



GARU-TEMPANE

Feed the Future Ghana District Profile Series - February 2017 - Issue 1

DISTRICT PROFILE CONTENT

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Garu-Tempane is one of the districts in Ghana's Upper East Region. It has a total land area of 1,060.91 square kilometers and shares boundaries with Bawku Municipal to the north; Bunkpurugu-Yunyoo District to the south; Bawku West District to the west; and the Republic of Togo to the east. The district has a total population of 140,050 out of which 66,818 are males and 73,232 females with an average household size of 6.2 persons. The boxes below contain relevant economic indicators such as per capita expenditure and poverty prevalence for a better understanding of its development.

Poverty Prevalence 23.1 %

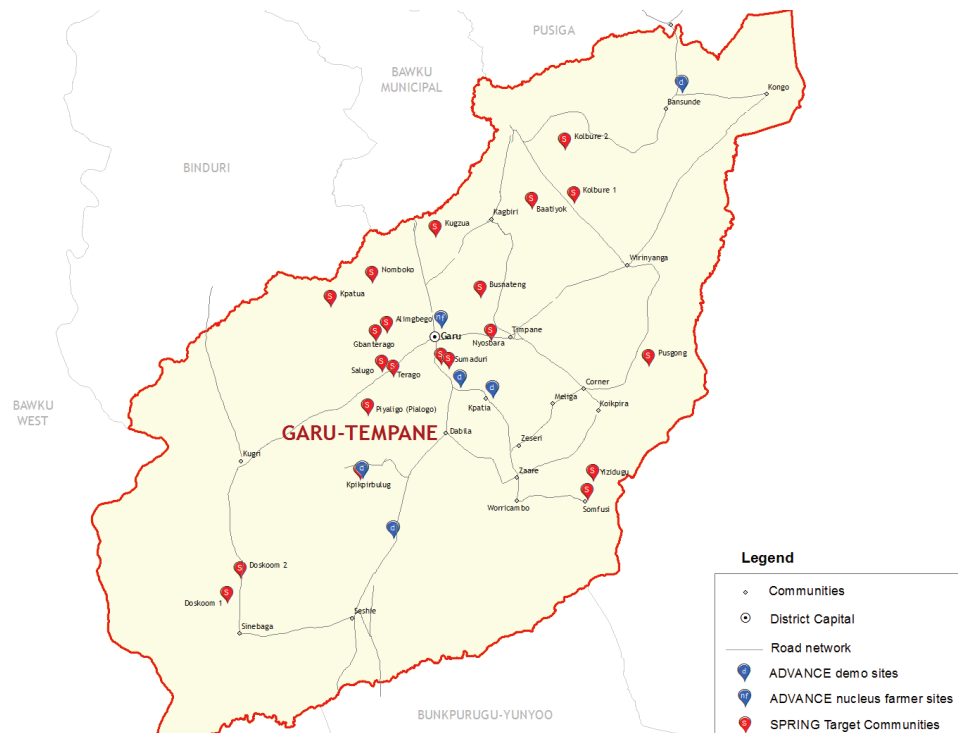
Households with moderate or severe hunger 50.9%

Poverty Depth 9 %

Daily per capita expenditure 3.95 USD

Household Size 6.2 members

Total Population of the Poor 32,352





This section contains data and information related to USAID sponsored interventions in Garu-Tempene

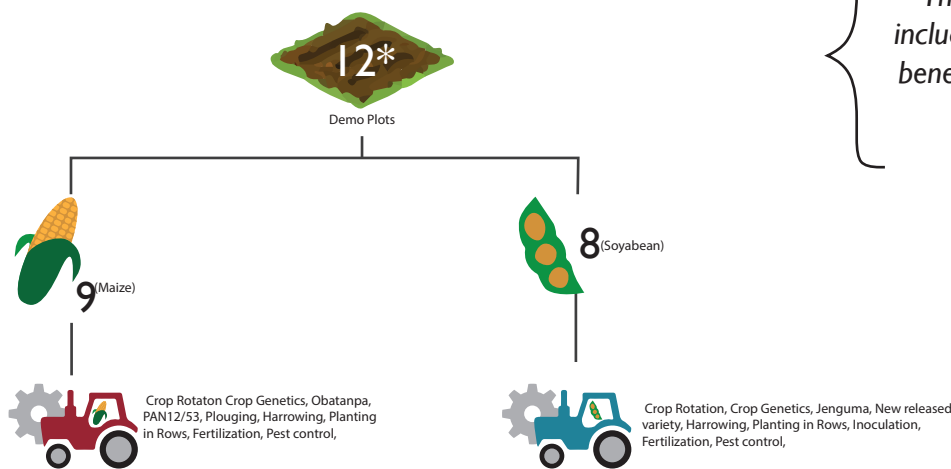
Table 1: USAID Projects Info, Garu-Tempene, 2014-2016

Beneficiaries Data	2014	2015	2016
Direct Beneficiaries	1,550	640	2,398
Male	434	243	856
Female	1,116	397	1,542
Undefined			
Nucleus Farmers	0	1	n/a
Male		1	
Female			
Demoplots	9	6	n/a
Male	3		
Female	1		
Unknown	5	6	
Production			
Maize Gross Margin USD/ha	n/a	691.1	n/a
Maize Yield MT/ha	n/a	3.14	n/a
Rice Gross Margin USD/ha	n/a	- 62.8	n/a
Rice Yield MT/ha	n/a	1.04	n/a
Soybean Gross Margin USD/ha	n/a	170.1	n/a
Soybean Yield MT/ha	n/a	0.68	n/a
Investment and Impact			
Ag. Rural loans			
USAID Projects Present			3
Beneficiaries Score	2	1	2
Presence Score 2014-2016			1.4
District Flag 2014-2016			Yellow

Source: USAID Project Reporting, 2014-2016

The number of direct USAID beneficiaries** increased in 2016 as compared to 2014 after a drop in numbers in 2015. The majority of beneficiaries in this district are women. Only one nucleus farmer is currently operating in the district and only 15 demonstration plots have been established to support beneficiary training. See Infographic 1 for the demonstration plot disaggregate. No agricultural loans were facilitated by USAID intervention as shown in Table 1. Direct beneficiaries yields and gross margins for the district are also available in Table 1. The presence of USAID development work is below average, with a small number of beneficiaries, small number of demo plots and no loan during 2014-2016. This resulted in a USAID presence score*** of (1.4 out of 4). The district is flagged YELLOW**** indicating that while the project presence or intervention is below average, the impact indicator values have improved as compared to 2012. Find more details on USAID Presence vs. Impact scoring on page 7.

Infographic 1: Demo Plots in Garu Tempene, 2014-2015



The presence calculation includes the number of direct beneficiaries and Agricultural Rural loans.

Source: USAID Project Reporting, 2014, 2015

* Please note that the number of demoplots is smaller than the sum of separate plots by crop because crop rotation has been exercised in the same demo ** "Direct Beneficiary, an individual who comes in direct contact with a set of interventions" FTF Handbook, 2016 *** and **** More detail on presence score range and districtflag range can be found in page 8.

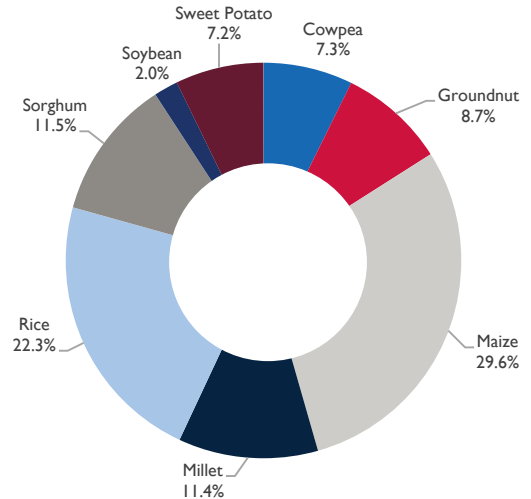
This section contains agricultural data for Garu-Tempene, such as production by commodity, gross margins and yields.

Agricultural production in Garu-Tempene involves several commodities which all contributed similar shares to the total quantity produced during 2012-2015. Garu-Tempene accounted for only 3% of the regional agricultural production during 2015.

Figure 2 contains gross margins for three commodities supported by USAID intervention in 2015 as well as the district average captured by APS 2013. In the case of maize, it is obvious that the gross margin of beneficiaries is much higher than the district average value in 2013. In the case of rice, the beneficiaries reported negative gross margin while the soy gross margin reported from APS is higher than that of the beneficiaries.

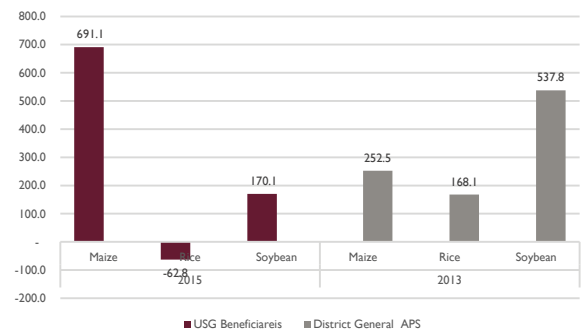
Yield data, presented in Figure 3, contain values of yields of these three commodities in 2015, 2014 and 2013 from three sources: USAID beneficiaries, MOFA and Agriculture Production Survey. Again, the figure captures the problem in productivity of rice of the direct beneficiaries in 2015 compared to the district average captured by the other source.

Figure 1: Share of agricultural production by commodity in Garu-Tempene, 2010-2014



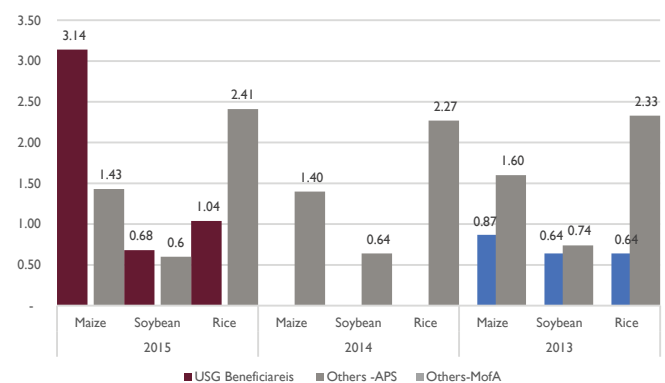
Source: Agriculture Production Reports 2011-2015, MOFA

Figure 2: Gross Margins of USG Beneficiaries and district's average, USD/ha, 2013 and 2015



Source: Agriculture Project Reporting 2015, Agriculture Production Survey, 2013, Kansas State University

Figure 3: Yields of USG beneficiaries and districts average, in MT/ha, 2013-2015



Source: Agriculture Project Reporting 2015, Agriculture Report 2014, MOFA, Agriculture Production Survey, 2013, Kansas State University



This section contains agricultural data for Garu-Tempone including production by commodity (MT/ha), yields (MT/ha) and average land size.

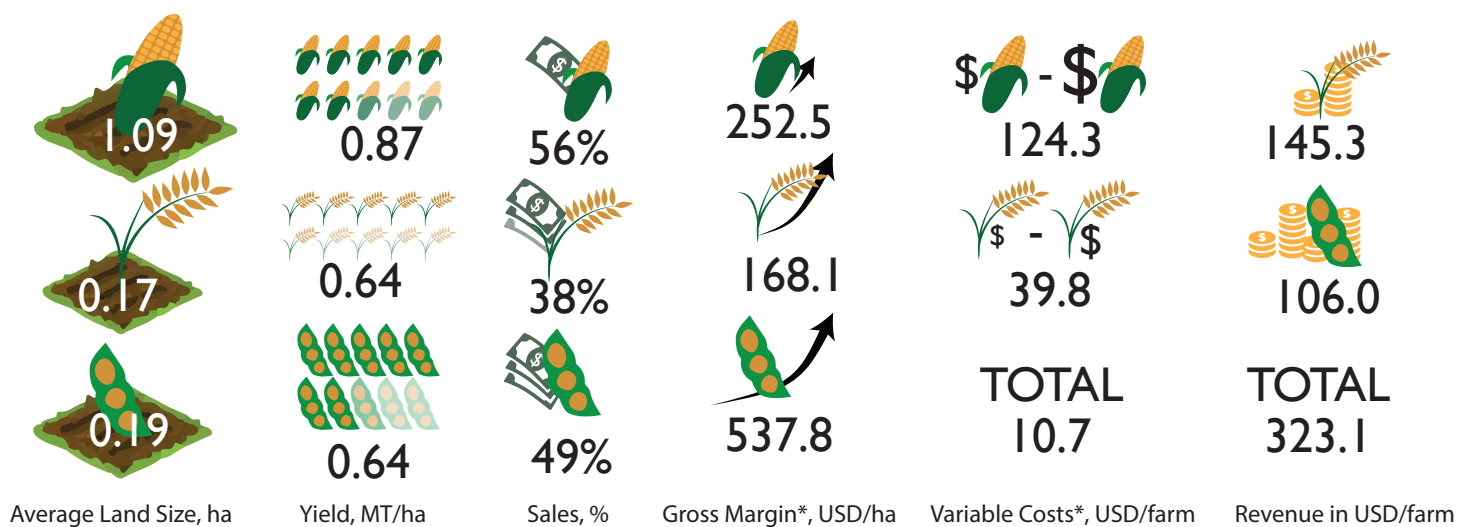
Table 2: Agricultural Production and Yields by commodity in MT and MT/ha, 2010-2015, Garu-Tempone

Commodity	2015	2014	2013	2012	2011	2010	Total
Cowpea	3,645	3,713	2,952	3,640	2,860	2,950	19,760
Groundnut	3,241	3,600	3,652	3,960	2,048	6,980	23,481
Maize	14,545	14,280	16,800	14,280	10,950	9,056	79,911
Millet	5,523	5,512	5,908	6,120	4,890	2,940	30,893
Rice	12,064	10,901	11,464	9,760	6,076	10,152	60,417
Sorghum	4,036	4,448	4,279	4,182	7,410	6,688	31,043
Soybean	989	1,056	1,135	938	1,216		5,334
Sweet Potato		3,995	5,736	5,704	4,080		19,515
Yields in MT/Ha	2015	2014	2013	2012	2011	2010	
Cowpea	0.74	0.75	0.65	0.80	0.52	0.50	
Groundnut	0.53	0.60	0.56	0.60	0.35	1.00	
Maize	1.43	1.40	1.60	1.40	1.50	1.60	
Millet	0.80	0.80	0.85	0.90	0.64	0.49	
Rice	2.41	2.27	2.33	2.00	1.40	2.60	
Sorghum	0.58	0.64	0.62	0.60	0.95	0.76	
Soybean	0.60	0.64	0.74	0.70	0.64	0.80	
Sweet Potato		9.40	11.03	12.40	8.50	9.00	

Source: Agriculture Report 2011, 2012, 2013, 2014, MOFA

Table 2 above provides detailed information on specific commodities in respect of the overall production output in Garu-Tempone, as well as the average yields for the period 2010-2015. The infographic below shows a summary of agricultural statistics including average land size per farm, yields, variable costs per hectare and commodity, as well as farm revenue. Please note that Agriculture Production Survey 2016 is underway and this dataset will be re-viewed very soon.

Infographic 2: Average Land size, Yields, Sales and other Farm indicators in Garu-Tempone, 2013



Source: Agriculture Production Survey, Kansas State University, 2013 *Gross margin, variable cost and farm revenue captured from the APS in infographic 2 have been converted to USD using 2012 exchange rates (1.88 GHC to \$1 USD) to align with the 'farmer recall' survey methodology deployed.

All data and information including full citations can be accessed at www.ghanalinks.org



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AGRICULTURAL DATA

This section focuses on the Women Empowerment in Agriculture Index results for Garu-Tempne

What is the Women Empowerment in Agriculture Index?

Women play a prominent role in agriculture. Yet they face persistent economic and social constraints. Women's empowerment is a main focus of Feed the Future in order to achieve its objectives of inclusive agriculture sector growth and improved nutritional status. The WEAI is comprised of two weighted sub-indexes: Domains Empowerment Index (5DE) and Gender Parity Index (GPI). The 5DE examines the five domains of empowerment: production, resources, income, leadership and time. The GPI compares the empowerment of women to the empowerment of their male counterpart in the household. This section presents the results from these empowerment indicators of the 5DE for Garu-Tempne, part of a bigger survey conducted by Kansas State University.

The Domains: What Do They Represent?

The Production domain assesses the ability of individuals to provide input and autonomously make decisions about agricultural production. The Resources domain reflects individuals' control over and access to productive resources. The Income domain monitors individuals' ability to direct the financial resources derived from agricultural production or other sources. The Leadership domain reflects individuals' social capital and comfort speaking in public within their community. The Time domain reflects individuals' workload and satisfaction with leisure time.

Garu-Tempne Results

The results of both male and female respondents on the four domains are displayed in Figure 4.

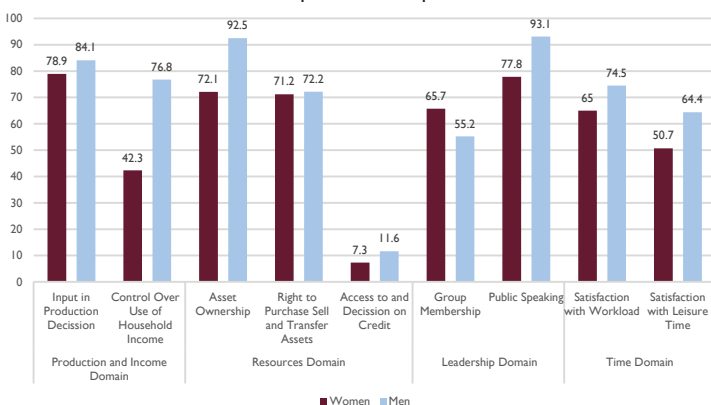
Production Domain: women feel comfortable with providing input related to production decisions as indicated by 78.9% of the women of the survey sample. However, they have much less control over the use of household income than men – 42.3% of women vs 76.8% of the male respondents. This is the lowest value recorded in the Upper East Region.

Resource Domain: A good majority of the women have a right to asset ownership and to purchase and move assets – 72.1% and 71.2% respectively. Only 7.3% of the women have the right to decide or have access to credit, compared to 11.6% of the male respondents. Nonetheless, access to credit is almost equally low for both genders.

Leadership Domain: 65.7% and 77.8% of the women interviewed have the right to group membership and public speaking respectively. The value for group membership is again the lowest recorded in the Upper East Region.

Time Domain: A majority of women and men in Garu-Tempne are satisfied with the workload in their everyday life – 65% and 74.5% respectively. The values decrease with respect to satisfaction with leisure time; 50.7% of women and 64.4% of men are satisfied with the amount of leisure time at their disposal.

Figure 4: Results of Domains of Empowerment of WEAI Index for Garu-Tempne, 2015, in percent



{ Adequacy & Differences }

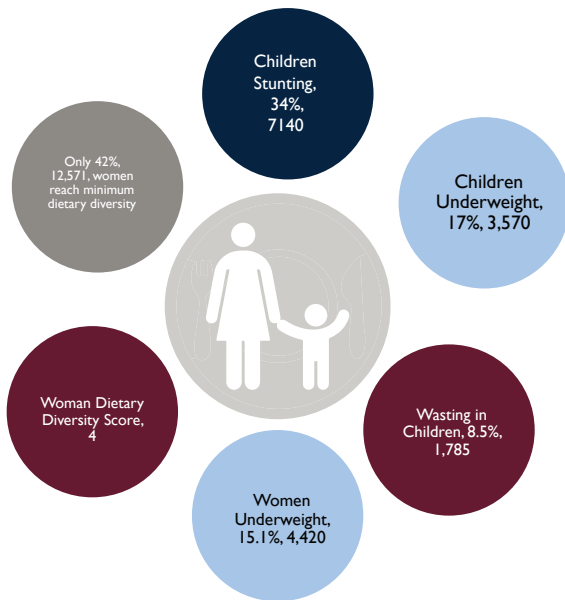
Highest differences between male and female respondents observed with production domain: the control over use of household income, resources domain: asset ownership and in the leadership domain: public speaking.

Adequacy: Together, men and women achieve adequacy in all indicators but control over use of hh income, access to and decision on credit, group membership and satisfaction with workload and leisure time. In addition men achieve adequacy in input in production decision, asset ownership, public speaking, while women do not.

All data and information including full citations can be accessed at www.ghanalinks.org



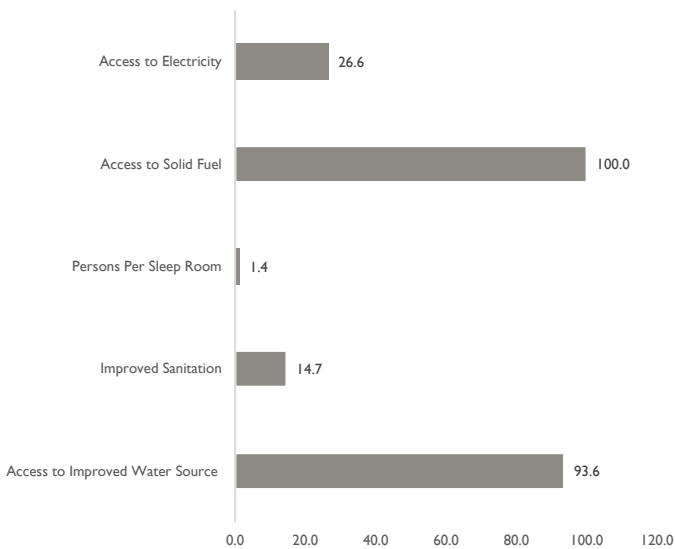
Infograph 3: Health and Nutrition Figures, Garu-Tempene, 2015



Sources: PBS 2015, Kansas State University, 2015

Infograph 3 focuses on the health and nutrition of women and children in the district. Percentages and absolute numbers are revealed in the respective circles for stunting, wasting, children and women underweight as well as Women Dietary Diversity: The WDDS is based on nine food groups. A woman's score is based on the sum of different food groups consumed in the 24 hours prior to the interview. Women Minimum Dietary Diversity (MDD-W) represents the proportion of women consuming a minimum of five food groups out of the possible ten food groups based on their dietary intake. The Dietary diversity score of women in Garu-Tempene is 4, which means that women consume on average 4 types of food out of 10. This is the highest score achieved in the Upper East Region. Around half of women (42%) reach the minimum dietary diversity of 5 food groups. Garu-Tempene has the highest rate of stunting in children in the Upper East Region.

Figure 5: Household Dwelling Characteristics, Garu-Tempene, 2015



Sources: PBS 2015, Kansas State University, 2015

Figure 5 displays specifics of household dwelling, evaluated based on sources of water, energy, waste disposal, cooking fuel source, and the number of people per sleep room as measured from the PBS Survey, 2015.



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PRESENCE VS. IMPACT MATRIX

This section provides an analysis of USAID presence vis-a-vis impact indicators in Garu-Tempene

Presence vs. Impact reveals in more detail the presence of the Feed the Future Implementing Partners in the field, in combination with impact indicators measured by the Population Based Survey in 2012 and 2015: per capita expenditure & prevalence of poverty. This combination aims to show relevance of the presence of key indicators measuring progress/regress in the area. The following graphs are a print screen of the Presence vs. Impact Dashboard focusing on Garu-Tempene.

Both key impact indicators, 'prevalence of poverty' and 'per capita expenditure', have improved. See Figure 6 and 8. In 2015, poverty decreased by 34.7 percentage points to 23.1% compared to 2012, leaving the population of the poor at 32,852 persons. In addition, the 2015 per capita expenditure increased by 41 percent to 3.95 USD. This is accompanied by a below average USAID presence score of 1.4 out of 4. Therefore, the district is flagged YELLOW (below satisfactory presence and improving impact indicators).

Garu-Tempene is a typical district in which clear signs of improvement have been observed amid little intervention from USAID. That said, the GOG or other donors interventions have not been captured in the calculation. Further thought should therefore go into identifying specific interventions that would give a further push to the existing development pace in Garu-Tempene and help to change the district flag from yellow to green.

USAID District Presence Score

- 0** NO USAID DISTRICT PRESENCE
- 0.1 - 1** LOW USAID DISTRICT PRESENCE
- 1.1 - 1.9** BELOW AVERAGE USAID DISTRICT PRESENCE
- 2** AVERAGE USAID DISTRICT PRESENCE
- 2.1 - 3** ABOVE AVERAGE USAID DISTRICT PRESENCE
- 3.1 - 4** HIGH USAID DISTRICT PRESENCE

USAID District Presence Vs. Impact Flag

- BELOW AVERAGE USAID DISTRICT PRESENCE AND CONTRADICTIONING IMPACT INDICATORS
- ABOVE AVERAGE USAID DISTRICT PRESENCE AND CONTRADICTIONING IMPACT INDICATORS
- BELOW AVERAGE USAID DISTRICT PRESENCE AND REGRESSING IMPACT INDICATORS
- ABOVE AVERAGE USAID DISTRICT PRESENCE AND IMPROVING IMPACT INDICATORS
- BELOW AVERAGE USAID DISTRICT PRESENCE AND IMPROVING IMPACT INDICATORS
- ABOVE AVERAGE USAID DISTRICT PRESENCE AND REGRESSING IMPACT INDICATORS

Figure 6: Poverty in % and Poverty Change in percentage points, 2012,2015, Garu-Tempene

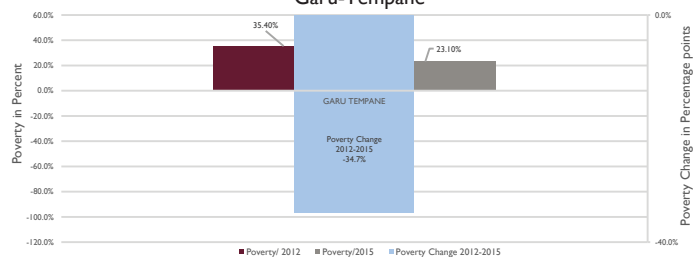


Figure 7: Population of Poor, Non - Poor Garu-Tempene, 2015

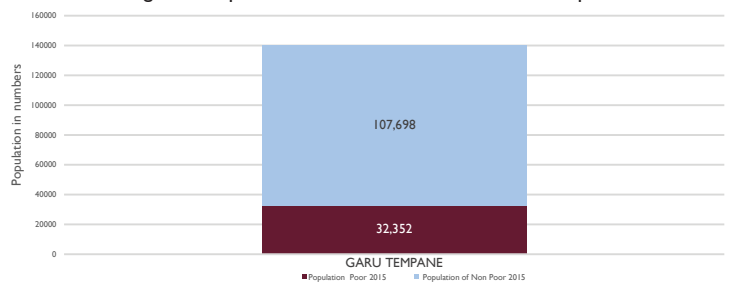
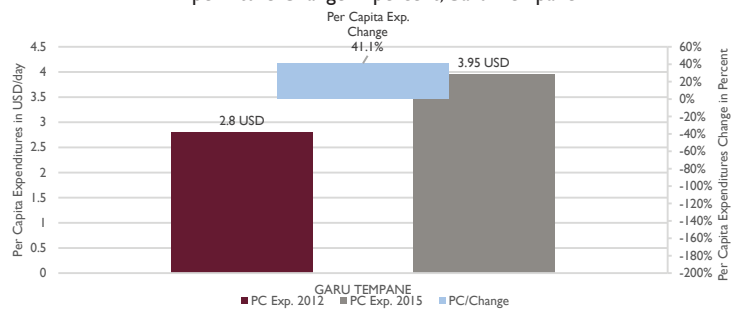


Figure 8: Per Capita Expenditure in 2012 and 2015, in USD/day; Per Capita Expenditure Change in percent, Garu-Tempene



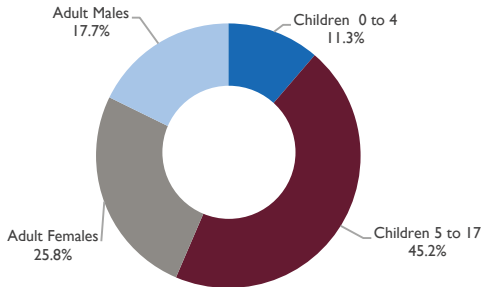
Source: Figure 9,10,11 Population based Survey, 2012,2015, Kansas State University, METSS, USAID Project Reporting 2014,2015

All data and information including full citations can be accessed at www.ghanalinks.org



This section contains facts and figures related to Garu-Tempene demographics, religious affiliation, literacy and weather indicators

Figure 9: Household Composition by groupage, Garu-Tempene, 2015, in %



Source: PBS 2015, Kansas State University

Garu-Tempene has a total population of 140,050 out of which 66,818 are males and 73,232 females with an average household size of 6.2 persons. The total surface area of the district is 1,060.91 square kilometers.

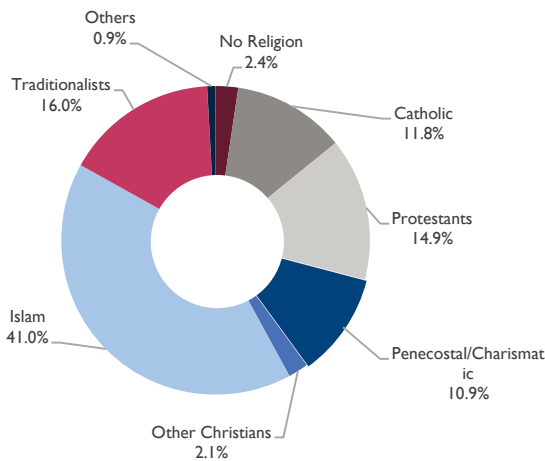
The District lies in the tropical continental climacteric zone. Average precipitation and temperature are similar to the other districts in the Upper East Region. Figure 12 shows the average maximal and minimal temperatures as well as yearly average precipitation.

Garu-Tempene, like many other districts in the Upper East Region has a relatively young population as shown in Figure 9, with more than 50% of the population falling in the age range: 0 to 17 years old.

In terms of religious affiliation, the majority of the population are Muslims (41%) followed by Christians, who account for 38.6% of the population and traditionalists (16%). For more details refer to Figure 10.

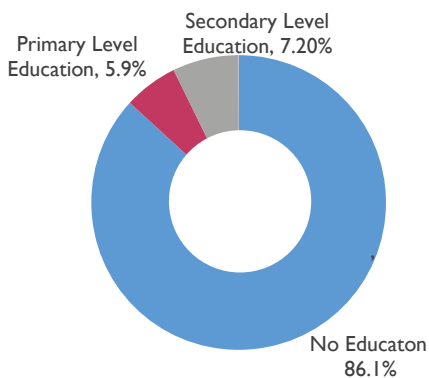
The district accounts for a high adult illiteracy rate with 86.1% of adults having received no education. This is the highest percentage reported in the Upper East region. 5.9% went through primary school only while 7.2% made it further to secondary school.

Figure 10: Religious Affiliation in Garu-Tempene, 2010



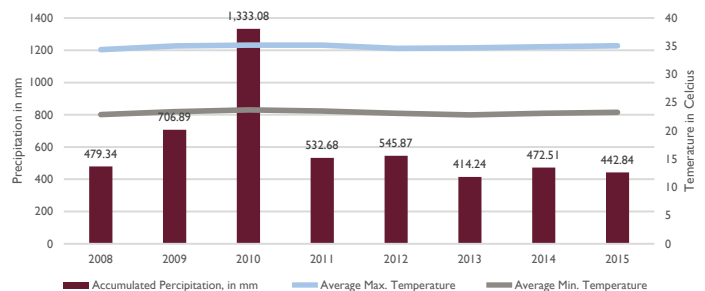
Source: Garu Tempene District Analytical Report, GSS, 2014

Figure 11: Education Attainment in Garu-Tempene, 2015, in %



Source: PBS 2015, Kansas State University

Figure 12: Average Precipitation in mm and Average Temperatures in Garu-Tempene, 2008-2015



Source: awhere Weather Platform, AWhere, 2016



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DISCUSSION QUESTIONS

This section contains discussion questions and potential research topics as a result of the data and analysis presented on Garu-Tempene

QUESTION 1

Why are the beneficiaries average rice gross margin and yields lower than the district average?

QUESTION 2

What other agricultural or nutrition focused development partner or GoG interventions have previously been implemented, are ongoing, and/or are in the pipeline that may impact Garu-Tempene development?

QUESTION 3

Given Garu-Tempene's agricultural production, health and sanitation figures, as well as results from the presence vs impact matrix, where should USAID development work focus on in the next two years? What future development assistance would be helpful for this district?

The Feed the Future Ghana District Profile Series is produced for the USAID Office of Economic Growth in Ghana by the Monitoring, Evaluation and Technical Support Services (METSS) Project. The METSS Project is implemented through:



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