FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

NANUMBA NORTH

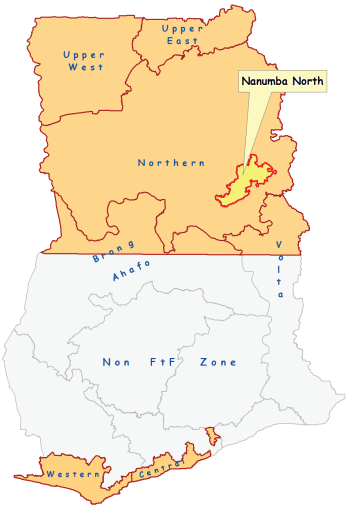
Feed the Future Ghana District Profile Series - February 2017(Revised Nov. 2017) - Issue 1

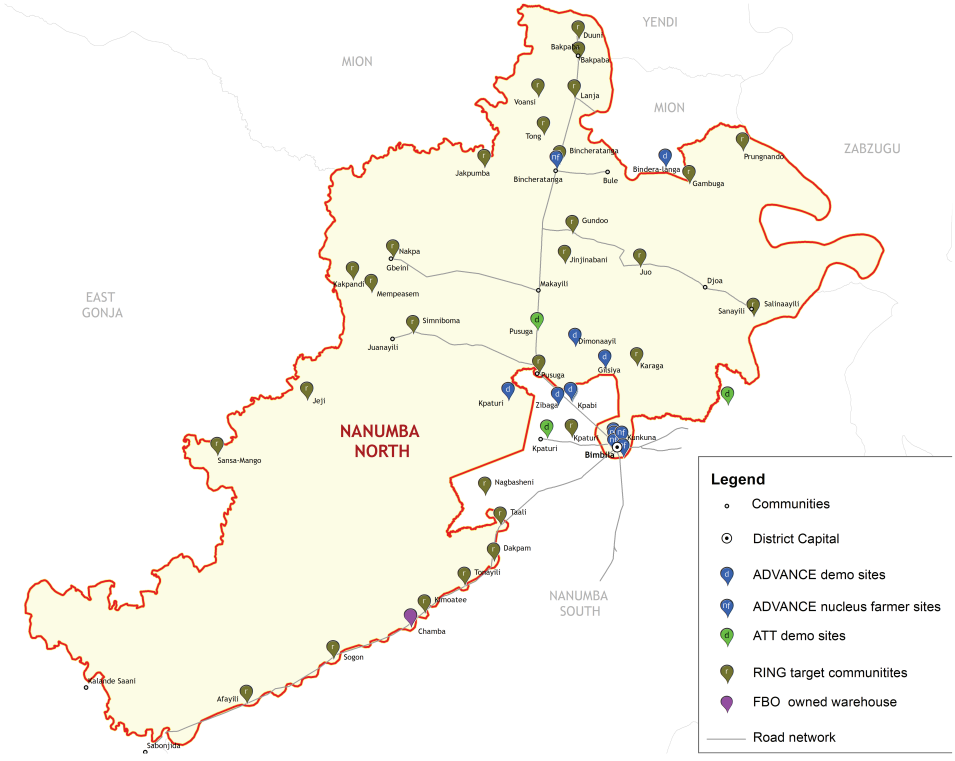
DISTRICT PROFILE CONTENT

Nanumba North is a district in Ghana's Northern Region. It is bordered in the north by Mion, Yendi and Zabzugu, in the West by East Gonja and South and South East by Nanumba South. The total surface area of the district is 2,260 square kilometers.

The district has a total population of 157, 859 (projected from GSS 2010 Population and Housing Census) of which 79,816 are females and 78,043 are males with an average household size of 6.9 persons. The prevalence of poverty in Nanumba North is 9.4% and the average daily per capita expenditure is US $4.7.

Poverty Prevalence: 9.4%	Daily per capita expenditure: 4.7 USD
Households with moderate or severe hunger: 19.9%	Household Size: 6.9
Poverty Depth: 2.7%	Total Population of the Poor: 14,839





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USAID PROJECT DATA

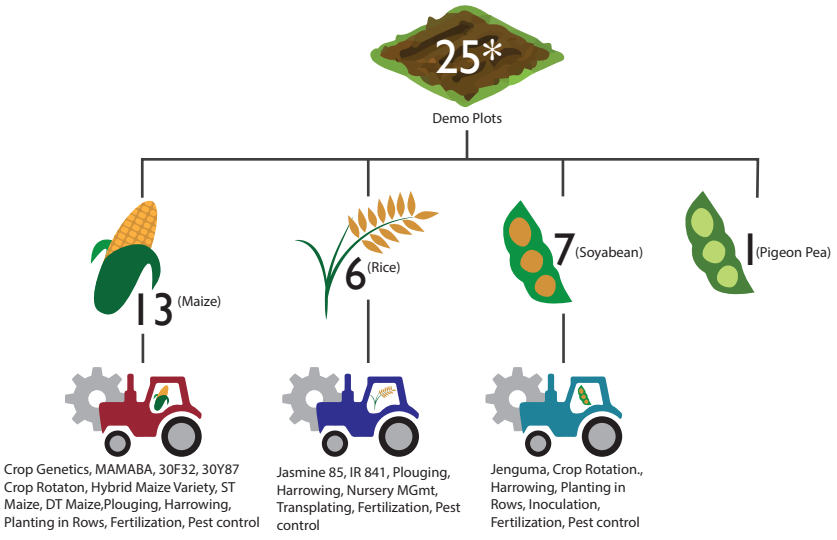
This section contains data and information related to USAID sponsored interventions in Nanumba North

Table 1: USAID Projects Info, Nanumba North, 2014-2016

Beneficiaries Data	2014	2015	2016
Direct Beneficiaries	941	2,103	5,335
Male	406	1,111	2,136
Female	343	992	3,199
Undefined	192	0	0
Nucleus Farmers	8	9	n/a
Male	7	9	
Female	-	-	
Undefined	1		
Demoplots	12	13	n/a
Male	9	4	
Female			
Undefined	3	9	
Production			
Maize Gross Margin USD/ha	n/a	594.3	n/a
Maize Yield MT/ha	n/a	3.21	n/a
Soya Gross Margin USD/ha	n/a	439.0	n/a
Soya Yield MT/ha	n/a	1.55	n/a
Investment and Impact			
Ag. Rural loans	-	-	-
Beneficiaries Score	2	2	3
USAID Projects Present		3	
Presence Score 2014-2016		2.1	
District Flag 2014-2016			Green

Source:: USAID Project Reporting, 2014 - 2016

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



Source: USAID Project Reporting, 2014, 2015

The number of direct USAID beneficiaries doubled from 2014 to 2015. It more than doubled again from 2015 to 2016. Thirteen nucleus farmers are currently operating in the district and 25 demonstration plots have been established to support beneficiary training. See Infographic 1 for the demonstration plot disaggregate. In addition, the yields and gross margins of USAID direct beneficiaries have increased and are above district averages, see Table 1. The presence of USAID development work is average as compared to other districts. This results in a decent USAID presence score of ** (2.1). The district is therefore flagged GREEN*** indicating that the impact indicators have increased in an area with satisfactory USAID project presence. Find more details on USAID Presence v. Impact scoring on page 7.

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

* "Direct Beneficiary, an individual who comes in direct contact with a set of interventions" FTF Handbook, 2016 , ***See page 6 for more detail, **** ATT, ADVANCE and RING, *****Please note that the number of demo plots is smaller than the sum of separate plots by crop because crop rotation in the same demo

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

AGRICULTURAL DATA

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

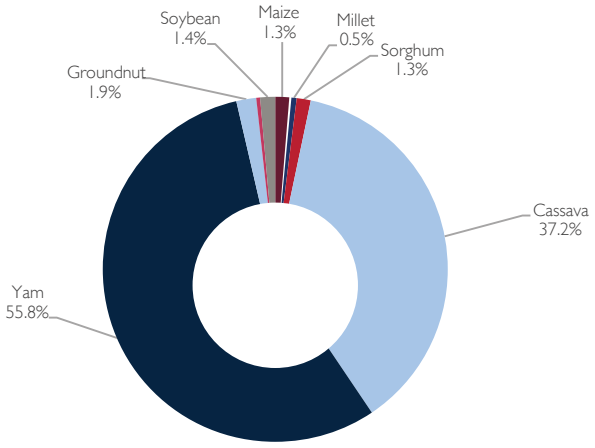
Agricultural production in Nanumba North is largely focused on Cassava and Yam, which represent the major staple foods grown by farmers and constitute 90 percent of the overall agricultural production. Other commodities produced include groundnuts, maize, sorghum and rice, see Figure 1.

The average gross margin calculations were obtained from USAID Project Reporting (2015) and the Agriculture Production Survey (K-State, APS 2013), see Figure 2. It is clear that USAID direct beneficiaries obtained considerably higher gross margins than the 2013 average. Figure 2 shows that gross margins for Soybeans were almost double the district average. For maize, gross margins were astonishingly 12 times the district average.

Yield data, presented in Figure 3, contains values from direct USAID beneficiaries, the 2013 APS and MoFA Production Surveys. Similar to gross margins, yields of maize for USAID direct beneficiaries are more than double the district averages reported by MOFA in 2014 and 12 times higher than the yields reported by the 2013 Agriculture Production Survey. Conversely, soybean yields reported by MOFA are slightly higher than that of direct USAID beneficiaries.

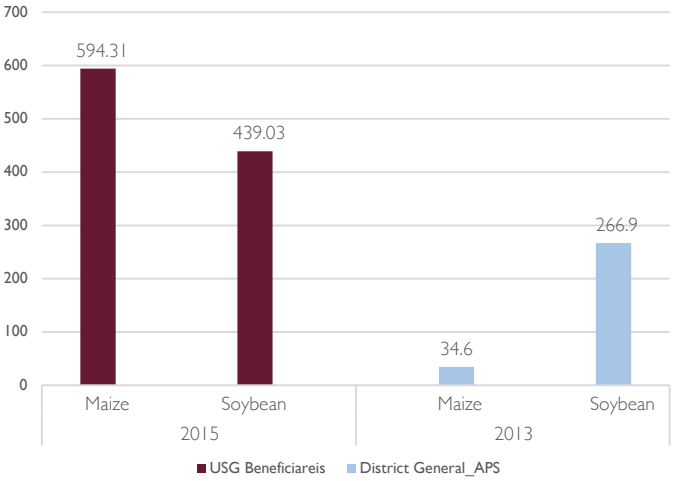
Figure 4 below shows that the majority of household incomes in Nanumba North comes from the agricultural sector, particularly farming with a chunk-almost 80%- of the income generated from the sale of crops/produce.

Figure 1: Nanumba North: Share of ag. production by comodity, 2011 - 2017



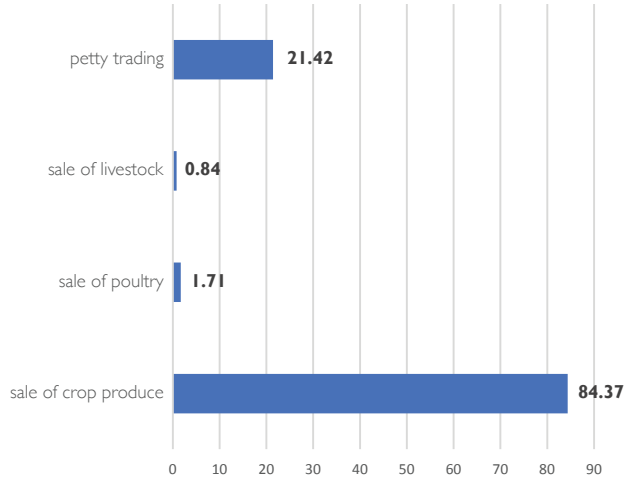
Source: Agriculture Production Reports 2010 - 2015, MOFA

Figure 2: Average Gross Margin of USAID beneficaries and district general, 2013 -2015, in USD



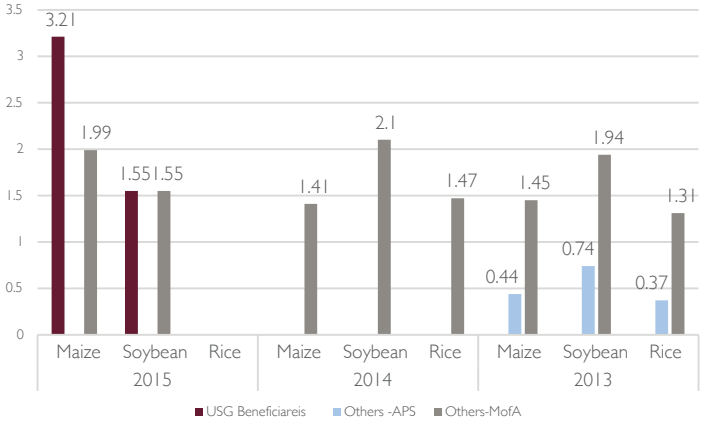
Source: Agriculture Report 2013-2015, Agriculture Production Survey, K-State, 2013

Figure 4: Nanumba North: Household Income type, 2015



Source: RING & SPRING Survey, 2015 USAID METSS Project

Figure 3: Yields of Maize and Soybean, beneficiareis and others, 2013 - 2015, MT/ha



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

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

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AGRICULTURAL DATA

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

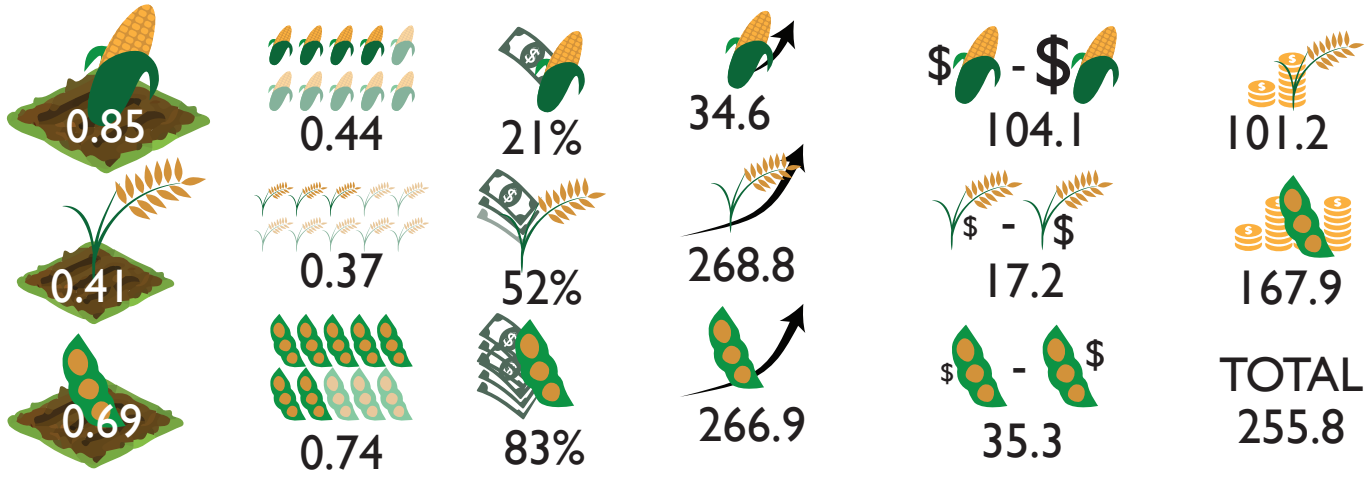
Table 2: Agricultural Production and yields in Nanumba North during 2011-2015, in MT and MT/ha

Commodity	2015	2014	2013	2012	2011	Total
Maize	7,299	6,820	7,214	7,891	6,930	36,155
Rice	1,342	1,245	1,003	978	1,057	5,625
Millet	2,780	2,699	2,524	2,750	3,003	13,755
Sorghum	6,766	7,668	7,063	7,613	8,094	37,204
Cassava	227,460	215,077	239,284	192,001	167,400	1,041,222
Yam	339,433	329,385	380,817	268,830	242,088	1,560,553
Groundnut	9,696	9,720	9,648	10,929	11,885	51,878
Cowpea	2,051	1,991	1,823	2,112	2,173	10,151
Soybean	7,688	7,333	7,097	8,316	8,735	39,169
Yields in MT/Ha	**2015**	**2014**	**2013**	**2012**	**2011**	
Maize	1.99	1.41	1.45	1.54	1.50	
Rice	1.55	1.47	1.31	1.32	1.34	
Millet	1.63	1.58	1.40	1.41	1.43	
Sorghum	1.93	2.20	1.98	2.03	2.13	
Cassava	21.12	19.97	21.30	18.95	18.00	
Yam	22.54	21.94	23.99	18.54	18.34	
Groundnut	1.98	2.00	1.71	1.72	1.73	
Cowpea	2.28	2.21	1.87	1.92	1.94	
Soybean	2.21	2.10	1.94	1.98	2.03	

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

Table 2 above provides detailed information on specific commodities in regard to the overall production in Nanumba North, as well as average yields for the years 2011-2014. Note that 2015 MoFA data is under review and will be made available before the end of 2016. The infographic below shows a summary of agricultural statistics for Nanumba North. The first bar indicates the relatively small farm size by commodity with average farm plots at 0.85, 0.41 and 0.69 ha respectively for maize, rice, and soybean. Other agricultural data associated with Nanumba North, including 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 North, 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

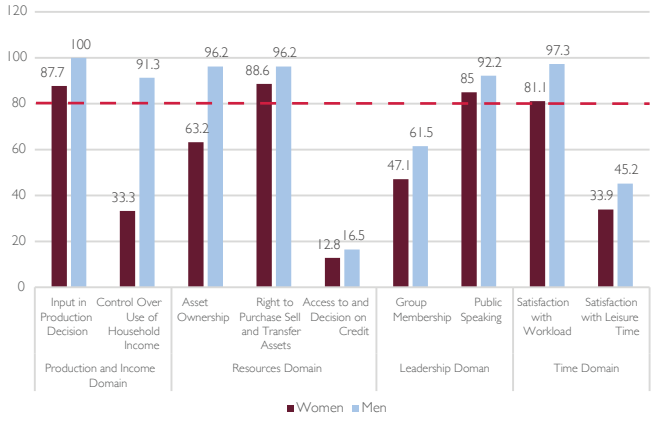
What is the Women Empowerment in Agriculture Index?

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 North, 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.

Figure 5: Domains of Empowerment of WEAI Index, expressed in percent, Nanumba North, 2015



Source: PBS 2015, Kansas State University

Nanumba North WEAI Results

The results of both male and female respondents on the four(4) domains are displayed in Figure 5.

Production Domain: women feel comfortable with providing input related to production decisions as indicated by 87.7% of the women of the survey sample. However, they have much less control over the use of household income than men, 33.3% of women versus 91.3% of the male respondents.

Resource Domain: a majority of the women have a right to asset ownership and to purchase and move assets, 63.2% and 88.6% respectively; these figures are lower than that of the male respondents. Only 12.8 % of women have the right to decide or have access to credit, when compared to 16.5% of the male respondents. Nonetheless, access to credit is almost equally low for both genders.

Leadership Domain: Nanumba North holds the highest percentage of women involved in public speaking, or speaking freely in public in the Northern Region; 85% of the women interview confirmed this. However, only 47.1% of them scored adequacy in the right to group membership as opposed to 61.5% of the male respondents.

Time Domain: The majority of women and men in Nanumba North are satisfied with the workload in their everyday life, 81.1% and 97.3% respectively. The percentages dropped significantly with respect to satisfaction with leisure time; one third of the women and less than half of men interviewed are happy with this aspect.

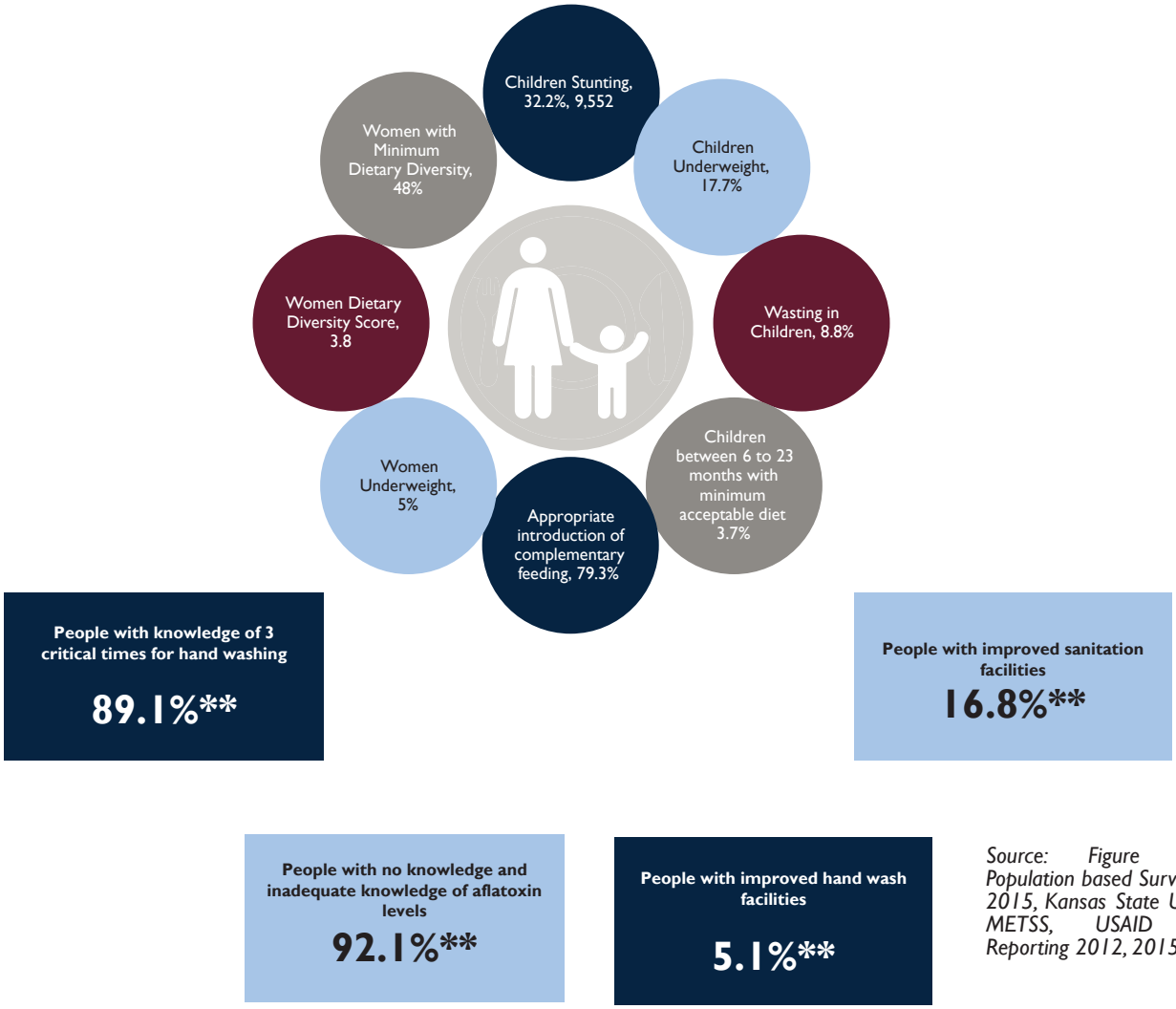
{ Adequacy & Differences }

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, 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.

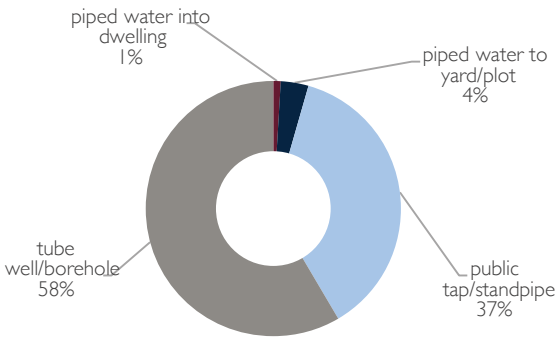
All data and information including full citations can be accessed at www.ghanalinks.org

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



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

Figure 6: Types of improved water source, 2015



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PRESENCE VS. IMPACT MATRIX

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

The USAID Presence vs. Impact matrix reveals, in more detail than previously available, the impact that USAID Feed the Future presence in a district is having on key impact indicators captured by the 2012 and 2015 Feed the Future Population Based Survey. The following graphs are a print screen of the Presence vs. Impact Dashboard when Nanumba North is selected. Both key impact indicators, 'prevalence of poverty' and 'per capita expenditure', have decreased and increased respectively, see Figure 9.

In 2015, poverty dropped by 40.5% to 9.4% compared to the 2012 measure. In addition, the 2015 per capita expenditure increased by 25 percent to 4.7 USD. The Nanumba North population calculated to be living under the $1.25/day, per person poverty line is 14,839 persons. This district level progress is accompanied by an average USAID presence score of 2.1, with the highest score possible being 4. This score signifies characteristics of a GREEN district, one that is progressing well and receives enough USAID resources. That said, the presence of other development partners and GOG interventions have not been taken into account.

Nanumba North is a good example of a district where things are going well, development is progressing and this goes well in line with USAID intervention. More reflection, research and case studies can show what is being done right, which can be shared with other districts.

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 CONTRADICTING IMPACT INDICATORS
- 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 7: Poverty in % and Poverty Change in percentage points, 2012,2015, Nanumba North

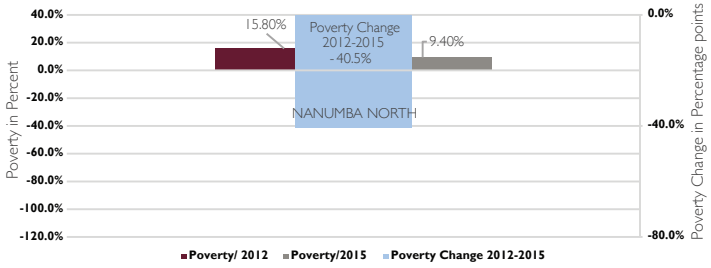


Figure 8: Population of Poor, Non - Poor Nanumba North, 2015

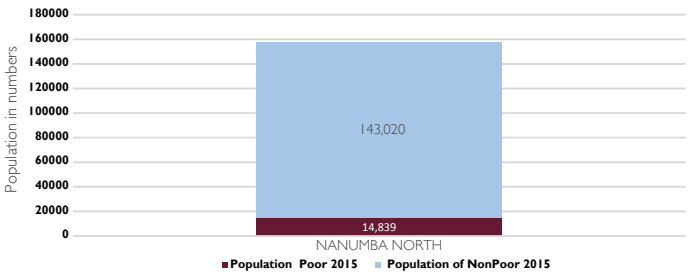
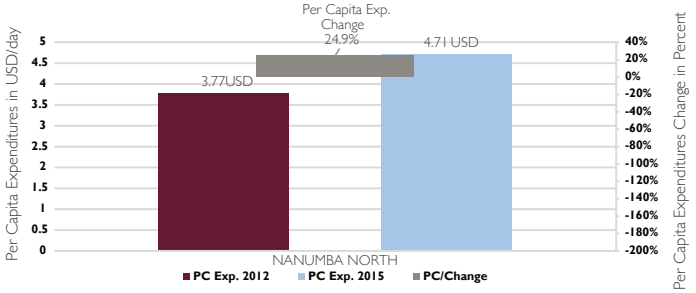


Figure 9: Per Capita Expenditure in 2012 and 2015, in USD/day; Per Capita Expenditure Change in percent, Nanumba North



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

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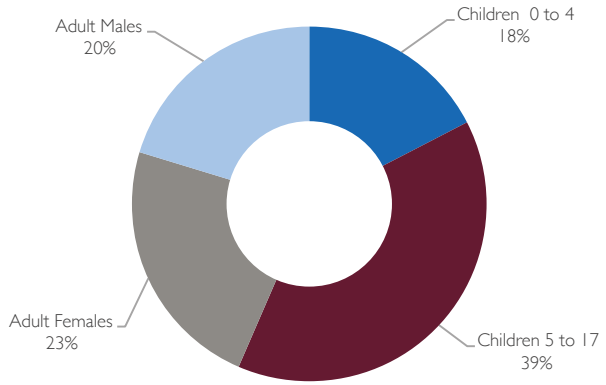
DEMOGRAPHICS & WEATHER

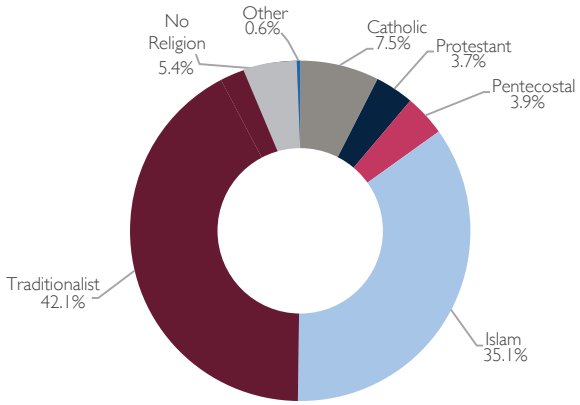
This section contains facts and figures related to Nanumba North demographics, religious affiliation, literacy and weather indicators

Figure 10: Household Composition, by groupage, 2015, in % Nanumba North



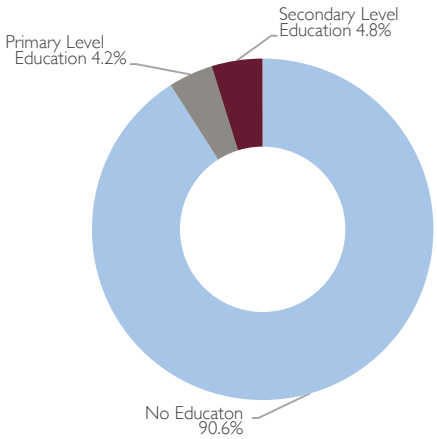
Source: PBS 2015, Kansas State University

Figure 11: Religious Affiliation, Nanumba North, 2010



Source: Tolon District Analytical Report, GSS, 2014

Figure 12: Education Attainment in Nanumba North, 2015



Source: PBS 2015, Kansas State University

Nanumba North has a total population of 157, 859—79,816 females and 78,043 males— with an average household size of 6.9 persons per household.

Nanumba North lies in the tropical continental climatic zone and experiences average annual precipitation relative to the other districts in the Northern Region, see Figure 13. Note that in 2010, the entire Northern Ghana experienced significant rainfall and floods.

In terms of religion, majority of the population are Traditionalists, representing 42.1%, followed by Muslims (35.1%), Christians (15.1%) and Others (0.6%) as shown in Figure 11.

The district accounts for a young population as the age of 57% of the household members range between 0 to 17 years, as Figure 10 shows.

Nanumba North accounts for a very low level of adult educational attainment as shown in Figure 12. A vast majority of the adults in Nanumba North, 90.6%, have received no education, while 4.2% went through only primary school and 4.8% of the sample through secondary school.

71.2 percent of people residing in Nanumba North are identified as being economically active. Only 4.4% are identified as being unemployed (GSS, 2014).

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 Nanumba North

QUESTION 1

What contributed to the high gross margins and yields of maize for USAID direct beneficiaries, as compared to the district averages provided by MOFA and the APS , Figure 1 and 2, page 3?

QUESTION 2

Why is the soybean yield of direct beneficiaries lower than the average yield reported by MOFA for all farmers in the District? (Figure 3 on page 3)

QUESTION 3

Given Nanumba North'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 North?

QUESTION 4

Why are the quantities of rice, maize and soybean produced in Nanumba North 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 5

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 North's development?

QUESTION 6

According to production data distributed by MOFA and our own calculations, Nanumba North contributes 0.9% of Maize, 0.4% of Rice and 5.4% of Soybean to the overall Savanah Ecological Zone's (ZOI) production figures for each crop. While the production of maize does not seem to be clustered, with each district contributing a little portion, there seems to be clustering in rice production (more in Tolon Kumbungu 13.8% and Tamale 12.8%) and soybean production (Yendi 19.7%, than Savelugu 8%, Bawku 5.9%, Nanumba South 8.3% and Nanumba North among them (5.4%). Is something being done 1) to understand why this accumulation happens with rice and soybean but not with maize in the North 2) to promote the production clustering in specific zones or 3) work with identified production clusters in specific districts?

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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Department of Agricultural Economics

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