

# NANUMBA SOUTH

Feed the Future Ghana District Profile Series - February 2017(Revised Nov. 2017) - Issue 1

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Daily per capita expenditure 7.46 USD

by the Population Based Survey in 2015.

Nanumba South is a district in Ghana's Northern Region.

The total land area of the district is 1,789.2 Km Square. The district shares boundaries with Zabzugu Tatale

district and the republic of Togo to the east, East Gonja

to the west, Nkwanta district of the Volta region to the south-east, Nanumba North district to the north and

finally Kpandai district to the south-west. The district has

a total population of 105, 231, out of which 52,566 are females and 52,665 males. The district has an average

household size of 5.9 per-sons. The boxes below reveal

the level of important develop-ment indicators measured

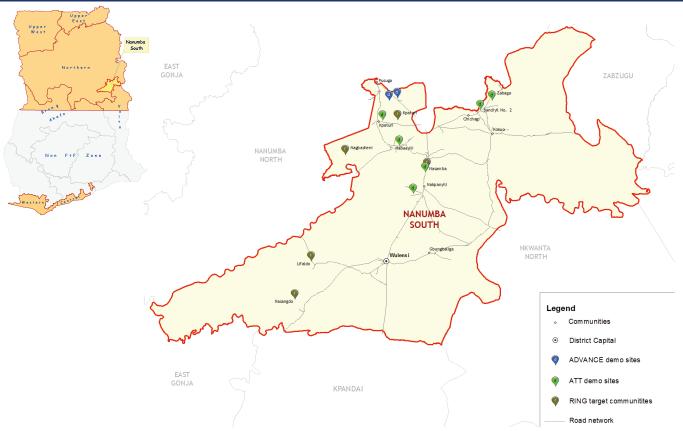
Household Size 5.9 members

Total Population of the Poor 7,892

Poverty Prevalence 7.5%

Households with moderate or severe hunger 27.8%

Poverty Depth 3.1%







## **USAID PROJECT DATA**

This section contains data and information related to USAID sponsored interventions in Nanumba South

Table I: Project Collected Info in Nanumba South, 2014-2016

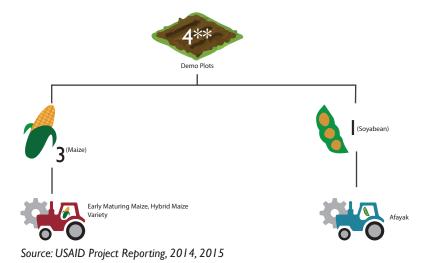
Beneficiareis Data	2014	2015	2016
Direct Beneficiaries	746	1755	2390
Male	0	363	426
Female	746	1,392	1,964
Undefined	0	-	-
Nucleus Farmers	0	-	n/a
Male	0	-	
Female	0	-	
Undefined			
Demoplots	0	4	n/a
Male	0	3	
Female	0	1	
Undefined			
Production			
Maize Gross Margin USD/ha	n/a	n/a	n/a
Maize Yield MT/ha	n/a	n/a	n/a
Soya Gross Margin USD/ha	n/a	n/a	n/a
Soya Yield MT/ha	n/a	n/a	n/a
Investments and Impact			
Ag. Rural Ioans	-	-	-
Beneficiaries Score	I	2	2
USAID Projects Present		3	3
Presence Score Cumulative		1.4	
District Flag		Yellow	

Source: USAID Project Reporting, 2014 - 2016

The low number of beneficiaries\* in 2014 doubled in 2015, which further increased in 2016. This was accompanied by only 4 demonstration plots established to support beneficiary training. There is no record of agricultural loans supported through USAID intervention. Nanumba South is another district that registered a large number of female beneficiaries. For more details refer to Table 1. The presence of USAID development work is relatively low as compared to other districts. This resulted in a low USAID presence score\*\* of 1.4 out of 4 during the period between 2014-2016. When combining progress/regress of impact indicators with the presence score, the district is flagged Yellow\*\*\* indicating that the impact indicators have improved regardless of the low USAID presence. Find more details of USAID Presence v. Impact scoring on page

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

Infographic 1: Demo Plots in Nanumba South, 2014-2015



<sup>\*&</sup>quot;Direct Beneficiary, an individual who comes in direct contact with a set of interventions" FTF Handbook, 2016, \*\* and \*\*\*See page 7 for more details on presence score ranges and district flag ranges explanation. Beneficiaries Score is calculated in a similar way to the presence score and focuses only on direct beneficiaries.



#### **AGRICULTURAL DATA**

This section contains agricultural data for Nanumba South such as production by commodity, gross margins and yields.

Agricultural production in Nanumba South is largely focused on Cassava and Yam, which represent the major staple foods grown by farmers and constitute 91 percent of the overall agricultural production. Other commodities produced during the period between 2010-2015 include groundnuts, maize, sorghum, rice and millet, represented by much lower shares, see Figure 1.

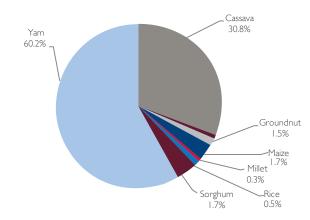
In terms of agricultural production, Nanumba South is ranked third among the districts in the Northern Region, accounting for 11 percent of the overall production during 2010-2015.

There is no average gross margin calculations from USAID Project Reporting (2015) while gross margins from the Agriculture Production Survey (KState, APS 2013) for maize, rice and soybean are valued at 188.06 USD/ha, 316.4 USD/ha and 21.02 USD/ha respectively.

Figure 2 contains yield values from two (2) sources: MOFA and APS for the period 2013-2015 for three commodities: maize, rice and soybean. The District averages reported by MOFA in 2013 are higher than the yields reported by the 2013 Agriculture Production Survey (APS) for maize and rice.

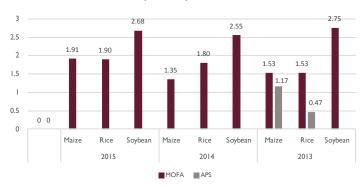
Figure 3 below focuses on the sources of income in the district. It shows that the majority of household income in Nanumba South is generated from the agricultural sector, particularly farming. Almost 90 percent of the income comes from the sale of crops.

Figure 1: Nanumba South: Share of ag. production by commodity, 2011-2014



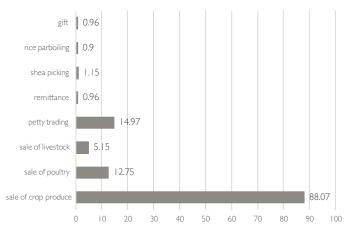
Source: Agriculture Production Reports 2010- 2015, MOFA

Figure 2: Yields of maize, rice and soybean, 2013-2015, in MT/ha, Nanumba South



Source: Agriculture Report 2013-2015, MOFA Production Data, Agriculture Production Survey, K-State, 2013

Figure 3: Income Source in Nanumba South, 2015, in %



Source: Ring & Spring Survey, 2015 USAID METSS Project



#### **AGRICULTURAL DATA**

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

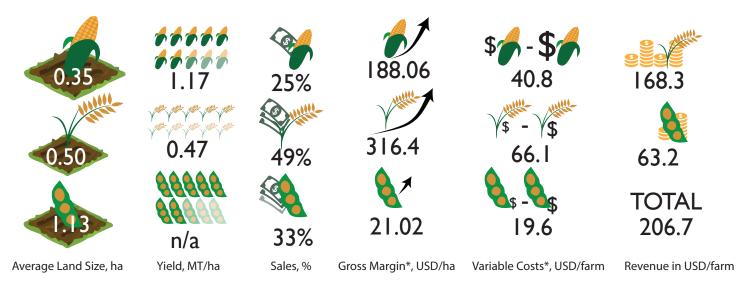
Table 2: Agricultural Production and yields in Nanumba South during 2010-2015, in MT and MT/ha

Production in MT							
Commodity	2015	2014	2013	2012	2011	2010	Total
Cassava	157,195	148,637	176,788	116,610	115,200	80,700	-
Cowpea	1,342	2,233	2,201	2,851	3,069	2,295	-
Groundnut	6,516	6,532	5,930	7,018	6,973	6,855	-
Maize	7,208	6,735	7,125	7,450	6,450	7,984	12,075
Millet	1,127	1,094	1,224	1,450	1,450	1,374	795,129
Rice	2,650	2,457	1,913	1,833	1,878	1,909	13,991
Sorghum	4,519	5,121	5,637	9,124	9,960	8,413	39,824
Soybean	11,859	11,312	12,551	13,028	13,662	10,363	42,952
Yam	292,757	284,091	328,321	244,074	244,416	159,007	7,720
Yields MT/ha	2015	2014	2013	2012	2011	2010	
Cassava	21.15	20.00	22.14	19.50	18.00	13.45	
Cowpea	1.62	1.57	1.64	1.79	1.86	1.53	
Groundnut	1.64	1.65	1.40	1.45	1.49	1.50	
Maize	1.91	1.35	1.53	1.67	1.50	1.91	
Millet	1.24	1.20	1.44	1.48	1.45	1.51	
Rice	1.90	1.80	1.53	1.54	1.43	1.89	
Sorghum	1.52	1.74	1.96	2.34	3.32	3.15	
Soybean	2.68	2.55	2.75	2.80	2.74	2.54	
Yam	22.86	22.25	23.48	19.00	18.24	12.68	

Source: Agriculture Report 2010, 2011, 2012, 2013, 2014, 2015 MOFA

Table 2 above provides detailed information on specific commodities in regard to overall production in Nanumba South as well as the average yields for the years 2010-2015. The infographic below shows a summary of agricultural statistics for Nanumba South. The first bar indicates the relatively small farm size by commodity with an average farm plots of 0.35 and 0.50 respectively for maize and rice. Other agricultural data associated with Nanumba South, in-cluding variable costs per hectare and commodity, as well as farm revenue can also be seen below in infographic 2.

Infographic 2: Average Land size, Yields, Sales and other Farm indicators in Nanumba South, 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.



#### **AGRICULTURAL DATA**

This section contains information on domains of empowerment of the Women Empowerment in Agriculture Index (WEAI) for Nanumba South

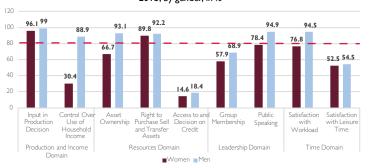
# What is the Women Empowerment in Agriculture Index?

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 index is a summation of the level of achievement in ten indicators grouped into five domains: 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 Nanumba South, 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.





#### Nanumba South WEAI Results

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

**Production Domain:** women feel comfortable with providing input related to production decisions as indicated by 96.1% of the women of the survey sample. However, they have much less control over the use of household income than men - 30.4% of women versus 88.9% of the male respondents.

**Resource Domain:** a majority of the women have a right to asset ownership and to purchase and move assets, 66.7% and 89.8% respectively; these figures are lower than the figures of the male respondents. Only 14.6 % of the women have the right to decide or have access to credit, followed by 18.4% of the male respondents. Nonetheless, access to credit is almost equally low for both genders.

**Leadership Domain:** Nanumba South holds a high percentage of women involved in public speaking, or speaking freely in public in the Northern Region- indicated by 78.4% of the women interviewed. However, only a very thin majority, 57.9% of them scored adequacy in the right to group membership as opposed to 68.9% of the male respondents.

**Time Domain:** The majority of women and men in Nanumba South are satisfied with the workload in their everyday life, 76.8% and 94.5% respectively. The percentages, however, dropped with respect to satisfaction with leisure time; slightly more than half of the women and men interviewed are happy with this aspect.

# Adequacy & Differences

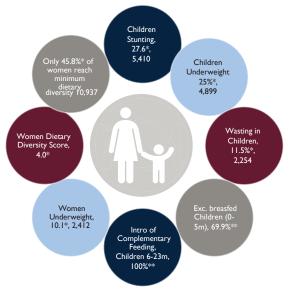
Together men and women obtained an adequacy score (80% and above) in all indicators except for Access to and Decision on credit, Group membership and Satisfaction with leisure time. In addition, while men obtained adequacy in control over use of household income and asset ownership, public speaking, satisfaction with workload, women did not. The highest difference between male and female respondents was observed with the production domain: the control over use of household income and in the resources domain: the right to asset ownership.



#### **HEALTH, NUTRITION AND SANITATION**

This section contains facts and figures related to Health, Nutrition and Sanitation in Nanumba South

Infograph 3: Health and Nutrition Figures, Nanumba South, 2015



Sources: \* from PBS 2015, Kansas State University, \*\* from Ring & Spring Survey, 2015

Figure 5: Access to Water and Sanitation in Nanumba South, 2015, in %

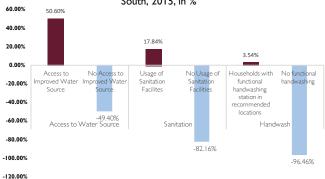
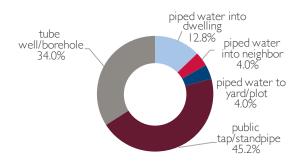


Figure 6: Types of Improved Water Source, Nanumba South, 2015



Sources: Figure 5:from PBS 2015, Kansas State University, Figure 6,7,8 from Ring 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 in children, women and children underweight, Women Dietary Diversity and some other indicators. The Dietary diversity score of women in Nanumba South is 4.0, which means that women consume on average 4 types of foods out of 10. Almost half of the women (45.8%) reach the minimum dietary diversity of 5 food groups.

Figure 7 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. Figure 6 covers access to improved water source, sanitation and hand washing facilities as measured by the Ring & Spring Survey in 2015. When both surveys are combined, access to improved water source ranges between 50.6% and 72.9%, while access to sanitation facilities is between 6.8% and 17.8%. A vast majority, 956.%, also lack functioning hand-wash facilities in the household. Further details are provided in Figures 5 and 8.

Figure 7: Household Dwelling Characteristics, Nanumba South 2015

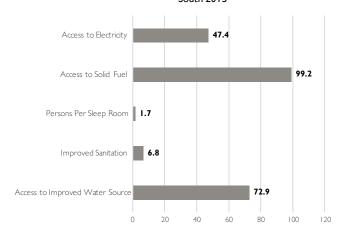
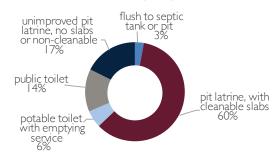


Figure 8: Types of improved sanitation, Nanumba South, 2015, in %





#### PRESENCE VS. IMPACT MATRIX

This section provides an analysis of USAID presence vis-a-vis impact indicators in Nanumba South

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 Nanumba South .Values of both key impact indicators, 'prevalence of poverty' and 'per capita expenditure' have improved, as observed in Figures 14 and 16. In 2015 poverty dropped by 2.6 percentage points to 7.5% compared to the 2012 value. In addition, the 2015 per capita expenditure increased by 42.6 percent to 7.46 USD. The district thus has one of the highest per capita expenditure in the Northern Region .The Nanumba South population calculated to be living under the \$1.25/day per person poverty line is 7,892. This progress is interestingly accompanied by a relatively low USAID presence score of 1.4, with the highest score possible being 4. This combination signifies characteristics of a YELLOW district, one that is progressing well with relatively few USAID resources. That said, the presence of other development partners and GOG interventions have not been taken into account. Taking Nanumba South as an example, we can say that development should be addressed differently in districts that are more aggressive in their development (yellow districts) and are progressing mostly on their own means.

#### **USAID District Presence Score**



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



ABOVE AVERAGE USAID DISTRICT PRESENCE AND CONTRADICTING 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 9: Poverty in % and Poverty Change in percentage points, 2012,2015, Nanumba South

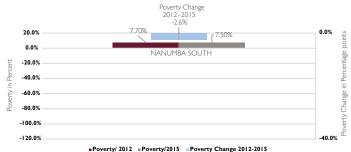


Figure 10: Population of Poor, Non - Poor Nanumba South, 2015

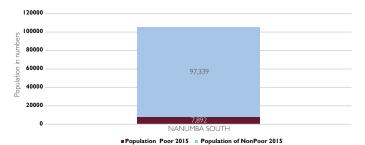
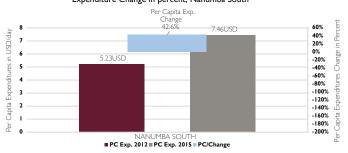


Figure 11: Per Capita Expenditure in 2012 and 2015, in USD/day; Per Capita Expenditure Change in percent, Nanumba South



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



#### **DEMOGRAPHICS & WEATHER**

This section contains facts and figures related to Nanumba South demographics, religious affiliation, literacy and weather indicators

Figure 12: Household Composition by groupage, Nanumba South 2015 Nanumba South has a total population of 105, 231, out of Children 0 to 4 which 52,566 are females and 52,655 males with an ave-19%

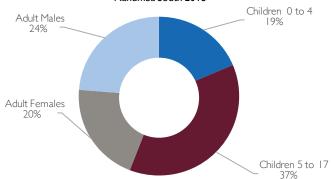
> Nanumba South lies in the tropical continental climatic zone and experiences average annual precipitation relative to other districts in the Northern Region, see Figure I5.

age household size of 5.9 persons.

In terms of religious affiliation, majority of the population are traditionalists (47.8%) followed by Muslims (27.2%), Christians (21%) and people with no religion (5%) as shown in Figure 13.

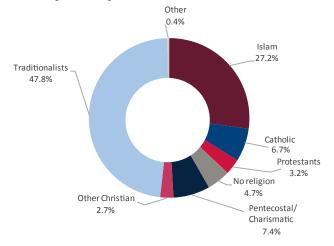
The district accounts for a young population as 56% of the household members are aged between 0 and 17 years, as Figure 13 shows.

Nanumba South just as the rest of the other districts in the Northern Region accounts for a very low level of adult educational attainment as shown in figure 14. A vast majority of the adults, 88%, have received no education, while only 3% went through primary schools and only 6.9% of the sample through secondary school.



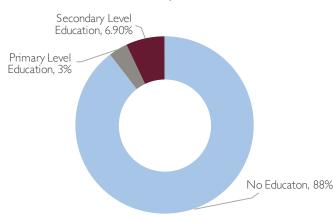
Source: PBS 2015, Kansas State University, 2015

Figure 13: Religious Affiliation, Nanumba South, 2010



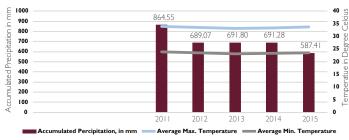
Source: Nanumba South District Analytical Report, GSS, 2014

Figure 14: Adult Education Attainment in Nanumba South, 2015



Source: Figure 12,14, PBS 2015, Kansas State University

Figure 15: Average Cummulated Precipitation in mm and Temperature in Celcius Degree, Nanumba South, 2008-2015



Source: awhere Weather Platform, AWhere, 2016



## **DISCUSSION QUESTIONS**

This section contains discussion questions and potential research topics as a result of the data and analysis presented on Nanumba South

#### **QUESTION I**

What are the conditions that contributed to the large share to overall agricultural production in Nanumba South as compared to other districts in the Northern Region. Are the conditions climacteric or cultural? Has any research been conducted on this?

#### QUESTION 2

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

#### **QUESTION 3**

Why are the quantities of rice, maize and soybean produced in Nanumba South so low compared to cassava and yam? Is there a link to nutrition patterns or production related challenges? Do farmers grow more yam and cassava for economic reasons or simply because the soil and weather conditions allow it?

#### **QUESTION 4**

What other agricultural or nutrition focused development partners or GoG interventions have previously been implemented, are ongoing, and/or are in the pipeline that may impact Nanumba South's development?

#### **QUESTION 5**

Why is the per capita expenditure, at 7.46, so high as compared to the many other districts in the Region?

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