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

KPANDAI

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

DISTRICT PROFILE CONTENT

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Kpandai is a district in Ghana's Northern Region. It shares boundaries with Nanumba South district to the north, East Gonja to the west, Krachi West district to the South-West and Nkwanta North district to the East. The district has a total surface area of 1,132.9 Km Square.

The district has a total population of 121,919, out of which 60,300 are females and 61,619 males. The average household size in the district is 7.1persons. The boxes below reveal the level of important development indicators as captured by the Population Based Survey in 2015.
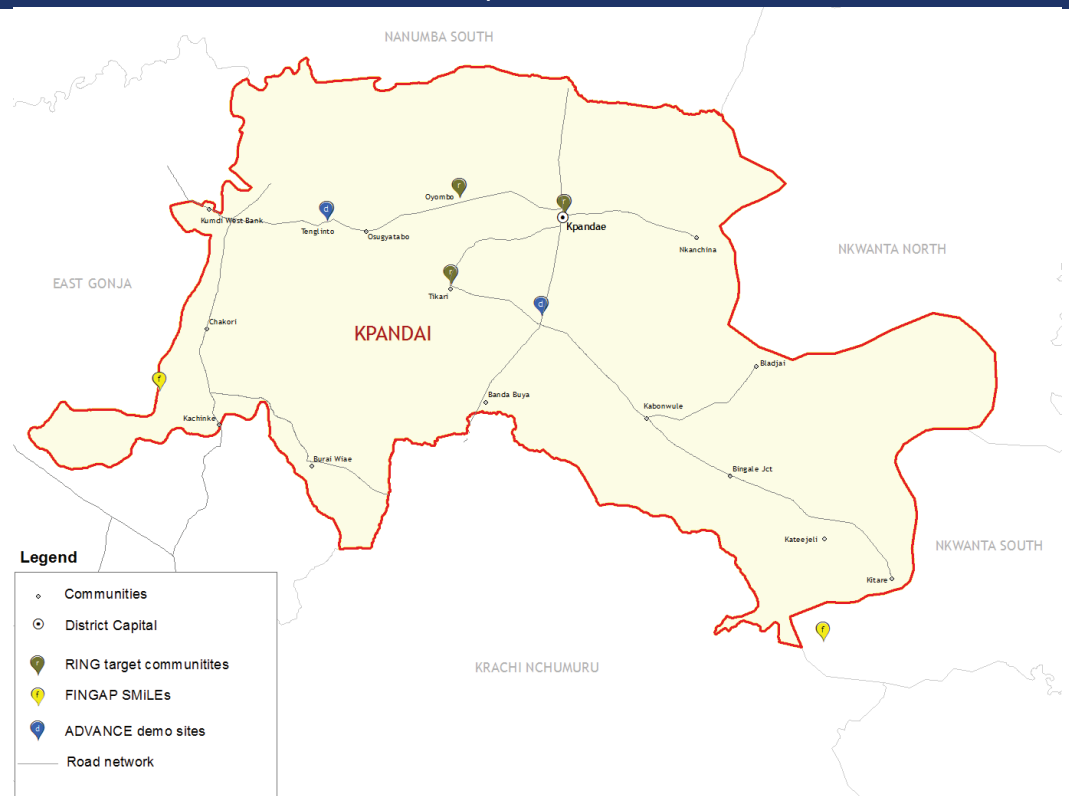
|	
Poverty Prevalence 15.2 %	Daily per capita expenditure 5,24 USD
Households with moderate or severe hunger 26.8%	Household Size 7.1 members
Poverty Depth 6.1%	Total Population of the Poor 18,532

Legend
- Communities
- District Capital
- RING target communitites
- FINGAP SMiLEs
- ADVANCE demo sites
- Road network

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Table 1: USAID Projects Info, Kpandai, 2014-2016

Beneficiaries Data	2014	2015	2016
Direct Beneficiaries	464	1,236	1,950
Male	332	554	514
Female	132	682	1,436
Undefined	0		
Nucleus Farmers	0	0	n/a
Male			
Female	-	-	
Undefined			
Demoplots	3	1	n/a
Male	2		
Female	1		
Undefined	0	1	
Production			
Maize Gross Margin USD/ha	n/a	520.3	n/a
Maize Yield MT/ha	n/a	2.62	n/a
Rice Gross Margin USD/ha	n/a	589.0	n/a
Rice Yield MT/ha	n/a	2.54	n/a
Investment and Impact			
Ag. Rural loans	0	-	-
USAID Projects Present		3	
Beneficiaries Score	1	2	1
Presence Score 2014-2016			1.4
District Flag 2014-2016		Blue	

Source: Project Reporting 2014-2016

Infographic 1: Demo Plots in Kpandai, 2014-2015
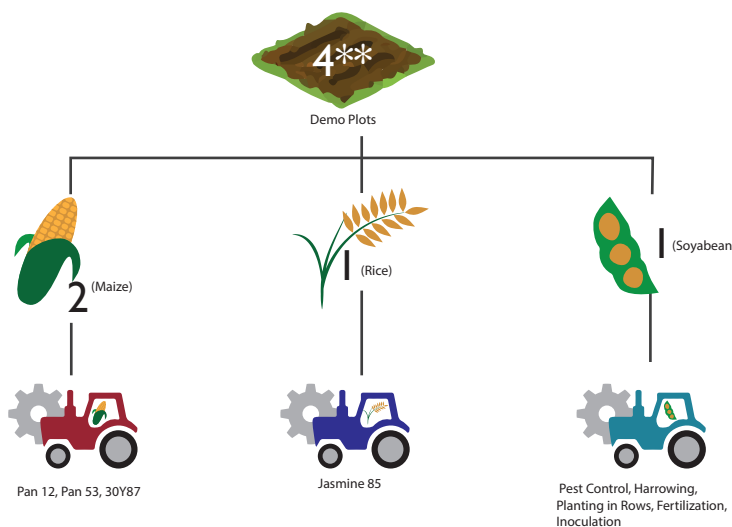
Source:: USAID Project Reporting, 2014, 2015

The number of direct USAID beneficiaries increased by almost 300 percent during 2014-2016. There is no nucleus farmer registered in Kpandai and only four demonstration plots have been established to support beneficiary training. See Infographic 1 for more details. No agricultural rural loans were registered during 2014-16. As explained above, the presence of USAID development work is relatively low as compared to other districts, which resulted in a low USAID presence score of ** 1.4 out of 4. When combining progress or regress of impact indicators with the presence of projects on the ground, represented by the presence score, the district is flagged BLUE*** indicating that the impact indicator values contradict each other**** while the project presence is below average. Find more details on USAID Presence v. Impact scoring on page 7.

The presence calculation is provisional and only 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 , ** and ***Presence and Flag Ranges are explained in page 7 **** contradicting values of impact indicators means that both impact indicators per capita expenditure and poverty prevalence experience increase or de-crease. The logical correlation between them is that when poverty decreases expenditures increase or vice versa

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

Agricultural production in Kpandai is largely focused on cassava and yam, which are the major staple foods grown by farmers and constitute 86.2 percent of the overall production. Other commodities produced in the district include groundnuts, maize, sorghum and rice, see Figure 1. Kpandai accounted for only 3 percent of agricultural production in the Northern Region in 2015. 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 district average. Yields presented in Figure 3, represent the average values measured for direct USAID beneficiaries and the entire district. Similar to gross margins, yields of maize for USAID direct beneficiaries are higher than the district average reported by MOFA and it is also 5-6 times higher than the yields reported by the Agriculture Production Survey in 2013. Figure 4 below shows that the income of the majority of households comes from the agricultural sector, particularly from the sale of crop produce as indicated by 87.78% of the sample of the RING & SPRING Survey, 2015.

Figure 1: Share of Agricultural Production by Commodity in Kpandai, during 2010 - 2015, in %
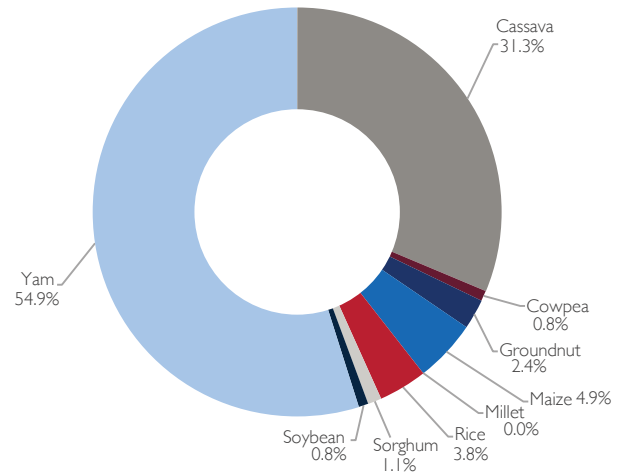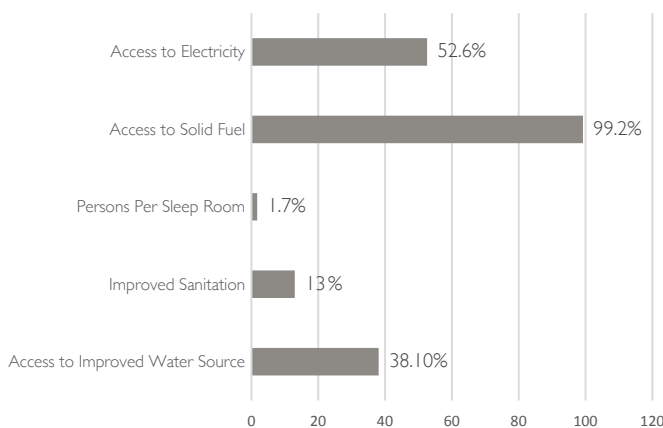

Source: Agriculture Production Reports 2011- 2015, MOFA

Figure 2: Average Gross Margin of USAID beneficaries and district average, 2013 - 2015, in USD/ha, Kpandai
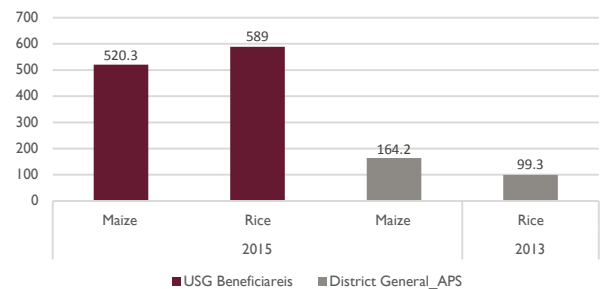
Source: Agriculture Production Survey, 2013, USAID Project Reporting 2015

Figure 4: Household Dwelling Characteristics, Kpandai, 2015

Source: RING & SPRING Survey, 2015 USAID METSS Project

Figure 3: Average yields of USAID beneficareis and district average, 2015,2013, MT/ha, Kpandai
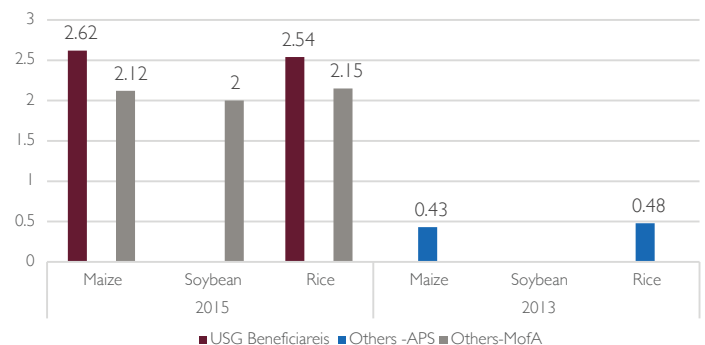
Source: Agriculture Production Reports 2011- 2015, MOFA

*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
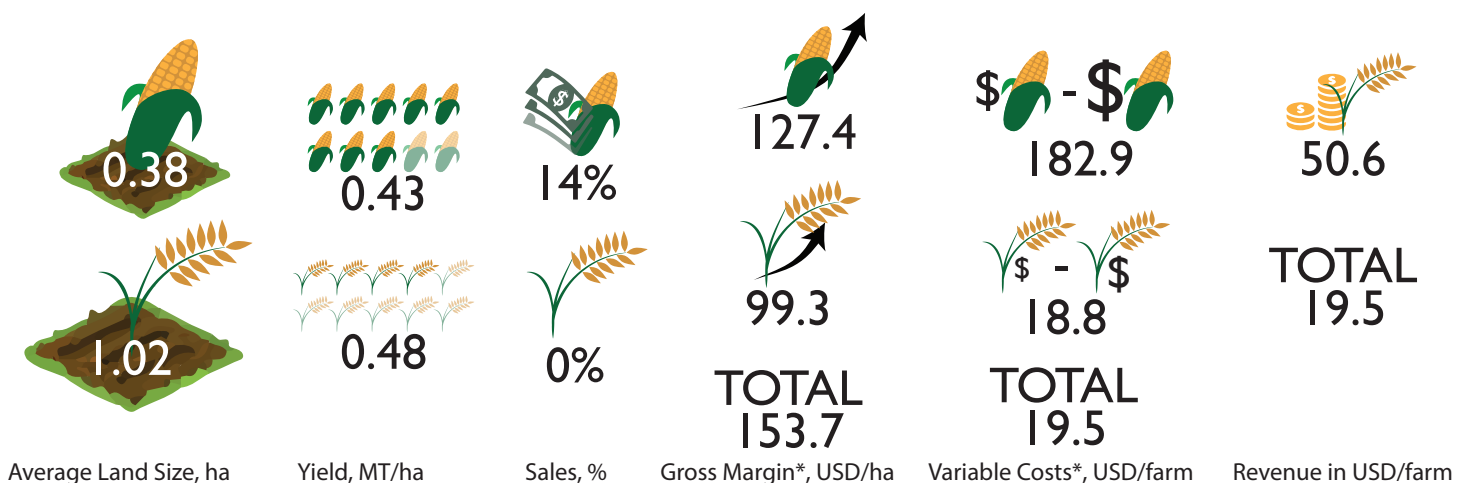
AGRICULTURAL DATA

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

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

Production in MT					
Commodity	2015	2014	2013	2012	Total
Cassava	40,318	38,123	38,525	34,366	151,331
Cowpea	1,055	1,024	882	1,000	3,961
Groundnut	2,965	2,972	2,577	2,925	11,439
Maize	5,333	4,983	4,805	8,657	23,778
Millet	8	7	7	7	29
Rice	5,185	4,807	4,282	4,228	18,503
Sorghum	1,243	1,409	1,203	1,399	5,254
Soybean	990	944	822	951	3,707
Yam	73,402	71,229	68,720	51,794	265,145
Yields in MT/Ha	2015	2014	2013	2012	Total
Cassava	13.54	12.80	14.84	13.53	
Cowpea	2.06	2.00	1.96	2.00	
Groundnut	2.19	2.21	1.92	1.95	
Maize	2.12	1.50	1.54	1.63	
Millet	1.86	1.80	1.65	1.75	
Rice	2.15	2.04	2.00	2.13	
Sorghum	1.84	2.10	1.85	1.93	
Soybean	2	1.90	1.89	1.96	
Yam	14.06	13.69	15.15	12.23	

Table 2 above provides detailed information on specific commodities with respect to the overall production in Kpandai, as well as the average yields for the period 2010-2015. The infographic below shows a summary of agricultural statistics for Kpandai 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 in process and as such this dataset will be reviewed very soon.

Infographic 2: Average Land size, Yields, Sales and other Farm indicators in Kpandai, 2013

0.38	0.43	14%	127.4	182.9	50.6
1.02	0.48	0%	99.3 TOTAL 153.7	18.8 TOTAL 19.5	TOTAL 19.5
Average Land Size, ha	Yield, MT/ha	Sales, %	Gross Margin*, USD/ha	Variable Costs*, USD/farm	Revenue in USD/farm

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 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 Kpandai, 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.

Kpandai District 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. However, they have much less control over the use of household income than men as indicated by 30.6% of female respondents against 66.4% of male respondents.

Resource Domain: A majority of the women have a right to asset ownership and to purchase and move assets, 64.6% and 90.1% respectively; these figures are lower than the figures of the male respondents. Only 19% of women have the right to decide or have access to credit, as opposed to 23.7% of the male respondents. Nonetheless, access to credit is almost equally low for both genders.

Leadership Domain: 65.2% and 77% of the women interviewed scored adequacy in the right to group membership and public speaking, respectively. Group membership figures for women represents a thin majority when compared to other northern districts.

Time Domain: A thin majority of women are satisfied with both workload and leisure time. Percentages of these indicators are higher amongst the male respondents of the sample. For more details refer to figure 5.

Figure 5: Results on Domains of Empowerment, WEAI, Kpandai, in %, 2015
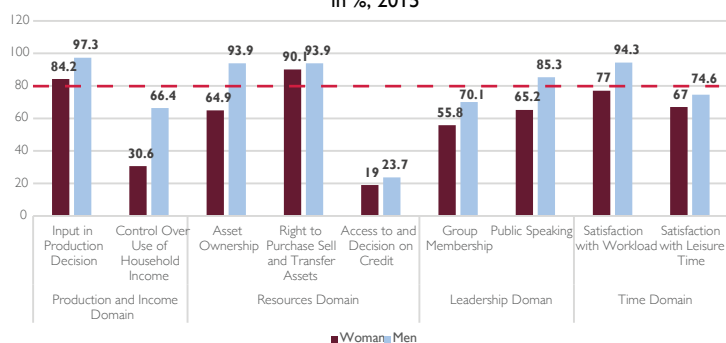
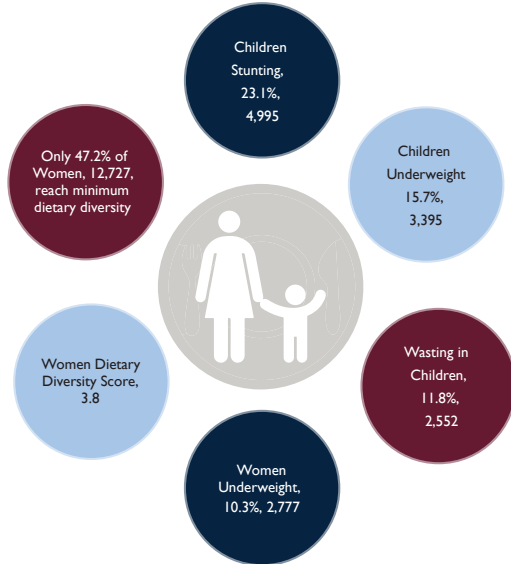Source: PBS 2015, Kansas State University

{ **Adequacy & Differences** }

Highest differences between male and female respondents observed with 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*

Infographic 2: Health and Nutrition Figures, Tamale 2015

Children Stunting, 23.1%, 4,995

Children Underweight 15.7%, 3,395

Only 47.2% of Women, 12,727, reach minimum dietary diversity

Women Dietary Diversity Score, 3.8

Wasting in Children, 11.8%, 2,552

Women Underweight, 10.3%, 2,777

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

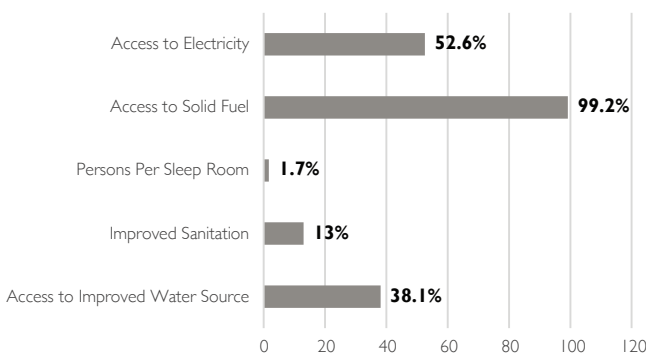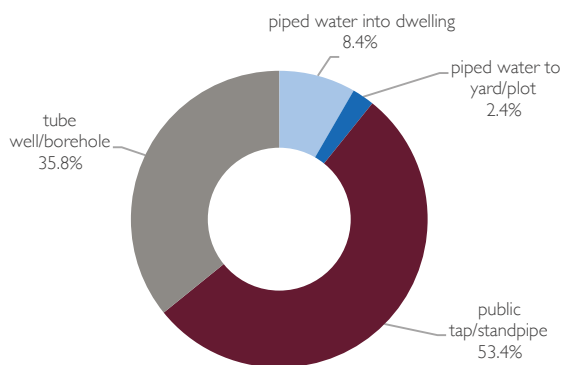Figure 6: Household Dwelling Characteristics, Kpandai, 2015

Access to Electricity — 52.6%
Access to Solid Fuel — 99.2%
Persons Per Sleep Room — 1.7%
Improved Sanitation — 13%
Access to Improved Water Source — 38.1%

Figure 7: Types of Improved Water Sources used in Kpandai, 2015, in %

piped water into dwelling 8.4%
piped water to yard/plot 2.4%
tube well/borehole 35.8%
public tap/standpipe 53.4%

Sources: Figure 5: PBS 2015, Kansas State University, Figure 6: Ring & Spring Survey, 2015,

Infographic 2 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 and Women Dietary Diversity. The Dietary diversity score of women in Kpandai is 3.8, which means that women consume on average 3 to 4 types of foods out of 10. Almost half of women (47.2%) reach the minimum dietary diversity of 5 food groups.

Figure 6 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 7 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 28.8% and 38.1%, while access to sanitation facilities is between 13 and 14.3%. This means that the majority of the population of the district do not enjoy these facilities. A vast majority, 91.7%, also lacks function-ing hand-wash facilities in the household. Further details are provided in Figures 8 and 9.

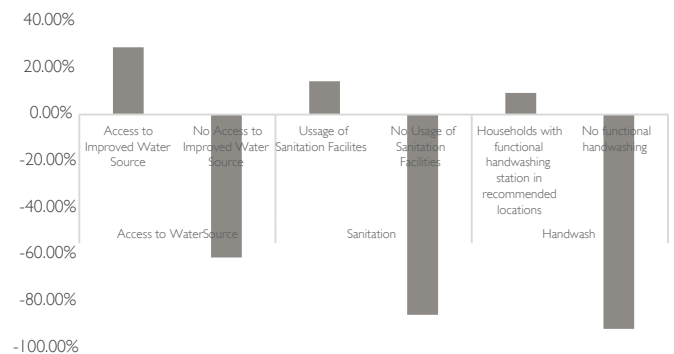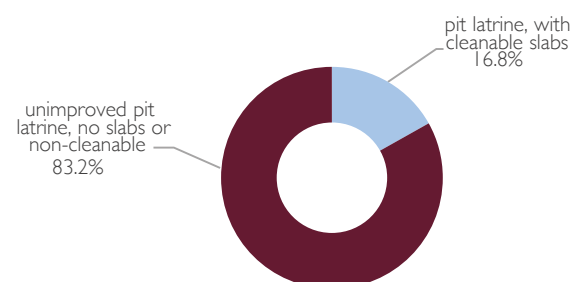Figure 8: Access to Water and Sanitation in Kpandai, 2015, in %

Figue 9: Types of Sanitation used in Kpandai, in %, 2015

pit latrine, with cleanable slabs 16.8%
unimproved pit latrine, no slabs or non-cleanable 83.2%

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

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 the relevance of the USAID projects' presence on key indicators measuring progress/regress in the area. The following graphs are a print screen of the Presence vs. Impact Dashboard focusing on Kpandai. Both key impact indicators, 'prevalence of poverty' and 'per capita expenditure', have increased, as observed in Figures 10 and 12.

In 2015 poverty increased by 72.7% percentage points to 15.2% compared to 2012. In addition, in 2015, per capita expenditure increased by 17.2 percent to 5.25 USD. The change in per capita expenditure is small when compared to the relevant increase in poverty prevalence by 72.7%. These developments are accompanied by a low presence score of 1.4 out of 4. Therefore the district is flagged BLUE (low presence and contradicting values of impact indicators). The indicators have moved in contradicting directions (both poverty and per capita expenditure have increased as opposed to a situation where when poverty increases, per capita expenditure decreases). But the spike in poverty prevalence signals that the odds of worsening economic situation are high. Increased interventions and project presence could contribute to the improvement of both indicators in the district.

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

Figure 10: Poverty in % and Poverty Change in percentage points, 2012,2015, Kpandai

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

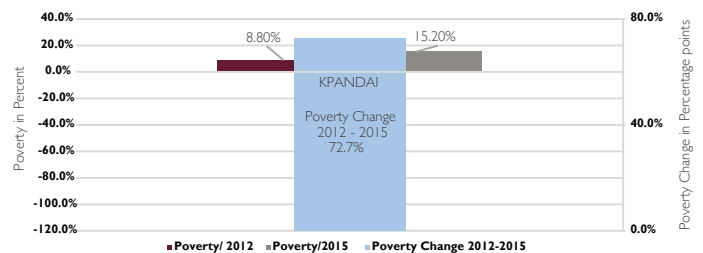ABOVE AVERAGE USAID DISTRICT PRESENCE AND REGRESSING IMPACT INDICATORS

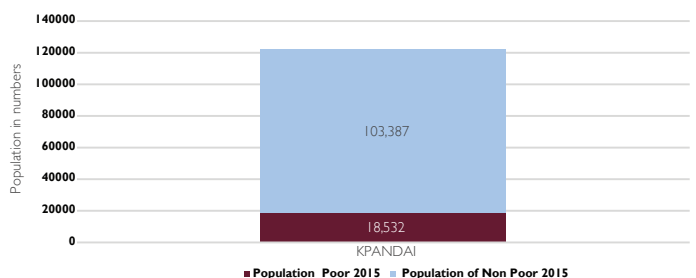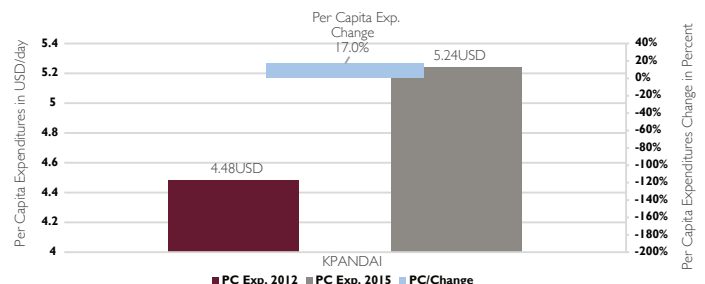Figure 11: Population of Poor, Non - Poor Kpandai, 2015

Figure 12: Per Capita Expenditure in 2012 and 2015, in USD/day; Per Capita Expenditure Change in percent, Kpandai

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

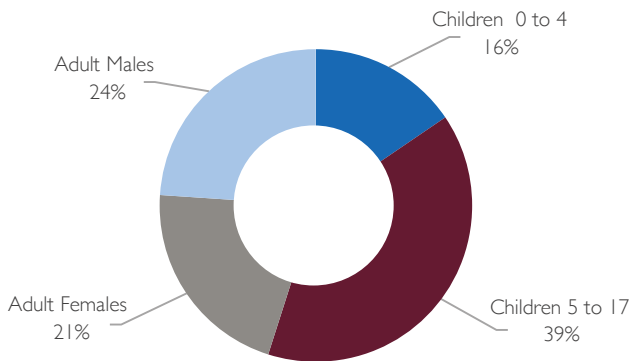*All data and information including full citations can be accessed at www.ghanalinks.org*
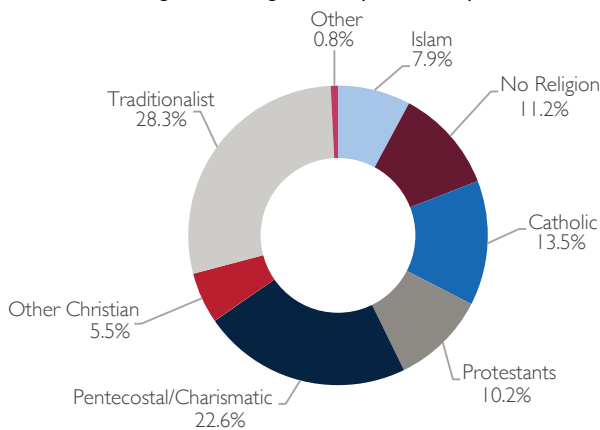
DEMOGRAPHICS & WEATHER

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

Figure 13: Household Composition by Group Age, in Kpandai, 2015

Children 0 to 4 16%
Adult Males 24%
Adult Females 21%
Children 5 to 17 39%

Source: PBS 2015, Kansas State University

Figure 14: Religious Compositon in Kpandai, 2010

Other 0.8%
Islam 7.9%
Traditionalist 28.3%
No Religion 11.2%
Catholic 13.5%
Other Christian 5.5%
Pentecostal/Charismatic 22.6%
Protestants 10.2%

Source: Kpandai District Analytical Report, GSS, 2014

Figure 15: Adult Education Attainment in Kpandai, 2015

Secondary Level Education 4.4%
Primary Level Education 5.5%
No Educaton 90.1%
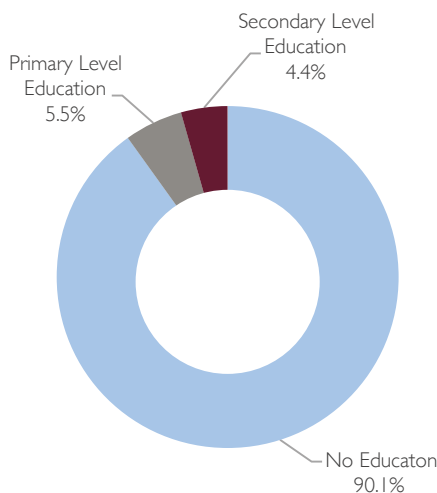
*Source: PBS 2015, Kansas State University*

Kpandai has a total population of 121,919, out of which 60,300 are females and 61,619 males. The district has a total surface area of 1,132.9 square km. The average household size in the district is 7.1 members.

Kpandai lies in the tropical continental climacteric zone. The average precipitation and temperature are similar to other districts in the Northern Region. Figure 16 shows average maximal and minimal temperatures as well as yearly average precipitation.

The district is noticeably different from most of the others in the Northern Region as the young population (between the ages of 0 and 17 years) do not constitute the majority, accounting for only 45% of the population as shown in Figure 13.

In terms of religious affiliation, the majority of the population are Christians (51.8%) followed by Traditionalists (28.3%). Additionally, people with no religion make up 11.2% while Muslims account for 7.9%. For more details refer to Figure 14. The district accounts for a low adult literacy rate with 90.1% of the adults having received no education, while only 5.5% went through primary school and only 4.4% through secondary school.

Figure16: Yearly Accumulated Precipitation in mm and Average Max and Min. Temperature in Celcius, 2008 - 2015

Accumulated Percipitation, in mm
Average Max. Temperature
Average Min. Temperature
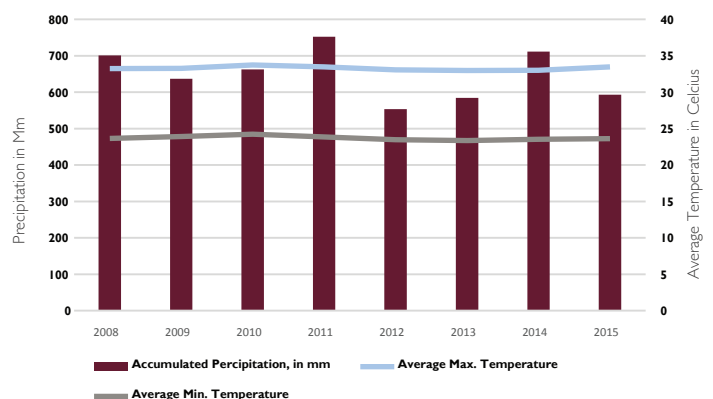
Source: awhere Weather Platform, AWhere, 2016

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

DISCUSSION QUESTIONS

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

QUESTION 1

Why has per capita expenditure increased while poverty has experienced a spike?

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 Kpandai's development?

QUESTION 3

Given Kpandai'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 Kpandai?

QUESTION 4

Why are the quantities of rice, maize and soybean produced in Kpandai so low compared to cassava and yam? Is there a link only to nutrition patterns or production related challenges?

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:

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