



SOCIAL PROTECTION AND AGRICULTURAL PRODUCTION IN ECOWAS: THE YOUTH UNEMPLOYMENT QUESTION

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ABSTRACT

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In an economy youths play a very pivotal role as they constitute the greatest share of human resource which is essential in the economic development of a country. However, this potential is built in youth if not efficiently harnessed through gainful employment, portends a danger to the society. Youth unemployment can be likened to time dynamite if effective policies are not put in place to create employment for the youth especially in ECOWAS where graduate unemployment has been on the increase. On the other hand, the agricultural sector remains the most veritable tool for generating youth employment, poverty reduction and the attainment of food security. At any rate, the capacity of the agricultural sector to generate employment depends greatly on how the sector is been protected, which creates incentive to operate as business just as recently enshrined in agricultural transformation agenda; however, agricultural output can be enhanced by social protection programmes. Thus, this study examines the extent of social protection policies that are related to agricultural sector and how it influences the level of youth employment in ECOWAS using panel cointegration econometric analysis finds that in the long run, agriculture has the potential for ameliorating youth unemployment in ECOWAS.

1. INTRODUCTION

Africa is the youngest continent with children and youth aged below 30 years constituting 70% of the continent's population (United Nations Economic Commission for Africa, 2014). By 2050 according to predictions, 29% of the total world youth population will reside in Africa. These young and energetic people of Africa, however, have the potential, ability, creativity, enthusiasm, and energy for achieving Africa's renaissance, as articulated by the continental leadership. Investments in their education and transition to employment, health, and social well-being are critical for the continent and Africa's global repositioning agenda (International Labour Organisation, 2012). Youth will also be the driving force behind economic prosperity in future decades, but only if policies and programmes are in place to enhance their opportunities and encourage smaller families. In the absence of proper infrastructure and public commitment, this huge potentials could turn into a dreadful momentum as population continues to grow. Most importantly, providing basic services such as health and education, and decent jobs for the young people, are pivotal for economic growth, regional peace, stability, and security.

The Menace of youth unemployment and under-employment in African transcend multifaceted economic, social, and moral policy concerns. This effect captures a large number of adults in both rural and urban constituencies of which the incidence of youth, women and rural population is on a high proportion. In African,

statistics holds that the growth rate of employment is at a creeping state. It would interest you to know that more than half of the total population of active and viable youth gains employment in agriculture and informal sector respectively. However, under-employment is a salient feature shared by both population groups (UNECA, 2014).

Furthermore, unemployment can only be attained when a relatively creeping growth in the demand for labor attempts to offset a rapidly-growing supply of labor then triggered by the constantly increasing level of population growth combined with rural-urban dispersion (ILO, 2012). The increasing rate of unemployment has battered the mind of the youth to gain employment opportunities in the informal sector reason being that the formal sector job vacancies cannot match up with the young youth in search for a paid employment. On the premises of these challenges, the youth embrace jobs from the informal sector as a line of best fit to gain a paid employment as compared to being unemployed. Statistics proved that about 58% and 42% of total youth employed in Egypt representing male and female respectively constitute the informal sector. However, In Uganda, 95% of employment generated consist the informal sector spanning the period of 2000-2001, but in 2006, a marginal decrease to 93.3% sets in ILO (2012).

The outburst of the 2008 global financial crisis had lots of outrageous and adverse implication on the economy; developing countries of the world experienced the underlying effect. The stand point of the direct adverse impact was inspired by Africa sole dependence on the economic and financial prowess of developed economy. A scenario where majority of the Africa countries export their commodities to an economy with a relative fluctuation in demand for those products, then such country's economy would suffer a direct impact on such changes.

Globalisation stand point was to ensure healthy, more open and free transaction amongst countries, but the outburst of the financial crisis declines demand for exports, which gave rise to a drop in sales and when this occur managers cut paid jobs due to their inability to pay and a reduction in the budgetary subsidies accruing to African all portray a high proximity that unemployment would occur. Extant literature has it that even under an average normal economic circumstances, Africa's youth still battle gaining a paid employment and are of the opinion that young people face stringent challenges during the labour market transition crisis. African countries stand to suffer more of the adverse effect because of an increasing and relatively scarce resources, weak institutional capacity and weak social protection policies (Osabohien and Bamigbola, 2017; Osabohien and Osuagwu, 2017; Osabuohien *et al.*, 2018). The employment sector had stern setbacks from the financial crisis leading to a massive spike in unemployment, with about 20% in specific region and sub-regions. In South Africa, statistics holds that about 40% of job loss spanning through December 2008 to December 2010 constitutes the young people. The breakdown inferred that 18 to 24 years old fell by more than 20% within the stated period as compared to an overall decline of 6.4%. Whereas the unemployment rates for those under 25 years holds about 50%.

Increase in population growth rates in Economic Community of West African States (ECOWAS), inequalities, social exclusion and the seriousness of absolute poverty remains the major issues of concern the region is facing (Economic Community of West African States, 2016). Poverty among children in Sub-Saharan Africa is on the increase (ECOWAS, 2016). Around three-quarters of children, about 280 million, experienced multidimensional poverty.

African population is largely agrarian, although government policies still do not favour or enhance agricultural production (World Bank, 2008; Osabohien *et al.*, 2017). Identifying ways of increasing agricultural production is so vital to the attainment of food security, increasing income of farmers, alleviating poverty and above all generate employment for the youth (World Bank, 2008).

Social protection and Agriculture are linked in the context of employment generation, livelihood of rural dwellers, and food security (World Bank, 2008; Osabohien *et al.*, 2017). Social protection policies on agricultural sector has the capacity to raise income for the poor farmers, build rural livelihoods and protect farmers who are vulnerable to Shocks-Innovation for Poverty Action (Osabohien *et al.*, 2018). Social protection policies must align with other government programmes to move low income farmers out of poverty (extreme and relative) by

generating immense opportunities in the sector which are in form of cash-transfers to farmers, employment generation and job training.

The term social protection is a compound word which consist of the strategies and policy framework prepared to reduce vulnerability and the incidence of poverty by promoting efficient labor market reducing risk exposures and building capacity to manage social and economic hocks such as financial exclusion, unemployment, disability, sickness, unemployment, exclusion, sickness, disabilities and old age. Conventional economic theory has identified social protection as a public transfer characterized by income redistribution from the rich to the poor (Alderman and Yemtsov, 2012).

Therefore, numerous authors has defined the concept of social protection thus; to Devereux and Sabates-Wheeler (2004) social protection is an initiatives; both formal and informal, which provides social assistance to poor individuals and households; social services to groups who need special care or would otherwise be denied access to basic services; social insurance to protect against the risks and uncertainty. Food and agriculture organization defined social protection as initiatives that provide cash or in-kind supports or transfers to the poor, protect the vulnerable against risks, shocks and enhance the social status and rights of the marginalised.

Dorward *et al.* (2006) defined “social protection measures as actions improving the management of stresses by communities, households and individuals.” they further buttress the definition with an assertion that social protection measures may be endogenous or exogenous. Meaning individuals and households who involve their livelihood response to stress while the exogenous measure involves the inclusion of other agents apart from the individuals and households and such agents may include but not limited to the government, NGOs and civil societies to support these livelihood responses. Furthermore Holmes and Slater (2008) averred that several institutions should embrace and implement a consistent and well-structured social protection policy to protect and maintain poor citizen’s consumption and promote agricultural livelihood and growth. However, as regard Nigeria, the prevailing social protection approach is currently faced with numerous and stern bottlenecks as its drive to drastically reduce the high level of poverty and inequality.

Therefore, both agricultural interventions and social protection interventions are needed for combating hunger and poverty among poor farmers (Tirivayi *et al.*, 2016). Social protection acts as insurance against agricultural risks, thereby stimulating risk taking behavior among small-scale farmers and consequently increasing the returns on their agricultural produce (Holzmann and Jorgensen, 1999; Dercon, 2002). Social protection if well implemented and handled would commensurate to agricultural growth which in turn would lead to decrease in the unemployment level in the country thereby creating employment opportunities for the young ones which would reduce the youth crime rate in the region.

Strengthening the agricultural sector through social protection programmes is essential for generating youth employment in ECOWAS. To improve governance for policy implementation, it helps to differentiate demand-side (farmers who engage in agricultural sector) approaches from supply-side (government who makes and implements policies) approaches, identifying combination of approaches which are agriculturally feasible and fit the country conditions.

2. EMPIRICAL LITERATURE AND STYLISED FACT

2.1. Empirical Literature

The study by Presler-Marshall and Stavropoulou (2017) on social protection and agriculture, concentrates mainly on the nexus between social protection and the informal supports, including labour sharing methods or funeral societies, even though both are concerned about uplifting the problem of the vulnerable households combined with the risk and dynamics and more importantly preventing food insecurity as well as poverty. The authors note programming and formal policies, have received little attention although informal support institutions

are important systems in most communities. The informal network is very necessary because it captures poorer and remote areas where, somehow social protection is not institutionalized and prevalent in developing

Croppenstedt *et al.* (2018) in a special issue on social protection and agriculture provide evidence of the rapid expansion of social protection in many developing regions of the world in the last two decades. The evidence from the study sheds light on the positively stimulating effects of social protection on the local economy in which it was implemented. The results of the study is an evidence to the fact that most rural societies are basically agrarian societies; therefore, channeling social protection programmes in that direction will lead to economic growth in that region. The study also drew light from the works of Lowder *et al.* (2017) whose data analysis drew its conclusion from a large pool data derived from 141 countries.

Lowder *et al.* (2017) focused on poverty, social protection and agriculture in low income countries. The findings of the study showed that social assistance is by far the most common form of social protection in developing countries and the poor are more likely to receive social assistance than higher income groups which tend to benefit more from social insurance and labour programmes. The study came to this conclusion by carrying out an analysis of data from international fund for agricultural development and the world bank of 141 countries under social protection by weighting each poverty headcount estimate for each population size of countries considered.

The contribution of Roelen *et al.* (2017) in their article presented findings from cross – country qualitative research regarding the impact of social protection on loss of parental care, support to foster or kinship care and well-being in Sub-Saharan Africa, specifically social protection programmes in Ghana, Rwanda and South Africa. The study discovered that social protection has the potential to support the prevention of loss of parental care and much needed support through direct and indirect income effects. The study employed the use of primary data collection through in-depth interviews. Data was analysed with a multi-stage inductive process. The use of a direct collection of data gave the study an inside look into how the cash transfers of social protection has impacted on individual lives in local communities for better livelihood.

A comprehensive dataset on social protection spending covering the period of 1984- 2010 by Keindrebeogo *et al.* (2017) of 40 developing countries on poverty to explore the poverty reducing role of social protection during the financial crises indicated that financial crises are associated with increase in poverty growth rate and poverty gap. The study showed that the detrimental effects of financial crises are significantly lower in countries with higher social protection spending suggesting the importance of social protection in the reduction of poverty levels in a time of crisis. The study also revealed in its analysis that 4% of reduction in the impact of financial crises on the poverty gap was as a result of social spending. Two estimation methods were employed namely the fixed effects estimators and the System Generalised Method of Moments (SGMM) estimators as utilising the ordinary least square method will be biased. Bias from the fixed effects estimator was controlled using a mixed system of both continuous and discrete dependent variables.

Daidone *et al.* (2017) carried out a research on linking agriculture and social protection for food security using South Africa and Lesotho as case study. The study presented findings from impact valuation of agriculture on and social protection on food security using a statistical approach of the difference in difference estimator which entails calculating the change in a dependent indicator on the change in an independent indicator. The results revealed a positive effect of social protection and agriculture on food prices and security

Tirivayi *et al.* (2016) explored the interaction between social protection and agriculture by reviewing empirical evidence from past studies on social protection. The paper proposed the need to build synergies between the agricultural interventions and social protection interventions for generating youth employment given the fact that over 72% of Sub-Saharan rural population is agrarian and would make the most impact on welfare, employment and food security

Zanker and Holmes (2012) carried out a study on social protection, HIV and AIDS and child protection in Nigeria. It drew on both primary and secondary research carried out between January and June 2011 with case studies of four Nigerian states –Adamawa, Benue, Edo and Lagos. Their investigations revealed that Social protection represented about 1.4% of government expenditure, compared with Kenya's spending of 6.2% of government expenditure. Moreover, two-third of this is allocated to civil servant pension and benefit schemes. Political commitment to social protection is currently very low. It is not seen as a key priority for the federal government, as reflected by the limited fund allocated to it

A global cross country study undertaken by Zaman and Tiwari (2011) analysed social protection spending from 100 countries during the period 1980-2008 and found that social protection spending raised economic growth to a certain threshold after which it began to reduce growth (Alderman and Yemtsov, 2012). The implication of the cross country study showed that similar results were derived given varying country statistics. The study after further reinvestigations were discovered to be authentic solidifying the role of social protection in an economy evident in the positive increase in the GDP of the case study countries. Also in particular, the study by Zaman and Tiwari identified small-sized effects which showed that shifting social protection spending from 0 to 2% of GDP would increase per capita GDP rate by 0.1 to 0.4% (Zaman and Tiwari, 2011; Alderman and Yemtsov, 2012).

Another study from South Africa carried out by Williams (2007) and later updated by Alderman and Yemtsov (2012) demonstrated that social assistance spending boosted economic growth, employment, investment and the trade balance (Williams, 2007; Alderman and Yemtsov, 2012). This also correlates with the labour and socialist view in the United Kingdom which supports the assistance of unemployed and young nursing mothers with allowances and milk provision. In their defense it gives room for development and reduces that risk of social vices.

A study from South Africa carried out by McCord and Van Seventer (2004) found that public works programmes (worth the equivalent of 0.2percent of GDP) in the construction sector increased the GDP by 0.34%. Public work programmes in this context was seen as social protection programmes which aimed at augmenting the standard of living of workers in that sector and enhance social protection.

In Bangladesh, the renowned BRAC programme which pioneered non-formal primary education for children who have dropped out of school and create diverse opportunities for the adolescents and girl children in particular by providing a low cost schooling model with Quality services was found to have increased GDP by 1. 15% at a time when its cost was only 0.2 percent of GDP (Alamgir, 1996; Mallick, 2000; Alderman and Yemtsov, 2012). The implication of this connotes the likelihood of social protection programme having a positive effect of the economy whether it is focused on agriculture or education.

2.2. Stylized Facts

However, both the demand-side and the supply-side are need to be considered in order to make agriculture more attractive for the youths. Effective agricultural administration remains essential in agricultural-for-youth employment agenda. Agriculture programmes require new methods of management structure to meet its goals (Osabohien, 2018). For example, outsourcing agriculture extension reduces the need to manage large numbers of extension personnel directly, it also requires new skills –selecting and managing contracts, ensuring the quality of extension service under contracts and controlling for corruption (World Bank, 2008).

Social protection such as grants for research and development (R&D), the use of modern equipment, insurance against risks among others on agricultural sector will make the sector more attractive for the youth, and this increases labour supply, increased labour supply invariably increases output and income of the farmers, this will enhances their capacity of paying taxes to the government and government will in turn re-invest the revenue generated in form of tax (domestic resource mobilization) on the sector.

Some of the social protection policies include; *Improve access to financial services and reduce exposure to insurable Agricultural risks*: Financial constraints in agriculture remain pervasive, and they are costly and unequally

distributed, severely limiting the capacity of the sector to create gainful employment and limiting smallholders' ability to compete. Financial constraints originated in the lack of asset ownership to serve as collateral and in the reticence to put asset at risk as collateral when they are vital to livelihood.

Rural Finance: In China, the microfinance revolution, providing access to credits without collateral, has opened access to loans for millions of people, especially farmers, but has not reached most agricultural activities (World Bank, 2008).

Input Markets: especially for seed and fertilizer, market failures continue to prevail in sub-Saharan Africa because of high transaction costs, risks and economies of scale (World Bank, 2008). In line with this, low use of fertilizer imposes constraint to agricultural productivity (output). In Nigeria, the renewed interest in fertilizer subsidies should be included in government budget to focus on sustainable solutions to market failures.

Managing Risk: Exposure to insured risks- the result of natural disasters, health shocks, demographic changes, price volatility and policy changes has high efficacy and welfare cost for farmers (World Bank, 2008). Other policies are reviewed in details in the main work

All countries in the sub-region are members of the Economic Community for West African States (ECOWAS). This regional economic community has strong inter-country trade relations. However, when the subject matter arises (youth employment intervention) majority of the West African countries are well structured policy awareness and a considerable number of interventions instigated by the development partners. It would interest you to know that out of a total 15 (ECOWAS) member counties all accounted to have at least five youth employment intervention initiative, knowledge products and continental initiatives solely for national youth employment. One of the pertinent feature of this sub-region countries like Liberia, Sierra Leone, and Cote d'Ivoire have experienced stern years of unrest and have led to diverse challenges affecting the youth. The peculiarity of this issue within this sub-region demands an innovative and strategic approach step in addressing the youth employment predicament.

The Youth employment indicators in Table 1 inferred that Nigeria, being the most populous nation in Africa, has the lowest recorded employment-to-population ratio. It comes second only to Cape Verde in labour force participation rates: 34.9 and 71.2 % for females and males, respectively. This sends an early spark of concern that a country of such magnitude is faced with employment challenges. However, the figures for the rest of the West African countries also present a similar picture: Mali, 28.4 and 40.5 employment-to-population ratio for females and males, respectively; Cote d'Ivoire 27.4 and 63.4 for females and males, respectively.

Table-1. Reflects ECOWAS member countries with the designated youth employment indicators and status of intervention respectively.

Countries	Employment to population ratio ages 15-21, total		Labour force Participation rate, (ages 15-24)		Unemployment Rate (15-24)		Number of intervention
	Male	Female	Male	Female	Male	Female	
Benin	48.7	69.8	46.9	72.7	0.6	1.1	4
Burkina Faso	70.6	77.8	73.1	80.9			7
Cape Verde	30.3	47.2	30.7	59.9			7
Cote D'Ivoire	27.4	63.4	35.6	75.9			11
Gambia	53.4	54.3	52.7	71.9			7
Ghana	42.1	38.8	50.2	50.4	16.67	16.47	7
Guinea	71	74.6	73.6	76.3	-	-	11
Guinea Bissau	50.8	72.3	64.2	84.9			7
Liberia	50.8	62.5	51.3	64.4	3.73	5.73	11
Mali	28.4	40.5	68.0	73.1			9
Niger	33.5	70.7	68.4	91.6	1.66	3.95	4
Nigeria	16.7	31.3	34.9	71.2	-	-	6
Senegal	43.5	64.2	49.8	66.8	20.1	11.92	10
Serial Leon	47.5	35.5	61.0	68.8			13
Togo	60.8	62.8	47.1	80.2			4

Source: ILO, Key Indicators of the Labour Market (KILM), 6th edition

On the premises of Table 1 shown above, the sub-Saharan Africa are well clothed with youth employment intervention as compared to the North Africa sub-region. However, in relation to the sub-regional analysis within Sub-Saharan Africa, the distribution of interventions varies. Table 1 further depict that the West African sub-region has a flourishing degree of youth employment intervention, than East Africa. However, the youth employment crisis is domicile at a higher proportion in the North and Southern Africa sub-regions, with average rates of youth unemployment at 33% and 24%, respectively. Therefore with respect to the analysis of Table 1, it would be an ideal step to ensure that those regions with high stringent crisis have a more improve projects, programme and policies geared toward youth employment intervention

3. RESEARCH METHODOLOGY

3.1. Model Specification

This study aimed to examine the long-run relationship between agriculture production and social protection policies towards the reduction of the incidence of youth unemployment in ECOWAS sub-region. The model follows the specification of Lawal *et al.* (2018) by adopting a regression procedure where both the dependent and independent variables are modelled.

The model for this study is simplified implicitly as:

$$Y_{unemploy_t} = f(\text{agricpro}_t, \text{sop}_t) \quad 1$$

Where ‘*yemploy*’ means youth unemployment as a dependence of agricultural production (*agricpro*) and social protection (*sop*). Youth employment was proxied by Unemployment, youth total (% of total labor force between the ages of 15-24years as estimated by the international Labour Organisation); agriculture production was proxied by agriculture value added, measured as % age of gross domestic product, referring to the net output of agricultural after all output and subtracting intermediate inputs (this includes forestry, fishing, including hunting and crop production) was social protection was proxied by four major indicators of social protection these includes; transparency, efficiency of resource mobilisation, gender equality, and social inclusion and equality (see Table 2). Equation (1) can be explicitly specified as shown in equation (2)

$$y_{unemploy_t} = \alpha_0 + \alpha_1 \log \text{agricpro}_t + \alpha_2 \text{transp}_t + \alpha_3 \text{erm}_t + \alpha_4 \text{ge}_t + \alpha_5 \text{sie}_t + \mu_t \quad 2$$

Where; **unemployment** stands for youth unemployment; **agricpro** means agriculture production; **transp** means transparency, accountability, and corruption in the public sector; **erm** mean efficient resource mobilisation; **ge** means gender equality and **sie** means policy for social inclusion and equity (See Table 2). While μ represents the error term; ‘*t*’ and ‘*T*’ represent entities and time respectively;

3.2. Technique of Estimation and Data Presentation

The econometric method applied in this study is in three major parts: Firstly, the usual way of time series data-set was taken by checking for the level of stationarity. Given that study engaged a panel dataset whose analysis differs from Univariate unit root testing, the method of Ogundipe *et al.* (2015) was also followed by using three statistical means, which are: Levin, Lim & Chu (LLC), Hadri LM and Im, Pesaran & Shin (IPS). Secondly, the study test for the presence of panel co-integration to determine the long-run relationship between youth unemployment, agriculture production and social protection in ECOWAS sub-region, the variables engaged are presented in Table 2:

Table-2. Variable Definition, and Source

Variable Name	Identifier	Source of Data	Definition and Measurement
Agriculture production	Agricpro	WDI, 2017	Agriculture value added, measured as % of GDP which is the net output of agricultural after all output and subtracting intermediate inputs (this includes forestry, fishing, including hunting and crop production)
Youth Unemployment	Yemp	WDI, 2017	Unemployment, youth total (% of total labor force ages 15-24, estimates from international labour organisation)
Transparency	Trans	CPIA, 2017	Transparency, accountability, and corruption in the public sector rating (1=low to 6=high)
Efficiency of Resource Mobilisation	ERM	CPIA, 2017	Efficiency of revenue mobilization rating (1=low to 6=high)
Gender equality	GEQ	CPIA, 2017	Gender equality rating (1=low to 6=high)
Social inclusion and Equity	SPE	CPIA, 2017	Policies for social inclusion/equity cluster average (1=low to 6=high)

Note: CPIA: Country Policy and Institutional Assessment; WDI: World Development Indicator; Social protection rating is a standard measurement of rating from 1 to 6:1, when a country is weakly protected socially and 6, when it is highly or strongly protected

Source: Authors' Compilation, 2017

3.3. Panel Unit Root Test

The panel unit root test of Hadri (2000); Levin *et al.* (2002) and Im *et al.* (2003) are used to ascertain the order of integration of the selected variables. According to Mitić *et al.* (2017) these test statistics are extensions of the traditional Augmented Dickey Fuller (ADF) test statistics under the very restrictive assumption of individual cross-sectional independency. This estimation has become popular because their asymptotic distribution is standard normal as opposed to non-normal asymptotic distribution.

The LLC test depends on pooled data allowing for heterogeneity in the intercept term, while the IPS test is obtained as an average of the ADF statistics and allows for heterogeneity both in intercept and slope terms for the cross-section units (Bildirici and Kayıkçı, 2016). The null hypothesis states that all series in the panel have unit root against the alternative that all series in the panel are stationary.

3.4. Panel Co-Integration

The second step of the analysis is to test for the presence of a long run relationship through the use of the Engle-Granger approach by Pedroni (1999) and the Kao (1999) extension. Pedroni (1999) method takes into account heterogeneity by using specific parameters which are allowed to vary across individual members. Following the methodology of Pedroni (1999) the co-integrating equation to be estimated for this study from Equation (3) is specified as follows:

$$yunemploy_{it} = \alpha_0 + \delta_t + \alpha_1 agricpro_{it} + \alpha_2 transp_{it} + \alpha_3 erm_{it} + \alpha_4 geq_{it} + \alpha_5 sie\mu_{it} \quad 3$$

As earlier defined, i and t represent entities and time respectively. Entity in this study represents the 15 ECOWAS countries under consideration; while α represents the country-specific effects, δ_t is the deterministic time trend and μ_{it} is the error term which captures other explanatory variables which are not explicitly captured in the model.

3.5. Sample Description

The data for this study is from two different sources: the world Development Indicators (WDI) where youth unemployment and agriculture production were sourced, and the Country Policy Institutional Assessment (CPIA) where social protection was sourced, for the period 2001 to 2014 and a sample size of fifteen (15) Economic

Community of West African States (ECOWAS) Sub-regional countries covering five (5) English speaking countries; nine (9) French speaking countries and one (1) Portuguese speaking nation as presented in the table 3:

Table-3. List of ECOWAS Countries

English Speaking Countries	French Speaking Countries	Portuguese Speaking
Ghana	Benin	Cape –Verd
Gambia	Burkina-Faso	
Liberia	Ivory Coast	
Nigeria	Guinea,	
Sierra- Leone	Guinea Bissau	
	Mali	
	Niger,	
	Senegal	
	Togo	

Source: Authors

4. RESULTS AND DISCUSSIONS

Table-4. Summary Statistics of Variables

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
yuemploy	180	9.534561	5.490497	1.6	25.9
agricpro	180	30.11999	14.61989	-4.0504	65.5979
efficiency	180	3.391667	0.458547	2.5	4.5
Geq	180	3.218333	0.5467502	2	4.5
Sie	180	3.247222	0.4549456	2.2	4.5
Transp	180	3.138889	1.497722	1	7

Source: Authors

Table-5. Panel Unit Root Test

	Levin-Lin-Chu (LLC)			Hadri LM		Im, Pesaran and Shin (IPS)	
	Unadjusted t	Adjusted t^*	Order	Statistic	Order	Fixed-N exact cv 5%	Order
Yuemploy	-19.4562	-12.4125 (0.0000)	I(0)	-2.6707 (0.0000)	I(0)	-1.920 (0.0000)	I(0)
Agricpro	-0.15326	-19.9302 (0.0000)	I(1)	(0.0000)	I(0)	-1.920 (0.0000)	I(1)
Efficiency	-9.0382	-3.7484 (0.0000)	I(0)	2.1868 (0.0004)	I(0)	-2.4293 (0.0000)	I(0)
Geq	-9.4539	-5.4023 (0.0000)	I(0)	3.7795 (0.0001)	I(0)	-2.4163 (0.0000)	I(0)
Sie	-11.1919	-7.2109 (0.0000)	I(0)	0.5318 (0.0000)	I(0)	-3.7248 (0.0000)	I(0)
Transp	-11.2136	-6.7216 (0.0000)	I(1)	0.6713 (0.0000)	I(0)	-5.6935 (0.0000)	I(1)

Note: Figures in brackets are probability values;

Source: Researchers' computation

Having established that all the variables are stationary at levels by the unit root test for stationarity, the study adopted the Pedroni (1999) seven tests of panel co-integration. The null hypothesis for all the tests assumes that there is no co-integration. The results are presented in Table 4 and it indicates that out of the seven (7) test statistics, four (4) test statistics namely Panel PP statistics, Panel ADF statistics, Group PP statistics and Group ADF statistics concludes that there is co-integration, hence a long run relationship between renewable energy and real gross domestic product, carbon emissions as well as oil prices.

For robustness check, the study adopts the Kao residual co-integration test. The result is presented in Table 6 and it shows that the ADF test statistics' probability value is significant at the level of 5%. Therefore, we reject the

null hypothesis of no co-integration and conclude that the model signifies long run convergence or relationship. This supports the results obtained from the Pedroni co-integration test.

Table-6. Kao Residual Panel Co-integration Test

ADF t-statistics	Probability	Residual Variance	HAC Variance
-2.506915	0.0061	0.002526	0.002772

Source: Researchers' computation from EViews 9.0

It was a challenging year in 2016 for Sub-Saharan Africa, constantly decreasing economic activities, amid less favorable terms of trade, decline in global growth and difficulty in domestic conditions all led to a sharp decline in output growth to about 1.3%, the result was the slowest pace over the last two decades as compared to the stellar of an average annual growth of around 5% in the pre-global financial crisis period of 1995–2008. The regional growth in 2016 was inadequate to raise gross domestic product (GDP) per capita, which contracted by 1.3 %. Concurrently, the Sub-Saharan Africa's poverty rate remains high at 41% of the region's population. However, nearly 390 million people were living in extreme poverty in 2013. Weak economic performance threatens gains in poverty reduction, and the region urgently needs to regain momentum on growth and make it more inclusive.

5. SUMMARY AND CONCLUSIONS

Given the present predicament faced in African on youths gaining paid employment, there have being fast rising policies, projects and programme on improving youth employment intervention. To skyrocket this drive the African Union Commission, International development organisations, and Regional Economic Communities, designed and implemented projects and programmes with direct and indirect outcomes on employment, with varying definitions of age groups for the young people. However, the Progress reports on the status of youth employment in Africa inferred that there is still a need for more interventions to work on various thematic areas, including employment creation, skills development, and employment service. The United Nations System and the African Union Commission encourage joint programme implementation and facilitation for various development issues. They recognised the tremendous benefits of such interventions to maximise results, pulling together different best practices and lessons. Consequently, many of the organisations engaged in the development, planning, and implementation of youth employment interventions in Africa have joint programmes.

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