

Short Communication

Capacity Building of Industrial Students on Rubber-Based integrated Farming System by Rubber Research Institute of Nigeria

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The study evaluated the quantum of capacity building and training of industrial students on rubber-based farming system by Rubber Research Institute of Nigeria (RRIN). Both primary and secondary data were used for the study. Descriptive statistics such as percentage, frequency and mean were used for the analyses. The results of the analyses revealed that 32 higher institutions in Nigeria have sent their students to RRIN for Industrial Training (IT) between the years 2010 and 2015. It was also indicated that a total of 587 students were trained during the period by RRIN. Most of the students (52.94%) attributed their coming to RRIN for IT to good training materials available

in the Institute, while 23.53% based their choice of RRIN to good dedicated staff of the Institute. The IT students rated their level of satisfaction on the quality of training they received from RRIN as 4.6 which indicates an excellent score. Lack of payment of the IT allowances (26%), poor power supply (17.05%) and bad road (17.05%) were among the main constraints faced by the IT students in the RRIN during their stay.

Key words: Capacity building, Industrial Students, Rubber, farming system.

INTRODUCTION

Human development is a key factor in the socio-economic and political development of every nation. Thus skill acquisition is the appropriate recipe for eradicating idleness and poverty among people. According to English dictionary, skill is defined as the ability of one to have practical knowledge of something. Capacity building is synonymous to skill acquisition. In this regard, the 2004 Nigerian National Policy of Education recommends that students should be provided with necessary skills that will enhance agricultural and economic development. Akingbade (2007) stated that the missing link in Nigerians ability to harness and effectively utilize its rich resources

for nation building is low human capital development. This can be better addressed through qualitative education system that will develop the people's mentality to fight hunger, poverty and joblessness which will consequently reduce crime and provide self-reliance through effective youths' engagement.

Rubber Research Institute of Nigeria (RRIN) has seven Research Departments, among which is the Research Outreach. Among its numerous functions, the department is saddled with the responsibility of releasing research findings/innovations done by scientists in the Institute to people that are in need of them and also training of farmers

and students from various organizations in the country. Studies revealed that information is power; it serves as a veritable tool for human development, poverty emancipation and self-reliance. The declining agricultural outputs from Nigeria in the last four decades, could not be unconnected with the inadequate/poor disseminations of research findings/innovations to farmers, especially the youths.

This consequently led to the low participation of youths in agricultural activities and the low agricultural outputs in the country. Reason for this youths' turndown of farming work is based on the notion that it is a poor man's business (Mesike and Abolagba, 2007; Umar and Ugwa, 2006; Umar *et al* 2012). Another factor that scares some people from farming activities is the wide range of risks involved which include unpredictable rainfall pattern, attacks of pests and diseases, the fluctuating markets situations due to competition among firms and government policies as well as the irregularity of consumers' tastes and demands.

Therefore, in order to develop agriculture, research should be well innovative and relevant to tackle these challenges and good results widely disseminated across people especially the youths who are in their active ages. This is corroborates Michael (2011) who stated that extension of agricultural knowledge to people is a crucial factor in agricultural and rural development. This means that for an effective value chain, educating the Nigerian teeming youths that dominates the societies with appropriate skills should be emphasized. This will lead to economic empowerment, self-reliance and poverty emancipation among the people.

In Nigeria and Africa at large, the concern for the urgent need to enhance agricultural outputs is based on the rapid population growth in the continent especially in Nigeria. Michael (2016), who cited Norman Borlang, 2010, reported that in the next 50 years, Africa needs to produce more food than have been produced in the last 10,000 years due to high population growth explosion.

In pursuance of this noble course of agricultural development through skills acquisition and information dissemination, RRIN engages in training of rubber and gum arabic farmers as well as students from various higher institutions in Nigeria. The objective of this study is thus to analyzed the quantum of capacity building of Industrial Training (IT) students on rubber-based farming system by RRIN and also to examine the students' assessments of RRIN in its mode of impacting knowledge to them between the years 2010 and 2015.

METHODOLOGY

Students from various higher Institutions in Nigeria have been coming RRIN for their Industrial Training. They are deployed to departments/divisions based on their course of study in the schools they come from to receive their

training. They were generally trained on: Budding of rubber, Tapping of rubber, Apiculture, Rubber-Arable crops intercrop, Types of fertilizers and methods of applications, Data processing using SPSS computer statistical package, Processing of Rubber Latex to Coagula, Identification of rubber diseases, and Field transplanting of rubber budded stumps/Rubber Plantation Establishment.

The students' levels of comprehending the knowledge impacted on them were tested through viva at the end of their stay in the Institute.

Secondary data on the number of higher institutions that sent their students to RRIN for Industrial Training (IT) between the year 2010 and 2015 were obtained from the Extension Division of RRIN. This was supported with a structural questionnaire administered on the students in 2015 and 2016 to solicit Information on their reasons for choosing RRIN for their Industrial Training place, their level of satisfaction with the training received in RRIN and also the possible constraints they might have faced during their stay in RRIN. The data collected were analyzed using descriptive statistics such as percentage, frequency and mean.

RESULTS AND DISCUSSION

Frequency of Institutions visit to RRIN

Analysis of the number and frequency of visits by higher institutions to RRIN is presented in (Table 1).The results revealed that 32 higher institutions in Nigeria have sent their students to RRIN for IT training between the year 2010 and 2015. There were 587 students in all that were trained by RRIN during the period under review. The most frequenting institutions to RRIN were University of Benin (7), Delta State University (7), Auchi Poly (7), Western Delta University (7) and Ambros Alli University (7). This could be due to the relative closeness of RRIN to these institutions and also the confidence they have in RRIN for training their students. The rates of visits by the higher institutions might have also reflected the fields study among the students that are similar to the mandates/activities of RRIN.

Rating of RRIN by the IT students

Table 2 depicts the annual frequency of Industrial Training (IT) students' visits to RRIN and the programmes they pursue in their various institutions. The analysis indicates that a total of 73 visits to RRIN were made between the years 2010 and 2015 by the higher institutions with year 2012 having the highest frequency (15), followed by year 2015 (14). This high influx of schools to RRIN for IT training implies that RRIN is a good training Institution for IT students. The Institute is

Table 1. Frequency of Institutions visit to RRIN and total number of IT students trained by RRIN.

Institutions	Freq. of visit	Gender		Total no. of students trained
		F	M	
University of Benin	7	18	21	39
National Open University	1	1	0	1
Edo State Inst. of Tech	1	1	0	1
Delta State University	7	43	51	94
Auchi Poly	7	42	61	103
Edo State College of Agric	1	11	6	17
Rufus Giwa Poly	3	8	7	15
College of Agric. Iguoriakhi	1	61	52	113
ESIT&M	1	28	28	56
University of Port	1	3	6	9
Western Delta University	7	1	1	2
FUTO Owerri	5	2	1	3
Nekade Ploy	5	1	1	2
Beson Idahosa University	1	1	1	2
FUTA, Akure	1	1	0	1
Shaka Poly	1	0	1	1
IMT Enugu	1	0	2	2
Covenant University	1	0	1	1
Madona University	1	1	0	1
ESU I Enugu	1	1	0	1
Delta State Poly, Ozoro	1	1	2	3
P.T.I. Effurun	1	2	2	4
FUT Minna	1	1	1	2
Nasarawa State University	2	0	1	1
Cross River State University	1	0	1	1
Osisa Tech. Poly	2	1	0	1
Uni-Zik	1	1	0	1
Land Mark University	1	2	0	2
Ebony State University	1	1	0	1
Sapele Tech. College	1	1	1	2
Ambros Alli University	7	55	45	90
F.E.C.A. Akure	2	2	3	5
Total	73	291	296	587

Source: Research Outreach Department 2016.

Table 2. Summary of schools that came to RRIN for IT and the Rating of RRIN by the IT students.

Year	Schools	IT stud. trained by RRIN	Gender		IT students' Programmes			Mean Rating of RRIN by IT Students	% of Programmes		
			F	M	1	2	3		1	2	3
2010	13	65	30	35	3	1	5	5	33.34	17.09	49.57
2011	12	83	32	51	3	1	8	5	27.91	17.09	55.00
2012	15	142	95	47	2	1	9	4.9	22.50	17.10	60.40
2013	12	71	24	47	4	1	7	4.8	33.33	17.09	49.58
2014	7	111	51	60	2	1	4	5	30.24	20.96	48.81
2015	14	115	59	56	6	1	7	5	34.53	16.31	44.17
Total	73	587	291	296	Mean Rating			4.6	30.36	18.00	51.64

Source: Calculated from primary and secondary data. 2016.

Note: Programmes: 1 = OND, 2 = HND and 3 = B.Sc.

Rating of RRIN: 1 = poor. 2 = fair. 3 = good. 4 = very good and 5 = excellent.

deeply involves in theory and practical approaches in carrying out its research activities which aids in facilitating learning. The least number of visits by the institutions was recorded in 2014 (7). This may be attributed to the incessant industrial disharmony between the

Researchers and RRIN Internal Management during the period. This implies that industrial disharmony has diverse negative effects on both human and economic developments. This corroborates Akingbade (2007), who stated that the missing link in Nigerians ability to harness

Table 3. Analysis of the Reasons for students choosing RRIN for their IT programme.

Factors considered in choosing RRIN for IT programme by the students	Total Respondents	% Respondents
Proximity of RRIN to Respondent	34	5.88
Hospitality of RRIN to Respondent	17	2.94
RRIN imposed on the Respondent	0	0.00
RRIN's good training materials	311	52.94
Good dedicated staff of RRIN	138	23.53
Personal love of Respondent to RRIN	17	2.94
All of the above	70	11.77
Total	587	100.00

Source: Calculated from primary data. 2016.

Table 4. Analysis of constrained IT students faced in RRIN during their IT programme.

Constrained	Respondents@	Percentage
Poor power supply	200	17.05
Inadequate water supply	108	9.21
Bad road	200	17.05
Distance to office	8	0.68
Cost of transport	95	8.10
Poor network	80	6.82
Lack of good accommodation	107	9.12
Bad training equipments	40	3.41
Lack of protective kids to IT students	30	2.56
Nonpayment of IT students allowances	305	26.00
Total	1,173	100.00

Source: Calculated from primary data 2016. @ = multiple choice.

and effectively utilize its rich resources for nation building is low human capital development.

The Table 2 also indicates the programmes that the students pursue in their various institutions which include OND (1), HND (2) and B.Sc (3).

The analysis performed revealed that more than half (51.64%) of the students that came for training at RRIN during the period under review were pursuing their degree programmes (B.Sc); this was followed by those pursuing OND (30.36%). This implies that RRIN is recognized by various learning institutions in the country as a good organization for training of IT students at all levels.

This corroborates the mean score (4.6) of RRIN rated by the IT students on the quality of knowledge they received from RRIN staff. This score (excellent) also implies that the students were happy as they have learnt a lot from RRIN during their stay in the institute.

Reasons for students choosing RRIN for their IT programme

Analysis of the reasons for choosing RRIN by the students for their IT programme is presented in (Table 3). The results depict that there was no student (0%) that RRIN was imposed on him/her for the IT programme.

Most of the students (52.94%) attributed their coming to RRIN for the IT to good training materials available in the institute; while 23.53% based their choice of RRIN to good dedicated staff. There was 11.77% of the total number of IT students who claimed that they were encouraged to do their IT in RRIN based on all the factors considered in this study (Table 3).

Table 2 shows that RRIN is a recognized good training institute for IT students.

Analysis of constrained IT students faced during their stay in RRIN

The constraints/problems faced by IT students under the period of review were analyzed and the results indicate that 26% of the total respondents complained of lack of payment of their allowances; this was followed by poor power supply and bad road 17.05% each (Table 4). This implies that a better learning environment would have been achieved by the IT students in RRIN had it been regular payment of their allowance and good road were made.

RRIN couldn't achieve these properly due to the lean financial status of the institution for the past six years now; and these problems seem to be serious challenges to both research and learning in the Institute.

Conclusion and Recommendations

From the study, it is therefore concluded that the training of industrial students on rubber-based farming system is key to human and economic development of every nation. The study recommends that Rubber Research Institute of Nigeria should improve on their services to Industrial Training students especially payment of their allowances and rehabilitation of access road and light supply in order to enhance learning and research activities in the Institute.

AUTHORS` DECLARATION

We declare that this study is an original research by our research team and we agree to publish it in the journal.

REFERENCES

- Akingbade B (2007). "Meeting the Challenges of Human Capacity Development in Nigeria: A case for Reforms in our Educational Policy and System". www.bolakingbade/human20%capital20%development20%.pdf.
- Mesike CS, Abonkolor BN, Umar HY, Giroh DY (2007). Economic Analysis of Rubber Exports Supply in Nigeria. *Journal of Agric. Res. Pol.* 2(2):13 – 16.
- Michael H (2011). Upping the ante on extension. *Spore Magazine*, number 153, June – July 2011. Pp3.
- Michael H (2016). Boosting Innovation in Agriculture. *Spore Magazine*, number 179; Dec.2015 – Jan. 2016. Pp3.
- Umar HY, Ugwa IK (2006). Global Evaluation of Natural Rubber Production: The Nigerian Experience (1894 - 2004). *Nigerian Journal of Tropical Agriculture*. Vol.8; Pp 164 – 175.
- Umar HY, Ugwa IK, Uche U (2012). The Economy of Coagula Production in Rubber Research Institute of Nigeria: Trend analysis. *International Research Journal of Library, Information and Archival Studies*. 2 (2): 38 -42.