

# THE IMPACT OF PUBLIC WORKS ON POVERTY AND WELFARE: EVIDENCE FROM GHANA

Isaac Osei-Akoto, Simon Bawakyillenuo, George Owusu and \*Emmanuel Larbi Offei  
Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon

\*corresponding author: eloffei@yahoo.co.uk

## Abstract

*Public works is a social protection tool used by governments in developing countries to curb unemployment and alleviate poverty. This is achieved through the employment of local labour and raw materials to create vital physical infrastructure which are usually lacking thereby boosting productivity. The use of labour intensive techniques instead of sophisticated machinery to develop local infrastructure is aimed at creating more jobs per unit of expenditure. In Ghana, studies that document the success of public works in reducing poverty through the creation of income generating jobs are limited. Using the longitudinal propensity score matching (PSM) technique, this paper assesses the performance of the Labour Intensive Public Works (LIPW) of the Ghana Social Opportunities Project (GSOP) in reducing poverty in beneficiary communities and households. Panel data from two rounds of survey was used for the analyses. At the community level, we found that, poverty level in the LIPW communities had reduced to about 55.8% at a percentage reduction of 10.8%. For control communities, poverty level reduced to 53.6% at a percentage change of 4.6%. Extreme poverty reduced by about seven percent (7.2%) while average poverty reduced by 20.5 percent in the LIPW communities. At the household level, increase in consumption spending contributed to the decline in extreme poverty among LIPW beneficiary households by 5.3 percent compared to non-beneficiary households. The targeting performance shows that almost 32% of extremely poor households and 34% of averagely poor households had at least one member working on LIPW project. Considering the fact that the LIPW project is targeted at the poor, it is recommended that the targeting strategy should be improved to ensure that more poor individuals/households are recruited to benefit directly from the projects.*

Key Words: Impact Evaluation, Labour Intensive Public Works, Poverty, Welfare, Ghana

## 1.0 INTRODUCTION

Social protection<sup>1</sup> is a policy tool used by developed and developing countries to address income shocks and vulnerability among poor households. These programmes include cash transfers, social pensions, labour market interventions, in-kind transfers, utility subsidies, health fee waivers, social insurance and labour intensive public works. In Africa and Latin America, cash transfers dominate other social protection programs. Examples of the notable cash transfer programs are the PROGRESA/Oportunidades in Mexico, Bolsa Familia in Brazil, Bono de Desarrollo Humano in Ecuador, Familias en Accion in Colombia, and the PRAF in Honduras.

In Ghana, social protection programs dates back to the 1950s, with the establishment of the Pension Fund Scheme by the Government of Ghana. Since then, there has been an increase in the number of social protection programmes. Some of these interventions are the Livelihood Empowerment Against Poverty (LEAP), the National Health Insurance Scheme (NHIS), the Free Maternal Health Care Programme, the Ghana School Feeding Programme, and the Capitation Grant. Aside these formal interventions, there are a number of informal and traditional forms of social protection which are usually based on the extended family system, religious networks or community support systems. These traditional and informal systems of social protections are however been gradually weakened due to globalization, rapid urbanisation and emergence of modern societies.

Cash transfers are among the commonest social protection tools in Africa and Latin America. However, public works is becoming a preferred option for tackling extreme poverty and vulnerability in these regions. This is because of the advantages that come with the implementation of public works. Public works often adopts self-targeting approach where the wage rates are lower than those prevailing in agricultural/casual wage labour so that only the poorest would be willing to accept such offer (Slater & Farrington, 2010). The lower wage

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<sup>1</sup> Social protection is defined by the ILO as the set of public measures that a society provides for its members to protect them against economic and social distress that would be caused by the absence or a substantial reduction of income from work as a result of various contingencies (sickness, maternity, employment injury, unemployment, invalidity, old age, and death of the breadwinner); the provision of health care; and, the provision of benefits for families with children.

makes public works a cheaper social protection option. It is also widely asserted that the provision of social protection in the form of employment through public works reduces “dependency syndrome” unlike cash transfers (Surrender, 2010). Again, public works promotes the use and management of locally available human and material resources for the construction and maintenance of infrastructure (McCord and Farrington, 2008). A well designed public works can help create vital physical infrastructure which are usually lacking in developing countries thereby boosting productivity and reducing transaction cost (OECD, 2006).

However, despite its advantages, public works have bad reputation for some reasons. They interrupt poor households’ usual livelihood activities and are not always well-targeted. Scarcity of resources requires proper targeting to ensure their efficient utilization especially in developing countries (Slater & Farrington, 2010). However due to flaws in design and implementation, public work programmes often fails to reach the very poor. These targeting challenges are reported in a number of studies conducted on social protection public works in Africa. In Sierra Leone, Rosas and Sabarwal (2014) identified major errors of inclusion and exclusion as many beneficiaries of the cash for work programme belonged to the upper quintiles indicating that the program was not well-targeted to poor households. Adato and Haddad (2002) also identified similar weakness in targeting of public works for social protection in South Africa as they conclude that there is little evidence of the targeting of public works to the poorest among the poor.

Similarly, evidence on whether infrastructural assets created through public works programmes last for a longer period and actually contributes in the reduction of chronic poverty remains scanty. In a study on the impact of public works on livelihood of poor households in India and South Africa, McCord and Farrington (2008), found that through public works, some productive assets are created but there is little empirical evidence that these assets have any positive livelihood impact among the poor. The study identified consumption smoothing as the main benefit of public work programmes but advocates the need for more and better empirical studies to justify the huge sums of money spent by governments and donor agencies on these projects. Robinson and Torvik (2005) indicates that benefits from assets created through public works

may be limited because of low quality, poor integration with national infrastructure systems and lack of resources for maintenance and repair.

The debate on public works seems endless but the fact remains that much empirical evidence are needed. Although we have not come across any previously published studies on the impact of public works on poverty in Ghana, some studies on this subject are available from other developing countries as indicated above. However, findings from these studies cannot be generalized for Ghana. This current study adds to the small but growing literature on the impact of public works on poverty situations in developing countries. The objective of this paper is to examine the impact of the Labour Intensive Public Works (LIPW) component of the Ghana Social Opportunities Project (GSOP) on poverty in Ghana using data from two-rounds of survey.

The study is in five sections. Section two presents an overview of the LIPW of the GSOP, the methodology of the study is discussed in chapter three and the results of the impact of LIPW on poverty are presented in section four. Conclusions and policy options from the study are presented in section five.

## **2.0 THE LABOUR INTENSIVE PUBLIC WORKS**

In Ghana, seasonal unemployment is common among farming communities in the Northern, Upper East, Upper West and some parts of Brong Ahafo regions. These geographical areas usually have only one major farming season in a year, unlike other parts of Ghana that have two farming seasons. Given the predominantly peasant and rain-fed farming practices in Ghana, farmers in these locations become redundant during the dry season or the agricultural off-season. Affected farmers are forced to migrate in search of alternative livelihood in Accra, and other coastal and forested regions in Ghana. Aside the seasonal unemployment, these regions are always among the poorest in Ghana with huge infrastructural gap, diminishing forest cover, severe drought and high malnutrition.

As part of strategies to bridge the huge infrastructural and developmental gap existing between these regions and other parts of Ghana, and to minimize the seasonal unemployment, the

government initiated the Ghana Social Opportunities Project (GSOP) in 2012 with funding from the International Development Agency and the World Bank.

A key component of the GSOP is the Labour Intensive Public Works (LIPW). The objective of the LIPW is to provide targeted rural poor households access to local employment and income-earning opportunities during agricultural off-seasons; protect households and communities against external shocks and; rehabilitate and improve productive and social infrastructure. In effect, the LIPW seeks to moderate the cyclical downturn in employment and reduce the infrastructural deficit in the beneficiary communities. This policy is an integral part of the national socio-economic development agenda. The major subprojects of the LIPW include rehabilitation and maintenance of rural feeder and access roads, rehabilitation of small dams and dugouts, climate change management interventions such as reforestation or tree planting on communal lands, and land conservation works for catchment protection.

Although the LIPW project is national in coverage, the three northern regions form the areas of major interest with 29 out of the 49 beneficiary districts in the three northern regions. While the three northern regions make up about 18 per cent of the total population of Ghana, their national share of the poor is about 40 per cent (over 50 per cent when considering the whole Northern Savannah Zone) (GSOP, 2012).

Self-targeting approach was adopted for the implementation of the LIPW of GSOP. The daily wage paid to LIPW beneficiaries was GHc 4.5 in 2012 but was increased to Ghc 6 in 2013. This falls below the market rate (by day) of Ghc 7 or Ghc 10 paid to labourers. Aside the low wage rate, a set of selection criteria as presented in Table 1 was developed by the National Coordination Office of GSOP. Each criterion is scored 1 if the household meets the criterion in question and zero if it does not. Households are considered extremely poor if they score at least 7 out of 18 points, subject to the conditions that (i) no more than 4 points may be accumulated in the income category and (ii) at least 3 categories must contribute to the total score.

**Table 1: Criteria for Screening Extremely Poor Labour (Participants) for LIPW**

	<b>Criteria</b>	<b>Score</b>
1.	<b>Typical sources of income</b>	
1.1	Subsistence cropping	
1.2	Casual Labour	
1.3	Child Labour (Do children work to contribute to family income?)	
1.4	Borrowing	
1.5	Begging/depending on largesse/kindness of others	
2.	<b>Asset Position</b>	
2.1	No livestock or only small livestock	
2.2	Little or no access to land	
2.3	Few and/or low quality agricultural and farming tools	
2.4	Distress sale of assets	
3.	<b>Housing situation</b>	
3.1	Poor housing condition (in view of state of walls, roofs, etc)	
3.2	No indoor toilet	
3.3	Lack of basic household appliances/wireless, iron, etc	
3.4	High household density ( more than average of 2 persons per room)	
4.	<b>Demography and health</b>	
4.1	High dependency ratio (i.e. household has no productive members or has a dependency ratio of 3 or more)	
4.2	Household members with a chronic disease	
4.3	Lack of NHIS	
4.4	Low educational status of the household head (HH head has not completed primary education)	
4.5	Isolation (from the community)	
	<b>TOTAL</b>	

### 3.0 METHODOLOGY

To measure the impact of LIPW, we first assessed the poverty status of both the beneficiary and non-beneficiary communities before and after the intervention. The poverty measure employed for this study is based on household total consumption adjusted in terms of annual adult equivalent expenditure. The expenditure data were ranked into quintiles with respect to annualized adult equivalent expenditures using conventional methods applied by the Ghana Statistical Service (GSS) to analyse patterns and trends of poverty in Ghana (Coulombe *et. al.*, 2008). The analysis of poverty in this study is concerned with consumption poverty, highlighting households whose standard of living falls below an adequate minimum defined by different poverty lines.

The chosen poverty line is based on the Ghana Living Standards Survey (GLSS) national poverty line used for the last three rounds of standard of living surveys in Ghana although they are inflated to August 2013 prices, yielding poverty lines of GH¢745.90 and GH¢959.01. The first is used as an extreme poverty line, meaning that people whose standard of living measure lies below this would not be able to meet their calorie requirements even if they spent their entire budget on food. The latter line is used as the overall poverty line, which shows that individuals consuming at levels above this can be considered able to purchase enough food to meet their nutritional requirements, and to be able to meet their basic non-food needs.

The household or the individual level effects of LIPW on beneficiaries are estimated using treatment effects estimators. These types of estimators are used in the case when treatment assignment is not controlled by researchers and also when there is high possibility to have some common variables that affect both treatment assignment and treatment specific outcomes (StataCorp, 2013). The estimators yield potential-outcome means (POMs), average treatment effects (ATEs), and average treatment effects among treated subjects (ATETs). POM is defined as  $E(y_D)$ , the average potential outcome for treatment level  $D=(1 \text{ or } 0)$ . The ATE is defined as  $E(y_1-y_0)$ , the average effect of the treatment in the population, and the ATET is defined as  $E((y_1-y_0)|_{D=1})$ , the average treatment effect among those that receive the treatment.

The general framework for the potential outcome equation is specified as follows. The observed variable  $Y_i$  is  $y_0$  when  $D=0$  for no participation in LIPW and  $y_1$  when  $D=1$  if an individual  $i$ , participates in LIPW, i.e.:

$$y = (1 - D)y_0 + Dy_1 \tag{3}$$

The models for the two potential outcomes are defined as:

$$y_0 = X' \beta_0 + \varepsilon_0 \tag{4}$$

$$y_1 = X' \beta_1 + \varepsilon_1 \tag{5}$$

The treatment assignment process or the equation that estimates participation of an individual in LIPW is specified as follows:

$$D = \begin{cases} 1 & \text{if } Z' \gamma + \eta > 0 \\ 0 & \text{otherwise} \end{cases} \quad (6)$$

where  $\beta_0$ ,  $\beta_1$  and  $\gamma$  are coefficients to be estimated and  $\varepsilon_0$ ,  $\varepsilon_1$  and  $\eta$  are error terms that are not related to  $X$  or  $Z$ .  $X_i$  is a vector of variables that affect the outcome models and  $Z_i$  is a vector of variables that affect the treatment assignment.

We used probit estimation for the treatment assignment equation and combined all the covariate information into estimated treatment probabilities as the matching variable. Baseline characteristics of households were used to estimate the treatment probabilities. They include the following: household welfare (adult equivalent expenditure), household size, sex of the household head, whether the head of household is a leader in the community, number of youth (age 15-34 years) in the household, whether the head is married, and dummy variables for both ethnic and religious background of the head.

### 3.1 Data

The study used a quasi-experimental cluster design, where selected project target beneficiary communities ('treatment' group) and matched comparison communities ('control' group) within each project district were interviewed. The communities were drawn from eleven (11) randomly selected administrative districts in Ghana that are benefiting from the LIPW project. By this approach, we are able to attribute changes over time to the LIPW intervention as it enables the construction of a counterfactual through matched comparison groups. Households that received LIPW projects in the treatment communities were also matched to households in the control communities for household level analysis. The selection of communities was done through a propensity score matching (PSM) approach.

The empirical analysis uses panel data from households surveyed for the purpose of evaluating the impact of LIPW on basic indicators of household welfare. The baseline survey was conducted in 2012 and a follow-up survey was conducted in 2013. The survey was conducted in a total of 110 communities, comprising 55 treatment communities and 55 control communities. The treatment communities received the LIPW intervention but the control communities did not. In each community, 25 households were targeted for interviews, bringing the total target sample size to 2750 households. In the end, 2711 households were successfully interviewed (1350 treatment and 1361 control), representing a response rate of 98.6%. These households consisted of 13,703 persons, 6,721 in the treatment group and 6,982 in the control group. Almost half of the persons in the survey are male (49.96 %). This observation is not very different when the treatment group is compared to the control group. The average household size came up to 5.0. A total of 2,596 households were interviewed in the follow-up survey in 2013. This figure represents approximately 96% of the 2,711 households that were interviewed during the baseline survey in 2012.

#### **4.0 THE IMPACT OF THE LIPW**

Before examining the impact of LIPW on poverty, we first discuss the targeting performance of the project and also provide the implication on the labour market. We also examine the trickling effect of LIPW on food consumption among beneficiary households' vis-à-vis non beneficiaries. Since women are often among the most vulnerable in society and the target for most social protection programmes, we highlight the gender dimension of the LIPW. Similarly, we segregate the impact of LIPW among the various age cohorts to understand which age groups benefits more from social protection programmes in Ghana.

##### **4.1 Targeting performance of LIPW**

The aim of LIPW is to assist in reducing poverty incidence in poor communities and as such targets poor households in the communities. Information from Tables 2 and 3 show the percentage coverage of the targeted group on the LIPW projects. Evident from Table 2, almost 32% and 34% of extremely poor and averagely poor households respectively had at least one member of the household worked on an LIPW project. For female representation on LIPW

projects, 24% and 26% of extremely and averagely poor had at least one female member of the households worked on LIPW. Alternatively, Table 3 shows that about 33% of the core poor (lowest 20%) households had at least one member of the household worked for LIPW while about 30.1% of the bottom 40% of poor households had at least one member of the household engaged on LIPW projects.

**Table 2: Percent of households who participated in LIPW, by baseline household poverty status and treatment group**

<b>Treatment Group</b>	<b>Extreme Poor</b>	<b>Average Poor</b>	<b>Non Poor</b>	<b>Total</b>
At least one member of household worked for LIPW	31.5	33.5	27.1	30.2
At least one female member of household worked for LIPW	24.0	25.9	20.7	23.0
At least one male member of household worked for LIPW	24.0	23.6	17.8	21.6
At least one member aged 15-24 years worked for LIPW	8.2	8.5	5.5	7.2
At least one member aged 25-34 years worked for LIPW	14.7	17.8	12.6	14.4
At least one member aged 35-64 years worked for LIPW	24.6	23.9	18.5	22.2

Source: ISSER LIPW Survey, 2013

**Table 3: Percent of households who participated in LIPW, by baseline household poverty quintile and treatment group**

<b>Treatment Group</b>	<b>Lower 20%</b>	<b>Next 20%</b>	<b>Next 20%</b>	<b>Next 20%</b>	<b>Upper 20%</b>	<b>Total</b>
At least one member of household worked for LIPW	33.4	30.1	31.0	23.2	23.6	30.2
At least one female member of household worked for LIPW	23.9	25.1	25.2	16.9	15.9	23.0
At least one male member of household worked for LIPW	25.9	21.4	17.1	17.7	18.5	21.6
At least one member aged 15-24 years worked for LIPW	7.9	8.9	8.1	1.9	4.1	7.2
At least one member aged 25-34 years worked for LIPW	13.1	18.8	13.3	8.5	15.8	14.4
At least one member aged 35-64 years worked for LIPW	26.9	20.8	21.3	18.9	12.3	22.2

Source: ISSER LIPW Survey, 2013

At the individual level, about 17.4% of economically active individuals in the LIPW communities worked on LIPW projects (Table 4). For the extremely poor economically active

population in the LIPW communities, 18.6% of them worked on LIPW projects. In terms of gender the proportion of economically active extremely poor individuals who participated in LIPW is 18% males and 19.2% females. For the averagely poor economically active households in the LIPW communities, 18.9% of individuals participated in LIPW (19.3% males and 18.5% females). Table 5 presents age categorization of economically active individuals who participated in LIPW. 10% of the economically active individuals aged 15-24 years were engaged in LIPW while almost 20% and 18.6% of economically active individuals aged 25-34 years and 35-64 years also participated in LIPW. With the extremely poor population in the LIPW communities, 9.7%, 24.2% and 19.2% of economically active individuals aged between 15-24 years, 25-34 years and 35-64 years respectively participated in LIPW.

**Table 4: Percentage of economically active labour force who participated in LIPW, by baseline household poverty status and sex**

<b>Baseline Poverty Status</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Extreme Poor	18.0	19.2	18.6
Average Poor	19.3	18.5	18.9
None Poor	14.6	16.2	15.5
Total	16.8	17.9	17.4

Source: ISSER LIPW Survey, 2013

**Table 5: Percentage of economically active labour force who participated in LIPW, by baseline household poverty status, age group and sex**

<b>Baseline Poverty Status</b>	<b>Age group 15-24 years</b>			<b>Age group 25-34 years</b>			<b>Age group 35-64 years</b>		
	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Extreme Poor	13.4	5.9	9.7	19.6	28.2	24.2	19.0	19.4	19.2
Average Poor	18.6	13.9	16.2	19.5	18.9	19.1	19.5	19.8	19.7
Non Poor	8.7	7.7	8.1	14.6	18.2	16.6	16.4	18.7	17.5
total	12.5	7.8	10.0	17.2	21.9	19.9	18.0	19.2	18.6

Source: ISSER LIPW Survey, 2013

#### 4.2 Impact of LIPW on poverty at the community level

The poverty status statistics<sup>2</sup> in the selected LIPW and control communities during the period of the survey is presented in Table 6. Evidence from the table revealed that the poverty level as at the baseline survey period was about 62.4 percent (comprising of 46.5% extreme poor and 15.9% average poor) for communities involved in the LIPW and 56.2 percent for control communities (communities without LIPW). During the follow-up survey in the LIPW communities, poverty level has reduced to about 55.8 percent at a percentage reduction of 10.8 percent. Extreme poverty reduced by about seven percent (7.2%) while average poverty reduced by 20.5 percent in the LIPW communities. For control communities, poverty level reduced to 53.6 percent at a percentage change of 4.6 percent. Extreme poverty reduced by 14.2 percent while average poverty increased in these communities.

It is worth noting that, the overall reduction in poverty level in the LIPW communities cannot be explicitly attributed to LIPW interventions in these communities. However, the interventions have certainly had an impact in curbing poverty incidence in those communities

**Table 6: Poverty Status by period of survey (%)**

Poverty Status	LIPW Communities			Control Communities		
	Baseline	End line	% change	Baseline	End line	% change
Extreme Poor	46.5	43.1	-7.2	45.2	38.8	-14.2
Average Poor	15.9	12.7	-20.5	11.0	14.8	34.3
Non Poor	37.6	44.2	17.6	43.8	46.4	45.1

Source: ISSER LIPW Survey, 2013

#### 4.3 Impact of LIPW on poverty at the individual/household level

The analysis of poverty in this study is focused on consumption poverty, highlighting households whose standard of living falls below an adequate minimum defined by different poverty lines. As

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<sup>2</sup> The report uses two nutrition-based poverty lines used by Ghana Statistical Service. The lines, set in 2005/06 are inflated to August 2013 prices to equivalent levels of GH¢745.90 and GH¢959.01 respectively. The first is used as an extreme poverty line, meaning that people whose standard of living measure lies below this would not be able to meet their calorie requirements even if they spent their entire budget on food. The latter line is used as the overall poverty line, and incorporates both essential food and non-food consumption. Individuals consuming at levels above this can be considered able to purchase enough food to meet their nutritional requirements, and to be able to meet their basic non-food needs. Appendix A presents a brief description of the methodology used to estimate poverty status of the population in the intervention districts.

such, we trace the impact of the LIPW through food consumption expenditures. Food consumption expenditures increased by GH¢ 211.74 per AE for households with at least one LIPW beneficiary whereas non-food consumption expenditure decreased by GH¢ 44.17 (Table 7). The differential impact shows that the increase in food consumption expenditure was highest (GH¢ 248.58) for households with at least one beneficiary aged 15 to 24 years followed by households with at least one female beneficiary (GH¢ 196.97). The next paragraph provides the ultimate impact of the LIPW on poverty at the household level by pulling together the food and non-food expenditure into a total effect.

**Table 7: Estimated impact of LIPW on food and non-food consumption expenditure**

Treatment Group	Difference Between Treatment and Control	
	(1) Food Consumption (Adult Equivalent) GH¢	(2) Non-Food Consumption (Adult Equivalent) GH¢
At least one member of household worked for LIPW	211.74*** (28.59)	-44.17*** (11.43)
At least one female member of household worked for LIPW	196.97*** (42.22)	22.39 (25.71)
At least one male member of household worked for LIPW	29.26 (19.93)	-65.41*** (16.85)
At least one member aged 15-24 years worked for LIPW	248.58*** (48.64)	350.73*** (134.17)
At least one member aged 25-34 years worked for LIPW	-5.61 (24.01)	-120.23*** (18.36)
At least one member aged 35-64 years worked for LIPW	64.63*** (21.02)	-67.29*** (15.28)
Average for Control Households	735.88 (13.33)	530.10 (10.61)
Observations	2,248	2,248
Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Source: ISSER LIPW survey, 2012 and 2013

Note: Cluster-robust standard errors are in parentheses below each estimate. The impacts are estimated using six different treatment variables which are shown on the left hand side. The estimates were done separately in different but similar equations. The row labelled “Average for Control Households” shows the mean value of the dependent variable at the endline for the control group. e.g. The average expenditure on food consumption at endline was GH¢ 735.88 for both the beneficiary and non-beneficiary/control households. The implementation of the LIPW increased food consumption expenditure for beneficiary households to GH¢ 947.62. The impact is measured by the difference between the endline expenditure between the beneficiary households and the control households (947 – 735.88 = 211.74). The average statistical significance at 10 percent or better is shown in bold.

Total consumption per Adult Equivalent (AE) increased by GH¢ 167.57 for households with at least one LIPW beneficiary which is about 8% higher than the average consumption for the control households (Table 8). This increase in consumption was largely driven by households with at least one beneficiary aged 15 to 24 years. Similarly, households with at least one female beneficiary increased their consumption per AE by GH¢ 219.36. On the contrary, total consumption expenditures declined by GH¢ 125.84 for beneficiary households with at least one youth aged 25 to 34 years.

Increased consumption spending translated to marginal reductions in extreme poverty among LIPW beneficiary households. Extreme poverty among LIPW beneficiary households reduced by 5.3 percent compared to non-beneficiary households (Table 8). Households with beneficiaries aged 15 to 24 years recorded the highest reduction in extreme poverty (12.1%) followed by households with at least one male beneficiary (10.2%). Although there was a reduction in extreme poverty, the implementation on the LIPW had no impact on the overall incidence of poverty among beneficiary households.

**Table 8: Estimated impact of LIPW on household welfare and poverty**

	Difference Between Treatment and Control		
	(1)	(2)	(3)
Treatment Group	Total Consumption (Adult Equivalent)	Extreme Poverty Incidence	Overall Poverty Incidence
At least one member of household worked for LIPW	167.57*** (34.33)	-0.053*** (0.011)	-0.006 (0.011)
At least one female member of household worked for LIPW	219.36*** (54.42)	-0.032** (0.014)	-0.029* (0.015)
At least one male member of household worked for LIPW	-36.15 (32.35)	-0.102*** (0.015)	-0.020 (0.017)
At least one member aged 15-24 years worked for LIPW	599.31*** (149.26)	-0.121*** (0.035)	-0.183*** (0.037)
At least one member aged 25-34 years worked for LIPW	-125.84*** (35.97)	-0.093*** (0.021)	-0.081*** (0.022)
At least one member aged 35-64 years worked for LIPW	-2.66 (30.09)	-0.042** (0.017)	-0.026 (0.018)
Average for Control Households	1265.99 (20.62)	0.320 (0.010)	0.455 (0.010)
Observations	2,248	2,248	2,248
Standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

Source: ISSER LIPW Survey, 2012 and 2013

## 5.0 CONCLUSIONS AND POLICY OPTIONS

### 5.1 Conclusions

In conclusion, the targeting performance shows that almost 32% of extremely poor households and 34% of averagely poor households had at least one member of the household worked on an LIPW project. In the LIPW communities, poverty level has reduced to about 55.8 percent at a percentage reduction of 10.8 percent. Extreme poverty reduced by about seven percent (7.2%) while average poverty reduced by 20.5 percent. For control communities, poverty level reduced to 53.6 percent at a percentage change of 4.6 percent.

At the household level, increased consumption spending translated to marginal reductions in extreme poverty among LIPW beneficiary households. Extreme poverty among LIPW beneficiary households reduced by 5.3 percent compared to non-beneficiary households.

The key outcome from this study is that the LIPW made positive impact on the beneficiary households by reducing the incidence of extreme poverty and increasing average consumption. Also, the interventions have certainly had an impact in curbing poverty incidence in the LIPW communities. However, it is worth noting that, the overall reduction in poverty level in the LIPW communities cannot be explicitly attributed to LIPW interventions in these communities.

## **5.2 Policy Options**

Participation of poor households in LIPW in the intervention area is low, only about a third of them (both extreme poor and averagely poor households) had at least one member involved in any of the projects. Considering the fact that the LIPW project is targeted at the poor, it is recommended that the targeting strategy should be improved to ensure that more of the poor are recruited to benefit directly from the projects. This can be achieved through the creation of a national registry of the poor (targeted) population. Again, the screening criteria used for the selection of LIPW beneficiaries as presented in Table 1 should be strengthened.

The targeting can be enhanced through the selection of the right wage. The results indicate that about a third of the non-poor population also benefited from the LIPW projects which presuppose that the wage rate may have been attractive to them. Although, the wage rate should not be too low to dampen the impact of the project on poverty, it should also not be too high to entice the non-poor.

## References

Adato, M. and Haddad, L. (2002). Targeting Poverty through Community-Based Public Works Programmes: Experience from South Africa. *The Journal of Development Studies*, 38:3, 1-36, DOI: [10.1080/00220380412331322321](https://doi.org/10.1080/00220380412331322321)

Ellis, F. (2008). 'We Are All Poor Here': Economic Difference, Social Divisiveness and Targeting Cash Transfers in Sub-Saharan Africa. Paper presented at the conference Social Protection for the Poorest in Africa: Learning from Experience, Entebbe, Uganda, 8–10 September 2008.

McCord, A. and Farrington, J. (2008). Digging holes and filling them in again? How far do public works enhance livelihoods? Overseas Development Institute. *Natural Resource Perspectives* 120,

Robinson, J. A. and Torvik, R. (2005) 'White elephants', *Journal of Public Economics* 89 (2-3): 197-210.

Rosas, N. and Sabarwal, S. (2014). *How productive are productive safety nets?: Evidence from Public Works in Sierra Leone*. Conference Proceedings, 9th IZA/World Bank Conference on Employment and Development, World Bank: Peru, [www.iza.org/conference\\_files/worldb2014/rosas\\_n10171.pdf](http://www.iza.org/conference_files/worldb2014/rosas_n10171.pdf)

Slater, R. and Farrington, J. (2010). Appropriate, Achievable, Acceptable: A practical tool for good targeting. ODI Social Protection Tool sheet. London, ODI.

Slater, R. (2011). Cash transfers, social protection and poverty reduction. *International Journal of Social Welfare* 250–259

Surender, R. (2010). Social Assistance and Dependency in South Africa: An Analysis of Attitudes to Paid Work and Social Grants. *Journal of Social Policy* 39(2), 203-221.