

BOSOMTWE DISTRICT ASSEMBLY

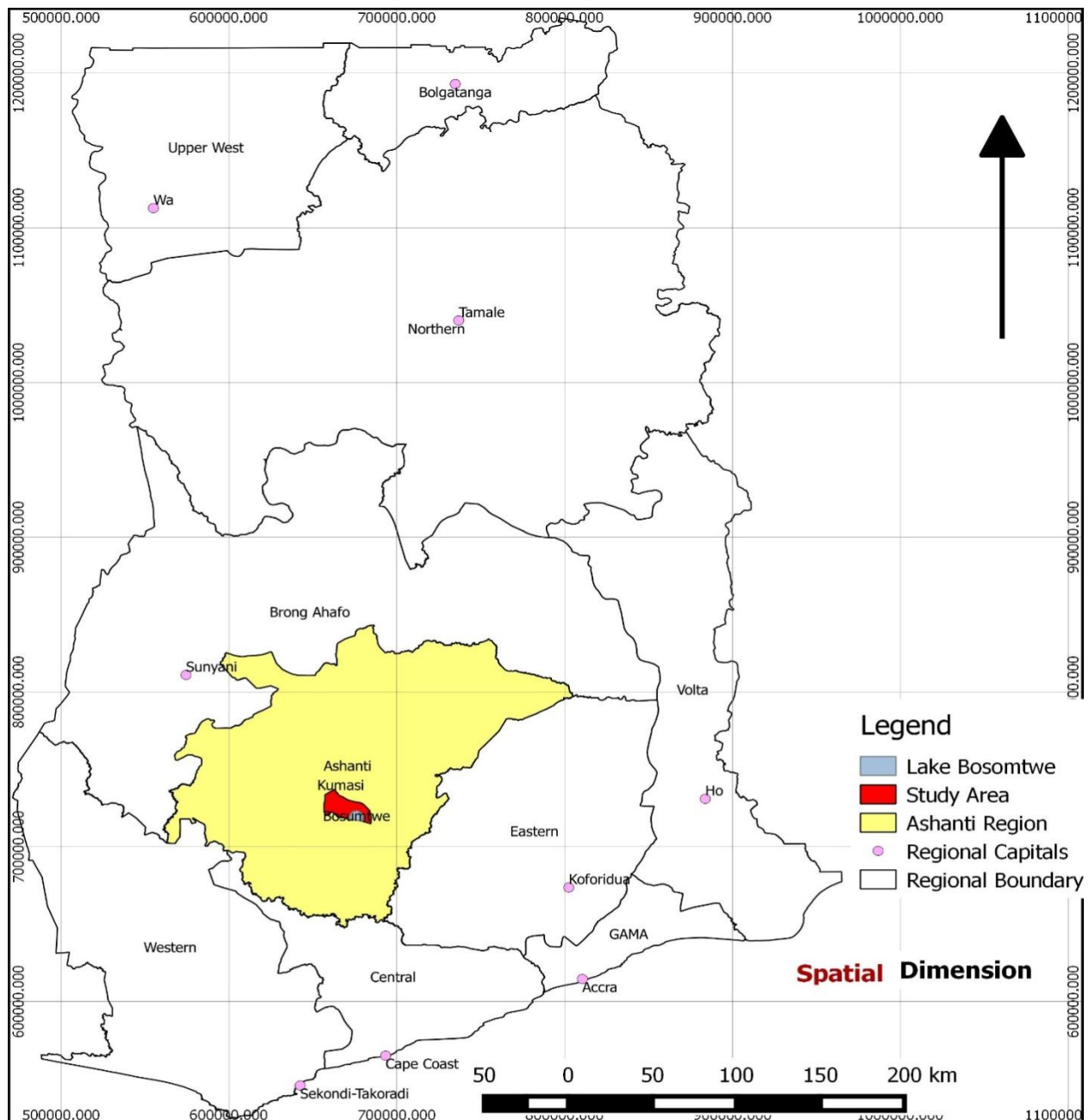
1.8 The Physical and Natural Environment

The utilization of the physical and natural environment have development implications in the district. This section describes the interaction between human and the physical environment and its development implication with respect to location and size, climate and vegetation. The section also looks at relief, drainage and soils.

1.8.1 Location and Size

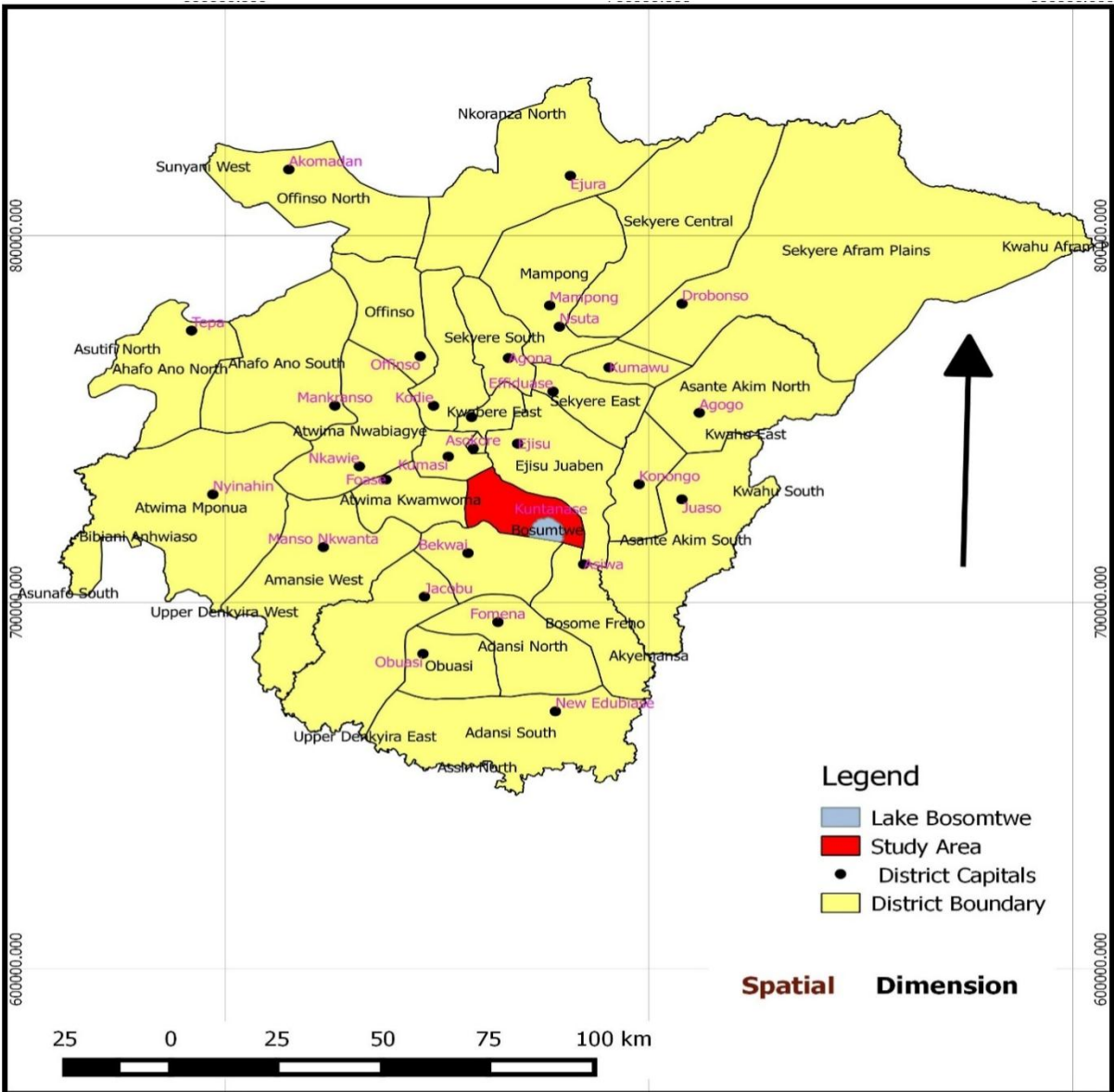
The Bosomtwe District, is located at the central part of the Ashanti Region and lies within latitudes 6° 24 South and 6° 43' North and longitudes 1° 15' East and 1° 46' West. It is bounded on the north by Kumasi Metropolitan Assembly, on the east by Ejisu - Juaben Municipal, on the south by Bekwai Municipal and Bosome - Freho District, and on the west by Atwima - Kwanwoma District. The district has a land size of about 422.5 sq. km. It is the eleventh largest district in the Ashanti Region. The Bosomtwe District has 67 communities. Kuntanse is the district capital. The District is sub-divided into three area councils namely, Jachie, Kuntanase and Boneso. Figures 1.6 and Figure 1.7 show Bosomtwe District in the national and regional context respectively. Figure 1.8 also depicts the map of the District showing the sixty-seven communities.

Figure 1.5: Bosomtwe District in National Context



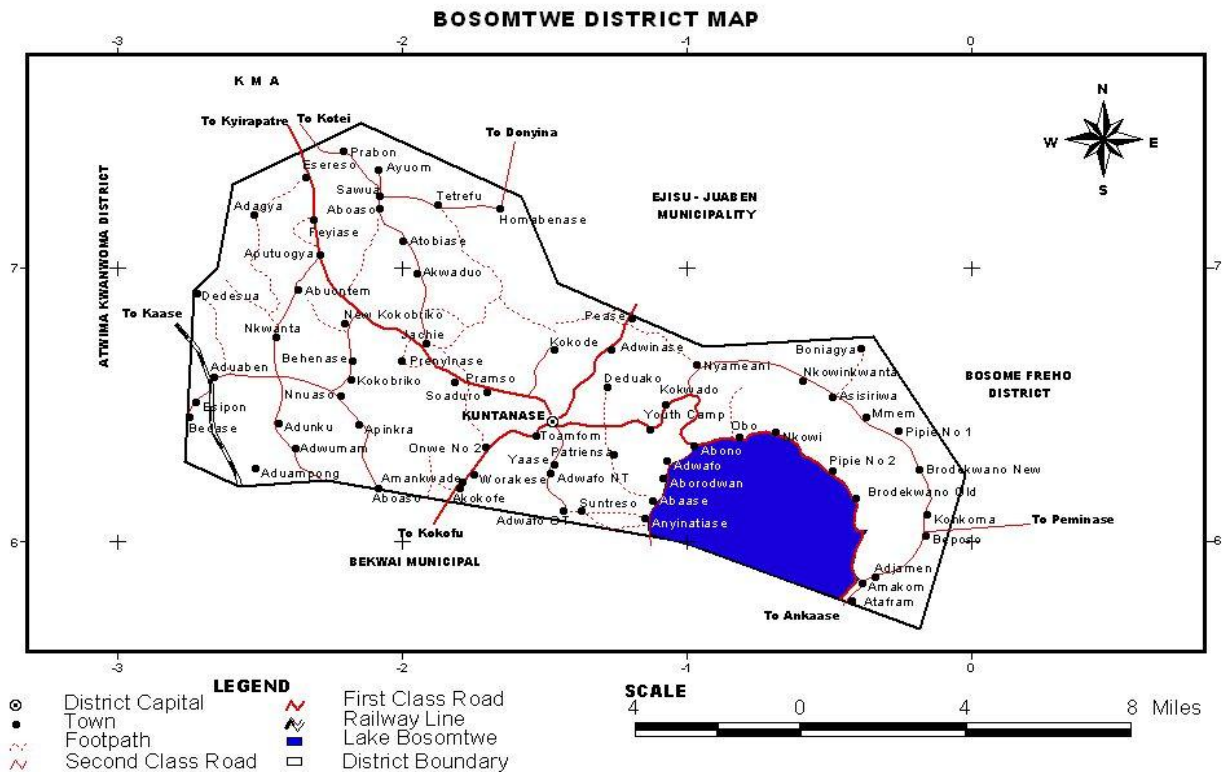
Source: Physical Planning Department, BDA

Figure 1.6: Bosomtwe District in Regional Context



Source: Physical Planning Department, BDA

Figure 1.7: Bosomtwe District



1.8.2 Relief and Drainage

With the exception of the Lake that has an outer ridge that maintains a constant distance of 10 km from the center of the lake and stands at an elevation of 50 to 80m, the rest of the District cannot boast of any unique topographical features. The drainage pattern of Bosomtwe District is dendritic. The rivers flow in a north- south direction. Around Lake Bosomtwe, there is an internal drainage where the streams flow from surrounding highlands into the lake. The rivers are perennial. They also form a dense network due to the double maxima rainfall regime. Notable rivers in the District are rivers Oda, Butu, Siso, Supan and Adanbanwe.

1.8.3 Climatic Condition

The District falls within the equatorial zone with a rainfall regime typical of the moist semi-deciduous forest zone of the country. There are two well- defined rainfall seasons. The main season occurs from March to July with a peak in June. The minor season starts from September to November with a peak in October. August is usually cool and dry. The main dry season occurs in December to March during which the desiccating harmattan winds blow over the area.

Temperature

Temperature of the area seems to be uniformly- high and throughout the year with a mean average of around 24°C. The highest mean occurs just before the major wet season in February as observed in Kumasi 27.8°C. The mean minimum occurs during the minor wet season.

1.8.4 Vegetation

The vegetation of the entire district is the semi deciduous forest type. It is characterized by plant species of the Celtis-Triplocheton Association. However, due to extensive and repeated farming activities in the past, the original vegetation has been degraded to mosaic of secondary, thicket and for re-growth and various abandoned farms with relics of food crops and vegetables. The cultivation of several food crops and cocoa as well as animal rearing have been major agricultural activities in the district.

The secondary forest is characterized by close upper canopy at height of about 9m with a number of growing soft wooded trees and few hard woods. It has less open undergrowth of spiny shrubs and climbers. The major tree species are *Terminalia Spp*, *Funtumia Spp*, *Ceiba pentandra*, *BambaxSpp*, *Archonia Spp*, *Corfolia*, *Celti mildrbraedii*, *Triplochiton scleroxylan*, *Elaeis guineensis*, *Tremasenegalensis* And *Ficus Spp*. Thicket corresponds to forest areas of about five years with relatively impenetrable mass of shrubs, climbers, coppice shoots and young trees

Fauna

Mammals

Five mammal taxonomic groups, representing 17 Families, 26 Genera, and 29 Species have been confirmed during a baseline survey in 2013. Rodents were the most widespread and diverse family and accounted for 38% of all mammals compiled. Giant rats and grass-cutters represented the most abundant species. Brush-tailed porcupines and forest squirrels were however restricted to the proposed core areas, in abundance and distribution. Bats were the least number of species, representing about 10% of the total mammals. Most of the mammal species were forest dependant and thrived in forest habitat.

Birds

Twenty-nine (29) bird species, belonging to 25 genera and 16 Families were recorded in the study area. Fourteen percent (14%) of the species recorded belonged to the Family Accipitridae. Phasianidae, Columbidae and Ploceidae were represented by 10% each. Rare families included

Ardeidae, Strigidae, Caprimulgidae, Pycnonotidae, Meropidae, Capitonidae, Hirundinidae and Dicruridae with a record of 3% species each. Village weaver, lesser striped swallow, common bulbul, brown nightjar, Senegal coucal, red-chested cuckoo, green turaco, green fruit pigeon and black kite were also recorded during the base line studies.

Butterflies

Nineteen (19) species, belonging to 6 Genera were identified. Most of the specimens collected and recorded belonged to the Families Limenitinae (32%) and Satyrinae (32%). Another Family included Charaxinae (26%).

1.8.5 Geology/ Soils

The district is underlain by Precambrian rocks of the Birimian and Tarkwaian formations. They are associated with granites and metamorphosed sediments of phyllites and schists. The Soil type in the District has developed over a wide range of highly weathered parent materials such as granite, Tarkwaian and Birimian rocks.

1.8.6 Soils and Agricultural Land Use in the District

The district has six main soil types that are described as follows:-

1. Soil developed over granite and associated rocks. i.e.
 - a. Kumasi-Offin compound Association
 - b. Bomso-Offin Compound Association
2. Soil developed over the upper and lower Birimian Rocks
 - a. Bekwai-Oda Compound Association
 - b. Bekwai-Akomadan-Oda Compound Association
 - c. Kobeda-Bechem-Webenso-Oda Compound Association
 - d. Atukrom-Asikuma Association.

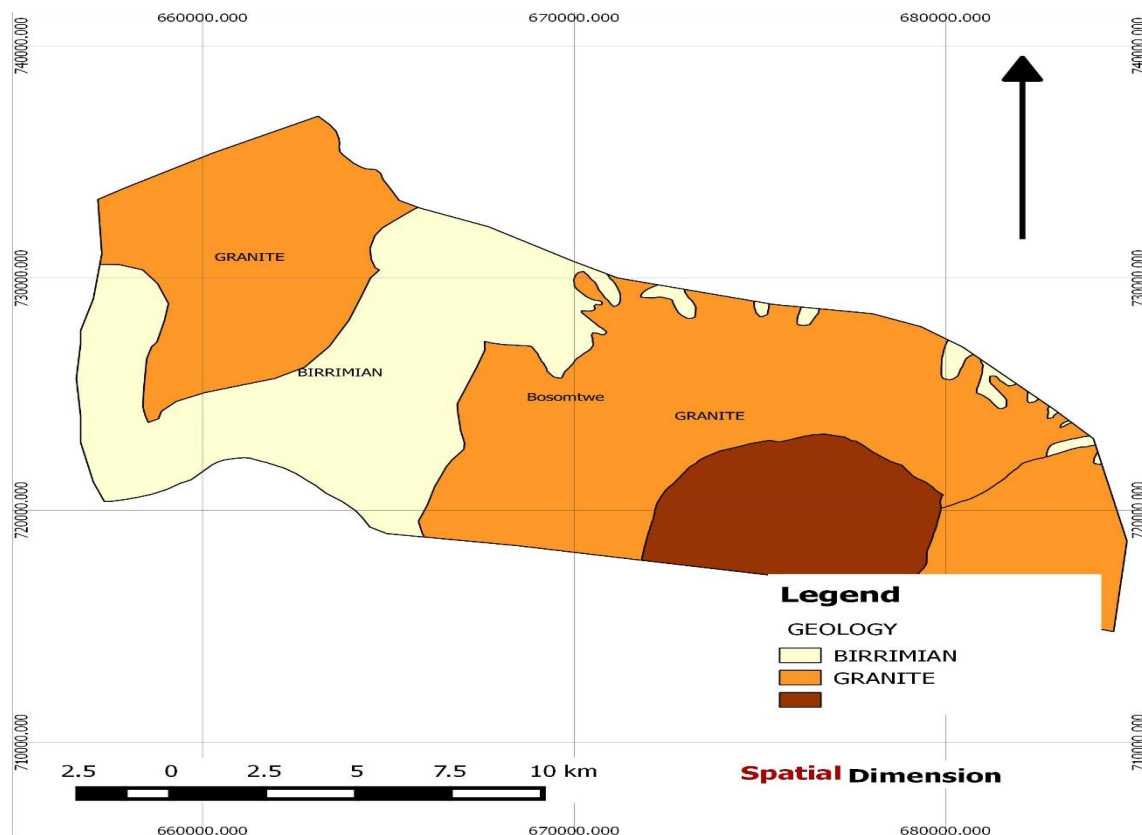
The Kumasi-Offin and Bomso-Offin Compound Associations have similar characteristics. They are well drained and made of quartz gravels and iron-stone nodules in the sub-soil. They are mostly found in the western end and of the middle belt of the district respectively. They support both cash and food crops such as coffee, cocoa, oil palm, citrus, vegetables, maize among others.

The Bekwai-Oda, Bekwai-Akomadan-Oda and Kobeda-Bechiem-Sebenso-Oda Compound Association also have similar characteristics. The associations are found mostly in the western, north-eastern and eastern parts of the district respectively. These soils are moderately well-drained and support cash crops, legumes and food crops.

The Atukrom-Asikuma Association is well drained in some parts. The soil is mostly found in the eastern part of Lake Bosomtwe and supports food and tree crops as well as vegetable and sugar-cane production.

The soil types in the district have been found to be ideal for the cultivation of cash crops and indigenous food crops. These soils developed over a wide range of highly weathered parent materials including granite, Trakwaian and Birimian rocks. They are more richly supplied with nutrients.

Figure 1.8: Geology Map of Bosomtwe District



Source: Physical Planning Department, BDA

1.8.7 Implications of the Physical and Natural Environment for development

The implications of the physical and natural environment for development are as follows;

- The rivers and streams in the district cannot be relied upon for any meaningful irrigation agriculture due to their seasonal nature.
- The Lake is an important tourist destination in the country
- The bi-modal rainfall encourages the cultivation and harvesting of some crops twice in the major and minor seasons eg. Maize, vegetables
- The soils in the district are generally good for agriculture. The soils support both cash crops like cocoa and food crops plantain, cassava
- The mineral deposits like sand, stones support the building industry
- The presence of gold deposit has encouraged illegal mining popularly known as “galamsey”
- Exploitation of the mineral deposits like sand and stone deposits will generate employment to the unemployed youth and also improve the Assembly’s IGF
- The proximity to Kumasi allows the district to access high educational institutions to provide human and research capital for businesses, including, KNUST, Forest Research Institute,, Building and Road Research

1.9 Bio-diversity, Climate Change, Green Economy

The district is endowed with immense natural resources in the form of arable land and forests. The exploitation of arable land in the district to meet socio-economic needs of the people has adversely affected the fragile environment. Uncontrolled bush burning, particularly in the smaller settlements is fast threatening the bio-diversity, thus putting the fertility of the soil at risk and reducing potential resources for future generations as the vegetation is fast degenerating into secondary forest and derived savannah. Large scale clearing of watersheds, particularly around the major communities like Esereso, Feyeasi, Aputuogya Jackie, Pramso and the lake front communities is one of the major causes of dwindling rainfall and consequent effect on acute water supply, especially during the dry season. Logging in the district is another serious threat to the environment. The destruction of farm lands coupled with the removal of both larger and smaller trees has also destroyed the forest eco-system. Sand winning is also extensively done in the district. The destructions caused by this activity to the environment are extensive

Economically, the alarming rate at which bio-diversity is lost calls for action, to arrest the situation for the present and the future generations to benefit.

The phenomenon of environmental degradation is now a serious problem in the District. Besides, the use of improper methods of farming which exposed the soils to erosion, people have continued to harvest forest resources indiscriminately thus degrading the environment. The problem associated with the soil types is that because of the torrential rains which are experienced in this area, the soils are easily leached of their nutrients. Soil erosion over the mountain slopes is also a problem since the vegetation cover has to be removed before crops are cultivated. Hence, infertility of the soil is gradually becoming a serious problem.

A Green Economy is a clean, environmentally friendly economy that promotes health, wealth and well-being. A Green Economy is dependent on sustainable development-which means growing our economies in ways that benefit, not sacrifice, social justice and equity as well as the environment. The idea is to serve the needs of the present without threatening the quality of life of future generations. Building a Green Economy is not about throwing out the old system and starting from the scratch, it's about making choices according to the full cost-not just the financial cost-of any and all activities.

1.9.1: Key Environmental Issues- Biodiversity, Climate Change, Green Economy

- ❖ Deforestation
- ❖ Land degradation
- ❖ Flooding
- ❖ Soil erosion
- ❖ Water Pollution
- ❖ Poor waste management practices
- ❖ Drying up of water bodies particularly, Lake Bosomtwe

Notably, the total and cumulative effect of all these practices is being manifested in changes in the climate variable over the years. There is evidence that about thirty years ago, portions of the district that were in fact thick and luxuriant forest have gradually been degraded and depleted to almost savanna with plant species called “acheampong”, and rivers that were flowing all year round have almost become seasonal and intermittent.

Other issues in the green economy include:

- ❖ Inefficient use of energy
- ❖ Most residents not aware of climate change and variability issues
- ❖ Educational and health infrastructure not favourable to the physically challenged
- ❖ Building on unapproved areas
- ❖ High post-harvest losses
- ❖ Low internal revenue generation
- ❖ Low capacity of some assembly staff
- ❖ Budget not gender sensitive

1.9.2 Interventions to Address Biodiversity, Climate Change, Green Economy and Environment

Measures would be put in place to address these issues. The measures would include among others:

- ❖ Undertake afforestation programme to mitigate the reduction of the forest cover
- ❖ Undertake tree planting in communities to reduce inter-house erosion and to serve as wind breaks
- ❖ Conduct public education on the need to protect water bodies
- ❖ Undertake educational campaigns on proper waste management practices like separation of waste and community level reuse and recycling of waste, for example feeding of sheep with cassava and plantain peels
- ❖ Promote rain harvesting in houses and public buildings
- ❖ Educate the populace on the use of energy saving bulbs
- ❖ Intensify public education on the dangers of building on water ways
- ❖ Promote climate change education
- ❖ Educational and health infrastructure would be designed and constructed to with stand climatic hazards and friendly the physically challenged
- ❖ Build the capacity of the of Assembly staff
- ❖ Improve on internal revenue generation by writing project proposals and undertaking PPP arrangements to undertake more projects

1.10 Water Supply Situation in the District

Increasing access to potable water is very important in achieving good health outcomes, poverty reduction and overall development of an area. This section of the report looks at water provision in the Bosomtwe District.

The main sources of potable water in the District are Small Town Water Systems, boreholes and mechanized boreholes. Rivers, open-wells, lake and rain water serve as complimentary sources. Currently the water coverage in the District is about 39 percent. This percentage does not include the household and institutional connections. All the 66 communities in the district have access to potable water.

There are 192 public water points made up of boreholes and standpipes in the District. About 40 of these boreholes are not functional. In addition to the public water points there are 346 household connections to the two Small Town Water Projects – Kuntanase and Pramso Water Projects – in the District.

1.10.1 Small Town Water System in the District

There are three Small Town Water Systems in the District; these are Kuntanase, Pramso and Jachie Water Supply Systems. The Water System at Jachie is currently not in operation because of poor management of the facility.

The distribution of the 192 public stand pipes and boreholes/mechanized boreholes in the District is as follows:

Table 1.10: Distribution of Public Water Points by Sub-Districts

Name of Area Council	No. of Water Points	No. Functioning	No. not Functioning
Kuntanase Area Council	80	67	13
Jachie Area Council	77	62	15
Boneso Area Council	35	23	12
Total	192	152	40

Source: Field, Work, 2017

1.10.2 Management of the Water Supply System

The three Small Town Water Supply Systems (Kuntanase, Pramso and Jachie Water Supply System) have separate boards which take management decisions, however, the day-to-day

maintenance and routine activities in the running of the three water supply systems are under the Operation and Maintenance Unit of Kuntanase Water Supply.

1.10.3 Management of the Boreholes

The Water and Sanitation Management Committees formerly WATSAN Committees are responsible for the management of boreholes in their communities.. Funds for maintenance are collected from the community depending on their plans through:

1. Households monthly dues
2. Pay as you draw

Some community members have been trained on how to maintain the boreholes but sometimes cost of materials for the maintenance is too expensive hence the communities have to rely on the District Assembly for support when necessary.

The Boreholes are drilled for both the communities and the schools. They are normally located on school compounds or near the school to ensure that the schools have access to potable water.

1.10.4 Institutional Water Coverage

For the purposes of this report two major institutions – health and educational institutions would be covered in the institutional water assessment.

The district has twenty-three (23) health facilities all working to promote the health conditions of the people. The 23 health facilities in the district are made up of:

- 4 Hospitals
- 7 Clinics/CHPS Compounds
- 6 Clinics
- 2 Maternity Homes
- 2 Training Institutions
- 2 RCH Centres

All the 23 health facilities have access to potable water facilities.

In the educational sector the levels of educational institutions identified in the District are tertiary, second cycle and basic education. There are 173 public basic schools, made up of 56

KGs, 60 primary schools and 57 JHS schools in the district. There are 4 public Senior High Schools (SHS) in the district and 2 tertiary institutions.

All the 4 second cycle institutions and the 2 tertiary institutions have access to good potable water. At the basic level, the situation is quite different. About 58 percent of the basic schools have access to potable water. To ensure that the majority of the basic schools get access to potable water, it is the policy of the Assembly to ensure that drilling of boreholes in the communities are located in the school compound or as closer to the school as possible during the ensuing planning years

1.10.5 Key development issues in Water Delivery

The problems identified in water delivery are:

- ❖ inadequate access to potable water in some communities
- ❖ low water coverage in schools
- ❖ inadequate management capacity of water facilities
- ❖ Dormant/poor performance of Water and Sanitation Management Committees.
- ❖ Broken down of water facilities due to poor maintenance culture

To address development issues in water delivery the following interventions will be undertaken.

These interventions will include:

- ❖ Drilling and construction of new boreholes in communities and schools
- ❖ Rehabilitation of broken down boreholes
- ❖ Revamp and training of Water and Sanitation Committees
- ❖ Communities must adopt maintenance culture

1.11 Water Security

Water security is defined as the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability. (UN-Water, 2013)

Water security encapsulates complex and interconnected challenges and highlights water's centrality for achieving a larger sense of security, sustainability, development and human well-being. Many factors contribute to water security, ranging from biophysical to infrastructural,

institutional, political, social and financial – many of which lie outside the water realm. In this respect, water security lies at the centre of many security areas, each of which is intricately linked to water. It is safe to state that investment in water security is a long-term pay-off for human development and economic growth, with immediate visible short-term gains.

1.11.1 Water Resources

The District is generally endowed with water resources, although the amount of water available changes markedly from season to season and year to year. Rivers like Oda, Butu, Supan and Adabanwe run through the district. Lake Bosomtwe is an important water resource in the district. Improper use of agro-chemicals and increasing urbanization has led to increasing effluent discharges deteriorating water quality.

Soil erosion caused by poor agricultural practices is causing increased sediment loads in rivers and high levels of suspended particulates. Water resources could be adversely impacted by the projects and programmes in various ways. Most of the people in the district rely on ground water resources.

1.11.2 Water-Related hazards

Water-related hazards form a subset of natural hazards; the most significant ones include floods, storms, heat waves, droughts and waterborne diseases. Water-related disasters pose both direct impacts (e.g. damage to buildings, crops and infrastructure, and loss of life and property) and indirect impacts (e.g. losses in productivity and livelihoods, increased investment risk, indebtedness and human health impacts).

Potable water and sanitation coverage is very low in the district there is the need for the District Assembly to partner Development Partners to provide financial resources, help capacity-building, and provide safe, clean, accessible and affordable drinking water and sanitation for all communities. Access to potable water in the district has not kept pace with rapid population growth, particularly in the major settlements such as Esereso, Aputuogya, Feyiase, Pramso and Jachie.

1.11.3 Water Quality

Sufficient water supply of appropriate quality is a key ingredient in the health and well-being of humans and for social and economic development. . However, water quality is just as important as water quantity for satisfying basic human and environmental needs. Moreover, the two are

inextricably linked, with poor water quality impacting water quantity in a number of ways. For example, polluted water that cannot be used for drinking, bathing, industry or agriculture may effectively reduce the amount of water available for use in a given area. In the district because of the intermittent flow of water people store water in gallons, buckets, drums etc. These containers are not frequently cleaned and thereby negatively affecting the quality of water

1.11.4 Water for Food

The link between water and food is a simple one. Crops and livestock need water to grow. Agriculture accounts for 70% of all water withdrawn by the agricultural, municipal and industrial (including energy) sectors. Water is the key to food security. However, in the district crops are not grown throughout the year because of inadequate irrigation facilities.

1.11.5 Key development issues in Water Security

- ❖ Pollution, drying up and dwindling of water bodies
- ❖ Poor quality of water due to handling and storage by households
- ❖ Poor management of water resources
- ❖ Non-performance Water and Sanitation Management Committees
- ❖ Presence of water related hazards like drought, rainstorm, flooding and water borne diseases
- ❖ Low water coverage in both rural and urban communities
- ❖ Shortage of safe drinking water especially during the dry season

The key issues in water security will be addressed by the Assembly and its Development Partners. Some interventions that would be implemented during the planned period would include:

- ❖ Public education on the need to protect water bodies
- ❖ Conduct public education on proper handling and storage of water
- ❖ Building the capacities of Water and Sanitation Management Committees to enable them manage the water facilities well
- ❖ Providing more boreholes in both rural and urban communities
- ❖ Promote the use of small scale irrigation pumps for all year cropping

1.12 Natural and Man-made Disasters

Disaster is very common in the district. The common disaster occurrences in the district include;

1. Flooding
2. Rain and windstorm
3. Fire outbreaks.

Some of the causes of Rain/ Wind storm Disasters are;

- a. Excessive illegal chainsaw operation.
- b. Lack of planting more trees.
- c. Lack of engaging quality mason and carpenters when developing project.
- d. Sand winning

Flood Disaster Outbreak.

Some of the causes of flooding are:

1. Some of the Developers who build on Natural/ Artificial water ways.
2. Lack/ inadequate drainage system.

Some of the preventive measures are:

1. The District Assembly should enact bye-laws to check chain saw operators, sand winners and Developers on the water ways.
2. The Assembly must endeavour to support NADMO/ Environmental Dept. with funds to plant trees with wide canopy to serve as wind breaks.
3. Intensification of public education on disaster

The District is one of the districts in the Region which experience a lot of Fire outbreak both Bush and Domestic Fires.

Out of the sixty six communities in the District, 30 communities constitute 45% experienced Bush fire outbreaks annually more especially during the harmattan season and the communities affected most are the communities along the lake.

Some of the causes of fire identified were:

1. Group Hurting for game using fire.
2. Palm wine Tappers using fire.
3. Failure to engage community fire volunteers in farm burning.

4. Unquenched cigarette butts.
5. Charcoal burning.
6. Cooking in the Farm during dry season.
7. Sending of fire Torch to the farm during dry season.

Some of the preventive measures to mitigate the rate of bush fire outbreaks in the district are:

1. The District Assembly in collaboration with GNFS dept. to come out with a substantive bye-laws to deal with those who set indiscriminate bush Fire to destroy properties
2. The Assembly should support GNFS with funds to intensify public bush fire education to create awareness and to provide incentive/logistic support to community Fire Volunteers.
3. The communities must involve Fire Volunteers in burning of weeded farm lands.

Some of the domestic causes of fire that needed to be addressed in the District are:

1. Overloading of sockets/ extension Boards.
2. The use of LPG at Homes (carelessness).
3. Smoking on bed.
4. Poor electricity wiring. Failure to keep fire safety equipment at home e.g. Fire Extinguishers and smoke detectors.

All must join hands to comply with Fire a precautionary measure that is L11724 of 2003 to save lives and proper

Measures put in place to prevent occurrence of the disaster in the district include;

1. Embarking on massive tree planting to serve as windbreaks and improve the vegetative cover.
2. Enforcing building regulation to reduce the occurrence of indiscriminate building and to ensure buildings.
3. Adhering to early warning systems

Logistics/ Resources for combating Disaster

When disaster does occur, these are some logistics/ resources needed to act swiftly to contain it but these facilities are either inadequate or not available

These include

- Vehicle
- Ambulance
- Fire Extinguishers
- Fire Hydrants pts.
- Fire tender
- Drugs for medication
- First Aid Box items
- Fungicides, pesticides(if agriculture like locust invasion)

1.13 Natural Resource Utilization

Natural resources are resources that exist without actions of humankind. Natural resources are the basis of life on earth. Natural resources include land, water bodies, forest, mineral resources etc. These resources are used for the development of the communities and the country at large. Development must mean the various ways in which these resources are used for the benefit of the country and its inhabitants and in an environmentally acceptable manner. Development, therefore, covers a wide of human activities. It includes. Agriculture, mining, forestry, building for industrial, commercial or residential purposes, education health, forest reserves, transportation by land, water and tourism and protection and preservation of the environment. Natural Resource utilization for development means, in real terms, the use of natural resources in any one or more of the ways enumerated above. The important to recognize is the use of these resources must be in a manner which not only gives profit to the user but also benefit society generally and does not damage or degrade land or pollute the environment

The District is endowed with some natural resources such as gold deposits, rocks, sand and stone deposits, clay deposits, forest resources and Lake Bosomtwe.

- ❖ Gold deposits can be located at Beposo, Nyameani, and areas within the lake basin.
- ❖ Diamond deposits are also located in River Afoa, Atasou, Atetesua, Obo, and Kwabena
- ❖ Sand and stones deposit are extensively exploited by the building industry in Adagya, Sawuah, Ayuom, Homabenase, Tetrefu, Atobiase, Jachie, Abuontem, Oyoko and Nnuaso
- ❖ Rock deposits can be found at Jachie.

- ❖ Clay deposits are found at Oyoko, Nuaso, Old and New Kokobriko and Krom Adwafo. The deposits are of various are of diverse colouring and can be tapped for use in brick and tile industries as well as pottery and ceramics.
- ❖ The only meteorite lake in West Africa, Lake Bosomtwe, is also located in the District. However, it is shared with Bosome-Freho district.

1.13.1 Impact of Human Activities

Human activities in the district have had an important impact on the environment and on the lives of the people. Bush burning has destroyed and continues to destroy a greater part of the vegetation cover and bio-diversity, particularly around Boneso area council. Thus the fertility of the soil is at risk and reducing potential resources for future generation. In some cases, communities, human beings and farms get destroyed during bush fires.

Logging in the forest areas of the district has caused destruction to farm lands. Coupled with the removal of both large and small trees the ecosystem has been destroyed in most areas and has affected the rainfall pattern in the district.

The extent of degradation of the environment and its effects on the land and water bodies has been remarkable. This, however, means that the current pace of human activities, especially farming must be closely monitored to prevent it from getting out of hand in future.

1.13.2 Vegetation management

Annual fires are a serious threat to the vegetation and all effort must be undertaken to control occurrence. Continuous clearing of the remnant forests is a serious problem in the district. This situation will be addressed through a set of actions aiming to stop illegal logging and the clearing of forest and other activities that degrade the vegetation. Encouraging the introduction of agro-forestry on farms, promoting diversity of cultures and the use of indigenous trees will be developed in order to restore the forest and prevent erosion, especially along the lake shore. Education and awareness on best practices and forest fire prevention will complement these actions.

1.13.3 Habitats and wildlife management

There is generally high abundance of wildlife in forested areas than open areas. The abundance and diversity of fauna species is substantially determined by human activities'. Wildlife habitats

(forest) continue to be converted to farmlands and degraded land in most areas. Very little forest remains outside of the Bosomtwe Range Forest Reserve. Hunting regulations will be enforced despite community members have come to rely upon bush meat as their source of food and forest reserve areas for economic activities. Also in the Lake itself, at the moment there are too many fishermen who fish everyday throughout the year. It has been shown that pressure from over 1000 fishermen in the 24 communities surrounding the lake has led to a drastic reduction of fish stocks. The sizes of fish being caught presently are becoming increasingly smaller resulting in the use of net mesh sizes as low as mesh size of mosquito nets which is 2mm.. To curb this menace there is the need to enforce the regulations and bye-laws, create awareness, education and provision of alternative livelihoods.

1.13.4 Farming and domestic animals

The indiscriminate clearing of the forest for farming is one of the major factors of environmental degradation in the area. Logging and clearing of forests for new farms are a common threat to the habitats in most of the communities. Illegal logging and chain-sawing activities' for instance, are relatively higher in the Bosomtwe Range Forest Reserve, part of which is to be designated as a core zone. Rearing of animals close to the shores of the lake or near streams is becoming a significant source of soil and water pollution exacerbated during the rainy season. Regulations and control mechanisms in order to avoid and reduce clearing the forest for new farms should be implemented, possibly through new legislation. Training and awareness on livestock management will be provided including the management of wastewater and residues resulting from livestock

1.13.5 Threat to Natural Resources

Increasing Population

This is probably the most significant threat that natural resources face. The district's population is increasing at a very fast rate. The increase in populations mean there will be pressure on almost all natural resources, which include the following

Land use: With more mouths to feed and people to house, more land will need to be cultivated and developed for housing, more land will need to be cultivated and developed for housing. More farming chemicals will be applied to increase food production. Many forest or vegetable

lands will be converted to settlements for people, roads and farms. These have serious repercussions on natural resources

Forests: Demand for wood (timber), food, roads and forest products will be more. People will therefore use more forest resources than they can naturally recover.

Fishing: fresh water food will face problems too as we will continue to depend heavily on them. Some of the fishing methods used are not sustainable, thereby destroying much more fish in the process.

Need for more: human's demand for a comfortable life means more items (communication, transport, education, entertainment and recreation) will need to be produced. This means more industrial processes and more need for raw materials and natural resources.

Climate Change

The alteration in climate patterns as a result of excessive anthropogenic **CO₂** is hurting biodiversity and many other abiotic natural resources. Species that have acclimatized to their environments may perish and others will have to move to more favourable conditions to survive.

Environmental Pollution

Land, water and air pollution directly affect the health of the environments in which they occur. Pollution affects the chemical make-up of soils, rocks, lands, ocean water, freshwater and underground water, and other natural phenomena. This often has catastrophic consequences.

1.13.6: Issues on conservation of Natural Resources

The principal issues with regard to conservation of the natural environment and resources are as follows;

- ❖ Great pressure on natural resources and the environment
- ❖ Deforestation including illegal felling of timber and agricultural encroachment into forest reserve
- ❖ Alteration of the natural environment by human activities especially forest that are found along water bodies eg. Lake Bosomtwe
- ❖ Depletion of fish in Lake Bosomtwe
- ❖ Illegal sand winning and illegal mining activities causing environmental hazards
- ❖ Depletion of vegetation cover as a result of bush fire

- ❖ Pollution of water bodies
- ❖ Drying of water bodies
- ❖ Increasing frequency and impact of droughts, floods, forest fires and other natural disasters in both urban and rural areas

1.13.7 Strategies for Conservation of Natural Environment/ Resource

- ❖ Undertake public education on conservation of the forest
- ❖ Enforce bye-laws on conservation of the forest
- ❖ Conserve the surrounding areas of Lake Bosomtwe by designating them as a conservation area where only limited development is permitted, conserving precious nature, as well as for sustainable tourism development
- ❖ Stop the use of small-sized fishing nets in fishing in the lake
- ❖ Prevent dumping of solid waste into streams
- ❖ Plant trees along water bodies especially, Lake Bosomtwe

Natural resources are dominant factor in development however development is defined and whatever sector of development is contemplated. They are precious and therefore demand deserve great care in their use.. The sad truth is that the priority of most developers, if left to themselves, is to extract or derive maximum profit or satisfaction for themselves from these resources. Social benefit and the care of the environment do not stand high on their agenda. This is why it is necessary to regulate natural resource use so that the financial and economic benefits from such use are not outweighed and rendered almost worthless by the damage done to the land and the environment.

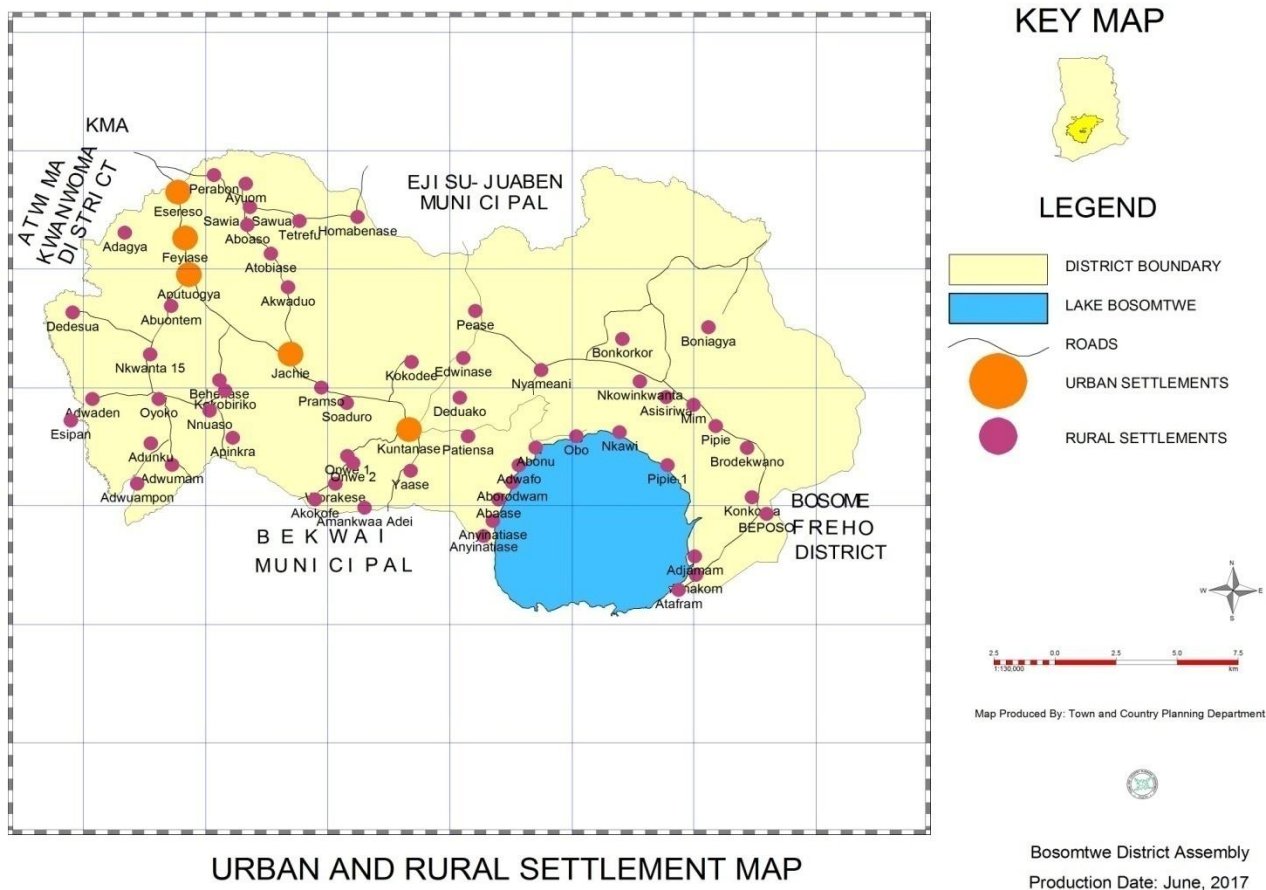
1.14 Population Size and Distribution

Bosomtwe District had a population of 93,910 in 2010 with male population representing 47.7 percent and that of the female population representing 52.3 percent. This gives a sex ratio (i.e. number of males for every 100 females) of 91.2 showing that there are more females than males in the District. The projected population for 2017 is 119,444 using a population growth rate of 3.47 percent In terms of density, the District's population density is 283 persons per sq.km.

1.14.1 Rural Urban Split

The District has a more rural population (65,535) than urban population (28,375). The District is primarily rural (69.7%). The urban settlements include Esereso, Feyiase, Aputuogya, Jachie and Kuntanase. Some of the rural settlements include, Abono, Piase, Obbo, Mim, Bonkorkor, Deduako, Nnuaso, Apinkra etc. Figure 1.10 shows the urban and rural settlements in the district.

Figure 1.9: Urban and Rural Settlements in the Bosomtwe District

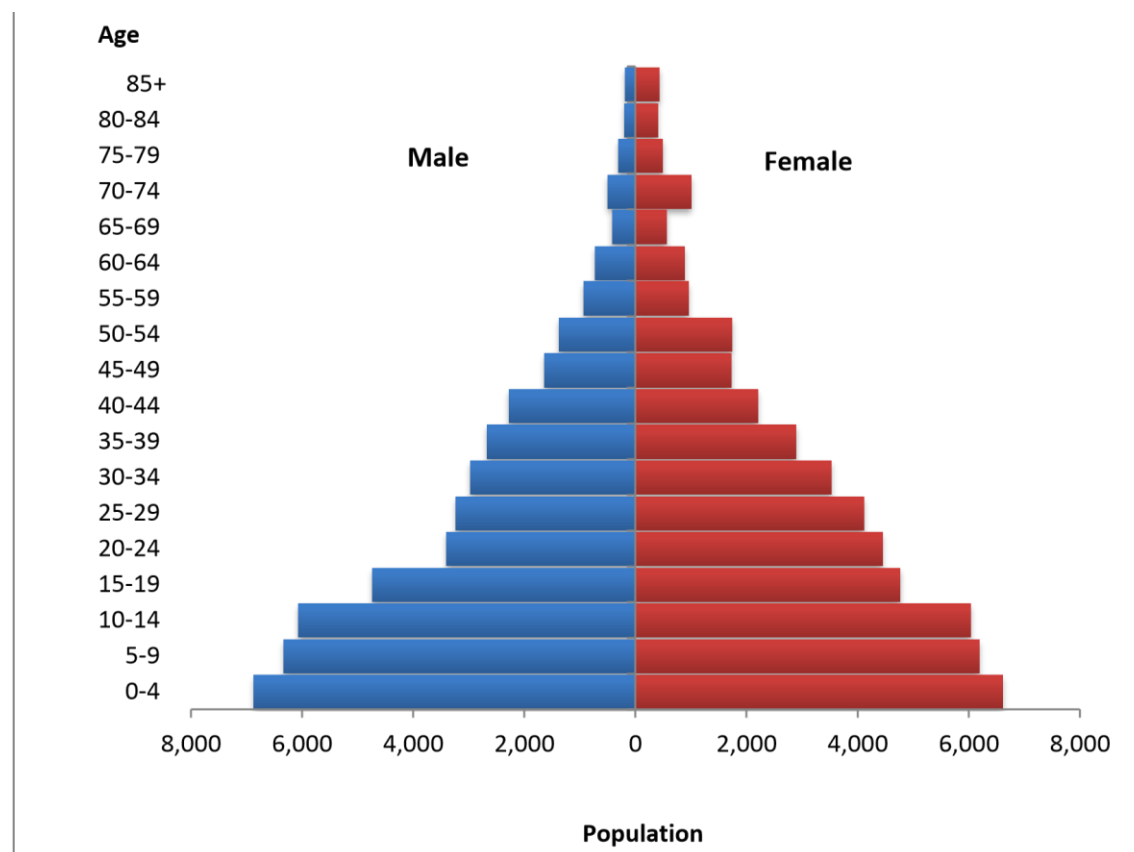


1.14.2 Age-Sex Structure

The population pyramid (Fig. 1.12) shows that the District has a youthful population, comprising large proportion of children under 15 years, and a small proportion of elderly persons (65 years and older). The proportion of males in the age group 0 - 14 years (20.5%) computed, is slightly higher than the females (20.0%). Similarly, proportion of the age group 40 – 44 years of the male population (2.4%) is slightly higher than the females (2.3%), while the other age groups have females outnumbering the males in all the other age cohorts. As the age cohorts increase,

proportions of males to females decrease except for the age group 70-74 years. The age structure in Figure 1.10 .shows a pattern of population decreasing as age increases, suggesting the effect of mortality and migration.

Figure 1.10: POPULATION PYRAMID FOR BOSOMTWE DISTRICT



Source: Ghana Statistical Service, 2010 PHC

1.14.3 Age Dependency Ratio

The Age Dependency ratio is the relationship between persons in the “dependent age” to those in the “economically productive age”. It is measured per 100 population. The Dependent age is defined as the population under age 15 and those above age 64. The economically productive age is also defined as the population between age 15 and 64.

The District has a high age dependency ratio of 83.2. This means that there are 83 persons in the dependent ages for every 100 persons in the working ages for the District. In terms of sex, the males are more dependent (87.18) than females (79.71) in the District. Again, the age dependency ratio in the rural areas is relatively higher (89.34).

1.14.4 Implications of District Population for development

- ❖ Because of the high growth rate (3.47%) there is the urgent need for the intensification of educational programmes on family planning in order to reduce the high growth rate.
- ❖ The large proportion (92.2%) of the population in the 0 - 59 years is an indication of a large potential labour force for the district if given the needed training
- ❖ The large pool of youth in the population calls for the provision of socio-economic facilities and services to train the people and to reduce pressure on existing facilities
- ❖ With the youth migrating to the urban areas particularly Kumasi, Accra and other urban centres in the district like Esereso, Aputuogya and Kuntanase in search of jobs, farming is left to the ageing farmers

1.14.5 Migration (Emigration and Immigration)

Migrants are defined as persons who are enumerated in a place different from where they were born. The 2010 PHC sought to find out the place of birth and the number of years a person had lived in a particular place .Out of the entire population of 93,910 in the District, 44.9 percent computed are migrants who have lived in the District for some length of time. Most of the migrants have lived in the District between 1- 4 years, for example, 42.2 percent of migrants born elsewhere in the region (Ashanti) and 29.3 percent of those born outside Ghana have lived in the District within the past four years. For migrants born in other regions outside the Ashanti Region, the highest proportion come from Upper East (13%), followed by Upper West (11.5%) while Greater Accra recorded the least (4.6%).

The forms of migration in the district include rural –urban migration, urban –rural, rural-rural and urban to urban. However the rural urban migration is the predominant one. Rural urban migration is a form of so-called internal migration which means a movement within a country. It refers to to the movement of people from the rural areas to the urban centres. This change of residence is often connected with migration of labour and a career change from primary to second or third sector. It is obvious these developments always show two ideas, one side or new destinations gains population whereas the other side, the area of origin looses people. There are different reasons that cause rural-urban migration. They are the so-called push and pull factors. The push factors are factors that force migrants out of rural areas. Whilst the pull factors are the

factors in the urban centres that attract the rural folks to urban areas. Most rural folk in the district migrate to places like Kumasi, Accra which are outside the district. Within the district the people usually migrate to places like Esereso, Aputuogya, and Kuntanase

The Factors and determinants of migration are rather diverse and they can be split up in economic and non-economic reasons

- ❖ Economic push factors include unemployment or under-employment in rural areas
- ❖ Low wages and no assets in the rural communities
- ❖ Lack of land, which is sometimes due to inheritance system that split the land among a large number of people' making it less productive

Non-economic push factors play an additional role and mainly include poor rural infrastructure in general. i.e poor living conditions referring to housing, education possibilities and health care. Economic pull factors include factors that attract people to move into cities caused by higher demand of labour.

Non-economic pull factors include social factors such as hope for better health care and education provision of the urban facilities and as a way of life in general as well as factors like family networks.

1.14.5 Development Implications of migration in the district

The increasing numbers of people moving to the large urban areas in the district cause these areas to grow and thereby putting pressure on the facilities. This explains why urban centres like Aputuogya, Esere, Jachie and Pramso have high school enrolment rates. There is therefore the need to build more classrooms to accommodate the increasing enrolment.

Apart from the enrolment rate, there is also low sanitation and water coverage in these areas. There is always heaped refuse dumps in these communities. Measures have to be put in place to provide additional refuse containers and water facilities.

One negative effect is rural depopulation which means that large numbers of working age people migrate from the rural areas to earn more money in the urban centres. But then, they leave behind the very old and the very young causing further problems in rural development as the young, skilled adult are missing. In the district for instance the farmers are aging and therefore affecting agriculture productivity.

The positive aspect of this migration is that the migrants send remittance to their families in their area of origin could contribute to further development in the village of origin.

However, because of the negative effect of migration in the rural areas the District Assembly will collaborate with its development partners to put in measures to improve the living conditions in the rural communities to stem the rate of migration in the district. These will include:

- ❖ Improving road condition
- ❖ Improving educational infrastructure
- ❖ Improving health service delivery
- ❖ Improving agriculture to make it more attractive to the youth
- ❖ Enhancing sanitation service delivery
- ❖ Increasing access to potable water
- ❖ Facilitating the creation of decent jobs for the youth

1.15 Gender Equality

According to the 2010 PHC, Bosomtwe District has a population of 93,910. The male population represents 47.7 percent and that of the female population represents 52.3 percent. In this regard, the relevance of gender mainstreaming in local development cannot be over emphasized.

Gender refers to the social construction of female and male identity. It can be defined as more than biological differences between men and women and includes the ways in which those differences, whether real or perceived, have been valued, used and relied upon to classify women and men and to assign roles and expectations to them. It also refers to socially constructed power relations between men and women as social categories in which women are invariably subjected to men.

Generally, development projects affect women and men differently and women and men will have different impact on projects. As the two key stakeholders, both must be involved in identifying problems and solutions if the interests of the community as a whole are to be furthered. Bridging the gender gap has always been a global phenomenon and Ghana is no exception. To deal with this issue, the Bosomtwe District Assembly has kept track of information regarding gender in the major sectors in the District.

Table 1.11 .shows the gender profile of the District.

Table 1.11: District Gender Profile

NO.	SECTOR	TOTAL FIGURE	MALE	FEMALE	PERCENTAGE (%)	
					M	F
1.	District Population (2017)	119,444	56,975	62,469	47.7	52.3
2.	Assembly Members	50	46	4	92	8
3.	School Children (Basic)	40,733	20,808	19,925	51.1	48.9
4.	Teachers-Basic Schools both public and private	40,743	20,808	19,940	51.1	48.9
5.	District Education Workers	66	46	20	69.7	30.3
6.	Health Workers	198	159	39	80.3	19.7
7.	CA	48	30	18	62.5	37.5
8.	Social Welfare. & Comm. Dev't	16	8	8	50	50
9.	Agriculture	28	19	9	67.9	32.1
10.	Physical Planning	6	4	2	66.7	33.3
11.	Controller and Accountant's General Office (Finance)	19	12	7	63.2	36.8
12.	District Environmental Health Workers	12	5	7	41.7	58.3
13.	Works	9	9	-	100	-
14.	Non Formal	8	5	3	62.5	37.5
15.	NADMO	29	24	5	82.8	17.2
16.	Trade and Industry (Business Advisory Centre) Co-operative	3	1	2	33.3	66.7

Source: DPCU – BDA, 2017

1.15.1 Gender and the Use of ICT

Out of the total population of 93,910 in 2010 in the Bosomtwe District, 62,792 representing (51.4%) have mobile phones. The proportion of males having mobile phones (52.5%) is higher than females (47.5%). Only 3.9 percent use internet facility which is lower than the Regional average of 8.9 percent. Also only 4.4 percent of the households own desktop and laptop computers which is lower than the Regional average of 9.3 percent.

1.15.2 Gender, Literacy and Education

Of the population 11 years and above, 83.6 percent are literate and 15.4 percent are non-literate. The proportion of literate males is higher (91.5 %) than that of females (74.4%). The majority (66.3%) indicated that they could read and write both English and Ghanaian languages. There are more males (75.1 %) who are literate in English and a Ghanaian language than females (66.3%). However, there are more females (15.1%) who are literate in English only than males (12.6%)

Out of the total population of 38,042 computed, proportions of males and females who have attended school in the past before the Census in 2010 were 49.3 percent and 50.7 percent respectively. Proportion of females (18.2%) who have attained primary education is relatively higher than the males (8.4%). Similarly, proportion of females (39.1%) with JSS/JHS education as shown in the table is higher than the males (33.1%). However, the proportion of females dwindles after SSS/SHS to the level of tertiary education where the male (5.9%) proportion is higher than that of the females (2.5%).

In the district, lack of qualifications and narrow range of skills limits female access to formal employment. In rural areas, lack of female education is likely to limit farm productivity.

The gender gap in education is unlikely to be adequately tackled by a concentration on education provision in isolation. Factors such as female child labour, domestic and childcare responsibilities and contraceptive provision to reduce adolescent pregnancy also need to be addressed.

1.15.3 Gender and Health

Fertility rate in the district is high (3.5) and there is no clear evidence to suggest that they are in decline. High fertility rates are linked to demographic factors such as early age of first marriage and childbirth. However, economic, social and cultural factors clearly underlie these patterns, particularly women's relative lack of education and economic opportunities. Unequal gender relations manifest themselves in decision making patterns relating to fertility, which tend to reflect male rather than female preferences.

Teenage pregnancy in the District is on the increased. In 2014(12.8%), 2015 (17.9%) and 2016 (19.0%) Education at schools and communities should be intensified .The District need support to institute adolescent health programme

As long as women lack bargaining and decision making powers within sexual relationships, conventional family planning initiatives will have limited success. Greater involvement of men in family planning activities is required and other measures to encourage joint decision making in family planning practice.

Men form the majority of HIV/AIDS cases in the district at present, although the proportion is falling. In 2014 a total of 202 people were screened and tested positive, Out of this 79.7 percent were males and 20.3 percent females. In 2015 the number of cases dropped to 198 of which 76.3 percent were males and 23.7 percent were females.

1.15.4 Gender and the District Economy

Women's labour participation rates are generally high throughout Ghana and the Bosomtwe District is not an exception. The most striking feature, however, is that more women (70.1%) are self-employed or work as unpaid labour in agriculture, agro-based enterprises and commerce or small scale manufacturing in the informal sector, in activities with low productivity which on average yield low incomes.

The division of labour in Bosomtwe District is highly sex-segregated in both the traditional and modern wage sectors. Only a very small number of women have broken through into modern sector occupations and even fewer into managerial positions. According to the 2010 Population and Housing Census the proportion of economically active males (94.2%) are relatively higher than economically active females (91.1%). In the Bosomtwe District, skilled agricultural, forestry and fishery workers remain the dominant occupation for both males (32.2%) and females (38.8%). Again, a much higher proportion of females (35.4%) than males (10.7%) are engaged as service and sales workers. With regards to craft and related trade workers, males (25.5%) have a higher proportion than females (10.2%).

Information on employment by sectors of persons 15 years and older shows that the private informal sector is the largest employer in the District, accounting for 86.2 percent of the economically active persons. The private formal sector is the second largest employer, accounting for 7.7 percent, while the public sector employs 5.3 percent of the population 15 years and above in the District. In the district higher proportions of males than females in all the other sectors except the private informal sector where females employed (91.6%) is significantly higher than males (80.3%)

Women predominate in the trading sector, mainly in petty trading, although a small minority of women has gained substantial market power. Most women in commerce are involved in informal, low productivity petty trading and hawking. These activities are strongly concentrated in highly perishable, low profit goods including agricultural produce and traditionally processed goods. Women's trading activities are hindered by poor infrastructure, bad road conditions, weak marketing channels, limited storage facilities, and lack of other facilities at market places such as water and toilets.

1.15 5 Violence against Women

Violence against women is a subject which has received relatively little public attention in the district and, reflecting this, about which there is little information. However, violence against women is widespread, at institutional, community and domestic levels, taking a variety of forms.

1.15.6 Political participation and representation

Bosomtwe women like any Ghanaian woman are effectively under the control or authority of men (initially their father or other male members of their kin group and later their husband) for much of their lives, although they may gain in status and influence with age. As a result, women's decision making role is constrained in both private and public spheres, markedly so with people of the northern extraction. However, where women do exercise political power, in the traditional framework, it is largely in parallel structures or by influencing male authorities

On the political scene, women in the district are not left out, though they are in the minority. Out of the total of fifty (50) Assembly members in the district, only 4 (8 percent) are women, while forty-six (82 percent) are men. Of the 4 Assembly women 2 are elected and 2 appointees. Since the creation of the district only one woman has ever been appointed as a District Chief Executive but no woman has ever been elected as a Presiding Member. There is one woman who is a chairperson of one of the three Area Councils. None of the 35 Unit Committee chairpersons is a woman. The political scene is a male dominated area and therefore limits women who are in the majority in decision making. Again, of the five statutory sub-committees of the assembly none has its chairperson to be a woman

More men are in higher positions in the district than the females. However, the impact of women activities in the district in areas of farming, commerce, trading and others is tremendous and commendable.

1.15.7 Identified Key Gender Issues in the District

- ❖ High illiteracy rate among the youth, particularly those in the rural areas.
- ❖ Lack of employable skills
- ❖ Women are highly under-represented in formal sector
- ❖ Relative to men, women generally have limited access to formal credit
- ❖ Continuing gender imbalance in access to education
- ❖ High birth rate
- ❖ Child neglect
- ❖ Teenage pregnancy
- ❖ Single parenthood among women in the district.
- ❖ Low participation of women in decision making

1.15.8 Key Interventions in Gender Issues

- ❖ Female economic groups in the district should be assisted to access credit to develop their businesses
- ❖ There is a need to promote female enrolment in non-traditional vocational/technical education at post primary level in order to broaden their economic opportunities.
- ❖ Factors such as female child labour, domestic and childcare responsibilities and contraceptive provision to reduce adolescent pregnancy also need to be addressed.
- ❖ More female participation in the District Assembly concept must be encouraged.
- ❖ The girl-child education sponsorship programme in the district must be continued to encourage more girls to attend and complete tertiary institutions.
- ❖ The youth should be empowered through education and training in employable skills through the collaboration between the Assembly, traditional authorities, parents/guardians and development partners
- ❖ Child panel should be established, well equipped and supported to protect and promote the welfare of children in the district.

1.16 Settlement System

1.16.1 Location and Distribution of Services

Spatial distribution of services is an important issue in dealing with spatial organization.. This together with conditions of communication and transportation system and social factors

determine the access the people have to basic services. The analysis of the service distribution was made using the functional matrix (scalogram) method/technique. This is the matrix presentation of the functional structure of settlements. This technique enables the determination of hierarchy of settlements in the districts and hence the nature of spatial integration. About 36 services were considered in the analysis covering all the sectors of the district economy, transport and communication, security, public administration, education, health, agriculture, water and sanitation etc. The type of services and their distribution in the district are shown in the table 1.12

1.16.2 Hierarchy of Settlements in Terms of Functions

From the scalogram analysis, the variety and level of services in each of the settlements was determined. Based upon these, the settlements have been ranked in a hierarchical order. The analysis revealed a weak linkage between population distribution and service distribution and skewness in the distribution of service to the detriment of the rural areas. Kuntanase, the district capital which is a first order settlement has less than 5000 people. In terms of spatial equity, it was revealed that the services centers are concentrated on the Kumasi –Kuntanase main road where towns like district capital Esereso, Feyiase, Aputuogya, Jachie, Pramso and Kuntanase are found.

The district as a whole is deficient in service facilities. Apart from Kuntanase which is the district capital and Pramso with total centrality of 1596 and 1132 respectively, the rest of the settlements inadequately have certain services. This revealed that the variety, level of quantity and distribution of services in the district are not satisfactory.

Table 1.12: Scalogram before Plan (2017)

Hierarchy Level	Total Cent Score	Total No. of fxn	Guest House	Hotel	Unit Committee	Area Council	District Admn	Rural Bank	Feeder Road	2 nd Class Road	Magistrate Court	Fire Station	Police Station	Police Head Qtrs	Agric Extension	Agric Dept	Electricity	Dumping Site	Refuse container	VIP	KVIP--Public	Water Closet	Hand-dug well	Hand-dugwell (P)	Borehole	Mechanized bore	Small Town	Chemical Shop	Pharmacy	CHPS	Health Centre/ci	Hospital	Pre-school	Primary	J.H.S	Tech/Vocational	S.H.S	Tertiary	Population 2017	Weight (w)			
2 nd d	561	21	x	X	x				x						x		X	x	X			x		x	x				x			X	X	x	x			13994	Esereso				
	636	19	X		X					X			X		x		X		X			X		X	X	X			x			X	X	X					9529	Feyiase			
	333.	18	X		x	x		X		X					X		X		X		X			X	X	X	X		x			X	X	X	X					9354	Jachie		
1 st t	583	21	X		X		X			X					X		X		X			X	X	X	X	X			X			X	X	X	X	X					6903	Aputuogya	
	1596	29	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X	X	X			X							X					4568	Kuntanase	
	105	12			X				X						X		X		X			X			X				X												4158	Adagya	
1 st s t	1132	19			X					X					X		X	X				X	X	X	X	X			X				X	X	X	X	X					4155	Pramso
	211.	12			X				X						X		X					X		X	X				X												3997	Sawua	
	55	12			X				X						X		X		X		X			X					X												3993	Abuontem	
	60	12			X				X						X		X	X						X				X						X	X							2960	New Brodekwano

Pranyase	2537						x							x	x						x	x							x				x		x	8	53	4 t h
Piase	2379					X	X	X		X			X			X			X	X	X							X					X			12	77	
Aduaben	2123					X	X	X				X			X			X	X	X								X					X			1 1	46	
Nyameani	2050					X	X			X			X			X			X	X	X							X					X			1 1 1	60	
New Kokrobiko	2023						x					x			x			x		x								x					x			8	29	
Abrankese- Swedru	2014					X	X	X				X			X	X		X		X	X	X						X					X			1 2	72	
Asisiriwa	1988					X	X	X							X		X		X	X	X							X					X			1 1	41	
Beposo	1725					X	X	X		X		X	X			X		X		X	X							X					X	X		1 5	194.	
Tetrefu	1699					X	X	X		X			X	X			X			X	X							X					X			1 2	167	
Oyoko	1642					X	X	X				X			X			X		X	X							X					X			1 0	38	
Homabenase	1618					X	X	X							X			X			X	X						X					X			9	33	
Worakose	1479					X	X	X							X	X			X			X	X										X			9	59	
Adwuman	1465					X	X			X			X			X			X		X							X					X			1 0	85	
Nkwanta	1424					X		X				X			X	X			X			X	X					X					X			1 0	61	
Dedesua	1401					X		X				X			X			X			X	X						X					X			9	33	
Yaase	1367					X	X								X			X			X	X						X					X		X	9	38	
Apinkra	1340					x	x	X		x		x			x		x				X	X						x					X			1 1	35	
Abonu	1284					x	x	X		x		x			x	x		x	x			x	X	X				x					X		x	1 5	125	

Adwafo	1281					x	x	X					x					x	X		X							x				X		x	1 2	45.5 5	
Prabon	1220					x	x	X							x	x			x		X	X						x				X			1 0	59.2 9	
Nnuaso	1172					x	x	X								x			x		X	X						x				X			9	30.7 2	
Kokodei	1124					x	x	X								x			x		X	X						x				X			9	30.7 2	
Konkoma	1057					x	x	X		x			x						x		X	X						x				X			1 0	30.7 2	
Toafom	1003														x	x		x		x		X	X					x				X			8	73.9	
Atobiase	941					x	x	X				x				x	x		x		X	X						x				X			1 1	39.8 1	
Onwi No. 2	928					x	x									x			x		X	X										X			7	28.0 2	
Amakom	865					x	x	X		x			x				x			X	X							x				X		x	1 2	37.8 6	
Akokofe	845					x	x	X			x		x			x	x		x		X	X							x			X			1 3	98.9 8	
Pipie No:1	831					x										x			x		X	X						x				X			7	25.4 6	
Adunku	745					x		X								x	x		x		X	X						x				X			9	47.6 6	
Obo	613					x										x			x		X	X						x				X		x	8	18.3 2	
Akwaduo	599					x										x	x		x		X	X						x				X			8	47.6 6	

Nkowi	571					x	x					x				x					X		X						x				X			9	52.9	2				
Old Kokrobiko	564					x		X		x						x			x	x			X		X					x				X			1	80.9	6			
Ajamam	558					x		X								x			x			X		X						x				X			8	25.4	6			
Deduako	549					x		X								x			x			X		X						x				X			8	25.4	6			
Mim	527					x	x	X				x				x			x			X		X						x				X			1	30.7	2			
Anyinatiase	501					x		X								x		x		x			X		X					x				X		x	1	28.8	4			
Patriensa	487															x			x			X		X						x				X		x	7	43.3	8			
Ayuom New Site	482					x										x			x			X		X										X			6	22.7	6			
Lake Side Adwafo	416					x	x									x			x			x		X						x				x		x	9	37.8	6			
Number of settlement (N)			2	6	3	4	3	3	3	1	2	15	21		1	5	9	11	9	45		6	1	5	1	5	1	2	1	1	1	3	3	2	3	5	3	1				
Centrality Index (100)		10	100	100	10	100	100	100	10	100	100	100	100	100	10	10	100	10	100	100	100	10	100	1	100	100	10	100	100	100	100	100	100	100	100	10	10					
Weighted Cent Score	<u>WxCI</u> N	300	83.3	1	6.52	5.26	2.70	10	14.2	50	13.3	4.7		28.5	5.8	22.9	0.9	33.4	4.44		33.3	7.69	1.9	100	1.9	200	50	10	100	20	2.70	33.3	150	66.6	2	66.7	7.1					

Table1.13. Level of Hierarchy

Level	Range of Centrality	No. of Communities	Major Communities	Total Population	Characteristics / Key Functions
1 st Order	1,000 and above	2	Kuntanase,, Pramso	8723	Administrative Commercial, Educational, Social
2 nd Order	500and above	3	Esereso Feyiase Aputuogya	30,426	Commercial, Social Educational
3 rd Order	100 and above	6	Jachie Sawua Adagya Beposo Tetrefu Abono	22,217	Social Agricultural
4 th Order	Below 100	55	Onwe, Nnuaso, Kokodei, Atobiase,Konko maetc	52,111	Agricultural

Source: Field Survey, August, 2017

1.16.3 Accessibility to Services in the Bosomtwe District

After identifying the level and variety of services and facilities in the district (using the functional matrix/scalogram analysis) a further analysis was made to determine the accessibility of these services and facilities in the district to the people. Accessibility is the ease with which an individual can move from an origin to a destination to enjoy a service and return.

The concept is based on time spent in getting to enjoy a service. This time is a function of the distance to be covered to reach the location of service and the means of transport. All things being equal, the further the location of the service centres, the less accessible that service is to the people. Where there are improved means of transport, people can cover distances easily and enjoy services with a reasonable time limit. The basic assumption underlying the accessibility analysis is that travelling to enjoy a service is affected by the conditions of communications channels used, time taken and distance covered.

In Bosomtwe district, roads (first, second and third class) and footpaths, the main modes of transport, were considered. In all, five services were considered having in mind their relative importance in providing basic services to the people in the district. These are health services, banking, senior secondary school, and weekly market and police services.

The communities are linked by types of roads and footpaths. Currently, the total length of road is 415 kms, of which 80 percent (332 kms) are classified as feeder roads. The over concentration of roads and other facilities at Esereso, Feyiase and Aputuogya attract population and investment into the district. Economic and social development can be measured in terms of the ease at which one can move from one destination to another and enjoy a facility or facilities and come back. This is measured by the time travel time is the maximum time one has to travel to enjoy a particular facility for access to be considered one can use to travel (waiting time and travelling time). In the district some locations are more accessible than others in terms of access to health, markets and police services. The acceptable adequate. (See tables 1.16 and 1.17)

Table 1.14 Average Speed/Waiting Time

Road Class/Walk	Speed	Waiting Time
Trunk Road	60 km/hr	10 minutes
Feeder Road	40 km/hr	30 minutes
Walk	3 km/hr	-

Source: District Poverty Profiling and Mapping (Revised), 2017

Table 1. 15 Acceptable Travel Time to Access Selected Facilities and Services

Facility/Service	Acceptable Travel Time
SSS/Vocational School	40 minutes
Hospital/Health Centre	30 minutes
Weekly Market	40 minutes
Banks	40 minutes
Agricultural Extension	30 minutes

Source: District Poverty Profiling and Mapping, 2017

The range within which people can access the various facilities/services in a good (stipulated) time using the forms of transport (types of road) available to them has also been indicated (see table 1.18.).

Table 1.16 Facilities and Maximum Distances within Adequate Accessibility

Facility/Service	Walking Distance (km)	Tractor Trail Distance (km)	Feeder Road Distance (km)	Trunk Distance (km)
SHS/Vocational School	2	1	18	34
Hospital/Health Centre	1.5	0.75	13.5	25.5
Weekly Market	2	1	18	34
Banks	2	1	13.5	34
Agricultural Extension	1.5	0.75		25.5

Source: District Poverty Profiling and Mapping, 2017

The table 1.18 for example, shows that in the district only those within 2 km radius from the location of a second cycle school can reach there in 40 minutes. Those travelling on the feeder roads who can reach the Senior High School (SHS) and/or Vocational institutions within the same stipulated time of 40 minutes are only those within a distance of 18 km from the location. This is due to the condition of the roads and the frequency of transport on the roads. It may be interesting to know that someone on a tractor trail would prefer walking to taking a vehicle due to the effect of long waiting time for vehicles. It is also indicated that few number of towns in the district can access all the services.

The Surface Accessibility in the District can be described as poor. The poor connection of the road network – linking remote areas, greatly affects the production and distribution of goods and services in the district. The incidence of post-harvest losses is attributed to this major problem.

1.16 4 Accessibility to Health Facilities

Accessibility to health facilities in the district is skewed towards the urban and semi-urban towns with a few community and missionary clinics established in the rural and remote areas. There are twenty-one (23) health facilities, excluding the two training institutions in the district as shown in table 1.below:

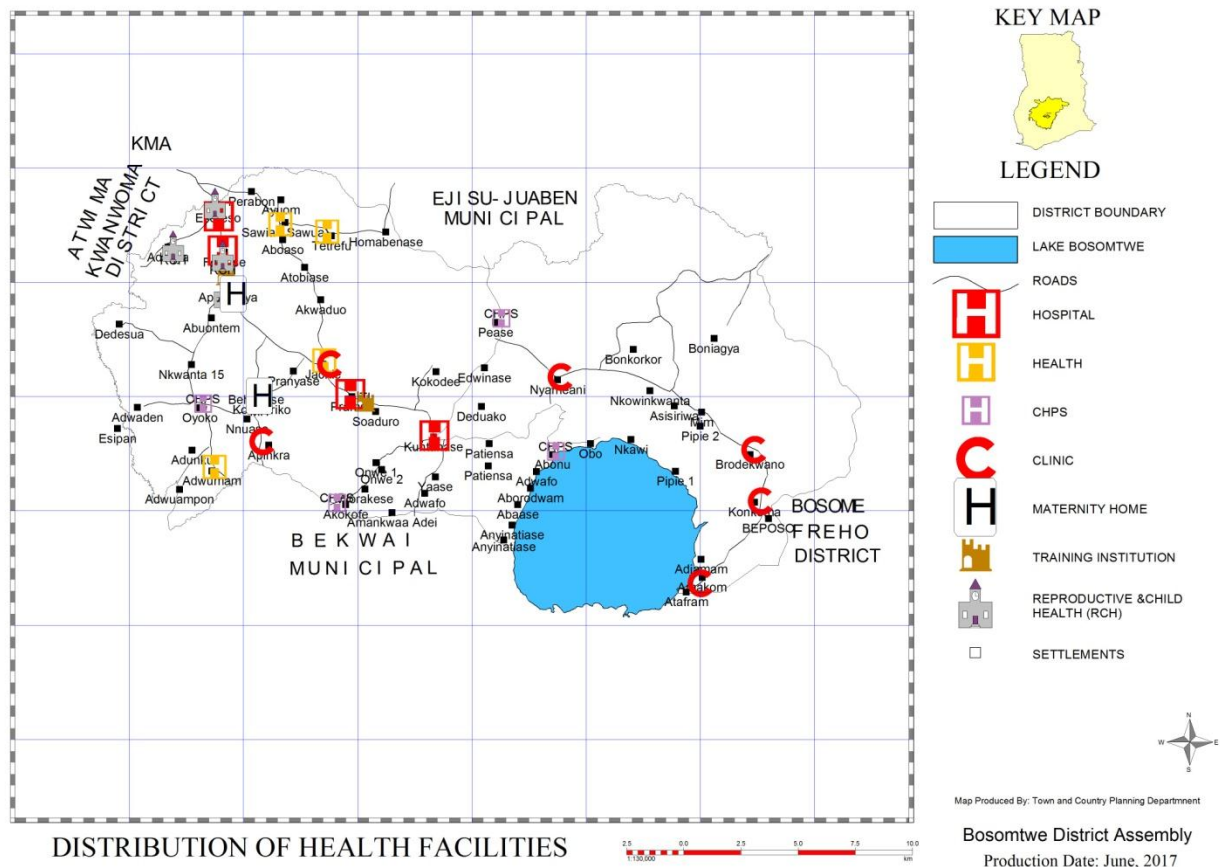
Table 1. 17: Distribution of Health Facilities in the District.

Hospitals	Health Centres/CHPS Comp	Clinics	Maternity Homes	Training institution	RCH Centres

Kuntanase Hospital (G)	Jachie H/C (G)	Nyameani Methodist Clinic (M)	Comfap Maternity Clinic New Kokobriko (P)	Midwifery Training School(M)	Aputuogya RCH
St. Michael's Hospital (M)	TetrefuH/C (G)	Brodekwano Methodist Clinic M)	God's Grace Maternity Clinic Aputuogya (P)	Royal School of Management and Health Care (P)	Esereso RCH
Divine Mercy Hospital (P)	Piase CHPS Comp (G))	Amakom Methodist Clinic (M)			
Ayush Memorial Hospital (P)	Amakom CHPS Comp(G)	SDA Clinic – Konkoma (M)			
	Akokofe CHPS Comp(G)	ST. Mary's Clinic - Apinkra (M)			
	Oyoko CHPS Comp (G)	Jachie Eye Clinic (M)			
	Abono CHPS Comp(G)				

NB: G – Government Institutions, M – Mission, P – Private

Fig 1.11 Spatial Distribution of Health Facilities



1.16.5 Agricultural Extension Services

The important role that Agricultural Extension Officers play in the dissemination of information to farmers and the promotion of innovative ways of agricultural production cannot be over emphasized. The introduction of new breeds of animals to farmers, for increased production, extension services to improve crop yield and technical advice offered to these farmers have contributed to increases in crop and food production. The diversification of the culture from the mono-crop farming to non-traditional crops such as vegetables which have ready market is geared towards improving farmers' income and soil fertility. All these have been possible as a result of the help of these extension services. However, the district has low extension service capacity in terms of staff and logistics. There is therefore the need to increase the staff strength and adequate logistical support provided to enhance extension services delivery in the district.

1.16 .6 District Police Service

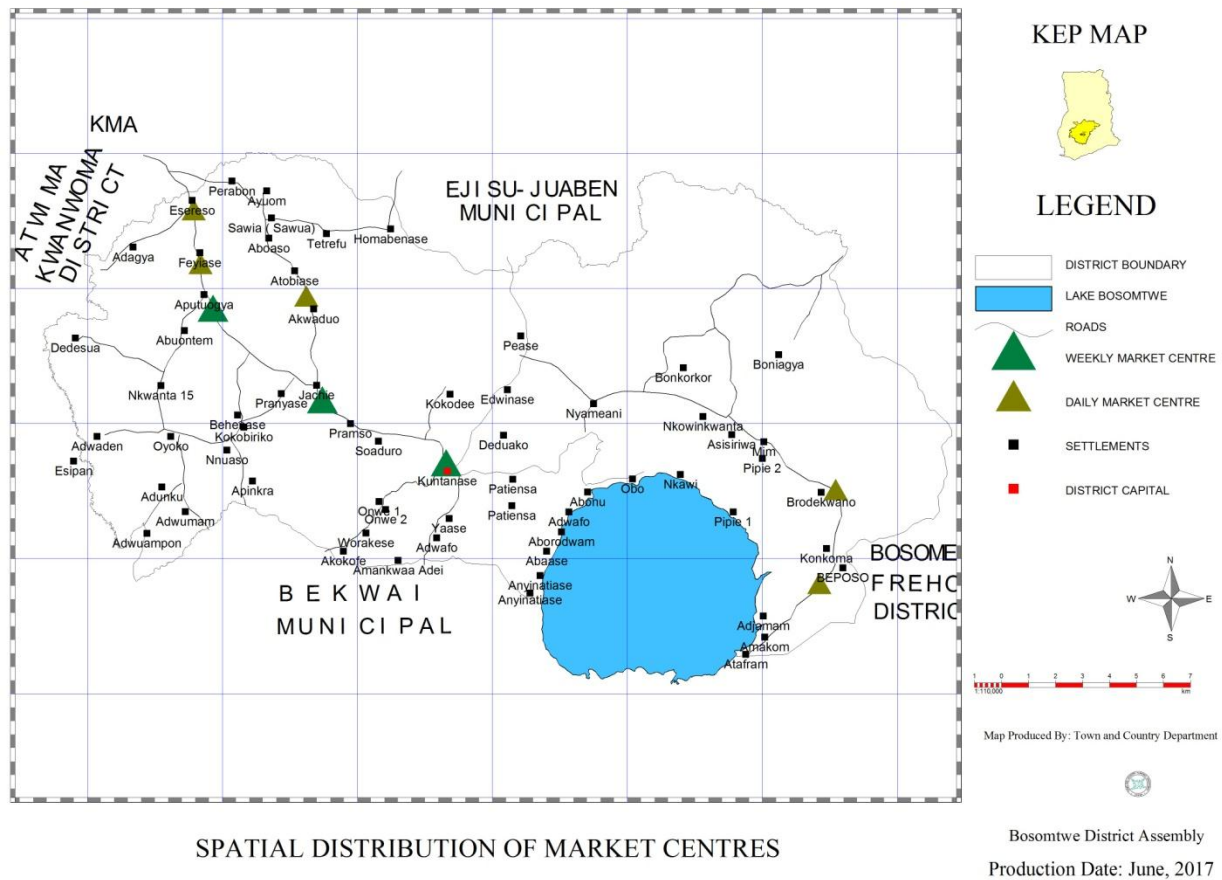
The security in the District is of prime importance as the peaceful atmosphere created promotes congenial atmosphere for people to go about their duties without any threat and fear. The District is under the Command of an Assistant Superintendent of Police and has four [4] stations under it. They are Kuntanase, Jachie, Feyiase and Kessben College of Education Police Station. Surface accessibility of the police service is poor in the district which has resulted high crime rate.

1.16.7 Production and Marketing Centres

Mainly, agricultural activities are undertaken in the rural areas where the soils are conducive for food and cash crops production. Major cash crops such as cocoa, oil palm and vegetables such as cabbage, citrus and tomatoes are cultivated.

The district has a host of daily markets of varying sizes. Most settlements has a market in one form or the other, with few having facilities for displaying and selling of wares. The four main markets are at Aputuogya, Jachie, Kuntanase and Esereso. These markets also double as weekly markets, where traders within and outside the district meet to transact business. Even though there are host of markets in the district, these markets do not have improved facilities. There is an on-going arrangement to construct a new market Aputuogya under a Public Private Partnership. There is the need for the Assembly to improve the market structures in communities like Jachie, Kuntanase and Esereso. Also because of the Construction of the Regional Hospital at Sawua, the Assembly will collaborate with the Sawua-Sub Tradional Council to put in place measures to engage a private investor to construct a market at Sawua

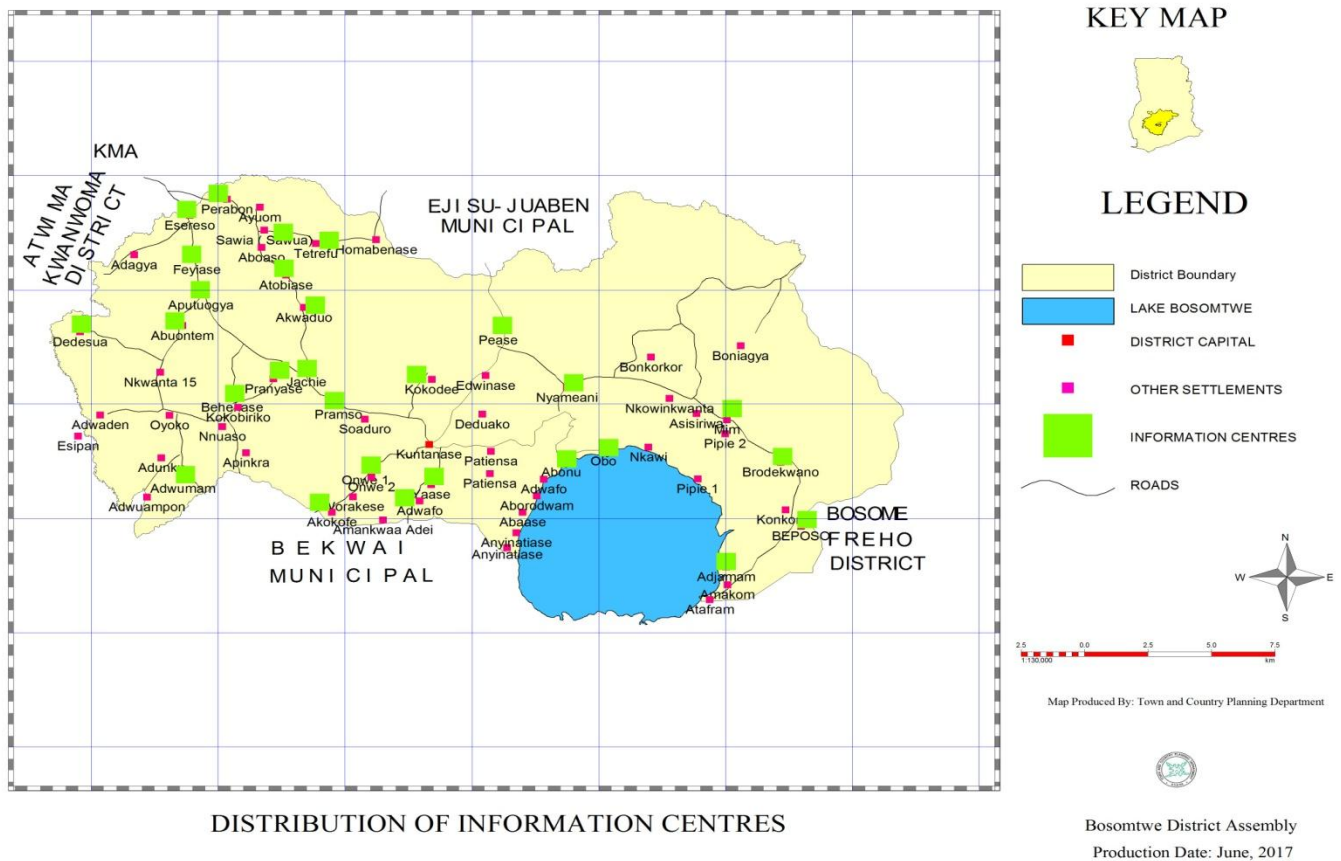
Figure1.12: Spatial Distribution of Market Centres



1.16.8 Information Centres in the District

There is no FM station in the district. It however has about 30 Information Centres which transmit information from affiliate FM Stations. Even though the district does not have its own FM station, most of FM , stations in Kumasi, Ejisu Konongo, Bekwai, Obuasi Koforidua and Nkawkaw are received in the district. Information Centres in the district are shown in Figure 1.12

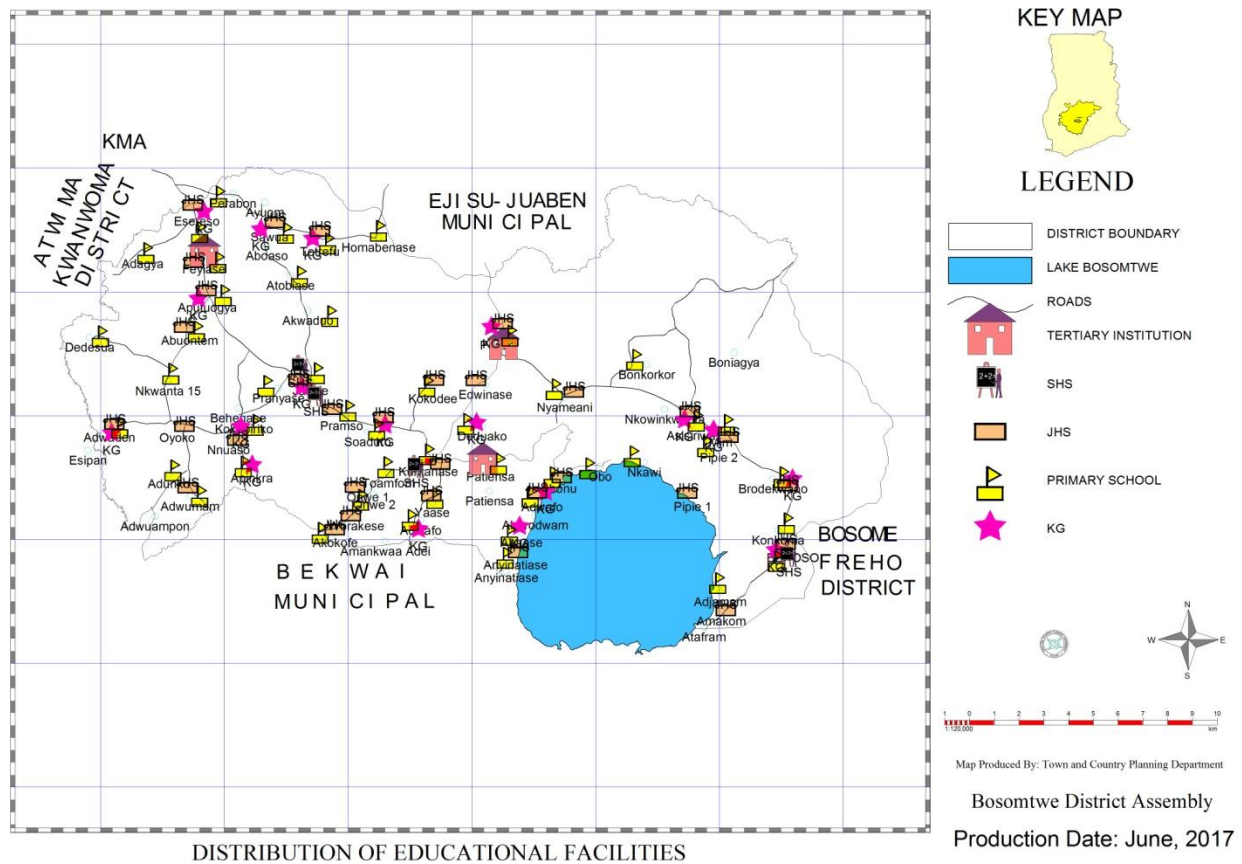
Figure 1.13: Spatial Distribution of Information Centres in the District



1.16.9 Accessibility to Education

Education has an important role to play in the district's development. Education helps to train the man power for socio-economic development. Almost every community with a population of more than 300 has a primary school. Junior and Senior High schools are found in a number of towns and villages. There are 139 kindergartens, made up of 56 public and 83 private schools. There are also 143 primary schools out of which 60 are public schools and 83 private, whilst there are 117 JHS, made up of 57 public schools and 60 private. There are more private basic schools than public schools in the district. The number of basic schools both public and private is shown in Fig 1.13. The distribution of basic schools is fairly well spread in the district as compared to second cycle and tertiary level institutions.

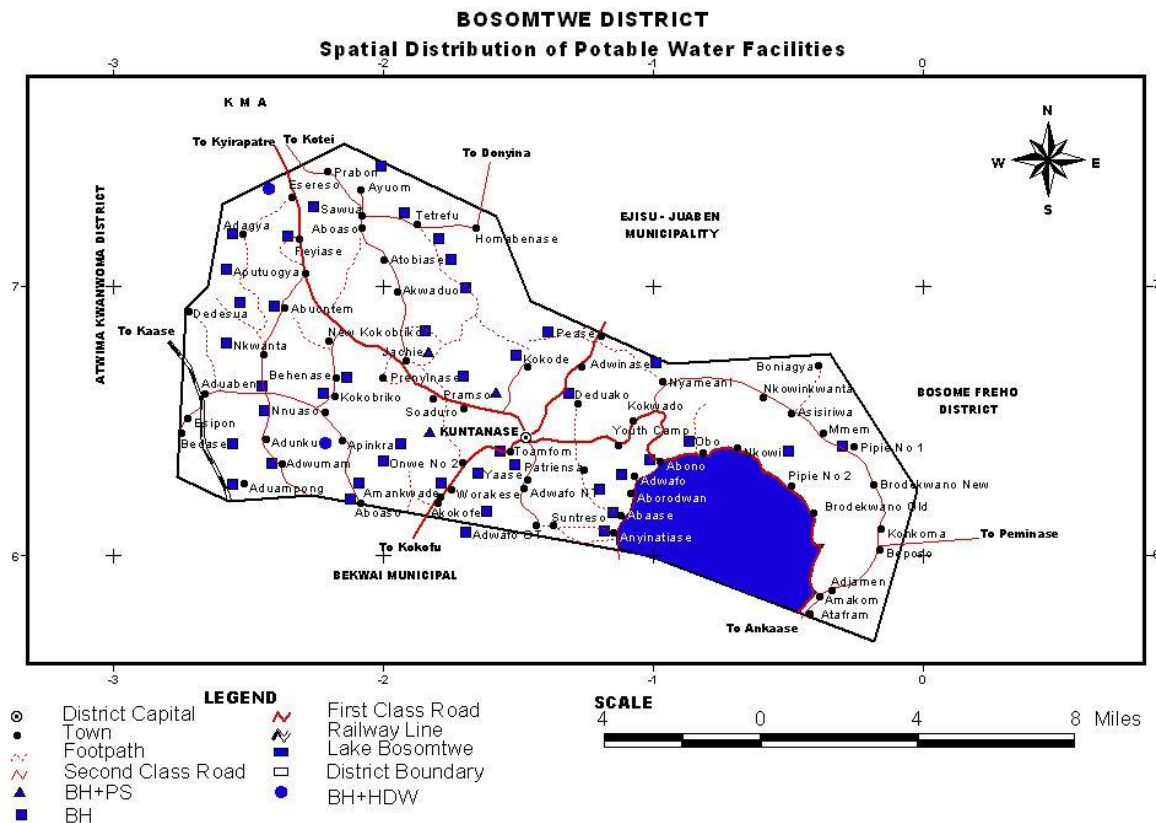
Figure 1.14: Spatial Distribution of Educational Facilities in the District



1.16.10 Spatial Distribution of Water Supply

The supply of potable water in the district is inadequate, as the district has low water coverage of 39 percent. Spatial distribution of water facilities is shown in Fig1.14 below

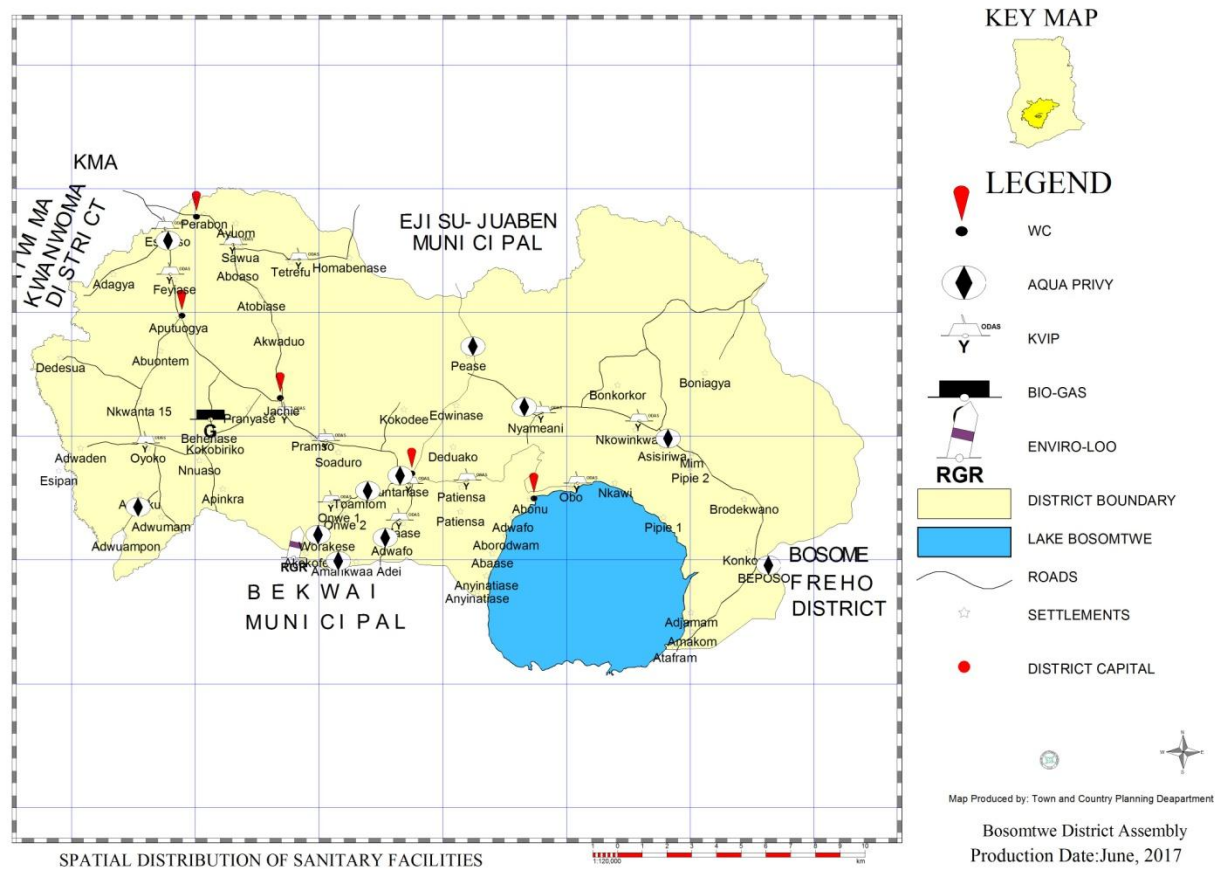
Figure 1.15: Spatial Distribution of Potable Water Facilities in the District



1.16.11 Spatial Distribution of Toilet Facilities

Toilet facilities are inadequate in almost every community in the district. Provision of household toilets is not encouraging in spite of intensive education throughout the district. The current overall coverage of toilet facilities in the district is 31.6 percent. Figure 1.15 shows the spatial distribution of improved toilet facilities in the district.

Figure 1.16: Spatial Distribution of Sanitary Facilities in the District



1.16.12 Commodity Flows

The district is endowed with abundant natural resources, especially fertile soil for the production of a variety of crops like cocoa, maize, oil palm, vegetables, rice, plantain and cassava, citrus and others. The major economic activities identified in the district are crop farming and agro-processing (palm-oil, palm-kernel and gari).

Cocoa production is dominant in all the settlements. Large quantities of oil palm are produced at Akokofe, Bonkorkor, Sawua and Nnuaso, while Kuntanase, Beposo, Tetrefu and Kokobriko are noted for the production of citrus.

Market surveys were undertaken to determine the extent of natural interaction between the market centers and their surrounding areas. It was also done to determine the trading position of the district that is the nature of exchange between the district and the rest of the country. A survey involving sellers and buyers were conducted in the major market centres- Aputuogya, Jachie, and Kuntanase. The goods traded in were classified under agricultural and manufactured goods. It was realized that these markets functioned as retailing of agricultural produce mainly

plantain, cocoyam, yam, and cassava among others which are mainly produced within the district and manufactured goods clothing, hardware cosmetics which come in mainly from outside the district. The analysis was taken in two parts namely exogenous flows and endogenous flows.

Exogenous Flows

Exogenous flows refer to the exchange of goods between the district and the rest of the country. That is goods moving beyond the borders of the district. Goods entering the district from other parts of the country are considered (imports), exogenous inflows and those leaving the district to outside destinations were considered exogenous outflows (exports). The main trading partners are Kumasi, Bekwai,, Ejisu and Bosome Freho etc.

Endogenous Flows

This refers to the internal exchange of goods between settlements in the district. These were also analyzed under agricultural goods and manufactured goods. The analysis is to help determine the areas of intensive interaction in the district which will serve as input in the derivation of the functional region

1.17 Manifestation of Levels and Locations of the Poor and Functional Regions

The revised District Poverty Profiling and Mapping, has indicated that poverty manifests itself in a greater proportion of the district. Based on some criteria used, three main poverty pockets were identified. The criteria used to carve out the three main pockets of poverty included:

- Access to facilities and services
- Major economic activities
- Potentials available as well as constraints
- Other peculiar characteristics like cultural practices, homogeneity/heterogeneity of areas and others.

The two main pockets of poverty included:

Pocket 1:

This region is the Boneso and Kuntanase Area Councils of the district, covering Kuntananase, Abono, WorakosNkowi, Pipie, Beposo, and other neighbourhoods.

Key Poverty Problems include:

- Large family sizes
- High illiteracy rate

- Low patronage of produce
- Unemployment
- High birth rate
- Fair access to facilities

Pocket 2:

The region is the Jachie Area covering Esereso, Sawua, Aputuogya, Feyiase, Jachie, Pramso and other communities.

Key Poverty Problems

- Unemployment
- Large family sizes
- High illiteracy rate
- Social vices
- High birth rate

The region has access to all the facilities and services.

Poverty Profiling/Mapping and Pro-Poor Programming

The 2004 Poverty Profiling and Mapping document for the district was revised in 2014 and has been further revised in 2017. The document provided an invaluable insight into how poverty manifests itself among the different socio-economic groups in the district and how poverty is spatially distributed in the district. Views of stakeholders collected on poverty, its manifestations, causes, constraints and potentials when analyzed helped the Assembly to come out with various district specific pro-poor interventions.

The study revealed that poverty in the district manifests itself when:

- There are low income levels.
- There is malnourishment.
- There are unhygienic environment.
- There is deprivation of education and others.

It was also shown that poverty in the district is caused by large family sizes, lack of employment and employable skills, lack of credit facilities, ready market for produce and others.

The study showed that there is uneven distribution of population and facilities in the district. The south - eastern portion is densely populated and has most of the facilities, whilst the south-western and central parts of the district are sparsely populated and deprived of most facilities. And certain areas that need to be developed (development notes) to open up the district in order to reduce poverty have been identified. (See table 1.16

Table 1.18 Development Nodes and Interventions

Composite Poverty Pocket	Community	Interventions
Pocket 1	Kuntanase,, Worakose, Onwi, Abono	<ul style="list-style-type: none"> • Improved road condition • Extension of electric energy • Provide accommodation for teachers • Provision of Toilet Facilities
Pocket 2	Eserso, Aputuogya, Feyiase, Tetrefu and Jachie, Pramso	<ul style="list-style-type: none"> • Intensification of family planning education • Educating the youth on social vices • Improved road condition • Provision of Toilet Facilities • Provision solid waste containers

Source: Bosomtwe District Poverty Profiling and Mapping, 2017

1.17.1 Summary of Outcome of Community Level Stakeholders Dialogue

Dimensions and Manifestations/Indicators of Poverty

- ❖ Poor households are unable to send their children to school and have low educational status.
- ❖ Poor households are unable to access health services and have poor health status.
- ❖ The poor are characterized by under employment or unemployment. Have no stable employment.
- ❖ The poor do not have employable skills and lack access to wage employment.
- ❖ The poor do not access to institutional credit.
- ❖ Poor communities/households do not have access to adequate social infrastructure like health facilities, water, sanitation and schools.
- ❖ They have low access to economic infrastructure like roads markets, electricity.
- ❖ Live in poor housing conditions.
- ❖ There is presence of hunger and poor nutrition among poor households.
- ❖ Poor households are characterized by poor clothing.
- ❖ The poor do not have access to adequate productive assets like land.

- ❖ The poor have little or no support from friends or relatives.
- ❖ The poor is characterized by food insecurity.
- ❖ The poor do peasant farming.

1.17.2 Causes of Poverty in the District

- ❖ Lack of access to institutional credit.
- ❖ Lack of education and training in employable skills.
- ❖ Low productivity and production.
- ❖ Unsuccessful farming and other businesses.
- ❖ High rate of post-harvest losses.
- ❖ Unrealistic market prices for farm produce and high cost of farm inputs.
- ❖ Large family sizes.
- ❖ Presences of diseases and physical disabilities.
- ❖ Lack of socio-economic infrastructure like good roads, markets health facilities, schools and good drinking water.
- ❖ Bad life styles like polygamy, womanizing, laziness and unnecessary expenditures.

1.17.3 Current Coping Mechanisms of the Poor

- ❖ Livestock rearing – sheep, goats, pigs and poultry.
- ❖ Petty trading.
- ❖ Mixed cropping.
- ❖ Dependence on relatives – receiving remittances from relatives.
- ❖ Borrowing from friends.
- ❖ Working as farm labourers.
- ❖ Engaging in illegal activities like illegal felling of trees..
- ❖ Child labour..
- ❖ Credit from middlemen (and pay in kind) especially with farmers, whilst traders are on suppliers credit.
- ❖ Engaging in ‘Galamsey’

1.17.4 Future Coping Mechanisms of the Poor

- ❖ Increased access to institutional credit for farmers and small-scale industrialist.
- ❖ Fixing of prices of other crops as done for cocoa.

- ❖ Training in employable skills.
- ❖ Improved market prices for farm produce.
- ❖ Increased access to small-scale irrigation and storage facilities.
- ❖ Increased access to markets better roads and electricity.
- ❖ Increased participation of communities in poverty reduction measures.
- ❖ Increased access to family planning.
- ❖ Subsidized farm inputs.
- ❖ Formation of co-operatives for assistance.
- ❖ Improved lifestyles and reduced marriages.
- ❖ Going into non-farm ventures, bee keeping, and fish farming.
- ❖ Improved school and health infrastructure.
- ❖ Increased access to extension services.
- ❖ Increased access to economic services and employment opportunities

1.17.5 Expected Distribution of Services for 2018– 2021

By 2021, it is expected that settlements like Aputuogya, Kuntansase, Jachie, Feyiase and Esereso have improved access to toilet facilities and improved condition of road from Esreso to Kuntanase. Akokofe, Esereso West, Jachie East and Nkowi would enjoy other facilities like teachers quarters, improved toilet facilities and CHPS Compounds. Other settlements which hitherto have few or no facilities would also be provided with some facilities or expansion in facilities through the support of the District Development Facility and other interventions like the One Million Dollar Constituency Fund

Implications for Development

- ❖ Bye-laws and regulations on development control in the district should be enforced.
- ❖ The Assembly in collaboration with the traditional authorities would ensure that all the important settlements - Aputuogya, Petriensa, Abono, Woarakose, Onwe, Homabenase, Tuoafom and others have proper base maps and layouts to control spatial development.
- ❖ The road networks from Esereso to Kuntanase-Abono and Aputuogya to Oyoko to Pipie must be improved.. Also the road network from Abidjan Nkwanta to Apinkra must attract serious attention.

1.18 Nature of Physical Development and Problems of Town Planning/Development Control

Spatial planning in the district can be described as poor and uncoordinated.

Out of the 66 communities in the district only 21 have approved planning schemes and they include

- ❖ Piase
- ❖ New Akwaduo
- ❖ Sawua/Sawua Extension
- ❖ Behenase
- ❖ Brodekwano
- ❖ Kokobiriko
- ❖ Jachie (I, II, III)
- ❖ Abuontem-southeast and southwest extension
- ❖ Feyiae
- ❖ Ayoun
- ❖ Prabon
- ❖ Esereso
- ❖ Tetrefu
- ❖ Kuntanase RevisedAbrankese/Swedro
- ❖ North Esaso, south-west Prabon
- ❖ Sawua Revised Planning Scheme

The district has experienced an upsurge in the proliferation of unauthorized uncontrolled/ haphazard/uncoordinated development especially in all the growing settlements including Aputuogya, Feyiase, Jachie, Pramso which are of great concern to the District Assembly and the general public. Most of the buildings are sited at inappropriate locations such as waterways, public right of space, e.g. sanitary areas, road reservations and utility service line as well as reservations, neighbourhood open spaces, school sites with their concomitant environmental hazards and nuisance to the residents in the area.

Some of the few authorized buildings are not built according to specifications in compliance with the approved plans by the District Assembly, thereby exposing the residents to threats of loss of life and property.

By Act 462, section 49(1) no physical development shall be carried out in the district without prior approval by the Assembly. However, developers build without the requisite development and building permits. This is denying the district assembly huge sums of money as internally generated fund.

Table 1.19: Development Control Challenges and mitigation measures

Challenges	Mitigation Measures
Lack of accurate and up to date-base maps to facilitate the preparation of planning schemes	The Assembly to liaise with the traditional authorities/land owners to prepare base maps using competent surveyors.
Inadequate office accommodation for all categories of staff (Technical/Planners)	The Assembly to provide adequate office accommodation for all categories of staff
Inadequate staffing-only one District Physical Planning Officer has oversight responsibilities for the district	Request to Head Office of the department to recruit staff especially Professional Planners (2) to man the office
Inadequate financial / logistical support	The Assembly to provide the office with adequate support (Financial/Logistics)
Poor public knowledge about land use Planning/Management	Intensification of public education on land use Planning/Management by the Physical Planning Department

1.19 Linkage with other Districts

The district shares boundaries with four districts- Ejisu-Juaben, Kumasi, Bekwai Municipal and Bosome Freho. The district is linked economically, socially and spatially with all of them. The district has a strong economic and trade relationship with these districts. This is evident by commodities that flow among the districts. Residents within each of the districts commute from one district to the other.

In terms of social activities residents in each district enjoy facilities and services like health, education, social centres and others from other districts. Spatially, the road linking Kumasi is in very bad condition as there a lot of potholes whilst the road linking Kuntanase to Bekwai and Ejisu is in good condition.

1.20 Transportation and Post Telecommunication

The major road in Bosomtwe District is the road that links Kuntanase to Kumasi and Ejisu. There are a number of feeder roads, which also link the towns and villages to Kuntanase. The Kumasi-Kuntanase road is the only first class road in the district. The extent of road development in the district is not satisfactory in terms of average road length, quality and distribution. Other roads in the district are from Kuntanase to Abono, Kuntanase-Bekwai. Although most of the feeder roads are motorable in the dry season, they deteriorate and become unmotorable during the rainy season. Transport services in the district remain costly and poorly integrated. The main means of transport and other transactions in the district is the road network. The total length of roads in the district is estimated at 415 km. About 74 percent of this length of road network is classified as feeder roads. There are only three (3) trunk roads in the district. They are the Kumasi – Kuntanase- road, Kuntanase - Bekwai road and the Kuntanase- Ejisu road.

The major vehicles found in the district are Lorries, motor-bicycle, tri-cycles popularly known as “aboboyaa” and bicycles. Few Lorries use the village road because of their poor condition. Most of the vehicles that use the village roads are old and often hardly roadworthy. Some of the problems found in this sector were;

- ❖ The on-street parking due to the absence of parking spaces along the roads
- ❖ Poor road condition and network
- ❖ Absence of road signs – this makes driving difficult in the district which consequently leads to accidents on the roads.
- ❖ The development of pot-holes gullies etc on the roads. This makes driving uncomfortable for both drivers and passengers; this problem has rendered most of the vehicles which ply on the road old and weak.
- ❖ The road network is dominated by a low capacity mode of transport- cars, taxis and trotro
- ❖ The public transportation service are inefficient
- ❖ Long and uncertain length of travel time characterizes travellers’ journeys
- ❖ Public transport terminals lack necessary facilities (sheds, toilets, or benches)

The conditions of the roads and their lengths are shown in Table .1.20

Beposo – Amakom	4		4										
Oyoko – Dedesua	3		3										
Kokodei JCT-Kokodei	2.2		2.2					2.0	2.0				

Source: Compiled from field data (2017)

In the small farming communities, footpaths are the only links between the villages or farms and head portorage, tri-cycles (aboboyaa) and bicycles are used. The survey made or conducted in the district and the district assembly priorities in this sector has been:

- ❖ To improve road network and condition in the district
- ❖ To promote efficient spatial interaction in terms of convenience, efficiency and economy and
- ❖ To provide road signs for efficient and safe driving

Facilities for post and telecommunications are limited in the district. All the 66 communities in the district in one way or the other can access one or all the following mobile networks:

- ❖ MTN
- ❖ Vodafone
- ❖ Tigo
- ❖ Airtel
- ❖ Glo-Ghana

1.21 Existing Drainage, Sanitation and Waste Management Infrastructure

The sanitation situation in the District is not anything better. The assessment of the sanitation situation would be done in two different categories – solid waste and liquid waste.

The major solid waste generators in the District are households, market Centres, Institutions and industries, transport stations, hotels and guesthouses, restaurants and canteens, schools and offices, shops, and health facilities.

1.21.1 Composition of Solid Waste Generated

The composition of solid waste generated in the district are organic and inorganic. The organic include paper, food waste, animal waste, textiles and wood/plants. The inorganic includes glass, metals and rubber/plastics. About 75 percent of the waste generated in the District is organic waste which can be easily turned into compost.

1.21.2 Solid Waste Disposal

The methods of solid waste disposal include surface dumping (public open space), refuse containers (dumpsters), open incineration/burning, house-to-house collection, burying, crude landfill/tipping, hog feeding and bush tipping.

The most widely method of solid waste disposal is by public dump in the open space accounting for 65.9 percent. About 6.8 percent of households dump their solid waste indiscriminately. House to house waste collection accounts for 3.9 percent. For liquid waste disposal, throwing waste onto the street (40.7%) and onto the compound (39.0%) and are the two most common methods used by households in the District. As people continue to dispose refuse openly environmental sanitation would deteriorate. Moreover, flies from the refuse dumps would lead to the spread of diseases.

1.21.3 Liquid Waste Disposal

The District has a total of 40 improved public/communal toilets made up of 34 KVIPs/Aqua-Privy and 6 WCs with 829 squat-holes. Out of the 829 squat-holes, 64 squat-holes are not functioning. The common type of toilet facilities available in the District are VIP, KVIP, WC, aqua privy, and pit latrines. There are quite a number of people who also use the bush as places of convenience. The district has toilet facility coverage of 31.9 percent. Table shows the number of Communal/public toilets and their functionality in the district.

Table 1.21: No of Communal/public toilets and their functionality in the district

Name of Area Council	No of Communal/public toilets and their functionality in the district		
	Total No.of Squat holes	No. Functioning	No. not Functioning
Jachie Area Council	382	328	54
Kuntanase Area Council	255	243	12
Boneso Area Council	192	192	-
Total	829	763	66

Source: Authors' Construct 2017

These facilities are woefully inadequate for a population of 119,444 and present a major challenge to good sanitation in the District. Also the pit latrines, which number about 12, present another challenge because they are not hygienic as they emit foul smell and encourage the breeding of flies.

1.21.4 Waste Management in BDA

The two bodies responsible for waste management (collection and transportation) are the District Environmental Health Unit (DEHU) and Zoom Lion Ghana Limited.. Zoom Lion Ghana Limited does the collection and transportation of solid waste generated in the District. The waste generated are temporarily deposited at either refuse collecting points (refuse site or containers) before they are periodically collected and transported to the final refuse disposal site.

The Environmental Health Department of the Assembly plays a supervisory role over the activities of Zoom Lion Ghana Limited. They also educate the general public on good sanitation practices and ensure that the people keep their surroundings clean. However, inadequate personnel and logistics have hampered the activities of these bodies.

Table 1.22: Tools/Logistics for Solid Waste Collection and Transportation

Types of Tools and Equipment	Quantity	Condition
Refuse Tipper Truck	3	One Serviceable
Refuse Container	12	Good
Wheel barrows	14	Good
Pick axe	3	Good
Rake	6	Good
Knapsack Sprayer	2	Good
Spade/Shovel	3	Good
Dustbin (small)	2	Good
Dustbin (30 LTRS)	11	Good
Ceiling Brush	6	Good
Sharpening Stone	1	Good

Source: District Environmental Health Unit, 2017

Table 1.20 above provides the equipment holding of the Environmental Health Unit/Zoomlion for the management of solid waste in the district. The equipment holding is inadequate and this account for heaps of refuses dumps and choking of gutters in the district.

1.21.5 Institutional Sanitation Coverage

For the purposes of this report two major institutions – health and educational institutions would be covered in the institution sanitation assessment.

The district has twenty-three (23) health facilities all working to promote the health conditions of the people. The 23 health facilities in the district are made up of:

- 4 Hospitals
- 7 Clinics/CHPS Compounds
- 6 Clinics
- 2 Maternity Homes
- 2 Training Institutions
- 2 RCH Centres

All the 23 health facilities have access to good sanitary facilities. In the educational sector the levels of educational institutions identified in the District are tertiary, second cycle and basic education. There are 173 public basic schools, made up of 56 KGs, 60 primary schools and 57 JHS schools in the district. There are 3 public Senior High Schools (SHS) in the district and 2 tertiary institutions.

All the three second cycle institutions and the 2 tertiary institutions have access to good sanitary facilities. At the basic level, the situation is quite different. 37 of the schools do not have latrines at all, whilst 9 schools have inadequate latrines.

1.21.6 Key Development Issues in Sanitation

The key development issues under sanitation include:

- ❖ Open/uncontrolled dumping,
- ❖ Undeveloped landfills
- ❖ Inadequate toilet facilities in communities and schools
- ❖ Indiscriminate disposal of waste
- ❖ Poor drainage system
- ❖ Choked gutters
- ❖ Insufficient knowledge on waste management, and negative attitude to sanitation.
- ❖ the location of the containers for waste disposal close to public toilets does not encourage people to go and dispose of refuse there
- ❖ Inadequate staff and logistics to conduct sanitation activities.
- ❖ Poor maintenance culture of existing sanitation facilities
- ❖ Dormant/Poor performance of Water and Sanitation Management Committees

- ❖ Inadequate arrangements for cleaning and maintenance
- ❖ Some refuse dumps are now in the middle of some communities due to the physical expansion of the communities posing problems to the people who live near the dumpsites.
- ❖ Undesignated Dumpsites
- ❖ Temporal Transfer stations becoming permanent refuse dumps
- ❖ Open defecation
- ❖ Low ownership of household toilets

To address this unpleasant situation, the District Assembly in collaboration with its development partners and other stakeholders

- ❖ Increase sanitation coverage. This can be done by the DA through the implementation of the CLTS programme and can be piloted in the smaller settlements in the district and later on scaled up in other settlements
- ❖ The DA can also encourage the private sector to provide public toilets through build operate and own (BOO), or build operate and transfer (BOT).
- ❖ The low level of solid waste management can be addressed through the provision of appropriate storage and transportation facilities/equipment in the market and residential areas
- ❖ The DA must increase its annual budgetary allocation to improve investment in sanitation infrastructure
- ❖ The management of the various waste management facilities must design and draw up a comprehensive maintenance plan/schedule with adequate budgets to be approved by the General Assembly
- ❖ The DA must promote health awareness and understanding that will lead to environmental and behavioural improvement
- ❖ The DA through DEHU must promote the adoption of new and good hygienic practices and sustain the changes
- ❖ They must be provided with the necessary logistics and appropriate working tools for the management of sanitation services.

- ❖ DEHU and DWST can be given training in the areas of environmental protection, contract management and supervision, planning and monitoring and evaluation.
- ❖ Dormant Water and Sanitation Management Committees must be revived and adequately resourced to enable them render enhanced services in their communities
- ❖ The DA and Zoomlion can jointly collaborate with the Environmental Protection Agency (EPA) to design and develop an engineered landfill for the district.

Sanitation services delivery in the district have both opportunities and challenges. The opportunities could be harnessed for enhancing sanitation services in the district whilst the challenges can be addressed through the appropriate strategies and measures

It is however believed that, with the urbanized nature of the District, most private developers who build their houses provide toilet facilities as specified in their building drawings approved by the District Statutory Planning Committee.

1.21.7 Zoom Lion Activities in the District

1. Waste collection

Eight communities have been provided with skip containers for storage and collection of refuse. The communities are: Abrankese, Jachie, Pranyase, Behinase, Aputuogya, Esereso, and Esaso – Kwabrafo.

2. Sweeping and collection of waste from Drains, markets, open spaces and streets.
3. Fumigation of residential areas, refuse dumping sites, public toilets and Mosquito Breeding Sites.

1.21.8 Drainage System in the District

Most of the communities have no concrete drains making them prone to serious soil erosion that expose many building in most communities. This also affect rapid drainage of storm water when there is serious down pour.

1.22 Social and Cultural Structure

The District has one paramount chief i.e. Kuntanase Traditional Council with about 13 divisional chiefs (Abrempong) in the Bosomtwe district. Sacred days in the district are Tuesdays and Fridays. These sacred days are mostly used for communal labour and other activities. Communal spirit in most communities has dwindled and there is the need to revive the

enthusiasm to facilitate development in the district. The chiefs and people of the district also recognize sacred days like Akwasidae, Fofie, Awukudae and the people do not undertake any farming activities in these days. Funeral celebration is one aspect of life that the people pay serious attention due to the high reverence the people give to the dead. The District has more than eight ethnic groups which includes Akan, Ga Adangbe, Ewe, Guan, Mande, Gurma, Mole Dagbani and others. Akan is the predominant ethnic group with 88.5 percent and the others with 11.5 percent (2010, PHC).

The major religion in the Bosomtwe District is Christianity with 85 percent followed by Islam (4.7%), traditional (1.3%) and others (11%).

There are no serious negative cultural practices in the District. Ethnic conflicts are uncommon; however, there are few chieftaincy conflicts in some parts of the District. Notable communities are Kuntanase and Pipie.

1.22.1 Religious Affiliation

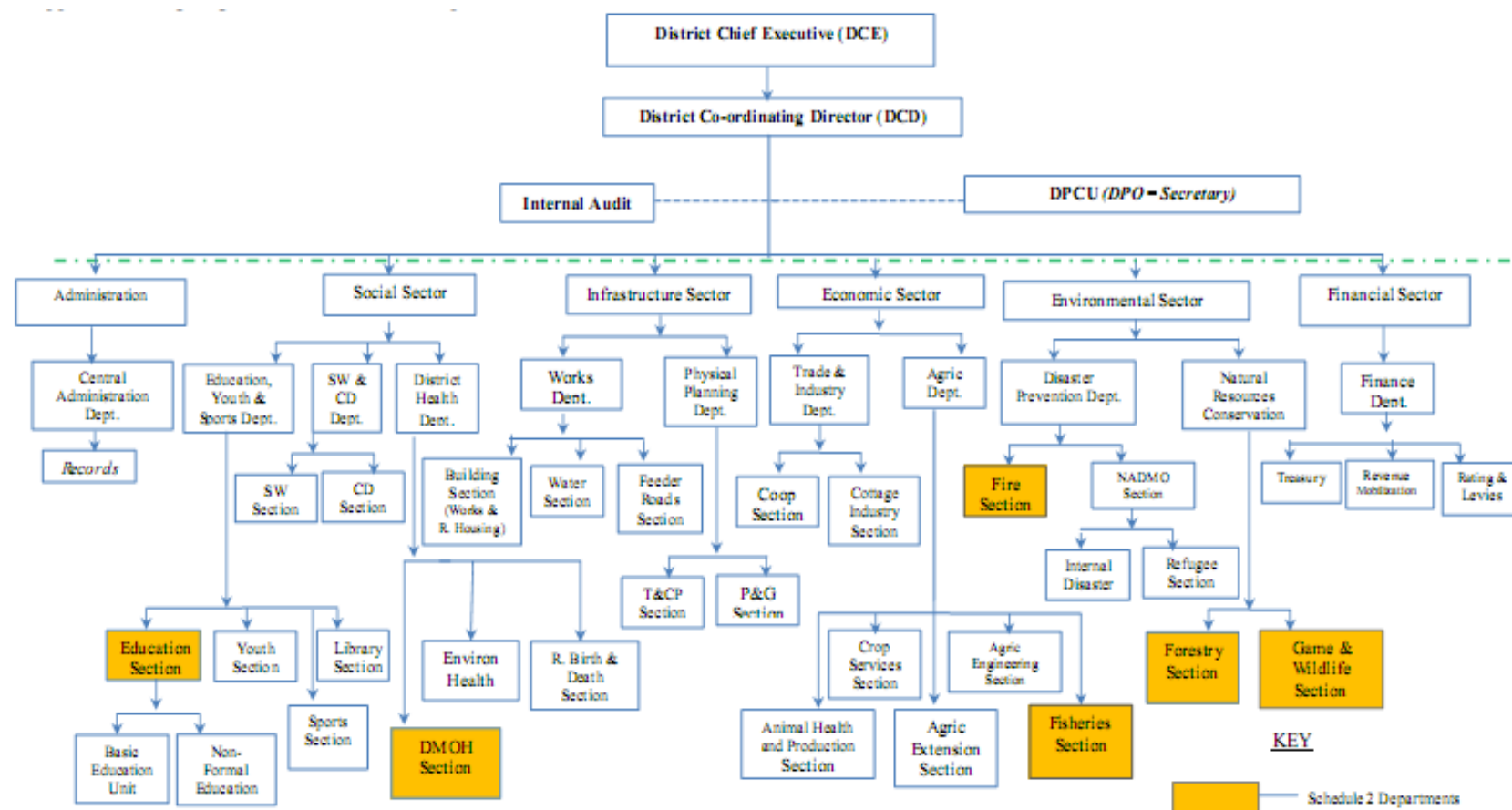
The District has a significant number of the population professing the Christian faith. 33.2 percent of the population is affiliated to the Charismatic or Pentecostal faith, followed by the Protestants with 20.2 percent. Catholics are 18.5 percent and Other Christians constitutes 16.8 percent. The population that has no religion is 5.8 percent. Within the male populace, the Pentecostal/ Charismatic (31.7%) are in the majority with the Traditionalist (0.4%) in the minority. The female populace also has the Pentecostal (34.6%) dominating with the Traditionalist (0.3%) having the least (2010 PHC).

1.23 Governance

The Bosomtwe District Assembly is a statutory body established by the Local Government Act 462 of 1993 and it is the highest policy- making body of the District representing the entire political and administrative machinery of the Central Government at the District level. The Assembly is made up of the District Chief Executive as the political head, the Presiding Member, who is the Chairman of the General Assembly, one person from each of the 35 electoral areas within the district, elected by the universal adult suffrage, 15 Appointees of the Government, Heads of the decentralized departments who are ex- officio members without voting rights. It is supported administratively and technically by 11 departments of the assembly and other quasi

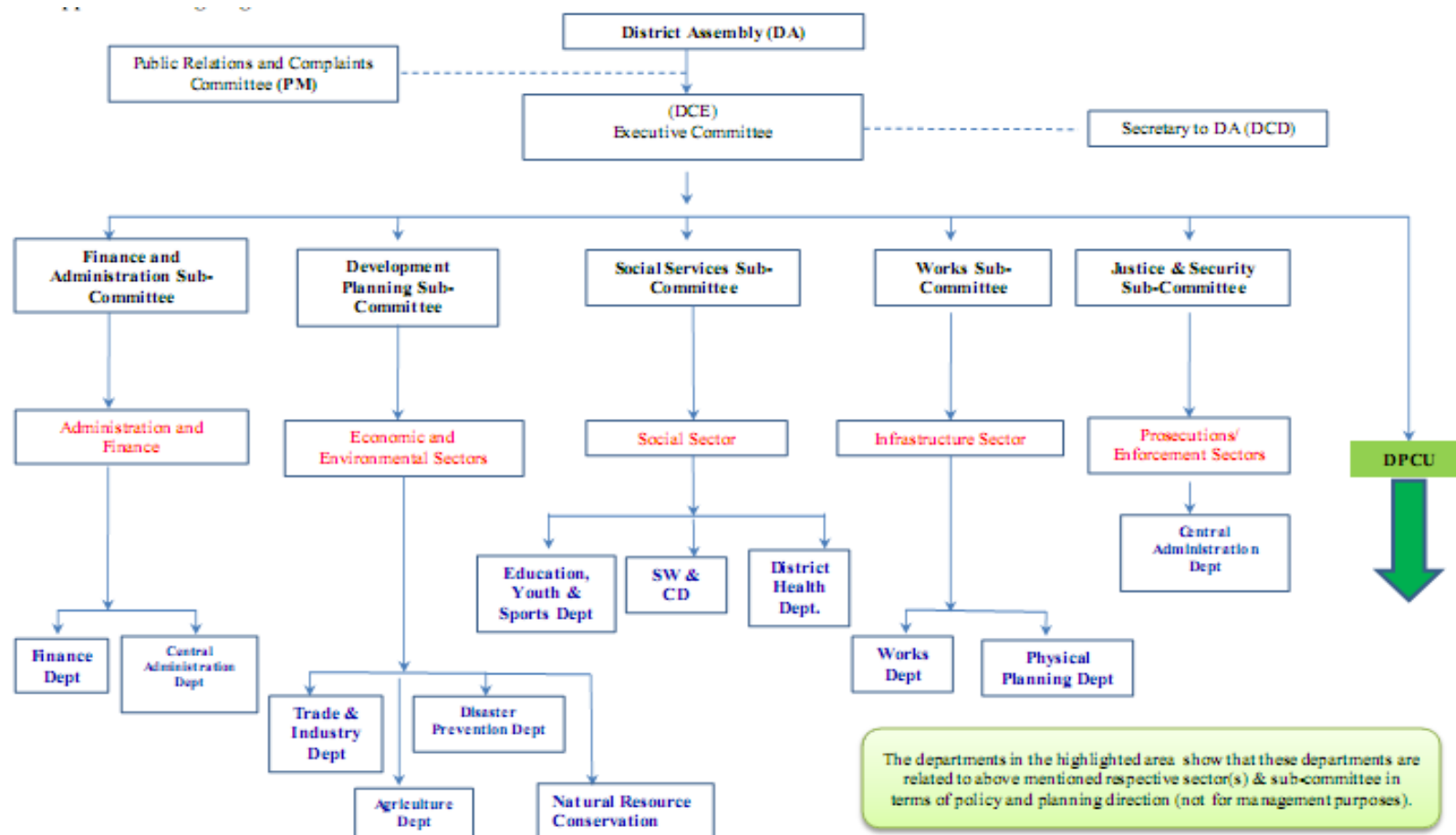
agencies of government. The relationship between the Assembly and these departments is consultative as shown in the organogram in Figure 1.21 and Figure 1.22.

Figure 1.17: Organogram of Bosomtwe District Assembly



Source: DPCU - BDA, 2017

Figure 1.18: Organogram of Sub-committee of Bosomtwe District Assembly



Source: DPCU – BDA, 2017

1.23.1 Departments of the Assembly

Legislative Instrument (L.I) 1961 identified 11 departments for district assemblies which include:

- General Administration
- Finance
- Education, Youth and Sports
- Agriculture
- Physical (Spatial) Planning
- Social Welfare and Community Development
- Natural Resources Conservation, Forestry, Game and Wildlife Division
- District Health Department
- Works
- Industry and Trade
- Disaster Prevention

Staffs of the departments are the technical officers of the Assembly providing the required technical expertise for local level development. Departments of the Assembly are headed by Heads of Departments who are responsible for efficient and effective performance of the functions and responsibilities assigned to the departments.

The Bosomtwe District Assembly does not have the full complement of staff yet, as the Natural Resource Conservation Department do not exist in the district. The Department of Trade and Industry is yet to be established, however, the Assembly has the presence of the Business Advisory Centre (BAC) and the Co-operative in the district

Independent Governance Institutions existing in the district include:

- ❖ Electoral Commission (EC)
- ❖ Commission on Human Rights and Administrative Justice (CHRAJ)
- ❖ National Commission for Civic Education (NCCE)

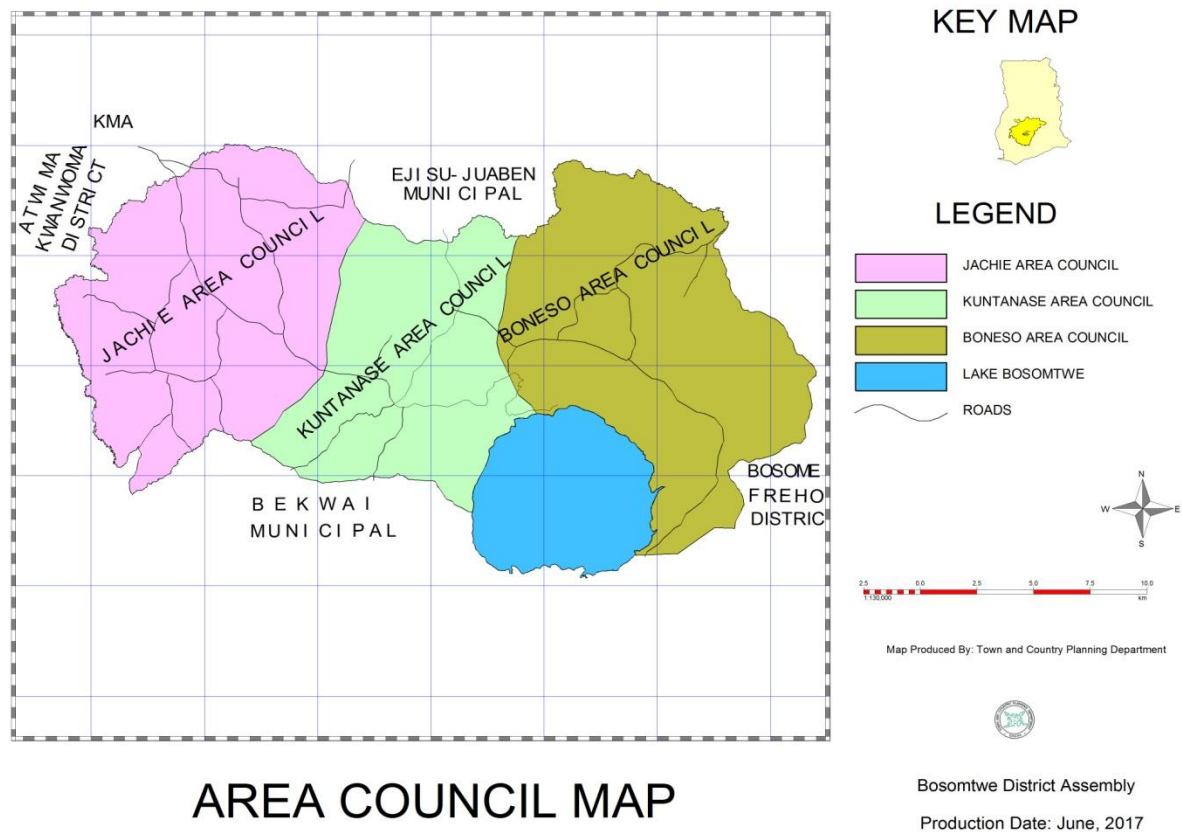
1.23.2 Sub-District Structures

The District Assembly has three (3) Area Councils and 35 Unit Committees which facilitate effective communication between the Assembly and the local people. The Area Councils oversee the activities of the Unit Committees as well as assisting the Assembly in the administration of the Area Councils. The three (3) Area Councils are:

- ❖ Jachie Area Council
- ❖ Kuntanase Area Council

❖ Boneso Area Council

Figure 1. 19: Area Councils in Bosomtwe District



The offices of the Area Councils are located at Jachie, Kuntanase and Bonkorkor respectively. The sub-structures are functioning as personnel have been posted to man the offices. Furniture has also been provided to all the Area Council offices as well as computer and accessories except the Boneso Area Council which does not have a computer and accessories. The District Assembly has again ceded the following revenue items to the Area Councils to collect. They include:

1. Basic Rate/Development Levies
2. Burials, Funerals, Funeral decorators, Vault with structures and suorer structures excluding home burial.
3. Toilet Operations
4. Urinals Operations
5. Dislodgements (Private Operators) and dislodgement vans and conveyance charges
6. Refuse sites and dumping sites charges
7. Night sellers
8. Pounds/ Stray Animals
9. Sand wining conveyance charges (excluding granting of permit)

10. Palm Wine, Pito Brewers etc.
11. Hawkers
12. Pet/ Dog, Cat License etc.
13. Mills
14. Artisans/ Self Employed
15. Block/ Pavement/ Culvert etc. manufactures
16. Hiring of sound systems
17. Exportation Fees
18. Cultural displayed groups (NwomkroKete, Adowa etc)
19. Illegal Felling of Trees (fines)
20. Hiring of Canopies and Chairs
21. Business Service Providers
22. Private Cocoa Buyers/Dealers
23. Mobile Sales vans i.e. Medicine Food, Float, Adverts etc.
24. Public Grounds hiring and road/ street block and diversion.
25. Utilisation of Public and social blocks for Activity i.e. Church services, weddings, meeting etc.
26. Birth and death registration for certificate

NB: Registration, Licenses, granting of approvals and Permits for the first time for all these activities will be done by the Assembly through the sub structure. All items not mentioned here are not ceded.

1.23.3 Cultural/Traditional Set Up in the District

The district has one paramountcy, Kuntanase Traditional Council. The seat is currently vacant following the death of the paramount chief. The District has 13 divisional chiefs (Abrempong). They are custodians of lands in their respective jurisdictions. Apart from ensuring the physical development of their respective areas, they also serve as arbitrators in their areas of jurisdiction. Most people channel their grievances through the Traditional Authorities instead of coming to the District Assembly. Though there is a sub chief at Apinkra, he owes allegiance to the Ejisu Traditional Council. Also, the Obbo/Krom Adwafo chief owes allegiance to Kokofu Traditional Council in the Amansie East Municipal Assembly. Almost every community in the district has a queen mother. The queen mothers are about 50 in number.

The sacred/taboo days are Tuesday and Fridays. These days are mostly used for communal labour and other social activities since farming is prohibited on those days. Communal spirits

in most of the communities have dwindled and there is the need to revive the enthusiasm to facilitate development in the district. The chiefs in the district also recognize other sacred days like Akwasidae, Awukudae and Fofie. The people do not undertake farming activities in these days. However, the chiefs and people of Woarakese celebrate “Kohwe kose Festival” in the last week of January to the first week of February every year, where puberty rites (Bragoro) is performed.

Funeral celebration is one aspect of life that the people pay serious attention to, due to the high reverence the people give to the dead. They are celebrated on Thursday and Saturdays.

The District has more than eight ethnic groups which includes Akan, Ga Adangbe, Ewe, Guan, Mande, Gurma, Mole Dagbani and others. Akan is the predominant ethnic group with 88.5 percent and the others with 11.5 percent (2010, PHC). The major religion in the Bosomtwe District is Christianity with 85 percent followed by Islam (4.7%), traditional (1.3%) and others (11%). There are no serious negative cultural practices in the District. Ethnic conflicts are uncommon; however, there are few chieftaincy conflicts in some parts of the District. Notable communities are Kuntanase, Aputuogya, Pipie.

1.23.4 Accountability

As an institution, the District Assembly should be accountable to the people it serves. The electorate should therefore, demand accountability from the officials of the Assembly and the Assembly members. Hence, officials and Assembly members must cultivate the culture of openness and transparency in the award of contracts for the construction of projects, collection of revenue, purchase of equipment, machinery and stationery and the distribution of development programmes and projects within the district. To be accountable to the people as well as being open and transparent in all its transactions, the District Assembly has put in place some structures. These structures include;

- District Tender Committee
- Tender Evaluation Committee (Adhoc Committee)
- Budget Committee
- Monitoring and Evaluation Team and others

These structures help to promote transparency, openness and accountability in the transactions of the District Assembly.

1.23.5 Participation of Citizenry

Participation in development programmes by the local people is very crucial in order to ensure successful implementation of these programmes. The participation and engagement of citizens

in decision-making is the hallmark of democracy. Ghana has adopted and is committed to decentralization as the surest way to achieve the dual benefits of increased participation of citizens in governance, as well as engendering stable and resilient local communities

In almost all the activities of the Assembly apart from the Assembly members and Unit Committee Members, beneficiary communities, C.B.Os, C.S.Os and NGOs are involved in the annual budget preparation, all stakeholders like the GPRTU, Trade Associations, operators of restaurants, barkeepers, beauticians and other identifiable bodies are made an integral part of the discussion. They express their opinions on the rates and fees to be charged in the incoming year. By so doing, they make important inputs into the budget. The citizenry are also involved in programmes and projects implementation. The chiefs, opinion leaders and unit committee members of beneficiary communities are involved in meetings, projects inspection, monitoring and evaluation. To inform the people on the activities and performance of the Assembly so that they in turn can express their views on the activities of the Assembly, particularly on issues that border them, public hearing and peoples assemblies are organized in the district at some communities. The people are then given the opportunity to participate in the administration of the Assembly.

Again through their elected representatives at the Assembly, some community members are able to express their views on pertinent issues like the armed robbery and environmental sanitation in the district. Some NGOs, particularly World Vision International has always been in partnership with the Assembly in their development agenda in the district. The District Assembly thus, coordinates the activities of the CBOs, NGOs and CSOs in the district.

1.23.5 Current State of Citizenship Participation in District

- Public hearing after data collection and analysis
- Public hearing after draft development plan
- Public hearing on Composite Annual Action Plan and Composite Budget
- Town hall meetings and community meetings
- Radio discussion/phoning on implementation of projects
- Dissemination of Annual Progress Report
- Notice Boards – DA and Sub-Committee meetings, Revenue Charts, Announcement of Jobs, Appointments, Procurement Notice/Request for Quotations), Procurement Awards and Annual Accounts
- Area Council and Unit Committee meetings
- Stakeholders/Rate Payers Fee-Fixing consultation

- Participatory monitoring of projects
- Information sharing

1.23.6 Application of Communication Strategies

It is not enough to collect and collate information from the populace. It is also important that proposals, policies and programmes are also sold out to the general public. One effective way to reach out to people and the communities for their input into the development agenda of the district is through public hearing and discussions. From 2014 up to 2017, the Assembly has organized not less than twelve (12) of such public hearings in various communities in the district..The strategy yielded positive response from the various communities and Area Council as the people lauded the programme and made healthy contributions to the plan. Other communication strategies that are used by the Assembly to reach out to the people and to also receive healthy responses include seminars, workshops, interviews and radio discussions. They are adopted by the Assembly to sensitize and to receive responses from the populace

1.24 Security and Development in the District

The District is under the Command of an Assistant Superintendent of Police and has four [4] stations under it. They are Kuntanase, Jachie, Feyiase and Kessben College of Education Police Station. The District is made up of Forty – two [42] personnel. Thus One [1] SPO, Three [3] C/Inspectors, Two [2] Inspectors, Six [6] Sergeants, Fifteen [15] Corporals, Eight [8] L/Corporals and Nine [9] Constables. During the year under review, the Police in the District organized out – reach programmes to educate and sensitize communities within its area of responsibility about crime and criminal activities and need for the commuters to partner the Police in combating crime. Proactive measures such as Swoops, Day and Night patrols, Snap Checks were also organized to increase Police visibility and also to flush out miscreants and to defer potential criminals from committing crimes. Armed guards were also provided to vital installations including District Chief Executives bungalows and Banks within the catchment area. Deliberate efforts were made to reduce to the barest minimum election related violence and due to the aforementioned measures the District generally was able to reduce crime to an appreciable level and also did not record any election related violence.

1.24.1 Police Facilities in the District:

The District has Two [2] serviceable vehicles, Six [6] motorbikes, four [4] Police stations with only one [1] barracks occupied by four [4] personnel.

Table 1 .23: Strength of Personnel from 2014 – 2017:

YEAR	FEMALE	MALE	TOTAL
2014	14	26	40
2015	14	28	42
2016	14	31	45
2017	12	20	42

Source: District Police Headquarters, Kuntanase, 2017

Commonly and Major Reported Offences from 2014 – 2016

The following are offences commonly reported at our outfit; Assault, Stealing, Threat of Harm, Defrauding by false pretences, Threat of Death, Causing Harm, Causing Unlawful damage and Offensive conduct.

Table 1.24: Commonly and Major Reported Offences from 2014 – 2016

Offences			
Commonly Reported Offences	2014	2015	2016
Assault	354	250	16
Stealing	317	328	99
Threatening	241	168	107
Fraud	76	55	35
Causing Damage	123	74	28
Causing Harm	30	19	13
Defilement	7	0	0
Robbery	5	18	8
Unlawful Entry	20	1	87
Rape	3	0	0
Major Offences			
Murder	2	0	0
Rape	3	0	0
Defilement	7	0	0
Robbery	5	18	1
Possession, Use and Distribution of Narcotic Drugs	-	9	1
Total	1,193	940	337

Source: Ghana Police Service Head Quarters, Kuntanasi, 2017

1.24.2 Challenges of the Service:

The District experienced acute manpower deficit and lacks barracks/rented quarters accommodation for the personnel. For instance, Kuntanase Police station with a total of Twenty – two [22] personnel has only three [3] single rooms, Feyiase Police Station with strength of Seven personnel has Four [4] cubicles, Kessben University College of Education Police Station with Four [4] personnel has Four [4] single rooms as barracks whilst Jachie Police Station with Eleven [11] personnel has none. The District has no rented quarters. There

is the need to immediately build a Police barracks on a plot of land where the District Headquarters is situated to accommodate the personnel who are staying outside the District. Some of the roads in the district are not motorable which sometimes renders patrols to those communities ineffective.

1.24.3 Proposed Programmes and Projects for [2018 – 2021] Period:

The District has plan to organize out – reach events to educate and sensitize communities within its catchment area of responsibilities about crime and criminal activities and need for the commuters to partner the Police in combating crime. Proactive measures including Swoops, Day and Night patrols, Snap Checks and motor bike patrols will be implemented to increase Police visibility and also to flush out criminals and to deter potential criminals from committing crimes.

1.24.4 Issues of Importance in Planning and Development of the District:

Hotspots policing strategy introduced in the region is laudable as it is working perfectly to enable the district carry out the strategy to its perfection. Also to extend patrols to the remote communities there is the need to implement motor bike patrols. The public has seen the Police as partners in combating crime and there is the need to sustain the confidence the public has in the service

1.25 Local Economic Development

Local Economic Development is the process by which public, business and non-governmental sector partners work collectively to create better conditions for economic growth and employment generation with the aim to improve the quality of life for all. It is also the process of encouraging Public-Private-Partnership to improve the rate of local economic development by identifying proposals for practical activities to promote local economic development. It is a partnership between local government, business and community interests.

Practicing local economic development means working directly to build up the economic strength of the local area to improve the economic future and quality of life of the inhabitants. The success of districts/communities to compete in the fast changing world today depends on them being able to adapt to the fast changing and increasingly competitive market environment. Each district has unique local conditions that can help or hinder its economic development and these local characteristics form the seeds from which any local economic development strategy can be developed to improve local growth opportunities. To build competitiveness, the district should undertake a collaborative process to understand and act on its own strengths, weaknesses, opportunities and threats to make the local area attractive to

business, new employees and supporting institutions by creating favourable environment for business success and job creation.

The district became a beneficiary pilot district of the LRED Component of the programme for Sustainable Economic Development of the GTZ from March 2007. The district was then zoned into Business (Commercial Zone), Light Industrial Zone, and Agricultural (farming) Zone.

1.25.1 Strength of LED

- ❖ Agriculture is the major driving force for economic development in the district
- ❖ More diversified economic activities
- ❖ Favourable climatic conditions for farming
- ❖ Willingness of Traditional Authorities to support economic development
- ❖ Availability of financial institutions
- ❖ Dedication of District Assembly to support economic development
- ❖ Existence of Business Advisory Centre
- ❖ Availability of potential tourist attractions

1.25.2 Weaknesses of LED

- ❖ Unused business opportunities in tourism
- ❖ Lack of business management training
- ❖ Inactive Business Advisory Centre
- ❖ Difficulty in accessing financial support
- ❖ Forest depleted by chainsaw operators
- ❖ Lack of storage facilities
- ❖ Lack of funds to support LED activities
- ❖ Lack of political will and full commitment to the implementation of the action plan to develop the district.

Implications for development

- ❖ The District Assembly should commit enough resources to support and promote LED activities in the district
- ❖ The overarching goal of LED is to create jobs and incomes. It is therefore crucial for the Assembly to involve employment promotion measures and organization in LED activities
- ❖ Untapped business opportunities, for example in tourism should be explored by the Assembly and the private sector to create jobs for the youth

- ❖ The construction of an garage in the district where the youth can be trained in skills will solve the unemployment problems in the district

1.26 District Economy

The economic characteristics of a district are an essential indicator of the level of economic development of the area and people's involvement in economic activities. This section examines economic activity status, occupation, industry, employment status and employment sector for persons age 15 years and older.

1.26.1 Structure of the District Economy

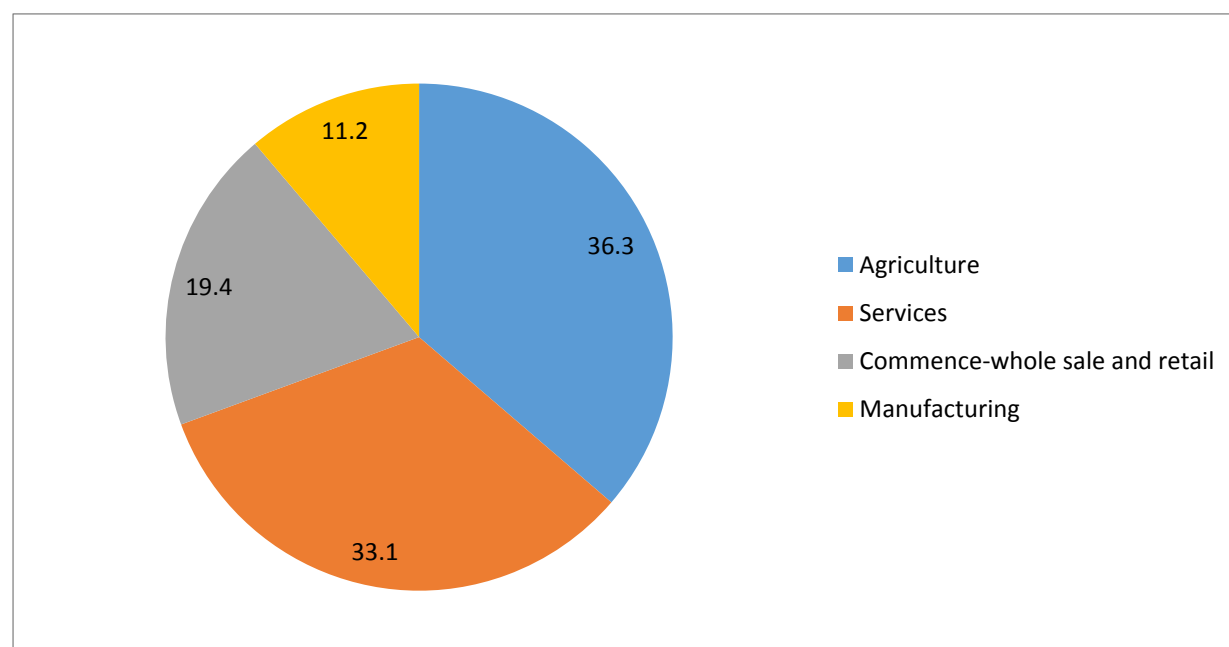
Table 1.22 shows employed population in the District 15 years and older by industry and sex. In the table, agriculture, including forestry and fishing, remains the largest industrial sector employing 36.3 percent of the population. The next major industrial activities are services (33.1) and wholesale and retail trade (19.4%) and manufacturing (11.2%). Agriculture, forestry and fishery industry remains the dominant sector of employment for both males (33.5%) and females (38.9%) in the District.

Table 1.25: Employed Population 15 years and older by Industry and Sex

Industry	Number	Percentage	Male	Female
Agriculture	13718	36.3	33.5	38.9
Services	12,534	33.1	29.1	25.5
Commerce-whole sale and retail	73237	19.4	12.2	25.9
Manufacturing	4,237	11.2	12.7	9.8

Source: 2010 Population and Housing Census. District Analytical Report, 2010

Figure 1.20: Population 15 years and older by Industry



1.26.2 Households in Agriculture

Table 1.23 provides information on households by agricultural activities and locality. The table shows that out of the total households of 22,895 the proportion of households engaged in agricultural activities is 55.3 percent. The District proportion of households engaged in agricultural activities is relatively higher than the Ashanti Regional average of 36.6 percent. Proportion of agricultural activities by households in the rural areas of the District as shown in table constitutes 70.1 percent, while the urban areas constitute 22.0 percent. Crop farming (84.8%) constitutes the major agricultural activity undertaken by households in the District, with rural and urban proportions of 84.1 percent and 89.6 percent respectively. As shown in the table, livestock rearing accounts for 15.0 percent and tree planting constitutes 0.3 percent.

More households are engaged in tree planting in the urban areas (0.8%) than the rural areas (0.1%). The major agricultural activity in the urban areas of the District is crop farming (89.6%) as shown in the table. Livestock rearing by households in the District is relatively higher in the rural areas (15.5%) than the urban areas (11.6 %).

Table 1.26: Households by agricultural activities and type of locality

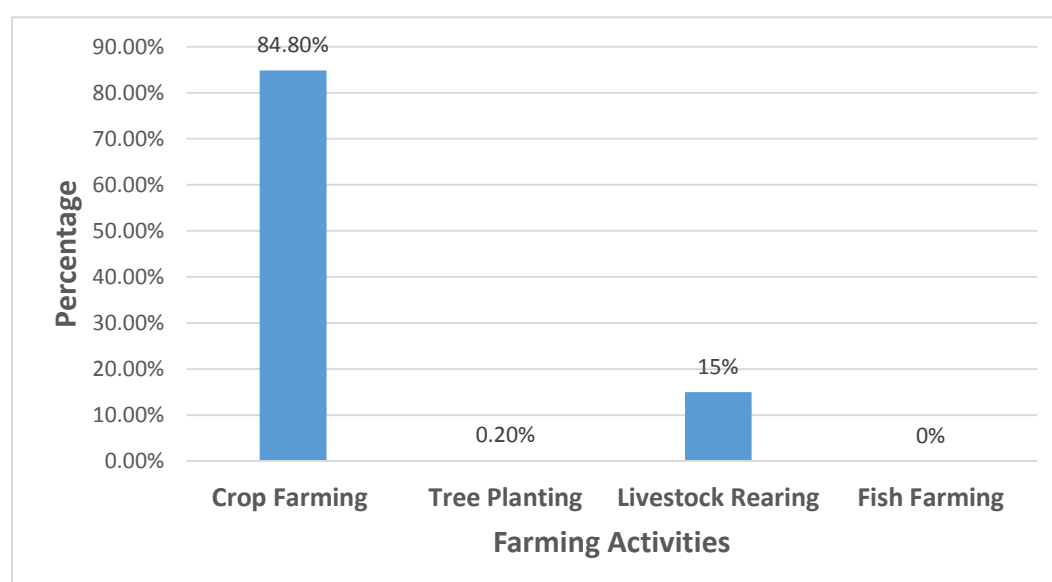
Type of activity	Total		Urban		Rural	
	Number	Percent	Number	Percent	Number	Percent
Total Households	22,895	100.0	7,184	100.0	15,711	100.0
Households engages in Agriculture	12,662	55.3	1,648	23.0	11,012	70.1
Crop Farming	10,732	84.8	1,477	89.6	9,255	84.1
Tree Planting	29	0.2	14	0.8	15	0.1
Livestock Rearing	1,896	15.0	191	11.6	1,705	15.5
Fish Farming	5	0.0	2	0.0	37	0.3

Source: Ghana Statistical Service, 2010 Population and Housing Census

1.26.3 Farming activities by type and locality

Figure 1.23 presents the type of agricultural activities practiced by households in the Bosomtwe District. The figure shows that a higher proportion of households engage in crop farming (97.6%) compared to livestock rearing (17.2%) and tree planting (0.3%).

Figure 1.21: Percentage of households engaged in farming activities



1.26.4 Agriculture Extension Zones (Operational Areas)

There are 66 communities within the District, with this the District is divided into four operational zones, each zone is supervised by one District Agricultural Officer, who monitors, evaluates and provides technical backstopping to both the Agricultural Extension Agent and the Farmers. Below are the various zones and their communities.

Table 1.27: Agriculture Operational Zones

Zone 1-Kuntanase East	Zone 2-Kuntanase West	Zone 3-Nnuaso	Zone 4
Beposo	Piase	Nnuaso	Jachie
Brodekwano	Swedru	Aduaben	Sawua
Nyameani	Onwe	Oyoko	Atobease
Abono		Nkwanta	Tetrefu

Source: District Agriculture Directorate, Kuntanase, 2017

1.26.5 Farmer Base Organizations (FBOs)

There are about 22 Farmer Base Organizations (FBOs) in the district as shown in Table below

Table 1.28: Farmer Base Organizations (FBOs)

Name Of FBO	Location	Year	Activity	Membership	Contact Person	Contact No.
-------------	----------	------	----------	------------	----------------	-------------

		Started	Engage In	M	F		
1. Jachie GAWU Farmer Based Organisation	Jachie	2007	Food crop cultivation	16	18	AmofaSakodie	-
2. Akwaaduo Food & Vegetable Farmers Association	Akwaaduo	2007	Food crops cultivation	7	3	Philip Darkwa	0242866367
3. Atobiase Farmers Association	Atobiase	2008	Food crop production	16	6	John Tawiah	0246207505
4. Preyase Food Crops Farmers Association	Preyase	-	Food crops production	6	4	AdaiyaKwaku	-
5. GAWU Farmers Associaton	Jachie	-	Food crops cultivation	71	55	SakodieAmofa	-
6. Vegetable Farmers Asso.	Kokodie		Vegetables Production	10	10		-
7. Palm oil Processors Asso.	Kokodie		Palm Oil Processing	2	18	Steven Adjei	0241132646
8. Woarakose Palm Oil Processors Association	Woarakose	2002	Palm Oil Processing	28	20	Alice Serwaa	0276125034
9. AdagyaAdwumapa Co-operative	Adagya		Cassava & maize	10	11	Anthony Gablah	0246983842
10. Piase Co-operative oil palm Asso.	Piase		Palm Oil Processing	5	21		-
11. Bosomtwe District Poultry & Livestock Farmer Asso.	Kuntanase		Poultry & Livestock Farming	26	5	E. M. Otchere Agnes Sylvia Mensah	0244786484 0244222842
12. OnuadoKuo Sheep & Goats Farmers Association	Mim		Sheep & Goats rearing	5	10		02011712524
13. Tomato Growers Asso.	Mim		Tomato Cultivation	7	10		0200936011
14. Piase produce Palm oil Asso.	Piase	2010	Palm oil processing				0245894468
15. Awiem Vegetable Farmers Asso.	Awiem		Vegetable Cultivation	15	5		
16. Foodstuff & Cocoa Growers Asso.	Tetrefu		Foodstuff & Cocoa Cultivation	12	7		

17. Odokuo Farmers	Abidjan Kwanta		Maize & Vegetable Production	8	14	Samuel Owusu-Ansah	0248620500
18. Christ of Church Farmers	Nnuaso		Maize Production	14	27	AntwiBoasiako	0245499065
19. Kokobreko Farmers Asso.	Kokobreko		Vegetable Production	22	28	AkwasiAmoateng	
20. Behenase Farmers Asso.	Behenase		Maize & Cassava Production	19	26	Kofi Boakye	0544686178
21. Apinkra Farmers Asso.	Apinkra		Maize Production	33	41	Eric Asamoah	0266776793
22 Cocoa Farmers Asso.	Apinkra		Cocoa Production	28	35	KwakuGyekye	0248850023

Source: District Agriculture Directorate, Kuntanase, 2017

1.26.6 Distribution of Livestock

The livestock industry is not well established in the district. However some few farmers have small ruminant, cattle and pigs. See table 1.26 and 1.27 for cattle and pigs respectively. Poultry production is gaining patronage in the district mainly due to its closeness to the Regional Capital. (See table 1.28). There are few large commercial poultry farms north of the district closer to Kumasi

Table 1.29: Commercial Cattle Farms

Name Of Farm	Location	No. Of Cattle	Name Of Contact Person	Contact Number
AlhassanAmadu Farms	Jachie	71	AlhassanAmadu	-
Gyekye Farms	Apinkra	250		0248850023
AlhassanIssa Farms	Adagya	50	AlhassanIssa	0247673864
Yakubu Farms	Adagya	25	Yakubu	024763864
Opoku Manu Farms	Mim	17	Opoku Manu	0246570437
Nana Yaw Farms	Swedru	55	Nana Yaw	-
Chief Insp. Safo	Aboaso	50	Chief Insp. Safo	-

Source: District Agriculture Directorate, Kuntanase, 2017

Table 1.30: Poultry Farms

Name Of Farm	Location	No. Of Birds	Name Of Contact	Contact Number
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			Person	
AsareBediaku Farms	Jachie	1800	Ben Adusie	0242203636 /0244980932
Amofa Farms	Jachie	2400	Samuel Kusi	0274168112
AvahFams	Jachie	1200	Avah	-
Jumago Farms	Esreso	3500	Mr. Opoku	05125193
Adea Farms	Esreso	2000	Lydia Adea	0242118479
Foster Farms	Esreso	350	Foster Arkaah	0243569942
K aeMebre Farms	Nyameani	2000	Edmund MaxwelOkyere	0244786484
Patrick Adomako Farms	Aboaso	6000	Patrick Adomako	0265519347
KwakuAsare Farms	Tetrefu	4000	KwakuAsare	
Yaw Botwe Farms	Humabenase	8000	Yaw Botwe	
Nkansah Farms	Behenase	1500	Mr. Nkansah	0244278357
AgyaAppiah Farms	Behenase	10000	AgyaAppiah	0244665684
Princess Farms	Behenase	1500		0246849524
Peecon Farms	Apinkra	400		0249923590
Primal Point Ltd.	Kokobreko	5000		0244041836
Adomako Boamah	Toafom		AdomakoBoamoh	0244053133

Source: District Agriculture Directorate, Kuntanase, 2017

Table 1.31: Commercial Pig Farms

Name Of Farm	Location	No. Of Cattle	Name Of Contact Person	Contact Number
Sammy Farms	Aputuogya	1200	Samuel Laa	0201737099
BAF continental Farms	Edwenase	710	-	0200408769
Hilda Farms	Jachie	75	Hilda	0243070380
Nana Yaw Farms	Swedru	55	Nana Yaw	-
Boakye Farms	Swedru	62	Boakye	-
KwakuAppiah Farms	Abountem	15	KwakuAppiah	0244996105
AdjeiMensah Farms	Abountem	30	AdjeiMensah	0243583714
KojoOwuahene Farms	Abountem	35	KojoOwuahene	0243503480
Adu Richard Farms	Mim	16	Adu Richard	-
Kwame Owusu Farms	Mim	13	Kwame Owusu	-

Kwabena Badu Farms	Mim	10	Kwabena Badu	-
Pastor Badu twumasi Farms	Brodekwano	11	Paster Badu twumasi	0203040331
OpaninYadieyeya Farms	Brodekwano	17	OpaninYadieyeya	-
Kofi Agyeman Farms	Deduako	120	Kofi Agyeman	0244726327
Eric Ntey Farms	Onwi	-	Eric Ntey	0268956389
Ebenezer Tetteh Farms	Sewua	100	Ebenezer Tetteh	0243203376
Charles Mensah Farms	Sewua	80	Charles Mensah	
Patrick Adomako Farms	Aboaso	20	Patrick Adomako	0265519347
Mr. Prempeh Farms	Aboaso	30	Mr. Prempeh	
AkwasiDwona Farms	Kokodie	40	AkwasiDwona	0548531977
Kofi Owusu Farms	Kokodie	6	Kofi Owusu	0541442645
Abann Farms	Behenase	10	Abann	0244523340
Gyasi Farms	Behenase	70	Gyasi	0244770388
Isaac Farms	Behenase	100	Isaac	0244811450
Georgina Farms	Nnuaso	10	Georgina	0242060302
Osaah Farms	Nnuaso	140	Osaah	0244891911
Appiah Farms	Nnuaso	12	Appiah	0245246637
KwakuAppiah Farms	Abountem	15	KwakuAppiah	0244996105
AdjeiMensah Farms	Abountem	30	AdjeiMensah	0243583714
KojoOwoahene Farms	Abountem	35	KojoOwoahene	0243503480
Peter Appiah Farms	YaaseAdwafo		Peter Appiah	0241246161

Source: District Agriculture Directorate, Kuntanase, 2017

1.26.7 Donors Performances in the Agriculture Sector in the District

Bosomtwe District is noted for vegetable production (cabbage, lettuce, carrot spring onion, okra, tomatoes etc). The District has not benefited from any support since time in memorial. If donors will support our farmers in the District it will be a great benefit to vegetable production. We are appealing to the donors come and support our vegetable farmers to increase their output.

1.26.8 Access to Food Outlets

Most of the communities in the Bosomtwe District have access to various satellite markets, there are two major weekly markets located at **Aputuogya** and **Jachie**. Aputuogya market is scheduled on every Tuesdays in the week whilst Jachie's market is scheduled on every Fridays.

Table 1.32: Agro Input Dealers

Location	No. of input dealers
Nyameani	3
Nuaso	1
Abidjan Nkwanta	1
Aduadin	1
Kuntanase	3
Aputuogya	1
Swedru	1
Piase	2
Asisriwa	2
Brodekwanano	1
Asuoho Mim	1
Konkoma	2
Beposo	2
Esreso	4
Jachie	3
Pramso	1
Oyoko	2
Sawuah	2

Source: District Agriculture Directorate, Kuntanase, 2017

1.26.9 Key Development Problems in the Agricultural Sector

In spite of the contribution of agriculture to the district economy it is beset with the following problems:

- ❖ Impoverished soils leading to increased use of fertilizers
- ❖ Over-dependence on rain-fed agriculture
- ❖ Low capacity of extension services
- ❖ High postharvest losses
- ❖ Inadequate access to farm inputs
- ❖ Misapplication of agro-chemicals
- ❖ Inadequate access to micro-credit schemes for farmers
- ❖ Poor road condition
- ❖ Limited use of improved technology

Agriculture in the district can perform better than the current performance if the problems identified are immediately addressed. Measures or interventions that would be put in place to address these problems will include the following:

- ❖ To improve the fertility of the soil farmers will be trained on improved methods of farming

- ❖ To reduce over dependence on rain fed agriculture, farmers will be supported to have access to irrigation facilities like small-pumping machines to help them undertake all year round agriculture..
- ❖ The number of Extension Officers would be increased and resourced with logistics to enable them perform efficiently and effectively.
- ❖ Farmers would be trained in postharvest technologies and facilitated to have access to post harvest infrastructure like storage barns, maize cribs etc

When these interventions are implemented agriculture productivity and production would be enhanced.

1.27 Commerce

Commerce is another economic activity in the district. It employs about 19.4 percent of the total working population in the district. The traders deal in a wide range of goods, including both imported and made-in-Ghana goods, second hand clothes and footwear.

1.28 Manufacturing

Manufacturing provides employment to about 11.2 percent of the working population in the district. In spite of the abundance of agricultural raw materials, the district cannot boast of any major processing industry. Few cottage industries such as palm oil, palm kernel oil extraction, soap making, cassava processing exist in some communities. There is Oil Palm Processing Shop at Jackie.

1.29 Services

The service sector in the district also provides employment to 33.1 percent of the total working population. The service sector includes.

- ❖ Transportation and storage
- ❖ Accommodation and food service activities
- ❖ Information and communication
- ❖ Financial and insurance activities
- ❖ Real estate activities
- ❖ Professional scientific and technical activities
- ❖ Administrative and support service activities
- ❖ Public administration and defence; compulsory social security
- ❖ Education

- ❖ Human health and social work activities
- ❖ Construction
- ❖ Arts entertainment and recreation

1.30 Development Problems in the Manufacturing and Service Sectors

Key development issues of the manufacturing and service sectors include the following:

- ❖ Inadequate financial assistance. This is a major setback to their operations
- ❖ Inadequate processing machines/lack of precision tools, appropriate equipment and industrial machinery
- ❖ Small size of the processing structure//plants(Oil Palm Processors)
- ❖ Low patronage of product/services
- ❖ Excessive taxation by the district assembly

In order to enhance the efficiency of these sectors the following intervention would be put in place by the District Assembly and its development partners:

- ❖ In collaboration with other development partners link the entrepreneurs to financial institutions to enable them access credit, which could be used to procure precision tools and other machinery
- ❖ In respect of the location of the shops the assembly is developing an Industrial Village that would accommodate small scale businesses
- ❖ The District Assembly will continue to involve the associations in the fee-fixing resolution so that a reasonable and acceptable level of artisanal fee will be paid

1.31 Energy

The main sources of energy in the district are biomass in the form firewood and charcoal, petroleum products and electricity.

Electricity

In the Bosomtwe district all the 66 communities are connected to the national electricity grid. However, there new developed areas which need extension of electricity.. On the whole the use of electricity for domestic and industrial activities is encouraging.

Petroleum Products

There are 6 petrol filling stations and 2 surface tanks in the district. There are also 5 gas filling stations in the district

Biomass

Firewood and charcoal are the major sources of energy for cooking in the communities. About 78.6 percent of the household use biomass to meet their cooking energy requirements.. It is generally the woman's job to collect fuel wood for cooking. It often takes several hours to walk to and from supply sources which add considerably to women's workload. Women in the district have little alternative forms of energy such as gas in the local market and even where they are available, insufficient household funds prevent them from purchasing

The consumption of fuel wood contributes to deforestation with accompanying ecological damage and increased prices, gathering times thereby imposing heavy burdens on women.

Main source of lighting

Figure 1. 24 indicates that majority of households (69.4 percent) in the Bosomtwe District use electricity (mains) as their main source of lighting, followed by 19.6 percent that use flashlight or torch, while 8.1 percent use kerosene lamp. In Ashanti Region, households that use electricity (mains) as the most common source of lightning is 73.6 percent with the least source of lightning being crop residue with 0.1 percent of households.

Figure 1.21: Main source of lighting of dwelling unit by type of locality

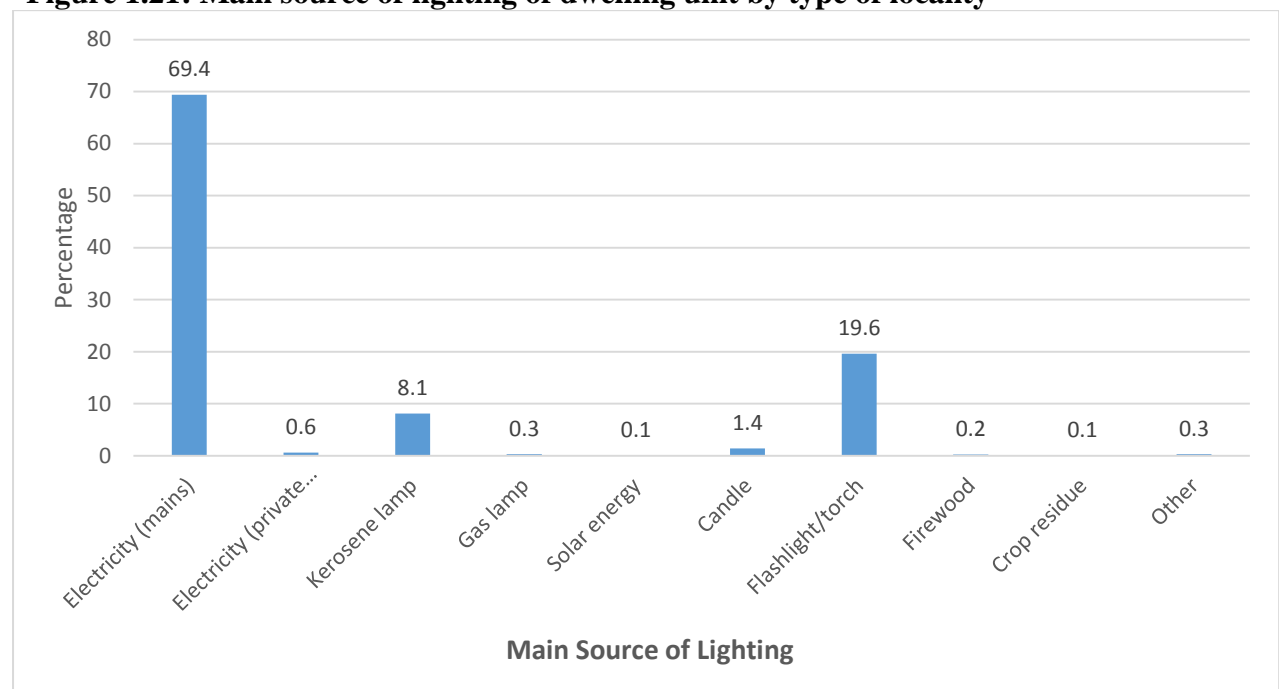


Table reveals the main source of lightning of dwelling units by type of locality in Bosomtwe District. In the urban (72.3%) and rural (68.0%) localities, most households use electricity as their main source of lighting. This is followed by the use of flashlight/torch constituting 18.5 percent in the urban areas and 20.1 percent in the rural areas. The use of Kerosene lamp as a source of lightning is 5.6 percent in urban localities and 9.2 percent in the rural areas.

Table1.33: Main source of lighting of dwelling units by type of locality

Main source of light	Total		Type of locality	
	Number	Percent	Urban	Rural
Total	22,895	100.0	100.0	100.0
Electricity (mains)	15,883	69.4	72.3	68.0
Electricity (private generator)	148	0.6	0.7	0.6
Kerosene lamp	1,847	8.1	5.6	9.2
Gas lamp	62	0.3	0.3	0.3
Solar energy	23	0.1	0.1	0.1
Candle	312	1.4	1.7	1.2
Flashlight/torch	4,483	19.6	18.5	20.1
Firewood	43	0.2	0.1	0.2
Crop residue	15	0.1	0.1	0.1
Other	79	0.3	0.7	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 1.30 shows the sources of cooking fuel and cooking space used by households. On cooking fuel, the table indicates that 43.3% percent of households in the District use wood as the major source of cooking fuel, followed by charcoal (34.7%) and gas (13.8%). The distribution by type of locality reveals that households in the rural areas (56.9%) use wood as their main cooking fuel with those in the urban centers (52.9%) using charcoal as their main cooking fuel. One quarter of households (25.4%) use separate rooms exclusively for cooking in the District and they are in the majority. In urban settings, most households use the veranda (37.6%) as their cooking space, while in the rural areas, 27.1 percent use separate rooms exclusively for cooking.

Table 1.34: Main source of cooking fuel, and used by households

Source of cooking fuel/cooking space	Total		Types of locality	
	Number	Percent	Urban	Rural
Main source of cooking fuel for household				
Total	22,895	100.0	100.0	100.0
None no cooking	1,586	6.9	7.6	6.6
Wood	9,917	43.3	13.6	56.9

Gas	3,166	13.8	24.7	8.8
Electricity	79	0.3	0.5	0.3
Kerosene	78	0.3	0.3	0.4
Charcoal	7,939	34.7	52.9	26.3
Crop residue	88	0.4	0.2	0.5
Saw dust	20	0.1	0.1	0.1
Animal waste	17	0.1	0.1	0.0
Other	5	0.0	0.0	0.0

Source: 2010 Population & Housing Census

1.31.1 Key development issues in the energy sector

The key development issues in the energy sector include:

- ❖ Not all areas have access to electricity
- ❖ Inadequate supply of transformers
- ❖ Poor street lighting system
- ❖ High cost of electricity
- ❖ High cost of petroleum products
- ❖ High dependence of fuel wood-leading to deforestation

The interventions that are proposed to improve the energy sector to enhance development will include the following:

- ❖ Extension of electricity to newly develop areas
- ❖ Facilitate the provision of additional transformers
- ❖ Provision of more street lights and maintenance of street lights
- ❖ Encourage the use of LPG gas to reduce the dependence on fuel wood/charcoal
- ❖ Undertake afforestation programme in the district

1.32 Tourism

The Lake Bosomtwe, as an aesthetic feature of prime importance and also as one of the largest meteorite lakes in the world, lies within the District. There are about 24 surrounding villages by the Lake. At the moment, only one settlement (Abono), a fishing community with a projected population of about 1,549, has its tourism potential relatively developed. The road leading to Abono from Kumasi is very bad, which is about 1- hour drive. There is also the availability of 24-hour electricity, lake transport, and telecommunication and toilet facilities. Moreover, Hotel accommodation, restaurant, summer huts, and open terraces are also springing up throughout the district and especially around the lake.

A significant development is the fact that Lake Bosomtwe has become the main ecotourism booster of the district and the Ashanti region. In order to promote the sustainable management of the lake, UNESCO through the Man and Biosphere Programme has declared the Lake as a Biosphere Reserve.

The biosphere reserve sustains 35 tree species, including some used for timber. The site is also home to great diversity of wildlife and to a human population of over 50,000 inhabitants whose main economic activities are farming, fishing and tourism as the lake is a major national tourist destination.

The area is widely used for research focusing primarily on climate change, as well as environmental education for schools and universities.

The Assembly in collaboration with the above mentioned key stakeholders has been working to support livelihoods while promoting sound conservation values geared towards sustainable development in the Lake Bosomtwe landscape since 2012.

Projects implemented at the Lake Bosomtwe within the last four years included

- Extension of electricity to the Lake Bosomtwe for all day tourist activities
- Construction of metal barrier, and toll booth and design of the frontage
- Planting of trees along the lake

The tourist site at Abono lacks modern tourism infrastructure and services, and this has discouraged tourists especially domestic tourists from patronizing the site. Accordingly, the BDA and other development partners are putting in measures to improve infrastructure and services there.

1.32.1 Plans for the Future Development of Lake Bosomtwe.

- Draw up a four year development plan for the lake Bosomtwe (2018-2021)
- Creation of recreational sites
- Construction of summer huts and other tourist facilities.
- Tarring of the Kumasi- Lake Bosomtwe roads to increase patronage.
- Under PPP construct cable car from Kokoado –to the Lake site.
- Tree planting along the lake Bosomtwe
- Provision of fishing nets
- Formation of women groups to access credit
- Planting of coconut trees along the lake
- Purchase of big boat for tourists

As part of replenishing the fish stock in the Lake, the Ministry of fisheries and aqua –culture is collaborating with the Bosomtwe District Assembly to construct 2-No Ponds at Abono and

Asuoho-Awafo. The purpose is to rear the fingerlings in the ponds and transfer them to the lake so as to replenish the depleting stock of fish in the Lake. As part of the project, the Ministry has supplied the Assembly with 2-No Tricycle for the lake front communities and 15-No aluminium pans for the women groups.

1.33 Banking/Financial Services

The District can boast of one Rural Bank and other micro financial Institutions. These are Bosomtwe Rural Bank which has 2 branches with its Head Office at Kuntanase, Garden City Savings and Loans Ltd, Lake View Financial service, Multi Credit Savings and Loans, Eff-Sarf Investment Limited, Lord Winners Micro Finance, Xpress Link Financial Service and Wealth Creation Micro Finance.

1.34 Revenue and Expenditure Status

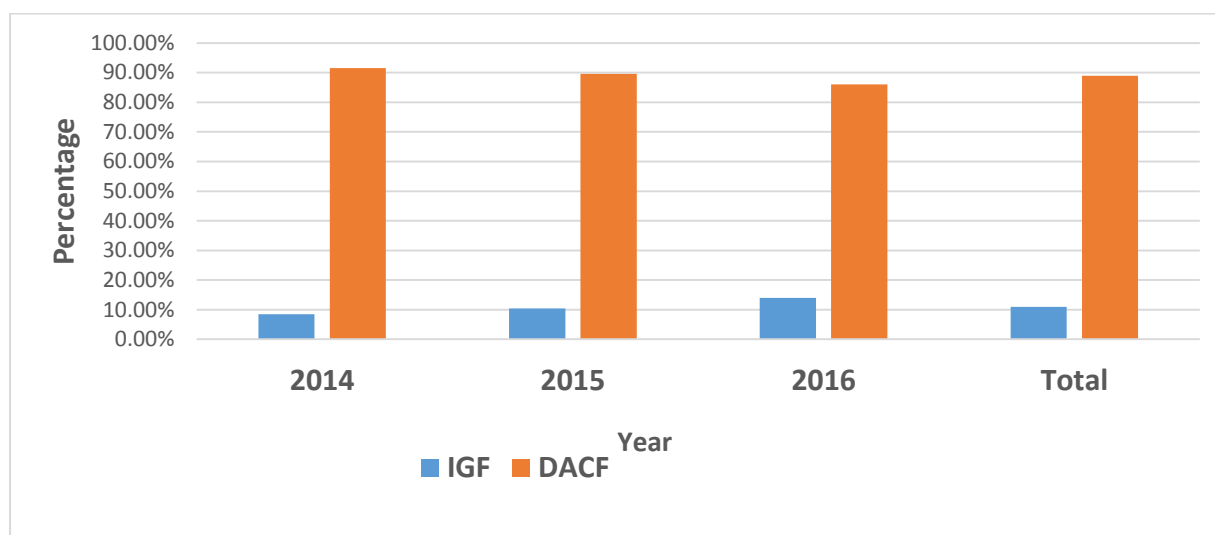
The major sources of revenue to the Assembly are Government grants (DACF, DDF, GoG). Paid Salaries) and internally generated fund (IGF). The IGF is composed of rates, land, fees and fines, licenses, rents, investment and miscellaneous. The contribution of both grants and IGF to the development of the district over the period is shown in table

Table 1.35: Proportion (%) of major sources of revenue to the District Assembly

YEAR ITEM	2014	2015	2016	TOTAL
I.G.F	8.5	10.4	14	11
DACF	91.5	89.6	86	89
TOTAL	100	100	100	100

Source: District Finance Office, Kuntanase, 2017

Figure 1.22: Proportion (%) of major sources of revenue to the District Assembly



Source: District Finance Office, Kuntanase, 2017

Grants have been the major source of revenue to the Assembly. Grants constitute 89 percent of total revenue of the Assembly from 2014 to 2016. However, the contribution of Grant to total revenue has been reducing over the years from 91.5 percent in 2014 to 86 percent in 2016. Whilst the grants have been reducing, the IGF is also increasing. Even though there has been improvement in mobilizing IGF, there is still room for improvement. Government grants continue to be the largest source of revenue to the Assembly. The implication is that without government grants the Assembly cannot undertake major development activities in the district. The bar graph (figure 1.) shows the proportion of each source of revenue to the Assembly.

1.34.1 Internally Generated Fund (IGF), 2014-2016

Internally generated fund obtained between 2014- 2016 amounted to GH¢1,133,667.8. The highest IGF collected within the period was in the year 2016 when total IGF was GH¢544,452.44 while 2014 recorded the lowest figure of GH¢244,803.11. Rates contributed the highest (GH¢345,534.19) to total IGF followed by Fees (GH¢327,850.22), Land and Royalties (GH¢225,425.11), Rent of Land, Building and Houses (GH¢116,590.00), Licences (GH¢95,456.00) , Fines, Penalties and Forfeits (GH¢18,805.50) with Misc& Unidentified Revenue being the least contributor to IGF. The Assembly was able to collect only 45.17 percent of its IGF in 2014. 82.73 percent in 2015, whilst 95.15 percent of the total IGF was collected in 2016.(see table 1

1.34.2 Grants, 2014-2016

The District received grants from Government and other donors to undertake development programmes and projects. Grants received between 2014-2016 were GH¢8,054,181.99. The highest amount received by the Assembly in a single year in the form of grants since 2014 was in the year 2016 (GH¢2,790,957.21) while the lowest figure was in 2015 (GH¢2,613,738.93). These transfers were in the form of employee compensation, DACF, MPs common fund.

Even though some transfers fell short of the Assembly's estimates others also exceeded its estimates. In all the years grants fell short of the Assembly's estimates. In the year 2014, the Assembly received 65.20 percent, in 2015, only 47.52 percent and 2016 only 48.51 was received. Despite the District's efforts to improve revenue generation, it fell short of its targets for the three years (2014-2016)

1.34.3 Expenditure (Grants)

Grants received from 2014-2016 was spent on compensation, programmes and projects under various sectors. The sectors included Health, Electricity, Education, Roads etc. (See table 1.

Table 36: Expenditure from 2014-2016

Year Item	2014	2015	2016	TOTAL
Health	40,706.73	229,286.58	105,781.33	375,774.66
Electricity	-	-	111,192.50	111,192.50
Education	134,969.85	341,646.58	287,830.73	764,447.16
Administration /local governance	237,362.62	156,266.44	402,982.89	796,611.95
Roads	30,600.00	45,480.00	69,800.00	145,880.00
Water and Sanitation	99,290.90	113,766.9	329,541.49	542,599.29
Total	542,930.1	886,446.5	1,307,128.94	

Source: District Finance Office, Kuntanase, 2017

1.34.4 Prudent Fiscal Management

Apart from the need to identify other sources of revenue generation in the district and the need to take further control measures to improve the finances of the Assembly, an even more important aspect of financial arrangement is the management of the resources of the Assembly.

Revenue mobilization and its management constitute a core problem area in the district. The limited resources available to the district in the face of numerous demands for development and functions of the Assembly require judicious use of resources of the Assembly and the institution of prudent control mechanisms in order to avoid waste in the system. To this end;

- ❖ All funds collected must be fully accounted for and on time too.
- ❖ There should be judicious use of funds and for the purpose for which they are appropriated. Expenditures must be made as authorized.
- ❖ Monthly financial statements (Trial Balance) must be prepared and issued on time.
- ❖ There must be close supervision and inspection of transactions to ensure prompt processing of payment vouchers as well as checking embezzlement of Assembly funds.
- ❖ Assembly officials and Assembly members must be honest and accountable to the populace.
- ❖ The Assembly must set its priorities right and make judicious use of resources by preparing procurement and cash flow plans for the implementation of programmes and projects.
- ❖ The Assembly must invest in productive ventures that will help raise the living conditions of the people in the district.

Apart from grants, the Assembly has not been able to generate enough revenue from its own resources for any meaningful development programmes and projects. This may partly be due to inadequate trained and regular revenue collectors in the district.

1.34.5 Matching Revenue with Expenditure

The Assembly manages to match actual revenue collected with approved expenditure by:

- ❖ Spending within approved budget limits.
- ❖ Ensuring proper authorization and approval of all payments.
- ❖ Monitoring all payment to ensure that they are being made for budgeted programmes and projects.
- ❖ Preparation of monthly trial balance and bank reconciliation statements.

Critically analysing monthly variances of revenue expenditure to find solutions to improve overall performance in revenue collection and expenditures

1.34.6 Appraisal of Current Revenue Mobilization Situation

This section is essentially an audit of the revenue mobilization effort of the DA. It covers billing and collection practices, revenue database of all revenue sources and a review of the revenue section within the organizational set-up of the DA.

The section also examines the condition of revenue facilities, markets, lorry parks, toilets etc. There is also assessment of the provision of resources for revenue mobilization.

1.34.7 Revenue Database

Basic Revenue Source Data

Data for most revenue sources is inadequate. Registers for some revenue sources admittedly are available but are not up to date. Consequently forecasting of revenue becomes difficult and in most cases faulty. The effect is that the DA is unable to put in place an effective rate collection programme thus losing out on maximizing its own source revenue potential.

Valuation List

Valuation has just been done, however it was done to cover only 13 of the 66 communities in the district. There is therefore the need for the identification of properties, which have not been covered in the previous valuation as new buildings are springing up in almost all the communities.

Electronic Data Processing System

The DA maintains an electronic accounting system. However, the Finance Office does not have adequate electronic gadgets to enhance performance

Revenue Billing/Collection Practices

Revenue Management is a component of the financial administration of the DA.

The regulatory framework and the legal authority are stated in several laws,

- Local Government Law 1993 (Act 462).
- Financial Administration Degree 1979(SMCD 221).
- Financial Administration Regulations, 1979(C 1234).
- Financial Memorandum 1961(sec of Act 54)
- Fee fixing Resolution of the DA.

Besides these, the Ministry of finance and the MLGRD issue directives on financial administration as the where necessary. All these memoranda and regulations have now been revised and will soon be put into the system for use.

However, the most relevant document for revenue mobilization is the Fee Fixing Resolution which fixes rates to be collected each year.

Fee fixing Resolution

The MLGRD issues guidelines regularly on rates imposition to the DA. The guidelines set minimum and maximum limits to the rates that the DA is allowed to impose. On receipt of the guidelines, the DA management prepares proposals of rates to be imposed. Revenue Budget based on the proposed rates are then submitted to the finance committee of the DA for consideration. After review, the proposals are submitted to the Assembly, which rectifies the figures by passing a Fee fixing Resolution. This then becomes the legal authority for the collection of rates/fees for the budget year.

1.34.8 Billing Systems and Procedures

There appears to be a system for billing. Bills for property rates are expected to be sent out early in the year. Ratepayers are expected to respond to the notice by settling their bills two weeks after the receipt of the notice. In practice, however, these bills are not sent out on time nor do the ratepayers respond to them early. With all other rates/fees a General Demand Notice is given out when payment falls due and payment is expected to follow immediately on receipt of the note. In practice payment follows often several weeks or months in significant number of cases.

There are several weaknesses of the system

- Bills are not promptly issued
- Some bills are not checked before dispatch/distribution
- Absentee landlords are not available for demand notices to be served on them.
- There exist poor data on properties and other revenue sources for which bills are to be prepared.

1.34.9 Collection Systems and Procedures

. The weaknesses noted are the following:

- Cash collections are not lodged promptly
- No safes for safe custody of cash taking at the revenue collection centers
- Poorly staffed revenue section
- No cash in transit insurance
- No transport for revenue collection
- No uniforms for revenue collectors
- Poorly trained revenue collectors
- Apathy/reluctance by ratepayers to pay rates promptly

These problems apart, it is suspected that various forms of leakages are prevalent. Several forms of the possible leakages include.

- a) Desensitization GCR
- b) Under declaration of the full load of exports of foodstuffs
- c) Non-issue of tickets or issue of false tickets
- d) Use of value books, which do not belong to the DA.

It is suggested that the DA closely monitor revenue collections rigorously to find out whether such malfeasance occurs.

1.34.10 Revenue Monitoring and Control

Revenue monitoring and control is undertaken by several means as follows:

- a) Use of value books
- b) Bank reconciliation
- c) Audit trail
- d) Analysis of revenue collections
- e) Supervision

- a) Use of Value books

The use of value books appears satisfactory. The books are in safe custody under the control of a senior accounts officer. They are issued out only when requisitioned by the revenue superintendent. The risk of theft is therefore minimized substantially. Moreover it is easy to trail any missing book or ticket. However, issuing of value books should always be done by the District Finance Officer

- b) Bank Reconciliation

It appears reconciliation is not done regularly if at all. Since bank reconciliation helps to determine whether all cash takings are actually paid to the bank, it is an important tool that should be used regularly; it is a serious lapse if it is not done well

c) Audit Trail

A daily audit trail of the previous day's cash receipts is expected to be conducted by the Auditor. This must be done daily

d) Analysis of Revenue Performance

The only important monitoring report prepared by the DA is the Trial balance. The common experience is that this document is usually a month behind schedule. But the revenue section requires up to date information on the results of its activities. Analysis of revenue prepared weekly and by value and source is the report which enables the DA to take corrective action in areas where it is not achieving expected results. This type of report is missing at the DA. Some of the reports that should be prepared include:

- ❖ Daily Revenue Collection by Revenue Type
- ❖ Weekly Revenue Collection by Revenue Type
- ❖ Monthly Revenue Collection by Revenue Type
- ❖ Quarterly Revenue Collection by Revenue Type
- ❖ Yearly Revenue Collection by Revenue Type

Additionally it is most useful to prepare comparative reports as follows:

- ❖ This Month Revenue compared with last Month
- ❖ This Week Revenue compared with last week
- ❖ This Quarter Revenue compared with last Quarter
- ❖ This Year Revenue compared with last Year
- ❖ This Month Revenue compared with same Month Last year
- ❖ This Quarter Revenue compared with the same quarter of Last Month

A reorganized revenue section will require this kind of information to enable it plan and manage the revenue function more efficiently

e) Supervision

Supervision at the revenue section required upgrading. Currently it is barely satisfactory. The main reason is that the head of the section lacks supervisory skills because he has been exposed to very little training in this area. He is not very different in orientation, attitude and motivation from the revenue collectors who are under him. Until the section is upgraded and

reorganized, this deficiency in supervision, a common feature of the revenue sections of all DAs, will remain a drawback to effective revenue mobilization.

1.34.11 Organization for Revenue Mobilization

Position of Revenue Section

The revenue section has a lowly status in the set-up of the DA. Unlike a profit oriented business where the marketing department has a high profile because it has the responsibility for sales and income generation, the revenue section in the DA is submerged under the finance department. There may be historical reasons for this. For one thing, local revenue generation by erstwhile local councils, the progenitor of the District Assemblies, was not a task to be taken seriously since Government subvention for all its expenditure was a certainty. The Finance department on the other hand continues to be highly regarded because it is both the custodian and the disbursing officer of the subvention. Treated as an inferior unit of the DA organization, the revenue section can hardly be expected to respond positively to the new challenge of being the instrument for local revenue maximization.

1.34.12 Staff of Revenue Section

The quality of staff of the revenue section is a reflection of the status it is accorded in the DA. The Revenue Superintendent, the head of the section, is a long service revenue collector who has graduated from the ranks to the position.

As for the revenue collectors, most of them have only basic education, have been in the system for long and in most cases have been given training on the job. There is very little opportunity for promotion for revenue collectors. Nor is there any motivation for highflying performance. Even such ordinary things as uniforms, boots, identity cards, raincoats are not provided; bicycles, motor bikes, are also not given. With so limited prospect for self-advancement, it is small wonder that the collective contribution by revenue collectors to local revenue generation is either barely satisfactory or poor.

1.34.13 Commission Revenue Collectors

There are 25 revenue collectors of the DA, 10 are permanent revenue collectors and 15 are commission agents. The latter are individuals, some of them barely literate, who collect various rates for a fee of 20% commission. They operate mostly in the villages where permanent collectors are not available. A few also operate at the urban centres to support the permanent collectors. These classes of collectors have two principal disadvantages. First, a number of them are not sufficiently literate and are unable to keep simple records. It is not easy therefore keeping track of their collections. Second, some tend to abandon the work

with little or no notice. This adversely affects the level of rate collection in their areas. It does appear that this is not a problem for which there can be a quick solution.

1.34.14 Revenue Facilities

Revenue facilities in the district include, markets, public toilets, Lake Bosomtwe.

The markets face several challenges among which include the following:

- No security fence/gate
- No water
- No electricity
- No drains
- Dusty floor, muddy during rainfall
- Poorly maintained refuse dump
- poorly maintained toilet
- Awful unsanitary conditions

Lorry Parks

Various vehicles use the stations. These include mini buses, large buses and cargo trucks,.

Many traders travel to the markets on these vehicles.

However there are several deficiencies at the parks. Included among the defects are:

- No security light
- No waiting room for passengers
- No toilet/urinal
- Unpaved surface
- No drains resulting in severe flooding during rains
- Poor sanitation.

Toilet

There are 13 communal/ public toilets in the district: The toilets are poorly managed by unit committees or Assemblymen. No account is rendered to the DA for fees collected. There is little or no maintenance of the toilets.

1.34.15 Resource for Revenue Mobilization

Nearly the DAs including Bosomtwe DA are disappointingly deficient of resources for mobilizing their own revenue. Some of the resources include such simple and relatively inexpensive items like uniforms, raincoats, boots and identity card. This DA has no vehicle for revenue collection. Neither motorbikes nor bicycles have been provided for the revenue section. Revenue collectors go about their duties on foot all day long. It is to be remembered

that revenue maximization will remain a mirage for as long as the resources for its mobilization are not given the due attention that is deserved.

1.34.16 Rate Payment as a Civic Responsibility

Residents are not aware that rate payment is a civic responsibility. It is the duty of the DA to educate the residents on the need to pay rates as a civic responsibility. The DA is woefully wanting in this duty and urged the management to wake up to this responsibility.

1.34.17 Information of DA Development Initiatives

There is little information, according to participants, about the activities of the DA. In particular the DA rarely disseminates news about its programmes and development projects among the general public. Consequently there is the perception that the DA is doing very little and that revenue from rate payments is misapplied.

1.34.18 Effective Rate Collection Programme

There is the view that the DA has not put into place an effective revenue mobilization plan. It is suggested that the DA should formulate a more purposeful rate collection initiative.

1.34.19 Supervision of Revenue Collectors

The perception is that revenue collectors are not supervised effectively to motivate them perform efficiently. The view is that much more revenue can be collected by a revenue team that is more focused than hitherto.

1.34.20 Rate Default

It has been observed that DA does not appear to enforce rate payment regulations, nor is it willing to invoke sanctions for default. As long as the perception persists, rates can be evaded with impunity; many will be very reluctant to pay the rates that are due.

1.34.21 Inadequacy of Infrastructural/Social Services

Residents bemoaned these services as inadequate. In particular most of the feeder roads in the district are in a bad shape making it unacceptably expensive to transport foodstuff from the farm to the market. Access to water is inadequate; they concede, however, that the community water/sanitation project has brought much needed improvement. Access to electricity is satisfactory; health delivery should be much more widespread across the district, they argued.

1.34.22 Improving Revenue Management System

Billing System and Procedure

- ❖ Bills should be issued promptly and at regular intervals of time so as to alert the ratepayer that a particular bill is to be expected at the usual time. It will also help the ratepayer to make provision in his/her personal budget for payment of that bill.
- ❖ Bills should be checked for errors before being sent out, thereby removing any doubts about the accuracy of a bill.
- ❖ Bills which have been previously prepared based on old values, particularly in case of property rates, should be thoroughly scrutinized to ensure that current values are taken into consideration. This will eliminate or reduce offending bills and the incidence of angry protests from landlords.
- ❖ Efforts must be made to reach absentee landlords by all means. This is possible through a tenant or some other person who knows him, or by post.
- ❖ A reliable data on all revenue sources is the one sure way of preparing bills to exploit the full potential of every revenue source. The ultimate solution lies in a computerized billing system based on a computerized database. As far as possible, therefore, the billing system should be computerized for efficiency and effectiveness.
- ❖ Assembly must institute special for a where information and education will be the focus to explain to the public, the Assembly's achievements i.e. plans, processes, progress, prospects and problems, to encourage payers to pay rates willingly on demand.
- ❖ All rate defaulters must be promptly prosecuted (see LG Act 1993 Act 462 Sec. 101). The procedure of making Byelaws takes unduly long time. The other law enforcement agencies such as the Police and Judiciary should be contracted to offer their support in this area.

1.34.23 Collection Systems and Procedures

- ❖ Cash collections should be paid to the cashier and/or lodged promptly into DA bank account.
- ❖ The possibility of depositing the day's cash takings overnight with the bank for safe keeping should be explored.
- ❖ Small safes should be installed at revenue centers.
- ❖ Insurance should be provided for cash in –transit.
- ❖ Collectors should easily record their daily collections. The document should be submitted together with returns on cash payments.

- ❖ The Revenue Section to be reorganized and the position of the head to be upgraded to attract qualified people into senior positions of the proposed department.
- ❖ Design training programmes for the revenue collectors to upgrade their efficiency and effectiveness.
- ❖ Revenue collectors should be provided with uniform and protective clothing and identity tags.
- ❖ Annual award scheme for the most efficient and effective collector(s) should be institutionalized.
- ❖ Since revenue is the mainstay of the Assembly, means of transport must always be made available for mobilization and field monitoring.
- ❖ Erect revenues barriers at appropriate points for ease of collecting export fees.
- ❖ Spacious and well-furnished offices should be provided for all zonal offices.
- ❖ Encourage privatized collection especially by identifiable groups.
- ❖ Provide warehouses for the big markets where necessary.
- ❖ Cede more revenue items for collection, especially those that are cited at obscure places.
- ❖ A sustained ratepayer-awareness campaign should be vigorously embarked upon to educate and inform ratepayers about all matters concerning rate payment. In this regard the assistance of churches, Civil Society Groups, NGOS, traditional rulers, Trade Association. NCCE can be solicited to reach as many people as possible.
- ❖ Projects undertaken with DA revenue should be widely publicized. This will also improve the district's relation with the ratepayers.

1.35 Economic Resources

The District is endowed with a variety of potential economic resources which when properly harnessed can create much wealth for the people and to improve their standard of living. The range of economic resources in the district include; arable and viable agricultural land, tourist attractions, plantation and cash crops, good roads linking the district to the regional capital and other districts, electricity coverage, some cottage industries made up of palm oil and palm kernel extractions, gari processing, weaving and others, market centres dotted in the district, hotel and restaurants, and a pool of businesses like traders, business houses

1.35.1 Inter Trade

This is the trade that goes on between Bosomtwe District and other adjoining districts and those beyond. By its location the district shares boundaries with about four districts and there is an inter trade between Bosomtwe District and some of these districts. For example, there is

trade between the people in the district and districts like Bekwai Municipal, Ejisu-Juaben Municipal Assembly and Kumasi.

Goods traded in are either exogenous ones or endogenous ones. The exogenous goods are those goods that move from the frontiers of Bosomtwe District to other districts. Such goods are basically agricultural produce like plantain, palm nuts, peas, mangoes, oranges, cabbage, lettuce and others.

The endogenous goods on the other hand are those goods that move from other adjoining districts into Bosomtwe District. For example, goods like manufactured goods are brought into the district on market days from Kumasi, Ejisu, and Bekwai.

1.35.2 Intra Trade

This refers to trade that goes on among the market centres (communities) within the district. For example, on market days (Tuesdays) at Aputuoagya, Thursdays at Kuntanase and Fridays at Jachie people from other towns like Beposo, Amakom, Abono, Esereso, Feyiase, Pramso, Tetrefu and others travel to Aputuogya, Kuntanase and Jachie towns to trade. Goods traded in are basically food and other agricultural produce and some manufactured items and clothing.

1.36 Employment Status

The employment status by sex of persons aged fifteen years and older is shown in table 4.5. As shown in the table 1.33, data on employment status indicate that majority (64.6%) of the economically active population are self-employed without employees. Employees constitute 18.4 percent, while contributing family workers is made up of 5.4 percent. Self-employed with employees on the other hand, is represented by 5.1 percent of the economically active population.

Table 1.37: Employment status by sex for employed population 15 years and older

Employment Status	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	37,812	100.0	18,029	100.0	19,783	100.0
Employee	6,976	18.4	4,968	27.6	2,008	10.2
Self-employed without employee(s)	24,420	64.6	9,873	54.8	14,547	73.5
Self-employed with employee(s)	1,930	5.1	1,093	6.1	837	4.2
Casual worker	807	2.1	677	3.8	130	0.7
Contributing family worker	2,054	5.4	653	3.6	1,401	7.1
Apprentice	1,396	3.7	659	3.7	737	3.7
Domestic employee (House help)	171	0.5	69	0.4	102	0.5

Other	58	0.2	37	0.2	21	0.1
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Source: Ghana Statistical Service, 2010 Population and Housing Census

Employment Sector

Table 1.37 provides information on employment by sectors of persons 15 years and older. The table shows that the private informal sector is the largest employer in the District, accounting for 86.2 percent of the economically active persons. The private formal sector is the second largest employer, accounting for 7.7 percent, while the public sector employs 5.3 percent of the population 15 years and above in the District. The table further shows higher proportions of males than females in all the other sectors except the private informal sector where females employed (91.6%) is significantly higher than males (80.3%).

Table 1.38: Employed population 15 years and older by employment sector and sex

Employment sector	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	37,812	100.0	18,029	100.0	19,783	100.0
Public (Government)	2,016	5.3	1,182	6.6	834	4.3
Private formal	2,896	7.7	2,168	12.0	728	3.7
Private informal	32,610	86.2	14,479	80.3	18,131	91.6
Semi-public/parastatal	56	0.1	34	0.2	22	0.1
NGOs (local and international)	230	0.7	164	0.9	66	0.3
Other international Organisations	4	0.0	2	0.0	2	0.0

Source: Ghana Statistical Service, 2010 Population and housing Census

Table 1.39: Population 15 years and older by activity status and sex

Activity status	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	55,796	100.0	25,536	100.0	30,260	100.0
Economically active	40,866	73.2	19,148	75.0	21,718	71.8
Employed	37,812	92.5	18,029	94.2	19,783	91.1
Worked	36,197	95.7	17,496	97.0	18,701	94.5
Did not work but had job to go back to	1,565	4.1	509	2.8	1,056	5.3
Did voluntary work without pay	50	0.1	24	0.1	26	0.1
Unemployed	3,054	7.5	1,119	5.8	1,935	8.9
Worked before, seeking work and available	1,147	37.6	378	33.8	769	39.7
Seeking work for the first time and available	1,907	62.4	741	66.2	1,166	60.3
Economically not active	14,930	26.8	6,388	25.0	8,542	28.2

Did home duties (household chore)	2,841	19.0	657	10.3	2,184	25.6
Full time education	8,004	53.6	4,287	67.1	3,717	43.5
Pensioner/Retired	393	2.6	284	4.4	109	1.3
Disabled/Sick	930	6.2	332	5.2	598	7.0
Too old/young	1,794	12.0	468	7.3	1,326	15.5
Other	968	6.5	360	5.6	608	7.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 1.38 shows that 75.0 percent of males are economically active, while 25 percent of females are economically not active. The economically active females also constitute 71.8 percent of the population, while the economically not active females make up 28.2 percent.

Table 1.39 provides information on economic activity status of population 15 years and older by sex and age of the Bosomtwe District. In the table, out of the 55,796 persons of 15 years and older, proportions of persons employed (67.8%), unemployed (5.5%) and economically not active (26.7%) are shown. Proportion of the age group 15-19 years employed is 18.8 percent out of 76.3 percent economically not active. Proportion of employed persons

Table 1.40 also presents data on employed population 15 years and older by occupation and sex. As shown in the table, skilled agricultural, forestry and fishery workers remain the dominant occupation for both males (32.2%) and females (38.8%). Again, a much higher proportion of females (35.4%) than males (10.7%) are engaged as service and sales workers. With regards to craft and related trade workers, males (25.5%) have a higher proportion than females (10.2%).

Table 1.40: Employed population 15 years and older by occupation and sex

Occupation	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	37,812	100.0	18,029	100.0	19,783	100.0
Managers	821	2.2	384	2.1	437	2.2
Professionals	2,293	6.1	1,360	7.5	933	4.7
Technicians and associates						
professionals	552	1.5	393	2.2	159	0.8
Clerical support workers	458	1.2	293	1.6	165	0.8
Service and sales workers	8,925	23.6	1,937	10.7	6,988	35.4
Skilled agricultural forestry and						
fishery workers	13,452	35.6	5,789	32.2	7,663	38.8
Craft and related trades workers	6,612	17.5	4,591	25.5	2,021	10.2
Plant and machine operators and						
assemblers	2,521	6.6	2,461	13.7	60	0.3

Elementary occupations	2,169	5.7	815	4.5	1,354	6.8
Other occupations	9	0.0	6	0.0	3	0.0

1.37 Key Development Problems of Unemployment and Under-employment

- ❖ Non-availability of job opportunities;
- ❖ Lack of employable skills
- ❖ Farming/agriculture being unattractive to the youth; and
- ❖ Inadequate vocational and technical institutions in the District

To solve the problem of unemployment and underemployment, the under listed interventions would be put in place by the District Assembly and its development partners. These interventions would include:

- ❖ Providing skill training for the unemployed youth and linking them to financial institutions to access start-up capital
- ❖ Supporting the youth in apprenticeship training.

Implications to Development

- ❖ Poverty reduction, Particularly among farmer groups
- ❖ Higher productivity
- ❖ Employment creation
- ❖ Improved marketing approach through FBO linkages

1.38 Food Security

‘Food security’ exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Based on FAO definition (1996, 2009).The Ministry of Food and Agriculture’s operational definition of food security is “good quality nutritious food hygienically packaged, attractively presented, available in sufficient quantities all year round and located at the right place at affordable prices (FASDEP, 2003).

Food and Nutrition Security’

“Food and nutrition security exists when all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life.”

From 2014-2016, the district recorded high productivity in staple crop production like maize, cassava, cocoyam and cowpea. Seasonal variability due to climatic changes did not affect food production and supply all year round. Exotic vegetable production was encouraging with the dry season farming along river banks. Meat is abundant due to the availability of imported meat in the market and the presence of local poultry and small ruminants in almost all households. Poor households often and consistently lack access to the food required for them to lead a healthy and productive life. Access to food implies having means and resources to produce well as the ability to purchase food

1.38.1 Key Development Issues in Food Security

The key development issues in food security include the following:

- ❖ Deplorable road condition leading to high transportation cost
- ❖ High post-harvest losses because of inadequate storage facilities and improved knowledge in post-harvest management
- ❖ Misapplication of agro-chemicals
- ❖ Impoverished soils
- ❖ Unfavourable agro-climatic conditions
- ❖ Application of farming practices that are unsustainable
- ❖ Rapid population growth rate
- ❖ Lack of irrigation facilities-leading to the farmers inability to undertake all year farming
- ❖ Natural and man-made disasters like bush-fire, wind/rain storm, floods and outbreak of diseases/pests

1.38.2 Strategies/ way forward of food security and emergency preparedness

- ❖ Develop appropriate irrigation schemes for different categories of farmers to ensure production throughout the year.
- ❖ Introduce high yielding and short duration crop varieties.
- ❖ Target the vulnerable with special programmes (Youth in Agric) that will enhance their diversification opportunities.
- ❖ Strengthen early warning systems to provide information on natural disaster e.g. floods, bushfire, shortage of food outbreak of pests and diseases (Avian flu, Swine flu, etc)
- ❖ Improving road condition to improve accessibility will lead to reduction in post-harvest losses.

- ❖ Facilitate access of poor farmers to credit on reasonable terms
- ❖ Assist farmers to adopt environmentally sustainable farming practices
- ❖ Training of farmers in proper application of agro-chemicals
- ❖ Develop effective post- harvest management strategies, particularly storage facilities at individual and community levels i.e. Silos, warehouses, improved cribs

1.39 Nutrition Security

Nutritional well-being is a pre-requisite for the achievement of full social, mental and physical potential of the population. Malnutrition: Malnutrition refers to all forms of nutrition disorders caused by a complex array of factors, including dietary inadequacy (deficiencies, excesses or imbalances in macronutrients or micronutrients), and includes both under nutrition and over nutrition and diet-related non communicable diseases.

Under nutrition occurs when the body's requirements for nutrients are unmet as a result of under consumption or impaired absorption and use of nutrients. Under nutrition commonly refers to a deficit in energy intake from macronutrients (fats, carbohydrates and proteins) and/or to deficiencies in specific micronutrients (vitamins and minerals). It can be either acute or chronic (WHO, 2013b).

Indicators of under nutrition include stunting, wasting and underweight:

- ❖ Stunting (low height-for-age) is an indicator of chronic under nutrition and often reflects general poor health and more distal economic and social factors.
- ❖ Wasting (low weight-for-height) is an indicator of acute under nutrition and is associated with increased mortality.
- ❖ Underweight (low weight-for-age) reflects both chronic and acute under nutrition.
- ❖ Other indicators of nutritional status are deficiencies in micronutrients (e.g. iron, vitamin A, zinc, iodine), which are measured through biomarkers, requiring blood and/or urine samples.
- ❖ Finally, measuring dietary intake over time provides a direct measure of nutrient intake and complementary information to the outcome indicators.

In the Bosomtwe District, malnutrition is a prevalent phenomenon in the smaller communities and is particularly serious among children as well as pregnant and nursing mothers.

Nutrition Rehabilitation

Nutrition rehabilitation of severely malnourished children and nutrition education for mothers whose children are admitted to the children's ward at St. Michael's Hospital were some of the major activities done at the Nutrition rehabilitation Centre at St. Michael's hospital. Apart from the ward activities, there is also non-residential rehabilitation which operates on Fridays at St. Michael's hospital to cater for children who are not gaining adequate weight. The total number of malnourished children admitted was 262 and there was 1 death.

Dietary Diseases Control

Diabetic clinic is held at St. Michael's hospital, Pramso every third Wednesday and Thursday in the month. A Paediatrician Specialist, Other Medical Officers, a Nutrition Officers and Nurses from the St. Michael's run the clinic. There were a total of 1,829 attendances in 2016. Out of this figure, 219 are hypertensive, and 469 been diabetic whilst 818 are diabetic-hypertensive. two of the clients were obese.

Table 1.41: Adolescent Health and Nutrition Survey

BMI	No. of Adolescents	% of Adolescents
< 18.5 kg/ms	163	33.2%
18.5 – 25 kg/ms	242	57.1%
26 – 30 kg/ms	18	5.2%
31+ kg/ms	8	4.5%
TOTAL	431	100.%

Source: District Health Directorate, April, 2017

Breast feeding Promotion & Lactation Management.

St. Michael's Hospital and Kuntanase Hospital are the only designated baby friendly institutions in the district. Exclusive breastfeeding was promoted in all the health facilities. Mother support groups in the district are actively involved in breastfeeding education in their various communities.

1.39.1 Causes of under nutrition

Under nutrition is directly related to inadequate dietary intake and infectious diseases and is influenced by three broad factors: food, health and care.

- ❖ Inadequate access to food- Optimal nutritional status results when children and families have access to foods that are conducive to a healthy diet and meet dietary needs (e.g. sufficient, safe and nutritious);
- ❖ Inadequate dietary intake
- ❖ Inadequate care for children and women
- ❖ Insufficient health services- appropriate maternal and child care practices; adequate health services
- ❖ Unhealthy environment-This includes unhealthy environment, unsafe water, insanitary conditions and unhygienic practices.

1.39.2 Major Issues in Nutrition

Major issues in nutrition in the district include:

- ❖ High prevalence of protein energy malnutrition
- ❖ High prevalence of micro-nutrient malnutrition affecting the health of some people
- ❖ Inadequate household food security , especially among the poor
- ❖ Increasing incidence of diet related diseases such as hypertension and diabetes
- ❖ Poor feeding and caring practices for infants and children
- ❖ Poor hygiene practices among the people
- ❖ Lack of knowledge regarding the food and nutritional needs of households

1.39.3 Specific Actions Needed to Improve Nutritional Status

- ❖ Improving nutrition of pregnant and lactating women
- ❖ Early initiation of breastfeeding within 1 hour of birth
- ❖ Exclusive breastfeeding for the first 6 months
- ❖ Counselling and support for continued breastfeeding along with appropriate complementary feeding from 6 months up to 2 years and beyond
- ❖ Micronutrient supplementation to women of reproductive age, pregnant women and children
- ❖ Management of moderate and severe acute malnutrition

- ❖ Nutritional care and support for children and women in difficult circumstances (e.g. emergencies, human immune deficiency virus [HIV]/acquired immune deficiency syndrome [AIDS]).
- ❖ Hand-washing with soap. In the household, hand-washing with soap should be encouraged at critical times
 - Before preparing food or cooking
 - Before eating or feeding a child
 - After cleaning a child's bottom
 - After defecation
- ❖ Improving food security

Nutrition problems are symptoms of a disorder or inefficiency in the whole system including the land acreage farmed, climate, farming methods, yields, distribution, pricing as well as income levels and agricultural patterns and the population in the district. Under the current conditions of high rate of malnutrition among children and lactating women, it is imperative that improvement of the nutritional status of the population in general and eradication of child malnutrition to be given high priority in the Medium-Term Plan.

1.39.4 The Scaling-Up Nutrition movement

To date, more than 50 countries have joined the Scaling-Up Nutrition (SUN) movement. The SUN approach, recognizing that malnutrition has multiple causes, builds high-level support at the country level to foster collaboration and coordination across issues, sectors and stakeholders to position nutrition in all development efforts. SUN promotes scaling up both specific nutrition interventions as well as nutrition-sensitive approaches, including clean drinking water, improved sanitation facilities and hygiene. Major donors in the SUN donor network, such as the United States Agency for International Development (USAID), governments, donors, development banks and civil society organizations that tracks commitments made towards universal access to safe water and adequate sanitation services.

1.40 Social Services

This section of chapter one describes social services and their development implications (including accessibility analysis) with respect to:

- ❖ Education-i.e. enrolment levels, infrastructure, availability of teachers, school performance etc.,
- ❖ Health care: - incidence of diseases (Malaria, Guinea worm etc) availability of health professional and infrastructure, status of the District Health Insurance Scheme, access to health facilities, infant mortality rate, maternal mortality rate, etc
- ❖ HIV and AIDS: - The analysis on HIV and AIDS should cover but, not limited to, HIV prevalence, incidence of HIV and AIDS, opportunistic infections and STI, characteristics of vulnerable population subgroups, stigmatisation etc

1.40.1 Education

Education has an important role to play in the district's development. Education helps to train the man power for socio-economic development. Almost every community with a population of more than 300 has a primary school. Junior and Senior High schools are found in a number of towns and villages. There are 139 kindergartens, made up of 56 public and 83 private schools. There are also 143 primary schools out of which 60 are public schools and 83 private, whilst there are 117 JHS, made up of 57 public schools and 60 private. There are more private basic schools than public schools in the district. The number of basic schools both public and private is shown in Tables The distribution of basic schools is fairly well spread in the district as compared to second cycle and tertiary level institutions.

There are 8 educational circuits to enhance the supervision of the schools. The circuits are

- | | |
|-------------------|-----------|
| 1. Abono | 5. Jachie |
| 2. Brodekwano | 6. Oyoko |
| 3. Kuntanase east | 7. Sawua |
| 4. Kuntanase west | 8. Esreso |

Four (4) out of the 8 circuits are in the Jachie Area Council, 3 in the Kuntanase Area Council, 1 is in the Boneso Area Council.

1.40.2 Enrolment in Public Basic Schools

Enrolment in public basic schools from 2014-2017 is depicted in the table 1.41 below. From the table, in 2014, total enrolment for the basic schools was 23404 made up of 11938 males and 11466 females. Enrolment however increased marginally by 0.9 percent in 2015 to 24633 made up of 12379 males and 12254 females.. In 2017 total enrolment was 23716, made up of 12005

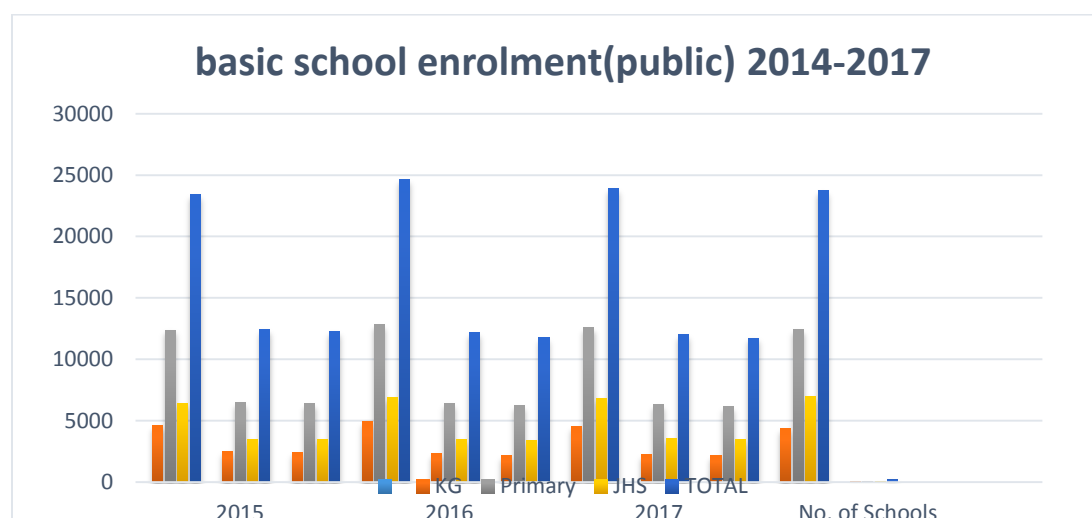
males and 11711 females. This figure was a slight decrease from the 2016 academic year which stood at 23920 made up of 12181 males and 11739 females. In all the years males enrolled were more than females.

Table 1.42: Public Basic school Level Enrolment in the district 2014-2017

Year	2014			2015			2016			2017			No. of Schs
	B	G	TOTAL	B	G	TOTAL	B	G	TOTAL	B	G	TOTAL	
KG	2383	2250	4633	2499	2424	4923	2339	2145	4484	2221	2125	4346	56
Primary	6256	6113	12369	6447	6397	12844	6357	6251	12608	6277	6128	12405	60
JHS	3299	3103	6402	3433	3433	6866	3485	3343	6828	3507	3458	6965	57
TOTAL	11938	11466	23404	12379	12254	24633	12181	11739	23920	12005	11711	23716	173

Source: GES, Aputuogya, 2017

Fig 1.23: Public Basic School Enrolment (2014-2017)



1.40.3 Enrolment in Private Basic Schools from 2014-2017

The private basic school level enrolment for the period under review is shown in the table below. Enrolment increased from 12213 in 2014 made up of 5679 males and 5534 females to 13207 in 2015 which was about 8.1 percent increment. Enrolment again increased from 13207 in 2015 to 15370 in 2016 an increase of about 16.4 percent. Enrolment in the private basic schools further

increased in 2017 by 10.8 percent. In all the years as in public basic schools males were more than females at all the levels.

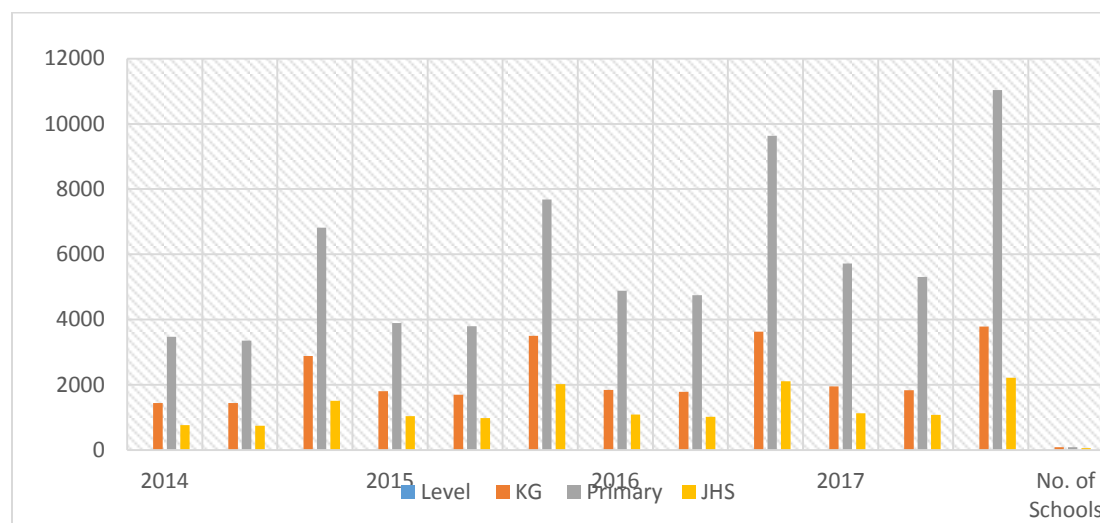
From the analysis of the enrolment levels from 2014-2017 whilst enrolment levels keep on decreasing in public basic schools' enrolment in private basic schools keep on increasing. This means that parents have lost interest in public basic schools where even tuition fees are not paid.

Table 1.43: Private Basic Schools Level Enrolment in the district 2014-2017

Year Level	2014			2015			2016			2017			No. of Schools
	B	G	TOTAL	B	G	TOTAL	B	G	TOTAL	B	G	TOTAL	
KG	1445	1437	2882	1803	1699	3502	1845	1786	3631	1951	1831	3782	83
Primary	3467	3352	6819	3891	3791	7682	4881	4752	9633	5721	5311	11032	83
JHS	767	745	1512	1042	981	2023	1091	1015	2106	1131	1082	2213	60
Total	5679	5534	11213	6736	7471	13207	7817	7553	15370	8803	8224	17027	226

Source: GES, Aputuogya, 2017

Fig 1.24: Private Basic Schools Enrolment



1.40.4 Teacher Population

Total number of teachers in the district is adequate compared to the size of the student population. In 2014 there was 1625 teaching staff at post in public schools, made up of 878 males and 747 females whilst their counterparts in private schools were 562 made up of 412 males and 150 female. In 2014, there was 1189 trained teachers out of the total of 1625 teachers.

In case of teachers in the private schools out 562 teachers only 59 were trained teachers. However the teacher population in both public and private schools increased in the 2016 academic year as depicted in Table In public schools in 2016 there were 1701 teachers made up of 994 males and 707 females. In private schools there were 711 teachers.

Table 1.44: Teachers in Public Basic Schools from 2014-2017

Level	2014		2015		2016		2017	
	Trained	Untrained	Trained	Untrained	Trained	Untrained	Trained	Untrained
KG	99	104	168	209	163	198	167	133
Primary	442	210	499	110	478	25	448	73
JHS	505	108	601	43	573	37	622	25
GRAND TOTAL	1,046	422	1,268	362	1,214	260	1,237	231

Source: GES, Aputuogya, 2017

Figure 1.25: Teachers in public schools

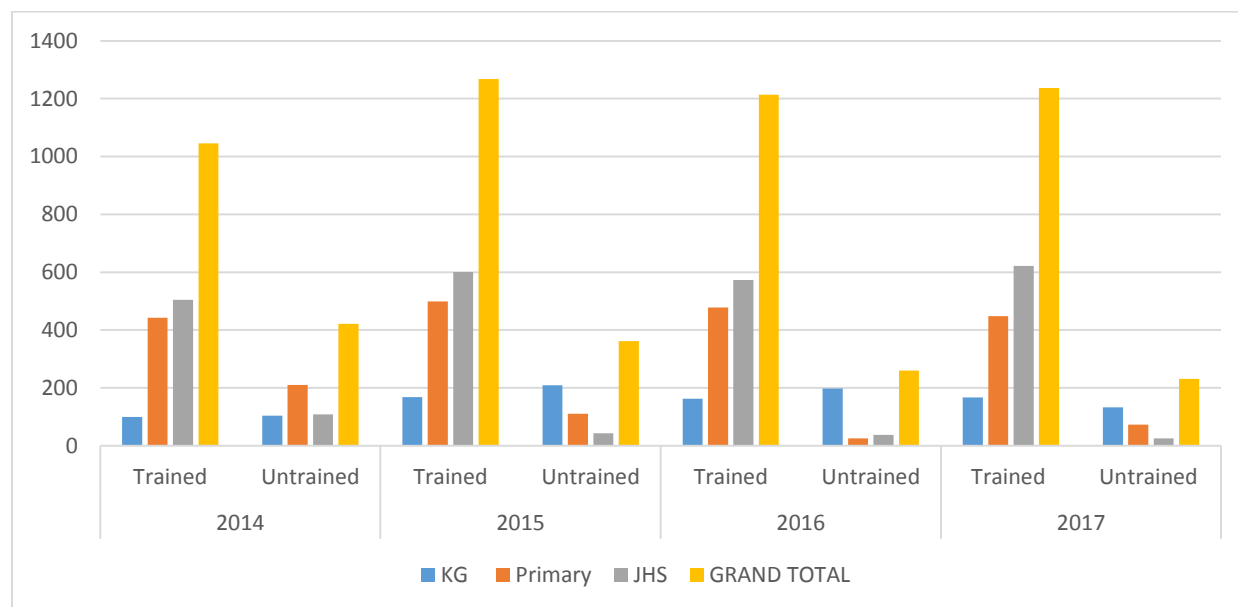


Table 1.45: Teachers in Private Basic Schools

Level	2014				2015				2016				2017			
	Trained		Untrained		Trained		Untrained		Trained		Untrained		Trained		Untrained	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
KG			29	81	1	1	28	85			30	35	3		77	81
Primary	7	1	230	68	10		10	248		2	261	52			311	65

JHS	11		141	18	17		17	139	9	2	130	21	1		144	93
GRAND TOTAL	18	1	400	167	28	1	55	472	9	4	421	108	4		532	239

Source: GES, Aputuogya, 2017

Educational Performance

The performance of students Basic Education Certificate Examination (BECE) from 2014-2016 is analysed in Table below. The performance of students has been dwindling since 2014. In 2014 they had 70.03 percent passes, but increased to 65.7 percent in 2015 and decreased further in 2016 to 53.7 percent in 2016 as shown in Table 1.41 and Fig 1.28 below.

Table 1.46: Performance of Pupils in BECE in the District

Year	Total no. of Candidates	Number passed	%	Number failed	%
2014	2249	1515	70.03	674	29.97
2015	2359	1551	65.7	808	34.3
2016	2629	1411	53.7	1218	46.3

Source: GES, Aputuogya, 2017

2014 BECE - Schools which had 100% Pass

- | | |
|--------------------------------|-----------------------------|
| 1. Jachie Anglican JHS | 11. Future Academy JHS |
| 2. Saviour Int. JHS | 12. Jachie Adventist JHS |
| 3. God's Grace Int. JHS | 13. Excellence Academy JHS |
| 4. Living Waters JHS | 14. Star of Triumphant JHS |
| 5. Calvary Meth. JHS | 15. Great Vision JHS |
| 6. Pramso Holy Family Int. JHS | 16. Destiny Exp. Academy |
| 7. Dedesua D/A JHS | 17. Leaders of Tomorrow JHS |
| 8. For Christ Int. JHS | 18. Agape Academy |
| 9. Feyiase Joy Standard JHS | 19. Akwaduo D/A JHS |
| 10. Children's House JHS | 20. Stay Blessed JHS |

Schools which had 0%

1. Nyameani D/A JHS
2. Kokodei D/A JHS

3. Abono D/A JHS

2015 BECE - Schools which had 100% Pass

- | | |
|------------------------------|-------------------------------|
| 1. Nyameani D/A JHS | 13. Excellence Academy |
| 2. Abono D/A JHS | 14. Great Vision JHS |
| 3. Sawua D/A JHS | 15. Destiny Experimental |
| 4. Tetrefu D/A JHS | 16. Quality Education Complex |
| 5. Homabenase | 17. Agape Academy |
| 6. Prabon D/A JHS | 18. Akwaduo D/A JHS |
| 7. Saviour Int. JHS | 19. Stay Blessed Academy |
| 8. God,s Grace Int JHS | 20. Right-on Int. school |
| 9. Living Waters Int. JHS | 21. Solid Hope JHS |
| 10. Calvary Meth. JHS | 22. Trust Experimental |
| 11. Feyiase Joy Standard JHS | 23. Penworth Int. JHS |
| 12. Future Academy | 24. Great Bethel JHS |
| 25. Future Leaders JHS | |

Schools which had 0%

1. Onwe D/A JHS
2. Asuoho Adwafo D/A JHS
3. Children's House Int. JHS

2016 BECE -Schools which had 100% Pass

In 2016, 14 schools in the had 100 percent pass and they included

- | | |
|--------------------------------|-------------------------------|
| 1. God's Grace Int. JHS | 9. Solid Hope Int. JHS |
| 2. Living Waters Int. JHS | 10. Trust Experimental JHS |
| 3. Calvary Meth. JHS | 11. Penworth Int. JHS |
| 4. Feyiase Joy Standard School | 12. Benny Educational Complex |
| 5. Future Academy Int. JHS | 14. Paradise divine Int. JHS |
| 6. Excellence academy JHS | |
| 7. Agape academy JHS | |
| 8. Bonkorkor D/A JHS | |

Schools that Scored 0%

1. Konkoma D/A JHS
2. Amakom Meth. JHS
3. Children's House Int. JHS
4. Deduako D/A JHS

Proportion of Boys and Girls Passes at the BECE from 2014-2016

Table 1.44 shows the proportion of boys and girls passes at the BECE in the district from 2014 - 2016. The boys' percentage passes decreased from 67.5 percent in 2014 to 66.5 percent in 2015. It further decreased drastically to 53.8 percent in 2016. The girls performed better than the boys in 2014 as they had 71.9 percent passes. This vintage performance of the girls in 2014, however decreased to 65.0 percent in 2015, which further decreased to 53.8 percent in 2016 as depicted in Table. The fluctuating performance of the students could be as a result of truancy after registration. The dwindling performance of students is worrying and there is the need for the Assembly and District Directorate of education to put in place measures to improve the performance of students in the BECE.

Table 1.47: Proportion of Males and Female passes at BECE in the District 2014-2016

Year	Total No. of Candidate	Boys		Girls	
		Number passed	%	Number passed	%
2014	2249	782	67.5	793	71.9
2015	2359	805	66.5	746	65.0
2016	2629	732	53.8	679	53.8

Source: GES, Aputuogya, 2017

Senior High/Vocational/Technical

At the secondary level (Senior High/Vocational/Technical), the proportion of males with such education is 50.57% compared to females of 49.43%. The educational characteristics of the district indicate that more males have higher educational levels in relation to their female counterparts. The gender disparity between males and females at the tertiary level for instance is too wide (gap of 39.4%) which calls for intensive initiatives to strengthen girl child education in the district.

Table 1.48: Performance of students in WASSCE in the District

Year	Total no. of Candidates	Number passed	%	Number failed	%
2014	741	706	97	35	6
2015	802	764	97	38	6
2016	785	772	96.03	13	7.93
2017					

Source: GES, Aputuogya, 2017

Table 1.49: Proportion of Males and Females Passes at WASSCE in the District 2014-2017

year	Total No. of Candidates	Boys		Girls	
		Number passed	%	Number passed	%
2014	589	351	63.36	203	36.64
2015	636	388	65	201	35
2016	621	383	62	236	38
2017					

Source: Ghana Education Service, Aputuogya, 2017

Crowded Schools

Basically, schools that are crowded are those along the main road that lead to Kuntanase, the district capital and its environment. These schools include Esreso Primary and JHS, Feyiase Primary and JHS, Aputuogya Primary and JHS, Jachie D/A 2 and Kuntanase schools. There is however a few schools quite crowded at some circuit-centre schools which are not necessarily along the said main road.

Schools in Dilapidated Buildings

Schools in dilapidated buildings are not many in the district, but the few ones are basically found in remote parts of the district. Examples are the Asuoho Adwafo, Anyinatiase, Asisiriwa Methodist Primary and Eduaben D/A JHS.

1.40.5 Schools and their Furniture Needs

All schools might have one or two challenges when it comes to furniture needs, but those which are critical are those with very high class enrolments. Once again those are the schools found along the main road that lead to Kuntanase and the nearby schools. They include Esreso Primary

and JHS, Feyiase and Aputuogya schools. Table depicts the furniture needs of basic schools in the district. From table 1.45 about 5,161 mono and 7322 dual desks are needed in the basic schools

Table 1.50: Schools and their Furniture Needs

SN	LEVEL	MONO				DUAL	
		SEATING PLACES		WRITING PLACES		SEATING/WRITING PLACES	
		No. Available	No. Needed	No. Available	No. Needed	No. Available	No. Needed
1	KG	138	611	168	576	1,157	1,691
2	PRIMARY	360	2,032	495	2091	3,298	3,806
3	JHS	1,747	2833	1301	2494	950	1825
TOTAL		2245	5476	1964	5161	5405	7322

Source: Ghana Education Service, Aputuogya, 2017

1.40.6 Capitation Grant

The Capitation Grant is one of the social protection programmes in the education sector. The main objective of the programme is to increase participation in basic education and increase school attendance rate. An amount of GHc319,789.00 was disbursed for the period covering 2014-2016 as shown in the table 1.46 below

Table 1.51: Capitation Grant from the Year 2014 -2017

YEAR	AMOUNT GH C
2014	76,812.00
2015	104,062.97
2016	138,914.13
2017	0.00
TOTAL	319,789.00

Source: Ghana Education Service, Aputuogya, 2017

The key challenged to the implementation of the programme as usual is the timely disbursement of the funds and its adequacy to schools

1.40.7 School Feeding Programme in the District

The School Feeding Programmes is a social protection programme which seeks to provide one meal to school children in public basic schools in Ghana so as to improve enrolment and retention rate in public schools. It also provide children in public kindergarten and primary schools with one hot nutritious meal on every school going day to reduce malnutrition. The beneficiary schools have been increasing year by year. In 2014 there were 27 beneficiary schools, whilst in 2015 there were 30 schools which benefitted from the programme currently thirty seven (37) schools are beneficiaries of the programme as shown in table 1.47

Table 1.52: Coverage of School Feeding Programme

SN	NAME OF SCHOOL	LOCATION	KG			PRIMARY			TOTAL		
			B	G	T	B	G	T	B	G	T
1	ABONO R/C PRIMARY	ABONO			0	67	60	127	67	60	127
2	ESRESO D/A KG	ESRESO	78	70	148			0	78	70	148
3	PIASE D/A PRIMARY	PIASE			0	84	71	155	84	71	155
4	ABAASE D/A PRIMARY/KG	ABAASE	20	11	31	18	8	26	38	19	57
5	JACHIE D/A KG	JACHIE	140	110	250			0	140	110	250
6	TETREFU D/A PRIMARY/KG	TETREFU	36	40	76	121	133	254	157	173	330
7	PRANYINASE D/A PRIMARY/KG	PRANYINASE	41	39	80	85	65	150	126	104	230
8	OYOKO D/A PRIMARY	OYOKO	38	28	66	95	99	194	133	127	260
9	NYAMEANI D/A PRIMARY/KG	NYAMEANI	51	51	102	81	60	141	132	111	243
10	NYAMEANI METH. PRIMARY/KG	NYAMEANI	33	35	68	74	91	165	107	126	233
11	ADJAMAM D/A PRIMARY/KG	ADJAMAM	22	18	40	72	50	122	94	68	162
12	AMAKOM METH. PRIMARY/KG	AMAKOM	23	22	45	59	50	109	82	72	154
13	WOARAKOSE D/A	WOARAKOSE	62	59		102	93	195	164	152	316

	PRIMARY/KG				121						
14	ANYINATIASE R/C PRIMARY/KG	ANYINATIASE	13	25	38	57	46	103	70	71	141
15	ASISRIWA METH PRIMARY	ASISRIWA	76	72	148	184	165	349	260	237	497
16	ATOBIASE R/C PRIMARY/KG	ATOBIASE	18	34	52	56	55	111	74	89	163
17	PRAMSO R/C PRIMARY/KG	PRAMSO	82	64	146	117	150	267	199	214	413
18	SAWUA D/A 1 PRIMARY	SAWUA			0	129	125	254	129	125	254
19	KOKODEI METH PRIMARY/KG	KOKODEI	61	57	118	72	75	147	133	132	265
20	APUTUOGYA D/A PRIMARY /KG	APUTUOGYA	64	54	118	344	375	719	408	429	837
21	NKWANTA D/A PRIMARY/KG	NKWANTA	47	33	80	100	93	193	147	126	273
22	DEDUAKO D/A PRIMARY/KG	DEDUAKO	12	21	33	37	29	66	49	50	99
23	ABUONTEM R/C PRIMARY	ABUONTEM			0	157	123	280	157	123	280
24	JACHIE D/A 1 PRIMARY	JACHIE			0	112	108	220	112	108	220
25	MIM-PIPIE R/C PRIMARY/KG	MIM	42	28	70	74	83	157	116	111	227
26	JACHIE D/A 2 PRIMARY	JACHIE			0	267	287	554	267	287	554
27	PIASE D/A KG	PIASE	75	79	154			0	75	79	154
28	KUNTANASE D/A PRIMARY/KG	KUNTANASE	20	17	37	85	71	156	105	88	193
29	ABONO D/A KG	ABONO	48	30	78			0	48	30	78
30	DEDESUA D/A PRIMARY/KG	DEDESUA	44	49	93	89	129	218	133	178	311
31	ONWI R/C PRIMARY/KG	ONWI	27	17	44	62	62	124	89	79	168
32	ABUONTEM D/A KG	ABUONTEM	56	50	106			0	56	50	106
33	KUNTANASE R/C PRIMARY/KG	KUNTANASE	54	53	107	127	151	278	181	204	385
34	AKWADUO D/A PRIMARY/KG	AKWADUO	20	17	37	42	33	75	62	50	112

35	FEYIASE R/C PRIMARY/KG	FEYIASE	52	42	94	298	340	368	350	382	732
36	ESRESO D/A PRIMARY	ESRESO			0	401	419	820	401	419	820
37	HOMABENASE R/C PRIMARY/KG	HOMABENASE	38	25	63	87	84	171	125	109	234

Source: Ghana Education Service, Aputuogya, 2017

The District also benefitted from the Hershey Company's piloted intervention programme in which VIVI products are supplied to school pupils daily. This programme started in October, 2015.

Unpaid Feeding Grant

Government owes caterers to the tune of 90 feeding days, covering the period: Third term 2015/2016 academic year and first term 2016/2017 academic year.

Despite benefits of the programme, the programme is faced with the serious challenge of irregular and delay in the release of funds to caterers. Due to inadequate funding, it is still difficult for the programme to be extended to other schools. It is however recommended that efforts should be made to release funds on time for the caterers also to perform their duties as expected of them.

1.40.8 Key Development Issues in Education

Key development issues affecting the education sector include:

- ❖ Dilapidated and congested classrooms
- ❖ Poor academic performance in basic schools.
- ❖ Inadequate teaching materials.
- ❖ Lack of stationery for administrative purposes
- ❖ Inadequate ICT Facilities in schools
- ❖ Lack of fund for periodic monitoring
- ❖ Inadequate logistics-vehicles, motor-bikes for enhanced operations
- ❖ Inadequate accommodation for teachers
- ❖ Lack of Libraries
- ❖ Lack of sanitary facilities in schools
- ❖ Inadequate support for brilliant but needy students
- ❖ Presence of untrained teachers

- ❖ Inadequate support for Science, Technology, Mathematics and Innovation Education (STMIE) CAMP
- ❖ Inadequate financial support and delay in the release of GoG, Capitation grants, etc
- ❖ Deplorable nature of roads to certain schools and communities
- ❖ Low output of some teachers due to irregularity and non-punctuality
- ❖ Limited School Feeding Programme

The Assembly and its development partners would undertake the under-listed interventions to enhance effective teaching and learning. They would include

- ❖ Construct and rehabilitate classrooms
- ❖ Conduct mock exams for JHS Students
- ❖ Provide adequate teaching materials
- ❖ Provide ICT facilities in basic and secondary
- ❖ Construct accommodation blocks for teachers
- ❖ Construct Libraries for schools/communities
- ❖ Provide sanitary facilities for schools
- ❖ Continue and sustain the District Education Fund
- ❖ Provide adequate support for Science Technology, Mathematics and Innovation Education (STMIE) CAMP
- ❖ Adequate financial support especially from the District Assembly
- ❖ Effective monitoring and supervision
- ❖ In-service training (INSET) and workshops to be organised for teachers periodically to enhance efficiency
- ❖ Improvement of the road network to schools

1.41 Health Services

The district has twenty-three (23) health facilities all working to promote the health conditions of the people. The 23 health facilities in the district are made up of:

- 4 Hospitals
- 7 Clinics/CHPS Compounds
- 6 Clinics
- 2 Maternity Homes
- 2 Training Institutions

- 2 RCH Centres

The district has 52 outreach points where Reproductive and Child Health Services are rendered. Four of these outreach sites were opened during year 2010. One of the strongest strengths of the district is the community based surveillance programme. Sixty six (66) functional and active Community Based Surveillance Volunteers (CBSVs) have been trained to support community health activities. They record and report on monthly basis diseases, deliveries and deaths in their various communities. Currently, the district is running the Community TB Care programme with the support of the CBSVs. There are other non-orthodox treatment centres in the district. Prominent among them are Nana Oboanipa at Kuntanase, Osofo Serwaa Prayer Camp (Kuntanase), King Jesus Miracle Prayer Camp (Toamfom). There is currently collaboration between the Health Directorate and some of these centres to enhance health service delivery. This has resulted from several advocacy sessions with some of these centres to discuss health issues and each other's contribution as well as limitations.

Public Health Activities

Disease Control

Communicable Diseases

The district organized health talks on TB/HIV, CSM Cholera, Ebola and other communicable diseases prevention at the various churches, OPDs, communities and outreach centres in the district. These talks were aimed at educating the public on signs and symptoms of the diseases, as well as their preventive measures, Know your status campaign was also highlighted. There were trainings on TB/HIV management, care and control for all categories of staff. There were health talks at the local information centers to create awareness on TB disease and the need for early reporting and several other diseases of public health importance.

Again, Better Ghana Management Service and Health Promotion Agents in the District also partake several health education and promotion activities in the district. Most especially of these activities include hand washing demonstration in schools, registration of pregnant women in the communities and enrolling pregnant women on the National health Insurance Scheme.

Case search on some selected communicable diseases like AFP, Buruli Ulcer, Guinea worm. Leprosy and Yaws was conducted by CBSVs in all the communities in the district to enable them detect early and report suspected conditions to health facilities for management.

Measles cases have reduced significantly over the years. Sixteen (16) samples were taken as suspected measles cases. However, one of them was positive, whilst three (3) cases of suspected Yellow Fever were picked which also turned out to be negative.

Table 1.53: Epidemic Prone Diseases Trend 2014 – 2016

DISEASES	2014	2015	2016	REM
MEASLES	12(suspected)	12(suspected)	16(suspected)	↑
CSM	0	2	2	↔
DIARRHOEA	3549	4,784	4,789	↑
Y/ FEVER	4(suspected)	0	0	↔

Source: Ghana Health Service, Kuntanase, 2017

Table 1.54: The Trend of Endemic Diseases

DISEASE	2014	2015	2016
MALARIA	39,251	32,121	32,118
TB	58	66	78
B/ ULCER	0	0	0
HIV/AIDS	202	198	181

Source: Ghana Health Service, Kuntanase, 2017

The figure 1.29 below depicts the trend of malaria cases as presented at the OPD in the Bosomtwe district. The presentation is based on the percentage of malaria cases out of the total morbidity cases, and is relative to total OPD attendance.

Figure 1.26: The Trend of Malaria as Presented at OPD in the Bosomtwe District

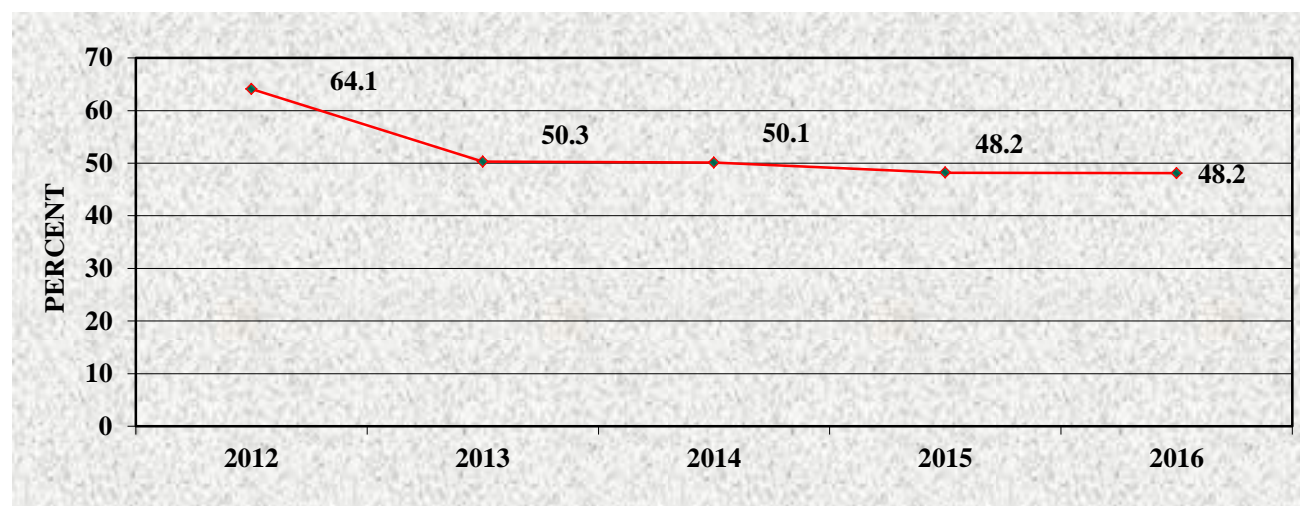


Table 1.55: Malaria Classified

	2014	2015	2016
Malaria Incidence <5(OPD)	10,012	9,812	9,810
Malaria Incidence >5(OPD)	29,891	28,109	22,308
Malaria Incidence <5(IPA)	1,230	1,090	1,061
Malaria Incidence >5(IPA)	1,301	1,201	986
Malaria Death <5	2	2	1
Malaria Death >5	8	9	10
Malaria in Pregnancy (OPD)	597	512	503
Malaria in Pregnancy (IPA)	129	107	98

Source: Ghana Health Service, Kuntanase, 2017

IPT Implementation Monitoring

IPT implementation is ongoing in all facilities in the district. IPT supply was not very regular during the year under review. This notwithstanding, Percentage usage of IPT 2 increased from 45.1% in 2014 to 48.8% in 2015 and increased to 49.1% in 2016. ITN use during second visit increased from 40.2% 2014 to 50.9% in 2015 but shot up to 51.6% in 2016

Table 1.56: IPT Implementation Monitoring

SUB DIST.	TOTAL ANC REGISTRANTS	IPT 1 %		IPT 2 %		IPT 3 %		ITN USE 1 ST VISIT %		ITN USE 2 ND VISIT %	
Kuntanase	585	410	70.1	369	63.07	297	50.76	349	59.66	491	83.93
Jachie	810	612	75.5	501	61.85	378	46.66	489	60.37	1,292	159.51
Pramso	3,814	2210	57.9	1,588	41.63	1469	66.47	1,491	39.09	1,123	29.44
Amakom	321	287	89.4	199	61.99	145	50.52	268	83.49	310	96.57
Dist. Total	5,530	3,512	63.51	2705	77.02	2,210	39.96	2597	46.96	3,310	59.85

Source: Ghana Health Service, Kuntanase, 2017

Community TB Care Programme

Community TB Care Programme (CTBC) has been a major innovation in the district's health care delivery. Objectives of the Programme among other issues are to;

- Use Community Based Agents to carry out TB Programme
- Improve IE&C/BCC on TB
- Enable Treatment Supporters to carry out home visits to TB patients
- Enable TB Patients to complete their treatment regimen.

Reported cases of TB decreased to 66 in 2015 but increased to 78 in 2016, with new smear positive cases forming 43.59% of total new cases. Males have always formed a greater proportion of TB cases over the past 3 years contributing over 67.9% of cases in 2016.

Enablers package was given to 57 TB patients who were on treatment, even though there were 78 cases recorded. This is because there were other additional patients who were still on treatment in 2015 that was added to the 2016 patients.

Table 1.57: Reported Cases of Tuberculosis

Category	2014	2015 (104/100,000)	2016
Expected (203/100,000)	108	107	108
Detected	58	66	78
Detection rate	53.7%	57.8	72.2%
New Smear Positive	36	30	43
Relapses	0	0	2
New Smear Negative	22	34	32
Extra Pulmonary	0	2	0
Sex Ratio of Cases M/F	M=39/ 67.2% F=19 / 32.8%	M=41/ 62.1% F=15 / 37.8%	M=53/ 67.9% F=25 / 32.8%

Source: Ghana Health Service, Kuntanase, 2017

Case detection rate for tuberculosis was 57.8% in 2015 and then increased to 72.2% in 2016. Cure rate also increased to 76.9% in 2015 however, treatment success rate increased 83.8% in 2015 to 84.7% in 2016. The district recorded 1 death caused by TB. Defaulter and failure rates for both 2015 and 2016 were zero. This achievement is attributed to the community based TB management strategy that ensures frequent visit to the patient by the health workers and the community based treatment supporters.

Table 1.58: Cohort Analysis

	2013	2014	2015
New Smear Positive	36	30	30
Cured	22	29	28
Treatment Completed	18	22	24
Died	4	1	1
Failure	0	0	0
Defaulter	0	0	0
Transfer-out	0	0	0

Treatment Success	93.8%	83.7%	93.3%
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Source: Ghana Health Service, Kuntanase, 2017

1.41.1 Diseases Targeted for Elimination and Eradication

Importance continued to be attached to institutional and community based surveillance with the support of 66 active CBSVs. There was 1 case of suspected AFP found in the year 2016.

Table 1.59: The Trend of Diseases Earmarked for Eradication

DISEASE				
	2014	2015	2016	REM
NEONATAL TETANUS	0	0	0	↔
GUINEA WORM	0	0	9	↔
AFP	0	1	1	↔
LEPROSY	0	0	0	↔

Source: Ghana Health Service, Kuntanase, 2017

1.41.2 Expanded Programme on Immunization

The Expanded Programme on Immunization (EPI) has proved its place as a cornerstone in health care delivery. Objective of the programme is to protect eligible children from vaccine preventable diseases by the age of one year so that at least 90% of the children born would be fully immunized against the nine (9) common childhood diseases, that is, Tuberculosis, Poliomyelitis, Diphtheria, Pertusis, Neonatal Tetanus, Hepatitis B, Haemophilus Influenza type B, Measles and Yellow fever.

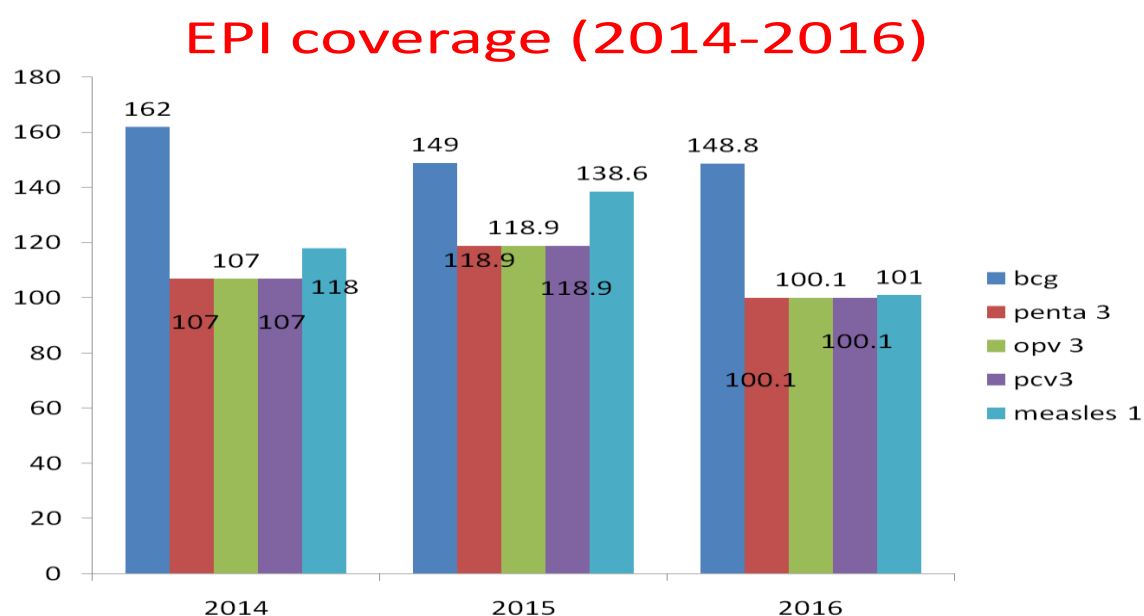
Major activities included maintenance of the cold chain, logistics support, routine static and outreach immunization and strategic mop-up campaigns with the support of HIRD funds, mop up was undertaken in all of the four (4) sub-districts.

Table 1.60: EPI Coverage 2014 - 2016

ANTIGEN	2014	2015	2016
BCG	5,012(162.3%)	5,112(165.3%)	148.8
Measles	4,123(140.4%)	4,323(142.4%)	101.0
Penta 3	4,012(138.7%)	4,212(148.7%)	100.1
Polio 3	4,210(107%)	4,310(109%)	100.1
Yellow fever	4,214(118.4%)	4,114(117.4%)	101.0
TT2	3,619(82.5%)	3,719(83.5%)	110.1

Source: Ghana Health Service, Kuntanase, 2017

During the year under review, most of the coverages for most of the antigens increased as compared to the year 2015.

Figure: 1.27: EPI Trend 2014 - 2016

1.41.3 Integrated Disease Surveillance and Response

Several activities were undertaken during the year under review including case search, clinician sensitisation, CBSV training on some selected diseases.

Community based surveillance is one of the major components of the Integrated Disease Surveillance and Response (IDSR) systems in which persons residing in various communities keep watch to detect and report occurrences of infectious diseases and other unusual health events that might indicate the presence of disease to the health authority for timely and appropriate action to be taken. The key players of this component are the Community Based Surveillance Volunteers. The Bosomtwe district has sixty six (66) CBSVs with at least one in each of the 63 communities in the district. During the year under review, CBSVs reported a total of 212 deliveries. On disease surveillance, a total of 10 diarrhoeal cases were reported as well as 2 measles suspected cases which all turned up to be negative. The CBSVs participated in the Integrated Maternal and Child Health Campaign that was held. Currently, the CBSVs are the main treatment supporters at the community level to the districts' TB care programme.

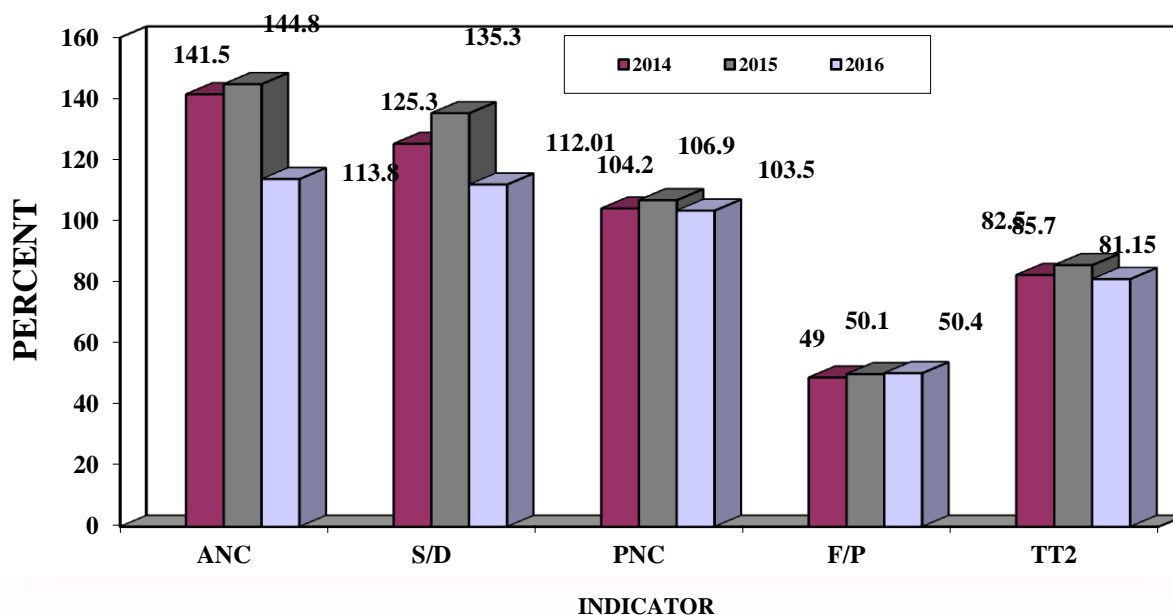
1.41.4 Reproductive Health

The year under review saw the district providing Antenatal care for 4,913 pregnant women who registered at the various ANCs. This represented about 113.38% of total expected deliveries which explains a decrease in terms of percentages as compared to 144.8% recorded in 2015. The high ANC coverage can be attributed to the fact that people come from outside Bosomtwe District and access ANC services, especially at St. Michael's Hospital. All the sub-districts recorded averagely over 62% with Pramso Sub-district recording 48% coverage. Teenage pregnancy was 587 in 2015 but decreased significantly to 358 to 2016. This represents percentage coverage of 7.3% on the total ANC registrants. TT2 coverage decreased from 85.7% in 2015 to 81.15% in 2016. Skilled delivery accounted for 3,982 (112.01%) of total deliveries, a decrease from the previous year of 3,994 (135.3%) whilst TBA delivery was 8 a decrease from 10 in 2016. There were 57 cases of still births made up of 42 macerated and 15 fresh.

There was an increase in Post Natal Care from 3,045 (102.3%) in 2015 to 3,095 (103.5%) in 2016. Family Planning Acceptor rate increased from 50.1% in 2015 to 50.4% in 2016. Couple Year of Protection increased from 2,021.8 in 2015 to 2031.2 in 2016. Male condom was the major family planning commodity which clients accepted so well during the year under review, recording 57.4% and Norigynon recording 22.1% It is hoped that as midwives are now being used in the CHPS implementation programme, access to reproductive health care will improve

significantly. In the year under review, there were a lot of activities to promote the long term Family Planning methods.

Figure 1.28: Reproductive Health Outcomes 2014 - 2016



Only the Kuntanase Hospital and St Michael's Hospital render adolescent health friendly services. Clients are counselled on STIs, HIV/AIDS, abortion, family planning and other general health issues. The facilities have adolescent friendly units equipped with TV, Video Player and other games to attract the youth.

Table 1.61: Activities of Adolescent friendly services Kuntanase sub district

Indicators	2014	2015	2016
Teenage pregnancy	125	143	145
Teenage delivery	109	126	130
Self-induced abortion at home	40	48	42
Adolescent FP acceptors	320	380	310
Adolescent VCT test	69	75	68
Adolescent VCT positive	0	0	0
Adolescent disabilities on FP	2	0	0
Adolescents with disabilities in school	1	1	1
Adolescents on Jadelle	0	0	0
Peer educators	6	8	8

Emergency contraceptive	8	10	15
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Source: Ghana Health Service, Kuntanase, 2017

Table 1.62: Activities of Adolescent friendly services; Pramso sub district

Indicators	2014	2015	2016
Teenage pregnancy	168	172	178
Teenage delivery	212	217	211
Self-induced abortion at home	25	32	31
Adolescent FP acceptors	0	0	0
Adolescent VCT test	72	79	88
Adolescent VCT positive	0	0	0
Adolescent disabilities on FP	0	0	0
Adolescents with disabilities in school	0	0	0
Adolescents on Jadelle	0	0	0
Peer educators	0	2	4
Emergency contraceptive	0	0	3

Source: Ghana Health Service, Kuntanase, 2017

1.40.5 School Health

A total of 230 schools out of the 248 schools in the district were visited. Eighteen thousand nine hundred and eighty nine (18,989) school children, representing 57.6% of enrolled children, were examined in the year. Health conditions including eye, ear, tooth decay, sore/ulcers on the body and scabies as well as some ring worm cases were detected and referred to the Kuntanase District Hospital, St. Michael's Hospital and Jachie Eye Clinic. In all one hundred and nineteen (119) children were referred. Generally, environmental sanitation in schools has improved. Parents and guardians are also responding positively to the health needs of their pupils through their early response to referrals.

Table 1.63: School Health Services

Indicators	2014	2015	2016
Total enrolled	19,646	19609	18,989
No. Of schools in the district	248	248	248
No. of schools visited	242	232	230

No. of children Examined	10,876(54.2%)	9,590	10,945(57.6%)
No. of children referred	142	112	119

Source: Ghana Health Service, Kuntanase, 2017

1.40.6 Health Promotion

Sensitization meetings were held with organised women groups in the district. A team from the directorate in the District Health Promotion Officer also visited second cycle institutions and vocational schools in the district to discuss Safe motherhood lessons. The directorate mostly relied on the P/A system and the various information service centres in the communities in the dissemination of public health information and carried out series of IE&C programmes on the Community based TB Care programme and home based care strategies in the new anti-malaria drug policy.

Other health promotion activities aired out were child health issues during the child health week celebration. The directorate again went on to educate the populace on Poliomyelitis, Measles, Vitamin A and the importance of ITNs in the malaria control strategy during the Integrated Maternal and Child Health campaign exercise in the year under review.

As part of efforts aimed at promoting the health status of the people in the district especially the youth, there were number of health educational activities that were carried out in the district by the health promotion team in collaboration with the Youth Employment Agency (YEA). They were mostly involved in proper hand washing demonstration which aimed at preventing diarrhoea and cholera outbreak especially at the school going age. They also engaged in registration of birth and death, registration of pregnant women, assisting Community Health Nurses (CHOs) on home visits activities, and report certain disease of public health importance for referrals

As part of the HIRD programme an advocacy meeting was held with practitioners of herbal and non-orthodox medicine and spiritual and psychic healers to find means of educating them on recognising diseases and knowing when to refer.

The GSCP also organised training sessions on communication skills on breastfeeding, complimentary feeding and malaria. There were several health talks on malaria and TB in the communities, health facilities, churches and other social clubs in the course of the year.

1.40.7 Growth Monitoring

Growth monitoring of children 0-59 month was a major child survival activity carried out in the district during the year under review. Malnutrition (W/A<80%) has decreased by 6.4% in 2016.

A total of 8,611 children (0-23 months) were registered against a target of 8,204.

Table 1.64: 0-23 Months Registrations

Sub district	Kuntanase	Jachie	Pramso	Amakom	Total
Annual Target	2,150	3,970	3,741	804	8,204
Chn. Weighed	2210	3,280	2,776	920	8,611
No. with no wt gain	122	116	424	108	770
No. W/A 80% SD	157	121	423	282	983

Source: Ghana Health Service, Kuntanase, 2017

Kuntanase and Amakom sub district were able to achieve their target for CWC registration during the year.

Table 1.65: Months Registration

Sub district	Kuntanase	Jachie	Pramso	Amakom	Total
Annual Target	3,041	2191	1892	1330	8,454
Chn. Weighed	709	1,238	436	281	2,644
No. with no wt gain	50	27	81	30	188
No. W/A 80% SD	49	19	59	36	163

Source; Ghana Health Service, Kuntanase, 2017

There was a decrease in CWC registration in the age group 24-59 months as compared to the previous year. This is due to the fact that most of these children start school at age two.

Micro Nutrient Deficiency Control

Vitamin A Supplementation for Children under five years

Mass supplementation for children less than five years of age is conducted every year in May and November. The percentage coverage increased from 74.19% in 2015 to 75.38% in 2016

Table 1.66: Vitamin A Supplementation for under Fives

SUB-DISTRICT	2016	% dosed
Kuntanase	4,002	82.11
Pramso	2,308	54.21
Jachie	3,762	86.97
Amakom	2,116	98.21
District	12,188	81.86

Source: Ghana Health Service, Kuntanase, 2017

1.40.8 Maternal Vitamin A Supplementation

Supplementation was done in all hospitals, health centres, clinics and at the communities by Midwives, Traditional Birth Attendants and Community Based Surveillance Volunteers.

Table 1.67: Post-Partum Vit A Supplementation

Sub district	Kuntanase	Jachie	Pramso	Amakom
Total Deliveries	345	281	2881	134
B/F after 1 hr	337	264	2837	123
No. of mothers given Vit. A	435	344	5,790	161

Source: Ghana Health Service, Kuntanase, 2017

1.40.9 Iodine Deficiency Disorders Control Programme

Activities undertaken under this programme were: Household, Market, Restaurant/Chop bars and boarding Institutions Iodized salt monitoring. IE&C in markets, OPDs and outreach clinics.

Table 1.68: Iodates Salt availability and Utilisation 2014-2016

Year /Indicators	Market	Household	Chop bars/Restaurants	Institutions
2014	52.1	67.1	67	82
2015	54.2	68.3	69.5	85.4
2016	60.1	72.2	69.9	87.9

Source: Ghana Health Service, Kuntanase, 2017

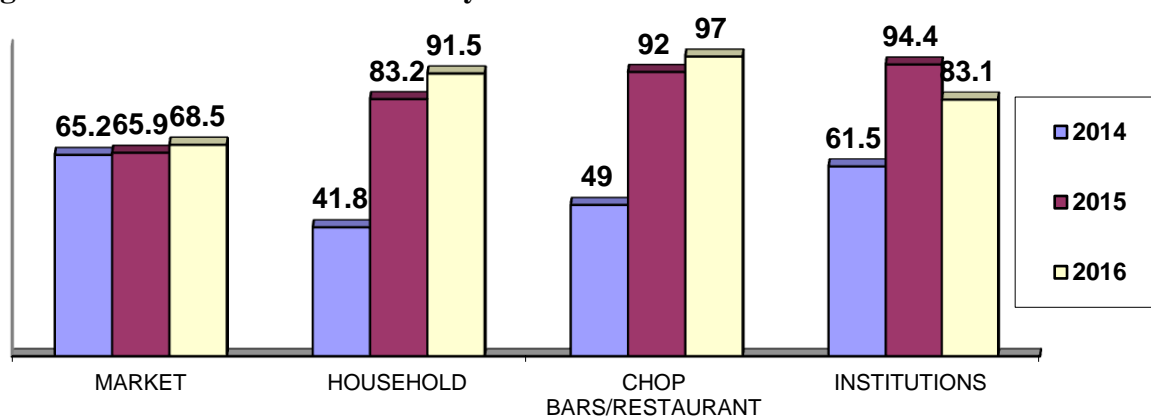
Table 1.69: Iodated Salt availability and Utilisation, 2016

	No. Surveyed	No. passed	% Passed
Households	293	257	87.7
Institutions	28	26	92.85
Markets	84	79	94.04
Food vendors	128	123	96.09
Chop bars	61	58	95.08
TOTAL	594	543	91.4

Source: Ghana Health Service, Kuntanase, 2017

There was a significant decrease in iodated salt market availability and utilisation in the district. 67.6% of salt sold in the markets were adequately iodised which indicates an increase over the previous year. Out of the 8 markets monitored none of them reached the target of 91% to qualify as iodated salt market in the year.

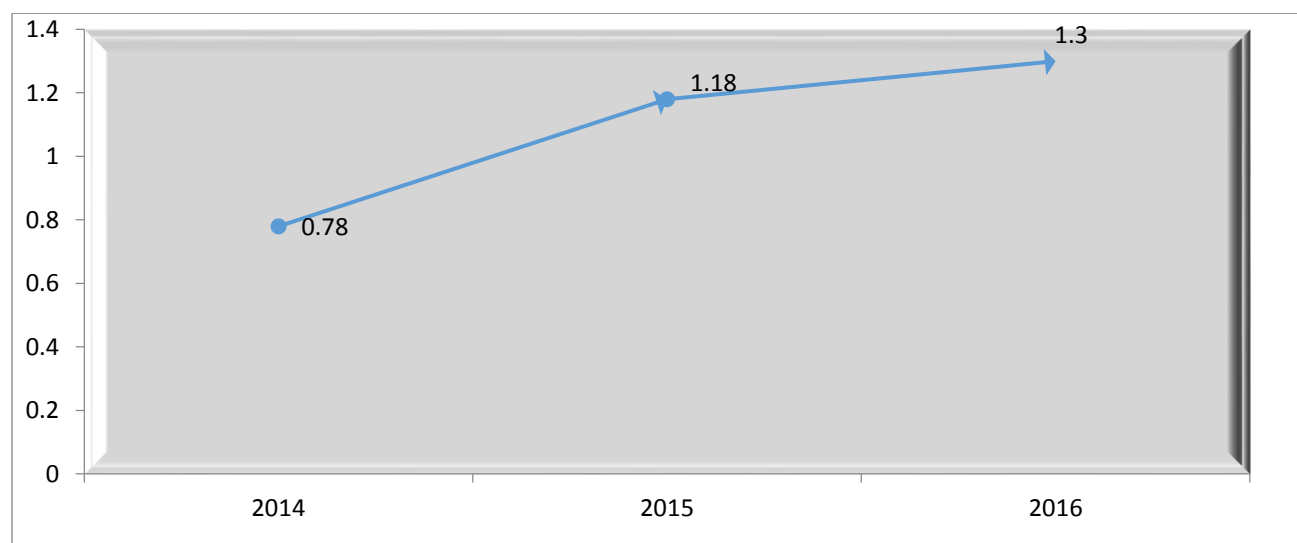
Figure 1.29: Iodated Salt Availability and Utilization 2014-2016



1.40.10 OPD Attendance

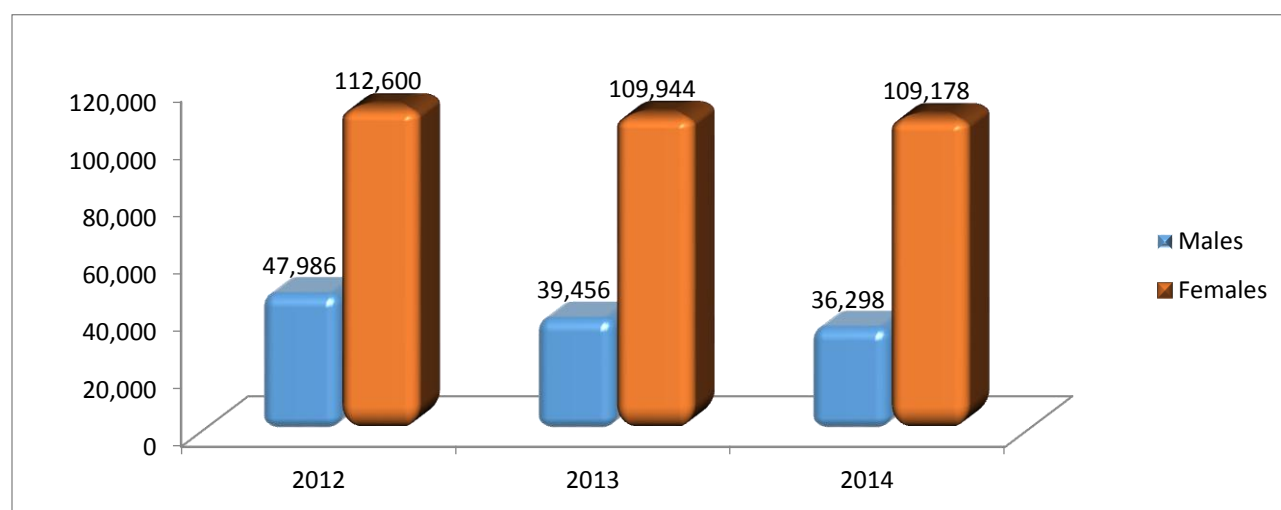
Utilization of health facilities in the district decreased in the year under review from 1.12 in 2015 to 1.3 in 2016, and

Figure 1.30: OPD Attendance Per Capita 2014-2016



Generally, OPD attendance has increased over the years with female dominance in attendance. Mission institutions in the district have contributed almost 62% of total OPD attendance with the major contributor being the St. Michael's Hospital, Pramso. However, about 30% of their total OPD cases were from outside the district

Figure 1.31: OPD Attendance by Sex 2014-2016

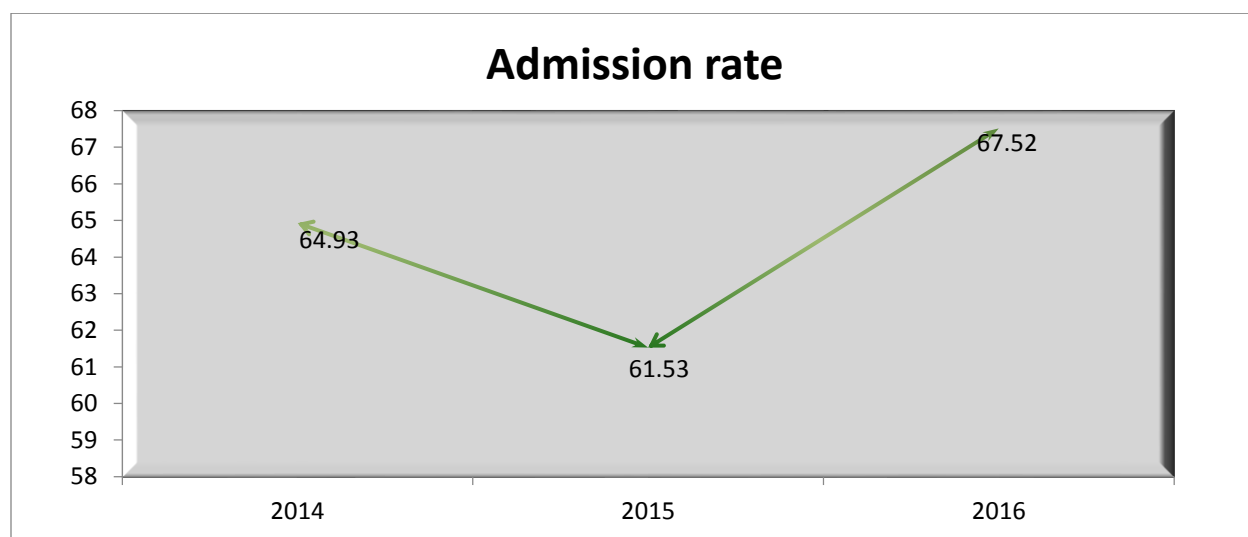


Source: Ghana Health Service, Kuntanase, 2017

1.40.11 Inpatient Attendance

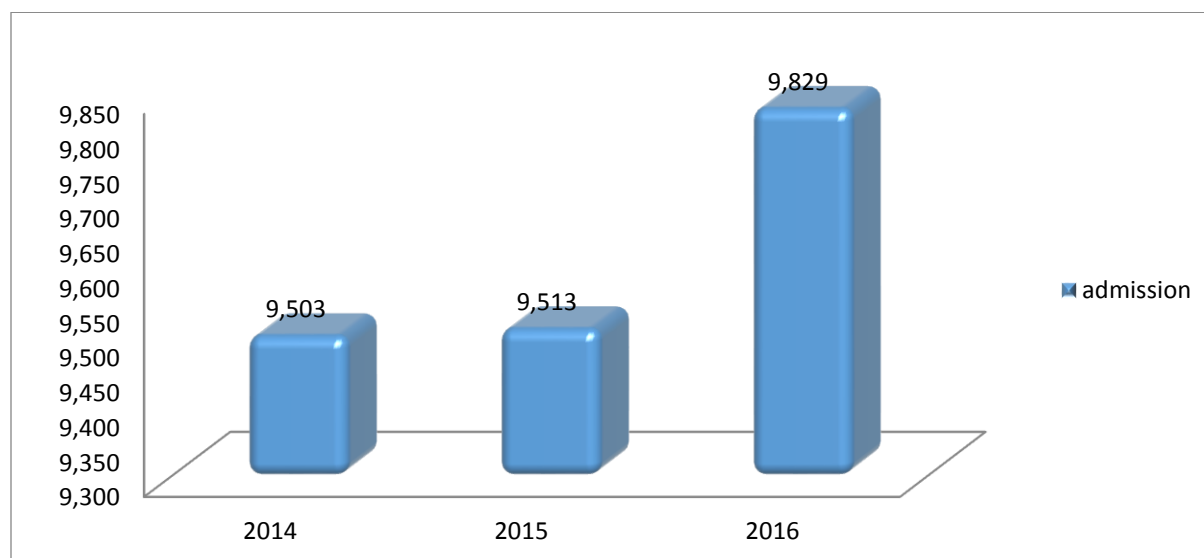
Hospital Admission rate per 1000 population is been decreasing over the past but had an increasable change in years 2016. This notwithstanding there was a significant increase in 2016 with the district recording an admission rate of 67.52

Figure 1.32: The Trend of Admissions per 1000 Population 2014-2016



The trend of admission rate per 1000 population over the three year period was 95/1000 in 2014, 61/1000 in 2015 and 69/1000 in 2016.

Figure 1.33: Hospital Admissions 2014-2016



Source: Ghana Health Service, Kuntanase, 2017

1.40.12 Morbidity

Malaria continues to be the leading cause of OPD attendance. Malaria alone accounted for more than half of total OPD attendance. Hypertension and Rheumatism have also featured prominently over the years.

Table 1.70: Ten (10) Top Causes of OPD Attendance 2014 – 2016

1	Diseases	2014	Diseases	2015	Diseases	2016
2	Malaria	50.7	Malaria	46.9	Malaria	47.3
3	ARI	7.9	ARI	10.1	ARI	7.8
4	Diarrhoea Diseases	5.5	Rheu. & Joint Pains	5.3	Rheu. & Joint Pains	5.2
5	Rheu. & Joint Pains	5.4	Hypertension	5.1	Diarrhoea Diseases	4.9
6	Intestinal worm	3.5	Diarrhoea Diseases	4.9	Skin Diseases/ Ulcers	3.7
7	Anaemia	3.4	Anaemia	4.3	Anaemia	3.4
8	Hypertension	2.3	Skin Diseases/ Ulcers	3.2	Hypertension	2.8
9	Skin Diseases/ Ulcers	2.2	Intestinal worm	2.9	UTI	2.1
10	D/M	1.9	UTI	1.4	D/M	1.5
	Others	14.2	Others	15.9	Others	12.2
		121,232				

Source: Ghana Health Service, Kuntanase, 2017

1.40.13 Causes of Admission

Malaria, Caesarean Section, Pregnancy and related diseases, Hypertension, sepsis, Hernia, Gastroenteritis, Diabetes Mellitus Anaemia and Malaria in Pregnancy. Malaria was the highest among the ten leading causes of admissions.

1.40.14 Causes of Death

The mortality profile shows CVA, HIV/AIDS, Respiratory Failure, Septicaemia, Heart Failure, Liver failure, Renal Failure, Hypoglycaemia, Malaria and Hepatic failure were the 10 leading causes of deaths with HIV/AIDS accounting for 20 cases

Table 1.71: Top 5 Causes of Deaths 2014-2016

Disease	2014	Disease	2015	Disease	2016
Heart Failure	41	CVA	39	HIV/AIDS	20
HIV/AIDS	28	HIV/AIDS	26	CVA	18

Septicaemia	19	Respiratory Failure	21	Septicaemia	16
CVA	12	Heart Failure	19	Heart Failure	11
Malaria	9	Septicaemia	14	Malaria	9

Source: Ghana Health Service, Kuntanase, 2017

1.40.15 CHPS Implementation

The district has 32 demarcated CHPS zones. Currently, four (4) of the zones (Piase CHPS zone, Akokofe CHPS, Abono CHPS and Oyoko CHPS are functional. This notwithstanding, all the 32 zones are reporting in DHIMS with each zone being assigned with a Community Health Officer. There were series of CHPS MCHNP activities carried out in the district. Notable amongst them are:

1. The structured CHW training for Community Health Nurses (CHNs)
2. Introduction of CHO into the communities and the formation of Community Health Management Committees (CHMCs).
3. Organisation of community durbars on the introduction of CHO, CHMCs, and the Community Health Workers (CHWs).

Other important activities include the preparation of each Community Health Action Plan (CHAP) which serves as a guide to the CHO, CHW, and the CHMCs in the execution of the CHPS zone's programmes.

There were several financial supports from the CHPS/MCHNP programme to support the CHOs. Some include the financial support on outreach services, homes visits, facilitative supervisory visit etc. There is also opening of new CHPS compound at Bonkorkor/Boneagya and Adwumam with the help of the District Assembly and it is all these would complement the rest of the zones to enhance CHPS activities and the wellbeing of the people of Bosomtwe District

Challenges

Currently, the district has no motorbike for CHPS activities. Community Health Nurses trek to their respective zones for CWC activities. This continually affects the district's performance. Again, there is no vehicle for the district. Monitoring and supportive supervision by district

officers to ensure proper work done by health staff is very difficult. Officers sort to their own salon cars for officer work.

Exemptions

There were no exemptions granted in 2016, the NHIS has replaced the exemptions policy with the aged and pregnant women still enjoying free health care.

1.40.16 Support Services

Human Resource Development

The human resource position in the district needs to be given special attention as far as achievement of set objectives is concern. The number of staff required to handle health-delivery activities is far below target. As a result, the district always experience staffing gap in its operations.

Current staffing gap is a little bit waned down as compared to the previous years. For example, the total number of Community Health Nurses in the district is sixty seven (73) covering activities in 65 communities within four (4) sub-districts which is by far improvement over the years. The standard of at least, twenty (20) per sub-district.

Even though Community health Nurses have increased recently, the District still faces some problems as far as certain areas are concern. The situation has led to the recruitment of casual staff in various facilities to fill to some extent, the staffing gap.

Table 1.72: Up-date of staff in health institutions 2014-2016

No.	Institution	2014	2015	2016
1	District Health Directorate	27	26	22
2	Kuntanase Hospital	135	136	136
3	Jachie Health Centre	42	40	40
4	Piase CHIPs Compound	6	6	6
5	Tetrefu Health Centre	10	8	8
6	Lake Bosomtwe Methodist Clinic	27	27	26
7	St. Michael's Hospital	248	250	250
8	Konkoma S.D.A. Clinic	21	21	21
9	Brodekwano Methodist Clinic	32	32	33

10	Nyameani Methodist Clinic	14	14	14
11	Divine Mercy Hospital	50	48	46
12	Comfap Maternity Clinic	10	10	10
13	God's Grace Maternity Clinic	6	6	6
14	St. Mary's Anglican Clinic, Apinkrah	10	10	10
15	Jachie Eye Clinic	20	20	22
16	Ayush Memorial Hospital	19	20	21
17	St. Michael's Midwifery	17	17	19
18	JAPASS Sick bay	2	2	2
	Grand Total	696	672	673

Source: Ghana Health Service, Kuntanase, 2017

Table 1.73: Category of staff currently in the district

Category	2013	2014	2015
Medical Officers	19	19	18
Midwives	44	44	46
Nurses	71	70	71
Technical Officers (CDC, HI)	6	6	6
Physician Assistant	16	16	10
Community Health Nurse	59	59	67
Nursing Officers	4	4	6
Anaesthetist Assistants	5	5	4
TO (Lab)	13	13	12
Dispensary Technicians	21	21	19
Orderlies	19	19	18
Dispensary Assistants	8	8	9
Ward Assistants	54	54	51
Secretaries	12	12	11
Pharmacists	4	4	4
Store Keeper/Supply Officers	5	5	3
Accountant	5	5	4

Senior Executive Officer	4	4	3
Administrator	3	3	3
Accounts Officer/Finance Officers	10	10	9
Drivers	11	11	11
Biostatistics Assistant	14	14	13
Public Health Nurse	3	3	3
Watchman/Security	13	13	12
Casuals	38	38	35
Health Extension Workers	35	35	35
Enrolled Nurses	58	58	58
Health Care Assistants	41	41	40
Nutrition Officers	3	3	2
Health Promotion Officers	1	1	1
Scavengers	2	2	2
Labourers	14	14	14
Cleaners	2	2	2
Field Technicians	3	3	3
Rotational Nurses/Midwives/Enrolled Nurses	4	4	4
Tutors	13	13	13
National Service	25	25	0
Biomedical Scientist	3	3	3
Others	51	51	48
Total		696	673

Source: Ghana Health Service, Kuntanase, 2017

Best practices:

Some of the best practices for the year 2016 in the District were as follows:

- ❖ Supervisory visit to all facilities in the district.
- ❖ CHNs provided FP services during home visits
- ❖ Internal posting of health staff especially Midwives and Community Health Nurses to CHAG and Private facilities

- ❖ Excellent collaboration with health facilities (family meetings). Some programmes held at District level are sponsored by health facilities.
- ❖ Review of proposed research topics by the District.
- ❖ Education on communicable disease prevention, most especially on Meningitis, TB, and HIV/AIDs.
- ❖ Excellent collaboration with district and Regional Health Directorate on the case of a multi-drug TB patient

1.40.17 National Health Insurance Authority

The National Health Insurance Authority (NHIA), is a social intervention programme aimed at improving financial access to the health needs of the people operated in the district. Below shows the operations of the scheme from 2013-2016.

Table 1.74: Membership of National Health Insurance Authority

YEAR	NEW REGISTRATION		TOTAL	RENEWALS		TOTAL
	MALE	FEMALE		MALE	FEMALE	
2013	8,410	10,114	18,524	20,769	27,225	47,994
2014	8,139	10,244	18,383	21,087	27,396	48,483
2015	14,636	17,022	31,658	11,040	14,474	25,514
2016	8,081	10,123	18,204	14,563	18,189	32,752

Source: District Health Insurance Office, Kuntanase, 2017

Table 1.75. Revenue Generation and Support

YEAR	PREMIUM	PROCESSING FEES	ADM. SUPPORT	CLAIMS SUPPORT	TOTAL
2013	134,190.00	121,972.00	24,000.00	5,064,668.46	5,334,830.00
2014	144,386.00	131,785.75	24,900.00	5,353,913.33	5,654,985.08
2015	209,883.00	166,325.98	36,000.00	5,341,968.19	5,754,177.17
2016	214,709.00	230,392.00	-	4,729,785.62	5,174,886.62

Source: District Health Insurance Office, Kuntanase, 2017

Table 1.76: Indebtedness

YEAR	ATTENDANCE	AMOUNT RECEIVED	AMOUNT PAID	OUTSTANDING AMOUNT
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2013	311,675	5,918,970.05	5,760,506.16	-
2014	299,647	6,145,565.66	6,017,381.96	-
2015	279,267	5,777,931.26	5,583,994.22	-
2016	122,417	2,743,343.69	1,403,845.80	1,251,210.04
TOTAL	1,013,006	20,585,810.66	18,765,728.14	1,251,210.04

Source: District Health Insurance Office, Kuntanase, 2017

Up-date on National Health Insurance Scheme

In total, 129,860 of OPD attendance were clients with NHIS membership which formed over 88.92% of the total OPD attendance as compared to 86.2% in 2015. It can be concluded therefore that, NHIS has in a way led to an increase in the total number of people utilizing services at the health facilities.

Table 1.77: NHIS OPD Attendance

	2014	2015	2016
Total OPD Attendance	128,870	133,129	129,860
Insured Clients	98,210	98,986	98,950
% of Insured Clients	76.2%	74.35	76.22

Source: District Health Directorate, Kuntanase, 2017

Generally, the NHIS increased access to attendance at some of the health facilities most especially at St. Michael's Hospital. The percentage of patients within the age groups rather decreased in compares to 2015.

Table 1.78: Insured and Non-insured Claims (NHIS)

	2014	2015	2016
Insured	382,102.34	356,139.21	389,267.90
Non insured	201,201.32	261,023.32	269,234.08
Total claims	163,201.25	183,192.01	186,356.98

Source: District Health Directorate, Kuntanase, 2017

In the course of the year, monitoring and evaluation visits were made to all the health facilities rendering services to the NHIS clients to assess and monitor the work being done. This was done

as part of the routine monitoring of the District Health Management Team. Most of the facilities incorporate talks on the NHIS in their health education talks at the Out Patient Departments.

Challenges

- ❖ The District office oversees two political district: Bosomtwe and Atwima-Kwanwoma and with the only one vehicle assigned to the district, the office is not able to visit all the 123 communities under its jurisdiction hence inability to meet the annual target.
- ❖ The only vehicle assigned to the district office was involved in an accident some time ago and that has affected the efficiency of the vehicle. Currently, the vehicle is grounded making it virtually impossible to undertake sensitisation and registration in the communities.
- ❖ Inadequate Biometric Machines (BMS.)The District office was assigned five biometric machines (BMS) with two not functioning. This has made registration of about 200,000 people expected to be registered impossible

Proposed interventions

- ❖ Atwima-Kwanwoma district should be decoupled from the Bosomtwe District by creating a separate district office for the Atwima-Kwanwoma District.
- ❖ There should be sub-office in each of the zonal councils of the districts to make NHIS more accessible to the people.
- ❖ The district office vehicle should be repaired comprehensively and or one more added to it to aid education and registrations.
- ❖ Provision of at least four more BMS and faulty one promptly repaired.

1.40.18 Key Development Issues in the Health Sector

- ❖ Inadequate health facilities eg. CHPS Compound
- ❖ Inadequate communication gadgets-laptops
- ❖ Inadequate support for HIV/AIDS activities
- ❖ Inadequate health personnel
- ❖ Inadequate vehicles for district activities
- ❖ Inadequate basic equipment for CHPS activities
- ❖ Limited Cold chain management

Interventions put in place to address the key development issues in the health sector in the plan period would include:

- ❖ Construction of CHPS Compounds at Pipie, Akokofe
- ❖ Support for NIP
- ❖ Provision of adequate support for HIV/AIDS activities
- ❖ Lobby for vaccine carriers and fridges from RHD
- ❖ Lobby Regional Health Directorate (RHD) for vehicles and motorbikes
- ❖ Provision of equipment for completed CHPS Compound at Bonkorkor
- ❖ Collaborated with the Assembly for provision of Laptops

1.41 HIV/AIDS

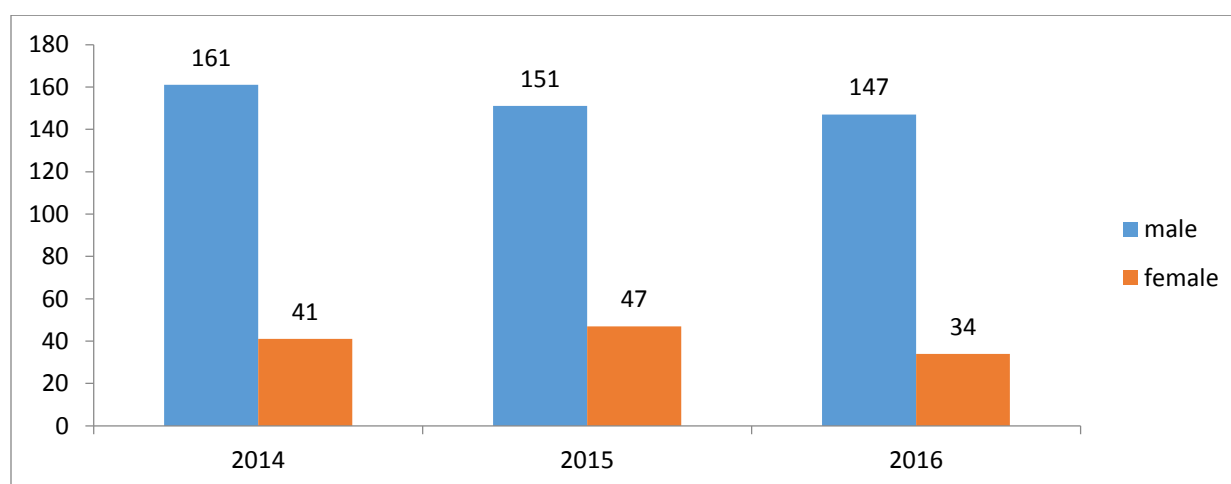
The district recorded a total of 181 HIV/AIDS cases during the year under review with 56.4% in the age group of 0-34 years with approximately male to female ratio of 0.60: 0.40

Table 1.79: Distribution of HIV/AIDS Cases by Age 2014-2016

AGE	No. of Cases (2014)	No. of Cases (2015)	No. of Cases (2016)
0-14YR	2	3	1
15-34	102	121	104
35-49	75	58	62
>50	16	16	14
TOTAL	202	198	181

Ghana Health Service, Kuntanase, 2017

Figure 1.34: The Trend of HIV/AIDS Cases in the District 2014 -2016



Ghana Health Service, Kuntanase, 2017

1.41.1 Prevention of Mother to Child Transmission/Voluntary Counselling and Testing (PMTCT/VCT)

Five (5) facilities in the district are PMTCT implementing sites at present. A total of 4,302 ANC registrants were recorded out of which 3,775 representing over 87.75% of registrants were counselled. Out of those counselled, over 79.8% opted for HIV test and 1.2% was positive.

Table 1.80: PMTCT/VCT update 2016

PARAMETERS	Kunt. Hosp.	SMH	Tetrefu H/C	Piase CHPS Compound	Jachie H/C	Divine Mercy	Total
ANC Registrants	632	2,397	68	65	497	643	4,302
Registrants Counsellled	512	2,221	58	51	413	520	3,775
Registrants opting for HIV Test	466	1,098	49	48	398	430	2,489
No. Testing HIV Positive	11	13	0	1	5	3	33

Source: Ghana Health Service, 2017.

Initially the District Health Directorate took it upon itself to organize public campaigns in almost all the communities in the district and now with the District Response Management Team (DRMT) Awareness about the disease continues to be created in schools, churches, health facilities, and outreach clinics. Social gatherings, particularly during festive occasions e.g. Meet-Me-There at Abono. However, all public fora organised always ensured that target group of people are made aware of the mode of transmission in the district as being mostly through;

- ❖ Unprotected sex among the sexually active youth
- ❖ Tourist attraction to the district because of the Lake Side and programs normally organised at the Lake side during holidays
- ❖ Other social activities such as festivals and funerals in the district

Support for People living with HIV/AIDS

- ❖ Support for persons living with HIV has been from a lot of organisations but being monitored by the Ghana AIDS Commission. Among such organizations are the Bosomtwe District Assembly, Environmental Protection Association of Ghana (EPAG), individuals, groups and other unidentified institutions.
- ❖ St. Michael's Hospital at Pramso also gives psychosocial support to the persons with HIV and AIDS.

Among other interventions for the People Living with HIV and AIDS include;

- ❖ Support for their Association in organising meetings by the District Assembly
- ❖ Support for some of their children in the areas of education and health
- ❖ Support them with lawyers when they are faced by crisis by family members

Challenges in HIV/AIDS

- ❖ Inadequate number of counsellors
- ❖ Inadequate funds for HIV/AIDS activities
- ❖ Frequent shortage of some Antiretroviral drugs
- ❖ Frequent shortage of oral quick and first response
- ❖ Stigmatization
- ❖ Inadequate support for People Living with HIV/AIDS

Way forward for Improving HIV/AIDS

- ❖ Infants diagnosis
- ❖ I E & C
- ❖ Training of more counsellors
- ❖ Organize more know your status campaign
- ❖ Formation of adolescent clubs in schools

1.42 Use of Information and Communication Technology (ICT)

The world is now linked together with Information and Communication Technology (ICT). Mobile phones, the internet and computers have become important tools for communication with enormous time saving applications in the pursuit of inter-personal and corporate transactions. The days of telegrams and gong-gong to carry information are gone due to technology

1.42.1 Households access to computers and Internet

The distribution of the internet facility usage by sex indicates that males (64%) have a larger proportion than females (36%). Another small proportion of households (4.4%) have desktop or laptop computers. In terms of ownership of desktops or laptop computers in Bosomtwe District, male headed households have about three quarters (74.7%) while female headed households have slightly one quarter (25.3%). Out of the total population of 93,910 aged 12 years and over in the Bosomtwe District, 62,792 (51.4%) have mobile phones. Of the population 12 years and older, only 3.9 percent use internet facility. Only 4.4 percent of the households own desktop and laptop computers.

Computer usage when coupled with computer literacy, grants the user the ability to utilize computer programmes eg. Word processing, calculations, and data management analysis. In addition, computer access provides opportunities to access the internet for various activities and services, including social networking, governance, education, health, commerce and other online services. In the District there are ICT centres owned by private individuals which provide secretariat services to the populace.

The District Assembly has an ICT Centre at Kuntanase which is not functional. The ICT Centre is supposed to provide internet access and basic training in computer literacy to the public. ICT infrastructure in education is not encouraging. Most of the basic schools do not have access to ICT infrastructure, even though ICT is examinable at the BECE.

1.42.2 Penetration of Fixed and Mobile Telephones

As in many districts in Ghana fixed lined telephones are limited. Data indicates that out of the total population of 62,795 aged 12 years and older in the District, more than half of this population representing 51.4 percent has mobile phones. The proportion of mobile phone ownership by the male (58.4%) population 12 years and older is higher than the female (45.5%) population.

All the 66 communities in the district in one way or the other can access one or all the following mobile networks:

- ❖ MTN
- ❖ Vodafone
- ❖ Tigo
- ❖ Airtel
- ❖ Glo-Ghana

1.42.3 Radio and Television

There is no FM station in the district. It however has about 30 Information Centres which transmit information from affiliate FM Stations. Even though the district does not have its own FM station, most of FM , stations in Kumasi, Ejisu Konongo, Bekwai, Obuasi Koforidua and Nkawkaw are received in the district

1.42.4 Importance of ICT in the District Development

The important role that ICT play cannot be over-emphasized. The importance of ICT in the development includes the following:

- ❖ Information gathering for development; information of government policies and programmes, development issues in the district/communities
- ❖ Networking and Information sharing-information and experience sharing on agriculture, marketing of produce, health, education and climate change and environmental pollution. Use of the mobiles have enable Assembly members to create a platform for information sharing. There is also the Ghana Social Accountability Mechanism (GSAM) Platform where information on GSAM activities are shared
- ❖ Distance learning services for rural dwellers

- ❖ Attraction of micro/small enterprises-SMEs take advantage of FM stations to advertise their products and services to many communities within and beyond their areas of operation
- ❖ Enhanced decentralization- Through the proliferation of FM station-community members are able to bring their views and problems to the attention of the District Assembly for response
- ❖ Improved communications- with availability of mobile phones people get in touch with their relatives in the cities and abroad
- ❖ Source of attainment

1.42.5 Key development issues in ICT

The key development issues in ICT use in the district include:

- ❖ High cost of ICTs supply
- ❖ Limited use of ICT- computer and accessories in schools
- ❖ Inadequate ICT infrastructure
- ❖ Low literacy levels and lack of ICT personnel
- ❖ Poor internet access

In order to improve the utilization of ICT in the district, the District Assembly will collaborate with its development partners to undertake these interventions:

- ❖ Encourage, promote and support the implementation of ICT system in the district
- ❖ Improve the supply of ICT in schools
- ❖ Sensitization of the importance of ICTs in development

1.43 Poverty, Inequality and Social Protection

Poverty has many faces, changing from place to place and across time, and has been described in many ways. Most often, poverty is a situation people want to escape. So poverty is a call to action -- for the poor and the wealthy alike. There are numerous definitions of poverty in social, economic and political terms. As reported in the Chronic Poverty Research, 2007, ‘a multidimensional understanding of poverty helps to define poverty as a human condition characterized by sustained or chronic deprivation of resources, capabilities, choices, security

and power necessary for enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights.

The UN, 1998, defines poverty as a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and cloth a family, not having a school or clinic to go to; not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living on marginal or fragile environments, without access to clean water or sanitation

Social Protection refers to a range of policies the explicitly aim to reduce poverty and vulnerability, and which have the potential to be redistributive Social protection programmes have been seen as an effective means to reduce poverty, inequality and social exclusion as well as to increase income generating opportunities and promote social integration. The objectives of social protection are;

- ❖ Protection (risks from vulnerability to security)
- ❖ Reducing poverty
- ❖ Overcoming discrimination and exclusion eg. Changing social relations and institutions
- ❖ Contributing to social integration, , cohesion and justice

Social Protection programmes in the district include

- ❖ National Health Insurance Scheme (NHIS)
- ❖ Capitation Grant
- ❖ Free Textbooks
- ❖ Free school uniforms
- ❖ School Feeding Programme
- ❖ Financial support to needy students
- ❖ Financial support to PWDs
- ❖ Provision of Relief items to disaster victims
- ❖ Support to people living with HIV/AIDS
- ❖ Lively Empowerment Against Poverty (LEAP)

Inequality

Development theory has largely been concerned with inequalities in standard of living such as inequalities in income/wealth, education, health and nutrition.

1.43.1 Causes of Poverty in the District

The causes of poverty in the district:

- ❖ Lack of access to institutional credit.
- ❖ Lack of education and training in employable skills.
- ❖ Low productivity and production.
- ❖ Unsuccessful farming and other businesses.
- ❖ High rate of post-harvest losses.
- ❖ Unrealistic market prices for farm produce and high cost of farm inputs.
- ❖ Large family sizes.
- ❖ Presences of diseases and physical disabilities.
- ❖ Lack of socio-economic infrastructure like good roads, markets health facilities, schools and good drinking water.
- ❖ Bad life styles like polygamy, womanizing, laziness and unnecessary expenditures

1.43.2 Manifestation of Poverty in the District

Poverty in the district is manifested in many ways. Table 1.68 shows how poverty is manifested among the people in the district.

Table 1.81: Manifestation of Poverty in the District

Dimension	Manifestation
Basic Needs	<ul style="list-style-type: none">❖ Poor housing❖ Poor clothing❖ Poor diet❖ Low educational status❖ Poor health
Livelihoods	<ul style="list-style-type: none">❖ No savings❖ Lack of non-farm employment❖ Peasant farming
Resources/Vulnerability	<ul style="list-style-type: none">❖ Food insecurity

	<ul style="list-style-type: none"> ❖ Little or no assets ❖ Little or no support from relations ❖ Lack of /inadequate access to credit ❖ Low access to economic infrastructure and services(e.g. roads, markets etc)
Political Deprivation	<ul style="list-style-type: none"> ❖ Low participation in governance ❖ Have no influence on local decision-making ❖ Low direct access to information
Social/Cultural/Psychological Deprivation	<ul style="list-style-type: none"> ❖ Low self esteem

Source: Authors' Construct, 2017

1.43.3 Current Coping Mechanism

The current coping mechanisms among farmers include:

- ❖ Mixed farming
- ❖ Dependence on relatives-remittances
- ❖ Borrowing from friends
- ❖ Credit from middlemen (and pay in kind)
- ❖ Child labour
- ❖ Working for others
- ❖ Non-farm ventures e.g. charcoal burning
- ❖ Farming on marginal lands
- ❖ Engaging in illegal activities (e.g. stealing, illegal felling of trees)

1.43.4 Vulnerability Analysis

Vulnerability is a term used to describe exposure to hazards and shocks. People are more vulnerable if they are more likely to be badly affected by events outside their control. “Vulnerability defines the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a hazard.” (Wisner et al, 2004). It involves a combination of factors that determine the degree to which someone’s life, livelihood, property and other assets are put at risk by a discrete and identifiable event (or series or cascade of such events) in nature and society.

Dimensions of vulnerability

Social, generational, geographic, economic and political processes influence how hazards affect people in varying ways and with different intensities. Some groups are more prone to damage, loss and suffering in the context of differing hazards. Key variables explaining variations of impact include occupation, ethnicity, gender, disability and health status, age and the nature and extent of social networks. Changing the social, economic and political factors usually means altering the way that power operates in society.

Concern about social protection and in particular, vulnerability and social exclusion has been growing in Ghana with the Sekyere East District being no exception. Experiences of vulnerability and exclusion are invariably intrinsically linked to poverty in the district. It is clear that such condition also stems from denial of rights and entitlements, on account of gender and age discrimination, ethnic politics, unstable environments and disability among others. The poor and vulnerable in the district appear to bear the brunt of free market reforms in the form of inadequate and increased costs of social services, redundancies and income insecurity. This part of the report is to give consideration to poverty level as far as the vulnerable and excluded are concerned.

1.43.5 Current State of Vulnerability and Exclusion in the Bosomtwe District

- ❖ **Child Trafficking:** There is no reported case of child trafficking in the District. However, there is still the belief that some children are brought into the District from other areas, especially by the predominant settler farmers as farm or domestic help.
- ❖ **Child Labour/Street Children:** There are a lot of such cases in the District. In the bigger communities like Aputuogya, Esereso, Kuntanase, Feyiase, Pramso and Jachie, where commerce thrive most, in or out of school children are found in such menial jobs as head potters during market days. Also, a great number of them are used as farm hands by parents/ guardians in the farming communities.
- ❖ **Orphans**
- ❖ **The Aged**
- ❖ **Disaster victims**
- ❖ **Widowed women**
- ❖ **People Living with HIV AIDS (PWLHA'S):**

- ❖ Persons with Disabilities:-2,755 persons have some form of disability representing 2.9 percent of the population in the district (2010 Population and Housing Census)

The Department of Social Welfare and Community Development as one of the departments has been charged in the district to champion the course of the vulnerable groups. The vulnerable groups identified in the district include;

- People with disabilities
- Children
- Elderly
- Women
- People with HIV/AIDS

Vulnerability is gender differentiated. The way women experience vulnerability is many times different to men due to socially constructed gender roles and power relations. Factors, such as lack of access to and control over basic resources and lack of entitlements, amplify women's vulnerability and undermine their ability to cope with effects of disasters.

Children are also identified in the district as belonging to the vulnerable group. Some children in the district are neglected by their biological parents who fail to send them to school. With the increase in video and game centers in the district, children are found more comfortable at these centers moving from one center to the other. Others also roam about in the community without any care from anybody, not even close relatives.

In the case of children, key identified development problems include;

- ❖ Inadequate care, maintenance and supervision of children by their parents
- ❖ Broken homes
- ❖ Single parenthood in the case of females
- ❖ Child delinquency
- ❖ Lack of juvenile cells for children in conflict with the law.

There are cases of abuse of some women by their husbands, even though such cases are often verbal and psychological. Such cases are mostly reported by women in relation to their children. The cases are brought for settlement and advice if cases need further interrogation. Some problems arise due to the misunderstanding of the different roles of parents. Some children in the

district are abused in various ways, like bad treatment from their relatives, step parents and sometimes their guardians.

1.43.6 Key development issues in Poverty, Inequalities and Social Protection

Some Identified key development problems in the district include;

- ❖ Lack of skill training for the youth to make them more employable
- ❖ Low productivity in productive sectors like agriculture, manufacturing and services
- ❖ Unemployment and under-employment
- ❖ Low and seasonal incomes
- ❖ Limited access to health care
- ❖ High illiteracy rate among women
- ❖ Limited access to the school feeding programme
- ❖ Capitation grant not adequate and irregular
- ❖ High population growth rate
- ❖ Large family sizes
- ❖ Frequent disasters
- ❖ lack of support to set up businesses in the case of those who have already acquired some skills through the various workshops organized by the department
- ❖ Discrimination among disabled persons and People Living with HIV AIDS (PWLHA'S):
- ❖ Difficulty in getting life partners
- ❖ Stigmatization especially among PWLHA'S

1.43.7 Programmes/Interventions to reduce poverty and inequalities

The District Assembly in collaboration with non-governmental organizations and the social welfare department of the district would undertake the under-listed interventions;

- ❖ Expand the coverage of the effectiveness of essential services for poorest groups and geographical areas.
- ❖ Develop effective and efficient systems that enforce rights and protections, especially for children and women.
- ❖ Prevent disasters and mitigate their impact on the community.
- ❖ Provide relief items
- ❖ Support the Girl-Child

- ❖ Provide financial support for people with disabilities
- ❖ Provide jobs especially for the youth and women
- ❖ Provide support for People Living with HIV AIDS (PWLHA'S)
- ❖ Facilitate in the increase in the number schools benefiting in the school feeding programme
- ❖ Improving access to health services
- ❖ Improving access to education

1.44 Science Technology and Innovation (STI) in the District

STI are key drivers of economic and social development. The experience of successful developing countries shows that STI policies that are well integrated into national development strategies and combined with institutional and organizational changes can help raise productivity, improve firm competitiveness, support faster growth and create jobs. . Science and technology are the key tools in bringing development especially the present times and the future. There is therefore the need to step up education in science and technology as is the key that propels economic development. The importance of STI in national development cannot be overemphasized

1.44.1 STI in the District Development

The plan looks at STI in the development of the district. It takes into consideration the following:

- ❖ STI education in the district
- ❖ STI utilization in the Agriculture sector
- ❖ STI utilization in the Micro/Small Scale Agro-processing
- ❖ STI Utilization in tourism in the district

1.44.2 STI Education in the District

Science and Technology subjects/programmes usually undertaken in Schools in Ghana and for that matter the Bosomtwe district are for the basic education are mathematics, integrated science and ICT. Others are building technology/pre-technology and vocal studies. Student performance especially in mathematics and integrated science in the BEBE has not been encouraging. In 2016 for instance about 10 percent of the students perform poorly in mathematics and integrated science. In the SHS the number of students who do science and technology related programmes are very small as compared to those doing other programmes General Arts Visual Arts and

Business, In the 2017 academic year out of 3240 students in two of the SHSs, namely, Jachie and Beposo SHs only 12 percent are doing science and technology related programmes.

Students' performance in integrated science and mathematics in WASSCE is nothing to write home about. In 2016, about 60 percent of the candidates presented for the WASSCE had below 6 –credit which is pre-requisite for entry into a tertiary institution'. Over the years students in the district have been participating in STME. STME –seeks to imbibe in the child skills of innovation, creativity and imagination for better life. For meaningful Education, it is imperative for students to be trained in the investigative process of problem solving in a scientific and technological way through curiosity and analytical manners.

The Scientific Technology, Mathematics and Innovation Education (STMIE) CAMP is an integral part under national campaign aimed at developing and maintaining a science and technology culture among the Ghanaian youth for national development. In the Bosomtwe District, (STMIE) camps have provided a platform for the participants to exhibit their creativity and innovations through series of interesting activities as well as promoting linkages between school and industry. The programme is mainly sponsored by Bosomtwe District Assembly and supported by the District Education Directorate. Through STMIE programme, participants have been exposed to a world of different vocations and technical skills. Most participants could even start their own businesses just after school. Participants could now solve problems in a technological and scientific way. Many participants have even taught their families how to prepare some hands-on-activities like Batik, Tie and Dye, liquid soap and screen printing just to mention a few, after attending this programme.

In fact this programme has over the years opened the eyes of few privileged participants to compete with other districts on scientific project works presentation. Even, in 2010 STMIE camp, Bosomtwe District emerged the winner (1st position) and was adjudged the best project work during the project work completion for the whole Ashanti Region. The project that was presented titled “Makola Women’s Umbrella.” This project was made with used or waste sachet rubbers which as a menace to the society at that time to produce a very big and beautiful umbrella which could be used by market women and big time business minded people. It was presented by Adagya D/A JHS in 2011. Also the Bosomtwe District was adjudged the best well-behaved student- award and it was taken by one Martha Acquah of Aputuogya D/A JHS in 2011.

In 2016, too, participants in Bosomtwe District again took the second (2nd) position work in competition in the whole Ashanti Region. The award winner was given a laptop bag at the national level. The project presented was titled “Solar Panel Bag Pack”. With this, one could be walking and charging his/her phone inside the bag which has a solar panel at the back. This project can charge phones, lamps, laptops, tablets and what have you? As the owner moves along. Since, participants are exposed to other places of interest; through the educational visits, they are able to solve problems faster and in a more accurate manner than the less privileged ones. Because of their exposure to other fields of work, most of them strive to further their education by entering the universities and polytechnics to become great men and women in the villages and towns.

In fact, this programme should continue all the time and even the number of participants should be increased because after participation, the individual becomes self-independent and even trained to be self-reliant. Also participants are taught how to answer BECE questions and are free from the fear that is engulfed in the study of science and other related subjects.

It has been observed that in most cases, funds are not released on time by the District Assembly. Moreover, the required numbers of students to be sponsored are always reduced. The (STMIE) Camp programme is a very good one which should be organized every year to enlighten our youth in the Bosomtwe District Assembly, the Education Directorate, teachers and students for their support.

1.44.3 Agriculture and STI Utilization

Agriculture is the backbone of the district economy. Almost half (48.0%) of households in the District are engage in agriculture. In the rural localities, six out of ten households (60.0%) are agricultural households while in the urban localities, 22.0 percent of households are into agriculture. Most households in the District (97.6%) are involved in crop farming. However, agriculture in the district is challenged with low productivity.

Small-scale farmers rely on rudimentary methods and technology and they lack the skills and inputs, such as fertilizer and improved seeds that would increase yields. Poor farmers are without the good market and rural infrastructure they need for storing, processing and marketing their products... The low adoption of improved or modern farm practices is largely due to limited liquidity of farmers in the absence of well-functioning credit markets. Farm labour is drawn from

family sources but complemented more and more with hired labour. The failure of the farmers utilization of STI facilities/ infrastructure/ facilities have resulted in low productivity of the farmers and thereby perpetuating their poverty

1.44.4 Micro/Small Scale Agro-Processing Industries and Utilization of STI

One of the objectives of the STI policy of Ghana is to promote the development of food processing industries and enhance value addition for the local market and for exports. This policy objective is not being achieved because of the low utilization of STI infrastructure/facilities in Ghana in general and the district in particular. In the Bosomtwe district the predominant agro-processing industries include Gari Processing and Palm Oil Extraction. All these shops do not utilize/ low utilization STI infrastructure/facilities to enhance their productivity. They use obsolete technology, which does not augur well for improved productivity.

1.44.5 STI Utilization in tourism in the district

The Lake Bosomtwe Biosphere Reserve is the single most important tourist attraction in the Bosomtwe District. The lake is mostly patronized by holiday makers on festive occasions. However, infrastructural development has not been well coordinated and presently below standards. The tourist site does not have any STI tourist infrastructure that makes a place attractive to tourist. Tourists both domestic and international just come to the lake to swim. The non-utilization of tourism infrastructure make the place unattractive. Some of the potential investments that can be undertaken within the Lake and surrounding landforms is outlined below:

- ❖ Development of Zip Line from Kokoado to the Lake Bosomtwe
- ❖ Provision of Cable Car from Kokoado to the Lake Bosomtwe
- ❖ Development of a Canopy Walkway
- ❖ Provision of Modern Canoe and Boat
- ❖ Provision of Hiking Route to link all communities surrounding the lake

With the provision of these tourism infrastructure/facilities more tourist will be attracted to the site and thereby increasing the revenue base of the Assembly.

1.44.6 Key development issues in Science, Technology and Innovations

The key development issues in STI include:

- ❖ Low interest in the study of science related subjects like mathematics, physics, chemistry, biology etc
- ❖ Poor performance of students in the science related subjects in BECE and WASSCE
- ❖ Poor methods of teaching science related subjects
- ❖ Inadequate science laboratories, including instructional materials in the teaching of science related subjects
- ❖ Inadequate teachers in the teaching of science related subjects
- ❖ Inadequate financial support in the organization and participation of Scientific Technology, Mathematics and Innovation Education (STMIE) CAMP
- ❖ Low esteem for the study of vocational and technical subjects
- ❖ Low utilization of science and technology infrastructure/facilities in agriculture, agro-processing, tourism etc

1.44. 7 Strategies to improve STI in the District

The District Assembly will collaborate with development partners/stakeholders to promote the study of science and technology in schools and the utilization of science and technology in agriculture and other services through the following:

- ❖ Promote Innovations at all levels of the educational system
- ❖ Whip interest in the study of science related subjects in schools
- ❖ Establish award schemes that reward innovation among the youth
- ❖ Facilitate the posting of science related subject teachers to the district
- ❖ Equip schools with modern laboratories and equipment for effective teaching and learning
- ❖ Initiate mechanisms to identify young scientists-establish a science based model basic school in the district
- ❖ Provide scholarships for promising science students
- ❖ Encourage activities that bring the STI capabilities of the youth such as holding Science and Mathematics Clinics for both girls and boys to encourage science learning and also promote STI competition among the youth. This competition can be done at class level and inter house level

- ❖ Encourage and support farmers to use modern methods of farming and use improved technology
- ❖ Encourage and support small/medium scale agro-processors to use improved technology
- ❖ Improve tourism industry for better service delivery by using Tourism infrastructure

1.45 Eliciting Community Perspective on Development Issues and Aspirations

The development issues and aspirations for the District were arrived at following the under-listed planning activities:

- Performance Review of the MTDP (2014-2017);
- Compilation of the Profile/Current Situation analysis of the District; and
- Interface between communities and technocrats in communities' fora where communities' needs assessment and aspirations were undertaken.

The identified issues have been grouped under the thematic areas of the Ghana Shared Growth and Development Agenda II (GSGDA II, 2014-2017) as indicated below:

Table 1.82: Summary of key development issues of GSGDA II

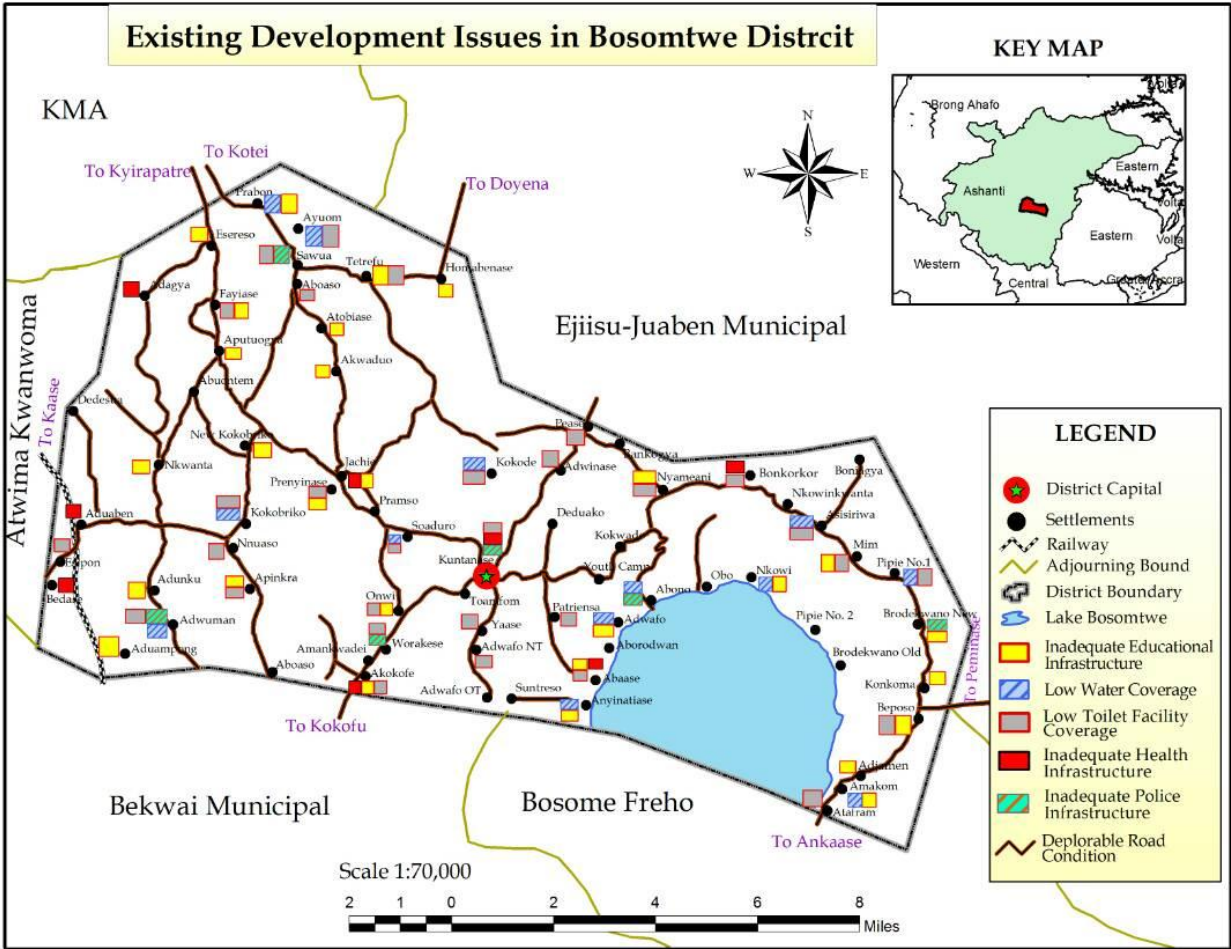
Thematic areas of GSGDA II	Key Identified issues (as harmonised with inputs from the performance review, profiling and community needs and aspirations)
Ensuring and Sustaining Macro-Economic Stability	<p>Low IGF generation</p> <p>Poor expenditure management</p> <p>Overdependence on external sources of funding (DACF, DDF.)</p> <p>Unwillingness of rate payers to pay tax</p> <p>Inadequate tax education.</p> <p>Lack of logistics like motors and bicycles to improve mobility of revenue collectors.</p> <p>Inability of Sub-districts to collect ceded revenue items</p>
Enhancing Competitiveness of Ghana's Private Sector	<ul style="list-style-type: none"> - Limited access to credit facilities to private entrepreneurs. - Limited use of improved technologies - Inadequate market for products

	<ul style="list-style-type: none"> - Low quality of products - Low support for Local Economic Development activities - Inadequate support for BAC - Non-availability of job opportunities - Lack of employable skills among the youth
Accelerated Agricultural Modernisation and Sustainable Natural Resource Management	<ul style="list-style-type: none"> - Low agricultural production - Inadequate access to credit facilities for farmers - Limited capacity of agriculture extension. - Rain-fed agriculture - High post-harvest losses - High cost of farm inputs including labour - Lack of ready market for agriculture produce
	Natural Resource Conservation and Management
	<ul style="list-style-type: none"> - Bush fires - Indiscriminate use of agro-chemicals - Deforestation - Drying of water bodies eg Lake Bosomtwe - High dependence of charcoal and firewood - Limited knowledge of climate change and impact - Illegal logging of trees by chainsaw operators - Soil erosion/Impoverished soils - Pollution of water bodies - Rain storm, flooding and drought
Infrastructure and Human Settlements	<p>Limited access to electricity</p> <p>Limited street lighting system</p> <p>Deplorable road condition</p> <p>Inadequate access to urban communities.</p> <p>Irregular maintenance of feeder roads</p> <p>Inadequate market infrastructure.</p> <p>Inadequate use of ICT in offices and schools</p> <p>Haphazard development</p>

	<p>Non-enforcement of planning and building regulation</p> <p>-Non-enforcement of building codes</p> <p>Low capacity of NADMO</p> <p>Low toilet facility coverage</p> <p>High Dependence on public toilets</p> <p>Low toilet facility coverage</p> <p>Poor hygiene practices including hand washing with soap</p> <p>Poor drainage system</p> <p>Poor final disposal of solid and liquid waste</p> <p>Low water coverage</p> <p>Poor performance Water and Sanitation Committees</p>
Human Development, Productivity and Employment	<ul style="list-style-type: none"> - Inadequate classrooms - Poor academic performance of basic schools. - Inadequate teaching materials. - Inadequate ICT Facilities in schools - Inadequate accommodation for teachers - Lack of Libraries - Lack of sanitary facilities in schools - Inadequate support for brilliant but needy students - Inadequate health facilities eg.CHPS Compound - Inadequate nurses quarters - Inadequate support for HIV/AIDS activities
Transparent, Responsive and Accountable Governance	<p>Poor performance of sub-district structure</p> <p>Inadequate office and residential accommodation for security personnel</p> <p>Inadequate residential accommodation for staff of Assembly Departments</p> <p>Inadequate and reliable database for planning, revenue mobilization and budgeting</p>

A Base Map showing the spatial implications of the summarized key development issues in the district is shown in figure below:

Figure 1.35: Key Development Issues



CHAPTER TWO

DEVELOPMENT ISSUES FOR 2018-2021

2.0 Introduction

The GSGDA II has seven thematic areas. This chapter captures the prioritized key development issues identified in chapter one of this plan and linked to the corresponding thematic areas. This is to enable the District Assembly identify the relevant thematic areas that the planned programmes and projects would be aligned within the planned period. The key development issues were not only linked to the thematic areas but also to the key issues under the thematic areas of the GSGDA II;

- Build an inclusive industrialised and resilient economy
- Create an equitable, healthy and disciplined society
- Safeguard the natural environment and ensure a resilient built environment
- Maintain a stable, united and safe society
- Strengthen Ghana's role in international affairs

2.1 Community needs and aspirations

District Assemblies are encouraged to facilitate the preparation of Local/Community Development Plans (CDPs). These will represent community needs and aspirations as inputs into the DMTDP through the district sectoral plans. The CDPs may also serve as the medium for implementing the DMTDP at the community level. In a situation where community plans do not exist, community needs and aspirations should be captured in the form of issues through public consultations.

2.2 Harmonisation of community needs and aspirations with identified key development gaps/problems/issues (from Review of Performance and Profile)

Harmonization of Community Needs with Key Development Issues of GSGDA II

The Harmonization of Community Aspirations with the Key Issues of the GSGDA II taking into consideration the seven thematic areas of the GSGDA. These are:

- ❖ Ensuring and Sustaining Macroeconomic stability
- ❖ Enhancing competitiveness in the private sector
- ❖ Accelerated Agricultural modernization and sustainable natural resource management
- ❖ Oil and gas development
- ❖ Infrastructure, Energy and Human Settlements

- ❖ Human development productivity and employment
- ❖ Transparent and accountable governance

Table 2.1: Harmonization of Community Needs and Aspirations with Identified Development Issues of GSGDA II

No	Identified key development issues Community Needs /Aspirations	Low toilet facility coverage	Low Water coverage	Inadequate educational facilities	Inadequate health facilities	Deplorable road condition	Inadequate market facilities	Inadequate provision of	Poor drainage system	Poor solid waste management	Youth unemployment	Limited access to Social protection programmes	Inadequate teachers &nurses	Inadequate police infrastructure	Inadequate support for LED	SCORES
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Provision of improved Toilet facilities	2	2	2	2	0	2	1	2	2	2	0	2	2	2	1.6
2	Provision of potable water	2	2	2	2	0	2	2	1	2	1	0	2	2	2	1.6
3	Provision of educational infrastructure	2	2	2	1	2	1	1	1	1	2	1	2	2	2	1.6
4	Provision of Health facilities	2	2	1	2	2	2	1	1	2	2	2	2	1	1	1.6
5	Rehabilitation of Feeder Roads	2	2	2	2	2	2	2	2	1	1	1	2	1	2	1.7
6	Provision of Market facilities	2	2	1	1	2	2	1	1	2	2	1	1	1	2	1.5
7	Improving access to Electricity/ Street Lights	2	2	2	2	1	2	2	1	1	1	0	2	2	2	1.6

8	Provision of Culverts/ Drains	1	1	1	1	2	1	0	2	2	2	0	0	1	1	1.1
9	Increasing Social Protection Programmes	1	1	1	1	1	1	1	0	0	2	2	2	0	1	1.1
10	Posting of Health Workers and Teachers	2	2	2	2	1	1	2	0	0	2	1	2	1	1	1.4
11	Improvement in solid waste management	2	1	2	2	0	2	1	1	2	2	0	0	1	2	1.2
12	Provision of police infrastructure	2	2	1	1	1	1	1	1	1	1	1	1	2	2	1.3
13	Provide support for LED	2	2	2	2	2	2	1	2	2	2	1	1	1	2	1.7
14	Creation of jobs	2	2	2	2	2	2	1	2	2	2	1	1	1	2	1.7

Key

Table 2.2: Scoring

Definition	Score
Strong Relationship	2
Weak Relationship	1
No Relationship	0

Table 2.3: key development issues under GSGDA II with implications for 20018-2021

Thematic areas of GSGDA II	Key Identified issues (as harmonised with inputs from the performance review, profiling and community needs and aspirations)
Ensuring and Sustaining Macro-Economic Stability	<p>Low IGF generation</p> <p>Poor expenditure management</p> <p>Overdependence on external sources of funding (DACF, DDF.)</p> <p>Unwillingness of rate payers to pay tax</p> <p>Inadequate tax education.</p> <p>Lack of logistics like motors and bicycles to improve mobility of revenue collectors.</p> <p>Inability of Sub-districts to collect ceded revenue items</p>
Enhancing Competitiveness of Ghana's Private Sector	<ul style="list-style-type: none"> - Limited access to credit facilities to private entrepreneurs. - Limited use of improved technologies - Inadequate market for products - Low quality of products - Low support for Local Economic Development activities - Inadequate support for BAC - Non-availability of job opportunities - Lack of employable skills among the youth
Accelerated Agricultural Modernisation and Sustainable Natural Resource Management	<ul style="list-style-type: none"> - Low agricultural production - Inadequate access to credit facilities for farmers - Limited capacity of agriculture extension. - Rain-fed agriculture - High post-harvest losses - High cost of farm inputs including labour - Lack of ready market for agriculture produce
	Natural Resource Conservation and Management

	<ul style="list-style-type: none"> - Bush fires - Indiscriminate use of agro-chemicals - Deforestation - Drying of water bodies eg Lake Bosomtwe - High dependence of charcoal and firewood - Limited knowledge of climate change and impact - Illegal logging of trees by chainsaw operators - Soil erosion/Impoverished soils - Pollution of water bodies - Rain storm, flooding and drought
Infrastructure and Human Settlements	<p>Limited access to electricity</p> <p>Limited street lighting system</p> <p>Deplorable road condition</p> <p>Inadequate access to urban communities.</p> <p>Irregular maintenance of feeder roads</p> <p>Inadequate market infrastructure.</p> <p>Inadequate use of ICT in offices and schools</p> <p>Haphazard development</p> <p>Non-enforcement of planning and building regulation</p> <p>-Non-enforcement of building codes</p> <p>Low capacity of NADMO</p> <p>Low toilet facility coverage</p> <p>High Dependence on public toilets</p> <p>Low toilet facility coverage</p> <p>Poor hygiene practices including hand washing with soap</p> <p>Poor drainage system</p> <p>Poor final disposal of solid and liquid waste</p> <p>Low water coverage</p> <p>Poor performance Water and Sanitation Committees</p>
Human Development, Productivity and Employment	<ul style="list-style-type: none"> - Inadequate classrooms - Poor academic performance of basic schools. - Inadequate teaching materials. - Inadequate ICT Facilities in schools

	<ul style="list-style-type: none"> - Inadequate accommodation for teachers - Lack of Libraries - Lack of sanitary facilities in schools - Inadequate support for brilliant but needy students - Inadequate health facilities eg.CHPS Compound - Inadequate nurses quarters - Inadequate support for HIV/AIDS activities
Transparent, Responsive and Accountable Governance	<p>Poor performance of sub-district structure</p> <p>Inadequate office and residential accommodation for security personnel</p> <p>Inadequate residential accommodation for staff of Assembly Departments</p> <p>Inadequate and reliable database for planning, revenue mobilization and budgeting</p>

Table 2.4: Adopted Goals and Issues

Goals-2018-2021	Adopted Issues
Build a Prosperous Society	<ul style="list-style-type: none"> • Inadequate access to affordable credit • Limited access to credit • Inadequate development of investment in processing and value addition • Inadequate agricultural infrastructure • Poor storage and transportation system • Poor storage and transportation system • Low quality and inadequate agricultural infrastructure • Ageing farmer population • Poor tourism infrastructure and Service
Create Opportunities for all	<ul style="list-style-type: none"> • Poor quality of education at all levels • High number of untrained teachers at the basic level • Low participation of females in learning of science, technology, engineering and mathematics • Gaps in physical access to quality health care • Poor quality of healthcare services

	<ul style="list-style-type: none"> • High stigmatization and discrimination of HIV and AIDs • Lack of comprehensive knowledge of HIV and AIDS/STIs, especially among the vulnerable groups • High incidence of HIV and AIDS among young persons • Periodic shortages of HIV& AIDS commodities (ARV's, Test Kits, Condoms) • Poor agricultural practices which affect water quality • Improper protection and development of water resources • Increasing demand for household water supply • Inadequate maintenance of facilities • Unsustainable construction of boreholes and wells • Inadequate access to water services in urban areas • High prevalence of open defecation • Poor sanitation and waste management • Low level of investment in sanitation sector • Poor hygiene practices • Inadequate and limited coverage of social protection programmes for vulnerable groups • Inadequate opportunities for persons with disabilities to contribute to society • Inadequate infrastructure and services for the informal sector
Safeguard the natural environment and ensure a resilient built environment	<ul style="list-style-type: none"> • Improper disposal of solid and liquid waste • Inadequate engineered landfill sites and waste water treatment plants <p>Weak legal and policy frameworks for disaster prevention, preparedness and response</p> <ul style="list-style-type: none"> • Poor quality and inadequate road transport network • Inadequate investment in road transport infrastructure provision and maintenance • Inadequate infrastructure to support the delivery of energy services • Poor drainage system • Poor and inadequate maintenance of infrastructure • Disparities in access to infrastructure and service provision between urban and rural

	settlements <ul style="list-style-type: none"> • Weak enforcement of planning and building regulations • Inadequate spatial plans for regions and MMDAs • Inadequate human and institutional capacities for land use planning Scattered and unplanned human settlements <ul style="list-style-type: none"> • Poor and inadequate rural infrastructure and services • Poor infrastructure to catalyze agriculture modernization and rural development
Maintain a stable, united and safe society	<ul style="list-style-type: none"> • Ineffective sub-district structures • Inadequate and poor quality equipment and infrastructure • Limited capacity and opportunities for revenue mobilisation • Implementation of unplanned expenditures • Interference in utilization of statutory funds allocation • Inadequate and delays in central government transfers

2.3 Prioritisation of Development Issues

2.3.1 Potentials, Opportunities, Constraints and Challenges (POCC) Analysis

After the identification of the key development problems/issues, the potentials, opportunities, constraints and challenges of the district to address these problems have been analyzed. (See table 2.4)

Table 2.5: District Needs

District Needs	6	5	4	3	2	1	Total	Rank
	1 st	2 nd	3 rd	4 th	5 th	6 th		
Provision of Improved Toilet facilities	(15) 90	(13) 65	(9) 36	(10) 30	(8) 16	(1) 1	238	1 st
Provision of potable water	(5) 30	(11) 55	(4) 16	(11) 33	(8) 16	(7) 7	157	3 rd
School buildings/ Rehabilitation	(11) 66	(13) 65	(11) 44	(5) 15	(2) 4	(1) 1	195	2 nd
Health facilities	(1) 6	(3) 15	(3) 12	(3) 9	(2) 4	(1) 1	47	9 th
Rehabilitation of Feeder Road	(17) 102	(2) 10	(3) 12	(3) 9	(4) 8	(2) 2	143	4 th
Provision of Market	(2) 12	(2) 1	(3) 12	(5) 15	(4) 8	(4) 4	61	6 th

Electricity/ Street Lights	(2) 12	(5) 25	(11) 44	(10) 30	(7) 14	(2) 2	127	5 th
Curvets/ Drains	(4) 24	(3) 15	(2) 08	(1) 3	(2) 6	-	56	8 th
Libraries	-	-	-	(1) 3	(1) 2	-	5	14 th
Teachers Accommodation	(2) 12	(4) 20	(5) 20	(2) 6	-	-	58	7 th
ICT centres	-	(2) 10	(2) 8	(1) 3	-	-	21	13 th
Nurses Quarters	-	-	(1) 4	-	-	-	4	15 th
Creation of Jobs for the Youth	-	-	-	-	(1) 2	(1) 1	3	16 th
School Feeding	(2) 12	(2) 10	(1) 4	(4) 12	(1) 2	(1) 1	41	10 th
Post of Health Workers and Teachers	-	-	-	-	(1) 2	-	2	17 th
Refuse Evacuation and Refuse Container	(1) 6	(1) 5	(1) 4	(1) 3	(4) 8	-	26	12 th
Police Post	(1) 6	(1) 5	(2) 8	(2) 6	(1) 2	(2) 2	29	11 th

Table 2.6: Matrix of development potentials, opportunities, constraints and challenges

Key development issue	Potentials	Opportunities	Constraints	Challenges
<ul style="list-style-type: none"> Inadequate infrastructure and services for the informal sector 	<ul style="list-style-type: none"> Presence of BAC Existence of local businesses Presence of markets Employs the largest number of residents Source of revenue to the assembly 	<ul style="list-style-type: none"> Support from REP Planting for food and jobs programme Gov't policy on One District one factory programme 	<ul style="list-style-type: none"> Activities not regularized Lack of socio-economic data Inadequate access to credit 	<ul style="list-style-type: none"> Gov't policy direction Politicization of issues
Conclusion: Provision of adequate support to the informal sector will generate employment and improve incomes of the people and thereby reducing poverty. Potential exist in the District to support the programme. Constraints can be addressed by training/re-orientation of stakeholders. Challenges can be managed through discussions and dialogue with stakeholders				
Key development issue	Potentials	Opportunities	Constraints	Challenges
Inadequate investment in road transport infrastructure provision and maintenance	<ul style="list-style-type: none"> Existence of Works Dept Possession of grader machine by the Assembly 	<ul style="list-style-type: none"> Support from Government and other Dev't partners Cocoa roads programme 	<ul style="list-style-type: none"> Poor maintenance culture Deplorable road condition 	<ul style="list-style-type: none"> Inadequate/late release of funds by the government Poor supervision by external consultants Award of road projects without the

				involvement of D/A
Conclusion: Construction/rehabilitation of roads is a viable project. Potentials and opportunities exist to support the project. Constraints can be addressed through synergies in the programme design. Challenges can be managed through stakeholders dialogue				
Poor and inadequate rural infrastructure and services	<ul style="list-style-type: none"> • Availability of land and local building materials • Existence of market facilities • Availability of socio-economic facilities 	<ul style="list-style-type: none"> • Support from DACF ,DDF, and other development partners • Constituency fund –one million dollars 	<ul style="list-style-type: none"> • Poor maintenance culture • Inadequate socio-economic infrastructure • Rural –Urban migration • Lack of rural service centres • Poor road condition 	<ul style="list-style-type: none"> • Inadequate/late release of funds
Conclusion: Improving rural infrastructure is a viable project. Significant potentials and opportunities exist to support the projects. Constraints can be addressed by putting in place strategies to enhance rural infrastructure and mobilization and educating the people. Challenges can be managed by mobilizing enough financial resources.				
Inadequate infrastructure to support the delivery of energy services	<ul style="list-style-type: none"> • Existence of ECG Office • Willingness of the people to contribute funds 	<ul style="list-style-type: none"> • Contributions from citizens outside the district • DACF, support 	<ul style="list-style-type: none"> • Absence of development schemes for settlements • Newly developed areas do not have electricity 	<ul style="list-style-type: none"> • Delay in the release of funds
Conclusion: Supply of electricity to communities is a viable project. Potentials and opportunities exist to support the project. Constraints can be addressed through the preparation of development planning schemes for settlements. Challenges can be managed by mobilizing human and enough financial resources				
Poor sanitation and waste management	<ul style="list-style-type: none"> • Existence Zoom-lion • Existence of environmental health unit • Availability of waste management equipment 	<ul style="list-style-type: none"> • Support from DACF, DDF 	<ul style="list-style-type: none"> • Inadequate education on environmental cleanliness. • Heaped refuse dumps • Choked gutters • Indiscriminate dumping of waste 	<ul style="list-style-type: none"> • Inadequate/late release of funds
Conclusion: Supporting sound environmental sanitation management is a laudable programme. Potentials and opportunities exist to support the programme. Constraints can be addressed by educating and mobilizing the people. Challenges can be managed through discussions with government and development partners.				
Key development issue	Potentials	Opportunities	Constraints	Challenges

Increasing demand for household water supply	<ul style="list-style-type: none"> Existence of DWST and Water and Sanitation Management Committees Availability of boreholes, mechanized boreholes, Small Towns Water System 	<ul style="list-style-type: none"> Support from , DACF, DDF CWSA etc Constituency fund of one million dollars- Infrastructure for Poverty Eradication Programme- (IPEP) 	<ul style="list-style-type: none"> Low water table Poor water facilities management by communities Inadequate funds Poor maintenance culture Failure to pay user-fees Poor performance of Water and Sanitation Management Committees 	<ul style="list-style-type: none"> Spell of drought Absence of aquifer in the rock structure Low water yield Delays in release of funds
Conclusion: Potable water supply is a laudable project. Significant potentials and opportunities exist to support the project. Constraints can be addressed through appropriate strategies and projects design. Challenges can be managed through stakeholders dialogue				
Scattered and unplanned human settlements	<ul style="list-style-type: none"> Existence of Physical Planning Dept. DA support Existence of statutory planning Committee High interest of Traditional authorities 	<ul style="list-style-type: none"> Support from development partners eg. GIZ 	<ul style="list-style-type: none"> Low IGF Lack of bye-laws on estate development Non enforcement of building codes and regulations Lack of planning schemes 	<ul style="list-style-type: none"> Low interest of estate developers
Conclusion: Improving human settlements is a feasible project. Potentials and opportunities exist to support the project. Constraints can be addressed by giving education to the people. Challenges can be overcome through dialogue with estate. Developers, traditional authorities and other development partners.				
Key development issue	Potentials	Opportunities	Constraints	Challenges
High prevalence of open defecation	<ul style="list-style-type: none"> Existence of DWST /WATSAN Availability of toilet facilities Presence of Works Dept and DEHU 	<ul style="list-style-type: none"> DACF and DDF support PPP arrangements Constituency fund of one million dollars 	<ul style="list-style-type: none"> Lack of interest in acquiring household toilets Low investment in toilet facilities Poor maintenance culture 	<ul style="list-style-type: none"> Inadequate/late release of funds
Conclusion: Provision of household and public toilet facilities is a feasible project. Potentials and opportunities exist in the District to support the project. Constraints can be addressed by educating and mobilizing the people. Challenges can be managed through discussions with development partners.				
Key development issue	Potentials	Opportunities	Constraints	Challenges
Gaps in physical access to quality health care	<ul style="list-style-type: none"> Availability of health facilities 	<ul style="list-style-type: none"> Support from DACF, DDF 	<ul style="list-style-type: none"> Inadequate staff and equipment 	<ul style="list-style-type: none"> Delays in posting health staff

	<ul style="list-style-type: none"> • Availability of health staff • Support from BDA 	and NGO <ul style="list-style-type: none"> • One Million dollars constituency fund 	<ul style="list-style-type: none"> • Poor road network • Inadequate health facilities 	<ul style="list-style-type: none"> • Delays in the release of funds
Conclusion: Enhancing access to quality health care is a laudable project. Potentials and opportunities exist to support the project. Constraints can be addressed by mobilizing resources both material and human. Challenges can be overcome through dialogue with the Ministry of Health				
Poor quality of education at all levels	<ul style="list-style-type: none"> • Availability of schools • Existence of SMCs and PTAs • Existence of DEOC • Existence of committed teachers 	<ul style="list-style-type: none"> • Support from , DACF and DDF • Supply of Text books/teaching and learning materials • GETFund Projects 	<ul style="list-style-type: none"> • Teachers refusing postings to rural areas • Long walking distances to school by both pupils and teachers • Inadequate educational facilities • Poor supervision 	<ul style="list-style-type: none"> • Delays in the release of funds • Low interest of parents in education
Youth unemployment and underemployment among rural and urban youth	<ul style="list-style-type: none"> • Existence of GYEEDA • DA support • Existence of banks to offer credit to people to do business 	<ul style="list-style-type: none"> • Government youth employment policy • Support from development partners • Planting for food and jobs programme • One district one factory policy 	<ul style="list-style-type: none"> • High school dropouts • High population growth rate 	<ul style="list-style-type: none"> • Low academic qualification among the youth • Low bank loan recovery rate
Conclusion: Providing jobs/employment for the people is a laudable programme. Potentials and opportunities exist in the district to support the programme. Constraints can be addressed by encouraging the youth to attend school and to perform well. Challenges can be overcome through stakeholders dialogue				
Key development issue	Potentials	Opportunities	Constraints	Challenges
Limited capacity and opportunities for revenue mobilisation	<ul style="list-style-type: none"> • Existence of some data o revenue • Presence of revenue staff • Office space 	<ul style="list-style-type: none"> • Support from DDF • Availability of National Service Personnel 	<ul style="list-style-type: none"> • Inadequate logistics • Poor record keeping by revenue collectors • Inadequate data • Inadequate Tax 	

			education	
			<ul style="list-style-type: none"> • Unwillingness of rate payers to pay tax 	
Conclusion: Enhancing the capacity of revenue mobilization is a laudable idea as it will help the Assembly to mobilize enough revenue to undertake development programmes. Potentials and opportunities exist to support the programme. Constraints can be addressed through capacity building in both training and provision of the needed logistics.				
Ineffective sub-district structures	<ul style="list-style-type: none"> • Existence of members of Area Councils • Available office accommodation , office furniture and computers • Some revenue items ceded to Area Councils • Available of Officers from SW&CD Dept 	<ul style="list-style-type: none"> • Government policy on decentralization 	<ul style="list-style-type: none"> • Not performing their functions efficiently • Inability to collect ceded revenue 	<ul style="list-style-type: none"> • Unwillingness of MLGRD to pay the salaries of staff of the councils
Conclusion: Making the sub-district structures functional is a laudable and viable programme. Potentials and opportunities exist to support the programme. Constraints can be addressed by conducting capacity programmes for them. Challenges can be overcome through continued dialogue together with other districts with the MLGRD on the recruitment and payment of the staff of the councils				

2.4 Preferred Development Option

From the prioritized development issues the district is zoned into three namely;

- 1 The Urban Zone
- 2 The Agriculture Zone
- 3 Agriculture and Ecotourism Zone

The location, characteristics and development interventions of each zone are as shown in the table below:

Table2.7: District Development Zones

Zone	Location	Characteristics	Proposed Development Interventions
Urban Zone	Stretches on the main Kumasi-Kuntanase road	<ul style="list-style-type: none"> • Has the District Capital 	<ul style="list-style-type: none"> • Street Naming and Property

	Communities include Esereso, Esaso, Adagya, Sawuah, Feyiase, Aputuogya, Abidjan Nkwanta, Jachie, Pramso, Kuntanase etc	<ul style="list-style-type: none"> • Contains the largest population • Has the 4 main markets • Contains 2 University Colleges and 2 Public SHS • Has the Regional Hospital-Not completed • Has the District Education Service • Fairly accessible • Newly developed area 	<p>Addressing System</p> <ul style="list-style-type: none"> • Preparation and Revision of Planning Schemes • Construction of Markets • Construction of the Esreso-Kuntanase Lake Road • Extension of Electricity in newly developed areas • Construction of school buildings for overcrowded schools • Improve street lighting system • Promotion of Household toilets • Construction of Toilet Facilities • Improve waste management • Development of Engineered landfill site at Onwe
Agriculture Zone	Boarded on the urban zone Communities in the zone- Tetrefu, Homabenase ,Atobiase, , Akwaduo, Dedesua, Nkwanta, Oyoko, Adunku, Nuaso, Apinkra etc.	<ul style="list-style-type: none"> • Poor road condition • Limited access to potable water • Low toilet facility coverage • Major crop production centres • Has the newly established Community Day SHS • Limited educational infrastructure • Existence of clay, gravel, stone, sand deposits 	<ul style="list-style-type: none"> • Rehabilitation of road network • Extension of Electricity • Construction of school buildings • Improve street lighting system • Construction of Toilet Facilities • Improve access to potable water

Agriculture & Eco-tourism Zone	Communities surrounding the lake-like Abono, Obbo, Anyinatiase, Asuoho-Adwaafo, Pipie, Abaase, Nkowi, Old Brodekwana Communities outside the lake include-Beposo, Amakom, Asisiriwa, Mim, Nyameani etc	<ul style="list-style-type: none"> • Poor road condition • Limited access to potable water • Low toilet facility coverage • Major crop production centres • Has SHS • Limited educational infrastructure • Existence of gold deposit 	<ul style="list-style-type: none"> • Rehabilitation of road network • Extension of Electricity • Construction of school buildings • Improve street lighting system • Construction of Toilet Facilities • Improve access to potable water • Development of Lake Bosomtwe
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Table 2.8: Compatibility Matrix/Internal Consistency

No	Prioritized Issues	Prioritized Issues	Low IGF generation	Low support for LED activities	Inadequate agricultural input, credit and extension services	Deplorable road condition	Inadequate market facilities	Limited access to electricity	Poor Solid waste management	Low water coverage	Haphazard development	Low toilet facility coverage	Inadequate health facilities	Inadequate education infrastructure	Lack of employment skills the youth	Poor performance of sub-district structures	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Low IGF generation			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
2	Low support for LED activities				✓	✓	✓	✓	✓	✓	✓	✓	✓				
3	Inadequate agricultural input, credit and extension services					✓	✓	✓	✓	✓	✓	✓	✓				
4	Deplorable road condition						✓	✓	✓	✓	✓	✓	✓				
5	Inadequate market facilities							✓	✓	✓	✓	✓	✓				
6	Limited access to electricity								✓	✓	✓	✓	✓				
7	Poor Solid waste management									✓	✓	✓	✓				
8	Low water coverage										✓	✓	✓				
9	Haphazard development											✓	✓				

10	Low toilet facility coverage											√				
11	Inadequate health facilities															
12	Inadequate education infrastructure															
13	Lack of employment skills for the youth															
14	Poor performance of sub-district structures															

Table 2.8: Legend

√	Mutually supportive
x	Potential conflicting
0	No significant interaction

CHAPTER THREE

DEVELOPMENT PROJECTIONS, ADOPTED GOALS, OBJECTIVES AND STRATEGIES

3.1 Adoption of Goals, Objectives and Strategies

ECONOMIC DEVELOPMENT

Table 3.1: Goal: Build a Prosperous Society

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
STRONG AND RESILIENT ECONOMY	Revenue under performance due to leakages and loopholes, among others	Ensure improved fiscal performance and sustainability	<u>Enhance Revenue Mobilization</u> <ul style="list-style-type: none"> • Eliminate revenue collection leakages • Diversify sources of resource mobilization
INDUSTRIAL TRANSFORMATION	Severe poverty and underdevelopment among peri-urban and rural communities	Pursue flagship industrial development initiatives	Implement One district, one factory initiative
PRIVATE SECTOR DEVELOPMENT	Tax burden on businesses	Enhance Business Enabling Environment	Conduct periodic review of business regulations to ensure significant reduction in cost and volume of regulatory compliance
	Limited access to credit by SMEs	Support Entrepreneurship and SME Development	<ul style="list-style-type: none"> • Create an entrepreneurial culture, especially among the youth • Tackle the currently poor management of entrepreneurship training infrastructure and facilities across the country
AGRICULTURE AND RURAL DEVELOPMENT	• Poor marketing systems	Promote a demand-driven approach to agricultural development	Develop market support services for selected horticulture, food and industrial crops to enhance production for export
	• Seasonal variability in food supply and prices • Erratic rainfall patterns • Low application of technology especially among smallholder farmers leading to comparatively lower yields	Improve production efficiency and yield	Reinvigorate extension services
	• Poor storage and transportation systems Poor farm-level practices • Low quality and inadequate agriculture infrastructure	Improve Post-Harvest Management	<ul style="list-style-type: none"> • Support selected products beyond the farm gate in post-harvest activities, including storage, transportation, processing, packaging and distribution • Provide support for small- and medium-scale agro-processing enterprises through the One District, One Factory initiative • Facilitate the provision of

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
	<ul style="list-style-type: none"> • Ageing farmer population • Lack of youth interest in agriculture • Lack of credit for agriculture 	Promote agriculture as a viable business among the youth	<p>storage infrastructure with a drying system at the district level and a warehouse receipt system</p> <ul style="list-style-type: none"> • Support youth to go into agricultural enterprise along the value chain • Develop and implement programmes to attract youth into off-farm activities such as handling, processing, packaging and transportation • Provide financial support for youth by linking them to financial institutions for the provision of start-up capital
TOURISM AND CREATIVE ARTS DEVELOPMENT	<ul style="list-style-type: none"> • Poor tourism infrastructure and Service • Low skills development 	Diversify and expand the tourism industry for economic development	<ul style="list-style-type: none"> • Promote public private partnerships for investment in the sector • Promote and enforce local tourism and develop available and potential sites to meet internationally acceptable standards

SOCIAL DEVELOPMENT

Table 3.2: Goal: Create opportunities for all

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
EDUCATION AND TRAINING	<ul style="list-style-type: none"> • Poor quality of education at all levels • High number of untrained teachers at the basic level • Teacher absenteeism and low levels of commitment 	1.1 Enhance inclusive and equitable access to, and participation in quality education at all levels	Expand infrastructure and facilities at all levels
HEALTH AND HEALTH SERVICES	<ul style="list-style-type: none"> • Gaps in physical access to quality health care • Poor quality of healthcare services 	Ensure affordable, equitable, easily accessible and Universal Health Coverage (UHC)	<ul style="list-style-type: none"> • Accelerate implementation of Community-based Health Planning and Services (CHPS) policy to ensure equity in access to quality health care • Expand and equip health facilities
	<ul style="list-style-type: none"> • High stigmatization and discrimination of HIV and AIDs • Lack of comprehensive knowledge of HIV and AIDS/STIs, especially among the vulnerable groups • High incidence of HIV and AIDS among young persons 	Ensure the reduction of new HIV and AIDS/STIs infections, especially among the vulnerable groups	<ul style="list-style-type: none"> • Expand and intensify HIV Counselling and Testing (HTC) programmes • Intensify education to reduce stigmatization • Intensify efforts to eliminate mother to child transmission of HIV (MTCTHIV)

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
	<ul style="list-style-type: none"> Periodic shortages of HIV& AIDS commodities (ARV's, Test Kits, Condoms) 		
WATER AND SANITATION	<ul style="list-style-type: none"> Poor agricultural practices which affect water quality Improper protection and development of water resources 	Promote sustainable water resource development and management	<ul style="list-style-type: none"> Promote efficient water use Improve liquid and solid waste management Undertake tree planting along the banks of all major water bodies and their tributaries to reduce silting and pollution from human activities.
	<ul style="list-style-type: none"> Increasing demand for household water supply Inadequate maintenance of facilities Unsustainable construction of boreholes and wells Inadequate access to water services in urban areas 	Improve access to safe and reliable water supply services for all	<ul style="list-style-type: none"> Provide mechanized borehole and small town water systems Implement public-private partnership policy as alternative source of funding for water services delivery Revise and facilitate DWSPs within MMDAs
	<ul style="list-style-type: none"> High prevalence of open defecation Poor sanitation and waste management Low level of investment in sanitation sector Poor hygiene practices 	Improve access to improved and reliable environmental sanitation services	<ul style="list-style-type: none"> Create space for private sector participation in the provision of sanitation services Promote National Total Sanitation Campaign Implement the "Toilet for All" and "Water for All" programmes under the IPEP initiative Review, gazette and enforce MMDAs' bye-laws on sanitation
SOCIAL PROTECTION	<ul style="list-style-type: none"> Inadequate and limited coverage of social protection programmes for vulnerable groups Lack of sustainable funding 	Strengthen social protection, especially for children, women, persons with disability and the elderly	<ul style="list-style-type: none"> Mainstream social protection into sector plans and budgets Strengthen and effectively implement existing social protection intervention programmes and expand their coverage to include all vulnerable groups Strengthen education and awareness against stigma, abuse, discrimination, and harassment of the vulnerable Promote viable and sustainable economic livelihood schemes for the vulnerable including fishers
DISABILITY AND DEVELOPMENT	<ul style="list-style-type: none"> Inadequate opportunities for persons with disabilities to contribute to society 	Promote full participation of PWDs in social and economic development of the country	<ul style="list-style-type: none"> Ensure effective implementation of the 3 percent increase in District Assemblies Common Fund disbursements to PWDs Create avenues for PWD to acquire credit or capital for self

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
EMPLOYMENT AND DECENT WORK	<ul style="list-style-type: none"> Inadequate infrastructure and services for the informal sector 	Promote the creation of decent jobs	<ul style="list-style-type: none"> Develop and implement tailored business sector support services to business units Strengthen cooperative system for the development of business-oriented ventures
YOUTH DEVELOPMENT	<ul style="list-style-type: none"> Youth unemployment and underemployment among rural and urban youth 	Promote effective participation of the youth in socioeconomic development	<ul style="list-style-type: none"> Build the capacity of the youth to discover opportunities Ensure the creation of youth desk in MMDAs for the youth to access reliable labour market information Build integrated youth centres in all districts to serve as an information hub for youth development Improve quality and access to post basic education skills training Develop and implement apprenticeship and employable skill training for out-of-school youth and graduates Facilitate access to credit for the youth

ENVIRONMENT, INFRASTRUCTURE AND HUMAN SETTLEMENTS

Table 3.3: Goal: Safeguard the natural environment and ensure a resilient built environment

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
PROTECTED AREAS	<ul style="list-style-type: none"> Illegal farming and harvesting of plantation timber Forest fires 	Protect existing forest reserves	<ul style="list-style-type: none"> Enhance capacity of MDAs and MMDAs to mainstream biodiversity into development planning and budgeting processes Strengthen involvement of local communities in the management of forests and wetlands through mechanisms such as co-management systems Strengthen environmental governance and enforcement of environmental regulations
ENVIRONMENTAL POLLUTION	<ul style="list-style-type: none"> Improper disposal of solid and liquid waste Inadequate engineered landfill sites and waste water treatment plants 	Reduce environmental pollution	<ul style="list-style-type: none"> Promote science and technology in waste recycling and waste-to-energy technologies Promote the use of environmentally friendly methods and products
CLIMATE VARIABILITY AND CHANGE	<ul style="list-style-type: none"> Low economic capacity to adapt to climate change Low institutional capacity to adapt to climate change and undertake mitigation actions 	Enhance climate change resilience	<ul style="list-style-type: none"> Develop climate resilient crop cultivars and animal breeds Promote and document improved climate smart indigenous agricultural knowledge

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
DISASTER MANAGEMENT	<ul style="list-style-type: none"> •Weak legal and policy frameworks for disaster prevention, preparedness and response 	Promote proactive planning for disaster prevention and mitigation	<ul style="list-style-type: none"> • Educate public and private institutions on natural and man-made hazards and disaster risk reduction <p>Strengthen the capacity of the National Disaster Management Organisation (NADMO) to perform its functions effectively</p>
TRANSPORT INFRASTRUCTURE: ROAD, RAIL, WATER AND AIR	<ul style="list-style-type: none"> •Poor quality and inadequate road transport network •Inadequate investment in road transport infrastructure provision and maintenance 	Improve efficiency and effectiveness of road transport infrastructure and services	<ul style="list-style-type: none"> • Provide bitumen surface for road networks in district capitals and areas of high agricultural production and tourism. • Expand and maintain the national road network
ENERGY AND PETROLEUM	<ul style="list-style-type: none"> •Inadequate infrastructure to support the delivery of energy services 	Ensure availability of, clean, affordable and accessible energy	<ul style="list-style-type: none"> • Promote the use of gas as the primary fuel for power generation
DRAINAGE AND FLOOD CONTROL	<ul style="list-style-type: none"> •Poor drainage system •Silt and choking of drains •Uncovered drains 	Address recurrent devastating floods	<ul style="list-style-type: none"> • Intensify public education on indiscriminate disposal of waste • Prepare and implement adequate drainage plans for all MMDAs
INFRASTRUCTURE MAINTENANCE	<ul style="list-style-type: none"> •Poor and inadequate maintenance of infrastructure 	Promote proper maintenance culture	<ul style="list-style-type: none"> • Establish timely and effective preventive maintenance plan for all public infrastructure • Build capacity to ensure requisite skills for infrastructure maintenance
HUMAN SETTLEMENTS AND HOUSING	<ul style="list-style-type: none"> •Disparities in access to infrastructure and service provision between urban and rural settlements •Weak enforcement of planning and building regulations •Inadequate spatial plans for regions and MMDAs •Inadequate human and institutional capacities for land use planning •Scattered and unplanned human settlements 	Promote a sustainable, spatially integrated, balanced and orderly development of human settlements	<ul style="list-style-type: none"> • Ensure proper urban and landscape design and implementation • Ensure institutional, technological and legal reforms in support of land use planning • Strengthen the human and institutional capacities for effective land use planning and management nationwide
RURAL DEVELOPMENT	<ul style="list-style-type: none"> •Poor and inadequate rural infrastructure and services 	Enhance quality of life in rural areas	Provide basic infrastructure such as potable water, sanitation, electricity, road networks, schools, health facilities, low-cost housing.

GOVERNANCE, CORRUPTION AND PUBLIC ACCOUNTABILITY

Table 3.4: Goal: Maintain a stable, united and safe society

FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
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FOCUS AREA	ISSUES	KEY POLICY OBJECTIVES	STRATEGIES
LOCAL GOVERNMENT AND DECENTRALISATION	<ul style="list-style-type: none"> • Ineffective sub-district structures • Poor service delivery at the local level • Weak capacity of local governance practitioners 	Deepen political and administrative decentralization	Complete the establishment of the departments of the MMDAs Strengthen sub-district structures
HUMAN SECURITY AND PUBLIC SAFETY	Inadequate and poor quality equipment and infrastructure	Enhance security service delivery	Transform security services into a world class security institution with modern infrastructure, including accommodation, health and training infrastructure
	<ul style="list-style-type: none"> • Limited capacity and opportunities for revenue mobilisation • Implementation of unplanned expenditures • Interference in utilization of statutory funds allocation • Inadequate and delays in central government transfers 	Strengthen fiscal decentralization	<ul style="list-style-type: none"> • Enhance revenue mobilization capacity and capability of MMDAs • Strengthen PPPs in IGF mobilization • Improve service delivery at the MMDA level

3.2 Development Prospects for 2018 – 2021 Period

The prospects and framework set the overall scope for future development efforts. Areas, which have been covered, include population projections, infrastructural and social needs (educational, health and water).

Development Projections for 2018-2021

Projections have been made for the plan period to set the overall scope for the future development effort of the district, with much emphasis on population, education and agriculture and their implications for development. With the 3.47 % population growth rate projection for the four (4) year period, the following variables have been considered.

P_1 = Current population

P_0 = Previous population

r = Rate of Growth

t = Time in years

e = Exponent

Male = 47.5% of the population

Female = 52.5% of the population

Population Projections

The issue of population is very crucial; this is because population is the determinant and consequence of development. Human resources and needs vary according to the size,

composition and distribution of the population. This is why demographic data needs to be updated for future estimates. Projecting the population therefore is the tool and the fundamental basis for development planning.

Assumptions made to ensure good basis for the projection are that:

- The ratio of the district population will grow at a constant rate throughout the plan period, and
- Migration rate in the district will be insignificant

Using the 2010 population as the base year and 3.47 percent annual growth rate of the district population, the 2018 and 2021 total population for the district is estimated at 123,255 and 136,502 respectively.

Table 3.5: Projected District Population (2018-2021)

Year	2018		2019		2020		2021	
Total	123,265		127,528		131,939		136,502	
	Male	Female	Male	Female	Male	Female	Male	Female
	58,797	64,468	60,831	66,697	62,935	69,004	65,111	71,391

Source: District Planning Co-ordinating Unit (August, 2017)

The data above shows the population projections for the four (4) years ending 2021. The high population growth rate has implications on population dynamics, the district development, food production and security, environment and socio-economic needs among others. There is therefore the need to make realistic forecast so as to be able to meet future developmental needs towards promoting sustainable development in the municipality. The projected population of twenty major settlements in the district, using the 2010 figures as the base year is shown in table

Table 3.6: Projected Population for Twenty (20) Major Settlements in the District

Communities	2010	2018*	2019*	2020*	2021*
Esreso	8,150	10957	11370	11799	12244
Jachie	7,,337	9864	10236	10622	11022
Feyiase	5,961	8014	8316	8630	8955

Aputuogya	5,414	7279	7553	7838	8133
Kuntanase	3,583	4817	4999	5187	5383
Adagya	3,261	4384	4550	4721	4899
Pramso	3,259	4382	4547	4718	4896
Abuontem	3,132	4211	4370	4534	4705
Sawuah	3,119	4193	4351	4515	4686
Esaso	2,826	3799	3943	4091	4246
New Brodekwano	2,322	3122	3240	3362	3488
Pranyase	1,990	2675	2776	2881	2990
Piase	1,866	2509	2603	2701	2803
Aduaben	1,665	2239	2323	2410	2501
Nyameani	1,608	2162	2243	2328	2416
Abidjan Nkwanta	1,587	2134	2214	2298	2384
Abrankese- Swedru	1,580	2124	2204	2287	2374
Asisiriwa	1,559	2096	2175	2257	2342
Beposo	1,353	1819	1888	1959	2033

Source: DPCU Projections, 2017

*Projected Population

Threshold Population for Services (Standards)

The threshold population for services is as shown in the table below:

Table 3.7: Threshold Population for Services (Standards)

District Central Hospital	30,000
Health Centre	10,000
Health Post/CHPS Compound	5,000
Water point (borehole/well/pipe)	300
Hand-dug well	150
KVIP	400 : 50 persons per squat hole
VIP	8 persons squat hole
WC	8 persons per squat hole
Nursery/Primary/J.H.S.	2,000
S.H.S./Vocational	30,000
Police Station	20,000
Bank	70,000
Post Office	70,000
Postal Agency	3,000
Circuit Court	50,000

The service needs for the medium term are presented in the table below

Table 3.8: Projection of Service Needs (2018-2021)

Service	Existing (2018-2021)			
	TN	ES	BL	Remarks
Nursery/Kindergarten	68	139		Need 3 No. 3-Unit KG Block with Ancillary Facilities
Primary	68	143		Need 11 No. 6-Unit Classroom Block with Ancillary Facilities
J.H.S	68	117		Need 6 No. 3-Unit Classroom Block with Ancillary Facilities
S.H.S	4	3	1	Jachie Pramso SHS Needs additional dormitory
Hospital	4	4	0	Needs upgrading to a District Hospital status
Health Centre/clinics	13	6	7	7 health facilities need to be constructed
Health Post/CHPS	27	7	20	Need construction of 6 CHPS compound and Provision of Equipment
Police Post	7	4	3	Need 6 police post and 1 Police Barracks
Potable water Points	455	196	259	Need 13 Drilled and Mechanized boreholes
Sanitation toilet	2730 squat holes	582 squat holes	2148 squat holes	Need construction of 29 No. 12 Aqua Privy Toilet

Source: Authors Construct, 2017

Table 3.9: Sustainability Matrix

Major Environmental Concerns	Natural Resources						Socio-cultural Issues						Economic Issues				Institutional Issues							
Major Environmental Concerns/Issues Policy Objectives	Illegal mining activities	Deforestation through illegal felling & charcoal production	Illegal Sand winning activities	Pollution of water bodies	Poor waste management	Climate Change	Continuous spread of HIV/AIDS	Teenage pregnancy & school dropouts	High poverty levels of some	Land and chieftaincy disputes	Local Participation in	Disabilities and vulnerable groups	Attainment of the SDGs	Unemployment especially among the youth	Poor road network (especially to hinterlands)	Limited Access to credit facilities	Underdeveloped tourist sites	Slow local economic growth	Low participation of women in Local governance	Ineffective sub-district structures	Non-enforcement of by-laws	Capacity issues of Assembly Offices	Inconsistent stakeholder	Low Public-Private Partnerships
Enhanced inclusive and Equitable access to and participation in quality education at all levels	+	-	-	0	0	0	+	+	+	0	+	0	+	+	0/+	0	0	+	+	+	+	+	0	0 / +
Ensure affordable, equitable, easily accessible and universal health coverage (UHC)	0	-	-	0	0	0	+	+	+	0	0	+	+	0	0	0	0	+	0	0	0	0	0	+
Improve access to safe and reliable water supply services for all	0	-	-	+	+	+	0	0	+	0	+	0	+	+	0	0	+	0/+	0	0	+	0	0	+
Improve efficiency and effectiveness of road transport infrastructure and services	0	-	0	0	0	0 / -	0	0	+	0	0 / +	- / +	0 / +	0 / +	+	0	+	+	0	0 / -	0	0	0 / +	0 / +

Promote the creation of decent jobs	+	+	0 / +	0	0	0	0 / +	0 / +	+	0	+	0 / +	+	+	0	0 / +	0 / +	+	0	0	0	0	0 / +	0 / +
Improve post-harvest management	0	–	0	0 / -	0	– / +	0	0 / –	+	0 / -	+	0	+	+	0 / +	+	0	+	0	0	0	0	0 / +	0 / +
Promote a sustainable, spatially integrated, balanced and orderly development of human settlements	0 / +	0 / +	0 / +	0 / ?	+	0 / +	0	0	0	+	+	0	+	0	0 / +	0	0 / +	+	0	0 / +	+	0	0 / +	0
Ensure availability of, clean, affordable and accessible energy	0	0	0	0	0	0	0	0 / ?	0 / +	0	0 / +	0	0 / +	+	0	0	+	+	0	+	0	+	0	+
Diversify and expand the tourism industry for economic development	0	0 / +	0 / -	+	0 / +	0	0 / -	0 / -	0 / +	0 / ?	+	0	0 / ?	0 / +	0 / +	0	+	+	0	0	0 / +	0	0	+
Deepen political and administrative decentralisation	0	0 / -	0 / -	0	0	0	0	0	0 / +	0 / +	+	0 / +	+	0	0	0	0	0 / +	+	+	+	+	+	+
Improve access to improve and reliable environmental sanitation services																								
Promote effective participation of the youth in socio-economic development																								
Enhance quality of life in rural areas																								
Strengthen fiscal decentralisation																								

3.3 Compound Matrix: Record Sheet

Description of Policy under review: Enhanced inclusive and equitable access to and participation in quality education at all levels

Table 3.10: Record Sheet for Enhanced inclusive and equitable access to and participation in quality education at all levels

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities	Implementing this policy objective would in the long run give employable skills to the youth who would otherwise be engaged in activities such as illegal mining.	+
Deforestation illegal felling & charcoal production	In the quest to make educational facilities more available and easily accessible to all within the Municipality, more classroom blocks would be constructed, which would also affect impact adversely on the vegetation in those project sites	-
Sand winning activities	Sand is required for the construction of educational facilities, hence the pursued of this policy objective would imply an increase in sand wining activities	-
Protection of water bodies	The policy would have no direct interaction or effect on water bodies	0
Pollution and waste management	Pursuant of this policy would have no direct relevance on pollution & waste management	0
Climate Change	Implementation of this policy would not direct impact on climate change	0
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS	Education in all forms brings about increased in knowledge and self awareness, thus make education accessible to all is a tool for combating the spread of HIV/AIDS, especially when sex education and HIV/AIDS campaigns are organised in schools	+
Teenage pregnancy and school dropouts	Strategising to promote increase participation in schools would help curb the rate of school drop outs as a result of teenage pregnancies and other factors such as inaccessibility to educational facilities (because of distance & financial constraints)	+
High poverty levels of some households	The concept of poverty is inversely related to education and skills development, and the ability to work and earn income. Thus promoting increase access and participation in education would in the long run have a positive impact on household poverty levels	+
Land and chieftaincy disputes	The Policy has no direct linkage to land and chieftaincy disputes	0
Local Participation in development	Education, especially non-formal education, creates awareness at the local level and increases peoples sense of responsibility to participate and contribute to development	+

Disabilities and vulnerable groups	The Policy has no direct effect on disabilities and vulnerable groups	0
Attainment of the MDGs	The policy objective directly and firmly agrees with the second MDG – “Achieve Universal Primary Education”. It also relates to the other MDGs indirectly; thus implementing this policy would assist in the attainment of the MDGs	+
ECONOMIC ISSUES		
Unemployment especially among the youth	Education and skill development would in the long run, equip the youth with employable skills, with which to seek jobs or set up employment entities of their own	+
Poor road network (especially to hinterlands)	The policy has no direct linkage to this environmental concern, however, making education accessible to all embeds a whole lot, including the improvement of linking roads to communities with educational facilities, in order to ensure easy spatial access	0/+
Limited Access to credit facilities	The policy has no direct relevance to the making credit facilities accessible	0
Underdeveloped tourist sites	Education policy has no direct linkage to developing tourism sites	0
Slow economic growth	Education is the key to developing a vibrant human resource base, which would manned the various sectors of the economy, to promote socio-economic growth	+
INSTITUTIONAL		
Low participation of women in Local governance	Encouraging girl child participation in education and making it accessible to them would in the long term develop their leadership skills and increase in them the desire to take up positions within the local government setup and other areas	+
Ineffective sub-district structures	Education is very relevant to making sub-district structures function effectively	+
Non-enforcement of bylaws	Some by-laws are difficult to enforce because of lack of education, illiteracy and ignorance among some people. Education is thus a vital platform to enhance the enforcement of by-laws	+
Capacity issues of Assembly Offices and Departments	Education and skill development play an important role to getting the required human resource bases for the local government offices. Also in-service education and training is required to building capacities and making offices abreast with current trends	+
Inconsistent stakeholder collaboration		0

	The policy has no direct interaction with the level of stakeholder collaboration	
Low Public-Private Partnerships	The Policy has no direct bearing on this issue, however there the quest for increase access to education is a joint venture of the public and private sectors, thus Public-Private Partnerships can be promoted in the pursuant of this policy objective	0/+

COMPOUND MATRIX: RECORD SHEET

No: 2

Description of Policy under review: Ensure affordable, equitable, easily accessible and universal health coverage (UHC)

Table 3.11: Record Sheet for Ensure affordable, equitable, easily accessible and universal health coverage (UHC)

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities	The policy has no direct relevance on curbing illegal mining or otherwise	0
Deforestation illegal felling & charcoal production	Deforestation can result, if the provision of health facilities does not take cognisance of the vegetation cover, especially in the construction of entire new facilities in new sites, where trees have to be pulled down	—
Sand winning activities	Sand winning activities would be on the increase as the raw material is required for the construction of new health facilities	—
Protection of water bodies	The policy has no direct linkage or relevance with water bodies	0
Pollution and waste management	Provision of health services has no direct interaction with pollution & waste management	0
Climate Change	The policy has no direct relation with climate change	0
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS	Increase access to health care/services in its totality would also take care of HIV/AIDS issues and how to combat the spread of the disease	+
Teenage pregnancy and school dropouts	The policy has no direct relevance with teenage pregnancy	0
High poverty levels of some households	Ill health contributes to the poverty levels of households. Thus making health services accessible to especially the vulnerable groups would upgrade their living status and also give them the required manpower to work in order to earn income	+

Land and chieftaincy disputes	Bridging equity gaps in health care has no direct relation with Land & chieftaincy disputes	0
Local Participation in development	The Policy has no correlation with enhance local participation in development	0
Disabilities and vulnerable groups	Bridging the equity gaps in health care, especially for the poor, would a long way to enhance the welfare and wellbeing of the disabled and vulnerable groups	+
Attainment of the MDGs	MDGs 4, 5 & 6 relate directly to health improvement, thus the policy objective would directly impact on the health status of the people and enhance the achievement of these MDGs, among others	+
ECONOMIC ISSUES		
Unemployment especially among the youth	The Policy has no direct linkage with the unemployment situation of the youth	0
Poor road network (especially to hinterlands)	The policy has no direct relation with road surface condition or network situation	0
Limited Access to credit facilities	Improving health care for all has no relation with the availability or otherwise of credit facilities	0
Underdeveloped tourist sites	The Policy objective has no interaction with the state of tourism sites in the Municipality	0
Slow economic growth	Improving the health status of the people by bridging the equity gaps is a vital ingredient for enhancing a productive human resource base, which would translate in economic growth, through the wealth creation activities that they engage in	+
INSTITUTIONAL		
Low participation of women in Local governance	The Policy has no direct bearing on women participation in local governance	0
Ineffective sub-district structures	The policy has no direct interaction with this environmental concern	0
Non-enforcement of bylaws	The policy has no direct linkage with the enforcement of by-laws in the Municipality or otherwise	0

Capacity issues of Municipal Assembly Offices and Departments	The policy has no direct linkage to this issue	0
Inconsistent stakeholder collaboration	The policy is not directly linked to stakeholder collaboration	0
Low Public-Private Partnerships	Bridging the equity gaps in health care would required the joint efforts of both the public and private sectors; thus pursuant of this policy objective would imply the implementation of public-private partnership programmes in health care delivery or services	+

COMPOUND MATRIX: RECORD SHEET

No: 3

Description of Policy under review: Improve access to safe and reliable water supply services for all

Table 3.12: Record Sheet for Improve access to safe and reliable water supply services for all

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities	The policy has no direct correlation with illegal mining activities	0
Deforestation illegal felling & charcoal production	Provision of more water and sanitation facilities, through construction activities would have direct effect on the vegetation at the sites used	—
Sand winning activities	Provision of more water and sanitation facilities, through construction activities would imply increase in sand winning activities for construction of new structures	—
Protection of water bodies	Accelerating the provision of safe water would reduce human activities on water bodies in the municipality; also when sanitation is enhanced, water bodies would be protected	+
Pollution and waste management	The policy objective is directly related to managing waste & pollution in the Municipality	+
Climate Change	Improvement in environmental sanitation, especially by controlling pollution, would positively impact on climate change	+
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS	The Policy Objective has no direct relation with the HIV/AIDS pandemic	0
Teenage pregnancy and school	The policy has no direct linkage with teenage pregnancy and school dropouts	0

dropouts		
High poverty levels of some households	The lack of potable water and sanitary facilities compounds the poverty levels of some households, hence provision of these facilities at affordable cost would improve their living conditions	+
Land and chieftaincy disputes	The policy has no relation with Land and Chieftaincy disputes	0
Local Participation in development	Since water and sanitation are basic requirements of communities, the provision of these facilities in various areas would also add to enhancing local participation in development, especially in the cases where the project become self-help initiated	+
Disabilities and vulnerable groups	The policy has no direct interaction with the condition/situation of disabilities and vulnerable groups	0
Attainment of the MDGs	Since a lot of the MDGs relate to health and poverty alleviation, the Policy is in direct response to these goals and would contribute positively their achievement, especially MDG 7, which has to do with ensuring environmental sustainability	+
ECONOMIC ISSUES		
Unemployment especially among the youth	The quest for promoting environmental sanitation can be tackled properly by having the youth employed in sanitation activities, thus whilst pursuing this policy, it can be an avenue for job creation for the youth	+
Poor road network (especially to hinterlands)	The policy has no direct relation with the road network situation in the Municipality	0
Limited Access to credit facilities	The Policy has no direct linkage with the availability or otherwise of credit facilities	0
Underdeveloped tourist sites	The development of water and sanitation facilities especially in historic communities would have an added advantage of enhancing the tourism potentials in those areas	+
Slow economic growth	The policy has very little direct significance on economic growth, yet indirectly the availability of such basic facilities would enhance peoples productivity, leading to injection of some pace in the growth of the local economy	0/+
INSTITUTIONAL		
Low participation of women in Local governance	The policy has no direct relevance on women participation in local governance	0

Ineffective sub-district structures	The policy has direct bearing on the functionality of sub-district structures	0
Non-enforcement of bylaws	When sanitation and water facilities, among others are provided in communities, it would give the impetus for the Assembly and Traditional Authorities to enforce such bylaws relating to environmental sanitation and usage of water bodies	+
Capacity issues of Municipal Assembly Offices and Departments	The policy has no direct correlation to the capacity issues of Offices	0
Inconsistent stakeholder collaboration	The policy is not directly related to stakeholder collaboration in development	0
Low Public-Private Partnerships	The pursued of this policy objective would also imply the involvement of both public and private sectors in the provision of such facilities, hence an add-up to promoting Public-Private Partnerships in the Municipality	+

COMPOUND MATRIX: RECORD SHEET

No: 4

Description of Policy under review: Ensure Improve efficiency and effectiveness of road transport infrastructure and services

Table 3.13: Record Sheet for Ensure Improve efficiency and effectiveness of road transport infrastructure and services

NATURAL RESOURCES	REASONS	SCORE
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Illegal mining activities		0
Deforestation illegal felling & charcoal production		—
Sand winning activities		0
Protection of water bodies		0
Pollution and waste management		0
Climate Change		0/-
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS		0
Teenage pregnancy and school dropouts		0
High poverty levels of some households		+
Land and chieftaincy disputes		0
Local Participation in development		0/+
Disabilities and vulnerable groups		-/+
Attainment of the MDGs		0/+
ECONOMIC ISSUES		
Unemployment especially among the youth		0/+

Poor road network (especially to hinterlands)		+
Limited Access to credit facilities		0
Underdeveloped tourist sites		+
Slow economic growth		+
INSTITUTIONAL		
Low participation of women in Local governance		0
Ineffective sub-district structures		0/-
Non-enforcement of bylaws		0
Capacity issues of Municipal Assembly Offices and Departments		0
Inconsistent stakeholder collaboration		0/+
Low Public-Private Partnerships		0/+

COMPOUND MATRIX: RECORD SHEET

No: 5

Description of Policy under review: Promote the creation of decent jobs

Table 3.14: Record Sheet for Promote the creation of decent jobs

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities		+
Deforestation illegal felling & charcoal production		+
Sand winning activities		0/+
Protection of water bodies		0
Pollution and waste management		0
Climate Change		0
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS		0/+
Teenage pregnancy and school dropouts		0/+
High poverty levels of some households		+
Land and chieftaincy disputes		0
Local Participation in development		+
Disabilities and vulnerable groups		0/+
Attainment of the MDGs		+
ECONOMIC ISSUES		
Unemployment especially among the youth		+
Poor road network (especially to hinterlands)		0
Limited Access to credit facilities		0/+

Underdeveloped tourist sites		0/+
Slow economic growth		+
INSTITUTIONAL		
Low participation of women in Local governance		0
Ineffective sub-district structures		0
Non-enforcement of bylaws		0
Capacity issues of Municipal Assembly Offices and Departments		0
Inconsistent stakeholder collaboration		0/+
Low Public-Private Partnerships		0/+

COMPOUND MATRIX: RECORD SHEET

No: 6

Description of Policy under review: Improve post-harvest management

Table 3.15: Record Sheet for Improve post-harvest management

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities		0
Deforestation illegal felling & charcoal production		—
Sand winning activities		0
Protection of water bodies		0/-
Pollution and waste management		0
Climate Change		-/+

SOCIO-CULTURAL		
Continuous spread of HIV/AIDS		0
Teenage pregnancy and school dropouts		0/-
High poverty levels of some households		+
Land and chieftaincy disputes		0/-
Local Participation in development		+
Disabilities and vulnerable groups		0
Attainment of the MDGs		+
ECONOMIC ISSUES		
Unemployment especially among the youth		+
Poor road network (especially to hinterlands)		0/+
Limited Access to credit facilities		+
Underdeveloped tourist sites		0
Slow economic growth		+
INSTITUTIONAL		
Low participation of women in Local governance		0
Ineffective sub-district structures		0

Non-enforcement of bylaws		0
Capacity issues of Municipal Assembly Offices and Departments		0
Inconsistent stakeholder collaboration		0/+
Low Public-Private Partnerships		0/+

COMPOUND MATRIX: RECORD SHEET

No: 7

Description of Policy under review: Promote a sustainable, spatially integrated, balanced and orderly development of human settlements

Table 3.16: Record Sheet for Promote a sustainable, spatially integrated, balanced and orderly development of human settlements

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities		0/+
Deforestation illegal felling & charcoal production		0/+
Sand winning activities		0/+
Protection of water bodies		0/?
Pollution and waste management		+
Climate Change		0/+
SOCIO-CULTURAL		

Continuous spread of HIV/AIDS		0
Teenage pregnancy and school dropouts		0
High poverty levels of some households		0
Land and chieftaincy disputes		+
Local Participation in development		+
Disabilities and vulnerable groups		0
Attainment of the MDGs		+
ECONOMIC ISSUES		
Unemployment especially among the youth		0
Poor road network (especially to hinterlands)		0/+
Limited Access to credit facilities		0
Underdeveloped tourist sites		0/+
Slow economic growth		+
INSTITUTIONAL		
Low participation of women in		

Local governance		0
Ineffective sub-district structures		0/+
Non-enforcement of bylaws		+
Capacity issues of Municipal Assembly Offices and Departments		0
Inconsistent stakeholder collaboration		0/+
Low Public-Private Partnerships		0

COMPOUND MATRIX: RECORD SHEET

No: 8

Description of Policy under review: Ensure availability of, clean, affordable and accessible energy

Table 3.17: Record Sheet for Ensure availability of, clean, affordable and accessible energy

NATURAL RESOURCES	REASONS	SCORE
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Illegal mining activities		0
Deforestation illegal felling & charcoal production		0
Sand winning activities		0
Protection of water bodies		0
Pollution and waste management		0
Climate Change		0
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS		0
Teenage pregnancy and school dropouts		0/?
High poverty levels of some households		0/+
Land and chieftaincy disputes		0
Local Participation in development		0/+
Disabilities and vulnerable groups		0
Attainment of the MDGs		0/+
ECONOMIC ISSUES		
Unemployment especially among the youth		+
Poor road network (especially to hinterlands)		0
Limited Access to credit facilities		0

Underdeveloped tourist sites		+
Slow economic growth		+
INSTITUTIONAL		
Low participation of women in Local governance		0
Ineffective sub-district structures		+
Non-enforcement of bylaws		0
Capacity issues of Municipal Assembly Offices and Departments		+
Inconsistent stakeholder collaboration		0
Low Public-Private Partnerships		+

COMPOUND MATRIX: RECORD SHEET

No: 9

Description of Policy under review: Diversify and expand the tourism industry for economic development

Table 3.18: Record Sheet for Diversify and expand the tourism industry for economic development

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities		0
Deforestation illegal felling & charcoal production		0/+
Sand winning activities		0/-
Protection of water bodies		+
Pollution and waste management		0/+
Climate Change		0
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS		0/-
Teenage pregnancy and school dropouts		0/-
High poverty levels of some households		0/+
Land and chieftaincy disputes		0/?
Local Participation in development		+
Disabilities and vulnerable groups		0
Attainment of the MDGs		0/?
ECONOMIC ISSUES		
Unemployment especially among the youth		0/+
Poor road network (especially to hinterlands)		0/+
Limited Access to credit facilities		

		0
Underdeveloped tourist sites		+
Slow economic growth		+
INSTITUTIONAL		
Low participation of women in Local governance		0
Ineffective sub-district structures		0
Non-enforcement of bylaws		0/+
Capacity issues of Municipal Assembly Offices and Departments		0
Inconsistent stakeholder collaboration		0
Low Public-Private Partnerships		+

COMPOUND MATRIX: RECORD SHEET

No: 10

Description of Policy under review: Deepen political and administrative decentralization

Table 3.19: Record Sheet for Deepen political and administrative decentralization

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities	The policy has no direct bearing on the situation of illegal mining activities	0
Deforestation illegal felling & charcoal production	The policy objective has little significance on deforestation, however in the case of construction activities, as a result of providing office accommodation for decentralised local government structures, the vegetation of sites used would be negatively affected	0/-
Sand winning activities	Again, no significant relation with this concern, yet construction activities would required sand, which would contribute to increased sand winning activities	0/-
Protection of water bodies	The policy has no direct linkage to the protection of water bodies	0
Pollution and waste management	The policy has no direct relation to enhancing pollution and waste management	0
Climate Change	The Policy has no direct way of impacting on the climate	0
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS	The policy objective is not directly related to the spread of the HIV/AIDS pandemic or otherwise	0
Teenage pregnancy and school dropouts	The policy has no direct relation with teenage pregnancy and school dropouts	0
High poverty levels of some households	The policy has very little direct significance on this concern, however, good local governance is a tool for identifying and resolving such problems as poverty at the grassroots level	0/+
Land and chieftaincy disputes	Though local governance may not direct impact on this concern, it is an essential tool for understanding the local dynamics of such disputes and thus addressing them	0/+
Local Participation in development	The policy is in direct agreement with this concern, in that, effective implementation of the Act would enhance local participation in governance and development	+
Disabilities and vulnerable groups	There is little significance between the policy and this concern, however, implementing the Act to the letter, would ensure that the disabled and vulnerable groups are provided for	0/+
Attainment of the MDGs	The attainment of all MDGs largely depend on the governance structure, especially at the local levels, thus the policy if effective implemented would contribute to the attainment of the MDGs, especially MDG * - developing a global partnership for development	+
ECONOMIC ISSUES		
Unemployment especially among the youth	The policy has very little significance on this economic concern of the Municipality	0

Poor road network (especially to hinterlands)	The policy has no direct linkage with the condition of road network	0
Limited Access to credit facilities	The policy objective has no direct relation with the availability of credit facilities	0
Underdeveloped tourist sites	The policy is not directly in consonance with the development of tourism sites	0
Slow economic growth	Though there is little significance of the policy on this economic concern, it is also imperative that good governance prevails to promote local economic development in the Municipality	0/+
INSTITUTIONAL		
Low participation of women in Local governance	Effective implementation of the Local Government Act would create the enabling environment to motivate and encourage women to participate in the governance structure	+
Ineffective sub-district structures	When the Local Government Act is efficiently implemented, the functionality of the sub-district structures would be enhanced	+
Non-enforcement of bylaws	Effective implementation of the Local Government Act to the letter would have the resultant advantage of ensuring that all bylaws also appropriately enforced to support the governance structure	+
Capacity issues of Municipal Assembly Offices and Departments	The policy is direct related to the capacity issues of the Municipal Assembly and Departmental Offices, such that for the Act to be effectively implemented, the offices must be strengthened in every area	+
Inconsistent stakeholder collaboration	Again, since the Local Government Act is holistic, and involves the participation of all stakeholders, its effective implementation would help resolve the inconsistencies in stakeholder collaboration	+
Low Public-Private Partnerships	To effectively implement the Act, it equally requires the partnership of Public and Private Sectors, thus the policy would	+

Description of Policy under review: Improve access to improve and reliable environmental sanitation services

Table 3.20: Record Sheet for Improve access to improve and reliable environmental sanitation services

NATURAL RESOURCES	REASONS	SCORE
Illegal mining activities	The policy has no direct bearing on the situation of illegal mining activities	0
Deforestation illegal felling & charcoal production	The policy objective has little significance on deforestation, however in the case of construction activities, as a result of providing office accommodation for decentralised local government structures, the vegetation of sites used would be negatively affected	0/-
Sand winning activities	Again, no significant relation with this concern, yet construction activities would require sand, which would contribute to increased sand winning activities	0/-
Protection of water bodies	The policy has no direct linkage to the protection of water bodies	0
Pollution and waste management	The policy has no direct relation to enhancing pollution and waste management	0
Climate Change	The Policy has no direct way of impacting on the climate	0
SOCIO-CULTURAL		
Continuous spread of HIV/AIDS	The policy objective is not directly related to the spread of the HIV/AIDS pandemic or otherwise	0
Teenage pregnancy and school dropouts	The policy has no direct relation with teenage pregnancy and school dropouts	0
High poverty levels of some households	The policy has very little direct significance on this concern, however, good local governance is a tool for identifying and resolving such problems as poverty at the grassroots level	0/+
Land and chieftaincy disputes	Though local governance may not direct impact on this concern, it is an essential tool for understanding the local dynamics of such disputes and thus addressing them	0/+
Local Participation in development	The policy is in direct agreement with this concern, in that, effective implementation of the Act would enhance local participation in governance and development	+
Disabilities and vulnerable groups	There is little significance between the policy and this concern, however, implementing the Act to the letter, would ensure that the disabled and vulnerable groups are provided for	0/+
Attainment of the MDGs	The attainment of all MDGs largely depend on the governance structure, especially at the local levels, thus the policy if effective implemented would contribute to the attainment of the MDGs, especially MDG * - developing a global partnership for development	+
ECONOMIC ISSUES		
Unemployment especially among the youth	The policy has very little significance on this economic concern of the Municipality	0

Poor road network (especially to hinterlands)	The policy has no direct linkage with the condition of road network	0
Limited Access to credit facilities	The policy objective has no direct relation with the availability of credit facilities	0
Underdeveloped tourist sites	The policy is not directly in consonance with the development of tourism sites	0
Slow economic growth	Though there is little significance of the policy on this economic concern, it is also imperative that good governance prevails to promote local economic development in the Municipality	0/+
INSTITUTIONAL		
Low participation of women in Local governance	Effective implementation of the Local Government Act would create the enabling environment to motivate and encourage women to participate in the governance structure	+
Ineffective sub-district structures	When the Local Government Act is efficiently implemented, the functionality of the sub-district structures would be enhanced	+
Non-enforcement of bylaws	Effective implementation of the Local Government Act to the letter would have the resultant advantage of ensuring that all bylaws also appropriately enforced to support the governance structure	+
Capacity issues of Municipal Assembly Offices and Departments	The policy is direct related to the capacity issues of the Municipal Assembly and Departmental Offices, such that for the Act to be effectively implemented, the offices must be strengthened in every area	+
Inconsistent stakeholder collaboration	Again, since the Local Government Act is holistic, and involves the participation of all stakeholders, its effective implementation would help resolve the inconsistencies in stakeholder collaboration	+
Low Public-Private Partnerships	To effectively implement the Act, it equally requires the partnership of Public and Private Sectors, thus the policy would	+

