

BAWKU WEST DISTRICT HUMAN DEVELOPMENT REPORT 2011

Resource Endowment, Investment Opportunities
and the Attainment of MDGs



Government of Ghana



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Accra

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Within the general framework of ensuring equity and overall development, the current set of the District Human Development Reports (DHDRs) cover a sample of 12 Metropolitan, Municipal and District Assemblies (MMDAs) in the three Northern Regions. This part of the country was selected as part of the grand strategy and intervention for the North, which feeds into the Government's Better Ghana Agenda and Savannah Accelerated Development Authority (SADA) framework. The selection of the MMDAs, which was done in consultation with the Regional Coordinating Councils, was based on equity for regional distribution and district characteristics.

The DHRs over the years serve as a catalyst through which MMDAs interpret their development agenda and focus. The reports tell the story of key human development indicators and MDGs status at the local levels. The impact and relevance of the District HDRs are evident in the shaping of the Medium-Term Development Plan of the districts and providing the districts with reliable and useful data, as well as providing information for policy making and further research. These set of twelve reports are no exception.

The main thrust of the report is to identify the resource endowments and investment opportunities of the selected MMDAs, and assess respective MDGs gaps to serve as basis for the preparation of Community Action Plans, informing the District Planning Process, and to serve as a baseline information for the evaluation of the policies and programs for the attainment of human development and the MDGs at the local levels.

The Local Government and Rural Development Ministry sees the reports as a means to achieving equity and balanced growth in the country. It our hope and

aspiration that UNDP would continue to allocate more resources to the preparation of DHDRs, which to our minds and aspirations would be a rallying and/or focal point for MMDAs and the Central Government to focus development agendas.

Since resources are limited to cover all MMDAs at a go, with the support of UNDP, we cover very few selected MMDAs in the country. The likelihood is that we may not come back to the covered MMDAs. It is, therefore, imperative for the covered MMDAs to take it up from here and ensure continued data gathering and preparation of the reports on their own. It is in this direction that UNDP again provides equipment to support these twelve MMDAs including the Regional Economic Planning Units of the three Northern Regions to create the capacity to manage the process.

It is refreshing to also note that within the general framework, UNDP is to support the National Development Planning Commission (NDPC) to prepare training manuals for training in data management, planning and budgeting for all MMDAs in Ghana. I fully support this forward looking phenomenon because it hands over tools to our MMDAs to continuously use in addressing their development challenges and needs.

I recommend to all MMDAs to take a reading tour of the reports, to familiarize with it and on their own initiative, start working on how best to replicate this laudable idea of data collection and management to inform planning processes in their own domain. Evidence-based planning is the way to go. Let us do the useful by doing things right for a BETTER GHANA.



HON. JOSEPH YIELEH CHIREH (MP)

Hon. Minister, Ministry of Local Government and Rural Development

Preface

The UNDP Ghana Country Office, in collaboration with stakeholders and other partners, has been facilitating the production and dissemination of Human Development Reports (HDRs) in Ghana since 1997. These reports aim to enrich policy and provide analytical basis to the Government of Ghana (GoG) and a wide range of development stakeholders in the analysis of and response to key development issues. This cooperative effort has significantly enriched development dialogue and helped to shape policy action at all levels. The HDRs have so far been produced at two levels, national and district levels and currently a pilot regional report has been initiated.

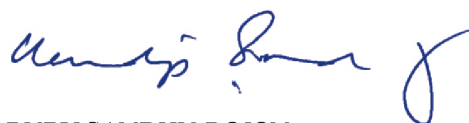
The current set of the District HDRs cover 12 districts, namely, Karaga, Tamale Metro, Bole, East Mamprusi, Nankumbi North, Zabzugu Tatale (in the Northern Region); Bolgatanga, Bawku West, Lawra (in the Upper East Region); and Sissala East, Wa Municipal, Kasena Nankana (in the Upper West) on the theme “*Resource Endowment, Investment Opportunities and the Attainment of the MDGs*”. In the context of regional disparity, the choice of these districts is deliberate in order to analyze the human development situations and assess the progress of the district towards the realization of the MDGs. With barely five years to the deadline set to meet the MDG targets, the reports provide a unique opportunity to examine possible resource gaps that challenge local level efforts to meet and improve performance on the MDGs. The reports further discuss the resource endowments and investment opportunities in the districts and how these impinge on the attainment of MDGs and

improvement of human development at the local level.

The reports provide baseline district level data, information for policy making, and opportunity for further research for formulation and implementation of District Medium-Term Development Plans. It is the fervent aspiration and hope of UNDP that the findings of these reports would go a long way not only to inform the UNDP’s Local Economic Development Programme in some selected districts in Northern Ghana but also provide insight to Government and other partners in their support at the decentralized level in these districts. These Human Development Reports should therefore lead to building of synergies and further improve programming to serve the needs of the people.

It is my hope that the District Human Development Reports (DHDRs) would serve as entry points for policy dialogue by serving as analytical tools for the Government of Ghana and other development stakeholders including investors in their responses to key development issues and investment opportunities at the grassroots level.

These reports are clear reference points for the development agenda of the Metropolitan, Municipal, and District Assemblies (MMDAs) covered and serve as building blocks as they formulate strategies of intervention to make an improvement in people’s lives.



RUBY SANDHU-ROJON
UNDP Resident Representative

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Initiation, Sponsorship and Report Writing: This is the third set of the District Human Development Reports but a maiden one for Bawku West District initiated by Government of Ghana and funded and technically supported by the United Nations Development Programme (UNDP). Many people contributed to the realization of this report. We acknowledge the efforts of Dr. Yaw B. Osei-Asare, the consultant for the field work and the writing of this report.

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To all the respondents we say *thank you*.

We thank the *Technical Committee members* for their inputs and validation of the report. The report was finalized with active participation and in consultation with members of the Strategy and Policy Unit of the UNDP, particularly Daouda Toure (former Resident Coordinator of the UN System and Resident Representative of

UNDP of Ghana Country Office), Prof. Amoah Baah-Nuakoh (former Senior Policy Advisor); Paul Derigubaa (former Programme Specialist — Strategy and Policy Unit). The preparation of the reports received continued leadership and technical support of Ruby Sandhu-Rojon (the Resident Coordinator of the UN System and Resident Representative of UNDP of Ghana Country Office); K. K. Kamaluddeen (Country Director, UNDP), Pa Lamin Beyai (Economic Advisor, UNDP); Shigeki Komatsubara (Deputy Country Director — Programmes, UNDP); Kordzo Sedegah (Economics Specialist and the Project Officer/Coordinator — Strategy and Policy Unit); as well as Magnus Ebo Duncan (Head, Economic and Industry Statistics Division, Ghana Statistical Service).

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Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
APR	African Peer Review
ASIP	Agricultural Sector Improvement Project
BDA	Bole District Assembly
BECE	Basic Education Certificate Examination
CBO	Community Based Organizations
CBRDP	Community Based Rural Development Programme
CERSGIS	Centre for Remote Sensing and Geographic Information Services
CHPS	Community-Based Health Planning and Services
CIFS	Community-Driven Initiatives on Food Security
CWIQ	Core Welfare Indicators Questionnaire
DA	District Assembly
DACF	District Assembly Common Fund
DAEA	Department of Agriculture Economics and Agribusiness
DDHS	District Director of Health Services
DHDR	District Human Development Report
DMTDP	District Medium-Term Development Plan
EA	Enumeration Area
FAO	Food and Agriculture Organization
FBO	Faith Based Organizations
GAC	Ghana AIDs Commission
GDHS	Ghana Demographic Health Survey
GPI	Gender Parity Index
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GIS	Geographic Information System
GLSS	Ghana Living Standards Survey
GMH	Ghana Macroeconomics Health
GPRS	Ghana Poverty Reduction Strategy
GPS	Global Positioning System
GSS	Ghana Statistical Service
HDI	Human Development Index
HIV	Human Immune Virus
HPI	Human Poverty Index
ISSER	Institute of Statistical, Social and Economic Research
ITN	Insecticide Treated Nets
JHS	Junior High School
JICA	Japan International Cooperation Agency
JSS	Junior Secondary School

KVIP	Kumasi Ventilated Improved Pit
LUT	Land Utilization Types
MDA	Ministries, Departments and Agencies
MDGs	Millennium Development Goals
MOFA	Ministry of Food and Agriculture
MTDP	Medium-Term Development Plan
NA	Not Applicable/Available
NCCE	National Commission for Civic Education
NNDA	Nanumba North District Assembly
NDPC	National Development Planning Commission
NEPAD	New Partnership for African Development
NER	Net Enrolment Ratio
NGO	Non-Governmental Organization
NHIS	National Health Insurance Scheme
NORPREP	Northern Region Poverty Reduction Programme
OPD	Out-Patient Department
ORS	Oral Rehydration Salt
PPP	Purchasing Power Parity
SHEP	Self Help Electrification Project
SHS	Senior High School
SSI	Small-scale Industry
STME	Science Technology and Mathematics Education
TBA	Traditional Birth Attendants
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
VIP	Village Infrastructure Project
ZTDA	Zabzugu Tatale District Assembly

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Executive Summary

Introduction

The traditional conceptualization of well-being in Ghana does not focus only on the income of a person, but also on the person's capabilities as well as the physical appearance. Indeed, an increase in body weight is looked upon with favour and seen as an indication of improvement in one's life situation. The concept of human development, therefore, may be considered as being well-suited to the average Ghanaian's concept of welfare and standard of living. This is because the UNDP's concept of human development aims at extending the measure of well-being beyond income to incorporate other important dimensions of living or being. Although income is an important determinant of a person's access to food, clothing and the other basics of life, the correlation between well-being and the income level of a person has never been perfect. It is on this basis that the UNDP defines human development as a process of enlarging people's choices. The most critical of these choices are: the option to live a long and healthy life, to be knowledgeable and to enjoy a decent standard of living.

UNDP has since 1990 provided a quantitative measure of human development. The measure focuses on the three dimensions identified as critical to enlarging people's choices. Longevity is measured by life expectancy at birth. Knowledge is a composite of adult literacy and gross primary, secondary and tertiary enrolment rates. Standard of living is measured by income per capita in purchasing power parity

dollars. The Human Development Index (HDI) is a composite of these three variables. In 2007, Ghana's HDI was estimated to have risen from 0.515 in 1990 to 0.553. These national aggregate figures mask critical information on regional and district level disparities.

Since 1997, the Ghana Country Office of the UNDP in collaboration with stakeholders and other partners has facilitated the production of Ghana's National Human Development Reports (NHDRs) to enrich policy. A total of five NHDRs have since been produced and launched.

Building on the success of the national reports and to respond to the growing development management needs at the decentralized level, the Human Development Report approach has been taken to the district level to capture more development issues from the grassroots. Two sets of three Districts Human Development Reports (DHDRs) have been produced and launched.

The third set of district human development reports has been prepared for twelve districts: Bolgatanga Municipal, Kassena Nankana and Bawku West in the Upper East Region; Tamale Metropolitan, Bole, Karaga, East Mamprusi, Nanumba North and Zabzugu/Tatale districts in the Northern Region; and Wa Municipal, Sissala East and Lawra in the Upper West Region. The theme for the third set of reports reflects on resource endowments, investment opportunities and the attainment of MDGs.

The Bawku West District report analyzes the human development situation and assesses the progress of the district towards the realization of the MDGs. It

discusses the resource endowments and investment opportunities in the district and the possible effects on the attainment of MDGs and improvement in human development. The report also examines how the findings could influence the district in Community Action Plans, inform the District Planning Process, and serve as baseline information for the evaluation of the programme and policies of the Long-Term Multi-Sectoral Northern Growth Strategy for the attainment of the MDGs.

Methodology and Data Collection

Both quantitative and qualitative methods were applied to gather data from different sources for the preparation of this report. Information was obtained from official documents such as various censuses conducted in Ghana, and the district-based Core Welfare Indicators Questionnaire (CWIQ) survey that was conducted in 2003. The Department of Agricultural Economics and Agribusiness, in close collaboration with the Bawku West District Assembly also conducted a socio-economic survey in the district in November–December 2008 and consulted various stakeholders to ensure that their interests were addressed and technical omissions minimized.

Some aspects of the district's profile were obtained from documents that had been prepared by the District Assembly, particularly the Medium Term District Development Plan (2006–2009), for the implementation of the Growth and Poverty Reduction Strategy. In addition, various departments of the district provided information on their activities over the last five years. This provided insights into the economic and social conditions in the district and the strategies adopted and implemented, including in relation to issues of human development. Data from the 2000 Population

and Housing Census were used extensively to obtain district-level information on population dynamics, housing characteristics, employment and education.

Interviews were conducted in the Bawku West District using qualitative and quantitative techniques, principally to gather information on various dimensions of the MDGs and human development indicators and also for the assessment of the resource endowments and investment opportunities in the district. Two main questionnaires were used for this purpose: the community questionnaires and household questionnaires. The community questionnaire was completed during focus group discussions with leaders of the communities, members of the town committees resident in the community and opinion leaders to obtain information about the socio-economic development of the communities visited, resources available and utilized and investment opportunities, among others.

The household questionnaire is separated into different modules but was answered by the head of household or his/her representative. The questionnaire covered information on the structure of the household, employment, assets of the household, health (maternal and child), education, household consumption patterns and expenditures, resource endowments and utilization including agriculture, non-farm investments, access to services, political participation, migration (scope and reason) and natural hazards and environmental impacts.

In order to ensure comparability with the CWIQ 2003 data, a two-stage sampling procedure was employed with the objective of generating results that are representative of the district. The approach was multi-stage probability sampling, clustered, and stratified with probability proportional to the size of the district.

The sampling design was prepared by personnel of Ghana Statistical Service (GSS) who randomly selected well-defined enumeration areas (EAs) from the GSS database of the district. The enumeration areas are demarcated along the lines of the proven process used by the GSS in its implementation of Ghana Living Standard Surveys (especially III, IV and V) and Core Welfare Indicators Questionnaires I and II.

The technique of stratification was employed in the sample design to enhance precision and reliability of the estimates. The stratification of the frame for the survey was based on the size of the locality the enumeration area was chosen from, that is, whether the locality is urban, semi-urban or rural. Sampling within each stratum was done independently of others and the approach of picking the number of enumeration areas in each stratum was proportional to the population size in each stratum. This was followed by systematic sample selection within each stratum. In all, 240 households were chosen from 15 out of 153 EAs in the district. In the report, the urban and semi-urban households were grouped in the urban category to ensure harmonization with CWIQ 2003 and 2000 census.

Focus group discussions were carried out in three (3) of the communities, namely, Komaka (rural), Binaba Central (semi-urban), and Zebilla (urban), to reflect the stratification. In addition, interviews were conducted among institutional leaders in the district.

Findings

The strides made so far in achieving the goals and targets of the district's medium-term development plans for 2006–2009 may be a clear indication of whether components of the millennium development goals have

been achieved in the Bawku West District or are achievable within a given time frame by the year 2015. Admittedly, the district has made diverse progress in the area of education, health, water and sanitation, all geared towards meeting the MDG targets. The key findings of the report are as follows:

1. The second MDG of achieving a universal primary education appears to be on course. The general access to education at the various educational units has seen some improvement. More than half of enrolled pupils travel less than 30 minutes to access education in their respective institutions. Enrolment at the pre-school and primary school levels has significantly increased from 1.3 per cent and 63.9 per cent to 7.7 per cent and 66.7 per cent respectively. This may probably be due to sensitization drive rolled out by the District Assembly and or the school feeding programme. The situation at the post-secondary levels runs contrary to the pre-school and primary schools. Junior high, senior high and post-secondary enrolment experienced a fall from 17.2 per cent, 8.6 per cent and 9 per cent respectively in 2000 to 14.7 per cent, 6.6 per cent and 4.3 per cent in 2008.
2. Gender parity at the various educational levels in the district is quite encouraging. Female enrolment has increased marginally against that of the males. At the pre-school and primary levels the number of female enrolment outnumbers that of the males. In this regard, the fourth target of the MDGs to eliminate gender disparity in primary and secondary education has partially been achieved.

3. Overall school attendance rate of population aged 6 years and above has increased. The number of individuals aged 6 years and above who have never been to school declined from 77.8 per cent in 2000 to 72.1 per cent in 2008 for both males and females.
4. Educational attainment in the district is very low as the highest level of education attained by the majority of the population is primary education. A greater proportion of females than males attained primary education as the highest level of education. About 15 per cent females compared with 7.6 per cent males who have ever been to school had a post-secondary education (vocational, technical, teacher training, and nursing education).
5. Literacy rate in English language increased from 12 per cent in 2000 to 24.6 per cent in 2008. As well, literacy in a Ghanaian language also increased from 0.5 per cent in 2000 to 20.8 per cent in 2008. The challenging issue to consider is whether the progress and successes made so far in terms of education can be sustained over the medium to long-term when the educational infrastructure is deteriorating at a faster pace.
6. Incidence of poverty is rife in the district as it is one of the poorest in the Upper East region. Not surprisingly, over 68 per cent of the citizens in the district perceive themselves as poor. Due to poverty, more than 93 per cent of households experience difficulty in satisfying household food needs, thus making them food insecure. In terms of rankings of the incidence of poverty in Ghana, the Bawku West and the Bongo Districts were the worse ranked districts with an overall ranking of 99 per cent (NDPC 2005). Therefore, the achievement of the MDG of eradicating extreme poverty and hunger in the district by 2015 is unlikely to be attained if current unfavourable developments and trends are not altered.
7. The health sector in the district has not seen much improvement that will make it achieve the fourth, fifth, and sixth MDGs by the year 2015. Nevertheless, the district has mounted strategies to address such issues to help meet the range of MDG's target for the sector. Prominent among these strategies is the strengthening of the national health insurance scheme launched in 2004 and the malaria control programme. Only 6.13 per cent of the total population in the district was registered under the scheme when it fully became operational in 2005.
8. A greater number of hospitals and clinics in the district can be reached within an hour or more. Although access to medical facilities is comparatively high in the district since about 95 per cent of those who had fallen sick sought medical attention by visiting a medical facility, the number of health workers in the district to manage these health facilities are woefully inadequate. The Doctor/Population ratio of 1:28,666 and the Nurse/Population ratio of 1:3,909 leave much to be desired.
9. On the whole, majority of the population in the district are satisfied with the quality of health-care services provided by health workers.
10. More than half of the total deliveries in the district are supervised by

professional or skilled health workers (doctors, nurses and midwives). Pre-natal attendance among pregnant women is relatively high compared with post-natal attendance. This is comparatively higher among pregnant women in the urban communities than pregnant women in the rural communities.

11. Maternal mortality is quite minimal due to the increasing awareness for frequent pre- and post-natal checkups. Also felt is the need for quality supervision by skilled health workers during delivery. The district has consequently made immense progress in meeting the fifth MDGs of improving maternal health.
12. On the contrary, strategies to combat HIV/AIDS, malaria and other diseases have not yielded much as expected. Malaria is the most reported disease in the district and the number of reported cases at the various health centres keeps increasing year by year. The situation is not different from HIV/AIDS reported cases which has also seen a steady increase in number. Extra efforts are needed to combat HIV/AIDS incidence in the district for the attainment of the sixth MDG.
13. Issues concerning sanitation in the Bawku West District are quite challenging. Solid and liquid waste management practices by a large majority of urban and rural dwellers leaves much to be desired. More than two-thirds of households do not dump their waste at the designated public refuse dumps, thus creating lots of filth. Intensive education is essential to curtail this attitude.
14. A good number of the population have access to safe drinking water from public outdoor taps, taps in dwellings or

compounds, protected or covered wells and boreholes. Nevertheless, majority still depend on unsafe water sources in the district. The strategy to increase access to water and sanitation is, therefore, yielding some dividend and needs to be vigorously pursued to achieve the seventh MDG of ensuring sustainable access to safe drinking water and basic sanitation facilities.

The Way Forward

The district obviously faces numerous constraints and development challenges amidst several opportunities that could turn around the prospects of the district for sustained local economic growth and community development. Clearly, the little progress made in achieving the MDGs may have several implications. The main ones are as follows:

1. The vast natural resource endowments have not been fully exploited to create employment opportunities for the people that will enhance or reduce poverty in the district. When fully exploited, the overall resource endowments would improve the livelihood of both rural and urban dwellers.
2. Continued participation in local governance issues and civic responsibilities must be strengthened to deepen democracy. The various assemblymen and women in the district must be paid well for them to work harder at the local level. The meagre allowances paid to them are not enticing enough to help deliver the development agenda of the district. If members of Parliament are paid, Assembly members should be equally given their due for similar jobs done.
3. As the District Assembly discovers more innovative ways of mobilizing and

- collecting adequate internal revenue for its development projects, the central government must endeavour to increase the District Assembly Common Fund (DACF) allocation to the district.
4. The government must focus a lot more on rural development by providing the basic infrastructure upon which the district can adequately build. Road conditions and networks must be improved, likewise post and telecommunication facilities.
 5. Health and education infrastructure must be given adequate support from the central government as the District Assembly alone cannot, at this stage of its development, bear all the financial responsibilities. The importance of both health and education in the eradication of poverty cannot be over-emphasized.
 6. Both the DA and the central government should team up to tackle the sanitation problems regarding solid and liquid waste disposal to ensure a clean environment and to reduce the prevalence of malaria parasites in the district.
 7. The capacity of the District Assembly needs to be strengthened by employing knowledgeable and skilled human resource required to inject agility and drive into the assembly. Such personnel should be given decent accommodation for enhanced productivity, among other incentives.
 8. A concerted effort is required by key stakeholders, namely, the District Assembly, Ministries, Departments, and Agencies, local development groups and organizations, and development partners such as the NGOs in the district to come together on a regular basis for dialoguing in charting a sustainable development path for the district.

Introduction

Human Development

The traditional conceptualization of well-being in Ghana does not focus only on the income of a person, but also on the person's capabilities as well as the physical appearance. Indeed, an increase in body weight is looked upon with favour and seen as an indication of improvement in one's situation in life. The concept of human development, therefore, may be considered as being well-suited to the average Ghanaian's concept of welfare and standard of living. This is because UNDP's concept of human development aims at extending the measure of living standards or well-being beyond income to incorporate other important dimensions of living or being. Although income is an important determinant of a person's access to food, clothing and the other basics of life, the correlation between well-being and the income level of a person is not perfect. This is because poor people in assessing their circumstances in life do not focus only on the purchasing power of their incomes. According to Sen (2000), "income may be the most prominent means for a good life without deprivation, but it is not the only influence on the lives we can lead. If our paramount interest is in the lives that people can lead — the freedom they have to live minimally decent lives, then it cannot but be a mistake to concentrate exclusively only on one or the other of the means to such freedom."¹ Building on Sen's analysis of

poverty and capability, the UNDP defines human development as a process of enlarging people's choices. The most critical of these choices are: the option to live a long and healthy life, to be knowledgeable and to enjoy a decent standard of living.

UNDP has since 1990 provided a quantitative measure of human development. The measure focuses on the three dimensions identified as critical to enlarging people's choices. Longevity is measured by life expectancy at birth. Knowledge is a composite of adult literacy and gross primary, secondary and tertiary enrolment rates. Standard of living is measured by income per capita in purchasing power parity dollars. The Human Development Index (HDI) is a composite of these three variables (Box 1.1). Ghana's HDI is estimated to have risen from 0.515 in 1990 to 0.537 in 1995. It rose to 0.560 and 0.568 in 2000 and 2002 respectively and declined to 0.532 in 2004. In 2007, the HDI for Ghana rose to 0.553.

These national aggregate figures mask critical information on regional and district level disparities. They do not provide information on progress made or the lack of it, by different groups in the country. The gender-related development index also produced by UNDP, aims at revealing the gender dimensions of the three components of human development.²

Since 1997, the Ghana Country Office of the UNDP in collaboration with

¹ Sen, A. (2000), p. 3.

² This is a composite index that adjusts the average achievement of each country in life expectancy, educational attainment and income to take into account the disparity in achievement between women and men.

Introduction

stakeholders and other partners has facilitated the production of Ghana's National Human Development Reports (NHDRs) to enrich policy. A total of five NHDRs have been produced and launched: the first report, the Ghana Human Development Report, 1997 focused on Poverty and Human Development in Ghana; the second, in 1998, examined Public-Private

Partnership in Human Development; the third, 2000 Report was on Science, Technology and Human Development; the fourth, 2004/5 Report was on the theme "Breaking the HIV/AIDS Chains — Human Development Challenge" and the fifth 2007 had the theme "Towards a more Inclusive Society."

Box 1.1: Calculating the Human Development Index

The Human Development Index (HDI) is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development:

- A long and healthy life, as measured by life expectancy at birth.
- Knowledge as measured by the adult literacy rate (two-thirds weight) and the combined primary, secondary and tertiary gross enrolment ratio (one-third weight).
- A decent standard of living as measured by GDP per capita (PPP US\$).

Before the HDI is calculated, an index needs to be created for each of the dimensions. To calculate these dimension indices, minimum and maximum values (goalposts) are chosen for each underlying indicator.

Performance in each dimension is expressed as a value between 0 and 1, applying the following general formula:

$$\text{Dimension} = \frac{\text{actual value} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

The HDI is calculated as a simple average of the dimension indices

Goal Posts for calculating the HDI

Indicator	Maximum Value	Minimum Value
Life Expectancy at Birth	85	25
Adult Literacy Rate (%)	100	0
Combined Gross Enrolment Ratio (%)	100	0
Gross Domestic Product per capita (PPP US\$)	40,000	100

Source: UNDP Human Development Report, 2004, New York.

Building on the success of the national reports and to respond to the growing development management needs at the decentralized level, the Human Development Report approach has been taken to the district level to capture more development issues from the grassroots. Two sets of three Districts Human Development Reports (DHDRs) have been produced and launched. The first set of DHDRs for three districts — Atwima, Bulsa and Tema in Ashanti, Upper East and Greater Accra Regions respectively were based on the theme: "Vulnerability," while the second set of another three DHDRs

on the theme "Vulnerability and the Attainment of the MDGs at the Local Level" was prepared on the Districts of Ahanta West, Offinso and West Gonja in Western, Ashanti and Northern Regions respectively.

The third set of district human development reports has also been prepared for twelve districts: Bolgatanga Municipal, Kassena Nankana and Bawku West in the Upper East Region; Tamale Metropolitan, Bole, Karaga, East Mamprusi, Nanumba North, and Zabzugu Tatale districts in the Northern Region; and Wa Municipal, Sissala East and Lawra in the Upper West Region.

The theme for the third set of reports reflects on resource endowments, investment opportunities and the attainment of MDGs in the various districts to serve as basis for the preparation of Community Action Plans, informing the District Planning Process.

Millennium Development Goals (MDGs)

The adoption of the Millennium Declaration by Heads of State in September 2000 formally introduced the MDGs onto the development agenda. The MDGs were the results of the thinking that began in the mid-1990s on strategies to improve aid effectiveness. The MDGs consist of 8 goals, 21 targets and 60 indicators (Table 1.1) and have become an integral part of Ghana's development strategy. Ghana's Medium-Term Development Plans (MTDPs) "...seek to operationalize various successive international agreements which are relevant to the poverty reduction objectives and of which Ghana is signatory. Principal among these is the Millennium Development Goals (MGDs)...". A synergy has been created between the Heavily Indebted Poor Countries (HIPC) initiative and the MDGs by the transformation of the latter "into the mandatory framework of domestic economic policy in return for the grant of debt relief" (Republic of Ghana 2005). As a result of this, in both the MTDP and the district development plans, there is a matrix indicating the link between identified priorities and the MDGs.

There is some overlap between the human development, human poverty and gender development indices on the one hand and the MDGs on the other hand. However, the MDGs do not include dimensions such as human security and participation. The MDGs place great emphasis on targets while the human development concept, although concerned with improving well-being, does not have any explicit stated goals.

Resource Endowments and Investment Opportunities

Resource endowments provide for the needs and wants of the people in a location. These resources — natural and man-made, renewable and non-renewable — including land, water, minerals, human, physical infrastructure, training and education resources, access to transportation and communication networks, and the political and regulatory environment, are the fundamentals that determine the pace of innovation and economic growth in that location and has implications for the attainment of the MDGs and improvement in human development. Resource endowments and its economic, social and political utilization are ultimately what distinguish one area's economic development from another.

In particular, because natural resource endowment remains relatively constant or declines under environmental pressure, the size of the human population that can be sustainably supported based on the current consumption patterns and prevailing technologies is decreasing hence the ability of a location's natural resource base to sustain human activity is determined by two factors: its natural resource endowment and the pressure placed on it by human activity. Resource endowments are therefore not static. They vary according to levels of technology, market conditions and consumer preferences.

A location rich in natural resource would attract entrepreneurs who would employ the resource in production and the creation of jobs. Support industries would follow and the cycle of growth would be perpetuated. Through this process, the abundance of natural resources can be associated with the positive aspects of economic growth. Thus the utilization of today's resource endowments in a location reflects the past course of private investment

Table 1.1: Official List of MDG Indicators (Effective 15 January 2008)

Goals and Targets ³	Indicators for monitoring progress
Goal 1: Eradicate extreme poverty and hunger	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below \$1 (PPP) per day
	1.2 Poverty gap ratio
	1.3 Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed
	1.5 Employment-to-population ratio
	1.6 Proportion of employed people living below \$1 (PPP) per day
	1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under-five years of age
	1.9 Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrolment ratio in primary education
	2.2 Proportion of pupils starting grade 1 who reach last grade of primary
	2.3 Literacy rate of 15-24 year-olds, women and men
Goal 3: Promote gender equality and empower women	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratios of girls to boys in primary, secondary and tertiary education
	3.2 Share of women in wage employment in the non-agricultural sector
	3.3 Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1 Under-five mortality rate
	4.2 Infant mortality rate
	4.3 Proportion of 1 year-old children immunised against measles
Goal 5: Improve maternal health	
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio
	5.2 Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate
	5.4 Adolescent birth rate
	5.5 Antenatal care coverage (at least one visit and at least four visits)
	5.6 Unmet need for family planning
Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15-24 years
	6.2 Condom use at last high-risk sex
	6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS
	6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria
	6.7 Proportion of children under 5 sleeping under insecticide-treated bednets
	6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs
	6.9 Incidence, prevalence and death rates associated with tuberculosis
	6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course
Goal 7: Ensure environmental sustainability	
Target 7.A: Integrate the principles of sustainable	7.1 Proportion of land area covered by forest

³ All indicators should be disaggregated by sex and urban/rural as far as possible.

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development into country policies and programmes and reverse the loss of environmental resources	7.2	CO2 emissions, total, per capita and per \$1 GDP (PPP)
	7.3	Consumption of ozone-depleting substances
	7.4	Proportion of fish stocks within safe biological limits
	7.5	Proportion of total water resources used
	7.6	Proportion of terrestrial and marine areas protected
Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.7	Proportion of species threatened with extinction
	7.8	Proportion of population using an improved drinking water source
	7.9	Proportion of population using an improved sanitation facility
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.10	Proportion of urban population living in slums ⁱⁱ
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers		
Goal 8: Develop a global partnership for development		
Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system	<i>Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.</i>	
	Official development assistance (ODA)	
Includes a commitment to good governance, development and poverty reduction – both nationally and internationally	8.1	Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income
	8.2	Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation)
	8.3	Proportion of bilateral official development assistance of OECD/DAC donors that is untied
	8.4	ODA received in landlocked developing countries as a proportion of their gross national incomes
	8.5	ODA received in small island developing States as a proportion of their gross national incomes
Target 8.B: Address the special needs of the least developed countries.	Market access	
Includes tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	8.6	Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty
	8.7	Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries
	8.8	Agricultural support estimate for OECD countries as a percentage of their gross domestic product
	8.9	Proportion of ODA provided to help build trade capacity
Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	Debt sustainability	
Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	8.10	Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)
	8.11	Debt relief committed under HIPC and MDRI Initiatives
	8.12	Debt service as a percentage of exports of goods and services
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13	Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14	Telephone lines per 100 population
	8.15	Cellular subscribers per 100 population
	8.16	Internet users per 100 population

decisions and public policies. Ensuring adequate and appropriate resources to promote future innovation and growth is the task of today's decision-makers.

Crowley and Appendini,⁴ however, notes the changing institution-resource access relationships in Africa that highlights the resource endowments and problems associated with the participation of individuals. Participation in land, labour, and agricultural markets can determine the types and quantities of resources with which a household is endowed and exploited. In addition, markets can provide an alternative means of access to land and other resources for households with enough capital, for instance, to rent or buy land in other areas. Others could seek off-farm employment, participate in local, national, and transnational labour markets, in order to substitute cash for land resources in their endowment portfolio. Thus, participation in institutions not only affects access to resources, the contrary is also true: access to resources affects participation in institutions. When there is absolute local scarcity of a resource, this can often be overcome through institutional interactions.

Increased participation of households in resource exploitation for livelihoods depends, however, on the human resource capabilities within the household. Human resources — the availability of adequate supplies of labour with the requisite skills and abilities — is essential to a thriving local economy. Thus the failure of a locality or household to improve on its human resource capabilities could lead to the failure to attain the MDGs. For instance, in today's increasingly knowledge-based economy, cognitive skills are increasingly important, and completion of at least some basic type of education has become an essential

prerequisite for many types of jobs as well as enable one to effectively participate in institutions and access the local resource endowments.

The Report

The Bawku West District HDR is one of the six human development reports prepared to assess resource endowment investment opportunities and attainment of MDGs — 12 selected districts in the Northern Ghana. The report analyzes the human development situation and assesses the progress of the district towards the realization of the MDGs. It also discusses the resource endowments and investment opportunities in the district and the possible effects on the attainment of MDGs and improvement in human development. The report also examines how the findings could influence the district in Community Action Plans, inform the District Planning Process, and serve as baseline information for the evaluation of the programme and policies of the Long-Term Multi-Sectoral Northern Growth Strategy for the attainment of the MDGs. The report also inputs into UNDP's support for the development of the Long-Term National Development Plan and reinforces the capacity of the district and community institutions for MDG-based assessment, planning, monitoring and evaluation.

Methodology and Data

Both quantitative and qualitative methods were applied to gather data from different sources for the preparation of this report. Information was obtained from official documents such as various censuses conducted in Ghana, and the district-based Core Welfare Indicators Questionnaire (CWIQ) survey that was conducted in 2003. The DAEA, in close collaboration with the Bawku West District Assembly also under-

⁴ Crowley, E. and Appendini, K. (2006). "Rural Poverty, Population Dynamics, Local Institutions and Access to Resources". *SD. Special: Population, Poverty and Environment*. Rome: FAO.

took a socio-economic survey (including focus group discussions) in the district in November–December 2008 and consulted various stakeholders to ensure that their interests were addressed and technical omissions minimized.

Secondary Data Sources

Some aspects of the district's profile were obtained from documents that had been prepared by the Bawku West District Assembly for their programmes, particularly the Medium-Term District Development Plan (2006–2009) prepared for the implementation of the Growth and Poverty Reduction Strategy. In addition, various departments of the district provided information on their activities over the last five years. This provided insights into the economic and social conditions in the Bawku West District and the strategies adopted and implemented, including in relation to issues of human development.

An important source of additional secondary data was the census. Data from the 2000 Population and Housing Census were

used extensively to obtain district-level information on population dynamics, housing characteristics, employment and education.

Primary Data Collection

Interviews were conducted using qualitative and quantitative techniques, principally to gather information on various dimensions of the MDGs and human development indicators and also for the assessment of the resource endowments and investment opportunities component of the report. Two main questionnaires were used for this purpose: the community questionnaires and household questionnaires. The community questionnaire was completed during focus group discussions with leaders of the communities, members of the town committees resident in the community and opinion leaders. The objective of the questionnaire was to obtain information about the socio-economic development of the communities visited, resources available and utilized and investment opportunities, among others.



(A)



(B)

Picture 1.1: Focus group discussions in Komaka (A) and Zebilla (B)

The household questionnaire is separated into different modules but was

answered by the head of household or his/her representative. The questionnaire covered

information on the structure of the household, employment, assets of the household, health (maternal and child), education, household consumption patterns and expenditures, resource endowments and utilization including agriculture, non-farm investments, access to services, political participation, migration (scope and reason) and natural hazards and environmental impacts.

Sampling Techniques

In order to ensure comparability with the CWIQ 2003 data, a two-stage sampling procedure was employed with the objective of generating results that are representative of the district. The approach was multi-stage probability sampling, clustered, and stratified with probability proportional to the size of the district.

The sampling design was prepared by personnel of Ghana Statistical Service (GSS) who randomly selected well-defined Enumeration Areas (EAs) from the GSS database of the district. The enumeration areas were properly described by the GSS and had well-defined boundaries, identified on maps, and were relatively of small sizes having clusters of households. These enumeration areas are demarcated along the lines of the proven process used by the GSS in its implementation of Ghana Living Standard Surveys (especially III, IV and V) and Core Welfare Indicators Questionnaires I and II. The selected EAs or communities were listed fully to know the total number of households that served as sampling frame from which an appropriate sample size was selected systematically for each stratum in the district. This was done to facilitate manageable interviewer workload within each sample area and also reduce the effects of intra-class correlation within a sample area on the variance of the survey estimates.

An enumeration team comprising the researcher assigned to the Bawku West District, two supervisors, and fifteen

enumerators/interviewers selected and hired from the district, listed all households in each of the chosen enumeration areas. This was important because some of the enumeration areas had changed in size since the 2000 Population and Housing Census and the sampling approach at this stage did not consider their sizes before the selection. An equal number of households in each Enumeration Area (EA) were also selected. The listing information was needed to compute the appropriate weights for proper estimation at the analysis stage.

Stratification

The technique of stratification was employed in the sample design to enhance precision and reliability of the estimates. The stratification of the frame for the survey was based on the size of the locality the enumeration area was chosen from, that is, whether the locality is urban, semi-urban or rural. Sampling within each stratum was done independently and the approach of picking the number of enumeration areas in each stratum was proportional to the population size in each stratum. This was followed by systematic sample selection within each stratum. Out of 153 EAs in the district, 15 were selected. The EAs from which the households were selected are shown in Table 1.2. In the report, the urban and semi-urban households were grouped in the urban category to ensure harmonization with CWIQ 2003 and 2000 census. Focus group discussions were carried out in three of the communities, namely, Komaka (rural), Binaba Central (semi-urban), and Zebilla (urban), to reflect the stratification. In addition, interviews were conducted among institutional leaders in the district.

Table 1.2: Enumeration Areas (EAs) and Localities Covered by the Household Survey

Locality	Name of EA	Category	Sample Size	Average Household Size
Zebilla	Old district administration block	Urban	16	5
Zebilla	Market	Urban	16	6
Zokpaliga	Zokpaliga	Rural	15	5
Boya	Boya	Rural	16	4
Goiesi	Goiesi	Rural	17	7
Tandabote	Tandabote	Rural	16	7
Amkpaliga	Amkpaliga	Rural	15	7
Zarooga	Zarooga	Rural	16	6
Komaka	Komaka	Rural	16	6
Zongo	Zongo	Special rural	16	6
Binaba	Chief palace	Semi-urban	16	6
Central				
Kamega	Primary school	Semi-urban	17	5
Yarigu	Chief palace	Semi-urban	18	8
Aneigo	Zornaba Avoka house	Semi-urban	16	8
Bulinga	Market	Semi-urban	14	7
Total Sample Size / Average H/h size			240	6.2

Source: 2008 DAEA Household Survey.

Outline of the Report

The report has nine chapters. After the introductory chapter, the profile of Bawku West District is outlined in Chapter 2 and covers physical features, demographic characteristics, socio-economic infrastructure and housing characteristics, human security in the district, governance (traditional and state) and status of MDGs. Economic activity and poverty including employment, unemployment and under-employment, child labour and objective and subjective assessments of poverty in the district are discussed in Chapter 3. Chapter 4 focuses on education and literacy by analyzing quality of school infrastructure, school attendance as well as education attainment and adult literacy. In Chapter 5, the report assesses the health, water and sanitation situation in the district in relation to the MDGs and resource

endowments and investment opportunities. The chapter also examines the trends in infant, child and maternal mortality rates and the incidence of HIV/AIDS, malaria and other major diseases as well as household access to safe drinking water and basic sanitation. Chapter 6 discusses resource endowments with respect to the human, infrastructure and natural resources in the district. It also discusses the institutions and governance, hazards and their attendant environmental impacts. The usage and constraints of these resources and the effects on the MDGs are examined in Chapter 7. In Chapter 8 the report discusses the investment opportunities and risk factors contingent on the resource endowments. The last chapter then provides a summary of the study and advances key policy recommendations for consideration for implementation by the Bawku District.

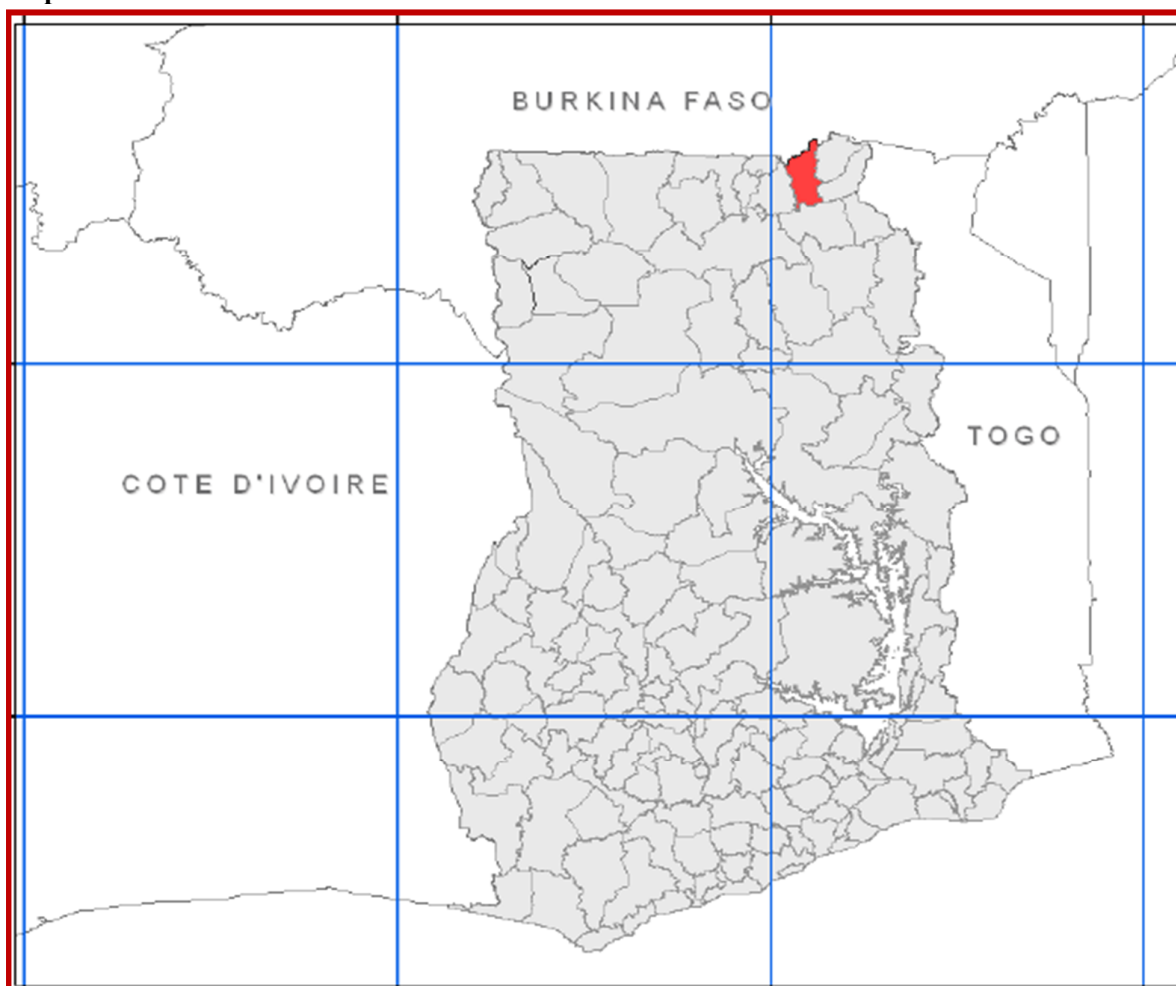
Profile of the District

Introduction

The Bawku West District is one of the 9 districts of the Upper East Region of Ghana. It was carved out of the old Bawku District under the new local government system in 1988. It lies roughly between latitudes 10° 30'N and 11° 10'N, and between longitudes 0° 20'E and 0° 35'E (see Map 2.1 for the location of Bawku West District).

The District shares boundaries with Burkina Faso in the North, Bawku Municipality to the East, Talensi/Nabdam District to the West and East Mamprusi District to the South. The district covers an area of approximately 1,070 km², which constitutes about 12 per cent of the total land area of the Upper East Region. It is the fifth biggest district in the Upper East Region in terms of land area.

Map 2.1: Location of Bawku West District



Physical Features

The relief of the district is generally flat to gently undulating with slopes ranging from 1 per cent to 5 per cent. These plains are broken in some places by hills or ranges formed from either outcrops of Birimian rocks (greenstones) or granite intrusions. Deposits of gold reportedly underlie the Birimian formation north of Zebilla and south of Sapelliga. In the Widnaba-Teshie zone, illegal mining of gold ('galamsey') accompanied by serious land degradation, is prevalent. These ranges lie along the border with Burkina-Faso, north of Zebilla, and turn south-west from the Red Volta north of Nangodi in the Talensi/Nabdam district. The granite areas are generally low to gently rolling (120–255m asl) (see Map 2.2).

Two important tributaries of the Volta River, namely the White and Red Volta run contiguous to the districts' eastern and western boundaries respectively. These rivers overflow their banks during the rainy season (April–October) but dry up soon after the season with disconnected pools of water in the beds separated by dry stretches of sand and rock. During the dry season, the sand bars make it possible for people to cross the White Volta on foot or by motor cycles as observed at the Ghana-Burkina-Faso border at Sapelliga.

Climate and Vegetation

The district experiences a unimodal rainfall regime lasting 4 to 6 months and a long dry period of 6 to 8 months in a year. The aridity index (ratio of annual precipitation to potential evaporation) is about 0.33 and by the United Nations Convention to Combat Desertification (UNCCD 1997) classification, the district falls within the desertification zone of Ghana (EPA 2003). See, for example, Picture 2.1.



Picture 2.1: An Aspect of Vegetation of the Bawku West District.

The major soils mapped in the district belong to Luvisols, Lixisols, Leptosols, Gleysols and Fluvisols and due to leaching over a long period of time, the average organic matter content of less than 1 per cent is generally low, resulting in low inherent fertility. According to the districts' Medium-Term Development Plan (2006–2009), the total amount of hectares in the district suitable for crop production is 58,406 ha while 336,687 ha are unsuitable for crop production. The vegetation is Sudan savanna consisting of short drought and fire resistant deciduous trees interspersed with open savanna grassland. Grass is very sparse and in most areas the land is bare and severely eroded. Common grasses include *Andropogon gayanus* (Northern Gamber Grass) in the less eroded areas and *Hyparhenia spp*, *Aristida spp*, and *Heteropogon spp*. (Spear grass) in the severely eroded areas. Common trees include *Anogeissus spp*, *Acacia spp* (Thorn tree) and *Triplochiton spp*. Economic trees include *Parkia filicoidea* (Dawadawa), *Butyrospermum parkii* (Sheanut), *Andansonia digitata* (Baobab) and *Ceiba pentandra* (Kapok).



The natural woodlands and forest are a rich source of plant and animal biodiversity. It is worth noting that the sparsely inhabited oncho-freed woodland and forest belt and the uninhabited forest reserve along the eastern and southern portions of the Red and White Volta, stretching from Widnaba-Tilli area in the district through Binaba-Kusanaba and Zongoyiri to East Mamprusi, is a good domicile for a number of animals including elephants. The vegetation in the district in most cases is highly degraded by land clearing for farming, fuel wood harvesting, overgrazing, harvesting of poles for construction, and bushfires.

Human Settlement

The human settlement pattern in the district has the rural savannah type settlement with homesteads spatially dispersed except for Zebilla and Binaba (see Picture 2.2) communities which show much concentration of houses. The compound farming type of settlement is also prevalent in the district.



Picture 2.2: Binaba Town Centre.

Most of the housing units are dominated by mud houses with thatched roofs and interspersed with a few zinc roofed dwellings.

The average occupancy ratio is estimated to be from 5 to 9 persons. The two

largest towns, Zebilla and Binaba can boast of modern buildings that are mostly for offices and residential accommodation for public servants. The Bawku West District is without a social centre. However, the settlement in Zebilla has two guesthouses (one of them owned by the District Assembly), two standard restaurants, namely Maryland and Friends Garden Restaurants, and a few local *chop bars* and drinking spots.

Demographic Characteristics

The Bawku West District is predominantly rural with accompanying characteristics such as large household sizes, high illiteracy rates, and high birth and fertility rates which is typical of rural Ghana.

Population Size, Growth Rate and Density

According to the 2000 population and housing census, the population of the Bawku West District was 83,034 persons, constituting 9.0 per cent of the population of the Upper East region and with an average annual growth rate of about 0.014 per cent⁵, compared to 3.5 per cent in 1984. Seasonal migration has been singled out as the major plausible explanation for this drastic reduction in growth rate for the period under consideration. A study by JICA in 2003 estimated the district population to be 133,889 persons.

⁵ Some experts in the Upper East Region consider this figure as an underestimation and therefore put this figure at 1.1%

Table 2.1: Population Size by Gender

	Census 2000		DAEA 2008	
Gender	Frequency	(%)	Frequency	(%)
Male	39,524	47.6	741	51.7
Female	43,510	52.4	691	48.3
Total	83,034	100.0	1432	100.0

Source: DAEA Survey, 2008 and 2000 Population Census.

As shown in Table 2.1, females comprise about 52 per cent of the district population in 2000 while the survey conducted in 2008 suggests that there are more males (52%) than females. With a total land area of 1,070 km² (representing 12 per cent of the total land area of the Upper East region), the district has an estimated average population density of 77.6 persons per km² (compared with a figure of 62.6 in 1984) while 104 and 77 persons per km² were respectively recorded for the Upper East region and for the country. As the district is characterized by densely and sparsely populated settlements, this figure masks dire situations of crowding in certain areas in the district. The district sex ratio is 91.0 males to 100 females.

Age Structure

In general, the age structure of the Upper East region follows that of the national pattern where a large proportion of children are below 15 years and a small percentage of elderly persons above 65 years. The nature of any population structure has implications for development especially educational facilities and employment in the near future.

The age structure as revealed by the DAEA socio-economic survey is captured by Table 2.2 in some details. It indicates clearly that the economically active population age group (i.e., 15–60 years cohort) constitutes about 54 per cent of the population while those below 15 years make up roughly 42 per cent. This reveals that there is a potentially large and youthful labour force in the district that requires opportunities and careful management of this human resource. It must

be noted that the age structure does not differ significantly from that of the 2000 population and housing census figures.

According to the 2000 population census figures, the Bawku West had the highest age dependency ratio of 116.1 in the Upper East region, with 46.4 per cent of its population aged below 15 years and only 7.2 per cent aged 65 years and over. Even though the dependency ratio is influenced by the birth rate, the low average annual population growth rate of 0.014 per cent cannot explain this occurrence. It is likely that the aged live longer and/or the possibility of a high out-migration of people in the economically active population, all of which might contribute to the high age dependency ratio.

Table 2.2: Age Structure in the Bawku West District (%)

Age categories	Census 2000	DAEA 2008
≤ 4 years	16.8	9.2
5 to 9 years	18.2	20.8
10 to 14 years	11.5	12.2
15 to 19 years	8.0	10.2
20 to 69 years	40.2	43.4
≥70 years	5.3	4.2
Total	100.0	100.0

Source: DAEA Survey, 2008 and 2000 Population Census.

Migration and Birth Place

Migration constitutes a major aspect of population dynamics. The district witnessed an out-migration in the 70s because of the incidence of onchocerciasis and since then, seasonal out-migration to the southern parts of Ghana persists although onchocerciasis has been eradicated. Difficult economic circumstances and poverty, among others, could be attributed to the low population growth rate in the district. The tendency is that communal labour needed for the execution of development projects may be adversely affected.

The 2000 population and housing census data shows that 96 per cent of people in the district were either born in the locality of enumeration or another locality in the district. This figure is comparable to the 93 per cent estimated from the DAEA 2008 socio-economic survey. These persons, “born in the locality of enumeration” are assumed not to have migrated anywhere although this assumption may not be necessarily the case. The high percentage of people born in the district suggests low levels of out-migration but evidence of very low population growth rate may indicate the presence of high out-migration. The 2000 population census rated the Bawku West District as the least attractive destinations of migrants in the Upper East region, representing 6.1 per cent of all migrations into the region.

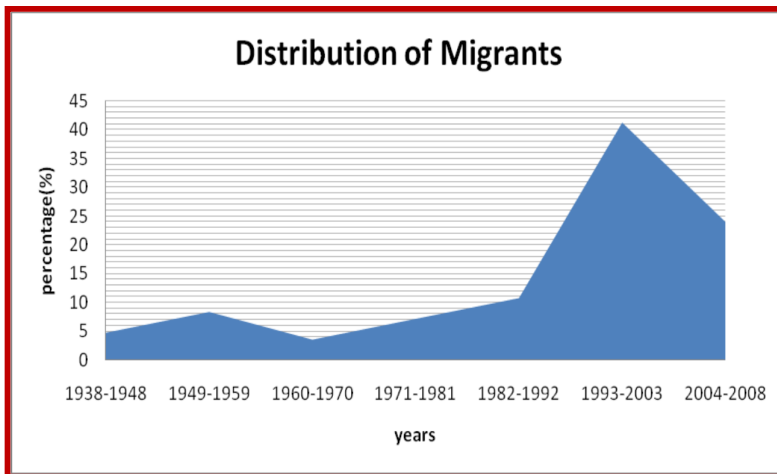


Figure 2.1: Distribution of Migrants into the Bawku West District.

Source: Bawku West DMTDP report, 2006.

Figure 2.1 shows the trend of in-migration over the past two decades. Reasons advanced for in-migration, according to the DAEA socio-economic survey results, include movement along with spouse (34%), movement with parents (29%), to work or farm (19%), for educational purposes (8%), and for retirement purposes (4%).

Social Characteristics

Household size and Ownership of Dwelling

The DAEA socio-economic survey found a higher household size of 6.3 persons for the urban locality (ranges from 1 to 13) compared with 5.1 for rural setting (ranges from 1 to 12) and an average of 5.7 persons for the district. The 2000 population and housing census estimated an average household size of 6.9 persons.

Table 2.3 shows that majority (about 89%) of respondents own the houses they are currently occupying, about 9 per cent occupy houses without renting and about 2 per cent rent houses. When compared to the 2000 population and housing census figures, the DAEA survey suggests a decline in the proportion of people renting rooms from 4.5

per cent in 2000 to 2.5 per cent in 2008 and an increase in those using the facility without paying or perching from 2.4 per cent in 2000 to 8.8 per cent in 2008. This trend may indicate the inability to pay rents due to financial hardships. The DAEA survey also found that the average number of rooms per household is 6 (ranges from 2 to 22) for the urban locality and 5 (ranges from 1 to 16) for the rural locality.

Marriage System and Marital Status

The traditional marriage system that prevails in the district requires the payment of dowry, ranging from 2 to 4 cows by the bridegroom to the bride’s family (DMTDP 2005).

This marriage system has been observed as very detrimental to the survival of the family as it often results in broken homes. The DAEA socio-economic survey shows

that about two thirds of the population, representing 61 per cent, is unmarried while about 33 per cent are married with monogamous marriage dominating (Table 2.4). There is a contrast with the married and unmarried percentages when compared with the 2000 population and housing census figures.

Table 2.3: Ownership Status of Dwelling

Ownership Status	Census 2000	DAEA 2008		
		Urban (%)	Rural (%)	Total (%)
Owner	93.1	84.8	92.1	88.7
Rents	4.5	4.5	0.8	2.5
Use without paying rent	2.4	10.7	7.1	8.8
Total	100.0	100.0	100.0	100.0

Source: DAEA Survey, 2008 and 2000 Population Census.

Table 2.4: Marital Status

Marital status	Census 2000	DAEA 2008	
	(%)	Frequency	(%)
Never married	18.5	880	61.4
Loose/informal union	1.2	6	0.4
Married (monogamous)	67.5	407	28.4
Married (polygamous)		59	4.1
Divorced	1.8	16	1.1
Separated	1.0	1	0.1
Widowed	10.0	64	4.5
Total	100.0	1433	100.0

Source: DAEA Survey, 2008 and 2000 Population Census.

Table 2.5: Ethnicity of In-Born and In-Migrants (%)

Ethnic	In-Born	In-Migrants	Total
Akan	0.1	6.1	0.5
Guan/Gonja	0	1	0.1
Mamprusi	1.2	2	1.3
Gruss/Frafra	2.5	8.2	2.9
Kusasi	80.1	61.2	79.3
Kassena-Nankani	0	14.3	1
Sissala	0.1	0	0.1
Others	15.9	7	14.8
Total	100	100	100

Source: DAEA Survey, 2008.

Ethnicity

The District Medium Term Development Plan (2006–2009) of the Bawku West District mentions the Kusasi as the

predominant ethnic group in the district who co-exist peacefully with other ethnic groupings like the Frafra, Kassena, Mamprusi, Moshie, Busanga, Fulani, and some Ewe who are settler fishermen located along the White Volta at Zongoyiri. The DAEA socio-economic survey (see Table 2.5) also confirms the Kusasi as the major ethnic group, representing 80 per cent of the in-born sample population and 79 per cent of the overall sample population (compared with 74.7% from the 2000 population and housing census figures).

Religious Affiliation

Majority (38%) of the sampled household heads belong to the Christian faith, followed by traditionalists (36%), and then Moslems (26%) as estimated by the DAEA socio-economic survey. (Table 2.6). However, according to the 2000 population census data, traditional religion is the predominant religion practised by majority of people in the district. This implies movement towards Christianity.

Table 2.6: Religious Affiliation (%)

Religion	Census 2000	DAEA 2008
Christian	19.7	37.5
Islam	16.6	26.4
Traditional	61.8	35.5
No religion	1.9	0.6
Total	100	100

Source: DAEA Survey, 2000 and 2008 Population Census.

Housing Conditions and Socio-Economic Infrastructure

According to the 2000 population and housing census report, there were 144,382 households in the Upper East region occupying 88,401 houses. With a population of 80,606, the Bawku West district had 11,728 households with 9,141 houses, an average of 1.3 households per house, and 8.8 persons per house. (We were unable to get figures for 2008).

Table 2.7: Construction Material Used for Housing (%)

Material Used	Urban	Rural	Total
For roof ...			
Mud	3.5	3.2	3.4
Thatch (grass)	64.6	47.7	55.7
Wood	0	4.8	2.5
Metal sheets	31	42.7	37.2
Cement concrete	0	0.8	0.4
Roofing tiles	0.9	0.8	0.8
Total	100	100	100
For walls...			
Mud/Mud bricks	86.6	92.8	89.9
Stone	1.8	0	0.8
Cement/Sandcrete	10.7	7.2	8.9
Other	0.9	0	0.4
Total	100	100	100

Source: DAEA Survey, 2008.

Construction Materials for Housing

Table 2.7 highlights the types of construction materials used by households in the district for building their houses. The use of thatch (grass) dominates (56%) in the district as a roofing material where it is observed that more households in the rural areas (65%) than in the urban areas depend on thatch for roofing. Probably due to poverty, these households use locally available materials for such purposes. The next highest patronized roofing material in the district is metal sheets (37%) with rural households utilizing more of it (43%) than urban households (31%). This interesting observation may indicate the effort that rural households exert in their quest to have decent and comfortable dwellings.

Typical of rural communities, the survey observed that majority of households (90%) use mud bricks whilst very few use cement/sandcrete (9%) as materials for constructing the walls of their dwellings. Thus, locally available materials are used by these households.

Household Energy Sources

Table 2.8 presents the sources of energy utilized by households for cooking and for lightening fuelwood is the predominant source of energy used by 84 per cent of the population in 2000 and roughly 85 per cent in 2008 according to the DAEA survey. This is followed by the use of charcoal, representing 13 per cent of the total. Although these findings suggest the extent to which natural forest resources play a major role in meal preparation, it also gives an indication of the impact this practice would exert on the few remaining trees and woodlands available by either deforesting or

Table 2.8: Energy Sources Used by Household (%)

Energy Sources	DAEA 2008			Census 2000
	Urban	Rural	Total	
Fuel for cooking				
Firewood	77.8	91.3	84.7	84
Charcoal	20.4	6.3	13	3.4
Kerosene oil	0.9	0	0.5	1.5
Electricity	0.9	0	0.5	0.1
Crop residues/Sawdust	0	1.6	0.8	10.7
Gas	0	0.8	0.5	0.3
Total	100	100	100	100

DAEA 2008	Urban	Rural	Total	Census 2000
Fuel for lighting				
Kerosene/Oil/Sheabutter	75.2	91.3	83.4	91
Gas	0.9	0	0.4	0.3
Electricity	22.1	7.9	14.8	5.8
Battery	1.8	0.8	1.4	0.6
Others	-	-	-	2.3
Total	100	100	100	100

Source: DAEA survey, 2008 and 2000 population census

degrading these resources. About 1 per cent of households use electricity and gas for cooking purposes. Although the urban communities in the district are all connected to the national electrification grid, the use of kerosene dominates the energy sources for lighting (83%), followed by electricity (15%). However, more urban households (22%) utilized electricity than rural households (8%).

Table 2.9: Toilet Facilities in the District

Type of Facility	No. of facilities	Pop. Served	% of Pop. Served
Public Latrine (Average 10-seater)	22	1,760	1.25
Institutional Latrines (Average 6-seater)	26	1,248	0.89
Household Latrines (Single-seater)	446	3,568	2.53
Water Closet	80	640	0.45
Total	574	7,216	5.12

Source: DMTDP Report, 2006.

Toilet and Sanitation Facilities

The Bawku West District Medium-Term Development Plan report for 2006 estimates about 5 per cent of the district population as having access to toilets and latrines, suggesting that the remaining 95 per cent resort to open and indiscriminate defecation, popularly known as the “free range” system. For the details on toilet facilities refer to Table 2.9. This general situation leaves much to be desired.

The DAEA socio-economic survey 2008 also depicts the lack of adequate toilet and sanitation facilities needed for efficient waste disposal and good hygienic practices. The details on toilet and sanitation facilities are shown in Table 2.10 for the district. For example, about 72 per cent of the sampled population does not have toilet facilities at home. It is therefore likely that they use individually or communally constructed pit latrines (either covered or uncovered) or indiscriminately defecate in nearby bushes.

While the KVIP is utilized by 10 per cent of the sampled population, only about 2 per cent have flush toilets. Regarding the disposal of solid wastes, a large

proportion of the population (68%) dump their refuse or solid waste anywhere they deem appropriate while about 2 per cent dump them at the designated public places. Majority, constituting 53 per cent throw away liquid waste in their compounds, 28 per cent dispose liquid waste into the streets or outside their compounds, and another 17 per cent throw them into gutters. These practices certainly have public health implications where the possibility of disease outbreaks is high.

Sources of Drinking Water

The fraction of people dependent on taps inside their dwellings, public outdoor taps, and wells has decreased since 2000 whilst the percentage of people using boreholes have increased from 27 per cent in 2000 to 74 per cent in 2008 (Table 2.11). It is important to note that the number of people dependent on traditional water sources such as rivers and ponds have decreased considerably.

Table 2.10: Toilet and Sanitation Facilities (%)

Toilet and Sanitation Facilities	DAEA 2008			Census 2000
	Urban	Rural	Total	
Toilet Facility				
None/Bush	61.1	81.9	72.2	74.7
Flush Toilet	2.6	0.7	1.7	0.9
Pan/Bucket	0	2.4	1.2	1.1
Covered pit latrine	15	6.3	10.4	2.2
Uncovered pit latrine	4.4	2.4	3.3	
KVIP/public toilet	14.2	6.3	10	3.7
Other	2.7	0	1.2	17.4
Total	100	100	100	100
Solid Waste				
Burned by Household	21.4	20.5	20.9	4.7
Public provided dump	3.6	0	1.7	2.8
Dumped elsewhere	60.7	74	67.7	82.9
Buried by Household	14.3	5.5	9.7	8.2
Others	-	-	-	1.4
Total	100	100	100	100
Liquid Waste				
Thrown into the street/outside	30.4	27.2	28.2	45.2
Thrown into gutter	14.2	19.2	16.5	0.9
Thrown into the compound	55.4	52	52.7	52
Other	0	1.6	0.6	1.9
Total	100	100	100	100

Source: DAEA Survey, 2008.

Table 2.11: Household Drinking Water Sources (%)

Source of drinking water	DAEA 2008			Census 2000
	Urban	Rural	Total	
Inside taps in dwelling or compound	2.7	0	1.3	1.7
Public outdoor tap	13.4	2.4	7.6	8
Borehole	67	79.5	73.5	26.6
Protected/Covered well	9.8	7.1	8.4	48.6
Uncovered well	7.1	9.4	8.4	
Purchased treated water-tanker, bucket, barrels, sachet	0	0.8	0.4	12.4
River/Pond/Lake	0	0.8	0.4	2.7
Total	100	100	100	100

Source: DAEA Survey, 2000 and 2008 Population Census.

Access to Communication Facilities and Public Services

The district can boast of a small post office located at Zebilla, and only 8 Ghana Telecom telephone lines controlled by radio wave transmitters, 4 of which are operated as communication centres while the remaining 4 are being used by the District Assembly, the District Hospital, the Department of Agriculture and Action Aid (Ghana), an NGO. The DAEA 2008 survey reveals that about 47 per cent of the sampled respondents access communication facilities by way of vehicles, 39 per cent by walking, 11 per cent by bicycles, 1.2 per cent each by motor cycles and canoe/boats respectively, and 0.6 by means of animals. Mobile phone networks also operate in the district and these include MTN (district-wide coverage), One Touch (Vodafone) and Tigo providing limited services. A new mobile phone service provider, Zain, is mounting its facilities in Zebilla to start operations as soon as practicable. Table 2.12 shows the time spent in accessing telecom and public services. For example, the DAEA 2008 survey shows that it now takes about 56 per

cent of the population less than 15 minutes to access a drinking water source compared with 69 per cent in 2004.

Road Network and Conditions

Analysis of the district road network reveals that apart from the main Bolgatanga-Bawku road which passes through Tilli, Zebilla and Kubore, all the other roads in the district are untarred.

The tarred road covers a distance of 31 km and the rest of the roads, mainly 203 km of feeder roads, have various degrees of motorability.

Table 2.12: Access to Telecom and Public Services (%)

Time to reach Facility (TTRF) (minutes)	DAEA 2008	CWIQ 2004	(TTRF) (minutes)	DAEA 2008
Telecommunication				
Bank				
≤ 14	5.4	3.4	≤ 14	2.4
15-29	9.8	2.4	15-29	10.9
30-44	3.8	6.7	30-44	4.7
45-49	9.2	5.1	45-49	11.4
≥ 60	71.8	82.4	≥ 60	69.7
Source of drinking water				
Post office				
≤ 14	55.8	68.9	≤ 14	4.9
15-29	30.8	27.9	15-29	7.8
30-44	5	2.1	30-44	3.4
45-49	0.4	0.8	45-49	12.3
≥ 60	0.8	0.3	≥ 60	71.6
Food market				
Police station				
≤ 14	11.2	10	≤ 14	6.9
15-29	25.4	6.8	15-29	14.7
30-44	24.6	31.9	30-44	5.1
45-49	13.8	23.2	45-49	15.2
≥ 60	17.9	28.1	≥ 60	57.1
Public transportation				
Recharge vendor				
≤ 14	8.3	8.2	≤ 14	13.7
15-29	24.2	7.9	15-29	17.9
30-44	19.6	29.2	30-44	12.5
45-49	13.3	22.5	45-49	10.7
≥ 60	20.8	32.3	≥ 60	45.2

Source: DAEA Survey, 2008 and CWIQ, 2004.

Formal Financial Services

The Bawku West District Medium-Term Development report (2006) mentions the Toende Rural Bank located in Zebilla, the district capital, as the only financial institution in the district commissioned in 2004 to serve



Picture 2.3: Main Administrative Block of the Bawku West District Assembly.

the general public. Few financial transactions, such as the payment of salaries and pension to a few public and civil servants, with the majority of public and civil servants still transacting their financial businesses in either Bolgatanga or Bawku. Other identifiable groups such as farmer groups, traders, contractors, businessmen and women transact business with the Bank.

Governance (State and Traditional)

Administrative and Institutional Arrangements

The institutional structures that govern and promote local planning and development in Ghana was first contained in the Local Government Law 1988, PNDC Law 207. The Local Government Act of 1993, Act 462 that was passed by the parliament of the Fourth Republic came to replace the PNDC Law 207. These laws made bold attempts at ensuring decentralization in the country.

The Bawku West District Assembly (BWDA) is the highest administrative and political authority in the district charged with the responsibility of formulating and implementing development plans, programmes and projects (Picture 2.3). The BWDA is made up

of 43 Assembly members of which 30 are elected and 13 appointed or nominated by the government. The number of nominees includes the only Member of Parliament in the District. Out of the 43 Assembly Members 4 are Women (7%). The political and executive head of the administration is the District Chief Executive (DCE), who chairs the Executive Committee meetings. It is the Executive Committee that performs the administrative and executive

functions of the Assembly.

The Assembly is presided by a Presiding Member who is elected from the Assembly by at least, a two-thirds majority. The Assembly has nine (9) sub-committees through which the Executive Committee operates. These are:

1. *Economic Development Sub-committee*
2. *Social Services Sub-committee*
3. *Justice and Security Sub-committee*
4. *Finance and Administration Sub-committee*
5. *Environmental Management Sub-committee*
6. *Agricultural Sub-committee*
7. *Works Sub-committee*
8. *Education Sub-committee*
9. *Child Survival Sub-committee*

The sub-committees are the workshops of the Executive Committee which co-ordinates their plans and programmes in the form of recommendations and submits them as comprehensive plans of action to the Assembly for approval. The running of administration is carried out by a senior civil servant, the District Co-ordinating Director, who is in turn, supervised by the District Chief Executive.

There are 5 Area Councils and 2 Town Councils in the District. These district sub-structures became operational in 2003. There are also 92 unit committees that are yet to be made functional/effective. The District Planning and Co-ordinating Unit is manned by 2 permanent officers (the District Planning Officer and the District Budget Analyst). The unit is tasked with the planning, programming, budgeting, monitoring and evaluation of development programmes in the Bawku West District.

The District, under local Government Act of 1993, Act 462, is empowered to establish 11 Decentralized Departments for an effective and efficient discharge of its functions. Out of these 11 Departments, only 9 are established. The remaining 2 are either still tied to the aprons of their mother organizations at the regional level or have not come to open offices in the District. The established departments are:

1. *Central Administration Department*
2. *Finance Department*
3. *Education, Youth and Sports*
4. *District Health Department*
5. *Agriculture Department*
6. *Physical Planning Department*
7. *Social Welfare and Community Development*
8. *Works Department*
9. *Trade and Industry Department*

Most of these departments still have vertical reporting relationships with their regional offices. This could be expected as their financial encumbrances still come from their mother organizations. The bottleneck in the decentralization policy is not peculiar to the district alone as it pertains in all the 170 (old and newly created) districts in the country. With major strides in fiscal decentralization (and provided the revenues generated are adequate), the district can fully utilize her resources for rapid socio-economic development provided additional staff are

recruited, new working procedures are established by revising the old ones, capacity building undertaken for all decentralized departments through collaboration with development partners such as IBIS (Ghana) and DISCAP, and equipping the decentralized departments to function effectively, among others.

Traditional Authority

Traditionally, the Bawku West District is not independent. There are 11 divisional chiefs in the district and they come under the Bawku paramountcy. These divisional chiefs include:

1. *The Zebilla Naaba*
2. *The Teshie Naaba*
3. *The Binaba Naaba*
4. *The Zongoyire Naaba*
5. *The Kusanaba Naaba*
6. *The Tilli Naaba*
7. *The Widnaba Naaba*
8. *The Sapelliga Naaba*
9. *The Tanga Naaba*
10. *The Yarigu Naaba*
11. *The Timonde Naaba*

Status of MDGs

The overall development goal for a largely rural community like the Bawku West district is to achieve an improved living standard of the people through a refined and competitive business environment, enhanced human resource development and social services, with equal opportunities for all in a decentralized democratic and peaceful environment. These goals are in consonance with Ghana's determination to accelerate the growth of the economy and to achieve a per capita income of \$700 by the year 2009 as enshrined in the Growth and Poverty Reduction Strategy (GPRS II).

The GPRS II (2006–2009) document, which has been infused with the Strategic Environment Assessment (SEA) recommendations, Millennium Development Goals

(MDGs) and gender issues, focuses on policies, strategies and programmes relating to continued macro-economic stability, prioritized private sector-led growth, vigorous human resource development, good governance and civic responsibility that are necessary to propel the Ghanaian economy into higher growth trajectory and accelerated poverty reduction.

The broad strategic direction of the Bawku West District therefore originates directly from the objectives of the GPRS II (2006–2009) and indirectly from the Millennium Development Goals (MDGs). The district goals fall under three of the four main development areas of the GPRS II, namely:

1. *Priorities for Private Sector Competitiveness.*
2. *Human Resource Development.*
3. *Good Governance and Civic Responsibility.*

Table 2.13 highlights the prioritized key development areas with respect to the three thematic issues indicated above. Appendix 1 details the strategies required to achieve the set objectives as indicated in the medium-term development plan (2006–2009) of the Bawku West District. The tackling of these key development issues with the mind of achieving the MDGs will require significant amounts of capital injection into the district.

Table 2.13: Prioritized Key Development Issues of the Bawku West District

A. PRIVATE SECTOR COMPETITIVENESS	
1.	High incidence of food and nutrition insecurity
2.	Limited private sector investment
3.	Rampant bush (wild) fires
4.	Rapid environmental degradation
5.	Low infrastructural development
6.	Outbreak of livestock and poultry diseases
7.	Outbreak of crop pests and diseases
B. HUMAN RESOURCE DEVELOPMENT	
<i>Population Management</i>	
1.	Very high out-migration, especially amongst the youth during the long dry season.
2.	High population growth rate
3.	Gender inequalities
<i>Health</i>	
1.	Low access to health care services
2.	High incidence of malaria
3.	High incidence of child malnutrition
4.	Increasing incidence of HIV/AIDS infection
5.	Low patronage of the Mutual Health Insurance Scheme
<i>Education</i>	
1.	Low standard of education in the district
2.	Low school enrolment, especially at the Pre-school and JSS levels
3.	Low retention of the girl-child at the JSS level
<i>Water and Sanitation</i>	
1.	Poor sanitation
2.	Inadequate access to potable water
C. GOOD GOVERNANCE AND CIVIC RESPONSIBILITY	
1.	Weak performance of the District Assembly
2.	Weak operationalisation of sub-district structures
3.	Low revenue generation by the District Assembly
4.	Weak integration of the District Departments into the District Assembly system
5.	Low participation of women and other vulnerable people in decision making
6.	Prevalence of outmoded cultural practices
7.	Weak collaboration of Development Partners and the District Assembly
8.	High incidence of crime
9.	Incidence of sporadic communal conflicts.

Source: Bawku West DMTDP Report, 2006.

According to the Bawku West District Assembly, this four-year development plan (2006–2009), which is estimated to cost GH¢15,189,619.00 are expected to be financed through the following sources:

1. *District Assemblies' Common Fund (DACF)*
2. *Public Investment Programme (PIP)*
3. *HIPC Funds*
4. *External Support Agencies (ESA)/Development Partners*
5. *District Assembly locally generated revenue*
6. *Private Sector, and*
7. *Community Contributions.*

Obviously, the achievements or success of this well-intentioned development issues will largely depend on the mobilization of adequate funds from both external and internally generated sources.

Table 2.14 presents the sources of internally generated funds (IGF) for the period: 2003 to 2005 and these mainly come from basic rates, property rates (bicycle rates), cattle rates, market tolls and store/stall rent from the Zebilla and Binaba markets. It must be noted that for some of the periods especially, during the hunger gap (i.e., from April to June), no income is generated by the Assembly.

In general, internally generated revenue by the district is very poor and if funds from external sources such as the District Assembly Common Fund (DACF), HIPC fund, among others, are not forthcoming and adequate, the development plans may be impacted negatively with serious implications for achieving the MDGs and their sustainability.

Table 2.14: Internally Generated Funds by Revenue Head, 2003–2005

REVENUE SOURCE	2003		2004		2005	
	Budget (GH¢)	Actual (GH¢)	Budget (GH¢)	Actual (GH¢)	Budget (GH¢)	Actual (GH¢)
Rates	2,686.04	1,303.50	3,204.00	1,260.40	1,950.00	1,136.00
Lands	120.00	3.00	144.00	6.00	50.00	240.90
Fees and Fines	9,137.00	4,669.60	14,274.00	13,809.90	17,150.00	17,062.50
Licences	2,205.00	2,290.00	3,828.00	2,610.90	4,340.00	2,687.20
Rent	2,052.00	1,710.10	3,360.00	1,266.40	2,110.00	3,344.10
Investment Income	2,200.00	2,745.36	5,220.00	6,484.13	8,300.00	3,854.67
Miscellaneous	5,000.00	1,988.55	3,000.00	2,596.90	3,850.00	4,442.85
TOTAL	23,400.04	14,710.11	33,030.00	28,034.63	37,750.00	32,768.22
% Achieved		62.8%		84.9%		86.8%

Source: Bawku Wes

CHAPTER 3

Economic Activity and Poverty

Introduction

Economic and social development of the Bawku West District depend largely on the quantity and quality of productive resources such as land, physical capital, and labour available in the district. In the process of eradicating extreme poverty and hunger, which is one of the Millennium Development Goals (MDGs) set by the United Nations, productive resources must be efficiently utilized. Most importantly, the economically active population must be gainfully employed and or undertaking some kind of rewarding activity. Moreover, the quantity and quality of available labour force plays a crucial role in effectively combining land and physical capital to create wealth and for that matter reduce poverty. As indicated in the District Medium Term Development Plan (2006-2009), the overall development goal for the Bawku West District is “to achieve an improved living standard of the people through a refined and competitive business environment, enhanced human resource development and social services, with equal opportunities for all in a decentralized democratic and peaceful

Table 3.2: Employed Persons by Locality and Gender

Locality	Male		Female		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Urban	106	50.2	84	43.3	190	46.9
Rural	105	49.8	110	56.7	215	53.1
Total	211	100	194	100	405	100

Source: DAEA Survey, 2008

environment.” This chapter presents the major economic activities, the number of employed and underemployed people in the economically active population in the district. Child labour issues are also discussed in addition to assessing the level of poverty in the district.

Employment and Major Economic Activities

The economically active population consists of persons who are either employed (that is, those who worked during the reference period, or had job but did not work) or were unemployed. Table 3.1 presents the economically active population by gender and locality and this group represents persons aged 15 years and older. About 75.3 per cent of the sampled population, representing 1,079 persons, constitute the economically active population in the district.

Table 3.1: Economically Active Population by Locality and Gender

Locality	Male		Female		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Urban	290	51.8	260	50.1	550	50.9
Rural	270	48.2	259	49.8	529	49.1
Total	560	100	519	100	1079	100

Source: DAEA Survey, 2008.

There are slightly more males in the urban locality (51%) than there are females. The 2000 population census had 30,975 persons (constituting 8.6%) in the economically active population in the Bawku West District. Among the economically active population in the district, about 405 persons, constituting 37.5 per cent, are employed in one trade or the other. The details are shown in Table 3.2. Interestingly, more persons in the rural settings are employed (53%) compared with those in the urban areas of the district.

In general, more males (52%) are employed than females, although the data reveals that there are slightly more females employed in the rural areas (51%) than in the urban locality. Unemployed persons in the economically active population constitute 62.5% (674 persons) and this situation is more

pronounced in the urban areas and is dominated by males (see Table 3.3). Among the unemployed persons, the study finds that 236 persons (35%) are underemployed with more females than males in this category. Refer to Table 3.4 for the details.

The district has majority (about 70%) of the sampled population in the economically active population engaged in the agricultural activities (which includes fishing), followed by those involved in wholesale and retail trade (about 6%) as shown in Figure 3.1. There appears to be a structural shift from agriculture and manufacturing to the wholesale and retail business when comparing the 2000 and 2008 figures. The decrease in the proportion of people in agriculture and manufacturing appears to have been compensated for by the increases in the trading and other activities in the Bawku West district. These “other” include mining and quarrying, construction, finance, community, and social services, among others.

Again, of the unemployed person, 155 (23%) indicated that they are actually looking for jobs (Table 3.5). The data shows that indeed there were more female job seekers (86) than male (69) in 2008.

An examination of the status of employment in the district reveals that the numbers of self-employed persons with employees, unpaid family workers, casual workers, and regular employees have all increased when compared to the figures for the 2000 population census figures (Figure 3.2). These increases are likely not to be in the

agricultural sector but rather in trading and the services sector.

The significant point to note in Figure 3.3 is that majority of the working population (about 86%) are found in the private informal sector of employment and this represents a 16.5 percentage point increase over the 2000 figures. While public sector employment increased, that of private formal employment declined when compared with the 2000 census figures.

Table 3.3: Unemployed Persons by Locality and Gender

Locality	Male		Female		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Urban	184	52.7	176	54.1	360	53.4
Rural	165	47.3	149	45.9	314	46.6
Total	349	100	325	100	674	100

Table 3.4: Under-employed Persons by Locality and Gender

Locality	Male		Female		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Urban	67	57.2	60	54.5	127	53.8
Rural	50	42.8	59	45.5	109	46.2
Total	117	100	110	100	236	100

Table 3.5: Unemployed Job Seekers by Locality and Gender

Locality	Male		Female		Total	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Urban	29	42	42	48.8	71	45.8
Rural	40	58	44	51.2	84	54.2
Total	69	100	86	100	155	100

Source: DAEA Survey, 2008.

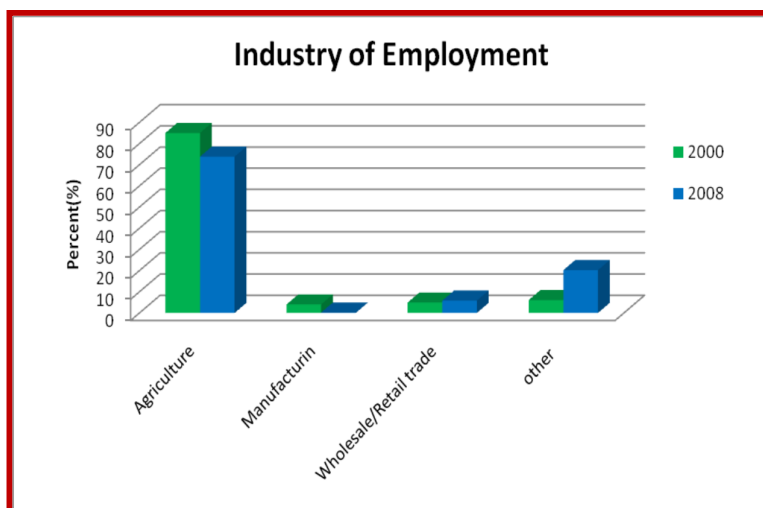


Figure 3.1: Employment Type by Industry.

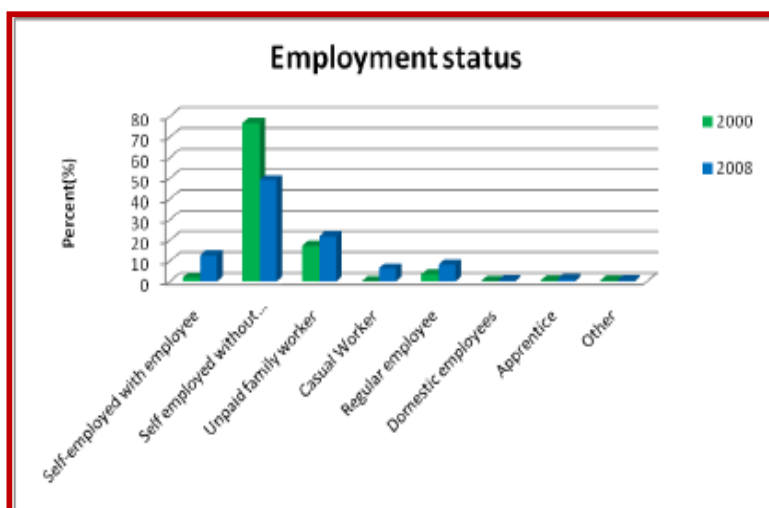


Figure 3.2: Employment Type by Status.

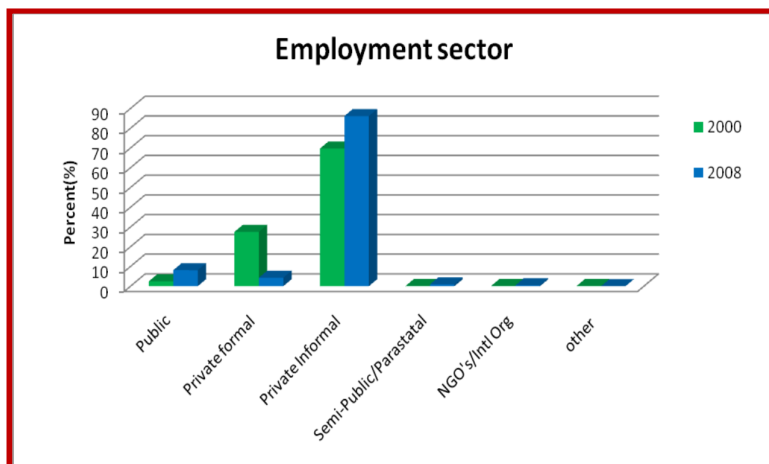


Figure 3.3: Employment Type by Sector.

Source: DAEA Survey, 2008 and 2000 Population Census.

Child Labour

The issue of child labour has received much attention in discussions on employment issues, especially in developing countries, although there are disagreements regarding the appropriate definition of child labour. However, the figures available from the sampled population in the Bawku West District indicate the involvement of children aged from 7 to 14 years in some form of work or economic activity as shown in Table 3.6. The data, however, is silent on the actual type of work undertaken to categorize the activity as child labour or child work.

These children constitute 1.5 per cent of the sample population with an equal distribution across gender and locality. However, children 10 years and older form the main group involved in child labour (Table 3.6).

Poverty and Food Security

The first of the MDGs aims at eradicating extreme poverty and hunger by the year 2015 with targets of halving both the proportion of people whose income is less than one dollar a day and those who suffer from hunger. Both targets more or less address the issue of food insecurity, particularly among the poor.

Table 3.6: Children Engaged in Work by Locality and Gender

Age	Urban			Rural			Total	
	M	F	Total	M	F	Total	Freq	%
7	2	1	3	0	0	0	3	18.8
8	0	0	0	0	0	0	0	0
9	1	0	1	0	0	0	1	6.2
10	0	1	1	0	1	1	2	12.5
11	0	0	0	2	0	2	2	12.5
12	0	0	0	0	2	2	2	12.5
13	1	0	1	0	0	0	1	6.3
14	2	0	2	0	3	3	5	31.2
Total	6	2	8	2	6	8	16	100

Notes: M=Male, F=Female, Freq=Frequency.

Source: DAEA Survey, 2008.

In recognizing the need to reduce poverty and enhance food security conditions, the overall goal of the Medium-Term Development Plan (2006–2009) of Bawku West District of the Upper East Region seeks, among others, to achieve an improved living standard of the people. The *incidence* of poverty (the proportion of a given population identified as poor because they fall below the national poverty line) and *depth* of poverty (or the extent to which those defined as poor fall below the poverty line) are two measures used in Ghana to track poverty changes and are based on the standard of living measures. Data from the 1991/92 and 1998/99 rounds of the Ghana Living Standards Surveys (GLSS) conducted by the Ghana Statistical Service revealed an increase in the incidence of poverty (P_0) from 67 per cent in 1991/92 to 88 per cent in 1998/99 and later declined to 70 per cent in 2005/06 in the Upper East Region (Table 3.7). The national figures for Ghana declined from 52 per cent to 40 per cent for the same eight year period. Poverty incidence declined both in rural and urban areas of the Upper East Region for the same period under consideration. The depth of

poverty (P_1/P_0) worsened from 43 per cent (1991/92) to 50 per cent in 1998/99, suggesting that among those considered as poor, there are, for example, 50 per cent of such people whose average standard of living falls below the selected poverty (which is GH¢90.00).

In terms of rankings of the incidence of poverty in Ghana, the Bawku West and the Bongo Districts were the worse ranked districts in Ghana, with an overall ranking of 99 per cent (NDPC 2005).

Subjective Poverty

Although available data generally suggest worsening incidence and depth of poverty in the Upper East Region, how do households perceive or consider themselves in terms of poverty? The answer to this question is found in Table 3.8 where about 68 per cent of households in the Bawku West District perceive themselves as poor, of which 33 per cent believe they are very poor, representing the highest percentage in the “very poor” category in the region. This high perception of the acceptance of being very poor may influence behaviour and attitudes with likely implications on the lack of commitment to pay levies to support community development efforts.

Table 3.7: Incidence and Depth of Poverty: Upper East Region (%)

Location	P_0			P_1/P_0		
	91 /92	98 /99	05/06	91 /92	98 /99	05 /06
Upper East	66.9	88.2	70	42.8	49.9	
Rural	63.6	49.5				
Urban	27.7	19.4				
Location						
Rural Savannah	73	70				
Urban Savannah	37.8	43				
Accra	23.1	3.8				
Ghana	51.7	39.5				

Source: Ghana Statistical Service, 2000.

Food Security

The inability to meet household food needs at all times serves as an indicator of the poverty

Table 3.8: Households Perceived Poverty Status (%)

Location	Sample size	Non-poor	Somewhat non-poor	Neither	Poor	Very poor
Upper East	2,430	1.2	7.7	19.4	54.3	17.3
Builsa	405	0	2.4	25.1	56.4	16.2
Kassena-Nankani	405	0.2	0.4	13.3	71.7	14.4
Bongo	405	0.5	3.1	22.8	50.8	22.8
Bolgatanga	405	1.5	5.2	24.4	57	11.9
Bawku West	405	3.7	13.3	15.3	34.6	33.1
Bawku East	405	1.8	17.7	16.3	45.2	19.1
Ghana	48,969	2.9	7	43.2	37.1	9.7
Rural	30,696	1.6	5.1	37.2	43.7	12.4
Urban	18,273	4.6	9.3	50.3	29.3	6.6

Source: CWIQ, 2004.

Table 3.9: Difficulty in Satisfying Food Needs Compared to a Year Ago (%)

Location	Sample Size	Never	Seldom	Some-times	Often	Always
Upper East Region	2,428	6.4	6.5	46.7	18.2	22.2
Builsa	403	1.2	5.6	40.6	30.1	22.6
Kassena-Nankani	405	1.8	6.8	33.5	34.9	23
Bongo	405	1	3	50	17.6	28.3
Bolgatanga	405	8.5	8.9	47.2	8.5	26.8
Bawku West	405	6.1	5.2	41.1	21.6	26
Bawku East	405	11.4	5.7	58.8	10.9	13.2
Ghana	48,973	33.7	13.8	39.6	9.4	3.4
Rural	30,700	31.8	13.6	40.8	10	3.9
Urban	18,273	36.1	14.1	38.2	8.7	2.9

Source: CWIQ, 2004.

status of such households. Whenever households experience food shortages in certain months of the year, the standards of living of the affected deteriorate and for that matter deepens their poverty levels. Nevertheless, food insecurity problems still persist nationwide and for that matter in the Bawku West District.

As shown in Table 3.9, about 93 per cent of households in the Bawku West District

somehow experience the difficulty in satisfying their food needs. While 26 per cent of these households are always unable to meet their food needs, about 22 per cent often experience this situation and as high as 41 per cent sometimes encounter this situation. This appears to be the trend for the entire Upper East Region and this difficulty in satisfying food needs seems, to be more pronounced in rural Ghana.

The DAEA survey, as shown in Figure 3.4, shows the response of 680 households who experienced severe food shortage in the preceding 12 months. It is clear that the months from March to July are critical periods in terms of severe food shortages for about 84 per cent of households in the district. These critical periods coincide with periods when farm house-

holds have planted their crops and awaiting harvesting, often termed the hunger gap.

Various important reasons were advanced for the inability to satisfy all of the households' food needs. Notable among them are poor harvests due to unfavourable climatic conditions (35%), poor harvests due to pest and disease infestations (17%), high food prices (17%), and the death of an income earning member of the household (Table 3.10).

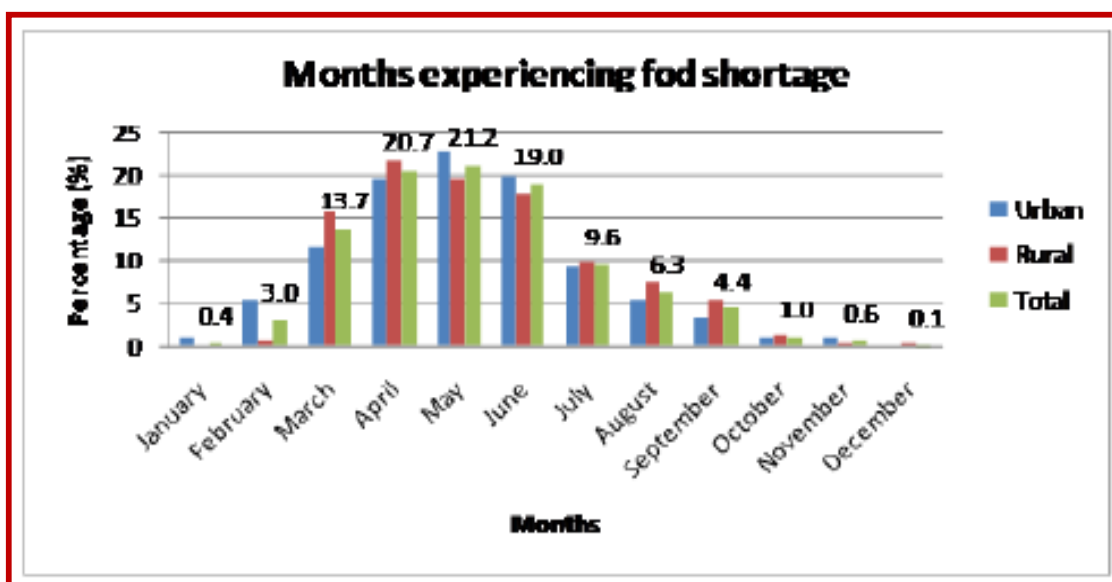


Figure 3.4: Periods of Experiencing Severe Food Shortages.

Table 3.10: Reasons for Difficulty in Satisfying Household Food Needs

Reasons	No. of households affected	% of affected households
An Income earning member of household died	38	10.6
An Income earning member of household left	9	2.5
Additional member joined the household	24	6.8
An income earning member of household no longer working	5	1.4
Remittances no longer received	2	0.6
Reduction in remittances received	1	0.3
Poor harvest (pest/disease)	61	17.2
Poor harvest (climatic conditions, e.g. drought)	125	35.2
Problem with storage	7	2.0
Most farm produce sold cheaply after harvest	19	5.4
Food prices became too high	59	16.6
Reduced access to land	5	1.4
Total	355	100.0

Source: DAEA Survey, 2008.

Education and Literacy

Introduction

The importance of education to any economy cannot be over-emphasized and the development of the human resource is one of the four-anchor priority areas relevant to Ghana's development agenda as mentioned in the GPRS II document. The second and third MDGs, which respectively aim at achieving universal primary education for children everywhere by the year 2015 and promoting gender equality and the empowerment of women through primary and secondary education in all levels no later than 2015, recognizes the need for universal basic education. The computation of the Human Development Index (HDI) also considers education (i.e., literacy and enrolment in school) as one of the three very fundamental dimensions in terms of development. This knowledge indicator focuses on the adult literacy rate and the combined primary, secondary, and tertiary gross enrolment ratio to capture or measure progress made in education.

The Bawku West District also recognizes the importance of education as indicated in their district medium term development plan for 2006–2009. Whether education is formal or informal, it helps develop the human resource capacity at the national, regional, and district levels. Does the district possess the needed educational resources to help achieve the targets set for

the educational sector and for that matter achieve the MDGs? The following sections provide information on available infrastructure, access to education, literacy and enrolment levels in the district, *inter alia*.

Education Infrastructure

Number and Type of Schools

Education in the district, as shown in Table 4.1 is provided by both the public and private sector. The contribution of the private sector in providing education is quite minimal, limited to the pre-school and primary levels and not junior high and senior high school levels. The district is also endowed with only one vocational training centre which provides post-secondary education.

Whereas the numbers of public pre-schools have seen a steady increase from 13

Table 4.1: Number of Schools by Type and Ownership

Type of School	Public			Private			Total		
	2003 /04	2004 /05	2005 /06	2003 /04	2004 /05	2005 /06	2003 /04	2004 /05	2005 /06
Pre - school	13	28	46	–	2	2	13	30	48
Primary	50	58	64	2	2	2	50	58	64
JHS	13	14	17	–	–	–	13	14	17
SHS	2	2	2	–	–	–	2	2	2

Source: Bawku West District Medium Term Development Report (2006–2009).

in 2003/04, 28 in 2004/05 and 46 in 2005/06, the number of private pre-schools for the same 3-year period remained at 2. The number of private schools has now increased to 4 as at 2008. The number of public primary schools has also increased from 50 in 2003/04 to 64 in 2005/06, as the contribution from the private sector at this level has remained at 2

for the same period. This is not unexpected in such relatively deprived environments where actual and perceived poverty is very high. Meanwhile, the Bawku West District Assembly notes that between 6 and 9 public pre-schools needed major repairs while close to 90 per cent of public primary school needed major repairs in 2006.

The provision of toilet facilities and portable water in public primary schools has not been enough. As at 2006, 28 and 22 of the 64 public primary schools had access to toilet facilities and portable water respectively. The number of laboratories in the two Senior High Schools has remained the same for the period under consideration with very poor and obsolete laboratory equipment and apparatus.

Quality of Education

The quality of education depends on several factors, including pupil textbook ratio, pupil teacher ratio (PTR), percentage of trained teachers and basic infrastructure. In general, the number of trained teachers in the public schools of the district has seen downward turns. As at 2006, the district had about 14 per cent of its trained teachers at the pre-school level, 59 per cent at the primary and 73 per cent at the Junior High School levels for the public schools, all representing declines over the preceding periods (see Table 4.2). Increase in the number of teachers over the years at the public pre-school level is largely due to the intake of more untrained teachers. The 2 private pre-schools all depend on the services of 12 untrained teachers as at 2006, with a pupil teacher ratio (PTR) of 11:1.

The PTR worsens as one moves from JHS to Primary and to the Pre-school levels in the public institutions. For example, the PTR gap continued to increase over the period 2003/04 to 2005/06 from 118:1 to 217:1 at the pre-school level despite the steady increase in the number of teachers. The introduction of the capitation grant may have resulted in an

increase in enrolment during these periods. The district experienced a drastic decline in pupil teacher ratio at the primary level from 75:1 during the 2003/2004 academic year to 68:1 in the 2005/2006 academic year. This was not good in comparison with the regional and national PTRs.

Table 4.2: Teaching Staff in Bawku West District (2004–2006)

PUBLIC					
Pre-school					
Year	T	U	Total	%T	P/T R
2004	1	6	8	12.5	118:1
2005	2	10	13	15.4	159:1
2006	2	12	14	14.3	217:1
Primary					
Year	T	U	Total	%T	P/T R
2004	102	23	143	71	75:1
2005	120	43	163	74	70:1
2006	120	83	203	59	68:1
JHS					
Year	T	U	Total	%T	P/T R
2004	48	14	62	77	30:1
2005	48	12	60	80	36:1
2006	54	20	74	73	32:1
PRIVATE					
Pre-school					
Year	T	U	Total	%T	P/T R
2004	–	–	–	–	–
2005	–	6	6	–	20:01
2006	–	12	12	–	11:01

Source: T = Trained, U = Untrained, P/TR = Pupil/Teacher Ratio.

Source: Bawku West District Medium-Term Development Report (2006–2009).

It must be mentioned that the per cent trained teachers in the district at the primary and junior high levels have been commendable except in 2005/2006 where the figures declined to 59 per cent and 73 per cent respectively. This trend could be attributed to the high teacher motivation, availability of staff quarters for teachers and the district assembly offering sponsorship to beef up the teaching staff. A major challenge that the district faces is the ability to maintain these trained teachers over time, irrespective of whether they have been sponsored by the District Assembly or not.

Table 4.3: Travel Time to the Nearest Schools in the Bawku West District, 2008

School/ Travel Time (minutes)	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
Primary						
≤ 14	15	14.9	23	23.9	38	19.3
15 – 29	49	48.5	42	43.8	91	46.2
30 – 44	23	22.8	13	13.5	36	18.3
45 – 49	8	7.9	7	7.3	15	7.6
≥ 60	6	5.9	11	11.5	17	8.6
Junior High						
≤ 14	5	4.8	10	8.7	15	6.8
15 – 29	40	38.1	28	24.3	68	30.9
30 – 44	28	26.7	47	40.9	75	34.1
45 – 49	17	16.2	17	14.8	34	15.5
≥ 60	15	14.2	13	11.3	28	12.7
Senior High						
≤ 14						
15 – 29	10	9.8	4	3.5	14	6.2
30 – 44	23	22.5	7	6.2	30	13.3
45 – 49	11	10.8	22	19.5	33	14.7
≥ 60	58	56.9	80	70.8	148	65.8

Note: Freq = Frequency

Source: DAEA survey, 2008.

Table 4.4: Means of Travel to the Nearest Schools, Bawku West District, 2008

Primary School	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
Vehicle	1	0.9	–	–	1	0.5
Motor-cycle	–	–	–	–	–	–
Foot	99	91.7	93	90.3	192	90.9
Animal	–	–	1	0.9	1	0.5
Canoe/boat	–	–	–	–	–	–
Bicycle	8	7.4	9	8.8	17	8.1
Junior High						
Vehicle	5	5.1	2	1.9	7	3.5
Motor-cycle	1	1	–	–	1	0.5
Foot	83	83.8	88	87.3	171	85.5
Animal	–	–	1	0.9	1	0.5
Canoe/boat	–	–	–	–	–	–
Bicycle	10	10.1	10	9.9	20	10
Senior High						
Vehicle	30	34.1	41	41	71	37.8
Motor-cycle	1	1.1	1	1	2	1
Foot	48	54.5	42	42	90	47.9
Animal	–	–	1	1	1	0.5
Canoe/boat	–	–	2	2	2	1
Bicycle	9	10.2	13	13	22	11.8

Note: Freq = Frequency. Source: DAEA survey, 2008.

The inability to maintain these human resources could negatively impact on the districts educational targets over the medium

to long-term. The Ghana Poverty Reduction Strategy (GPRS) II has as its objective the provision of three text-books per pupil. Information available suggests that it was only in 2004/2005 academic year that the pupil-textbook ratio was 0.23 at the primary school level and 0.41 at the junior high level. No text-books were available for the previous years and the situation has been very appalling. The pupil-textbook ratio for core subjects was 1:1 at the primary school level in the district.

Access to Education

The Core Welfare Indicators Questionnaire (CWIQ) Survey report of 2004 reveals that access to school for children currently attending school in the Bawku West District was about 46.1 per cent for primary level and 7.5 per cent for secondary level. The corresponding figures for the Upper East region are 61.9 per cent for primary and 7.9 per cent for secondary, suggesting a low access to primary education for children in the district.

The DAEA survey indicates that about 65 per cent, 38 per cent, and 20 per cent of sampled households in the district are within 30 minutes' reach to primary, Junior High, and Senior High Schools respectively (see Table 4.3). This trend clearly suggests the inadequacy of higher academic institutions in the district as it becomes increasingly difficult in terms of time accessing these institutions. Majority of the students spend more than an hour to reach a senior high school. This situation is really unpleasant and could serve as a disincentive to acquire higher education, especially when there are no boarding

facilities. There is no clear pattern in travel time for rural and urban communities except to mention that more students in urban towns

of the district take more than 45 minutes of travel time to reach a senior high school.

Table 4.4 reveals that most of the students in the district travel by foot to the nearest schools. About 90 per cent, 86 per cent, and 48 per cent travel on foot to the nearest primary, junior, and senior high schools respectively. The next highest means of transport to access education is the use of bicycles for commuting to and from primary and junior high schools while the use of motor bikes, a much faster and easier means, represents the second highest mode of transportation to senior high schools. Probably the longer travel distances to the nearest senior high schools compel the students to commute with motor-bikes. Households in the rural areas travel longer distances to the nearest senior high school due to their unavailability. This might have contributed to the lower number of the rural population having access to post-secondary education.

Educational Attainment and Literacy

The 2000 population and housing census estimated that 77.8 per cent of the population above the age of 6 years in the district had never been to school. The DAEA 2008 survey reports a decline in this indicator to 72.1 per cent as shown in Table 4.5. This may account for the high illiteracy among the rural population in the district. More females than males in both the urban and rural areas have never been to school, indicating some degree of unfairness against female education. The study finds that about 51 per cent of all household members are currently in school.

The proportion of males who had never been to school was 72.3 per cent in 2000 but has dropped to 66.4 per cent according to the DAEA socio-economic survey in 2008. There has been a drastic decline in the proportion of females who have never been to school from 82.7 per cent in 2000 to 77.2 per cent in 2008. Despite this decline, the proportion of females who have never been to school is still higher than the males.

The highest level of education attained in the district is the primary education (42.1% of the population). Females form the largest proportion (44.4 %) compared to 40.6 per cent of males. About 67 per cent of those 6 years and above who have attended school reached only the primary and junior high levels and 6.8 per cent reached the senior high level. The proportion of the males (25.3%) who reached the junior high level is greater than that of the females (24.8%) while 6.3 per cent males and 7.4 per cent females managed to go further to the senior high level.

Females in the district seem to be more educated than the males. Majority of females (15%) compared to males (7.6%) who have ever been to school obtained post-secondary education (vocational and technical schools, teacher training colleges, and nursing training schools). About 4.5 per cent reached the tertiary level, comprising 6.3 per cent males and 1.9 per cent female. About 17.1 per cent of the urban population who have attended school obtained a post secondary education as against 12.3 per cent of the rural population.

Table 4.5: School Attendance

School Attendance	Urban				Rural				Total	
	Male		Female		Male		Female			
	F	%	F	%	F	%	F	%	F	%
Ever been to school	42	44.2	34	29.3	37	26.4	25	17.5	138	27.9
Never been to school	53	55.8	82	70.7	103	73.6	118	82.5	356	72.1
Currently in school										
Yes	150	64.7	96	48.7	131	50	92	38.7	469	50.5
No	82	35.3	101	51.3	131	50	146	61.3	460	49.5

Note: F=Frequency. Source: DAEA Survey, 2008.

Literacy

According to the 2004 CWIQ report, the overall literacy rate (i.e., ability to read and write) for the youth (ages 15 to 24) in the Bawku West District was 37.7 per cent, which represents the lowest for the Upper East Region. There were more literate males (44.7%) compared to females (29.3%) in the district as indicated in Table 4.6.

Table 4.6: Youth Literacy Rate by Gender (%)

Location	Male			Female			Overall Literacy Rate
	Sample size	Yes	No	Sample size	Yes	No	
Upper East	1,125	49.3	50.7	956	42.4	57.6	46.1
Builsa	210	34.5	65.5	174	47.9	52.1	40.4
Kassena-Nankani	172	56.4	43.6	133	58.9	41.1	57.5
Bongo	136	47.9	52.1	137	37.5	62.5	42.7
Bolgatanga	183	58.8	41.2	187	46.6	53.4	52.7
Bawku West	188	44.7	55.3	154	29.3	70.7	37.7
Bawku East	236	44.4	55.6	171	31	69	38.8
Ghana	19,603	75.3	24.7	19,118	63.5	36.5	69.4
Rural	12,203	63.9	36.1	11,282	49.9	50.1	57.1
Urban	7,400	88.3	11.7	7,836	76.8	23.2	82.3

Source: CWIQ, 2004.

This illiteracy rate of 62.3 per cent for the district can therefore be described as very high. Compared to the DAEA survey data, majority, constituting about 75 per cent, can neither read and nor write English and 79 per cent cannot read and or write their local language (see Table 4.7).

Table 4.7: Literacy Rate by Gender and Locality (%)

Language Literacy	Urban				Rural				Total Female	
	Male		Female		Male		Female			
	F	%	F	%	F	%	F	%	F	%
English Language										
Read & write	43	27.1	23	14.1	39	26.4	19	11.7	124	19.7
Read only	9	5.8	9	5.5	7	4.7	6	3.7	31	4.9
None	104	66.7	131	80.4	102	68.9	138	84.7	475	75.4
Local Language										
Read & write	32	20.6	9	5.6	25	17	8	4.9	74	11.8
Read only	15	9.7	15	9.3	13	8.8	13	8	56	9
None	108	69.7	137	85.1	109	74.1	142	87.1	496	79.2

Note: F=Frequency. Source: DAEA Survey, 2008.

This high level of illiteracy also pertains to a similar extent in rural and urban communities alike and appears to be predominant among females than males. English literacy is higher among the urban population. Such high illiteracy rates among the youth are quite worrying when juxtaposed with the district goals and the achievement of MDGs on education and indeed, the adult

literacy dimension of the Human Development Index, for the district will be adversely affected. One possible implication of such low literacy rates is the difficulty in reaching set targets for the second and third MDGs for education.

Non-formal education in the district has a role to play in equipping the people with reading and writing abilities. The “equal education” programme that commenced in the district 2 years ago was to equip the shepherd boys with

the reading and writing skills.

School Enrolment

The Bawku West District has experienced increases in school enrolments since 2003/04 academic year. In general, Gross Enrolment Rate (GER) increased over the three years at

the Pre-school, Primary, JHS, and SHS levels (see Table 4.8). For example, the GER for pre-school surged from 4 per cent in 2003/04 to 29 per cent in 2004/05 and then increased considerably to 42 per cent in 2005/06. The trend in Male Gross Enrolment Rate (MGER) and Female Gross Enrolment Rate (FGER)

over these same years also increased accordingly.

Table 4.8: Enrolment Rate by Year and Level of Schooling (%)

Level	MGER			FGER			GER		
	03/04	04/05	05/06	03/04	04/05	05/06	03/04	04/05	05/06
Pre-school	13	27	39	15	31	45	4	29	42
Primary	61	56	74	64	74	79	62	64	76
JHS				32	38	41	35	40	43
SHS	5	9	10	4	8	9	5	8	9

Source: Bawku West District Medium Term Development Report (2006–2009).

Some of the plausible reasons for such high enrolment rates include sensitization and government policy on kindergarten and its adherence. To maintain such high rates, the district needs to intensify its sensitization efforts and provide infrastructure to absorb the high numbers that enroll. Reasons advanced for observing high female enrolment rates of 15 per cent, 31 per cent and 45 per cent over the three years include, *inter alia*, the school feeding programme, Government policy on Early Childhood Education, and the record of more female children than males in the district. To maintain these high girl child enrolments, the district should consider providing incentives, such as the provision of bicycles and school uniforms, to pupils who commute long distances to school. Obviously, the intensification and expansion of the school feeding programme to cover all schools and pupils will go a long way in retaining pupils in schools.

The data on current enrolment, according to the DAEA survey (2008) revealed a decline in enrolments at JHS (from 17.2% in 2000 to 14.7% in 2008), SHS (from 8.6% in 2000 to 6.6% in 2008), and post-secondary levels (from 9% in 2000 to 4.3% in 2008). Meanwhile, enrolments surged at the pre-school (from 1.3% in 2000 to 7.7% in 2008) and primary level (from 63.9% in 2000 to 66.7% in 2008).

The Gender Parity Indicator for the district over the years has seen a tilt favouring

the enrolment of the girl child over their male counterpart with just a slight edge. The trend

recorded 1.02 (2003/04), 1.32 (2004/05), and 1.07 (2005/06). Majority of females (80.1%) are currently enrolled in the pre-school and

primary school levels compared to males (70.6%). It shows that, girl child education at the basic level has currently received the necessary recognition and importance among parents in the district.

This is an indication that the numerous campaigns by government and various NGOs have been fruitful over the years. As one moves higher the educational ladder, female enrolment seems to decline compared to males. About 8.5 per cent males are currently enrolled in the senior high school as against 3.8 per cent females. The proportion of males currently enrolled in any post-secondary institution (vocational and technical schools, teacher training colleges, agric colleges and tertiary institutions) is about 6.1 per cent as compared to 4.3 per cent for females. The influence of Islamic religion, poverty and other cultural practices may have brought about the decline in the female educational attainment.

Interruptions in School Attendance

Experiencing high enrolment rates and not always available in class to receive tuition poses a great challenge, not only to parents and educational institutions but also jeopardizes the development goals of providing quality education to members of the community. Thus interruptions in school attendance may adversely affect a child's ability to comprehend and follow lessons.

Table 4.9: Days Missed in School with Reasons

School Attendance	Urban		Rural		Total	
	F	%	F	%	F	%
Missed some days in school						
Yes	153	28.9	75	30.4	228	29.3
No	377	71.1	172	69.6	549	70.7
Total	530	100	247	100	777	100
Reasons for missing school						
Sickness	122	78.2	61	80.3	183	78.8
Needed on farm/shop/home	15	9.6	5	6.6	20	8.6
No money to pay fees & other expenses	6	3.8	3	3.9	9	3.9
Child not interested	10	6.4	6	7.9	16	6.9
Bad weather	1	0.6	1	1.3	2	0.9
Other	2	1.3			2	0.9
Total	156	100	76	100	232	100
Back to school						
Yes	136	91.3	66	90.4	202	90.9
No	13	8.7	7	9.6	20	9.1
Total	149	100	73	100	222	100

Note: F=Frequency. Source: DAEA Survey, 2008.

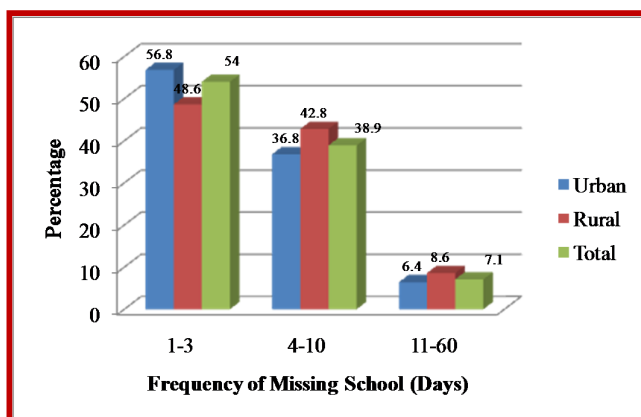


Figure 4.1: Frequency of Missing School by Location.

This may result in absenteeism and may eventually lead to the child dropping out of school. Less than 30 per cent of children attending schools in the district missed some days in school for one reason or the other as in Table 4.9. The proportion of students in the rural areas (30.4%) who missed some days in school is slightly above those in the urban areas (28.9%). This is likely to be the case as their labour services are most needed by their parents on the

farms or as shepherds or cowboys.

Most children (78.8%) missed some days in school due to sickness. The poor water system and inadequate health centres in the district makes them more vulnerable to diseases and sickness with a greater percentage of children in the rural areas most affected. The next frequently mentioned reason for missing school, which constitutes 8.6 per cent, was the fact that their services were needed on the farm, shop or home. About 8.6 per cent of the students were needed on the farm, shop or home and this made them lose some days of school (Table 4.9).

The frequency of missing school, as shown in Figure 4.1, indicates that more people in the urban settings (56.8%) than in the rural (48.6%) of the district have missed up to 3 days while higher frequency of missing school from 4 to 10 days is higher in the rural communities (42.8%) than in the urban areas (36.8%).

Table 4.10 indicates that more than two-thirds of parents in the district were either satisfied or very satisfied with the quality of education their wards receive. Quite a number of parents (17.9%) were uncertain with the quality of education being offered and interestingly, these parents could neither read nor write in either English language or a Ghanaian language.

Table 4.10: Level of Satisfaction with Quality of Education Children Receives

Satisfaction Level	Urban		Rural		Total	
	F	%	F	%	F	%
Very satisfied	18	9.1	14	14.9	32	10.9
Satisfied	120	60.9	51	54.3	171	58.8
Uncertain	35	17.8	17	18.1	52	17.9
Dissatisfied	23	11.7	12	12.8	35	12
Very Dissatisfied	1	0.5	0	0	1	0.4
Total	197	100	94	100	291	100

Note: F=Frequency.

Source: DAEA Survey, 2008.

Health, Water and Sanitation

Introduction

The overall goal of Ghana's health sector as enshrined in the GPRS II is to improve the health status of Ghanaians and ensure equity in health outcomes in Ghana. To accelerate access to quality health services, three broad policy objectives are pursued: bridge equity gap in access to quality health and nutrition services; ensure sustainable financing arrangements that protect the poor; and enhance efficiency in service delivery.

Despite some strides made in Ghana's health service delivery system through considerable investments, quite a substantial number of Ghanaians still lack access to quality health services, including the people of the Bawku West District. Not only that; access to water and sanitation facilities are also inadequate nationwide. Meanwhile, it is established that about 70 per cent of disease burden in Ghana can be attributed directly to the environment and the shortage of proper water and sanitation facilities. It is known that access to potable water and sanitation facilities enhances favourable health outcomes required for sustained economic growth and poverty reduction. It also improves school attendance rate and reduces the work load of women and children.

There are numerous health, water and sanitation challenges that pertain in the Bawku West District. These include low access to health care services, high incidence of malaria, high incidence of child malnutrition, increasing incidence of HIV/AIDS infection, low patronage of the Mutual Health Insurance Scheme, inadequate

potable water access, and poor sanitation, among others. The Bawku West District's Medium-Term Development Plan for 2006–2009 aims to eliminate these difficulties as it views the attainment of good and healthy life as paramount in attaining the MDGs on health which are reducing child mortality, improving maternal health, and combating HIV/AIDS, malaria, and other diseases.

Health Care Infrastructure and Personnel

The district has a total of 22 health care infrastructural facilities made up of 1 hospital, 2 health centres, 8 clinics (6 owned by the government and 2 privately owned), 2 supplementary feeding centres, 1 nutritional rehabilitation centre and 7 functional CHPS zones (Table 5.1). Current information indicates that there are now 10 functional CHPS zones in the district. Most of these health care centres are located in Zebilla, the district capital (see Picture 5.1 for example). Majority of the rural communities are without any health care centre, hence long distances are commuted to access health care services. Private sector contribution to health care delivery in the district is not encouraging, thus leaving a huge burden on the central government.

A total number of 3 doctors (1 Ghanaian and 2 Cuban), 54 nurses, 58 paramedics and 43 support staffs were recorded in the district as at 2006 (Table 5.2). Available data puts the Doctor/Patient ratio at 1:28,666. This ratio is quite alarming and not very stable. At certain periods the ratio

increases since the Cuban doctors are not permanently resident in the country. Their presence is as a result of the agreement by the Cuban government to beef up the medical staff in the country.

Table 5.1: Public and Private Health Facilities by Locations

Type of Facility	Number	Location
Hospital	1	Zebilla
Health Centres	2	Zongoyire
		Binaba
Clinics (Government)	6	
1. Gbantongo Clinic		1. Gbantongo
2. Yelwoko Clinic		2. Yelwoko
3. Googo Clinic		3. ZebillaRchu
4. Sapelliga Clinic		4. Googo
5. Tilli Clinic		5. Tilli
6. Widnaba Clinic		6. Widnaba
Clinics (Private)	2	
1. Gossip		Zebilla
2. Faith Clinic		Zebilla
CHPS Zones (Functional)	7	
1. Azuwera CHPS		1. Azuwera
2. Tanga CHPS		2. Tanga
3. Timonde CHPS		3. Timonde
4. Salpiiga CHPS		4. Salpiiga
5. Kansoogo CHPS		5. Kansoogo
6. Teshie CHPS		6. Teshie
7. Yarigu CHPS		7. Yarigu
Supplementary Feeding Centre	2	Kukore/ Apodabogo
Nutrition Rehabilitation	1	Binaba
Eye Clinic	0	–

Source: Bawku West District Medium-Term Development Report (2006–2009).



Picture 5.1 (A): Zebilla District Hospital.



Picture 5.1(B): Binaba Hospital.

Table 5.2: Health Staffing Level (June 2006)

Category	Male	Female	Total
Doctors			3
Ghanaian	1		
Cuban	1	1	
Nurses	23	31	54
Para medicals	47	11	58
Support staff	40	3	43
Total	112	46	158

Source: Bawku West District (2006–2009).

The Nurse to patient ratio is about 3,909, which indicates that each nurse takes care of about 3,909 individuals in the district. With such situations, health care delivery becomes a problem and individuals are denied proper health care, in addition to the fact that the nurses are overburdened and thus impacting negatively on their performance and delivery. Health facilities are also stretched, leading to a fast deterioration in the facilities available.

Access to Health Care Services

The DAEA survey reveals that attendance to the various health care centres showed varying frequencies. Large attendance (73.9%) was recorded at the public hospitals/clinics while very few resorted to the services of traditional healers as they also contribute to health care provision in the district (Table 5.3). Some visit pharmacy or chemical shops when ill and about 4.5 per cent do nothing when they fall sick.

A high percentage of the rural population (7.5%) did not visit any health centre when ill as against 1.9 per cent for the urban population. This is a clear indication of limited number of health care services in the rural communities of the district. Reasons adduced for not seeking medical attention include high expenditure outlay (65%), no need for seeking medical attention (30%), and the case that health facilities are too distant from their domicile (5%).

Table 5.3: Health Facilities Visited

Facilities	Urban		Rural		Total	
	F	%	F	%	F	%
Private hospital/clinic	32	8.9	42	14.4	74	11.3
Public hospital/clinic	280	77.8	202	69.2	482	73.9
Community health centre	37	10.3	5	1.7	42	6.4
Traditional healer	1	0.3	2	0.7	3	0.5
Pharmacist/chemical shop	3	0.8	19	6.5	22	3.4
None	7	1.9	22	7.5	29	4.5
Total	360	100	292	100	652	100

Note: F = Frequency. Source: DAEA Survey, 2008.

The issue of high health care expenditures was rated very high for rural households (72%) compared with 56 per cent for urban households. More households in the urban settlements than in the rural localities found no need to seek medical help from these health centres.

Table 5.4: Travel Time and Means of Travel to Hospital or Clinic

	Urban		Rural		Total	
	F	%	F	%	F	%
Travel Time (minutes)						
≤ 14	9	8.8	8	6.8	17	7.8
15-29	28	27.5	15	12.8	43	19.6
30-44	15	14.7	28	23.9	43	19.6
45-49	19	18.6	25	21.4	44	20.1
≥ 60	31	30.4	41	35	72	32.9
Means of Travel						
Vehicle	22	25.3	21	21.4	43	23.2
Motor-cycle	1	1.1	–	–	1	0.5
Foot	56	64.4	56	57.1	112	60.6
Animal	–	–	1	1.0	1	0.5
Canoe/boat	–	–	2	2.0	2	1.0
Bicycle	8	9.2	18	18.4	26	14.2

Note: F = Frequency. Source: DAEA Survey, 2008.

Table 5.4 shows that over 30 per cent of households (rural and urban) travel more than an hour before reaching a health facility such as a clinic or hospital. The travel time increases for rural households. This phenomenon is expected due to the high concentration of health facility in the urban communities relative to rural settlements. Accessing these health facilities by foot represents the highest (60%) means of travel. Just 9.2 per cent and 18.4 per cent of households in the urban and rural communities travel using the bicycle to hospital or clinic.

Quality of Health Care Services

Households in the Bawku West district generally expressed satisfaction with the quality of health care services provided in the district. A greater proportion of households expressed satisfaction with how they were treated by staffs of the various health centres (87.3%), the cleanliness of the health facilities (92.7%), the cost of the treatment they received (77.4%), availability of prescribed medicines at the various facilities (83.8%), the quality of examination and treatment received (89.3%), amount of explanation they were given about their problems or illness and about the treatment given them (90.2%), the extent to which the health worker discussed their problems or concerns with them (94%), and the extent of privacy provided to prevent others from seeing their examination (93.6%). Nevertheless, quite a number of patients (36%) were dissatisfied with the waiting time before consultation with a health worker. See Table 5.5 for details.

The various health service quality measurement indicators suggest that urban dwellers generally recorded higher satisfaction levels on almost all the indicators compared with rural households. It is quite

Table 5.5: Level of Satisfaction with Health Care Services in Bawku West District

Satisfaction Rating	Urban		Rural		Total	
	F	%	F	%	F	%
Time waited before consultation						
Very satisfied	3	2.7	6	4.8	9	3.8
Satisfied	75	67.6	66	53.2	141	60.0
Dissatisfied	28	25.2	50	40.3	78	33.2
Very Dissatisfied	5	4.5	2	1.6	7	3.0
Extent of problems discussed						
Very satisfied	5	4.5	8	6.5	13	5.5
Satisfied	103	92.8	105	84.7	208	88.5
Dissatisfied	2	1.8	10	8.1	12	5.1
Very Dissatisfied	1	0.9	1	0.8	2	0.9
Adequate explanation of problem and treatment						
Very satisfied	4	3.6	9	7.3	13	5.5
Satisfied	96	86.5	103	83.1	199	84.7
Dissatisfied	11	9.9	11	8.9	22	9.4
Very Dissatisfied	–	–	1	0.8	1	0.4
Quality of examination and treatment						
Very satisfied	9	8.1	14	11.4	23	9.8
Satisfied	89	80.2	97	78.9	186	79.5
Dissatisfied	13	11.7	12	9.8	25	10.7
Very Dissatisfied						
Privacy from others						
Very satisfied	8	7.2	27	21.8	35	14.9
Satisfied	95	85.6	90	72.6	185	78.7
Dissatisfied	8	7.2	7	5.6	15	6.4
Very Dissatisfied						
Availability of medicines						
Very satisfied	5	4.5	15	12.1	20	8.5
Satisfied	84	75.7	93	75.0	177	75.3
Dissatisfied	22	19.8	15	12.1	37	15.8
Very Dissatisfied	–	–	1	0.8	1	0.4
Cost of treatment						
Very satisfied	2	1.8	15	12.1	17	7.2
Satisfied	87	78.4	78	62.9	165	70.2
Dissatisfied	21	18.9	29	23.4	50	21.3
Very Dissatisfied	1	0.9	2	1.6	3	1.3
Cleanliness of facility						
Very satisfied	11	9.9	25	20.2	36	15.3
Satisfied	92	82.9	90	72.6	182	77.4
Dissatisfied	8	7.2	9	7.3	17	7.3
Very Dissatisfied						
Reception by staff of facility						
Very satisfied	4	3.6	10	8.1	14	6.0
Satisfied	95	85.6	96	77.4	191	81.3
Dissatisfied	12	10.8	17	13.7	29	12.3
Very Dissatisfied	–	–	1	0.8	1	0.4

Note: F = Frequency. Source: DAEA Survey, 2008.

difficult to understand how health seekers in the district are generally satisfied with health care service delivery, when for example, it takes a considerable amount of time to be

actually attended to. A possible reason is that waiting for a very long time before receiving medical attention is of no real concern to them as the opportunity cost of time or waiting for medical attention may be practically zero. There may be no opportunities available to them where time spent receiving medicare could be channelled into other productive venture. A second plausible explanation could be the appreciation of the efforts of the few medical personnel by households in rendering very relevant health services. The issue is what would they have done if these health workers were not available for them?

Health Status of Mothers and Children

Ante- and Post-Natal Clinics Attendance

Among females 18 years and above sampled for the survey, non-lactating mothers constituted about 51 per cent of the sample. About 12 per cent were pregnant women, 21.8 per cent lactating mothers, and 15.6 per cent had never been pregnant as depicted in Table 5.6. A surprising result is that live birth in urban areas (89.6%) is lower than in the rural areas (estimated at 93.5%). The 2008 DAEA Household Survey shows high attendance at pre-natal clinics (80%), with a greater proportion in urban settlements (85.2%) than in the rural areas (74.5%). Attendance at post-natal clinics follow similar pattern to pre-natal attendance. Mother's health and access to pre- and post-natal care are important indicators for measuring the incidence of infant and maternal mortality. This observation implies that maternal and child mortality rates are likely to reduce, which is expected. The level of visit to clinics before and after birth by mothers in the district may give an

indication of the prevalence of infant and maternal mortality in previous years. Over 30 per cent of pregnant women travel more than 3 kilometres before reaching the nearest natal care centre and this could be a major hindrance to natal care delivery. Pregnant women in the rural communities are the most vulnerable. That notwithstanding, a high percentage (68.6%) of pregnant women are within less than 3 kilometres' reach to the nearest natal care centre (Table 5.6).

Maternal Mortality

Maternal mortality ratio is an indicator of progress towards achieving the fifth MDG of improving maternal health. The district reported four maternal deaths in 2005 attributed to Septicemia, CCF and Anaemia. During the DAEA 2008 household survey, only one female member of the household had died during childbirth in the last five years. Supervision of delivery by skilled health personnel is also another indicator of maternal health. The survey further revealed that 15 per cent of deliveries were either self-supervised or by older women, usually mother in-laws at homes (see Table 5.6). Quite an encouraging number of deliveries, representing about 85 per cent were supervised by a health worker, mainly by midwives or trained Traditional Birth Attendants (TBAs). It must be emphasized that since 2005, TBAs have not been considered or regarded as skilled health workers by the Ghana Health Service. It was also evident from the survey that as high as 91.4 per cent of mothers experienced live birth during their last pregnancy, 1.1 per cent

Table 5.6: Maternal and Child Health Indicators

Health Indicators	Urban		Rural		Total	
	F	%	F	%	F	%
Status of Women						
Pregnant	21	11.7	21	11.7	42	11.7
Lactating Mother	40	22.3	38	21.2	78	21.8
Non-Lactating Mother	91	50.8	91	50.8	182	50.9
Never been pregnant	27	15.1	29	16.2	56	15.6
Total	179	100	179	100	358	100
Prenatal care						
Yes	121	85.2	105	74.5	226	79.9
No	21	14.8	36	25.5	57	20.1
Total	142	100	141	100	283	100
Postnatal Care						
Yes	111	82.8	101	74.8	212	78.8
No	23	17.2	34	25.2	57	21.2
Total	134	100	135	100	269	100
Worker supervising delivery						
Doctor	7	5.4	11	8.4	18	6.9
Midwife	57	44.2	34	26.0	91	35.0
Nurse	13	10.1	13	9.9	26	10.0
TBA	32	24.8	54	41.2	86	33.1
Other	20	15.5	19	14.5	39	15.0
Total	129	100	131	100	260	100
Distance to natal care centre (km)						
< 1	42	31.1	25	20.0	67	26.0
1 - 3	58	43.0	52	41.6	110	42.6
4 - 5	26	19.3	41	32.8	67	26.0
> 5	9	6.6	5	5.6	14	5.4
Total	135	100	123	100	258	100
Live or still birth						
Live birth	129	89.6	129	93.5	258	91.4
No - still pregnant	5	3.5	7	5.1	12	4.3
No - lost pregnancy	2	1.4	1	0.7	3	1.1
No - Still birth	8	5.6	1	0.7	9	3.2
Total	144	100	138	100	282	100

Note: F = Frequency. Source: DAEA Survey, 2008.

lost their pregnancy, and 3.2 per cent had still birth during their last pregnancy (Table 5.6). In this regard, it could be said that the objective of the millennium development goals to reduce child mortality and improve maternal health in the district is not distant from being achieved.

Disease Situation/Incidence

Malaria remains one of the major diseases of public health importance, accounting for not less than 40 per cent of outpatient attendances in the district. The district

experienced increasing trend of malaria reported cases between 2003 and 2005. Reported cases of malaria jumped from 17,700 in 2003 to 19,720 in 2004. There was a further increase in 2005 to 20,751.

Table 5.7: Reported Cases of Malaria among Children Under 5 Years

Year	2003	2004	2005
Reported cases	8,430	9,216	10,873
Number of deaths	16	9	17
CFR	0.12	0.09	0.156

Source: Bawku West District Medium Term Development Report (2006–2009).

Table 5.8: Trend of Reported Cases of Epidemic Prone Diseases

Disease condition	2003		2004		2005	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
CSM	12	1	13	2	12	5
Measles	48	0	15	0	0	0
Yellow fever	0	0	0	0	0	0
Cholera	0	0	0	0	0	0
AFP	0	0	2	0	2	0
MNT	0	0	0	0	1	1
Human Anthrax	0	0	0	0	0	0

Source: Bawku West District Medium-Term Development Report (2006–2009).

Table 5.9: Suffered Sickness

Type of sickness	Urban		Rural		Total	
	F	%	F	%	F	%
Fever/Malaria	302	65.9	219	29.9	521	35.1
Diarrhoea	52	11.4	50	6.8	102	6.9
Injury/Accident	11	2.4	4	0.5	15	1.0
Skin condition	12	2.6	12	1.6	24	1.6
Eye/trachoma	14	3.1	9	1.2	23	1.5
Ear/nose/throat	11	2.4	11	1.5	22	1.5
Coughing	52	11.4	43	5.9	95	6.4
Snake bite	2	0.4	1	0.1	3	0.2
Blood pressure	1	0.2	2	0.3	3	0.2
Stroke	1	0.2	---	---	1	0.1
Diabetes/Sugar	---	---	2	0.3	2	0.1
Other	---	---	8	1.1	19	1.3
None	---	---	371	50.7	656	44.1
Total	458	100	732	100	1486	100

Note: F = Frequency. Source: DAEA Survey, 2008.

Accelerated Disease Control Activities

Reported cases of malaria among children below 5 years in the district have been rising since 2003 to 2005 as indicated in Table 5.7. About 8,430 malaria cases were recorded in 2003. The number increased by 9 per cent in

2004 to 9216. In 2005, 10,873 cases were also recorded which represent an additional 15 per cent increment. The number of deaths caused by malaria was 16 in 2003. Though in 2004 there was an increase in malaria reported cases, the number of deaths experienced dropped to 9.

Epidemic prone diseases in the district include Cerebrum Spinal Meningitis (CSM), Measles, AFP and MNT. There has been a consistent and seemingly constant reported case of CSM from 2003 to 2005 (Table 5.8).

Reported cases of measles in the district rose to 48 in 2003 but there was a drastic decrease to 15 in 2004. In 2005 there was no reported case of the disease, which is a very pleasant situation. The 2008 DAEA Household Survey revealed that malaria/fever is the most prevalent disease in the Bawku West District as depicted in Table 5.9, suffered by about 35 per cent of the total household population (65.9% urban dwellers and 29.9% rural dwellers) during the period of the survey.

Outpatient Attendance at Health Facilities

The number of OPD attendance at the various health centres showed year by year increases from 2003 to 2005 (Table 5.10). Admissions due to malaria only also showed steady rise of about 17.2 per cent from 2003 to 2005. Admissions to the health facilities increased as OPD attendance increased over the three-year period. About 95 per cent of admitted cases in 2003 were duly discharged that same year. The high average daily bed occupancy of about 25 patients admitted daily suggests the inadequacy of beds, among others, giving an indication of how poorly resourced the district is in terms of hospital beds and other related health facilities.

Table 5.10: Trend in Out-patient Attendance and Admissions

Health Indicators	2003	2004	2005
<i>OPD Attendance (due to malaria)</i>	17,700	19,720	20,751
OPD Attendance	21,647	22,353	22,670
Admissions	2,465	2,827	3,147
Discharges	2,345	2,697	3,039
Deaths	108	99	105
Average daily bed occupancy (Patients)	21	25	25
% Bed occupancy	27%	35%	36
Average length of stay (days)	2.4	3.2	2.9
OPD attendance per capita	–	0.26	0.27
Admission rate	11.30 %	12.60 %	13.9%

Source: Bawku West District Medium-Term Development Report (2006–2009)

Tables 5.11, 5.12, and 5.13 respectively present the top ten causes of OPD attendance, admissions, and causes of death over the period 2003 to 2005 at the various health centres in the Bawku West District. Malaria stands out as the major cause of OPD attendance over this period. Next to malaria is typhoid fever, followed by skin diseases and ulcer. Malaria, anaemia, and pneumonia are the first, second, and third major causes of admissions at health posts respectively, while malaria, pneumonia, and anaemia are respectively the three most important causes of death in the Bawku West District.

Table 5.11: Top Ten Causes of OPD Attendance

Top 10	2003		2004		2005	
		No.		No.		No.
1	Malaria	7,758	Malaria	8,720	Malaria	8,624
2	Typhoid fever	586	Skin diseases and ulcer	745	Skin diseases and ulcer	635
3	Skin diseases and ulcer	476	Typhoid fever	568	URTI	580
4	Acute Eye Infection	458	URTI	424	Anaemia	479
5	All other diseases	440	Diarrhoea	385	Diarrhoea	382
6	Diarrhoea	304	Anaemia	385	Pneumonia	338
7	Anaemia	276	Pneumonia	275	Gynae disorders	292
8	Pneumonia	220	Gynae disorders	249	Typhoid fever	244
9	Gynae disorders	207	Acute Eye Infection	196	Acute Eye Infection	239
10	URTI	188	Road Traffic Accidents	185	Rheumatism	122
Total		12,284	13,814		13,605	

Source: Bawku West District Medium-Term Development Report (2006–2009).

Table 5.12: Top Ten Causes of Admission

Top 10	2003		2004		2005	
		No.		No.		No.
1	Malaria	879	Malaria	845	Malaria	943
2	Anaemia	307	Pneumonia	304	Anaemia	353
3	Pneumonia	163	Anaemia	200	Pneumonia	266
4	Pregnancy related complications	137	Pregnancy related complications	138	Pregnancy related complications	142
5	Gynae disorders	124	Snake bite	135	Gynae disorders	113
6	Typhoid fever	118	Diarrhoea	95	Snake bite	73
7	Snake bite	88	Gynae disorders	87	Diarrhoea	69
8	Diarrhoea	82	Road Traffic Accidents	72	Cataract	59
9	Road Traffic Accidents	53	Typhoid fever	55	Road Traffic Accidents	43
10	Hernia	37	Hernia	36	Psychiatric	34
Total		2,465	2,832		3,147	

Source: Bawku West District Medium-Term Development Report (2006–2009).

Table 5.13: Top Ten Causes of Death

Top 10	2003		2004		2005	
		No.		No.		No.
1	Malaria	25	Malaria	14	Malaria	26
2	Pneumonia	13	Pneumonia	13	Anaemia	14
3	Anaemia	12	Anaemia	12	Pneumonia	10
4	Meningitis	8	Septicemias	7	Hepatitis	5
5	Diarrhoea	4	Tuberculosis	3	Septicemias	5
6	Neonatal Sepsis	3	Hepatitis	3	Meningitis	3
7	Typhoid fever	3	Snake bite	3	Diarrhoea	3
8	Hepatoma	3	Neonatal Sepsis	3	Hypertension	3
9	Haemolytic J	2	Meningitis	2	Tuberculosis	2
10	HIV/AIDS	2	Pregnancy related complications	2	Malnutrition	2
Total		108	99		105	

Source: Bawku West District Medium-Term Development Report (2006–2009).

Table 5.14: Measures for Malaria Prevention

Measures	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
Children sleep in treated bed nets	245	29.9	224	25.4	469	27.6
Adults sleep in treated bed nets	237	28.9	235	26.7	472	27.8
The house is sprayed regularly	39	4.8	21	2.4	60	3.5
The compound is weeded regularly	153	18.7	164	18.6	317	18.6
The gutters are cleaned	13	1.6	74	8.4	87	5.1
Take anti-malaria tablets regularly	3	0.4	10	1.1	13	0.8
Use mosquito coil regularly	104	12.7	122	13.8	226	13.3
Windows have mosquito nets	4	0.5	8	0.9	12	0.7
Other	10	1.2	6	0.7	16	0.9
None	11	1.3	17	1.9	28	1.6
Total	819	100	881	100	1700	100

Source: DAEA Survey, 2008.

In addition to malaria that clearly remains the number one killer in the district and in Ghana at large, pneumonia and anaemia must as well be of public health concern. The implication of the prevalence of these diseases is the rendering of the labour force unproductive either on farm or otherwise. As incidence of malaria has a lot to do with environmental sanitation, it raises questions as to the strategies and approaches adopted in combating malaria.

Malaria Prevention Strategies

Ensuring that both children and adults in the household sleep under mosquito treated bed nets is the major malaria preventive strategy

adopted by over 55 per cent of household members in the DAEA survey (Table 5.14). Weeding of the surroundings of dwellings regularly (19%) and the regular use of mosquito coils (13%) are other important household malaria prevention strategies employed. The

use of insecticide treated nets is an encouraging sign of the acceptance of the campaign to sleep in mosquito treated nets. Where emphasis must be placed is: ensuring that homes have mosquito nets fitted on the windows and the possible use of trap doors to prevent mosquitoes from gaining access into rooms.

HIV/AIDS

Human Immune-Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) continue to be a disease of major public health concern in the District. Available data suggests an increasing trend in the reported cases of HIV/AIDS from 1999 to 2005 (see Table 5.15).

Table 5.15: Trend of Reported Cases of HIV/AIDS

Year	Below 10- 20yrs	21- 45 yrs	45- +yrs	Male	Female	Totals
1999	3	15	1	9	10	19
2000	1	37	2	13	27	40
2001	3	37	2	14	28	42
2002	5	42	2	21	28	49
2003	1	52	7	14	46	60
2004	8	53	10	32	39	71
2005	3	57	3	25	38	63
Cumulative Total	24	293	27	128	216	344

Source: Bawku West District Medium Term Development Report (2006–2009).

tested for HIV/AIDS, 56 (29%) tested positive to the virus, with females dominating.

National Health Insurance Scheme (NHIS)

District Mutual Health Insurance Scheme

The District Mutual Health Insurance Scheme in the Bawku West District was launched on 3rd November 2004 as a response to Government's new policy on health financing which was to replace the former "Cash and Carry" system with the National Health Insurance Scheme.

It finally became operational on 27th December 2005. Despite efforts by the District Assembly and central government at sensitizing communities to accept the scheme, patronage has been very low, as indicated in Table 5.16. Total membership as a percentage of the estimated population of 140,942 in 2005 is 6.13 per cent. This figure is certainly not encouraging.

From the survey, as shown in Table 5.17, 36.3 per cent of the total sample population (40.6% for urban and 31.9% for rural) in the district have ever been registered with the NHIS. From those registered, another 39 per cent were covered under scheme, giving a total of 76 per cent coverage.

Table 5.16: Status of National Health Insurance Scheme (January 2005 to July 2006)

Status of National Health Insurance Scheme		
1	Total Number of People Registered	16,996
2	Membership	
	Informal sector (Fully paid)	739
	SSNIT Contributors	618
	SSNIT Pensioners	67
	Children Under 18 Years	2,645
	Aged – (Over 70 Years)	3,986
	Indigents	578
	Total Membership	8,633
	Female –	4,478
	Male –	4,155
3	Total Identity Cards Issued	6,236
	Informal Sector	680
	Exempt Group	5,556
4	Contribution from Premium	¢56,280,000.00
5	Subsidy Received from Health Insurance Council	¢487,750,000.00

Source: Bawku West District Medium Term Development Report (2006–2009).

Although knowledge on HIV/AIDS transmission is high in the district, infection rate continues to increase, implying that people are not changing their attitudes and behaviours towards sex. A campaign or sensitization on intensive behaviour change could be mounted in the district to curb the situation. At the District Hospital, services like Voluntary Counselling and Testing (VCT) are available to help individuals who want to know their HIV status. Out of a total number of 194 patients

Table 5.17: Registration with NHIS

Responds	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
Registered	286	40.6	215	31.9	501	36.3
Covered	309	43.9	235	34.8	544	39.4
Not registered	109	15.5	225	33.3	334	24.3
Total	704	100	675	100	1379	100

Source: DAEA Survey, 2008.

Quite a substantial number of people (24%) were not covered under the scheme, where it is as high as 33% for rural households and 16% for urban households.

The differences in coverage between urban and rural households may indicate either greater sensitization of the NHIS amongst urban dwellers than their rural counterparts or mere lack of interest in the scheme by the rural folks. However, households who did not register under the NHIS singled out the high premium paid to be a member as the most important reason for not getting registered (Table 5.18).

Table 5.18: Reasons for Non-Registration with NHIS

Reason	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
Premium is too high	88	81.5	185	84.5	289	72.6
No confidence in the scheme operators	16	14.8	14	6.4	72	18.1
No knowledge of any scheme	1	0.9	1	0.5	16	4.0
Other	3	2.8	19	8.7	21	5.3
Total	108	100	219	100	398	100

Note: Freq = Frequency. Source: DAEA Survey, 2008.

Table 5.19: Type of Scheme Registered With

Scheme	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
District mutual	585	95.9	409	91.7	994	94.1
Private mutual	13	2.1	15	3.4	28	2.7
Private company			7	1.6	7	0.6
Other	12	2	15	3.4	27	2.6
Total	610	100	446	100	1056	100

Note: Freq = Frequency. Source: DAEA Survey, 2008.

This group constituted about 73 per cent, with as high as 85 per cent of rural households mentioning this as the main factor, compared with 82 per cent for urban households. Other reasons advanced can be seen in Table 5.18. In general, it appears that education and sensitization on the scheme has yet not reached certain parts of the district, especially the rural communities. There is therefore the need to aggressively extend the scheme to such areas through education and sensitization in order to attain effective health delivery. The survey also revealed that currently, 507 people (40%) in the Bawku West District are registered under the NHIS, 524 (41%) are currently covered under the scheme and 237 (19%) do not patronize the scheme.

Non-patronage constitutes 25 per cent for the rural population and 14 per cent for the urban dwellers. Again the premium of the NHIS was identified by a majority of households (86.5%) as the major reason for opting out of the scheme. About 3 per cent mentioned inability to benefit from the scheme as a reason for opting out. More rural dwellers than urban dwellers are no longer members of the scheme. Also lack of confidence in scheme operators (9%) ranked the second reason for exit from the scheme.

The survey identified members of the scheme to be registered under different types of the scheme. Majority (94%) are registered under the district mutual health insurance scheme (see Table 5.19 for details). Irrespective of the type of scheme one belonged to, more than 75 per cent mentioned ever benefitting from the scheme: about 86% in the urban and 63 per cent in the rural areas ever benefitted from the schemes they belonged to.

This invariably has placed considerable pressure on the scheme since its inception, as the importance one attaches to any form of monetary payment is the value or benefit to be derived from it. However, majority of members (20.9%) have benefitted only once from the scheme. Though a large mass of respondents (48%) could not recollect the exact number of times they have benefitted from the scheme, it appears scheme members have not benefitted much.

Water and Sanitation

To meet the goal of the MDGs in ensuring environmental sustainability in the district, there is the need for households to have access to safe drinking water and basic sanitation facilities. Boreholes serve as the

main source of drinking water to inhabitants of the district. About 74 per cent of households obtain water from boreholes. These boreholes are either government or NGO- sponsored. Covered or uncovered wells are the next major source of drinking water in the district. A few of the households in the urban centres have taps inside their homes or in compound. Improving households' access to safe drinking water lessens the level of vulnerability to health risks and outbreak of certain diseases.

source of water supply. The use of bicycles represents the second highest means of transport.

Sanitation

The CWIQ report (2003) reveals that 5.5 per cent of households in the Bawku West District do not have access to safe sanitation (compared with 10.7 per cent for the Upper East Region). This low level of sanitation access implies that over 94 per cent use the bush, popularly called "free range" as a place of convenience. The 2008

DAEA household survey indicates that 72 per cent utilize free range while 1.7 per cent has access to flush toilets (see Table 5.21). KVIPs and covered pit latrines are the predominant sanitation facilities available in the district.

Solid and Liquid Waste Management

Solid waste management in the district has become a source of worry that needs urgent attention. Regarding the use of Safe Sanitation Facilities in the Bawku West, the 2008

DAEA household survey shows that majority (67.5%) of households still dump their solid wastes elsewhere rather than the designated refuse dump provided by the District Assembly, which is actually used by roughly 2 per cent of households in the district. The indiscriminate dumping of refuse at unapproved locations must be discouraged since this situation of non-compliance could lead to the spread of malaria due to these unapproved dumping sites serving as mosquito breeding grounds.

Table 5.20: Water Accessibility in the Bawku West District

Accessibility	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
Time to nearest source (minutes)						
≤ 14	59	56.2	75	63.6	134	60.1
15 – 29	38	36.2	36	30.5	74	33.2
30 – 44	7	6.7	5	4.2	12	5.4
45 – 49	–	–	1	0.8	1	0.4
≥ 60	1	1	1	0.8	2	0.9
Source of drinking water						
Taps inside dwelling or compound	–	–	–	–	3	1.3
Public outdoor tap	15	13.5	3	2.4	18	7.5
Borehole	75	67.6	101	79.5	176	73.6
Protected/Covered well	13	11.7	9	7.1	20	8.4
Uncovered well	8	7.3	12	9.4	20	8.4
Purchased treated water-tanker, bucket, barrels, sachet	–	–	1	0.8	1	0.4
River/Pond/Lake	–	–	1	0.8	1	0.4
Means of travel to nearest source						
Vehicle	2	2.2	1	0.9	3	1.5
Motor-cycle	1	1.1	–	–	1	0.5
Foot	87	96.7	101	94.4	188	95.4
Animal	–	–	1	0.9	1	0.5
Canoe/boat	–	–	–	–	–	–
Bicycle	–	–	4	3.7	4	2

Access to Water

Table 5.20 shows that over 93 per cent of households (92% for urban and 94% for rural) are within 30 minutes of access to the nearest source of water. This time dimension actually gets worse during the dry seasons where long queues develop. Boreholes represent the frequently used water source, followed by wells (either protected or unprotected). Most of the household members, constituting 95.4 per cent commute by foot to the nearest

Table 5.21: Use of Safe Sanitation Facilities in the Bawku West District

Sanitation Facilities	Urban		Rural		Total	
	Freq	%	Freq	%	Freq	%
Toilet Facility						
None/Bush	69	61	104	81.9	173	72.1
Flush Toilet	3	2.7	1	0.8	4	1.7
Pan/Bucket	–	–	3	2.4	3	1.2
Covered pit latrine	17	15	8	6.3	25	10.4
Uncovered pit latrine	5	4.4	3	2.4	8	3.3
KVIP	16	14.2	8	6.3	24	10
Other	3	2.7	–	–	3	1.2
Solid Waste						
Burned by Household	24	21.4	26	20.5	50	20.9
Public provided dump	4	3.6	–	–	4	1.7
Dumped elsewhere	68	60.7	94	74	162	67.8
Buried by Household	16	14.3	7	5.5	23	9.6
Liquid Waste						
Thrown into the street/outside	34	30.3	34	27.2	68	28.7
Thrown into gutter	16	14.3	24	19.2	40	16.9
Thrown into the compound	62	55.4	65	52	127	53.6
Other	–	–	2	1.6	2	0.8

Note: Freq = Frequency. 2008. Source: DAEA Survey, 2008.

Managing liquid waste is also critical for sustainable development in the district. Throwing of liquid waste into gutters is a major practice by almost 17 per cent of households. Since most of the houses are compound houses with bare floor, the throwing of liquid waste on the floor of the compounds, as practised by the majority constituting 54 per cent is not entirely unexpected. Households benefit from this practice as it reduces dust pollution in and around the compounds. However, this way of life must be discouraged completely in order to avoid the spread of mosquito breeding sites.

CHAPTER 6

Resource Endowments in the District

Introduction

Resource endowments, whether they occur naturally or otherwise, are essential for socio-economic development and wealth generation for nations. The amounts, quality, and spatial distribution of available human, financial, natural, physical, and social capital resources in any locality will determine, to a large extent, the available investment opportunities that may be explored by potential local and foreign investors for growth and development. Continued legal and unfettered access to these resources has the potential of boosting investor confidence in the economic system, thereby attracting capital inflows into the local economy. This chapter therefore identifies the resources that the Bawku West District is endowed with. Some of the information contained in this section originates from key informants who are major stakeholders in the development agenda of the district.

Resource Endowments

Natural/Environmental Resources

Geology and Soils

The District is largely underlain by granite with an estimated coverage of 59.28 per cent followed by the Birimian with area coverage of 19.94 per cent as shown in Table 6.1. Also

as shown in Table 6.2, the soils in the district are mainly Gleyic Lixisols with estimated area coverage of 54.45 per cent, Haplic Luvisols 11.51 per cent, Lithic Leptosols 10.88 per cent and others like, Ferric Lixisols, Eutric Fluvisols, Dystric Leptosols, Eutric Gleysols and Haplic Lixisols. The Lixisols and Leptosols are soils not very pronounced or attractive for agricultural crop production although the Leptosols could have some potential for tree crops or extensive grazing.

Table 6.1: Matrix of Geology Distribution in the District

Geology Type	% Area (Hectares)
Alluvium	5.21
Birimian	19.94
Granite	59.28
Mixed(Quartzites,Sandst.)	4.11
Quartz-Sericite Schists	0.43
Sandstone,Shales,Mudstone	0.02
Voltain Sandstone	11.02

Source: CERSGIS, 2008.

Table 6.2: Matrix of Soil Distribution in the District

Soil Name	% Area (Hectares)
Dystric Leptosols	5.0
Eutric Gleysols	4.47
Eutric Fluvisols	5.21
Ferric Lixisols	6.04
Gleyic Lixisols	54.45
Haplic Lixisols	2.45
Haplic Luvisols	11.51
Lithic Leptosols	10.88

Source: CERSGIS, 2008.

However, Fluvisols are mostly medium and fine-textured, lacustrine or alluvial deposits (formed along minor rivers) that can be used for a wide range of crops usually

when irrigated and grazing. Gleysols are used for extensive grazing. Artificially drained Gleysols are used for arable cropping, dairy farming and horticulture.

Land Use and Land Cover

Derived from current satellite imagery and ground information, six land cover types with two dominant ones and their associated land use types were found in the district. Shrubland was found to occupy about 43.89 per cent of the landscape, followed by Grassland (41.25%), while cropland (agriculture), woodland (semi-natural vegetation), built-up surfaces (settlement/ degraded areas) and water bodies occupied 9.04 per cent, 3.12 per cent, 1.85 per cent and 0.85 respectively (see Table 6.3).

Map 6.1 also presents the spatial distribution of land use and land cover.

Table 6.3: Matrix of Land Use/Land Cover Distribution in the District

Land Use Class	% Area (Hectares)
Cropland-Cereals	9.04
Grassland	41.25
Settlement/Degraded	1.85
Shrubland	43.89
Water Bodies(Dams)	0.85
Woodland	3.12

Source: CERSGIS, 2008.

Land Suitability for Selected Crops (Major Crops)

Agriculture constitutes the major economic activity in the district, employing about 80 per cent of the working population, especially in the rural areas. The products of this sector include crops such as millet, maize, onions, rice, cowpea and guinea corn. Crops cultivated in the dry season through irrigation farming include tomatoes, onions and assorted vegetables.

The land suitability maps can depict suitability classes for crop production circumstances relevant to a set of agricultural and socio-economic conditions prevailing in the district. The lands were defined in terms of Land Utilization Types based on rainfall cropping at three levels of inputs and farm

operations — *low, intermediate and high*. The details are shown in Table 6.4. Land suitability map for cowpea, for instance, is shown in Map 6.2.

Mineral Deposits

The district is also endowed with gold deposits at Teshie, Widnaba, and Agatuse (the northern part of the district bordering Burkina Faso). At Agatuse, over 200 acres of land has been leased for gold mining with heavy machinery currently in operation.

Physical Resources

Transportation and Communication Infrastructures

Analysis of the district road network reveals that apart from the main Bolgatanga-Bawku road which passes through Tilli, Zebilla and Kubore, all the other roads in the district are untarred (except for several kilometres of tarred road from Tilli junction to Binaba) (see Picture 6.1. The tarred road covers a distance of 31 kilometres. The rest of the roads are of various degrees of motorability. Map 6.3 shows the distribution of the road network.



Picture 6.1(A): Bolgatanga-Bawku road through Zebilla.



Picture 6.1(B): Untarred road to Binaba.

Table 6.4: Attributes of Land Utilization Types

Attributes	Low Inputs	Intermediate Inputs	High Inputs
Produce and production	Rainfed cultivation of maize, pearl millet, wetland rice, sorghum, cowpea, green gram, groundnut, phaseolus bean, pigeon pea, soybean, cassava, sweet potato, cocoyam, white yam, greater yam, yellow yam, cotton, tobacco, avocado, cashew, banana, citrus (sweet orange), cocoa, coconut, robusta coffee, mango, oil palm, pineapple, plantain, rubber, shea butter, sugarcane, rangeland (natural pasture) and forage legumes. Sole cropping, according to general crop calendars.		
Market Orientation	Subsistence production	Subsistence production plus commercial sale of surplus	Commercial production
Capital Intensity	Low	Intermediate with credit on accessible terms	High
Labour Intensity	High including uncosted family labour	Medium including uncosted family labour	Low family labour costed if used
Power Source	Manual labour with hand tools	Manual labour with hand tools and/or animal traction with improved implements; some mechanization	Complete mechanization including harvesting (where applicable)
Technology	Traditional cultivars. No fertilizer or chemical pest, disease and weed control. Fallow periods. Minimum conservation measures	Improved cultivars as available; appropriate extension packages. Including some fertilizer application and some chemical pest, disease and weed control. Adequate fallow periods and some conservation measures	High yielding cultivars including hybrids. Optimum fertilizer application. Chemical pest, disease and weed control. Full conservation measures

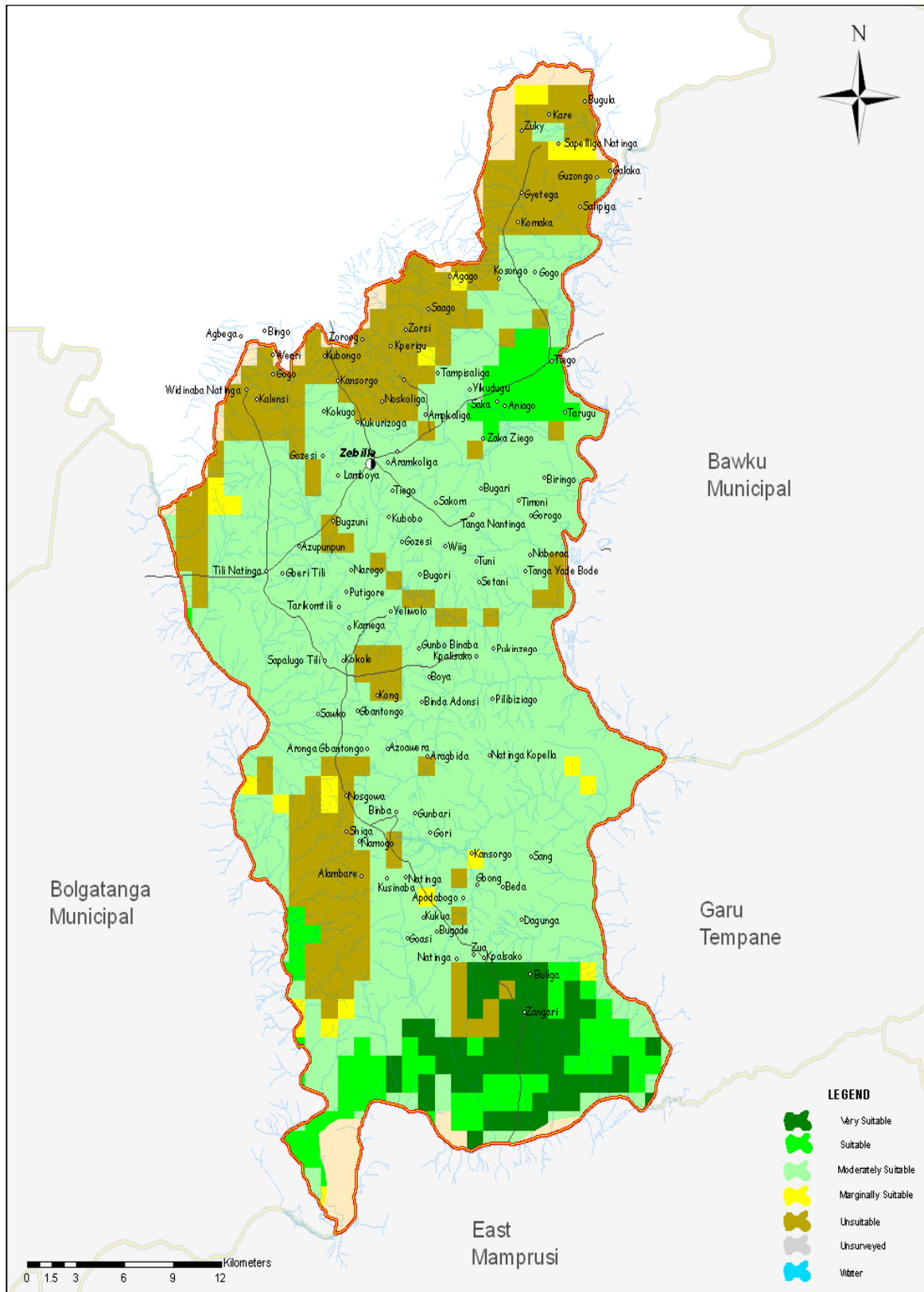
Infrastructure	Market accessibility not necessary. Inadequate advisory services.	Some market accessibility necessary. Access to demonstration plots and advisory services.	Market accessibility essential. High level of advisory services and application of research findings
Land Holding	Small, fragmented	Small, sometimes fragmented	Large consolidated
Income Level	Low	Moderate	High

Source: Soil Research Institute, CSIR, Accra, Ghana.

Note: No production involving irrigation or other techniques using additional water.

Map 6.1: Land Use/Land Cover Distribution in the District

Bawku West District



Map 6.3: Transportation Network Distribution in the District



There is a small post office located at Zebilla, and only eight Ghana Telecom telephone lines controlled by radio wave transmitters. Four of the eight operate as communication centres whilst the other three are being used by the District Assembly, the District Hospital, and the Department of Agriculture and Action Aid (Ghana), an NGO. Mobile phone networks also operate in the district and these include MTN (formerly Areeba) with a district wide coverage, and Vodafone (formerly One Touch), Zain, and Tigo providing limited services. See Picture 6.2 for example.



Picture 6.2: Telecommunication mast of two service providers in the district.

Electricity/Energy

Only Zebilla, Boya, Gumbo, Gbantongo, Titako, Binaba, Kuboko, Bazunde, Teshie, Kusanaba, Yelwoko, Sapelliga, Kansoogo, Tanga, and Tilli are connected to the national

electricity grid and have a constant supply of electricity. Efforts are far advanced in providing power to other communities such as Lamboya, Kubore, and Kukurizua. However, Zebilla, Binaba, Yelwoko, and Sapelliga are the only settlements in the district with streetlights at the time of this research.

Socio-economic Resources

Health Infrastructure (Hospital, Clinics, Health Posts etc)

As already indicated in Chapter 5, there are a number of health facilities such as hospitals, clinics, primary health centres providing variety of health services in the district. These facilities are mostly concentrated in the high populated areas with accessible roads. As at June 2006, the district had one hospital, two health centres, six government clinics, eight CHPS zones (functional), two supplementary feeding centres and one nutrition rehabilitation centre. Map 6.4 presents a spatial view of these health facilities. There are three medical doctors, 54 nurses, 58 para-medicals and 43 support staff in the District Health Delivery System.

Educational Infrastructure

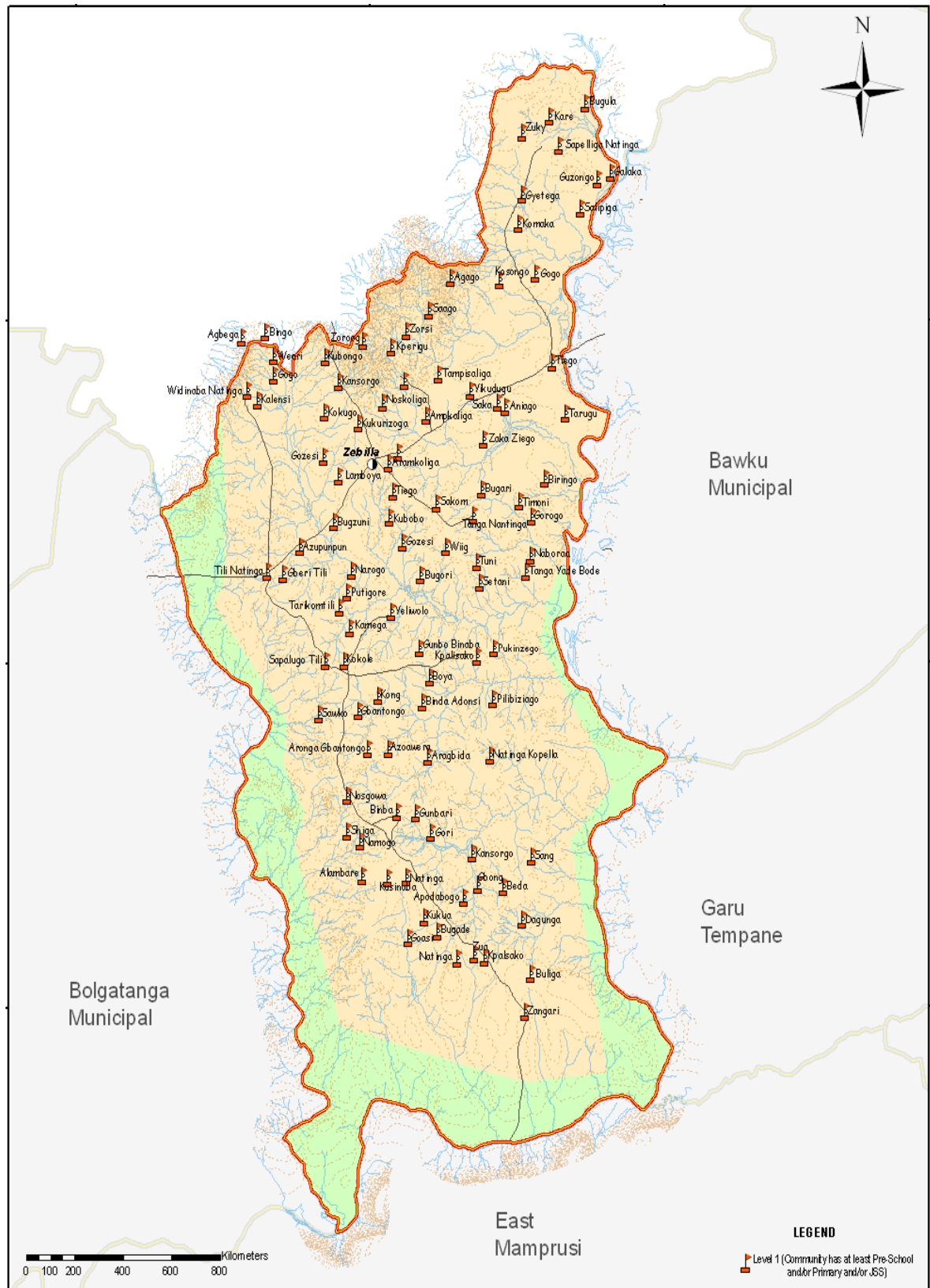
The district has a total of 119 educational facilities (Table 6.5), comprising 52 pre-schools, 49 primary schools, 22 Junior High Schools and two Senior High Schools. It has one Public Vocational Training Centre.

Table 6.5: Matrix of Education Facility Distribution in the District

Type of Facility	No. of facilities
KG/Creche/Nursery	52
Primary	49
Junior High School	22
Senior High School	2
Total	119

Source: MOESS Basic District Profile —
2007/2008 School Year Data

Figure 6.5: Distribution of Educational Facilities in the District



A 2007 report by the erstwhile Ministry of Education, Science and Sports (MOESS) puts the total enrolment of children in basic schools within the district at 17,617, comprising 4,623 for the Pre-School; 16,345 for the primary and 3,169 for the Junior High School (MOESS, 2007 Report). Some of the school facilities especially classrooms compare favourably with standard schools (see for example picture 6.3), while many are in deplorable state. A pictorial overview of this information is captured in Map 6.5.

Water and Sanitation

The main sources of domestic water supply in the district are from rivers, springs, wells,

boreholes, ponds and dams. Most rivers and springs dry up towards the end of the dry season making water a scarce commodity. At such periods water can be obtained from shallow wells.

The district has portable water coverage of about 90%, using conventional/standard method of computation (Population threshold). This figure (see for example Picture 6.4, which captures water storage facility in Zebilla), however, is quite deceptive, as the distances from the facilities to the farthest houses in the various communities have not been taken into consideration due to the difficulty involved in the computation.



Picture 6.3: Educational infrastructure in the district.

Table 6.6: Matrix of Water Facility Distribution in the District

Type of Facility	No. of facilities	Location	Pop. Served	% of Pop. Served
Borehole	317	District wide	95,000	67
Hand Dug Well	370	District wide		
Hand Dug Well with pumps	74	District wide	11,100	8
Small Town Water System	2	Zebilla, Binaba	21,193	15
Public Stand Pipes	24	Zebilla, Binaba		
Private Stand Pipes	111	Zebilla, Binaba		
Dams / Dugouts	23	District wide		
Tube Wells	3	Kusanaba, Galaka, Kansoogo		

Source: Bawku West DMTDP, 2006.



Picture 6.4: Water storage facility in Zebilla.

As such there are still a lot of the people in the district who do not have adequate access to portable water. Table 6.6 shows various sources of water in the district while Table 6.7 presents the distribution of the two commonest facilities within settlements.

Table 6.7: Matrix of Water Facility Distribution in the District for Map Generation

Type of Facility	No. of settlement	No. of facilities
Borehole	42	87
Hand Dug Well	47	208
Total	58 out of 103	295

Source: EMMSDAG 2007.

Aerial presentations of the distributions of boreholes and hand-dug wells in the district are presented in Maps 6.6 and 6.7 respectively. The sanitation situation in the

district leaves much to be desired. About 5.12 per cent of the district population has access to latrines or toilets (see Table 6.8). This means that over 94 per cent of the population resort to open defecation or what is popularly known as “Free Range” system.

Table 6.8: Matrix of Sanitation Facility Distribution in the District

Type of Facility	No. of facilities	Pop. Served	% of Pop. Served
Public Latrine (Average 10-seater)	22	1,760	1.25
Institutional Latrines (Average 6-seater)	26	1,248	0.89
Household Latrines (Single seater)	446	3,568	2.53
Water Closet	80	640	0.45

Source: Bawku West DMTDP, 2006

Markets

Local markets, which vary in size and importance, are located in major settled communities and are classified into two categories, namely: daily markets and periodic markets. The major marketing centres in the district include Zebilla, Binaba, Sapelliga, Gbantongo (Kukore) and Agatusi. (See Picture 6.5). The main items traded in these markets are rice, millet, beans, sorghum and groundnuts. Other items such as malt, *dawadawa*, onions, and livestock are also offered for trade.



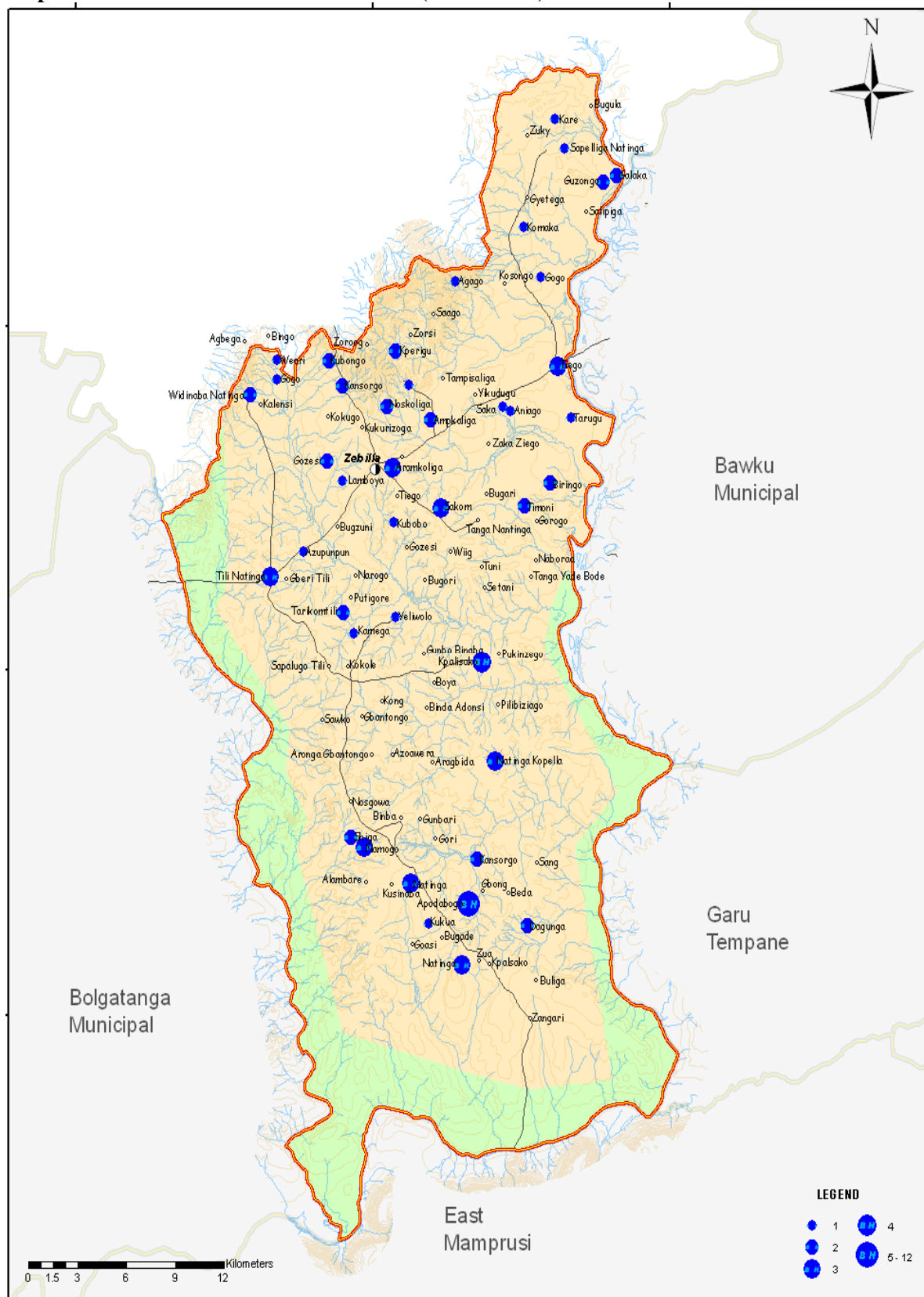
(A)



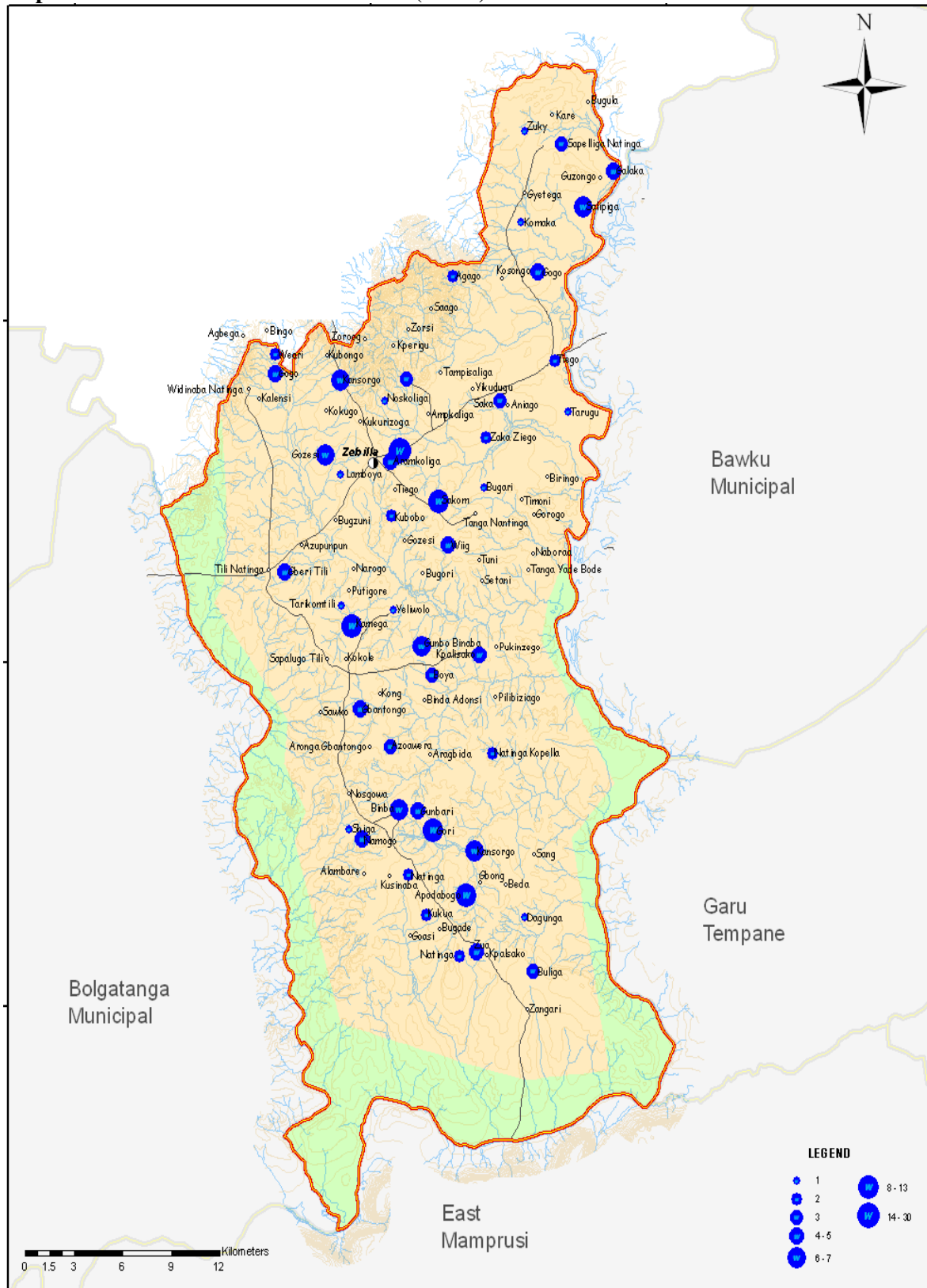
(B)

Picture 6.5: Market in Zebilla (A) and Binaba (B).

Map 6.6: Distribution of Water Facilities (Bore Holes)



Map 6.7 Distribution of Water Facilities (Wells)



Tourism

The District Assembly is well aware that tourism development will bring employment opportunities to the populace and thereby improve general living standards. The development of tourism will serve as a catalyst for better roads, more regular transport and other services including electricity. This is why the District Assembly is leaving no stone unturned in its efforts to encourage investment in this area of activity. There are several tourism potentials in the district, which can be developed into major tourist attractions. One such outstanding attraction is the Zongoyiri Waterfall.

The chiefdom of Zongoyiri lies almost in the shadow of the Gambaga escarpment. It is bordered to the south by the White Volta and to the west by the Red Volta. One of the two roads that leave Zongoyiri for the White Volta River leads to the waterfall at Kianga where there are also some interesting rock formations. The other road eventually becomes a trail that leads up the escarpment to Gambaga, offering spectacular views on the way up. Zongoyiri is also home to some sacred groves and a local water source that is believed to have the power to heal or prevent guinea worm infestation. Another spot of tourist interest is the Abaa Kugit Water Pond, which is located at the apex of the mountain of Soogo. Though it is located at the apex of the mountain, this water source never dries up even in the dry season. It is the permanent source of water for the people in the community. The community members claim that a tiger lives near the pond. Both the tiger and the water pond are considered sacred.

The Widnaba Hills is another spot of attraction where upon reaching the hill-top, one can have a gratifying panoramic view of the area. On the way up the mountain to Abaa Kugit pond, tourists have the opportunity to view the beautiful scenery created by a deep valley between two mountains that lie parallel to each other. Eco-tourism could serve as an alternative land use in the Red Volta Forest Reserve.

In recent years, the elephants, which used to migrate from the Republic of Burkina Faso and Togo into the district, have permanently remained in the Bawku West District, even during the dry season. It is estimated that, there are about 100 elephants living in the forest reserve. Developing eco-tourism in the reserve could bring about the combined benefits of conservation of sensitive ecological areas with opportunities for the people to find alternative sources of income.

Hotels/Recreational Facilities

There is no social centre in the district. However, the district has two guest houses, with one owned by the District Assembly. There are also two standard restaurants located in Zebilla (Maryland and Friends Garden Restaurants) and a number of local chop and drinking bars located in Zebilla, Binaba and Sapelliga.

Institutions/Governance

Judicial Services/Traditional Authority

There is only one operational judicial service outfit available in the district at Zebilla that administers justice to those who want to seek redress in the law courts. All cases are no longer taken to either Bawku or Bolgatanga, which used to be the case a couple of years ago. In the absence of solving disputes through the legal system, the traditional chieftaincy system plays such a role. Reported cases that need arbitration are first handled by the Assembly person, then through the traditional system and finally end up with the Police as the final point of call.

The Police Service

The Bawku West District has 3 police stations with police officers to help maintain peace, stability, and protection of property of community members. The District Police Headquarters is located at Zebilla with two Police Stations located at Binaba and Sapelliga, all of which provide decent

accommodation for the policemen posted there. See for example Picture 6.6.



Picture 6.6: A Police Station in Zebilla.



Picture 6.7: Toende Rural Bank in Zebilla.

Ghana National Fire Service

The district has only one Fire Station located at Zebilla. This Fire Station is currently accommodated in a rehabilitated compound, which was formerly occupied by the Ghana Highways Authority. The station has a fire tender with a skeletal team of firemen. There are no fire hydrants in Zebilla even though the town is fast growing. This situation may hamper disaster prevention and/or management in the district.

Financial Institutions

The Toende Rural Bank, commissioned in 2003, is the only financial institution in the district. Though the bank is opened to the

general public, only a few financial transactions take place there. See Picture 6.7.

The transactions include the payment of salaries and pension to a few public and civil servants, with the majority of public and civil servants still transacting their financial businesses in either Bolgatanga or Bawku. However, some farmer groups and traders as well as contractors, businessmen and women transact business with the bank.

Human Resources

Population Size and Growth

The demographic characteristics of the Bawku West District are similar to the prevailing characteristics of the predominantly rural district in the country. The district has a total resident population of 83,034 in 2000 according to the 2000 Population and Housing Census (see the demographic characteristics in chapter 2 for more details). The

2000 population and housing census information has about 48.2 per cent of the district population within the economically active population while the DAEA survey (2008) puts this figure at about 54 per cent (see Table 2.2 in Chapter 2). The youth (age 15–24 years), who represent the potential human resources available to the district are mainly illiterates (37.7% literate).

The district has the highest age dependency ratio of 116.1 in the Upper East region. There is therefore a potentially large and youthful labour force in the district that may have to be harnessed through educational and employment opportunities as unemployment and under-employment are rife (see Map 6.8 on population distribution).

Utilization of Resource Endowment and Constraints in Attainment of MDGs

Introduction

The endowment of natural and non-natural resources plays a critical role in influencing and directing the development agenda of communities, regions, and nations. The wider the range of available resources a community is endowed with, the more the available options it has in the utilization of these resources for the improvement of the general standard of living or welfare. A limited resource base may serve as a constraint in the achievement of sustainable livelihoods and for that matter the attainment of the Millennium Development Goals. Meanwhile, meaningful livelihood outcomes, such as increase in incomes, improvement in well-being, reduced vulnerability, and improved food security depend on the effective utilization of five core livelihood assets or capital, namely, human, natural, financial, physical, and social capital.

Increasing access to and utilization of these resources over time has the potential of improving household and community welfare. This section highlights the utilization of the resource endowments in the Bawku West District and constraints thereto as well as how these developments could influence the achievements of the MDGs in the district.

Utilization of the Resource Endowments in the District

Human Resource Utilization

The endowment of abundant and quality human resources cannot be overemphasized in the development of a people. Accordingly, one of the strategic directions of the Bawku West District Assembly is to develop her human resources. The 2000 population census had 30,975 persons (constituting 8.6%) in the economically active population in the Bawku West District. The DAEA survey indicates that 75.3 per cent of the sampled population, representing 1079 persons, constitute the economically active population (ages 15 years and above) in the district. The youth (age 15–24 years), a major human resource group in the district, are mainly illiterates (62.3%). District data from the 2000 population and housing census and from the DAEA survey strongly indicate that majority of the people in the district are employed in the agricultural sector, mainly self-employed (without employees). These are found in the private informal sector.

There is therefore a potentially large and youthful labour force in the district. Unemployment and underemployment are rife in the district. If this resource is not harnessed to redirect efforts and energies towards productive activities for community development, they may be enticed to indulge

in social vices (e.g. stealing and involvement in ethnic conflicts).

Gross Enrolment Rate (GER) has generally increased in the district at the Pre-school, Primary, JHS, and SHS levels (see Table 4.9 in Chapter 4) and this can be attributed to the community sensitization and the introduction of the school feeding programme, among others. Meanwhile, the DAEA survey (2008) only revealed a decline in enrolments at the JHS and SHS levels compared with the 2000 population and housing census data. Nevertheless, if this general upward trend should persist, the supply of potential human resource for the development of the local economy would be jeopardized.

Natural/Environmental Resource Utilization

Land Utilization

The District has abundant land resources the majority of which is shrubland (44%) and grassland (41%). Agricultural activities only take about 9 per cent of the land use while woodlands constitute about 3 per cent. As the district plans to expand its physical and built up areas, this land use currently takes only about 2 per cent of the land area of the district. Water bodies such as dams take less than one per cent. The implication is that land may not be a limiting factor for executing agricultural and other developments in the district.

Water/River Bodies

The main sources of domestic water supply in the district are from rivers, springs, wells, boreholes, ponds and dams. Most rivers and springs dry up towards the end of the dry season, making water a scarce commodity. At such periods water can be obtained from shallow wells. The district has potable water coverage of about 90 per cent although not

evenly distributed. There are still a lot of the people in the district who do not have adequate access to potable water.

Mineral Deposits

Gold deposits discovered in Teshie and Widnaba (in the district) are currently being exploited. Agatuse, which is a town in the northern part of the district bordering Burkina Faso is also endowed with gold deposits. It is believed that the currently underground gold mining activities taking place in Burkina Faso close to Agatuse might be illegally mining into the Ghanaian territory (i.e., at Agatuse). It is alleged that illegal mining of this resource is being undertaken by the unemployed youth.

Infrastructure Utilization

Road and Transport

Part of the main Bolgatanga-Bawku tarred road passes through Tilli, Zebilla and Kubore. Tarred road in the district covers a distance of 31 kilometres, which is appalling. This implies that the bulk of the road networks are not tarred, and when it rains, they become unmotorable.

ICT Communication Infrastructures

There is a small post office located at Zebilla, and only eight (8) Ghana Telecom telephone lines controlled by radio wave transmitters. Four (4) of the eight operate as communication centres while the other four are used by the District Assembly, the District Hospital, and the Department of Agriculture and Action Aid (Ghana), an NGO. Mobile phone networks also operate in the district and these include MTN (formerly Areeba) with a district-wide coverage, and Vodafone (formerly One Touch) and Tigo providing limited services.

Health Infrastructure (Hospital, Clinics, Health Posts etc.)

The district has a total of 22 health care infrastructural facilities made up of 1 hospital, 2 health centres, 8 clinics (6 owned by the government and 2 privately owned), 2 supplementary feeding centres, 1 nutritional rehabilitation centre and 8 functional CHPS zones (see Table 5.1 for details). Most of these health care centres are located in Zebilla, the district capital. Majority of the rural communities are without any health care centre hence long distances are commuted to access health care services. Private sector contribution to health care delivery in the district is not encouraging. This leaves a huge burden on the central government. One point worth noting is that the health facilities and infrastructure in the district are stretched, thereby leading to a fast deterioration of the facilities available.

Electricity/Energy

Only Zebilla, Sapelliga, Tanga, Yelwoko, Kansoogo, Boya, Gumbo, Gbantongo, Titako, Binaba, Kuboko, Bazunde, Teshie, Kusanaba and Tilli are connected to the national electricity grid and have a constant supply of electricity. Settlements like Zebilla, Sapelliga, Yelwoko, and Binaba can boast of streetlights. Majority of the settlements or villages do not have access to electricity. The implication is that the absence of electricity, which is an indispensable resource for the development of small-scale agro-processing and other industries in rural economies, could retard job creation, employment opportunities, and the development of the district. Meanwhile, efforts are far advanced, according to the Bawku West District Assembly, to provide the remaining communities such as Lamboya, Kubore, and Kukurizua with electricity.

Fuelwood is the predominant source of energy used by 84 per cent of the population

in 2000 (and roughly 85%, according to the 2008 DAEA; see Table 2.8 in Chapter 2 for more details). Majority (91%) use kerosene and sheabutter to light their lanterns at home instead, while only 6 per cent use electricity.

Educational Infrastructure

Education in the district is mainly provided by the public sector with minimal private sector participation. The district is also endowed with Pre-school, Primary, JHS, and SHS facilities although not adequately resourced (see Chapter 4 on educational infrastructure for further details). The number of laboratories in the two Senior High Schools has remained the same for the period under consideration with very poor and obsolete laboratory equipment and apparatus. Sanitation facilities and potable water in public primary schools are also inadequate. The district has only one vocational training centre which provides post secondary education. While the numbers of public pre-schools and primary schools have seen a steady increase from 2003/04 to 2005/06, that of private pre-schools remained constant for the same three-year period. Most of the physical structure is in deplorable state and requires major repairs.

Housing, Water, and Sanitation

The sanitation situation in the district leaves much to be desired. About 5.12 per cent of the district population has access to latrines or toilets (see Table 6.8). This means that over 94 per cent of the population resort to open defecation or what is popularly known as “Free Range” system.

Hotels/Recreational Facilities

There is no social centre in the district for recreation purposes. However, the district has two guest houses, with one owned by the District Assembly. There are also two

standard restaurants located in Zebilla and a number of local “chop and drinking bars”.

Market Infrastructure

Local markets, which vary in size and importance, are located in major settled communities. The major marketing centres include Zebilla, Binaba, Sapelliga, Gbantongo (Kukore) and Agatuse.

Tourism

Although the District Assembly is very much conscious of the tourism potential in the district and its attendant benefits, the complementary infrastructure that should support the tourism industry is woefully inadequate or non-existent. Only two guest houses are available and are far below expected industry standards. The two standard restaurants located in Zebilla are “Maryland” and “Friends Garden” but they are not even licensed by the Ghana Tourist Board.

Institutions and Governance Utilization

Assessment of Governance and Participation

One of the pillars on which the GPRS II is anchored is good governance and civic responsibility. The idea behind the need for good governance and civic responsibility is to embolden both state and non-state entities to participate in the development process and also to contribute to maintaining peace and stability in the body politic. The strategy is to improve the capacity of state machinery to engage the private sector and civil society in formulating policies and strategies required to hasten economic growth and poverty reduction.

Participation of community members in local governance issues serves as an indicator of deepening democracy in the districts. The

DAEA survey found that about 76 per cent of citizens in the district participate in community development meetings, with less participation from rural areas (72%) compared to 79 per cent for urban areas. Most of the individuals in the district (76%) do not belong to any form of groups or associations and for those who do, about 59 per cent belong to Farmer-Based Organizations (FBOs), 22 per cent are members of Community-Based Organizations (CBOs), and the remaining 19 per cent belong to other groups. As an indication of their interest and involvement in politics at the local level, 63.5 per cent knew who their District Chief Executive (DCE) is and 83 per cent knew their district representative in Parliament. Interestingly, respondents in rural communities were more knowledgeable on these issues than members in the urban areas.

The general assessment of governance over the past 12 months in the district is good. The DAEA survey found that about 63 per cent of respondents acknowledge that the performance of the district assembly has improved. About 37 per cent believe there has not been any change in their performance while less than one per cent believe things have deteriorated. Majority are of the view that access to security and legal service in the district has generally improved over the past 12 months.

Judicial Services/Traditional Authority

The only judicial service outfit available in the district is the community tribunal, which is presently not operational. All cases are therefore currently handled outside the district: either at Bawku or Bolgatanga. In the absence of resolving disputes through the legal system, the traditional chieftaincy system fills the gap. Reported cases that need arbitration are first handled by the assembly person, then through the traditional system and finally end up with the Police as the final point of call.

The Police and Fire Service

The District has 3 police stations with the District Police Headquarters located at Zebilla. Police officers help maintain peace, stability, and protection of property of community members. However, the service is terribly under-resourced and one wonders how these police personnel can effectively and professionally discharge their duties efficiently. Similarly under-resourced is the Fire Service with the only fire post or station located at Zebilla. The station has only one fire tender (with a skeletal team of firemen) with no fire hydrants, not even in Zebilla which is becoming a fast growing town.

Financial Institutions

As noted earlier, the Toende Rural Bank, commissioned in 2003, is the only financial institution in the District. Though the bank is opened to the general public, only a few financial transactions take place there.

Constraints in Resource Endowment Utilization

Several constraints limit the effective utilization of these identified resources in the district. Obviously, the low income levels, high incidence of poverty, high illiteracy rates, significant unemployment and under-employment in addition to the level of infrastructure development itself all work against the effective and sustainable utilization of these resource endowments in the district.

Constraints in Human Resource Utilization

The DAEA survey revealed high illiteracy rates in the district. Although the incidence and depth of poverty has shown some appreciable improvements over the years, poverty is still rife. Taking up developmental challenges by way of applying one's knowledge and skills acquired through

formal as well as non-formal education is therefore suspect.

Constraints in Natural Resources Utilization

Soil degradation due to continued cropping, the inability to purchase and apply adequate chemical fertilizers to crops due to the high poverty status, inappropriate agricultural technology, the belief that crop yields are linked to some specific deities, the erratic nature of rainfall in the district, *inter alia*, all contribute to low agricultural productivity in the district.

Financial, technological, and a mix of these constraints hinder the proper extraction of the gold deposits in the district, although the human resources (mainly unskilled labour) needed are however, available.

Hazards and Environmental Impact on Utilization of Resource Endowments

Apart from the physical constraints identified above, natural hazards and other environmental contingences negatively impact on households' effective utilization of the natural resource endowments especially. This is because majority depend on natural resources, such as land, for sustained livelihood. According to the DAEA survey, the major natural disaster experienced by households in the district is flooding, evidenced by the high number of households adversely affected in both 2007 and 2008. The proportion of households who experienced flooding increased marginally from 47.5 per cent in 2007 to 47.9 per cent in 2008. Destruction of crops and buildings were identified as major disasters in the district. During such floods many households are rendered homeless while others lose virtually all their farm businesses. In order to cope with this menace, many households have resorted to building farther away from

waterways. The survey revealed that, in some flood-prone communities, gutters have been dug around buildings to help cope with the situation. These gutters are constantly desilted to prevent their being choked. However, a larger majority of households are apathetic about the situation and expect government and private sector support. Others do not know what to do. It is therefore imperative that the National Disaster Management Organization (NADMO) mount an intensive campaign to educate the inhabitants of the district on some practical ways to cope with disasters.

Bushfire is another menace that hinders the efficient utilization of agricultural land resource endowments. In 2007, 13.7 per cent of households in the district experienced bush fire. The number, however, reduced to 13.1% in 2008. A greater percentage of households were spared the experience of the bush fire that occurred in 2007 and 2008. Frequent anti-bush fire education in the district could account for the low prevalence of bush fire.

About 36.4 per cent of households experienced drought in 2007 and this decreased to 33.6 per cent in 2008. The occurrence of drought resulted in poor harvest and therefore low crop yields. Some households have planted trees around the house as a strategy whilst others do nothing to cope with the situation against drought.

The next natural hazard in the district is wind storm. About 34.3 per cent of households claim they were affected by windstorms in 2007. This figure increased slightly to 34.6 per cent in 2008. During wind storms, several roofs are ripped off and crops, especially sorghum become uprooted before their time.

Enhancing Utilization of Resource Endowments in the District

An efficient property rights regime contingent on the principles of universality,

exclusivity, transferability, and enforceability are relevant for an enhanced utilization of resources in general. Knowing that one has the exclusive right to a resource and that the due process will discourage illegal seizure of the resource can create an incentive for investment into that resource. The perception that community resource is no one's resource may be a disincentive for over-exploitation. Thus, the perceptions of households matter in resource utilization. Households in the Bawku West District were first asked to indicate the owners of the resource endowments in the district. About 58 per cent mentioned the central government as the rightful owner of the resources while 37 per cent believe community members own the resources. Only 3.4 per cent attributed ownership to the traditional authorities, 3 per cent to NGOs, 2.6 per cent to households, and 0.4 per cent to families.

In addition, almost the entire sample, constituting 99 per cent view the resources as very relevant to their livelihood and survival. However, when asked whether they currently pay for the utilization of any of the resources, 58 per cent indicated that they do pay. For the remaining 42 per cent who do not pay for the use of any of the resource endowment, 61 per cent are willing to pay some amount for their use while 39 per cent are completely not willing to pay for resource use. They prefer to have free and unfettered access.

Conclusions on Utilization of Resource Endowments to Meet MDGs

In general, it can be concluded that households in the Bawku West District have not and are not utilizing the resource endowments to the best of their capabilities due to several constraints enumerated earlier. Some of the natural, physical, financial, human, and social capital, appear to be in short supply in the district. The increased availability and the interdependencies

amongst these assets matter in the achievement of set goals and targets in the medium-term development of the district and subsequently the achievement of the MDGs. Good governance also matters in the

administration and utilization of resources. Building appropriate governance structures with effective implementation of decisions will consolidate gains made in economic growth and development efforts.

Investment Opportunities Constraints and Challenges in the District

Introduction

It is often stated that humans constitute the focus of any development agenda. Hence, any well-intentioned development plan must make room for the development of the available human resources, which is one of the five main assets, namely, physical, financial, natural, and social capital required for growth and development. These resources or assets would have to be harnessed and utilized efficiently if the focus is accelerated growth and development in a sustainable manner. The more resource endowment a community has gives it an edge, *ceteris paribus*, over less endowed communities in terms of more investment options. An enabling environment conducive enough for private sector involvement, the availability of local entrepreneurial skills and abilities, and the desire to take meaningful investment risks all matter in the springing up of businesses. Despite the numerous development challenges plaguing the Bawku West District, in addition to structural constraints at the policy and institutional levels, numerous potential investment opportunities in the agricultural sector and other strategic areas in the district exist and when exploited, have the potential of creating jobs and reducing poverty. This section examines the available investment opportunities identified by key stakeholders in the district during Focus Group Discussions (FGD), the challenges that are likely to impede investment flows and the constraints that must be overcome in the district for the

achievement of her development goals and targets.

Investment Opportunities in the District

Agriculture and Other Allied Investment Opportunities

Focus group discussions held with community members and key stakeholders identified agriculture as one of the profitable areas in the district that has investment potential. Livestock rearing (piggery, sheep, and goats), dry season vegetable farming (onions, tomatoes, okra) were identified as likely areas to invest. Nevertheless, certain factors were identified as inimical to achieving maximum investment benefits. Some of these constraints include the inadequate irrigable land at dam sites, lack of markets for agricultural produce, difficult land tenure arrangements, and inadequate capital to pursue these opportunities. The need for government to financially support efforts in agriculture was emphasized.

Other allied agribusiness investment opportunities include malt and rice processing, pito brewing, and sheabutter extraction, processing and preservation of water melons, among others.

Hospitality and Tourism Industry Investment Opportunities

As noted earlier, the district has only two guest houses which are below the expected industry standards. Yet a huge potential for

tourism exists in the district. Interviews with key informants revealed that local or foreign investors with capital could take advantage of developing the various potential tourists' sites such as the Widnaba waterfalls. Building of modern restaurants, hotels and guest houses are other investment opportunities where development partners, NGOs, academic researchers, and other development oriented organizations that come to the district for research and other purposes could lodge instead of travelling longer distances to seek accommodation in either Bolgatanga, the regional capital, or Bawku, depending on proximity. Zebilla, a fast expanding district capital is the right location to invest in these infrastructural facilities.

Investments in ICT Facilities

The perceived demand for ICTs such as internet facilities by individuals pursuing development oriented assignments in the district appears to be high. There is no internet facility currently operating that serves the public interest. This clearly presents an opportunity for investment in the district.

Other Investment Opportunities

Large-scale retail trade is another potential area for investment. The district cannot boast of any large scale provision shop (or a one-stop shop) where other retail traders can purchase from as is the case in Kumasi, Accra and some regional capitals in Ghana. Wholesaling of basic necessities (like toiletries) and other provisions are potential areas. The ability to access capital and defy the odds is the major challenge.

Constraints and Challenges to Investment Opportunities in the District

Being a largely rural economy with very much undeveloped infrastructural facilities, the Bawku West District certainly faces numerous development challenges and constraints. The abundance of the natural resources and other resource endowments in the district has the potential of contributing to the socio-economic development of the district.

The efficient utilization of the resource endowments is contingent on a lot of factors. These factors include the availability of incentives for potential investors, the ease of land acquisition for agricultural and off-farm investments, availability of technical and financial support (either by way of inputs or cash) for agriculture (including agribusiness ventures) and other investments that will employ more of the unskilled labour in the district.

Agriculture largely remains rudimentary, characterized by low productivity, inefficiency, and under-employment. Modernization of agriculture in the district still remains a vision that needs to be realized. The absence of well functioning input and product markets pose a major investment challenge, likewise the inadequacy of physical infrastructural facilities and services to support investments. It appears the District Assembly lacks the capacity to internally generate adequate funds to implement some of her development plans. Moreover, the only rural bank in the district should be encouraged to give credit to potential investors who should be closely monitored for progress.

Conclusions

Progress Towards Meeting the MDGs in the District

The strides made so far in achieving the goals and targets of the district's medium term development plans for 2006–2009 may be a clear indication of whether components of the millennium development goals have been achieved in the Bawku West District or are achievable within a given time frame by the year 2015. Admittedly, the district has made diverse progress in the area of education, health, water and sanitation, all geared towards meeting the MDG targets.

Education

The second MDG of achieving a universal primary education appears to be on course. The general access to education at the various educational units has seen some improvement. More than half of enrolled pupils travel less than 30 minutes to access education in their respective institutions. Enrolment at the pre-school and primary school levels has significantly increased from 1.3 per cent and 63.9 per cent to 7.7 per cent and 66.7 per cent respectively. This may probably be due to sensitization drive rolled out by the District Assembly and or the school feeding programme. The situation at the post-secondary levels runs contrary to the pre-school and primary schools. Junior high, Senior high and post-secondary enrolment experienced a fall from 17.2 per cent, 8.6 per cent and 9 per cent in 2000 to 14.7 per cent, 6.6 per cent and 4.3 per cent respectively in

2008. Gender parity at the various educational levels in the district is quite encouraging. Female enrolment has increased marginally against that of the males. At the pre-school and primary levels the number of female enrolment outnumbers that of the males. In this regard, the fourth target of the MDGs to eliminate gender disparity in primary and secondary education has partially been achieved. However, what is mindful to guard against is the effect of poverty and other cultural practices on female enrolment as they move higher in education. Overall school attendance rate of population aged 6 years and above has increased. The number of individuals aged 6 years and above who have never been to school declined from 77.8 per cent in 2000 to 72.1 per cent in 2008 for both males and females.

Educational attainment in the district is very low as the highest level of education attained by the majority of the population is primary education. A greater proportion of females than males attained primary education as the highest level of education. About 15 per cent females compared with 7.6 per cent males who have ever been to school had a post-secondary education (vocational, technical, teacher training, and nursing education). Literacy rate in English language increased from 12 per cent in 2000 to 24.6 per cent in 2008. As well, literacy in a Ghanaian language also increased from 0.5 per cent in 2000 to 20.8 per cent in 2008. The challenging issue to consider is whether the progress and successes made so far in terms of education can be sustained over the

medium to long-term when the educational infrastructure is deteriorating at a faster pace.

Poverty

Incidence of poverty is rife in the district as it is one of the poorest in the Upper East region. The depth of poverty has worsened in the Region. Not surprisingly, over 68 per cent of the citizens in the district perceive themselves as poor. Due to poverty, more than 93 per cent of households experience difficulty in satisfying household food needs, thus making them food insecure. In terms of rankings of the incidence of poverty in Ghana, the Bawku West and the Bongo Districts were the worse ranked districts with an overall ranking of 99 per cent (NDPC 2005). Therefore, the achievement of the MDG of eradicating extreme poverty and hunger in the district by 2015 does not appear attainable if current unfavourable developments and trends are not altered.

Health

The health sector in the district has not seen much improvement that will make it achieve the fourth, fifth, and sixth MDGs by the year 2015. Nevertheless, the district has mounted strategies to address such issues to help meet the range of MDG's target for the sector. Prominent among these strategies is the strengthening of the national health insurance scheme launched in 2004 and the malaria control programme. Only 6.13 per cent of the total population in the district were registered under the scheme when it fully became operational in 2005.

A greater number of hospitals and clinics in the district can be reached within an hour or more. Although access to medical facilities is comparatively high in the district since about 95 per cent of those who had fallen sick sought medical attention by visiting a medical facility, the number of

health workers in the district to manage these health facilities are woefully not sufficient. The Doctor/Population ratio of 1:28,666 and the Nurse/Population ratio of 1:3,909 leave much to be desired.

On the whole, majority of the population in the district are satisfied with the quality of health care services provided by health workers. More than half of the total deliveries in the district are supervised by professional or skilled health workers (doctors, nurses and midwives). Pre-natal attendance among pregnant women is relatively high compared with post-natal attendance. This is comparatively higher among pregnant women in the urban communities than pregnant women in the rural communities. Maternal mortality is quite minimal due to the increasing awareness for frequent pre- and post-natal checkups. Also felt is the need for quality supervision by skilled health workers during delivery. The district has consequently made immense progress in meeting the fifth MDGs of improving maternal health.

On the contrary, strategies to combat HIV/AIDS, malaria and other diseases have not yielded much as expected. Malaria is the most reported disease in the district and the number of reported cases at the various health centres keeps increasing year by year. The situation is not different from HIV/AIDS reported cases which has also seen a steady increase in number. Extra efforts are needed to combat HIV/AIDS incidence in the district for the attainment of the sixth MDG.

Sanitation and Water

Issues concerning sanitation in the Bawku West District are quite challenging. Solid and liquid waste management practices by a large majority of urban and rural dwellers leaves much to be desired. More than two-thirds of households do not dump their waste at the designated public refuse dumps, thus creating

Conclusions

lots of filth. Intensive education is essential to curtail this attitude. A good number of the population have access to safe drinking water from public outdoor taps, taps in dwellings or compounds, protected or covered wells and boreholes. Nevertheless, majority still depend on unsafe water sources in the

district. The strategy to increase access to water and sanitation is, therefore, yielding some dividend and needs to be vigorously pursued to achieve the seventh MDG of ensuring sustainable access to safe drinking water and basic sanitation facilities.

Table 9.1: Summary of MDGs and the Situation in the Bawku West District

Millennium Development Goal	Targets	Situation in the Bawku West District
Goal 1: Eradicate extreme poverty and hunger	Target 1: Halve between 1990 and 2015, the proportion of people whose income is less than one dollar a day Target 2: Halve between 1990 and 2015, the proportion of people who suffer from hunger	<ul style="list-style-type: none"> Poverty incidence has declined but depth of poverty has increased About 93% of households experience the difficulty in satisfying their food needs March to July are critical periods in terms of severe food shortages for about 84% of households
Goal 2: Achieve universal primary education	Target 3: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary education	<ul style="list-style-type: none"> Gross enrolment rate (GER) has increased at the pre-school, Primary, JHS, and SHS levels. male and female gross enrolment rates also increased High illiteracy rate among the youth increasing
Goal 3: Promote gender equality and empower women	Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	<ul style="list-style-type: none"> The Gender Parity Indicator (GPI) has increased slightly for the enrolment of the girl-child over males, from 1.02 (2003/2004) to 1.32 (2004/2005), and to 1.07 (2005/2006) GPI also increased for Junior High and Senior High Schools
Goal 4: Reduce child mortality	Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	<ul style="list-style-type: none"> Under five years mortality cases increasing mainly due to malaria
Goal 5: Improve maternal health	Target 6: Reduce by three-quarters, between 1990 and 2015 the maternal mortality ratio	<ul style="list-style-type: none"> Four (4) maternal deaths in 2005 About 3% had still birth during their last pregnancy
Goal 6: Combat HIV/AIDS, malaria and other diseases	Target 7: Have halted by 2015, and begun to reverse the spread of HIV/AIDS Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	<ul style="list-style-type: none"> Steady increase in treatment of HIV/AIDS cases Increasing trend in malaria reported cases and also the most important cause of OPD attendance, admissions, and death
Goal 7: Ensure environmental sustainability	Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources Target 10: Halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	<ul style="list-style-type: none"> The District's Medium Term Development Plan (DMTDP) incorporates sustainable development principles into its overall plans Increasing use of fuelwood for cooking Increasing access to potable (borehole) water Over 94% do not have access to

Goal 8: Develop a Global Partnership for Development	Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	safe sanitation facilities
	Target 16: In cooperation with developing countries, develop and implement strategies for decent work and productive work for youth	<ul style="list-style-type: none"> • Quite a number of NGOs are involved in community development and women empowerment
	Target 17: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	
	Target 18: In cooperation with private sector, make available the benefits of new technologies, especially information and communications	

The Way Forward

The district obviously faces numerous constraints and development challenges amidst several opportunities that could turn around the prospects of the district for sustained local economic growth and community development. Clearly, the little progress made in achieving the MDGs may have several implications. The vast natural resource endowments have not been fully exploited to create employment opportunities for the people that will enhance or reduce poverty in the district. When fully exploited, the overall resource endowments would improve the livelihood of both rural and urban dwellers.

Continued participation in local governance issues and civic responsibilities must be strengthened to deepen democracy. The various Assemblymen and women in the district must be paid well for them to work harder at the local level. The meagre allowances given to them is not enticing enough numbers to deliver the development agenda of the district. If members of Parliament are paid, why should Assembly members not be equally given their due for similar jobs done? As the District Assembly discovers more innovative ways of mobilizing adequate internal revenue for its development projects, the central

government must endeavour to increase the District Assembly Common Fund (DA CF) allocation to the district.

The government must focus a lot more on rural development by providing the basic infrastructure on which the district can adequately build upon. Road conditions and networks must be improved, likewise post and communication facilities. Health and education infrastructure must be given adequate support from the central government as the District Assembly alone cannot, at this stage of its development, bear all the financial responsibilities. The capacity of the District Assembly needs to be strengthened by employing the knowledgeable and skilled human resource to inject agility and drive into the assembly. Such personnel should be given decent accommodation for enhanced productivity, among other incentives.

A concerted effort is required by the entire key stakeholders, namely, the District Assembly, Ministries, Departments, and Agencies, local development groups and organizations, and development partners such as the NGOs in the district to come together on a regular basis for dialoguing in charting a sustainable development path for the district.

APPENDICES

Appendix 1: Key Development Issues, Objectives, and Strategies to Achieve the Medium-Term Development Goals of the Bawku West District (Appendix Table A1)

Table A1: Key Development Issues, Objectives, and Strategies to Achieve.

A. PRIVATE SECTOR COMPETITIVENESS		
Key Development Issue	Objective(s)	Strategies
High incidence food and nutrition insecurity	To facilitate the modernization of agricultural production to achieve food and nutrition self-sufficiency and security by end of 2009;	<ul style="list-style-type: none"> • Strengthening the capacities of the following: <ul style="list-style-type: none"> ✓ Farmers ✓ DADU Personnel ✓ Credit institutions ✓ Industry ; • Provision of irrigation facilities • Provision of micro credit • Provision of improved livestock breeds • Provision of improved crop seeds • Provision of veterinary drugs and agro-chemicals
Limited Private Sector Investment	To increase private sector investment in agric, industry and service provision by 2009	<ul style="list-style-type: none"> • Strengthening the capacities of business entrepreneurs • Provision of micro credit facilities
Rampant bush (wild) fires	To reduce the incidence of wild fires in 20 communities by 2009	<ul style="list-style-type: none"> • Awareness creation • Capacity building of communities on fire prevention and management
Rapid environmental degradation	To reduce the rate of environmental degradation in the district by end of 2009	<ul style="list-style-type: none"> • Sensitization of communities on protection of the environment • Education of farmers on good farming practices • Education on tree growing • Provision of tree seedlings to communities and organizations/institutions • Encourage communities to establish woodlots • Protection of river banks / catchment areas of water bodies • Formation and strengthening of Community Environment Committees • Provision of adequate logistics to DEMC for effective monitoring of the programmes
Low infrastructural development	To improve surface accessibility in the district by end of 2009	<ul style="list-style-type: none"> • Construction and rehabilitation / maintenance of feeder roads

	To provide electricity and telecommunication facilities in 10 communities in the district by end of 2009	<ul style="list-style-type: none"> Facilitate the extension of electricity to communities through the provision of LV poles Encourage Ghana Telecom and other private networks to provide telephone facilities / services
B. HUMAN RESOURCE DEVELOPMENT		
Key Development Issue	Objective(s)	Strategies
High incidence of out-migration especially among the youth during the long dry season	To reduce the seasonal migration of the youth during the long dry season by Dec 2009	<ul style="list-style-type: none"> Provision of employable skills for the youth Promotion of dry season farming along the White Volta Basin Provision of more irrigation facilities for all year round farming Provision of micro-credit facilities
High population growth rate	To reduce the current population growth rate of 2.6% to 2.5% by end of 2009	<ul style="list-style-type: none"> Sensitization of communities on effects of population explosion Promote the use of family planning products
Low access to health care services	Increase OPD per capita from 0.27 to 1.0 by end of 2009	<ul style="list-style-type: none"> Provide more health facilities Provide more logistics/equipment for health facilities Train more Medical Assistants and clinical staff Encourage communities to patronize the MHIS Provide more staff accommodation for health personnel
	To increase percentage of supervised deliveries from 37.3% to 60% by end of 2009	<ul style="list-style-type: none"> Train more midwives Equip maternity units Sensitization of communities on the importance of health facility deliveries Provide more in-service training to existing staff, including TBAs
	To increase EPI coverage from 90% to 99% by end of 2009	<ul style="list-style-type: none"> Expansion of out-reach programmes Train more Community Health Nurses /Disease Control Officers Build capacities of existing Community Health Volunteers Provide adequate motivation for Health Volunteers Health education
High incidence of malaria in the district	To reduce the incidence of malaria from 63% to 30% by end of 2009	<ul style="list-style-type: none"> Promote the use of ITNs Health education Promote environmental sanitation Effective case management at health facilities Promote home-based care Train staff on new anti-malaria policy Promote use of new anti-malaria drug Train chemical sellers on new anti-malaria drug Expand out-reach programmes

High incidence of malnutrition amongst children in the district	To reduce child malnutrition of 18% to 10% by end of 2009	<ul style="list-style-type: none"> • Provide more supplementary feeding centres • Promote exclusive breast feeding • Promote appropriate complimentary feeding practices
	To reduce the incidence of HIV / AIDS infection from 63 new cases to 40 by end of 2009	<ul style="list-style-type: none"> • Health education • Provide more counseling and testing / PMTCT centres • Formation and training of peer educators • Promotion of Anti-Retroviral drug usage • Collaboration and net-working with other Development Partners • Home-based care for PLWHAs
Increasing incidence of HIV / AIDS infection in the district		
Low patronage of MHIS in the district	To increase membership of MHIS from 6% to 70% by end of 2009	<ul style="list-style-type: none"> • Intensive sensitization • Training and motivation of registration officers • Hiring and retention of staff • Provision of more logistics • Improve quality of care at the health facility • Encourage private health sector participation in MHIS delivery • Reconstitution of vetting committee to include pharmacists or medical officers to scrutinize service providers
Low standard of education in the district	<ul style="list-style-type: none"> ✓ To reduce PTR in KG from 217:1 to 100:1 by end of 2009 ✓ To reduce PTR in Primary Schools for 68:1 to 45:1 by end of 2009 ✓ To increase the number of trained teachers in KG from 14% to 20% by end of 2009 ✓ To increase the number of trained teachers in Primary Schools from 59% to 65% ✓ To increase BECE performance from 42% to 80% by end of 2009 	<ul style="list-style-type: none"> • Intensify sponsorship for Teacher-Trainees • Effective monitoring and supervision in schools • Strengthen capacity of GES staff • Provision of more teachers accommodation
Low school enrolment at the Pre-school and JSS levels	<ul style="list-style-type: none"> ✓ To increase GER in KG from 42% to 60% by end of 2009 ✓ To increase GER in JSS from 43% to 55% by end of 2009 	<ul style="list-style-type: none"> • Sensitization of communities • Effective management of Capitation Grant • Provision of more classrooms
Low retention of the Girl-Child in JSS	To increase Gender Parity Index (GPI) from 0.93 to 1.0	<ul style="list-style-type: none"> • Sensitization of communities using Role models • Provision of incentive packages for girls • Expand the provision of Take Home Ration to JSS

Poor sanitation		<ul style="list-style-type: none"> • Sponsorship of brilliant but needy girls to higher institutions
	To increase sanitation coverage from 5% to 30% by end of 2009	<ul style="list-style-type: none"> • Promotion of environmental sanitation • Provision of more sanitary facilities • Provision of more sanitary tools and equipment • Recruitment of more sanitary personnel; • Strengthening the capacity of existing technical staff • Acquisition of land banks for sanitary facilities/activities
Inadequate access to potable water	To provide 60 communities/localities with safe/potable water by the end of December 2009	<ul style="list-style-type: none"> • Provision of more water facilities • Sensitization of communities on water safety • Formation and training of WATSAN committees

C. GOOD GOVERNANCE AND CIVIC RESPONSIBILITY		
Key Development Issue	Objective(s)	Strategies
Weak performance of the District Assembly	To improve the service delivery of the District Assembly	<ul style="list-style-type: none"> • Strengthening of the capacities of Assembly Members and District Assembly staff • Creation of more civic awareness of the citizens of their rights and responsibilities • Improvement of the logistics and infrastructure requirements of the District Assembly • Reducing the level of political interference in their performance
Weak operationalization of the sub-district structures	To improve the service delivery of the sub-district structures	<ul style="list-style-type: none"> • Strengthening of the capacities of Councilors and TAC staff • Creation of more civic awareness of the citizens of their rights and responsibilities • Improvement of the logistics and infrastructure requirements of the TACs • Reducing the level of political interference in their performance
Low local revenue generation of the district Assembly	To increase revenue generation of the District Assembly by 5% annually	<ul style="list-style-type: none"> • Expansion of the tax net • Review of current revenue collection system • Strengthening of the capacities of revenue collectors • Updating of the district nominal roll on rateable items • Tax education campaigns • Strengthening of the monitoring mechanism on revenue collection
Weak integration of decentralized departments into the District Assembly system	To strengthen the integration of decentralized departments into the District Assembly	<ul style="list-style-type: none"> • Strengthening of the capacities of staff of the decentralized departments • Implementation of fiscal decentralization

Low participation of women and other vulnerable in decision making	To increase the participation of women and other vulnerable at all levels of decision making by 2009	<ul style="list-style-type: none"> • Community sensitization on potentials of women and other vulnerable • Promotion of girl-child education • Adoption of quota representation of all interest groups in decision making • Affirmative action • Provision of employable skills to women and other vulnerable • Capacity strengthening of women and other vulnerable • Featuring of role models in all sensitization programmes
Prevalence of outmoded cultural practices in the district (Long / expensive funerals, expensive dowry, widowhood rites, FGM, Child betrothal, early marriages)	To reduce the prevalence of outmoded cultural practices in the district by 2009	<ul style="list-style-type: none"> • Community sensitization • Legislation • Provision of alternative livelihood skills / programmes for perpetrators
Weak collaboration of Development partners and District Assembly	To improve the level of collaboration between the District Assembly and Development Partners by Dec 2009	<ul style="list-style-type: none"> • Encourage Development Partners to register with DA • Institutionalize regular interactive meetings of DA and Development Partners • Involvement of Development Partners in DA budgeting process
High incidence of crime in the district	To reduce the high incidence of crime in the district by Dec 2009	<ul style="list-style-type: none"> • Community involvement in the maintenance of law and order • Provision of adequate office and residential accommodation for security agencies • Provision of adequate logistics for security agencies • Provision of adequate security personnel • Completion of court premises and provision of adequate judicial service personnel • Prosecution of criminals
Incidence of sporadic communal conflicts	To reduce the incidence of communal conflicts in the district by Dec 2009	<ul style="list-style-type: none"> • Community sensitization on alternative dispute resolution mechanisms • Capacity building programmes for traditional rulers, opinion leaders, Assembly members, Councilors and TAC personnel on conflict management • Prosecution of trouble makers

Appendix 2: Access to Telecommunication Facilities (Appendix Table A2)

Table A2: Access to Telecommunication Facilities

Means to reach telecom facility	Urban (%)	Rural (%)	Total (%)
Vehicle	51.2	43.8	47.4
Motor-cycle	2.4		1.2
Foot	41.5	36.0	38.6
Animal		1.1	.6
Canoe/boat		2.2	1.2
Bicycle	4.9	16.9	11.1
Time to reach telecom facility			
0-14 minutes	10.7	1.0	5.4
15-29 minutes	10.7	9.0	9.8
30-44 minutes	6.0	2.0	3.8
45-59 minutes	4.8	13.0	9.2
60+ minutes	67.9	75.0	71.8

Appendix 3: Access to public services in Bawku West District, 2008 (Appendix Table A3)

Table A3: Access to Public Services in Bawku

Public Services	Urban (%)	Rural (%)	Total (%)
Source of drinking water			
Less than 14 minutes	56.2	63.6	55.8
15 – 29 minutes	36.2	30.5	30.8
30 – 44 minutes	6.7	4.2	5.0
45 – 49 minutes		.8	0.4
60 minutes or more	1.0	.8	0.8
Food market			
Less than 14 minutes	17.1	7.6	11.2
15 – 29 minutes	39.0	16.9	25.4
30 – 44 minutes	18.1	33.9	24.6
45 – 49 minutes	9.5	19.5	13.8
60 minutes or more	16.2	22.0	17.9
Public transportation			
Less than 14 minutes	11.2	8.3	8.3
15 – 29 minutes	35.7	21.1	24.2
30 – 44 minutes	14.3	30.3	19.6
45 – 49 minutes	12.2	18.3	13.3
60 minutes or more	26.5	22.0	20.8
Bank			
Less than 14 minutes	5.0		2.4
15 – 29 minutes	21.0	1.8	10.9
30 – 44 minutes	7.0	2.7	4.7
45 – 49 minutes	1.0	20.7	11.4
60 minutes or more	66.0	74.8	69.7
Post office			
Less than 14 minutes	10.5		4.9
15 – 29 minutes	15.8	.9	7.8
30 – 44 minutes	5.3	1.8	3.4
45 – 49 minutes	1.1	22.0	12.3
60 minutes or more	67.4	75.2	71.6
Police station			
Less than 14 minutes	13.3	.9	6.9
15 – 29 minutes	24.8	5.4	14.7
30 – 44 minutes	6.7	3.6	5.1
45 – 49 minutes	3.8	25.9	15.2
60 minutes or more	51.4	64.3	57.1
Recharge vendor			
Less than 14 minutes	21.7	5.9	13.7
15 – 29 minutes	13.3	22.4	17.9
30 – 44 minutes	15.7	9.4	12.5
45 – 49 minutes	7.2	14.1	10.7
60 minutes or more	42.2	48.2	45.2

Source: DAEA Survey, 2008.

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