



## Research Paper

# Analysis of the effects of millennium development goals (MDGS) projects on poverty reduction among rural dwellers in Owerri agricultural zone, Imo State-Nigeria

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This study focused on the effects of MDGs projects on poverty reduction among rural dwellers in Owerri agricultural zone. Data were collected using structured questionnaire administered to 108 respondents who were randomly selected using the multi-stage random sampling techniques. Data were analysed using appropriate statistical tools such as frequency distribution, percentages, means, and mean scores based on the objectives of the study. Z-test was used to establish the hypothesized relationship. The results revealed among others that the rural dwellers were not very much aware of the MDGs projects, bore-hole and free education were very effective projects in reducing poverty among the respondents, while conditional cash transfer, supply of health facilities and construction of civic centers were not effective in reducing poverty among the respondents. Factors such as

government policies, attitude of the leaders and ignorance affected the level of effectiveness of the MDGs projects. The z-test revealed that there was no significant difference between the existence of MDGs projects in Imo State and poverty reduction level of both male and female rural dwellers. Thus the study concluded that much still needs to be done in using programmes such as MDGs in reducing poverty since the study shows that MDGs was just effective. The study thus recommends among others that there is need to sustain the effects of the MDGs projects on rural dwellers and ensure that the benefits are evenly distributed to all the rural dwellers and government.

**Key words:** Rural Dwellers, Millennium development Goals (MDGs) Projects, poverty reduction, Owerri Imo State.

## INTRODUCTION

Poverty has not been easy to define in a single concise phrase. This is because people view poverty from different dimension. United Nation in 2005 describes it as a denial of choices and opportunities, a violation of human dignity and lack of basic capacity to participate effectively. World Bank, (2011) defined poverty as the inability to attain the minimum standard of living. It further explained poverty as a pronounced deprivation in well-

being and comprises many dimensions which includes, low income, ability to acquire the basic goods and services necessary for survival with dignity, low level of health, education, poor access to clean water and sanitation, inadequate physical security, lack of voice in sufficient capacity and opportunity to better one's life.

Njoku, (2014) viewed poverty in line with Copenhagen's declaration of 1995 as either absolute or relative poverty.

Absolute poverty otherwise called extreme poverty is a condition characterized by severe deprivation of basic human needs such as food, safe drinking water, sanitation, facilities, health, shelter, education and information. This thus means that poverty does not depend only on income but also on access to social services. Relative poverty on the other hand views poverty as socially defined hence it can be said to be measure of income inequality, thus it is used as official poverty rate in several developed countries. There are so many problems associated with poverty and this has resulted to negative effects on the livelihood of the people and Nigeria nation as a whole. According to Alierellale and Awoyele, (2000), poverty has the capacity to undermines national security, constitute economic burden, hampers both human development, formation of social capital and reproduces illiteracy and ignorance, escalates prostitution and its attendant health hazards etc.

Poverty in Nigeria has remained significantly high despite several efforts and attempts made by the Nigerian Government to reduce it (Njoku 2014; Anaeto *et al.*, 2005). Most of these attempts failed because they lacked the needed commitment on the part of the initiators and implementers (Nwachukwu, 2000). Moreover, most of the attempts were crash programmes facing political problems and inconsistency in policy formulation (Anaeto, 2003). It was then seen as a relief when the millennium Development Goals (MDGs), an initiative of UN (United Nation) came on board with eight (8) international goals which include, Eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality rates, improving material health, combating HIV/AIDS, malaria, and other diseases, ensuring environmental sustainability and developing a global partnership for development to tackle the problems of poverty worldwide. The eight goals are related to each other because their focus is to improve the living standard of the people and bring about social development.

Eradicating Extreme Poverty (MDGs goal I) is the centerpiece of all MDGs because all the other MDGs goals are directed or focused at reducing poverty.

It is in recognition of this that Imo State Government embarked on several MDGs projects to achieve the benefits of poverty reduction. Some of the MDGs poverty, reduction projects embarked upon in Imo State included among others:

- (i) Reactivation and rehabilitation of Ovuru-Amawo water project in Aboh-Mbaise.
- (ii) Supply of school furniture to Okpala Secondary School in Ngor-Okpala Local Government Area.
- (iii) Supply of medical equipment to Mbutu health center.
- (iv) Free education and bursary to undergraduate in Imo State

- (v) Establishment of dispora village with 500 housing units.
- (vi) Conditional cash transfer scheme.
- (vii) Construction and equipping of library at Oke-Ovoro Development Center in Aboh-Mbaise.
- (viii) Soil reclamation f eroded farm lands at Amauzari community at Isiala-Mbano Local Government Area.
- (ix) Solar-powered water scheme in Umezeala-egbuoma in Oguta.
- (x) Construction of 3 classroom block with VIP toilet at Enyioyugu Secondary School, in Aboh-Mbaise.
- (xi) Distribution of treated mosquito nets in Owerri agricultural zone.
- (xii) Construction of public toilets and water.
- (xiii) Allocation of fund to agricultural sectors.
- (xiv) Distribution of improved crop varieties, fertilizer and pesticides to rural farmers.

However, the effects of these MDGs projects in Imo State meant for poverty reduction are not known, thus there is a gap in knowledge on what the effects of MDGs are in Imo State. It is this gap in knowledge that this study tends to fill. No study in the past has addressed this problem hence, the need for this study.

### Objectives of the study

The broad objective of this study is to assess the effects of Millennium Development Goals (MDGs) projects on poverty reduction among rural dwellers in Owerri Agricultural zone. The specific objectives includes to;

- (a) Ascertain the awareness of the MDGs among the respondent.
- (b) Identify the MDGs project available in the study area.
- (c) Assess the awareness level and utilization level of the MDGs project by the respondent.
- (d) Determine the effectiveness and benefits of the MDGs projects in reducing poverty among the respondent.
- (e) Identify and assess factors that positively and negatively affect the effectiveness of these MDGs projects in reducing poverty in Imo State.

### Hypothesis of the Study

A null hypothesis which states that there is no significant difference between the existence of the MDGs projects in Imo State and poverty reduction level of both male and female dwellers in the study area.

### METHODOLOGY

The study was conducted in Owerri agricultural zone of Imo State, Nigeria. Imo State is one of the states in the south-east geo-political and ecological zone of Nigeria. The state shares boundaries with River State, Anambra State, Abia State and Ebonyi State. The state has 3 agricultural zones namely Owerri, Okigwe and Orlu. It

covers an area of 5,530 sqkm and has a population of 3,927,563 people (NPC, 2006). Multi-stage random sampling techniques were used in selecting the sample size for the study. Owerri zone was purposively selected out of the 3 zones because of its proximity to the researcher and housing the state capital. Owerri zone has 11 communities from which communities were purposively selected based on the predominance of MDGs projects sited in the areas.

Stratified random sampling technique was also used to ensure that both male and female rural dwellers were accommodated in the selection. Thus 108 rural dwellers stratified into 54 men and 54 women were used as sample for this study. The sampling frame was the list of all rural dwellers, communities/villages, LGAs in the zone as supplied by the LGA headquarters, by informants and the community development officers in the study area. Structured and validated questionnaire was used in collecting data for the study. The study was descriptive enough thus simple statistical tools were used in analyzing the data based on the objectives of the study. Awareness of the MDGs (obj. I) and the MDGs projects available in the study are (obj. II) were established using frequency tables and percentage. The awareness level and utilization level of the MDGs projects (obj. III), effectiveness and benefits of the MDGs projects in reducing poverty (obj. IV) and factors that affect the effectiveness (obj. V) were obtained using mean score delivered from the likert-type measuring scale based on 3-point.

The likert-type scale measuring instrument is represented by the formula:

$$\bar{x} = \sum X/n \text{ (Anaeto et al., 2007)}$$

Where x = Normal value assigned to the scaling statement

n = Number of normal values

$\sum$  =sum of normal values

Three different scale statements were used namely:

- (a) available and completed, available and Not completed, Not available
- (b) very much aware, just aware, Not aware
- (c) very effective, just effective, Not effective
- (d) greatly utilize, just utilized, Not utilized
- (e) very serious, just serious, Not serious

All these were assigned to different responses from the respondent represented as follows:

- (a) Available and completed, very much aware, very effective, greatly utilized, just serious-3
- (b) Available and not completed, just aware, just effective, just utilized, just serious-2
- (c) Not aware, not effective, not utilized, not serious-1

The mean of the scaling statement was found as:

$$\frac{3 + 2 + 1}{3} = \frac{6}{3} = 2$$

Therefore, 2 is the weighed mean of the scaling statement.

An interval of 0.50 was chosen.

Therefore, upper class limit – 2.0 + 0.5 = 2.5

Lower class limit – 2.0 – 0.5 = 1.5

### Decision rule

Any mean score above 2.5 = Available and completed, very much aware, very effective, greatly, greatly utilized, very serious.

Any mean score between 1.5-2.5=Available and not completed, just aware, just effective, just utilized, just serious.

Any mean score below 1.5 = Not available, Not aware, Not effective, Not utilized, Not serious

The Z-test was used to analyze hypothesis II (hypothesized relationship) which states that there is no significant difference between the existence of the MDGs projects in Imo State and the poverty reduction level of both male and female dwellers in the study area.

It can be represented mathematically as:

$$Z = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} \text{ (Ohajianya, 2004)}$$

Z = The value by which the statistical significance of the mean difference is to be judged

$\bar{x}_1$ = The mean of poverty reduction level among group I (female dwellers) as a result of existing MDGs project.

$\bar{x}_2$ = The mean of poverty reduction level among group II (male dwellers) as a result of existing MDGs project.

$s_1^2$ = The variance from mean poverty reduction level of group I female dwellers category

$s_2^2$ = The variance from mean poverty reduction level of group II male dwellers category

$n_1$ = The number of respondents in group I

$n_2$ = The number of respondents in group II

### RESULTS AND DISCUSSION

Table 1 shows the distribution of respondents based on their knowledge of the MDGs. The result from the table

**Table 1.** Distribution of respondents based on their knowledge of MDGs.

<b>Knowledge of minor occupation</b>	<b>Frequency</b>	<b>Percentage(%)</b>
Yes	97	89.8
No	11	10.2
<b>Total</b>	<b>108</b>	<b>100</b>

Source: Field Survey Data, 2013.

**Table 2.** Distribution of respondent based on the year of awareness of MDGs.

<b>Year of awareness (yrs)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
13 yrs ago	4	3.7
5 yrs ago	20	18.5
3 yrs ago	18	16.7
1 yr ago	26	24.1
Less than a yr	31	28.7
Others (specified)	9	8.3
<b>Total</b>	<b>108</b>	<b>100</b>

Source: Field Survey Data, 2013.

**Table 3.** Distribution of respondents by their means of getting information on MDGs.

<b>Sources of information</b>	<b>Frequency</b>	<b>Percentage (%)</b>	<b>Ordinary ranking</b>
Radio	13	12.0	4 <sup>th</sup>
Television	29	26.9	1 <sup>st</sup>
Extension Agent	20	18.5	2 <sup>nd</sup>
Village meetings	14	13.0	3 <sup>rd</sup>
Focus Group Discussion	10	9.3	5 <sup>th</sup>
Market gathering	4	3.7	8 <sup>th</sup>
Church	5	4.6	7 <sup>th</sup>
Research institute	2	1.9	9 <sup>th</sup>
Local Govt. Area Office	2	1.9	9 <sup>th</sup>
Community Dev. Office	2	1.9	9 <sup>th</sup>
None of the above	7	6.5	6 <sup>th</sup>
<b>Total</b>	<b>108</b>	<b>100</b>	

Source: Field Survey Data, 2013.

shows that 89.8% of the respondents are aware of the existence of the MDGs. This could probably be because most of the respondents are educated civil servants; they could easily access information about MDGs from their offices and mass media. The implication is that since majority of the respondents are aware of the MDGs their awareness level needs to be sustained and promoted in such a way that every member of the community will be aware of the MDGs because one needs to be aware before ascertaining the effects of the MDGs project. Table 2 shows the distribution of respondents based on the year of awareness of MDGs. The result shows that 28.7% of the respondent which had the highest frequency became aware of the MDGs less than a year ago. The implication of this is that the government and media agencies should buckle up in their effort to create

awareness, because from the table the respondents became aware only less than a year ago, which is not encouraging if the MDGs are expected to be achieved at 2015, a lot of work/effort is therefore needed to create more awareness in order to meet the goals, especially goal 1; eradication of poverty by 2015.

Table 3 shows the distribution of the respondents based on their sources of information on MDGs. The result shows that from the ordinary ranking order, the television came 1<sup>st</sup> with the highest frequency of 29 and 26.9% among other sources of information. This could be, because of the effectiveness of the television as information is both heard and seen. The implication of this is that the MDGs office/Government should cease this opportunity of using television to reach people and also update the members of the community through the

**Table 4.** Distribution of respondent based on their knowledge of regular update on MDGs.

Knowledge of regular update	Frequency	Percentage (%)
Yes	11	10.2
No	97	89.8
Total	108	100

Source: Field Survey Data, 2013.

**Table 5.** Distribution of respondents according to their awareness/knowledge of the components of MDGs.

Components	Yes		No		Rank
	Freq	%	Freq	%	
Eradication of extreme Poverty and hunger	70	68	38	31.2	2 <sup>nd</sup>
Achieving universal education	83	76.9	25	23.1	1 <sup>st</sup>
Promoting gender equality/empowering women	47	43.5	61	56.5	4 <sup>th</sup>
Reducing child mortality	44	46.7	64	59.3	5 <sup>th</sup>
Improving material health	36	33.3	72	66.7	6 <sup>th</sup>
Combating HIV/AIDS	62	57.4	46	42.6	3 <sup>rd</sup>
Malaria and other diseases					
Ensuring environmental sustainability	23	21.3	85	78.7	7 <sup>th</sup>
Developing global partnership	17	15.7	91	84.3	8 <sup>th</sup>

Source. Field Survey Data, 2013.

**Table 6.** Distribution of respondents based on their knowledge of the MDGs project meant for poverty reduction.

Knowledge of MDGs project	Frequency	Percentage (%)
Yes	90	83.3
No	18	16.7
Total	108	100

Source: Field Survey Data, 2013.

television and other multi-media because television is an effective audio visuals or means of awareness which can reach relatively large number of people at the same time and at a low cost.

Table 4 shows the distribution of respondents based on their knowledge of regular update on MDGs. The result shows that 89.8% of the respondent does not get regular update on MDGS. This could be because of the inconsistency in government policies and apathy from the government. The implication of this is that the government, extension agents etc should put in more effort in updating the rural dwellers with current information, this could be done by the use of media, extension agency e.g. ADP, social groups etc in other for the rural dwellers to appreciate the MDGs projects sited in their area and also benefit from it.

Table 5 shows the distribution of respondents according to their knowledge of the different components of MDGs. From the table, it can be seen that the result of the knowledge of the different component of MDGs has been ranked from the 1<sup>st</sup> to 8<sup>th</sup> following the percentage.

The results shows that achieving universal education was ranked 1<sup>st</sup> with 83% followed by eradicating of extreme poverty and hunger with 68%, combating HIV/AIDS malaria and other diseases ranked 3<sup>rd</sup> with 62%. From the above result, it implies that most dweller are aware of the goals mention above. The implication of this is that more efforts should be made to create more awareness on other goals, in other to achieve the MDGs by 2015.

Table 6 shows the distribution of respondent based on their knowledge of MDGs projects meant to reduce poverty in the study area. The result shows that 83.3% of the respondents are aware the MDGs projects meant to reduce poverty. This could be because of the high literate level of the respondents. Table 7 shows the rating of the availability of MDGs projects in the study area. The respondents were asked to rate the availability on 3 point likert-type scale on Not available (NA), available and not completed (ANC) and available and completed (AC). Borehole (solar and hand pumped) and free education was rated available and completed with a mean score of 2.84 and 2.73 respectively except for condition cash

**Table 7.** Distribution of respondents by their rating of the availability of MDGs projects.

MDGs projects	Not available		Available & not comp		Available and comp		Mean	Remark
	Freq	%	Freq	%	Freq	%		
Borehole (solar & hand pumped)	6	8.3	5	4.6	97	89.8	2.83	AC
Free education	12	11.1	5	4.6	91	84.3	2.73	AC
Condition cash transfer	96	88.9	8	7.4	4	3.7	1.15	NA
Supply of health facilities	71	65.7	15	13.9	22	20.4	1.55	ANC
Construction of primary furniture	45	41.7	40	37.0	23	22.3	1.80	ANC
Supply of school furniture	70	64.8	13	12.0	25	23.1	1.58	ANC
Free healthcare	93	86.1	8	7.4	7	6.5	1.20	NA
Market development	63	58.3	15	13.9	30	27.8	2.70	ANC
Distribution of treated mosquito nets	16	14.8	26	24.1	66	61.1	2.46	ANC
Construction of civic centres	65	60.2	7	6.48	36	33.3	1.73	ANC
Allocation of fund to agric sector (fertilizer improved variety e.g. cassava)	46	42.6	27	25	35	32.4	1.90	ANC
Others (specified)	68	63.0	9	8.3	31	28.7	1.66	ANC

Source: Field Survey Data, 2013.

**Table 8.** Distribution of respondents based on their knowledge of accessibility of MDGs projects.

Knowledge of the accessibility of project	Frequency	Percentage (%)
Yes	87	80.6
No	21	19.4
Total	108	100

Source: Field Survey Data, 2013.

**Table 9.** Distribution of respondent on the rating of the awareness level of the MDGs project.

Very much aware		Just aware		Not aware		Mean	Remark
Freq	%	Freq	%	Freq	%		
26	24.1	72	66.7	10	9.3	2.15	J.A

Source: Field Survey Data, 2013.

NB: JA – Just Aware

transfer and free healthcare which was rated not available with a mean score of 1.15 and 1.20. This shows that most of the projects sited by the MDGs are either not available to the respondents or are not completed, therefore this calls for more efforts on the part of the government to complete the proposed projects in order to help reduce the poverty level of the study area. Table 8 shows that the respondent can access the project i.e. the projects are sited in areas where they can easily access.

Table 9 shows the rating of awareness of the MDGs projects by the respondents. The respondents were asked to rate the awareness on a 3 point likert-type scale of very aware, just aware and not aware. According to the results the respondent rated their awareness level as (JA) just aware with a mean score of 2.15. This shows that there is need for more awareness of the MDGs projects. This could be done in their offices, since most of them are civil servants, by the use of mass media, since

they most literates, village and church meetings etc. because it is only when they are aware, that they can utilize which in turn improves their livelihood and reduces poverty.

Table 10 shows the rating of the utilization level of the MDGs projects by the respondents. The respondents were asked to rate their utilization level on a 3 point likert-type scale of greatly utilized and not utilized. According to the results the respondents rated their utilization level as (JU) just utilized with a mean score of 2.04. This implies that most of the projects did not go around the respondent e.g. distribution of mosquito net, subsidized fertilizer, this could be due to corruption on the part of the traditional leaders as some people confiscated the resources and just shared to few rural dwellers or attitude of the people themselves, some may collect more than one that resulted to a low utilization level of the project made for all. As projects made for all in order to reduce

**Table 10.** Distribution of the MDGs projects by the rural utilization level of MDGs projects.

Greatly utilized		Just utilized		Not utilized		Mean	Remark
Freq	%	Freq	%	Freq	%		
21	19.4	70	64.8	17	15.7	2.04	J.U

Source: Field Survey Data, 2013.  
NB: JU- Just Utilized.

**Table 11.** Distribution of respondents based on the effectiveness of MDGs projects on poverty reduction.

Very effective		Just effective		Not effective		Mean	Remark
Freq	%	Freq	%	Freq	%		
13	12.0	48	44.4	47	43.5	1.7	J.E

Source: Field Survey Data, 2013  
NB: JE – Just Effective

**Table 12.** Distribution of the respondents according to their benefits from MDGs project on poverty reduction among rural dwellers.

MDGs projects	Very effective		Just effective		Not effective		Mean	Remark
	Freq	%	Freq	%	Freq	%		
Free education	75	69.4	20	18.5	13	12.0	2.57	V.E
Conditional cash transfer	10	9.3	8	7.4	90	83.3	1.25	N.E
Water borehole project (solar and hand pumped)	38	35.2	45	41.7	25	23.1	2.12	J.E
Supply of health facilities	15	13.9	16	14.8	77	71.3	1.43	N.E
Supply of school furniture	30	27.8	19	17.6	59	54.6	1.73	J.E
Construction of civic centre	10	9.3	21	19.4	77	71.3	1.37	N.E
Allocation of input/funds of Agric sector e.g fertilizer	20	18.5	22	20.4	66	61.1	1.57	J.E
Distribution of treated mosquito net	28	38.0	28	25.9	39	36.1	2.02	J.E
Others (specified)	13	12.0	21	19.4	74	68.5	1.44	N.E

Source: Field Survey Data, 2013.  
V.E – very effective, J.E – just effective, N.E – not effective

poverty is not been utilized by few.

Table 11 shows the distribution of respondents by their rating of effectiveness of MDGs projects on poverty reduction in the study area. The respondents were asked to rate the effectiveness on a three point likert-type scale of very effective, just effective and not effective. The effectiveness of the MDGs projects was rated just effective (JE) with a mean score of 1.7. This further show that the MDGs project are not so effective in poverty reduction but has also made an impact on the lives of the respondent. This calls for more efforts from the government, development workers/agency etc in other to achieve goal 1 of MDGs “Eradicate extreme poverty”.

Table 12 shows the rating of the benefits of MDGs project as the effect the livelihood of the respondents. The respondents were asked to respond to the anticipated benefits based on a 3 point likert-type scale of very effective, just effective and not effective. The result shows that the respondents rated free education as being very effective. The following benefits were rated just

effected namely; water bore-hole project, supply of school furniture, allocation funds to agricultural sector and distribution of mosquito net. Conditional cash transfer, supply of health facilities, construction of civic centers were rated not effective. The implication is that government should identify the problems affecting some projects in other to make them very effective for the rural dwellers and thus reduce poverty in the area. Table 13 shows the distribution of the respondents based on their knowledge of the benefits of the MDGs projects. The results showed that according to the ordinary ranking, free education, water borehole projects and distribution of treated mosquito nets was ranked 1<sup>st</sup> – 3<sup>rd</sup> while allocation of agricultural input, construction of civic centers and conditional cash transfer was ranked 6<sup>th</sup> – 8<sup>th</sup>. The implication is that more efforts should be channeled to this projects that were poorly ranked.

Table 14 shows the distribution of respondents according to their rating of the problems affecting the effectiveness level of the MDGs projects. Nine problems

**Table 13.** Distribution of respondent based on their knowledge of the benefits of the MDGs projects.

MGDs Projects	Yes		No		Rank
	Freq	%	Freq	%	
Free education	101	93.5	7	6.5	1 <sup>st</sup>
Conditional cash transfer	17	15.7	91	84.3	9 <sup>th</sup>
Water borehole project	95	87.0	13	12.0	2 <sup>nd</sup>
Supply of health facilities	32	29.6	76	70.4	8 <sup>th</sup>
Supply of school furniture	59	54.6	39	45.4	4 <sup>th</sup>
Construction civic centres	42	38.9	66	61.1	7 <sup>th</sup>
Allocation of input/funds to farmers e.g subsidized fertilizer	44	40.7	64	61.1	6 <sup>th</sup>
Distribution of treated mosquito nets	86	79.6	22	20.4	3 <sup>rd</sup>
Others (specified)	48	44.4	60	55.6	5 <sup>th</sup>

Source: Field Survey Data, 2013.

**Table 14.** Distribution of respondents according to their rating of the problems affecting the effectiveness level of the MDGs projects.

Problems	Very Serious		Just Serious		Not Serious		Mean	Remark
	Freq	%	Freq	%	Freq	%		
Peer groups	14	13.0	7	6.5	87	80.6	1.32	N.S
Group dynamics	5	4.6	12	11.1	91	84.3	1.20	N.S
Culture and tradition	15	13.9	14	13.0	79	73.1	1.41	N.S
Altitude of the people themselves	45	32.4	22	20.4	51	47.2	1.85	J.S
Ignorance	48	44.4	14	13.0	46	42.6	2.02	J.S
Altitude of the leader	53	49.1	10	9.3	45	41.6	2.07	J.S
Government policies	69	63.9	9	8.3	30	27.8	2.36	J.S
Others (specified)	6	5.6	2	1.9	100	92.6	2.13	N.S

Source: Field Survey Data 2013.

N.S – Not serious, J.S – Just serious, V.S – very serious

**Table 15.** Shows the test of significant difference between the existence of MDGs projects in Imo State and poverty reduction level of both male and female dwellers.

Variables	No. of obser.	mean(x)	Standard deviation	z-tab	z-cal	Decision
GP I (female dwellers) as a result of existence of MDGs Projects ( $\bar{X}_1$ )	108	1.82	0.48	1.96		
GP II (male dwellers) as a result of existence of MDGs Projects ( $\bar{X}_2$ )	108	1.79	0.45		0.47 <sup>NS</sup>	Accept

\* = Z-cal, significant at 5% level, NS = Z-cal not significant at 5% level.

were listed and respondents were asked to supply information based on the three point likert-type scaling statement of not serious, just serious and very serious. The result showed that the rural dwellers in the study area rated most of the problems as just serious while the other problems were rated not serious. This is in line with the fact that some benefits were not effectively felt by the rural dwellers while some of the benefits were slightly felt by the rural dwellers and none were very effectively felt.

### Test of hypothesis

Table 15 shows the differential effects of the existence of MDGs projects in Imo State and poverty reduction level of both male and female dwellers. The result indicates that the Z-test has a mean of 1.82 and standard deviation

of 0.48 for existence of MDGs projects and a mean of 1.79 with 0.45 standard deviation for poverty reduction level. The test of significant difference produced a Z-test value of 0.47 which is not significant at 5% level when compared with the critical Z-value of 1.96 for a two-tail test. Therefore, the hypothesis, there is no significant difference between the existence of MDGs projects in Imo State and poverty reduction level of both male and female dwellers in the study area is accepted since there is no significant difference between them.

### Conclusion

The study assessed the effects and benefits of MDGs projects on poverty reduction in the livelihood of the rural

dweller. The study revealed several findings on MDGs projects based on the effects and benefits of the projects and also the factors affecting the effectiveness of the MDGs projects. The study also made appropriate recommendations on how best to improve and sustain the effectiveness of the MDGs projects in order to reduce poverty. Finally, the study has shown that the rural dwellers in Owerri agricultural zone found the MDGs projects as just effective, therefore a lot still needs to be done to improve the effectiveness level and possibly sustain it.

### Recommendations

Based on the finding of this study, the following recommendations are:

- (a) The study recommends that government should make sure that those in charge of implementing the projects should carry out their activities effectively.
- (b) The study also recommends that the MDGs projects should be monitored continuously and maintained in order to achieve the effectiveness, as most of the MDGs projects are either facility or abandoned e.g. hand pump borehole.
- (c) In the area of agriculture, the results show that the distribution of agricultural input e.g. fertilizer is not effective. This could be as a result of misappropriation of funds.
- (e) The study recommends that the MDGs projects sited in the rural areas should be completed and monitored, as most of the MDGs projects according to the findings are available and not completed.
- (d) The MDGs projects should be used to generate employment for youth in the rural areas, thereby making them appreciate the projects more because they are involved, increasing their income level and thus reducing poverty.
- (e) The study also recommends that more emphasis should be on Agricultural projects e.g. fertilizer distribution, equipment etc in order to increase their productivity and thus reduce poverty.
- (f) The study recommends that the government should ensure that the benefits of the MDGs projects should be evenly distributed as some of the respondents complained of personality in distribution.

### Authors' declaration

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

### REFERENCE

Alierellale B, Awoyele O (2000). Poverty Alleviation and National Development through U.B.E. paper presented at the 3<sup>rd</sup> national conference of schools of Education (FCE) Abeokuta, 27<sup>th</sup> Feb.

Anaeto FC, Onu DO, Mathews-Njoku EC, Nnadi FN, Ohajianya DO, Asiabaka CC(2007). Variables Militating against rural women farmers use of extension recommendations in Onisha Agricultural zone, Anambra State Nig. International Journal of Tropical Agriculture and Food Systems 1(4):357

Anaeto FC, Mathews-Njoku EC, Onu DO (2005). Contribution of Indigenous Knowledge (IK) to Conservation and Utilization of Biodiversity and enhancement of Livelihood in South-East Nigeria. Global Approaches to Extension Practice (GAEP) 1(1):

Anaeto FC (2003). Concept of Rural Development in Nigeria Issues, Prospects, Problems and Solutions. Nigerian Academic Forum Vol 4.No2.

Njoku NV (2014). Effects of MDGs on Poverty Reduction of Farmers in Imo State-Nigeria. Unpublished B.Agric. Techn Project FUTO.

NPC (2006). 'Population Census of Imo State. Retrieved 2013-09-24.

Nwachukwu C (2000). Women Role in Poverty Alleviation. Punch newspaper June 6<sup>th</sup>.

World Bank (2011). Population of the World in Extreme Poverty. World bank, Washington, D.C.