

Perception of Youth Roles in Agricultural Innovation Management System among Arable Crop Farmers in Farming Communities of Osun State, Nigeria

O. T. Alao¹, D. O. Torimiro^{2*} and J. O. Ayinde^{2*}

¹Department of Agricultural Economics and Extension, College of Agriculture, Osun State University, Ejigbo Campus, Osun State, Nigeria.

²Department of Agricultural Extension and Rural Development, Obafemi Awolowo University, Ile Ife, Osun State, Nigeria.

Authors' contributions

This work was carried out in collaboration between all authors. Author OTA conceptualized the study, collected the data, performed the statistical analysis and wrote the first draft of the manuscript. Authors DOT and JOA managed the analyses and literature searches of the study. All authors read and approved the final manuscript and effected corrections based on reviewers' comments.

Article Information

DOI: 10.9734/AJEA/2015/11608

Editor(s):

(1) Anonymous.

Reviewers:

(1) Anonymous, Shenyang agricultural university, china.

(2) Wondimagegn Mesfin, Agricultural Economics, Haramaya University, Ethiopia.

Peer review History: <http://www.sciencedomain.org/review-history.php?iid=665&id=2&aid=6078>

Original Research Article

Received 24th May 2014
Accepted 18th July 2014
Published 12th September 2014

ABSTRACT

This paper investigated the arable crop farmers' perception of youth roles in agricultural innovation management system in farming communities of Osun State. Specifically, problems militating against the effective participation of youths in innovation management system among the arable crop farmers were empirically investigated. Quantitative data were collected through a multi-stage sampling procedure, using structured interview schedule to elicit information from one hundred and twenty six respondents. Data were analysed using descriptive and inferential statistics. The mean age of respondents was about 53 years, while majority (96.0%) were married with about 5 people as mean household size. Also, the identification of youth roles in agricultural innovation management system ($r=0.721$, $P\leq 0.01$) had a positive and significant relationship with the perception of youth roles in agricultural innovation management. Among others, the study concluded that arable farmers have access to few innovations while non-lucrativeness of farming accounts for the major problems militating against effective youth participation in arable farming. In

*Corresponding author: Email: tundeyjoy@yahoo.com;

order to forestall this occurrence and enhance food security in the country, agricultural development stakeholders should make agriculture attractive and develop programmes which will ensure adequate dissemination and adoption of innovation by the farmers using youths as target disseminator.

Keywords: Perception; youth; innovation; management system.

1. INTRODUCTION

Traditionally, policy discussion concerning youth have been based on the premise that youth are transition stage between the childhood and adulthood and this exposes the problems of moving from one developmental phase to another. The role of youth policy in this context is to create favourable conditions for success by preparing young for the roles and responsibilities of adulthood [1]. It also entails the idea that childhood and youth are themselves valuable stages of life, more than just necessary steps on the way to childhood.

The United Nations, for statistical purposes, defines 'youth', as those persons between the ages of 15 and 24 years. Approximately one billion youth live in the world today. This means that approximately one person in five is between the age of 15 and 24 years, or 18 percent of the world's populations are 'youth' and children comprise of 19.8 percent [2]. Many criteria are used in deciding the age bracket of youth among which are the level of dependency, age bracket, ability to demonstrate some of the youth characteristics as highlighted by [3] being young, energetic, dynamic, eager to learn, boundless spirit, optimistic for future, receptiveness to new ideas and searching for avenue to direct their energies.

The participation of youth in farming activities could be traced to the commencement of farming itself. Children did learn their parents' vocation (farming) naturally as they grow into youth or adult, and decide to take it up as their vocation. This was when agriculture was the main stay of Nigeria economy, a period when the sector was taken as a matter of importance, just as the nation was blessed with abundant natural resources. However, the situation has changed since the advent of oil boom era in the early seventies, which has made the country to shift her attention away from agriculture [4].

Consequently, it is now becoming increasingly difficult to get food on the table of the common man. This is evident from various statistics, showing that agricultural production in Nigeria is

growing at a rate of 2.5% per annum which is insufficient in satisfying the needs of the population growing at alarming rate of 3.5% per annum. In recognition of this, drastic steps need to be taken to integrate the physically and mentally active individuals in the revitalization of the agricultural sector, if local agricultural production would be worth depending on by the Nigerian populace. Youths in Nigeria are unfortunately seen as national burden and in fact they remain untapped rural resources [4]. Sustainability of farm youth's participation in agricultural production cannot be overemphasized as they were born on the farm and found to have developed adequate ruggedness suitable for farming from their tender ages [4].

Agriculture has evolved over time with the use of traditional and crude implements such as hoes, cutlass e.t.c. for food production. However, this has been found to be energy sapping and wasting, unprofitable, laborous, time wasting and dirty to mention but a few on the path of the farmers. Consequently, these factors have frustrated the farm youths out of farming activities as income from farming could not provide for their basic needs, which have led to their influx into urban centres where they could earn more and enjoy better social infrastructure which are not available in the rural areas. Consequently, the aged men who are less energetic with low innovation proneness are left in the rural areas carrying out unproductive agricultural activities. Their inefficiency and unproductiveness constitute a bane to agricultural development in Nigeria [5-7].

However for efficient and productive agriculture, innovation must be introduced into farming activities. According to [8], innovation is any idea that is perceived new. Innovation is understood to be neither research nor science and technology, but rather the application of knowledge in the production of goods and services to achieve desired social or economic outcomes. Technological innovation affects human development along two major paths. First, it can directly increase the ability of existing

science, technology, and innovation programs to reduce poverty and expand human capabilities. This is most evident in public health, agriculture, energy use and ICT. Second, it can indirectly affect human well-being by enhancing productivity, increasing economic growth and incomes. Productivity can be enhanced by increasing the output of workers, raising agricultural yields, and improving the efficiency of services; higher incomes can help people meet their basic needs. Increased productivity helps overcome the barriers of low-incomes and weak institutions [9,10].

Innovation management systems in rural areas are community based. The community decides on which innovation to accept and adopt. Community structures in rural areas are such which place youth in lowest hierarchical positions or levels. Youths are not allowed to take leadership positions and are only seen and not heard in households under the leadership of their parents. The rural household is joint venture, and rural youth tend to lack economic independence or autonomy. Given the large proportions of the rural youth as subordinate members of usually large extended households, they are largely dependent on their parents for livelihood needs. Hence, they are under the tutelage of their parents and they don't have a say in community developments because their parents decide for them as a member of the family. As youths grow older, the autonomy of the male increases, but contracts for female. Moreover, in most traditional and poorest populations in low income countries, girls typically marry shortly after menarche or when they leave school [7].

However, other factors such as inadequate capital, lack of infrastructure and social amenities, non-lucrative nature of farming, poor living standard of rural dwellers and high taste for cities, affects the participation of youths in innovation management system and hence, their migration from rural areas for other occupation in the urban centres. Sequel to the above, it is of paramount importance to provide answers to the following research questions. Do youths have roles to play in innovation management system and if they do, what is the extent of their performance of these roles?; What are the factors or conditions that affect their performance of these roles?; Are there alternative ways by which youth performance of their roles in innovation management system could be improved? and what are the problems militating against the effective participation of youth in

performing these roles? In view these, the objective of the study are to: identify the demographic and socio-economic characteristics of the arable crop farmers; identify the different innovation that has been disseminated to the arable crop farmers; determine the roles of youth in innovation dissemination and utilization as perceived by farmers; examine the relationship that exists between the youths and the arable crop farmers in relation to innovation management system; and investigate the problems that are militating against the effective participation of youths in innovation management system among the arable crop farmers.

Hypotheses of the study are set in null form are as follows :

- i. There is no significant relationship between some of the selected demographic and socio-economic characteristics of the respondents and their perception of youth roles in agricultural innovation management system.
- ii. There is no significant relationship between the identified youth roles and the arable crop farmers' perception of youth roles in agricultural innovation management system.

2. METHODOLOGY

The study was carried out in Osun State in the South-western Nigeria. The state is divided into three Federal Senatorial Districts. Each senatorial district consists of ten Local Government Areas (LGAs) making up a total of thirty LGAs and one Area Office. A multi-stage sampling procedure was adopted. The first stage was the purposive selection of six LGAs representing 20 percent of LGAs in the study area based on their level of ruralities. The second stage involved a selection of two communities in each LGA using simple random technique. Therefore, Twelve rural communities were purposively selected based on the fact that the primary occupation of people living in such communities was farming. The last stage involved selection of Twelve arable farmers from each community and two arable farmers from Area office communities using snow ball technique. In all structured interview schedule and systematic observation were used to elicit information from 126 arable farmers. The study sample is fair representation of the arable crop farmers in the communities selected because only farmers that primarily involved in arable crops production were sourced and selected.

Structured interview schedule and systematic observation were used to elicit information from 126 arable farmers. Descriptive statistics such as frequency counts, percentages, bar and pie charts were used to describe the data, while correlation (*r*) were used to establish the tested hypotheses.

3. RESULTS AND DISCUSSION

3.1 Socio-Economic Characteristics of the Respondents

Table 1 showed that the age of the respondents were between 31 and 80 with a mean age of 53 years and standard deviation of 10. This is an

indication that most of the arable crop farmers are adults and majority (91.3%) were males. This is in consonance with the assumption that male take to farming than female because of the physical strength involved. Majority (96.0%) of the respondents were married and practicing Islam (52.4%) or christianity (46.8%). About 86.5 percent of the respondents were indigenes of the communities. Majority (85.7) of the respondents had between 1 and 10 household size. The average household was 7, although still high, is an indication that rural farmers still maintain fairly large family to cater for farm labour. The mean income earned by the respondents was ₦17,760 per month with a standard deviation of ₦10,051.

Table 1. Distribution of respondents according to their demographic and socio-economic characteristics (N=126)

Variable	Frequency	Percentage	Mean/Std
Age			
31-40	8	6.3	
41-50	38	30.2	
51-60	55	43.7	52.6±10
61-70	15	11.9	
71-80	10	7.9	
Sex			
Male	115	91.3	
Female	11	8.7	
Marital status			
Married	121	96.0	
Single	2	1.6	
Separated	2	1.6	
Divorced	1	0.8	
Religion			
Christianity	59	46.8	
Islam	66	52.4	
African religion	1	0.8	
Household size			
1-10	108	85.7	
11-20	16	12.7	
21-30	1	0.8	6.52±2.45
31-40	1	0.8	
Average income per month (₦)			
1,000-10,999	32		
11,000-20,999	52	25.4	
21,000-30,999		41.3	
31,000-40,999	25	19.8	17,7±10,05
41,000-50,999	9	7.1	
Educational level			
No primary school	2	1.6	
Completed primary school	76	60.3	
Completed secondary school	41	32.5	
Completed tertiary school	15	11.9	
Completed tertiary school	1	0.8	
Contact with extension agent			
Yes	46	36.5	
No	80	63.5	

Source: Field survey, 2011

The respondents that completed primary school were 32.5 percent with 11.9 percent completed secondary school, 0.8 percent completed tertiary schools while 60.3 had no formal education at all. About 50.8 percent of the respondents had other occupation apart from farming. Majority (63.5%) of the respondents did not have contact at all with extension agents. This might be as a result of the lack of proper funding of the Training and Visit (T and V) system of extension presently operating in Nigeria. This could have negative effect on innovation dissemination to the rural farmers. Fig. 1 showed that majority (96.0%) of the respondents had access to radio always while 47.6 percent had access to television. This shows that radio is the most accessible to rural farmers, followed by television, newspaper and agricultural newsletter. Some of these findings support the findings of [11,12]; Onemolease and [13,14] who identified year of residence, years of education and external orientation as part of determinants to rate of involvement of youth in rural development activities.

3.2 Respondents’ Identification of Innovation Disseminated

Fig. 2 showed that about 89.7 percent of the respondents identified usage of tractor as the main innovation introduced. This may not be unconnected with the 360 tractor bought for Osun State famers in the last regime and made available at Local Government for hiring. In addition, 14.3 percent identified fertiliser as innovation disseminated while 10.3 percent of the respondents identified improved seeds and 9.5

percent identified early maize seed as innovation disseminated. Only 3.2 percent identified chemicals as the innovation disseminated. It could be concluded that tractor is the most disseminated innovation, followed by improved seeds, early maize seeds and chemicals.

3.3 Respondents’ Perception of Youth Roles in Innovation Dissemination and Utilisation

Data in Table 2 showed that about 60.3 percent of the respondents strongly agreed that youth should mobilize and sensitize peers and people for innovation dissemination and assist in execution of project plan for innovation utilization. Also, 57.9, 57.1 and 56.3 percents agreed that youth should assist in monitoring and evaluation of project plan for innovation utilization, youth should provide both material and non-material resources for innovation utilization, and youth should assist in drawing up of project plan for innovation utilization, respectively. The respondents perceived youth roles in innovation dissemination and utilization as very important; this may be due to the fact that they expect the youth to be involved in farming practices. These findings support [3] which stated that the ability to demonstrate some of the youth characteristics as highlighted by being young, energetic, dynamic, eager to learn, boundless spirit, optimistic for future, receptiveness to new ideas and searching for avenue to direct their energies will make youths to be more responsive to innovation dissemination.

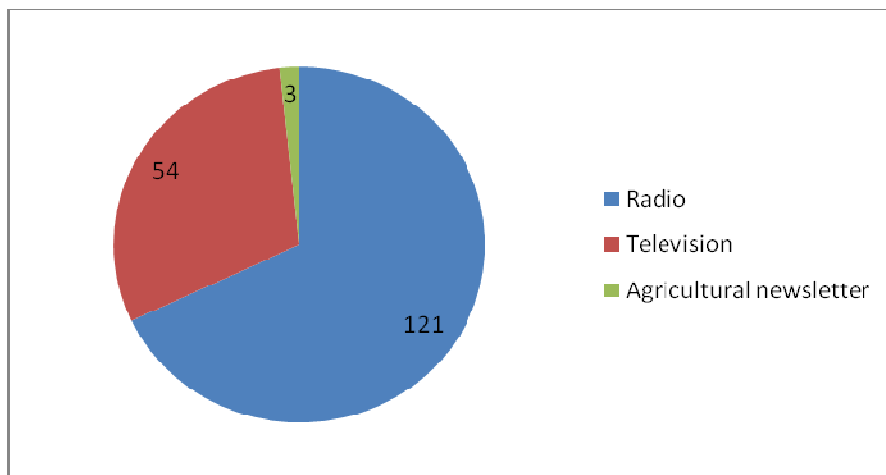


Fig. 1. Pie Chart showing the source of the arable farmers source of innovation information
Source: Field survey, 2011

Table 2. Distribution of the respondents according to thier perception of youth roles (N=126)

Description of youth roles	SA	A	UD	D	SD
For innovation to be effectively disseminated and utilized, youths must be adequately involved	46.0	46.0	3.2	4.0	0.8
Youths are interested in innovation dissemination and utilization	50.0	40.5	4.8	4.0	0.8
Youth should serve as a medium of change in innovation dissemination	49.2	43.7	2.4	4.0	0.8
Youths must be involved in planning for innovation dissemination and utilization	22.2	47.6	23.0	5.6	1.6
Youths should mobilize and sensitize peers and people for innovation dissemination	60.3	33.3	4.8	1.6	0.0
Youths should provide both material and non-material resources for innovation utilization	24.6	57.1	14.3	4.0	0.0
Youths should assist in drawing up of project plan for innovation utilization	13.5	56.3	24.6	5.6	0.0
Youths should assist in execution of project plan for innovation utilization	60.3	46.0	2.4	1.6	0.0
Youths should assist in monitoring and evaluation of project plan for innovation utilization	31.0	57.9	8.7	2.4	0.0

Source: Field survey, 2011

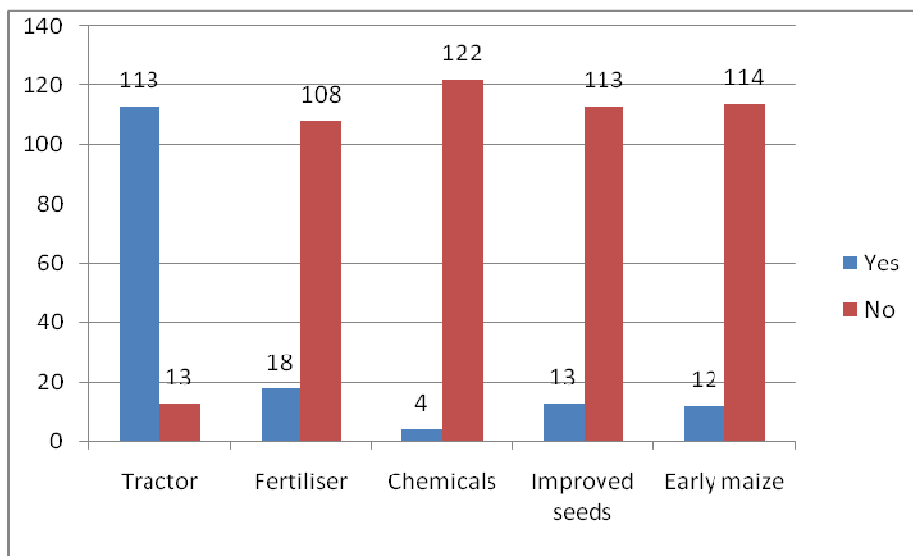


Fig. 2. Bar chart showing the respondents identification of innovation disseminated

Source: Field survey, 2011

3.4 Identification of Youth Roles in Innovation Dissemination and Utilization

Data in Table 3 showed that about 54.8 percent of the respondents agreed that youth serves the role of medium of change. 50.8 percent agreed that youth serves the role of mobilization and sensitization of peers and people. Furthermore, 58.7 percent agreed that youth serves the role of provision of both material and non-mateial

resources. Also, 68.3 percent agreed that youth provide assistance in execution of project plans. About 44.4 and 41.3 percents agreed that youth serve the roles of provision of assistance in monitoring and evaluation of project plan and involvement in planning. To ensure the sustainability of innovation management system in Nigeria youth must be involved in planning, implementaion, monitoring and evaluation of agricultural programmes in the rural areas.

Table 3. Distribution of the respondents according to identification of youth roles in innovation dissemination and utilization (N=126)

Description of youth roles	SA	A	UD	D	SD
Youths serves as a medium of change	23.8	54.8	13.5	7.1	0.8
Youths are involved in innovation planning	4.0	41.3	40.5	7.1	4.0
Mobilization and sensitization of peer and People	38.1	50.8	8.7	2.4	0.0
Provision of both material and non-material Resources	3.2	58.7	31.0	6.3	0.8
Provision of assistance in the drawing up of project plan	4.0	23.8	47.6	24.6	0.0
Provision of assistance in execution of Project	23.0	68.3	7.1	1.6	0.0
Provision of assistance in monitoring and evaluation of project plan	2.4	44.4	44.4	8.7	0.0

Source: Field survey, 2011

3.5 Youth Participation in Organisations

Fig. 3 revealed that about 89.7 percent of the respondents were executive member of cooperative society, 80.2 percent were executive member of decendant union. Also 27.8 percent and 25.4 percent were executive member of farmer group and credit organisations, respectively. About 80.2 percent of the respondents were non-member of development association. Further more 72.2 and 61.1 percents were non-member of credit organisation and farmers group, resperctively. The low participation of youth in farming organisations was an indication of low interest of the youth in embracing farming as vocational activities. The results show that youth were interested in money making ventures rather than managing farming innovation. This finding is in agreement with the study of [15,13,11,12,14] that reported a low interest of youth in agricultural related business.

3.6 Problems Militating against Effective Participation of Youth in Innovation Management System

Table 4 showed that 89.7 percent of the youth agreed that non-lucrative of farming, which enhance youths migration from rural areas to urban areas, was part of the probelms militating against their effective participation in innovation management system. About 87.3 percent agreed that in-adequate capital was part of the problems militating against their effective participation in innovation management system. Further more, 81.7, 80.2 and 61.9 percents agreed that poor living standard of rural dweller, lack of rural infrastructure and social ammenities; and high

taste for cities, respectively, are problems militating against youth effective participation in innovation management system. This shows that to have effective participation of youth in innvation management, adequate solution must be provided to the prevaiiling problems of non-lucrative of farming, inadequate capital, poor living standard of rural dwellers, lack of rural infrastructure and social ammenities, and high taste of youths for cities.

3.7 Relationship between Variables (Hypotheses Testing)

3.7.1 Demograghic characteristics of arable crop farmers and their perception of youth roles in agricultural innovation management system

Table 5 showed that age ($r=-0.1999$) had an inverse relationship with the perception of youth roles in agricultural innovation management system. This implies that the older the respondents, the lower their perception of youth roles in agricultural innovation management. Furthermore, number of years spent in the community ($r=-0.182$) had an inverse relationship with perception of youth roles in agricultural innovation management system. This implies that as the number of years spent in the community increases, the respondents perception of youth roles in agricultural innovation management decreases. This is in agreement with [13] and Akpomovia [14] the higher the number of years spent in the community, the higher the level of individual involvement in development activities.

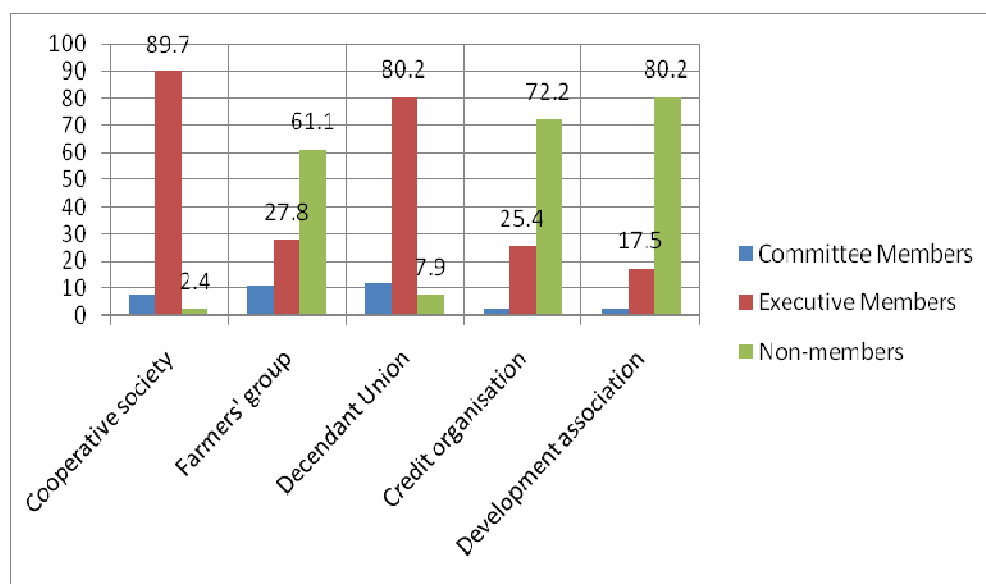


Fig. 3. Bar chart showing youth participation in organisation

Source: Field survey, 2011

Table 4. Distribution of respondents according to problems militating against effective youth participation in innovation management system (N=126)

Variable	Frequency	Percentage
Non-lucrative of farming		
Yes	113	89.7
No	13	10.3
In-adequate capital		
Yes	110	87.3
No	16	12.7
Lack of rural infrastructure and social amenities		
Yes	101	80.2
No	25	19.8
Poor living standard of rural dweller		
Yes	103	81.7
No	23	18.3
High taste for cities		
Yes	78	61.9
No	48	38.1

Source: Field survey, 2011

Table 5. Pearson correlation showing relationship between perception of youth roles and selected socio-economic characteristics

Variable	Pearson correlation (r)	Coefficient of determination
Age	-0.199*	0.039
Number of years spent in community	-0.182*	0.033
Average income per month	0.165	0.027
Household size	0.031	0.001
Cosmopolitans	-0.075	0.006
Contact with extension agent	-0.123	0.015
Years of formal education	0.153	0.023

Source: Field survey, 2011 *significant at 0.05 level (2-tailed)

3.7.2 Identified youth roles and arable crop farmers perception of their roles in agricultural innovation management system

Table 6 showed that at 0.01 level of significance, identification of youth roles in agricultural innovation management system ($r = 0.721$) had a positive significance with the perception of youth roles. This implies that the higher the identification of youth roles by respondents the higher their perception of youths roles.

Table 6. Pearson correlation showing relationship between perception of youth roles and identification of youth roles

Variable	Pearson correlation (r)	Coefficient of determination
Identification of youth roles	0.721	0.520

*Source: Field survey, 2011; ** Significant at 0.01 level*

4. CONCLUSION AND RECOMMENDATIONS

Majority (91.3%) of the respondent were adult males and illiterate farmers who engaged in other occupation apart from farming to generate enough income to cater for an average of 8 household members. Most of the arable crop farmers were married and indigene of their communities. The majority (89.7%) of the youths are constantly leaving the rural areas for urban because of the low income and poverty that are associated with farming. Their migration from the rural area made it difficult for them play a satisfactory roles in innovation management. The arable crop farmers were being abandoned by agricultural development stakeholders which are clearly shown in the few innovation taken to them by the change agents. This also serve as push for the youths to participate in agricultural innovation management system.

Among others, it was recommended that rural development stakeholders should make agriculture attractive to the youths by providing adequate infrastructure and social amenities in the rural areas. They should develop a programme which will ensure adequate dissemination and adoption of innovation by the rural farmers, and ensure that youths are the major disseminator of such innovation. This should however, be accompanied by adequate and appropriate remuneration for them in order to keep them committed.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Mitterwer M. The Concept of Youth; 1993. Available: http://www.allenandunwin.com/sociologyaustralia/files/RETHINK_PDF.23/5/2008.
2. World Bank. Enhancing agricultural innovation: How to go beyond the strengthening of research systems. Washington, D. C. USA World Bank; 2007.
3. Bihis-Tolentine J. Institutional strengthening and programme management related to rural youth programmes, Issue paper, FAO; 1995. Available: <http://www.fao.org/docrep/w1765e/w1765e0d.htm#TopOfPage.21/3/2008>
4. Torimiro DO, Olubode AA. Towards achieving food security in Africa: Meeting the sustainable needs of crop farm youth in Southwest Nigeria. Journal of Applied Science Research. 2006;2(4):242-247.
5. ILO. Youth and work: Global Trends, Geneva, ILO; 2001. Available: www.vwec.ILO/sampsowreports.30/5/2008.
6. Youth Jeunesse Forum (YJF). Policy paper on sustainable development. Adopted 28-29 April; 2006. Available: <http://www.johannesburgsumit.org.23/2/2010>.
7. Benell PS. Promoting livelihood opportunities for rural youth Knowledge and skills for Development, Ottawa, IDRC/USAID. 2007;1-10.
8. Jibowo AA. Essential of rural sociology. Gbemi sodipo press limited, Abeokuta Ogun State; 1992.
9. Adisa BO. Participation of community based organisations in rural development projects in Osun State of Nigeria. An unpublished Ph.D. Thesis. Department of Agricultural Extension and Rural Department, Obafemi Awolowo University, Ile-Ife, Osun State. 2001;74-90.
10. Deji OF. Participation of women organisations in rural development projects in Osun state of Nigeria. An unpublished Ph.D. Thesis, Department of Agricultural Extension and Rural Department, Obafemi

- Awolowo University, Ile-Ife, Osun State. 2002;96-134.
11. Okorie VO, Torimiro DO, Ojo TF, Kazim OK. Youth's involvement in car wash activities: A potential pull of agricultural labour in Osun State, Nigeria. African Educational Research Network, the African Symposium. 2009;9(1):83-94.
 12. Muhammad-Lawal A, Omotesho OA, Falola A. Technical efficiency of youth participation in agriculture: A case study of the Youth - In - Agriculture Programme in Ondo State, South Western Nigeria. Nigerian Journal of Agriculture, Food and Environment. 2009;5(1):20-26.
 13. Onemolease EA, Alakpa SO. Determinants of adoption decisions of rural youths in the Niger Delta Region of Nigeria. Department of Agricultural Economics and Extension, Faculty of Agriculture, Ambrose Alli University, PMB 14, Ekpoma, Edo state, Nigeria. Journal of Social Science. 2009;20(1):61-66.
 14. Akpomuvia OB. Self-Help as a strategy for rural development in Nigeria: A bottom-up approach. Akpomuvie, Orhioghene Benedict, Delta State University (Abraka, Nigeria) Journal of Alternative Perspectives in the Social Sciences. 2010;2(1)88-111.
 15. Otumara J. Youth harassment. Paper presented in seminar on awareness and Re-orientation seminar for youths of oil producing communities of Delta States. Organised by Shell Petroleum Development of Nigeria, 26th June; 2000.

© 2015 Alao et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:
<http://www.sciencedomain.org/review-history.php?iid=665&id=2&aid=6078>