APPRAISAL OF EFFECT OF CAPACITY BUILDING ON ACQUISITION OF KNOWLEDGE AND SKILL AMONG MANGO VALUE CHAIN ACTORS FROM SELECTED GEO-POLITICAL ZONES IN NIGERIA

[*1]Layade, A.A., [1]Olajide-Taiwo, L.O., [1]Oyedele, O.O., [1]Olajide-Taiwo, F.B., [1]Adeoye, P.O., [2]Adeboyejo, F., [1]Igwe, C.H.
[1]National Horticultural Research Institute, Ibadan.
[2]University of Ibadan.
*Corresponding author's email: jumlay408@gmail.com

Abstract
Value chain approach is one of the important ways of developing agricultural sector in Nigeria. In order to reap full benefits through value chain in mango sub-sector, additional skills through appropriate training and empowerment are required by farmers and other stakeholders. The study was carried out during a training programme conducted on mango value chain in Kwara State. It was designed in form of training of trainers thus participants were drawn from North-Central, South South, South West, North West and North East geopolitical zones of the country. Participants were subjected to both pre and post training knowledge assessment. Data were collected through the means of structured interview schedule from fifty-nine trainees Descriptive and inferential statistics were used for data analysis. The results of the study showed that most (67.8%) of the respondents were male with average age of 39 years and were educated. Post-knowledge mean scores of respondents were more than their pre knowledge mean scores in all sessions considered along mango value chain. T-test result revealed a significant difference in pre-training and post-training knowledge scores of trainees in mango nursery and orchard management (t=14.56, p = 0.000), economics and record keeping of mango (t=4.145,p = 0.000), mango post-harvest handling and safety (t=7.94, p = 0.000) and mango value chain (t=11.091, p = 0.000). It was recommended that more capacity building programme should be organized for dissemination of appropriate knowledge among horticultural stakeholders and trainees should be encouraged to practice the acquired skill accordingly through adequate empowerment strategies.
Key words: *Training, Knowledge, Skill acquisition, Stakeholders, mango value chain*

INRODUCTION

Capacity building is defined as the process by which individuals are equipped with skills and knowledge they need to perform effectively and efficiently in their businesses (Azikiwe, 2008). It is planning for people to acquire knowledge and advanced skills that are critical to a country's economic growth, its standard of living and individual empowerment. They are planned programmes that will impart skills which will enable the recipient put the knowledge and skills acquired into productive uses to solve wide range of individual and national problems (Nwazor, 2012). Capacity building comes through training which could be pre-employment or on-the-job training. Training is a term described as the process of acquiring the essential skills required for a person to perform certain job better (Krishnamurthy *et al*, 2015). It targets specific goals, and puts emphasis on broader skills, which are applicable in a wide range. Training involves the processes of teaching, informing and educating people. Training programme have to meet the training needs of the participants.

Capacity building is needed in developing countries, like Nigeria, where there is high rate of unemployment. According to Uddin *et al* (2013), the unemployment in the country increased from 21.1% in 2010 to 23.9% in 2011. From 2011 to 2013 there is an

ISSN 978-978-54729-6-7
THEME: "Horticulture for Improved Food Security, Sustainable Environment and National Economic Growth
18th – 22nd November, 2018

increase of 16% unemployment growth rate in Nigeria.

Value chain is a concept described as entire range of activities required to bring a product from initial input-supply stage through production to consumption (UNIDO, 2009). Value chain is increasingly becoming popular as a way of developing agricultural sector in Nigeria. Additional skills in this area are vital for farmer and other stakeholders in mango sub-sector to reap full benefits through value chain. Training in mango value chain will provide an opportunity for farmers and other actors in the chain to interact with professionals in the field, as well as receive opportunities for receiving new information as regard aspects of the chain. Their skills and knowledge will be more enhanced and increased through capacity building (Ekong and Ekong, 2016). Likewise, Uloko and Ejinkonye, 2010 remarked that when people are empowered through the acquisition of entrepreneurial skills, there is possibility that they will use the skills to create wealth. It is therefore necessary to train prospective stakeholders along the value chain. Upon this background, the training programme along mango value chain was organized and thereafter its impact on the participants' knowledge was evaluated. The specific objectives of this study were:

i. To ascertain the socio-economic characteristics of the trainees
ii. To determine the pre-training and post-training knowledge of trainees about mango value chain covering nursery and orchard management, economics and record keeping and post-harvest handling and safety.
iii. To determine the change in knowledge of trainees in mango value chain as a result of the training intervention.

METHODOLOGY

The study was carried out during the training programme on mango value chain organized by National Horticultural Research Institute (NIHORT), at Agricultural and Rural Management Training Institute (ARMTI) Ilorin, Kwara State in March 2018. All the 59 participants trained were used for the study. They were from five geopolitical zones comprising North central (Kwara and Kogi States), South South (Rivers State), South West (Oyo and Ogun state), North West (Kano and Kaduna) and South East (Anambra State). Participants were subjected to pre-training knowledge assessment at the beginning of the training and post-training assessment at the end of the training programme. Primary data were collected through the use of structured questionnaire administered to the 59 trainees. Data were analyzed using descriptive (frequency, percentage and mean) and inferential (T-test) statistics.

RESULTS AND DISCUSSION

Socio-economic characteristics of the trainees

The result presented in Table 1 shows that 67.80% of the respondents were male, indicating a male-dominating group. The mean age of the respondents is 39 years, indicating that they were young and economically active, and would be able to withstand the diverse and rigorous activities in mango value chain. Most (64.40%) of the respondents were married connoting some level of responsibility. About 52.6%, 30.5% and 3.4% of the respondents had tertiary,

ISSN 978-978-54729-6-7
THEME: "Horticulture for Improved Food Security, Sustainable Environment and National Economic Growth
18th – 22nd November, 2018

secondary and primary education respectively, an indication that they were literate. The educational level attained by the respondents was expected to enhance the application of the skill acquired during the capacity building and empowerment programme. This result is supported by the findings of Uloko and Ejinkonye (2010) and Adeduntan (2015).

Difference between pre-training and post-training knowledge score of participants in mango nursery and orchard management

Result of the t-test in Table 2 reveals a significant difference between mean value of pre-training and post-training knowledge scores of the trainees during the mango nursery and orchard training ($p<0.05$). The mean value for pre-score is 0.661 while the post-score is 5.203. It shows an increase of 687.14% in knowledge among participants after the mango nursery and orchard management training. Result of the t-test further reveals a significant difference ($t=14.56$, $p=0.000$) in pre and post training knowledge scores. It implies that the trainees acquired significant knowledge in mango nursery establishment and orchard management during the training exercise.

Difference between pre-training and post-training knowledge score of participants in economics of mango and record keeping

The mean value for pre knowledge score is 0.831 while that of the post knowledge-score is 1.644 signifying 97.83% increase in knowledge of trainees in economics of mango and record keeping.

A critical look at the t-test result also shows a significant difference ($t=4.145$, $p=0.000$) in pre-training and post-training knowledge scores of participants. It implies that the trainees acquired significant knowledge during the training on economic of mango and record keeping which may likely impact their business orientation in mango value chain.

Difference between pre-training and post-training knowledge score among respondents in post-harvest handling, value addition and safety

Pre-knowledge and post knowledge mean score of participants in post-harvest handling, value addition and safety in mango production are 0.457 and 1.915 respectively depicting a positive change in knowledge to the tune of 319.03%. In the same vein the t-test analysis reveals a significant difference ($t=7.944$, $p=0.000$) between pre-training and post-training knowledge score of participants (Table 4). The implication of this is that the trainees acquired significant knowledge during the training programme which may likely improve on quality of their products.

Difference between pre and post knowledge score among participants along mango value chain training

Generally, along mango value chain (production to post-harvest handling), there is improvement in mean knowledge of participants from 1.949 before exposure to training to 8.763 after the training activity signifying up to 349.62% increase in knowledge. Result of the t-test analysis at $p<0.05$ also shows a significant difference ($t=11.091$, $p=0.000$) between pre and post knowledge scores of participants along the commodity value chain (Table 5). It implies that the trainees acquired significant knowledge during the training on mango value chain.

CONCLUSION AND RECOMMENDATION

The study revealed that the respondents were young and economically active,

ISSN 978-978-54729-6-7
THEME: "Horticulture for Improved Food Security, Sustainable Environment and National Economic Growth
18th – 22nd November, 2018

and would be able to withstand the different activities in mango value chain. They were able to acquire knowledge after the training in all aspects of mango value chain captured during the capacity building workshop. Participation in training is a viable tool for improvement of knowledge and adoption of technologies among horticultural stakeholders. Therefore, more training should be organized and trainees should be empowered in order to practice the acquired skill.

REFERENCES

Adeduntan, S.A. 2015. Contribution of some ornamental plants to the socio-economic development of urban household in Akure metropolis. *African Journal of Agricultural Research,* 10(4):264-268.

Azikiwe, U. 2008. Standard in tertiary education: capacity building and sustainable development in Nigeria. A lead paper presented at the annual conference of the Faculty of Education, Nnamdi Azikiwe University, Awka, Anambra State.

Nwazor, J.C. 2012. Capacity Building, Entrepreneurship and Sustainable Development. *Journal of Emerging Trends in Educational Research and Policy Studies,* 3(1):51-54.

Ekong, U.M. and Ekong, C.U. 2016. Skills acquisition and unemployment reduction in Nigeria: A case study of National Directorate of Employment (NDE) in Akwa Ibom state. *International Journal of Economic Management Science,* 5(4):2-10.

Krishnamurphy, A.T., Nagesh and Sathish, H.S. 2015. Trading needs of coconut growers-An assessment. *International Journal of Applied Social Science,* 2(1 &2): 9-14.

Uddin. P. S. O. and Uddin, O. O. 2013. Causes, effects and solutions to youth unemployment problems in Nigeria, *Journal of Emerging Trends in Economics and Management Sciences,* 4(4):397-402.

Uloko, M.E and Ejinkonye, U.B. 2010. Entrepreneurial education and training for job creation. *Journal of Teacher Perspective,* 308-314.

United Nations Industrial Development Organization (UNIDO). 2009. Agro-value chain analysis and development: the UNIDO approach. UNIDO publication, 1-73.

ISSN 978-978-54729-6-7

Table 1: Demographic characteristics of respondents

Variable	Frequency	Percentage
Sex		
Male	40	67.80
Female	12	20.30
No response	07	11.90
Total	59	100.00
Marital status		
Single	12	20.30
Married	39	66.10
No response	08	13.60
Total	59	100.00
Age (years)		
31-40	24	40.70
41-60	20	33.90
No response	15	25.40
Total	59	100.00
Mean ≈ 39		
Educational level		
Primary education	02	03.40
Secondary education	18	30.50
Tertiary education	31	52.50
No response	08	13.60
Total	59	100.00

Source: Field survey, 2018.

Table 2: T-test showing difference in scores of the trainees during mango nursery and orchard management training

Score	N	Mean value	Df	t-value	Sig.
Pre-score (Before training)	59	0.661	116	12.714	0.000
Post-score (After training)	59	5.203			

Table 3: T-test showing difference in scores of the trainees during economics of mango value chain and record keeping training

Score	N	Mean value	Df	t-value	Sig.
Pre-score (Before training)	59	0.831	116	4.145	0.000
Post-score (After training)	59	1.644			

Table 4: T-test showing difference in scores of the trainees during training on mango post-harvest handling, value addition and safety

Score	N	Mean value	Df	t-value	Sig.
Pre-score (Before training)	59	0.457	116	7.944	0.000
Post-score (After training)	59	1.915			

Table 5: T-test showing difference in scores of the trainees during mango value chain training

Score	N	Mean value	df	t-value	Sig.
Pre-score (Before training)	59	1.949	116	11.091	0.000
Post-score (After training)	59	8.763			

ISSN 978-978-54729-6-7
THEME: "Horticulture for Improved Food Security, Sustainable Environment and National Economic Growth
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