.46	Accept
6	Regular Use of extensionists	40	10	-	-	3.94	.23	Accept
7	Aids to design and implement of projects useful to target beneficiaries	46	4	-	-	3.92	.27	Accept

Source: Field Survey 2012

With all the items rated above the mean decision point, they were all accepted as possible ways by which effective communication can be employed for the enhancement of agricultural and rural development in Nigeria.

Research Question 4: What Information Technologies could be used to enhance effective Communication in an agricultural / rural Development Setting?

Table 4: Information Technology Strategies that can Enhance Communication for Agricultural/Rural Development

S/N	Item	Response N = 50						
		AS	A	D	SD	X	SDV	Decision
1	Development communication must be based on audience research	15	35	-	-	3.30	.46	Accept
2	Use of a variety of media channels	48	2	-	-	3.96	.19	Accept
3	Ensuring ongoing testing and evaluation of programmes	38	6	4	2	3.6	.80	Accept
4	Applying social marketing and networking principles and approaches	4	32	2	2	2.95	.58	Accept
5	Overcoming barriers of illiteracy by using audio-visual materials	45	5	-	-	3.90	.30	Accept
6	Use of motivational speakers, instructional posters, comic sheets, leaflets	30	20	-	-	3.6	.48	Accept
7	Maintenance of old technologies such as radio sets	16	12	20	2	2.84	.93	Accept
8	Publication of newsletters and agricultural magazines	10	40	-	-	3.20	.40	Accept

With mean responses ranging from 3.70 to 3.94 all the items were accepted as information strategies that can conduce agricultural and rural development in Nigeria

Ho: 1 Responses on Agricultural Reforms and Rural Development Initiatives in Nigeria will not differ significantly based on location of Respondents.

Table 5: Summary of t-test analysis on null hypothesis 1

	X	SD	Df	P	t-crit	t-cal	Decision
Urban	3.69	.45	48	5	1.96	1.80	Accept
Rural	3.60	.51					

Result of the t-test above indicates that the mean responses of urban and rural respondents did not vary significantly.

Ho: 2 Responses on Reform and Rural Development Initiatives in Nigeria will not differ significantly among civil servants, teachers of agriculture and Farmers/Entrepreneurs

Table 6: Summary of ANOVA test on Hypothesis 2

Source of Variation	SS	Df	MS	F-crit	f-ratio	Decision
Between Groups	8.32	2	4.26	3.00	0.005	Accept
Within Group	172263.05	47				
Total	172271.06	49				

*Not significant at P = 0.05

Statement of Major Findings

The study made the following major findings: On the probable causes of failure of previous

agricultural and rural development initiatives in Nigeria the following were indicated:

1. Very poor rural communication network infrastructure.
2. Non involvement of local beneficiaries at the critical stages of projects.
3. Failure of local people to perceive the potential benefits of rural bound projects.
4. Failure to appreciate environmental socio-cultural realities.
5. One-way information process does not give room for feedback from target beneficiaries.
6. Most local audience fails to relate local experiences to development agents due to communication gap.
7. Proper local context analysis was not undertaken.
8. Use of a combination of dialogue and group discussion.
9. Use of participatory and knowledge sharing approaches.
10. Training local leaders in the use of modern Info-Tech. and Communication systems.
11. Basing development communication on proper audience research.
12. Use of variety of media channels including the "oldies" like radio, comic sheets.
13. Establishment of Internet/E-mail, video serves center in rural neighbourhood.
14. Intensive use of 'social marketing' principle and approaches such as in media advertising.

Discussion

Discovery of poor communication network as one of major hindrance to Agricultural and Rural Development initiative is not surprising. Tanogermann (1995), sporting this observed that communication is not pivoted rural development plans. Poor communication negates relative advantage of exploitation of local indigenous knowledge systems (Amadi 2000). Since the local people are not involved, they tend to see the projects and of course project officers as mere intruders into their serene habitat and whose presence must be opposed hence the failure of such projects.

Collectivization and participatory initiatives would make the rural people enthusiastic to participate in games, contests of eloquence and other similar experiences bordering on agriculture and rural development. This objective can only be achieved through effective network communication infrastructure (Onweagba, 1997). Good communication has the potency to overcome barriers of literacy, compress time and distance; if audio-visual materials are involved as for instance a single short of film can present age-old or lengthy processes with impacts and consequences well perceived. Media products could tell stories that provide a vehicle for motivational content on development themes such as resources management and improved cultural practices, etc (Farrington, 2002).

Effective communication calls for the use of such technological novelties like video-based farmer training methodology, use of a combination of inter-personal and multimedia channels in a mutually reinforcing manner. Similarly, effective rural communication will have to see the rural target audiences in the true socio-cultural perspective which could provide opportunities or baseline surveys for the exploitation of the potentials of group dynamics (FAO, 1993).

Implications

The findings of this study have the following implications:

1. To the government and other informed stakeholders in agricultural and rural development, the need to fully mobilize the grassroots, appraise their socio-cultural environment has become imperative.

2. To extension workers, effort should be made not to alienate the people in an attempt to import and impose technologies on them. Indigenous knowledge systems would form the base upon which such technological transfers can be formed. Meaningful development must be endogenous
3. Since rural developments have equally meant agricultural development, and since agriculture is yet to be completely disproved as the base-rock of Nigeria's economy, an enhanced agricultural economy would not doubt present positive multiplier effects on the national economic advancement.

Policy Recommendations

Based on the findings and implications of the study the following recommendations are made:

1. There should be a review of already existing agricultural/rural development policies and a comprehensive evaluation of past initiatives so as to come up with development models that can stand the test of time.
2. Full recognition of the worth of our indigenous knowledge system, and the integration of same with modern technologies of information and communication.
3. Regular monitoring and evaluation of project implementation.

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