



Research Paper

Analysis of gender mainstreaming of industrial training students into rubber- based farming systems: Efforts of Rubber Research Institute of Nigeria towards human capacity development

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The study examined gender mainstreaming and capacity building of industrial training students of tertiary institutions on rubber – based farming system using both primary and secondary data. Analysis was carried out using descriptive statistics including percentage, frequency and mean. The results of the analyses revealed that 587 Industrial Training (IT) students from 32 higher institutions in Nigeria were trained by Rubber Research Institution of Nigeria (RRIN) between 2010 and 2015. The

results also showed the number of female and male students trained to be 291 and 296 respectively. This almost balanced ratio of female to male is encouraging as gender mainstreaming is a key issue in human capacity development at national and global forums.

Key words: Capacity building, farming systems, gender mainstreaming, human development, Industrial Students, Rubber.

INTRODUCTION

In Nigeria, men and women have different roles, needs and interests in managing agriculture. This is due to socio-cultural differences, socioeconomic, and religious factors which often put them at a disadvantaged position (SARF-SC, 2016). Agriculture tends to be perceived as male dominated but women are also in agriculture, often gathering food for their family and for income. In fact,

women in agricultural communities can generate more than 50% of their income from agriculture, compared to about a third for men. Hence, RRIN is keen on empowering women to increase their knowledge and household income.

Despite improvements in the policy environment, women often have less secure land rights and access to

natural resources, and participate less in decision-making. Decisions made without considering women's agricultural roles tend to have a ripple effect, negatively impacting women, their households and consequently the livelihoods of five to ten times as many people. On the other hand, agriculture and gender research has shown that involving women in decision-making at all levels has positive effects on many agricultural productivity issues including resource sustainability, forest regeneration and conflict management (SARF-SC,2016). By understanding the complexities of agriculture and gender, opportunities to create equity and improve management are often brought to light. Focus on the roles of both men and women, and how to create equity in the access, use and management of agriculture is inevitable. Monitoring of the roles and participation of women in all agricultural activities and maintaining professional mentoring and affirmative action are considered in trainings, workshops and conferences, agricultural workforce, leadership programmes, and are extremely important, mandates of Rubber Research Institute of Nigeria (RRIN).

Research Outreach Department of RRIN is one of the six Research Departments of the institute and it is responsible for developing farming systems research, identify farmers' constraints disseminating research findings by scientists in the Institute to farmers and students from various institutions in the country. Low participation of youths, especially women, in agricultural activities in the country have resulted to consequential low production and declining agricultural outputs. This is due to the belief that farming activities are very often considered to be poor man's business exclusively (Mesike and Abolagba, 2007; Umar and Ugwa, 2006; Umar *et al.*, 2012). Therefore, in order to develop agriculture, gender mainstreaming in farming systems should be studied and encouraged.

METHODOLOGY

Both primary and secondary data were obtained and used for the study. The primary data were obtained using structured questionnaires while the secondary data, focusing on the number of women and men trained, were obtained from the data bank in Extension and Training Division of Research Outreach Department from 2010 to 2015. At the end of the training, evaluation exercises were conducted for the students to test their level of understanding of rubber-based farming systems and areas requiring improvements.

RESULTS AND DISCUSSION

Between 2010 and 2015, RRIN built the capacity of 291 female and 296 male students in rubber-based farming systems as 32 higher institutions in Nigeria sent their

students to Research Outreach Department of RRIN for human power development in rubber-based farming systems. The institutions include University of Benin; National Open University, Edo State College of Agriculture, Rufus Giwa Polytechnic, Delta State University, Federal Polytechnic, Auchi, University of Port Harcourt, Western Delta University, FUTO Owerri, Federal Polytechnic, Nekade, Benson Idahosa University, FUTAA, Shaka Polytechnic, IMT Enugu, Covenant University, Madona University, Enugu State University of Science and tech, Enugu, Delta State Polytechnic, P.T.I. Effurun, FUT Minna, Nasarawa State University, Cross River State University, Osisa Tech. Poly, Uni-Zik, Land Mark University, Ebony State University, Sapele Technical College, Ambrose Alli University, and F.E.C.A. Akure.

Gender analysis and human development

The results of gender analysis and human development are shown in (Figure 1) indicating participation of male and female students in the rubber-based farming system programmes across the years. These results are encouraging particularly the higher number of female students, than male students, across the years except year 2012. During graduation, the female students will stand a chance of being head in their workplace and societies. Female students constitute almost half of the visiting students. The high enthusiasm shown by the female student's points to their readiness to participate and engage in subsequent training on rubber-based farming systems.

Top beneficiary institutions

Of the 32 higher institutions that sent their students to RRIN for training on rubber-based farming systems, 6 of them benefitted immensely regarding the number of students trained by RRIN. The top beneficiary institutions are College of Agriculture located at Iguoraki, Federal Polytechnic located at Auchi, Delta State University located at Oghara, Ambose Alli University at Ekpoma, Institute of Training and Management at Usen, and University of Benin. All the top beneficiary institutions, except Delta State University, are based in Edo State (Figure 2). It is not surprising therefore that they benefitted from the training programmes as nearness to RRIN and awareness creation of existence of RRIN in Edo State are two major factors responsible for the large number of students sent by the various institute for training at RRIN.

Percentage of human development

The percentage of human development programme at RRIN from 2010 to 2015 is shown in (Figure 3) reflecting

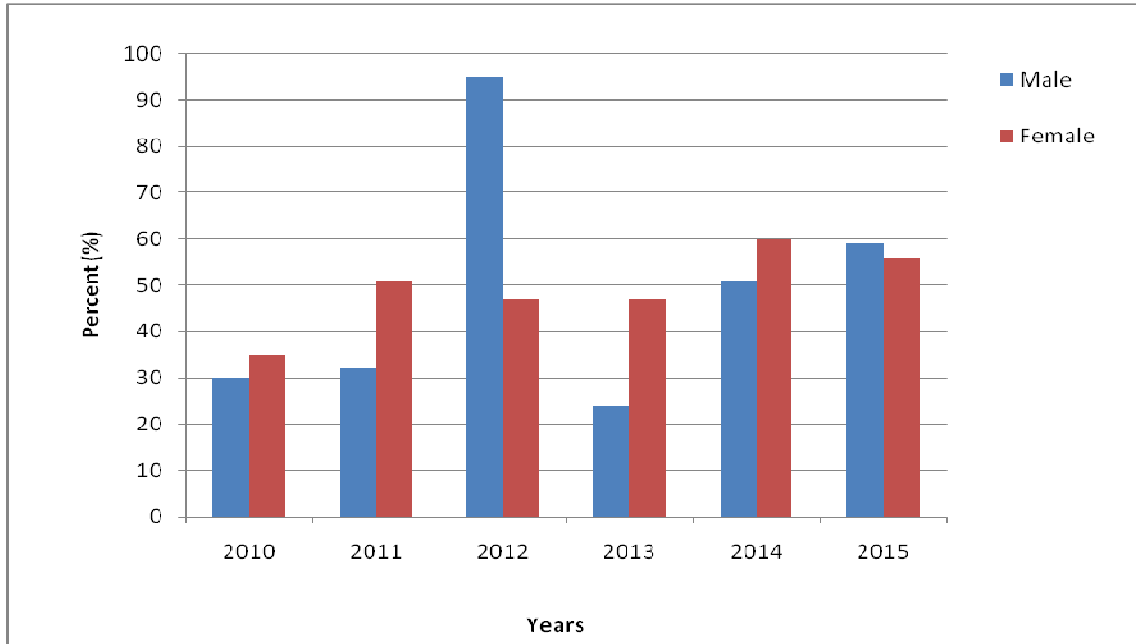


Figure 1. Gender analysis and human development of industrial trainees at RRIN (2010-2015).

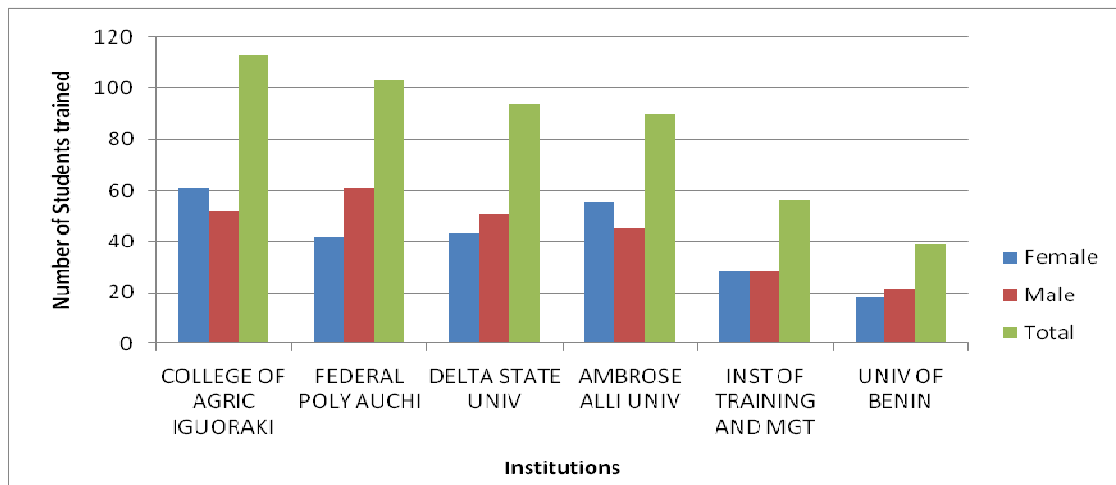


Figure 2. Top beneficiary institutions (2010-2015).

Bachelor of Science Degree (BSc) as the largest programme pursued by the students in each year. The second largest programme is the Ordinary National Programme (OND) while the least programme is the Higher National programme.

Frequency of visit of higher institutions to RRIN

During the period under investigation, studies have shown that students from 5 institutions visited RRIN 7 times. The institutions are: Ambrose Alli University,

Federal Polytechnic, Auchi, University of Benin, Western Niger Delta University and Delta State University (Figure 4). Both the Federal University of Technology Owerri and Federal Polytechnic Nekede visited RRIN 4 times.

Path towards gender equity

Gender relations refer to the activities carried out by women and men as well as the value and meaning attached to these activities by the wider society. Integrating gender equality in development is being



Figure 3. Percentage of human development programmes at RRIN (2010-2015).

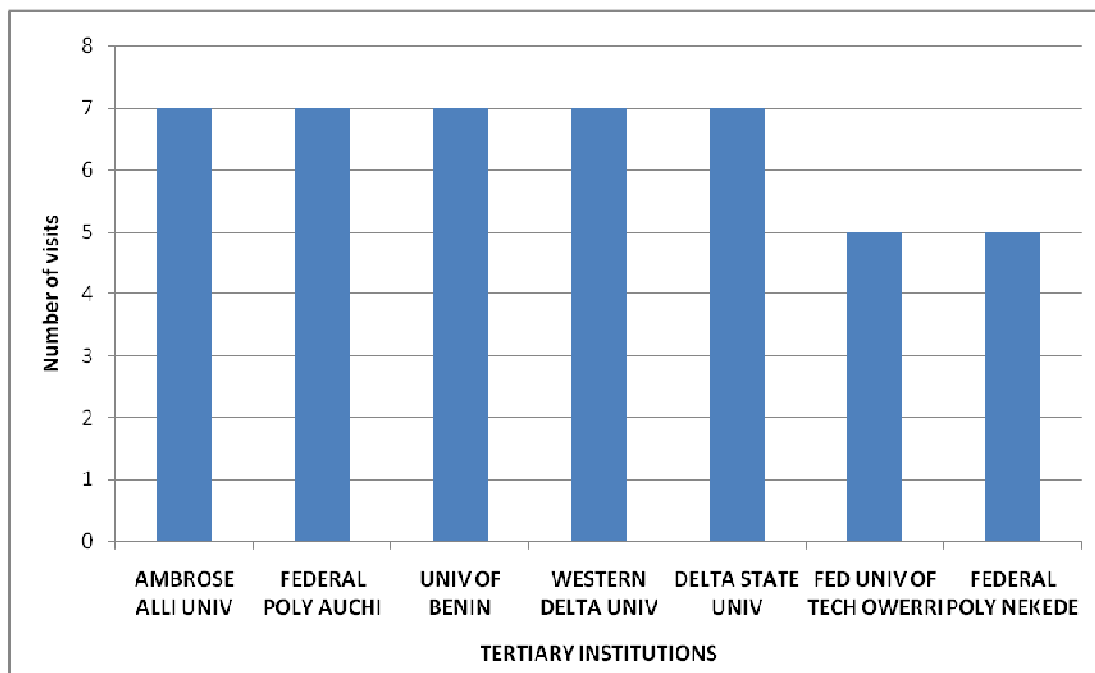


Figure 4. Frequency of visits of institutions to RRIN (2010-2015).

advocated globally. Gender imbalances are entrenched at many levels in the households, communities and States. For Extension and Training Division of Research Outreach Department, gender equality is culturally

advocated and therefore strives to ensure that knowledge generated by Scientists and other research Officers of RRIN has a positive and equitable impact on both men and women. The trainings offered by Research Outreach

Table 1. Summary of number of students trained and gender.

Year	Freq. of Schools for IT in RRIN	Total No. of IT 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. Mean Rating of RRIN: 1 = poor. 2 = fair. 3 = good. 4 = very good and 5 = excellent.

Department of RRIN ensures men and women increase their knowledge on farming systems, agronomy, values addition -rubber processing using Lohashilpi Machines and rubber technology. These specific interventions have been applauded by various institutions in Nigeria. Table 1 shows the number of students trained between 2010 and 2015, gender.

Gender mainstreaming strategies

Rubber Research Institute of Nigeria have put in place a number of strategies to increase involvement of women in Agriculture including the following:

- Increase enrolment opportunities and capacities of women to participate in trainings on rubber-based farming systems.
- Conduct research with a gender lens and implement gender participatory training in Agriculture.
- Strengthen capacity with a gender dimension through students' excursion programmes, short training and long-term training
- Build in depth understanding of context and factors that promote gender equality in Agriculture.

Conclusion

Analysis of the data especially gender analysis underscores the interests of female students in rubber-based farming systems except in year 2012 and 2015. The study has shown that RRIN trained a total number of 587 students in 5 years. More collaboration from higher institutions is solicited. Alternative source of funding farming systems research, extension and training, and socioeconomic activities of the Research Outreach Department of RRIN in both traditional rubber-growing states and non-traditional rubber-growing States is imperative and inevitable. Investment in research institutes, and tertiary institutions, is core to the

development of high level manpower. There is a great need for the pursuit of capacity building that can equip men and women with the skills and competences required for both job and wealth creation. The efforts of RRIN will lead to the production of graduates imbued with the requisite skills, knowledge and abilities to function properly in society. There should be a continued effective linkage between the tertiary institutions and RRIN. RRIN should be adequately funded and equipped to compete favourably with developed and developing countries like Rubber Research Institute of Malaysia, Rubber Research Institute of India etc.

Authors' declaration

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

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