



Social Protection Programmes, Agricultural Production and Youth Employment in Nigeria: Analysis from LSMS-ISA

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ABSTRACT

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This study examined how effective implantation of social protection programmes in the agricultural sector will induce youth participation, thereby creating employment for the youths and reduce the incidence of households' poverty in Nigeria. The study engaged a qualitative discuss methodology from the Living Standard Measurement Study-Integrated Households Panel Survey on agriculture for two farming seasons (post-planting and post-harvest seasons). Results showed that, out of the three main activities (agricultural, non-farm enterprise and wage employment) engaged by the Nigerian households, for the post-planting interview, agriculture remains the most engaged activity, this is because; about 38.5% of the rural households engaged in agriculture; 17.9% engaged in nonfarm enterprise, while 7.8% engaged in wage employment. It was also noted that; more of the women engaged in a household-nonfarm activities (25%) than men; however, fewer youths engaged in both agriculture (21.8%) in the post-planting visit. The farmers revealed that, one of the reasons for less youth participation in the agricultural activities is due to the low attractiveness of the sector to the youths. Therefore, the study recommended that the agricultural activities should be made attractive through the implementation of social protection programmes to induce youth participation as this will boost rural opportunities and reduce the rural-urban migration and its attendant challenges.

1. INTRODUCTION

The Nigerian National Population Commission-NPC (2017) pointed out that the larger proportion of the population is youth, which is defined by people who are between the ages of 15 and 35 years. Awkwardly, unemployment rates increases as the population of the youth grow. To confirm this fact, unemployed youth numbered approximately 11.1 million (6.64%) in 2012 and the rate increased to 33.10% in 2017 (National Planning Commission NPC, 2017).

The youth plays a very crucial role as they constitute the greatest share of human resource which is essential for economic development of the country (Adetunji and Ladanu, 2016). However, potentials in youth if not efficiently harnessed by gainful employment, portends a danger to the society as the youth are known to be more reactive to social issues than other segments of the population (Adesugba and Mavrotas, 2016). Thus, the solution to adults' problem of tomorrow lies on the youth of today. Youth unemployment can be likened to time dynamite waiting for explosion if effective programmes are not put in place to control it Iwayemi (2014). For instance, it has been noted that the main thrust of the civil war in Sierra Leone was fuelled by disenfranchised youth who paid allegiance to rebellious enticement, among others (Bellows and Miguel, 2009). On the other hand, the agricultural

sector remains the avertable tool for generating youth employment, poverty reduction and the attainment of food security in Nigeria (Osabuohien *et al.*, 2018).

The idea of linking social protection programmes to agriculture in stimulating youth participation in the agricultural sector and support rural households in breaking out of the cycle of poverty and the intergenerational transmission mechanism it is one of the areas that have not been looked into in Nigeria (Osabohien and Osuagwu, 2017). Both agricultural interventions and social protection programmes are needed for combating hunger and poverty among poor small-scale farmers and stimulating youth employment (Cirillo *et al.*, 2017). Yet, the coordination between these two is generally limited in Nigeria as the active youth, most of whom are employed in the agriculture and informal sectors, make larger proportion of the total population in Nigeria (Adesugba and Mavrotas, 2016). The interaction between agricultural interventions, such as extension services, access to the market, fertilizer subsidies, and social protection interventions, with a specific focus on social assistance such as cash transfers and public works, will encourage youth to take part in the agricultural sector thereby increase productivity (Osabohien and Osuagwu, 2017). Social protection programmes have the potential of increasing agricultural production while agricultural interventions ameliorate vulnerability (Takeshima and Liverpool-Tasie, 2015).

Youth unemployment can be said to occur when young people are deprived of or are without meaningful and gainful employment and have keenly looked for an employment within a given period of time- as defined by the NISER (2013). Unemployment remains one of the major macroeconomic issues that all government and donor agencies are required to control and monitor (NISER, 2013; Osabuohien *et al.*, 2018).

Various programmes have been enacted in Nigeria by various governments over the years in tackling the problem of youth unemployment which has been a major problem of erupting the country right from the era of the Structural Adjustment Programmes-SAP (NISER, 2013). The initial reaction of the government to the challenge of youth unemployment was to draft youth that are with jobs to public programmes, for example: the Operation Feed the Nation (OFN) and the Directorate of Food, Road and Rural Infrastructure (DIFRRI), these two programmes provided youth with instantaneous and direct employment opportunities to people who have interest in agricultural activities (Asaju *et al.*, 2014).

After the SAP and OFN, followed a well-coordinated and strategic procedures, and these strategic procedures are categorised into three sections: labour market interventions, labour demand, and labour supply (Falusi, 2014). Labour demand strategy was aimed at generating employment opportunities through public works or generating particular employments in the private sector through the promotion of entrepreneurial skills (Falusi, 2014). Labour supply strategy dealt with the training and education of those look for employment. The strategy of labour market intervention was aimed at improving the labour market by matching the interrelationship between the demand for and supply of labour.

Furthermore, as mentioned earlier, various institutional frameworks and policies have been enacted in promoting job opportunities among youths with little or no impact on the prevailing youth unemployment situation (Asaju *et al.*, 2014; Iwayemi, 2014). Consequently, certain programmes have also been implemented in promoting employment level among Nigerian youths, some of these programmes include the: Subsidy Reinvestment and Empowerment Programme (SURE-P), Youth Enterprise With Innovation in Nigeria (YOU-WIN) and Ogun State's Youth Employment Scheme-O'YES (Asaju *et al.*, 2014). These programmes failed to achieve the objective of eliminating youth unemployment, especially as it relates to youth in rural communities

The less than satisfactory outcome of the above programmes to address the prevalence of youth unemployment in Nigeria forms the basis of this study by applying social protection mechanism in agriculture to stimulate youth participation in the agricultural sector. This is because, Social protection is important for a minimum level of well-being and social security for people living in the rural areas (Osabohien, 2017). Well-structured social protection programme minimises the risk of investment in agriculture and benefit agricultural growth more directly and

promote social inclusion, thereby reducing the incidence of unemployment and poverty (Devereux, 2016; Osabohien and Osuagwu, 2017). Assurance of a safety net to farmers in terms of support for the unexpected shocks encourages investment and innovations as well as the provision for a favourable environment for agricultural business to thrive (Devereux, 2016). In fact, social protection is an investment for future growth as it helps families to break poverty cycles through health and education investment for their children (Devereux, 2016; Matthew *et al.*, 2018).

The primary objective of this study is to examine how social protection programmes in the agricultural sector reduces risk and vulnerability at the household and local economy levels and stimulate the participation of youth in the agricultural sector and thereby creating employment. While the secondary objective is to investigate how government social protection programmes have moved rural farmers from a lower income to a higher income level. This study comprises of four sections: section one is the introductory section; section two is the review of relevant literature; data and results are presented in section three and section four is summary and conclusion.

2. LITERATURE REVIEW

Youth unemployment is a global trend, but occurs mostly in developing countries of the world, with attendant social, economic, political, and psychological consequences (World Bank Group, 2013). Thus, massive youth unemployment in any country is an indication of a far more complex problem and an opportunity for youths to be actively mobilised by politicians, warlords, criminal gangs, illegal migration syndicates (WBG, 2013). This is because; unemployed youths are readily available for anti-social criminal activities that undermine the stability of societies (WBG, 2013).

Public policies directed at addressing youth unemployment have faced different challenges including finance, the absence of good administration and implementation, inconsistent policies, unimpressive responses from would-be trainees, and unqualified resource personnel handling the training programmes (NISER, 2013). This strategy has not yielded the desired results because the training is often not accompanied by soft loans, which graduating trainees could use as start-up capital in order to facilitate their quick integration into the labor market (NISER, 2013). Indeed, the responsibility for youth employment policy is split among a wide range of ministries and agencies, often operating in isolation and competing with each other.

While a number of social protection intervention programmes did address critical needs, others failed to address the needs of youth as a specific group (NISER, 2013). The management and administrative oversight of the programmes have been weak and sometimes problematic, perhaps because of multiple authorities (federal, state and local government agencies) managing the programmes (World Bank, 2008). Cirillo *et al.* (2017) in their study using the difference-indifference (DiD) approach pointed that in Brazil, the effective implementation of social protection programmes on agricultural sector serves as interventions, particularly for the youths and family farmers, these agricultural interventions reduced the vulnerabilities of poor households, thereby directly contributing to the main objective of creating employment for youths.

In Ethiopia, conscious efforts were made in order to create synergies on household and the local economy levels between the country's main social protection initiative, the Productive Safety Net Programme (PSNP) and a major agricultural development initiative, the 'Other Food Security Programme (OFSP)' to stir agricultural productivity and generate employment for the youth (Cirillo *et al.*, 2017). The PSNP is a social protection Programme which provides cash or food-based public work programmes to food insecure households with able-bodied members, or cash transfers for food insecure households without able-bodied members (Cirillo *et al.*, 2017).

In the same vein, Daidone *et al.* (2017) noted that agricultural yields and youth employment rate increased in Lesotho through social protection interventions which were delivered through sustainable livelihood programmes, such as the challenging the Frontiers of Poverty Reduction (CFPR) programme. Conceptually, there is a two-way relationship between social protection and agriculture; On one hand, poor rural households with youth rely mostly on agriculture for their livelihoods are often affected by limited access to resources, low agricultural productivity,

poorly functioning markets and repeated exposure to covariate and idiosyncratic risks (Tirivayi *et al.*, 2016). Tirivayi *et al.* (2016) used social protection impact evaluation explores the interaction between social protection programmes and agriculture in Netherlands and Italy and noted that employment has been created in agriculture for youths and this has reduced the level of absolute poverty in Netherlands and Italy.

According to Takeshima and Liverpool-Tasie (2015) on the average, Sub-Saharan Africa (SSA) countries have introduced or re-introduced fertilizer subsidy programmes. This can be said to be a branch of social protection programmes as the aim of these programmes are to increase the productive capacity of the farmers. The programmes vary from different SSA countries, it normally includes increasing fertilizer use, crop production and yields among small-scale farmers, but this has been limited to Nigeria. On the contrary, Kidido *et al.* (2017) bring to our notice the other aspect of social protection programme through the empowerment of youths. This is in the area of Land; Land plays a crucial role in any agrarian enterprise and its access is a key determinant of entry into the agricultural sector.

Land access difficulty has been described as a prominent 'push' factor which forces the youth out of agriculture-based livelihoods against their will. It is noted that young people of today, even if interested in agriculture are faced with increased narrowing and sometimes a complete closure of access to land (White, 2012). To the author's best of knowledge and based on reviewed literature, agriculture could be said to be the new oil sector as it holds the future of the Nigerian economy and a stimulus for youth employment. Nigerian agricultural sector has not been made attractive through the implementation of social protection programmes to induce youth participation and this study is set to contribute to the frontiers of knowledge by filling this gap

3. DATA AND RESULTS

3.1. Data

The study engaged the Living Standard Measurement Study-Integrated Survey on Agriculture (LSMS-ISA) data. The LSMS-ISA data is a cross-sectional survey, usually conducted annually (called Wave for two visit- post planting and post-harvest seasons) by World Bank in collaboration with the Nigerian National Bureau of Statistics (NNBS) and recently applied in the study of Osabohien (2017); Osabohien and Osuagwu (2017).

The LSMS-ISA data commenced in 2011 and has been conducted for three Waves (Wave 1, 2011/2012; Wave 2, 2013/2014; and Wave 3, 2015/2016) (Osabohien, 2018). The LSMS-ISA is usually carried out across the 36 States of Nigeria including Federal Capital Territory (FCT, Abuja). It consists of Primary Sampling Units (PSUs) of 60 which were selected from each of the Nigerian States (Osabohien, 2018). This selection led to a total of 2,220 PSUs. Each PSU generates about 10 households to the sample, leading to a sample size of 22,200 households. Out of these households, 5,000 households from 500 PSU are chosen for the survey element and a total number of 4,916 households were interviewed for the two farming visits or seasons (post-planting and post-harvest seasons) the results obtained from the survey is presented thus;

3.2. Results

Empirical findings from LSMS-ISA agriculture surveys showed that, each agricultural household holds an average of 2.6 plots at an average of 0.5 hectares in size. Nationally only 7% of male-managed plots and 2.2% of male-managed plots are acquired through outright purchase, though almost 31.6% of female-managed plots in the North-West region were acquired through outright purchased. The most common means of acquiring land is through family inheritance; 71% of male-managed plots and 69% of female-managed plots are acquired through this method, and the youths have been excluded or have limited access to land. Fertilizer, Herbicides, and pesticides are applied in approximately 47.3%, 30.5%, and 20.7 % of plots respectively

There are three major income generating activities in Nigeria: wage employment, agriculture, and nonfarm enterprise operation (*see tables 1*). Table 1 presents the participation rates in these three activities persons who are

five years and older. The top portion of Table 1 showed that during the post-planting visit, agriculture was the most common activity for men (38.5%) followed by the nonfarm enterprise (17.9%) and wage employment (7.8%). A larger share of women participated in a household nonfarm enterprise (25%) than men; however fewer women participated in both agriculture (21.8%) and wage employment (4.0%) in the post-planting visit. During the post-harvest visit (*shown in the bottom portion of Table 1*), participation in household nonfarm enterprises and wage employment was similar to the post-planting visit. However, participation in agriculture was much lower (24.1% for men and 14.3% for women). This reflects the fact that the post-harvest visit occurs in the period of inactivity between harvest and planting for the next season.

As argued in this study and as relates to Osabuohien *et al.* (2018); (Osabuohien *et al.*, 2018) and Osabohien and Osuagwu (2017) agricultural activities dominated in rural areas, while participation in nonfarm enterprises and wage jobs are more common in urban areas for both men and women. Agricultural participation is reported highest among men in the North East and North West zones during the post-planting visit (64.4% and 52.8%). However, North West also had one of the lowest female participation rates in agriculture at 9.6%. In nearly all cases, a larger share of women participated in a household nonfarm enterprises than men, though men were almost always more likely to participate in wage employment than women.

Interestingly, agriculture is not only for rural households: in this regard, one in every four urban households engages in some form of agriculture. Urban households are more likely to have other income (such as transfers from family and friends, and rental income) than their counterparts in rural areas. This category also includes remittances from family abroad. Such income is very rare among Nigerian households; fewer than 2% of all households receive this type of income, hence needs for social protection in the agricultural sector

Table-1. Labour Participation Activities in Six Zones of Nigeria (% of Persons greater than five Years Old)

By Activities								
Region	Agriculture		Nonfarm Activities		Wage		Non Activity	
Post-planting	Male	Female	Male	Female	Male	Female	Male	Female
North Central	48.2	36.0	11.3	24.4	7.3	4.5	37.7	39.3
North- East	64.4	34.9	12.7	17.4	5.4	1.9	27.2	48.1
North -West	52.8	9.6	21.0	25.7	4.7	0.8	39.0	66.1
South East	26.8	36.4	18.9	19.7	8.6	5.6	54.2	47.5
South-South	18.2	20.1	17.1	23.0	12.5	6.1	58.3	57.3
South-West	12.3	8.9	22.7	34.9	10.6	6.2	58.0	53.5
Urban	10.3	24.0	6.4	30.5	13.7	7.2	57.4	58.8
Rural	54.2	30.8	14.4	21.8	4.6	2.1	38.1	50.4
NGA	38.5	21.8	17.9	25.0	7.8	4.0	45.0	53.5
Post-harvest								
North Central	30.0	20.7	11.0	23.0	7.6	4.7	55.4	55.0
North- East	24.0	11.7	16.5	19.2	5.1	1.8	61.4	68.9
North -West	34.7	5.6	20.3	20.2	4.5	1.0	53.2	74.9
South East	22.1	33.6	18.8	21.1	9.3	6.0	57.0	49.4
South-South	15.3	19.0	15.9	23.0	12.5	7.1	61.9	58.9
South-West	11.5	6.6	22.5	35.3	13.2	7.1	57.7	54.3
Urban	7.4	4.5	23.3	28.6	13.8	7.5	60.2	62.5
Rural	33.7	20.1	14.9	21.2	5.1	2.4	55.5	61.2
NGA	24.1	14.3	18.0	23.9	8.3	4.3	57.2	61.7

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Table-2. Participation in Labour Activities by Age Group (% of Persons)

Region	Age 15–35		Age 36 – 44		Age 45–49		Age 60–64		Age 65+	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Post-planting										
Agriculture	20.8	15.8	42.6	23.7	56.2	35.0	58.3	32.6	50.5	30.0
Nonfarm enterprise	10.7	13.7	37.7	43.8	40.0	45.7	33.0	42.2	19.9	30.8
Wage	2.6	1.8	18.0	8.0	23.8	10.2	15.5	1.1	6.0	0.7
No activity	53.1	67.0	18.9	31.6	5.8	20.1	11.6	32.1	37.3	44.3
Post-planting										
Agriculture	20.3	9.0	32.5	17.4	41.1	26.5	47.6	27.7	41.6	26.4
Nonfarm enterprise	9.9	11.7	41.5	43.4	39.6	44.1	31.1	43.9	20.9	30.5
Wage	3.3	3.3	19.1	8.0	23.4	9.6	12.8	2.2	6.2	0.6
No activity	69.2	77.4	22.4	37.8	17.7	31.0	21.0	33.6	42.1	48.1

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Table 2 presents participation rates in the three (agriculture, non-farm enterprise, and wage) activities by age group. As argued in this study, youth participation in agriculture is lower: 20.8% for male, 15.8% for the female at the age of 15-35 years as highlighted in red; compare to other age groups referred to an adult (36-65+). It could be observed in table 2 that, as the age increases, causes a drift in youth participation in the agriculture sector. Table 3 presents the hours spent in the three labour activities

Table-3. Hours Spent in labour activities (Conditional on Working)

By Activities								
Region	Agriculture		Nonfarm Activities		Wage		Total Hours	
Post-planting	Male	Female	Male	Female	Male	Female	Male	Female
North Central	29.5	20.1	7.5	15.2	4.8	2.8	4.8	38.2
North- East	27.1	19.9	5.7	8.4	2.8	1.3	35.6	29.6
North -West	25.1	6.9	9.1	20.1	2.8	0.8	37.0	27.9
South East	12.1	13.8	15.2	13.6	7.1	3.9	34.4	31.3
South-South	12.8	14.0	17.8	22.2	12.3	5.6	42.9	41.8
South-West	10.2	5.2	27.6	35.8	12.1	5.8	49.9	46.8
Urban	6.0	3.4	25.6	32.6	13.6	7.1	45.2	43.1
Rural	27.6	17.7	7.2	13.7	2.9	1.6	37.7	33.0
NGA	21.6	13.1	12.3	19.9	5.9	3.4	39.8	36.3
Post-harvest								
North Central	22.3	15.9	10.6	20.0	7.0	4.2	39.8	40.2
North- East	12.2	8.6	12.7	16.2	4.7	2.2	29.7	27.0
North -West	18.0	3.9	14.2	23.0	3.8	1.2	36.0	28.2
South East	9.2	11.5	15.8	13.2	8.7	4.6	33.7	29.4
South-South	10.7	12.2	17.3	22.2	14.2	6.6	42.2	41.0
South-West	8.4	3.5	26.1	37.3	16.0	7.1	50.4	47.9
Urban	4.5	2.5	25.5	34.1	15.9	8.4	45.9	45.0
Rural	19.3	12.6	11.3	17.1	4.6	2.4	35.2	32.2
NGA	14.3	8.9	16.1	23.3	8.4	4.6	38.8	36.9

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

From table three, it is observed that on the average agriculture is most actively engaged for both the post-planting and post-harvest seasons especially, in the rural communities. For the post-planting season, in the North Central region; time spent on agriculture (Male 29.5 hours and female 20.1 hours); time spent on Non-farm activity (male 7.5 hours, female 15.2 hours), time spent on wage rate activity (male 4.8 hours and female 2.8 hours). Similarly, for the North East region; time spent on agriculture (Male 27.1 hours and female 19.9 hours); time spent on Non-farm activity (male 5.7 hours and female 8.5 hours), time spent on wage rate activity (male 5.7 hours and female 8.4 hours). Same happens in for the North West region; time spent on agriculture (Male 25.1 hours and female 6.9 hours); time spent on Non-farm activity (male 9.2 hours, female 20.1 hours), time spent on wage rate activity (male 2.8 hours and female 0.8 hours). The rural communities where most households engage in

agriculture, it is noted in table 3 that for agricultural activity male spent 27.6 hours while female spent 17.7 hours, this is greater than the number of hours spend on other two activities (non-farm and wage rate activities), for non-farm activity, the male households spent 7.2 hours which is lower than 25.1 hours spent on agricultural activity. Female households follow in the same manner as the number of hours spent by the female household for no-farm activity and wage rate activity are 13.2hours and 3.4 hours respectively which is also lower than the 17.7hours spent on the agricultural activity by female households

For the purpose of this study, leaving the no-farm and wage rate activities to focus more on the time spent agricultural activity (as depicted in Table 4). On average, men who participated in any activity spent 21.6 hours in agriculture, 12.3 hours in a household nonfarm enterprise, and 5.9 hours in a wage job for a total of 39.8 hours (in post-planting). Females spent fewer hours in agriculture (13.1hours) and wage employment (3.4) than men but more time working in a household nonfarm enterprise (19.9 hours). Hours spent in agriculture are generally more than other labour activities. However, in post-harvest but the opposite is true for nonfarm enterprises and wage employment. Although wage employment has the lowest participation rates among Nigerians, it is still an important source of livelihood for many households, especially in urban areas. Table 4 shows the different sectors for wage jobs during the post-harvest visit.

Table-4. Average Time Spent on agricultural activities for working-age adults (15–64 years)

Region	Age 15–24		Age 25–44		Age 45–59		Age 60–64		Total Hours	
	Male	Female	Male	Female	Male	Female	male	Female	Male	Female
North Central	5.6	8.6	9.7	13.7	12.9	20.3	11.5	20.6	9.2	13.3
North-East	2.2	4.4	3.8	7.0	3.0	7.5	5.0	10.3	3.2	6.0
North-West	0.7	8.2	1.1	14.6	1.3	15.4	1.4	16.4	1.0	12.4
South East	2.8	1.9	8.0	4.7	9.3	9.0	12.7	7.6	7.2	4.8
South-South	1.2	1.6	7.3	5.7	13.2	8.5	7.6	13.9	6.8	5.1
South-West	0.4	1.1	2.3	4.6	2.6	6.8	4.1	10.7	2.0	4.3
Urban	0.3	0.6	1.0	2.8	2.6	4.0	2.9	3.9	1.3	2.3
Rural	3.0	7.1	6.7	13.0	9.3	16.5	9.3	18.5	6.3	11.7
NGA	1.9	4.7	4.6	8.8	6.6	11.6	6.8	13.1	4.4	8.0

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Table 4 shows the average number of hours individuals between 15 and 64 years old spent on agricultural activities during the periods the interview was conducted. Agricultural activity here includes any work involving farming, livestock rearing, fishing, etc., for sale or for home consumption, in the 7 days preceding the post-harvest interview.

Table-5. Distribution of Seed, Fertilizer, Pesticides, and Herbicide Use by Crop Type (% of Farming Households)

Crop Type	%Purchased Seed	% Fertilizer	% Herbicide	% Insecticide
Grain Crops				
Maize	28.6	64.9	45.1	28.4
Rice	17.4	17.57.1	63.3	26.0
Sorghum	19.6	71.5	35.1	31.2
Millet	25.2	88.7	18.5	32.4
Root Crops				
Yam	27.2	29.8	29.5	7.1
Cassava	21.3	23.8	13.5	2.9
Oil Crop				
Sesame/beeni-seeds	31.0	47.3	40.1	17.2
Leguminous crops				
Cowpeas	25.2	48.4	54.2	44.7
Groundnut	11.1	41.0	42.8	19.5

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Overall, working-age male participation in agricultural activities exceeds that of females at the national level and in both urban and rural areas. The highest overall participation levels are reported among males and females between 60 and 64 years of age with an average of 13.1 and 6.8 hours respectively.

Rural participation among male and female is also higher than urban participation by a wide margin. Male and female in rural areas report 11.7 and 6.3 hours of total average participation respectively; where male and female in urban areas report 2.3 and 1.3 hours on average, respectively. Regionally, male participation continues to exceed that of female in most cases with the largest difference recorded in the North West. Here, male reported an average of 12.4 hours of participation and female reported only 1.0 hours.

In Table 5, information on input use for the major crop groups (grains, root, fruit, and legume crops) is presented, with focus on purchased seed, fertilizer, herbicides, and insecticides used at the plot level. Agricultural households utilise purchased seed mostly for the cultivation of Sesame seed (31%), maize (28.6%) and least for the cultivation of groundnut (11.1 %). A high percentage of households apply fertilizer to Millet, sorghum, and maize across the country. The data also showed that about 63.3% of households use herbicides in rice cultivation, followed by cowpea. On cassava plantations, close to 21.3% use purchased seeds, and this percentage is not much larger than for yam (27.2%). About 48.4% and 41% of farming households use fertilizer in the cultivation of cowpea and groundnuts, respectively

Table-6. Percentage Point Change in the Distribution of Seed, Fertilizer, Pesticides, by Crop Type

Crop Type	%Purchased Seed	% Fertilizer	% Herbicide	% Insecticide
Grain Crops				
Maize	↑ 3.2	↑ 5.3	↑8.7	↑9.8
Rice	↑ 0.4	↑ -4.0	↑ 6.9	↑ 14.2
Sorghum	↑ -2.1	↑ 6.8	↑0.8	↑ 9.3
Millet	↑0.5	↑19.6	↑4.4	↑ □□4
Root Crops				
Yam	↑4.2	↑10.2	↑7.5	↑2.7
Cassava	↓ -1.8	↑ 7.6	↑4.1	↑ 0.8
Oil Crop				
Sesame/□eeeni-seeds	↑ 17.9	↑ 16.4	↑ 1□.8	↑ 1.3
Leguminous crops				
Cowpeas	↑ 4.8	↑ 7.2	↑ 29.2	↑ 18.4
Groundnut	↓ -4.3	↑ 13.2	↑ 11.7	↑ 2.9

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Table 6 presents regional crop cultivated area data for the 4 major crop groups. Overall, grain crops are cultivated most frequently. Maize is cultivated on an average of 0.3 hectares, rice on 0.5 hectares, sorghum on 0.4 hectares, and millet on 0.4 hectares per household involved in crop farming. Grains are closely followed by legumes, which comprise 0.3 hectares of cowpea cultivation and 0.3 hectares of groundnut cultivation

Table-7. Distribution of Cultivated area by Crops and Region for 2014–15, Conditional on HH Cultivating (land area in Hectares)

Region	Grain Crops				Root Crops		Oil Crop	Legumes	
	Maize	Rice	Sorghum	Millet	Yam	Cassava	Sesame/ Beeni-Seeds	Cowpea	Groundnut
North Central	0.3	0.8	0.5	0.6	0.3	0.4	0.3	0.3	0.3
North- East	0.4	0.5	0.6	0.6	0.3	0.4	0.5	0.4	0.4
North -West	0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.2	0.2
South East	0.0	0.1	-	-	0.0	0.1	0.0	0.0	0.0
South-South	-	0.2	-	-	0.1	0.2	-	-	-
South-West	0.9	-	2.2	-	0.3	0.3	0.3	0.9	0.9
Urban	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.4	0.4
Rural	0.3	0.5	0.4	0.4	0.2	0.2	0.3	0.3	0.3
NGA	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.4	0.4
HHWMH	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.4	0.4
HHWFH	0.1	.5	0.5	0.2	0.1	0.1	0.2	0.1	0.1

Note: HHMH means Households with the male head; HHWFMH households with the female head

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Rural cultivation of crops exceeds or equals urban in all categories. According to Table 8, 48.3% of farming households cultivate maize, the highest household participation in all the crop cultivation categories. This is closely followed by cassava (41.6%), sorghum (39%), and cowpea (30.6%).

Table-8. Estimate of area and Production of 10 Top Major Crops

Crop Type	% of Farming Households Growing Crop	Area in Hectares
Cassava	41.6	0.2
Maize	48.3	0.3
Sorghum	39.0	0.4
Cowpeas	30.6	0.3
Yam	28.7	0.2
Millet	24.9	0.4
Groundnut	13.7	0.3
Rice	10.6	0.4
Coconut	9.5	0.0
Sesame/beeni-seeds	6.5	0.5

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Table-9. Estimate of area and Production of 9 Top Major Crops

Crop Type	% of Farming Households Growing Crop	Area in Hectares
Cassava	↑ 0.7	↑ 0.0
Maize	↑ 0.5	↑ 0.0
Sorghum	↓ -2.9	↑ -0.0
Cowpeas	↓ -0.4	↑ 0.0
Yam	↓ -4.9	↑ -0.0
Millet	↑ 0.3	↑ 0.1
Groundnut	↓ -0.8	↑ 0.0
Rice	↑ 1.1	↑ 0.1
Coconut	↑ 0.6	↑ -0.1
Sesame/beeni-seeds	↑ 3.0	↑ 0.1

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

Table-10. Production average for HH Producing Top Major Crops by Region in the 2015–2016 Season, Conditional on Production (Production in Quintals)

Region	Cassava	Maize	Sorghum	Cowpea	Yam	Millet	Groundnut	Rice	Cocoyam	Sesame/ Beeni Seeds
North Central	4.6	9.3	6.0	3.5	78.3	5.7	3.9	8.8	-	4.1
North- East	4.6	11.5	8.2	4.4	24.2	10.2	6.4	22.0	0.3	4.2
North -West	4.6	17.4	9.1	1.5	8.9	5.6	2.4	11.3	0.3	1.7
South East	4.2	1.0	—	2.0	3.9	—	3.8	10.1	0.3	—
South-South	9.7	6.7	—	2.0	16.3	—	3.8	10.1	2.5	3.0
South-West	8.1	6.7	7.5	41.1	10.9	—	11.9	—	1.3	—
Urban	4.5	6.7	7.8	1.9	14.6	6.0	9.0	10.7	0.8	2.7
Rural	7.8	10.2	8.4	2.9	30.1	7.0	4.3	14.2	0.6	3.4
NGA	7.3	9.8	8.4	2.8	27.6	6.9	4.5	13.8	0.7	3.4
HHWMH	8.0	10.7	8.4	2.8	29.7	6.7	4.5	14.0	0.8	3.4
HHWFH	4.5	2.7	7.3	3.5	17.8	22.6	4.1	9.6	0.3	3.6

Note: HHMH means Households with male head; HHWFMH households with female head

Source: Author's Computation from Wave 3 (2015/2016) of LSMS-ISA Data

4. SUMMARY AND CONCLUSIONS

While many programmes have targeted at creating employment opportunities for youths, the outcomes have been greatly limited, these programmes directed at addressing youth unemployment have faced different challenges including finance, the absence of good administration and implementation, inconsistent policies, unimpressive responses from would-be trainees, and unqualified resource personnel handling the training programmes.

Agriculture is a viable source of investments for young people, if it is made attractive through social protection programmes. There should be a swift transition from subsistence to commercialised farming. Farm and non-farm activities should be better packaged to make them really attractive through social protection programmes to induce

youth participation. There should also be adequate investment in rural education. This will boost rural opportunities and reduce rural-urban migration and its concomitant challenges.

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