

LAWRA DISTRICT

**HUMAN
DEVELOPMENT
REPORT 2010**

Resource Endowment, Investment Opportunities
and the Attainment of MDGs

Government of Ghana



**United Nations Development
Programme Ghana Office
Accra**

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Foreword

Within the general framework of ensuring equity and overall development, the current District Human Development Reports (DHDR) cover a sample of twelve 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 agenda of Better Ghana and Savanna 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 DHDRs over the years serve as 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 DHDRs 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.

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 programmes and policies for the attainment of human development and the MDGs at the local levels. The Ministry for Local Government and Rural Development (MLGRD) sees the reports as a means to achieving equity and balanced growth in the country. It is 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 MMDs 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 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 this 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 them and on their own initiative to 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. YILE CHIREH (MP) MINISTER,
LOCAL GOVERNMENT AND RURAL
DEVELOPMENT

Preface

UNDP Ghana Country Office in collaboration with stakeholders and other partners has been facilitating the production and dissemination of Ghana Human Development Reports (HDRs) since 1997. These reports aim to enrich policy and provide analytical basis to Government of Ghana (GoG) and to 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 twelve (12) districts of; Karaga, Bolga, Tamale, Bole, East Mamprusi, Lawra, Nanumba North, Bawku West, Sissala East, Wa Municipal, Zabzugu and Kasena Nankana in the Northern, Upper West and Upper East Regions on the theme “Resource Endowment, Investment Opportunities and The Attainment of The MDGs”. The reports analyze the human development situations and assess the progress of the district towards the realization of the MDGs. With barely five years to go 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 discussed the resource endowments and investment opportunities in the district and how these impinge on the

attainment of MDGs and improvement of human development at the local level.

The reports have provided the opportunity to having reliable and useful data, as well as providing information for policy making and further research for the formulation and implementation of the Medium-Term Development Plan of the districts. It is the fervent aspiration and hope of UNDP that these reports would be seen as development tools for local economic development. In fact, the reports go a long way to inform the UNDP’s Local Economic Development Programme in some seven selected districts in Northern Ghana. These Human Development Reports, and for that matter others should, therefore, lead us to build synergies and ensure shaping of programmes and projects in the communities to serve the needs of the people.

It is apparent that these DHDRs would enrich policy dialogue and serve as analytical tools for the Government of Ghana and a wide range of development stakeholders and investors in the analysis of and response to key development issues and investment opportunities at the grassroots level.

These reports must be a “MUST” reference point for the development agenda of the MMDAs covered. I look forward to further collaborations and support.

RUBY SANDHU-ROJON
UNDP Resident Representative

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(Senior Policy Advisor) and Kodjo Sedegah (Project Officer); Daouda Toure (former RR/RC of Ghana Country Office), Prof. Amoah Baah-Nuakoh (former Senior Policy Advisor, Policy and Strategy Unit); Paul Derigubaa (former Program Specialist, Policy and Strategy Unit), Ruby Sandhu-Rojon (RR/RC of Ghana Country Office); K. K. Kamaluddeen (Country Director, UNDP), Pa Lamin Beyai (Economic Advisor, UNDP); Shigeki Komatsubara (Deputy Country Director, Programmes, UNDP); Coretta Jonah (Economic Analyst, Policy and Strategy Unit, UNDP); Kordzo Sedegah (Economic Specialist and the Report Coordinator, Policy and Strategy Unit, UNDP); and Magnus Ebo Duncan (Head, Economic and Industry Statistics Division, Ghana Statistical Service).

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Abbreviations

ADB	Agricultural Development Bank
AIDS	Acquired Immune Deficiency Syndrome
BECE	Basic Education Certificate Examination
CBRDP	Community Based Rural Development Project
CHPS	Community Health Planning Service
CFR	Case Fatality Rate
DHDR	District Human Development Report
DWHIS	District Wide Health Insurance Scheme
DHIMS	District Health Information management System
GCS	GIMPA Consultancy Services
GOG	Government of Ghana
HD	Human Development
HIV	Human Immune Virus
MDG	Millennium Development Goal
MOFA	Ministry of Food and Agriculture
NGOs	Non-Governmental Organizations
OPD	Out Patient Department
PLWHA	People Living With HIV/Aids
PMR	Proportional Morbidity/Mortality Rate
TBA	Traditional Birth Attendants
UNDP	United Nations Development Programme
UNICEF	United nations Children Education Fund
ADB	Agricultural Development Bank
AIDS	Acquired Immune Deficiency Syndrome
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PMR	Proportional Morbidity/Mortality Rate
TBA	Traditional Birth Attendants
UNDP	United Nations Development Programme
UNICEF	United nations Children Education Fund
UWADEP	Upper West Agricultural Development Programme

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Executive Summary

In order to enrich decentralized planning and resource allocation, the Ghana Country Office of the UNDP engaged GIMPA to prepare Human Development Reports for three districts in Upper West Region (Wa Municipality, Lawra and Sissala West). This report on Lawra District seeks to collect and analyze pertinent data that will not only inform resource allocation decisions at the district level but also serve as advocacy tool as well as baseline to help track performance of various development interventions. The focus of the report is therefore on: “Resource Endowment, Investment Opportunities and Human Development”.

Resource Endowment and Utilization

Lawra district is endowed with a variety of resources which present various potentials for investments and utilization to improve the living conditions of the people. Unfortunately these resources are not utilized effectively as highlighted below.

Natural Resources

The soils and climate in Lawra district are suitable for crops such as groundnuts, cow-pea, sorghum and millet. The climate and vegetation also support livestock production, particularly goats and poultry. However these agricultural commodities are produced by subsistence farmers using traditional methods with low productivity.

Even though the Black Volta flows through the district with various tributaries that could be harnessed for irrigation and watering of animals, this has not been done, thus reinforcing the poverty situation of the

people who are mostly farmers but have no water during the long dry season (November to May).

The predominant Birimian rock in the district is rich in minerals like iron and gold. But these are not exploited for the development of the area. There is, however, some limited prospecting for gold at Tanchara, a village near Lawra.

Human Resources

The current population of the district is estimated at 101,864, implying the availability of labour to be tapped in utilization of the natural resources and opportunities. However, many of the highly educated people from the district have migrated out of the district to seek job opportunities elsewhere. Similarly, there is high out-migration of the youthful farmers during the dry season to the South in search of additional income or food to supplement the upkeep of their relatives back home. There is, therefore, a high out-migration of people in the district, which tends to deprive the district of some valuable human resource base for development. Nevertheless, remittance from relatives who have migrated out of the district is a major strategy enabling the people to cope with life.

Furthermore, the adult literacy rate in Lawra District is estimated from the household survey as 19 per cent. This low literacy level of the population limits the self-help capacity of the people. While there is great improvement in the number of children enrolled in basic schools over the years, there is high drop-out rate, thus greatly reducing the numbers that continue to the

Junior High School. Furthermore, the transition of school children from Junior High School to Senior High School or Technical School is low. Consequently there is a growing generation of youth who are less equipped to face life, since they are not well educated and are not also skilled farmers.

As regards the health of the people, infant mortality rate in the district decreased from 3.3 in 2004 to 1.7 in 2007, indicating good progress towards MDG 4, target 5. However, absolute figures from Lawra Health Directorate indicate an increase in maternal mortality from 5 in 2006 to 10 in 2007. This was attributed to the over-reliance of traditional birth attendants who usually delay in referring complicated deliveries to the hospitals.

Malaria continues to be the number one cause of morbidity and mortality in the district, with negative implications for the quality of life of the people. The incidence of HIV/AIDs in the district continues to increase over the years despite the awareness creation. The worrying aspect of this trend is that it is the youthful and most productive segment of the population that is affected.

Poverty Level

The incidence of poverty in the district is high with an estimated per capita daily income to be about \$0.87. This is a far cry from the MDG 1 which seeks to reduce by half the number of people earning less than \$1 a day. There is a chronic food shortage every year between the months of April to June when many households cannot afford two meals a day.

Employment Situation

It is estimated that 83% of the Lawra District working population is engaged in subsistence agriculture; while the remaining 17 per cent

are distributed in commerce, services, rural industry and salary employment. Food production is low due to the poor fertility of the soil and unfavourable weather conditions. Most of the youth have to migrate to the southern part of the country every year immediately after harvesting their crops so as to marshal resources for the upkeep of their families during the lean season.

The household survey revealed that 58% of the people are underemployed. Such a high figure may be explained by the fact that the survey was conducted during the dry season when majority of farmers are idle.

Credit Opportunities

Credit opportunities in the district are limited. The total loan portfolio disbursed in the district by the major financial institutions in the district (Ghana Commercial Bank, Nandom and Lawra Rural Banks) for 2008 was GH¢904,855. Much of this credit went into commerce and consumption credit to salaried workers. Agriculture which is the major economic activity and source of employment of the people had very little credit support for 2008. The implication is the low capital investment in this sector leading to low productivity and deepening of poverty.

Water and Sanitation Situation

Using the number of water points (boreholes and hand-dug wells) it is estimated that water coverage in the district is about 85–90 per cent, which is pretty good, compared to the national coverage of about 55 per cent. However, most of the boreholes and hand-dug wells, which provide water to the people, do have good yield during the long dry season when the water table becomes deeper.

Sanitation facilities in the district are woefully inadequate leading to many people

defecating in the bush and engaged in unhygienic waste disposal practices.

Recommendations

Based on the findings the following key recommendations are made:

1. Even though Lawra district is endowed with a variety of resources which present various potentials for investments and utilization to improve the living conditions of the people, these resources are under-utilized. It is therefore desirable for these investment opportunities to be explored seriously in order to promote more rapid development of the district. This may require entrepreneurial education and training such that the people could develop the requisite business orientation and skills to take advantage of these resources.
2. Given the success story of sorghum production in the district as a result of available market and the necessary support to farmers by some NGOs, there is need to restructure agricultural development in the district to focus on market-stimulated agriculture where the whole value-chain is developed in an integrated manner. The availability of ready market for some agricultural commodities will motivate farmers to respond with increased production and willingness to invest in appropriate technology and improved farming practices.
3. The development of irrigation facilities in the district is highly recommended to enable the people engage in dry season

farming as well as watering of their animals.

4. The district has great potential for animal production, particularly small ruminants and poultry but these have not been developed as the emphasis seems to be on crop production. It is, therefore, recommended that conscious efforts be given to the promotion of animal production in the district. The animals can then be integrated with crop farming so as to take advantage of circular resource flow from the two farm enterprises. For example, farm yard manure could be generated in quantity by introducing crop residue into pens as animal bedding, which could then be further decomposed and applied to crop farms. Similarly, some crop residue like groundnut vines (haulms) could be dried and stored properly as feed to livestock and the droppings of livestock sent back to crop farms. This will require development and introduction of appropriate housing for livestock instead of the current practice of “free range”. Indeed the livestock production should be addressed in an integrated manner from appropriate housing, and feeding, particularly during the dry season, as well as appropriate breeding.
5. In view of the reluctance of skilled workers like doctors, nurses and teachers to accept posting to the district, it is recommended that the district and indeed government should explore avenues of providing incentives to attract skilled workers to deprived districts.

Introduction

Background

In order to enrich decentralized planning and resource allocation, the Ghana Country Office of the UNDP facilitated the development of District Human Development Reports (DHDRs) for some districts on a pilot basis. These reports were found to be very useful for the analysis of and response to key development issues at the grassroots level, which can contribute towards the attainment of the Millennium Development Goals. Consequently, UNDP finds it appropriate to upscale this pilot phase by facilitating the preparation of Human Development Reports for twelve Districts in the Northern part of Ghana, where poverty is most severe. It is in pursuit of this agenda that UNDP engaged GIMPA Consultancy Services to prepare DHDRs for three districts in the Upper West Region (Wa Municipality, Lawra and Sissala East Districts).

Objectives and Scope of the Assignment

The main objective of the assignment is to collect and analyze pertinent data and prepare Human Development Reports that will not only inform resource allocation decisions at the district level but also serve as advocacy tools as well as baseline to help track performance of various development interventions. The current set of DHDRs, of which this report on Lawra District is part, is based on “Resource Endowment, Investment Opportunities and Human Development”.

The aim of these DHDRs is to enrich policy and to serve as analytical tools for the Government of Ghana (GoG) and a wide range of development stakeholders and investors in the analysis of and response to key development issues and investment opportunities at the grassroots level.

The specific objectives of the assignment, as indicated in the Terms of Reference (ToR) include the following:

- Provide reliable data and information on the status of human development in the districts by investigating trends in the different components of human development.
- Provide a detailed analytical situation analysis of the resource endowment and investment opportunities of the areas and show how they impinge upon the attainment of the MDGs at the local level.
- Identify the different types of resources available to the individuals, communities and group of persons for investment and human development.
- Identify and analyze the different ways that different entities used the resources to enhance their lots.
- Assess the impact of the resource endowment of the area on individual, communities and the nation at large for investment opportunities.
- Serve as baseline information for the evaluation of the programme and policies of the Long-Term Multi-Sectoral Northern Growth Strategy.

- Add to the existing DHDRs and contribute significantly to the improvement of the review of District Medium-Term Development Plans as well as Community Action Plans.

Understanding of the Assignment

GCS understands that the assignment seeks to improve understanding as to what the targeted districts have, in terms of resources, and how those resources could be effectively and equitably harnessed to accelerate the development process. Specifically, the assignment seeks to:

- Establish the status and trends in various components of human development;
- Examine and analyze the resource endowment and investment opportunities of the targeted districts;
- Establish link between resource endowment and human development; and
- Assess how these resources could be equitably harnessed in a sustainable manner for the accelerated development of the districts.

Our understanding of some key words related to this assignment, namely, “Human Development” and “Resource Endowment” are elaborated upon below:

Human Development

We take a more embracing view of Human Development to be the process of enlarging people’s capabilities and choices. The most important indicators of human development, which guided this study, include the following:

- *Child Mortality Rate*: Measured by the percentage of children who die before five years.
- *Maternal Mortality Ratio*: Measured by the percentage of women who die as a result of childbirth.
- *Adult Literacy*: Percentage of adults who can read and write.
- *Gross Primary Enrolment*: Percentage of children between the ages of 5 and 14 who are actually in school.
- *Per Capita Income*: Measured by income per capita in purchasing power parity dollars.

Resource Endowment

We see resources as a form of capital or potential that people could utilize to earn a living. These include:

- *Natural resources*: They include forest, soils, rivers and tourism potentials.
- *Human resources*: represented by the quantity and quality of labour available as reflected in the human skills, knowledge and health status which people can deploy to earn a living.
- *Physical resources*: These comprise the basic infrastructure and socio-economic facilities needed to support development or livelihood of the people. They include access to reliable transport and information, educational facilities, health facilities, adequate water supply and sanitation.
- *Social capital or resources*: These include social networks or connectedness of community members as well as prevailing level of relationship of trust and reciprocity in the community which people can tap into for a livelihood.

- *Financial capital or resources:* Represented by available stocks like cash, bank account and liquid assets such as livestock.

The overwhelming relevance of resource endowment in the DHDRs lies in the question of how effectively and judiciously districts are utilizing their resource endowment for the development of their people and their districts. It is now well established that building development on the existing resource strengths; while adding more from external sources to fill gaps engenders more sustainable development than relying on only externally injected resources and inputs.

Approach and Methodology

General Approach

Our general approach in undertaking this assignment was participatory, with active involvement of various stakeholders at all stages of the assignment execution, so as to build consensus and ownership of the process and outcomes. The field assessment was done with the active participation of some staff of the respective district assemblies so as to build local capacity capable of reviewing and updating the various dimensions of Human Development in future by themselves.

The study employed both quantitative and qualitative methods in the collection and analysis of data. The data was obtained from both secondary and primary sources. Secondary data sources included:

- Lawra District Assembly Annual Administrative and Performance Report for the period January to December, 2007.
- Lawra District Health Services Annual Report for 2006.

- Lawra District Health Services Annual Report for 2007
- Lawra District School Mapping Report of 2005
- Lawra District Medium Term Development Plan for the period 2006 to 2009
- The 2000 Population and Housing Census.
- Records from various health and educational institutions.

After the field assessment and data analysis, a draft report was prepared and presented at a stakeholders' workshop for discussion, validation and filling in any gaps before the final report is prepared.

Specific Methods

Within the participatory framework, specific methods and techniques which were employed to accomplish the objectives of this study are highlighted below:

Sampling Design

A two-stage probability sampling procedure was used, based on urban and rural communities. The updated list of the Enumeration Areas (EAs) that was used for the 2000 Ghana population census constituted the sampling frame. The primary sampling units were the EAs in the district while the households within the selected EAs constituted the secondary sampling units.

Sample Selection Process

The sample was selected in two stages. At the first stage of sampling, 15 EAs were selected randomly from each district. The second stage of sampling involved random selection of 15 households from each of the selected EAs. In addition, eight supplementary households were selected for possible

replacement for missing households. Consequently, the number of households selected for study in each of the districts was 225 plus an additional 25 to cater for missing households.

The Survey Instrument

Two types of questionnaire were used, one for households and the other for the community, samples of which are provided in Appendices 1 and 2. The household questionnaire was guided by two key considerations: First, the instrument has to be as explicit as possible, while covering all the relevant issues of interest. Secondly, questions related to similar issues in the 2003 Core Welfare Indicators Questionnaire (QWIQ) were structured along similar lines so as to ensure comparability.

Field Organization and Data Collection

Research assistants, who are staff of the District Assembly, were identified and trained on the instrument and interviewing techniques before being sent out to collect the data. These research assistants were supervised in the field data gathering by a lead consultant, Mr. Joe Taabazuing. The lead consultant reviewed the filled questionnaire with the research assistants every evening so as to ensure completeness, accuracy and consistency of responses.

Data Analysis

After checking the data for possible errors it was entered and analyzed using the SPSS computer software. Basic descriptive analysis was conducted to depict trends and patterns in the main indicators of interest. Thematic coding techniques were employed

to group various issues under similar themes so as to establish intensity and trends.

Organization of Report

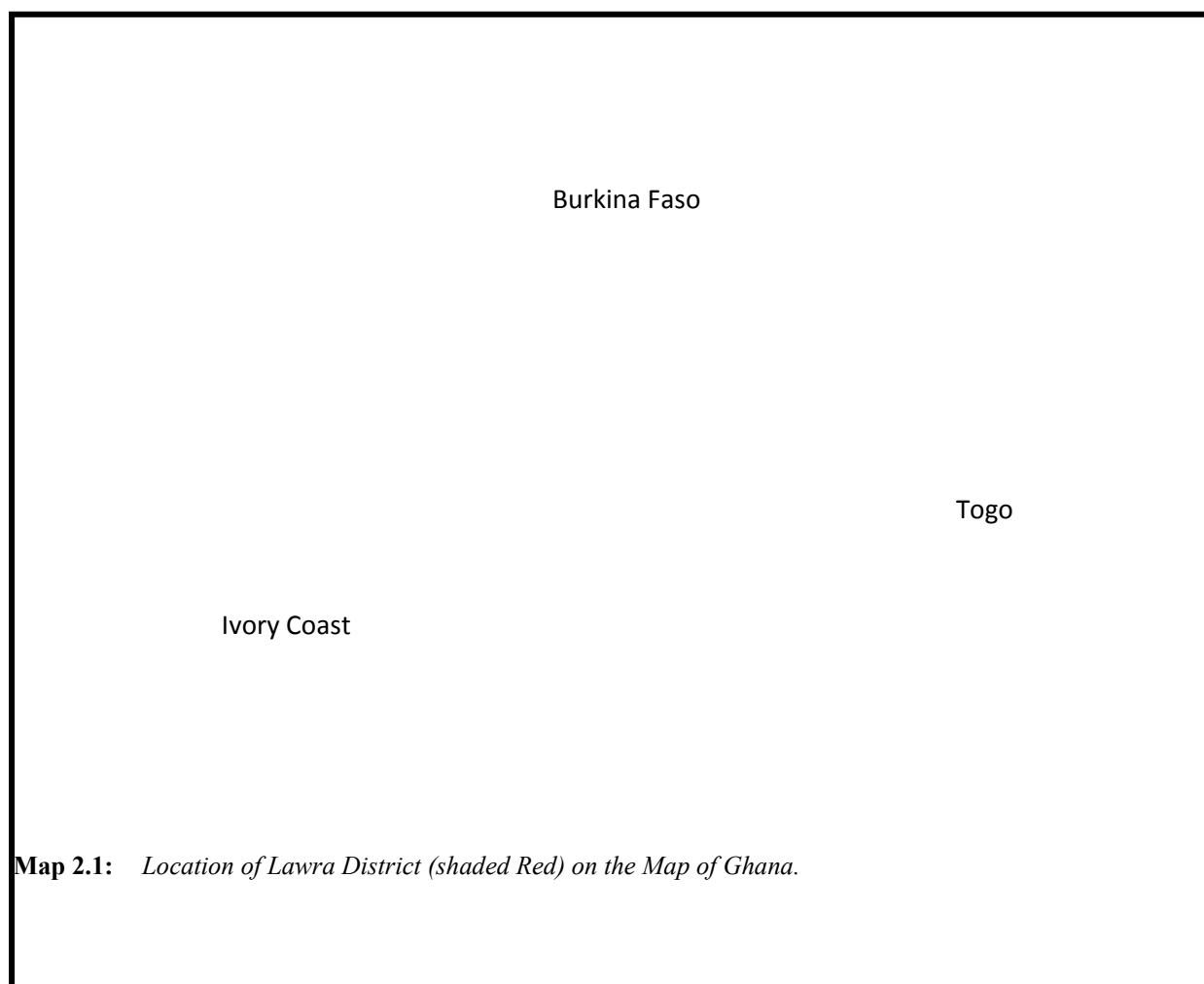
The Lawra District Report has been organized under eight chapters. The introductory chapter briefly highlights the background, the objectives of the study as well as the methodology. Chapter 2 presents the general profile of Lawra District and covers the geographical location of the district, physical features, climate and vegetation, settlements and housing, demography, and governance and administrative characteristics of the district; as well as its progress in achieving the millennium development goals. This is followed by Chapter 3, which looks at the economic activity in the district, including primary production activities, rural industrialization, commerce, tourism and other economic services. There is also an indication of the poverty situation of the district as well as the employment, unemployment, underemployment situation. Chapter 4 details out the educational and literacy situation of the district. It captures the educational infrastructure as well as access to education in the district, while Chapter 5 deals with issues related to health as well as water and sanitation. It captures access to health services as well as some of the MDG indicators like Child mortality and maternal mortality. In Chapter 6 we discuss the resource endowment in the district under five major headings, namely; natural resources, human resources, physical resources, social resources and financial resources. This is followed by Chapter 7, which presents investment opportunities and actual investments in the district. The summary of the report and recommendations are presented in Chapter 8.

Profile of Lawra District

Location of Lawra District

The Lawra District is located in the north western part of the Upper West Region, between longitudes 2° 25" W and 2°45"W and latitudes 10°20" N and 11°00"N. It is bounded to the east and south by the Jirapa/Lambussie-Karnie District and to the North and West by the Republic of Burkina Faso. Lawra is one of the eight districts that make up the Upper West Region.

The total area of the district is 1051.2 square km. This constitutes about 5.7% of the region's total land area, which is estimated at 18,476 square km (Lawra District Medium Term Development Plan, 2006). The proximity of Lawra District to Burkina Faso places it in a good position to take advantage of suggestions made by the "Northern Development Initiative" in the Northern Development Strategy which proposes the promotion of a Savannah-Sahel Regional Market among other initiatives.



Map 2.1: *Location of Lawra District (shaded Red) on the Map of Ghana.*

Physical Features — Relief/ Topography, Drainage and Geology/Soils

Lawra District topography is gently rolling with a few hills ranging between 180 and 300 metres above sea level. It is drained by one main river — the Black Volta, to the west, marking the boundary between the district and the Republic of Burkina Faso. The rock formation in the district is essentially Birimian, rich in minerals and dotted with outcrops of granite as the predominant mineral. The district mineral potential is largely unexplored. Some reconnaissance work indicates the presence of minor occurrences of manganese, traces of gold and diamond, iron ore and clay.

The Black Volta has several feeder tributaries; notable amongst which are Kamba Korpieli, Kopara, Gberi and Kokoligu-baa. This can be seen in Map 2.2. These rivers present opportunities for irrigation in the district that can promote farming all year round.

The soils in the district are characterized by mostly laterites. These are developed from the Birimian and granite rocks which underlie the area. There are also strips of alluvial soils along the flood plains of the Black Volta as well as sandy loams along some of its tributaries. The general nature of the soils, coupled with the traditional land use practices and limited rainfall, tend to have adverse effect on crop production. This forces the youth to look for sustenance elsewhere at the expense of their lives or health.

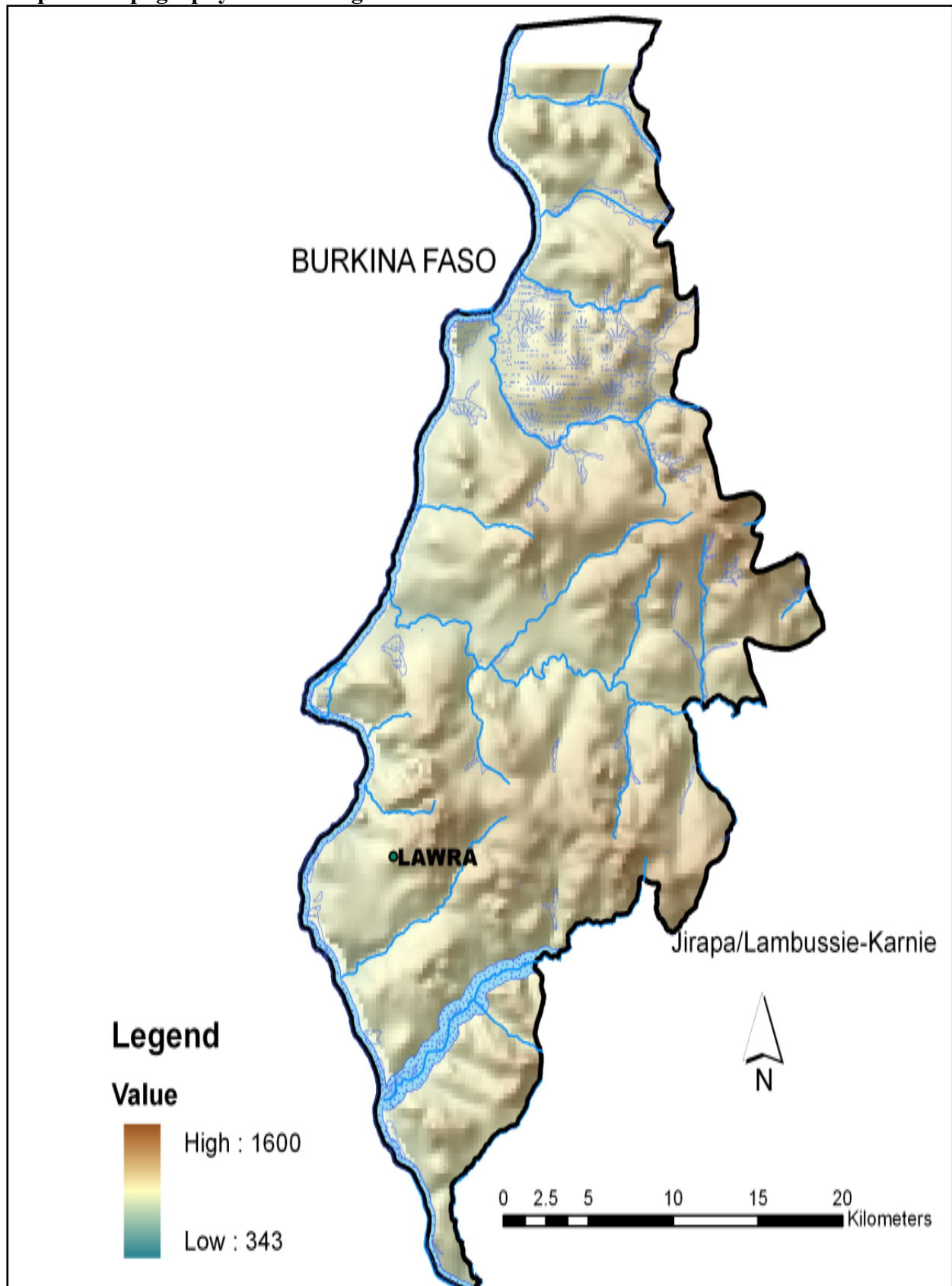
Climate and Vegetation

Lawra District lies within the Guinea Savannah Zone which is characterized mainly by short grasses and only few woody shrubs and trees. Common trees in the District consist of drought and fire resistant trees such as baobab, dawadawa, shea trees

and acacia. The vegetation is very congenial for livestock production, which contributes significantly to household incomes in the district. The greatest influence on the vegetation is the prolonged dry season. During this period, the grass becomes dry and the subsequent bush burning leaves the area patched and mostly bare of vegetation. Consequently, the torrential early rains cause soil erosion. Bush burning reduces the vegetative cover and adversely affects rainfall. Transpiration is reduced considerably and this affects average annual rainfall.

The Lawra District has a total of 3,152.2 hectares of forest reserves. The two prominent forest reserves are Lawra Station and Nandom/Lambussie Forest Reserves. Lawra Station reserve has about 14 dominant tree species and about six animal species; while Nandom/Lambussie reserve has only three dominant tree species but up to about nine animal species. In addition to providing general environmental stability and preservation of biodiversity, these reserves also provide fuel wood, poles, grass for roofing of homes, edible fruits and medicinal plants; as well as check erosion and the effect of rainstorms on adjacent communities. In the 2008 GIMPA Survey, it was ascertained with the community household members and focus group discussions that the general natural environment of the district has witnessed all kinds of degradation over the years to the extent that the vegetative cover has dwindled and soils have become poorer. The degradation may be traced to the prolonged dry season, bushfires and heavy dependence on the vegetation for fuelwood and indiscriminate felling of trees. Other factors include inappropriate farming practices, soil erosion, overgrazing by livestock, sand, gravel and stone weaning. There is therefore a serious threat to environmental stability, natural resources conservation for future generations and the desire to attain MDG 7.

Map 2.2: Topography and drainage of Lawra District.



Lawra District needs to take up the challenge of ensuring environmental sustainability more seriously by integrating the principles of sustainable development fully into its Medium-Term Development Plan and working hard to reverse the current serious threats of loss of environmental resources, for the benefit of its future generations as well as for its ability to attain MDG 7.

Lawra District needs to take up the challenge of ensuring environmental sustainability more seriously by integrating the principles of sustainable development fully into its MTDP and working hard to reverse the current serious threats of loss of environmental resources, for the benefit of its future generations as well as for its ability to attain MDG 7. The climate of the district is tropical continental type with the mean annual temperature ranging between 27°C to 36°C. A lesser known and used environmental resource is what is referred to as diurnal temperature variation. Lawra District, like most of the other districts of the three northern regions, has the comparative advantage during the months of November to February (the harmattan period) of having relatively cool night temperatures of between 18°C to 22°C and rather hot day temperatures of as high as 38°C to 40°C. The relatively cool nights are very suitable for stimulating good flowering in fruits and vegetables, heavy fruit setting and good ripening and colour turning in fruits. This gives the northern part of Ghana that comparative advantage of this type of less known climatic resource for generating other economic benefits; and Lawra District should not hesitate to take full advantage of this. The period between February and April is the hottest. Between April and October, the Tropical Maritime air mass blows over the area, which gives the only wet season in the year, with the suitable rainfall for agriculture being effectively only four to month in a year. The poor rainfall pattern leads to the migration of the youth, a factor associated

with the underdevelopment of the human resource base of the district.

Land Use and Land Cover

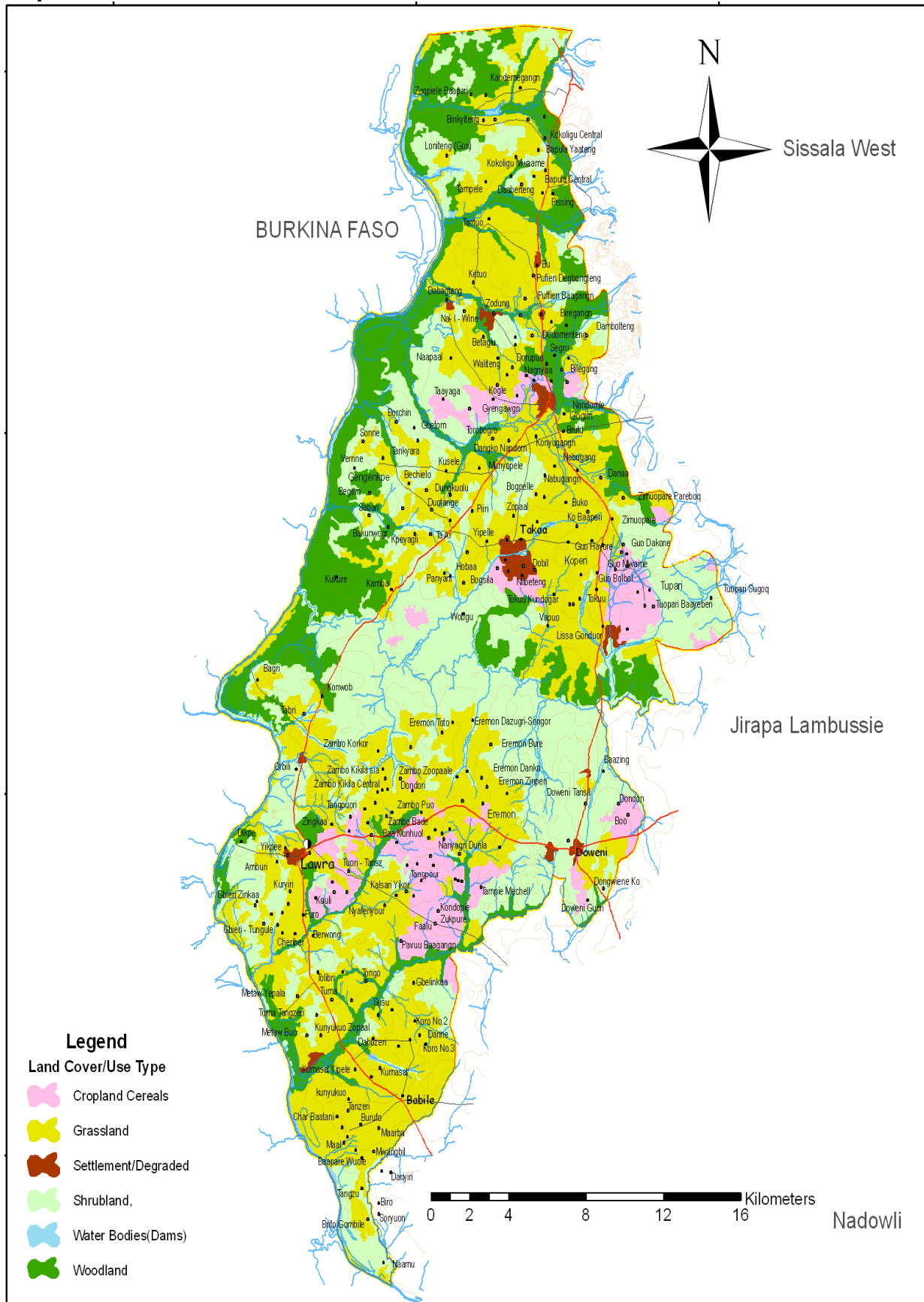
In Lawra, different land cover types exist. These land cover types over the years have been harnessed into different land use activities. Using the current satellite imagery and ground information, four dominant cover and associated land use types were found in the district. Map 2.3 presents the spatial distribution. Woodland (semi-natural vegetation) was found to occupy over 42 per cent, of the landscape. Grassland, the second dominant cover, occupies over 35 per cent, while water bodies, Built-up surfaces and croplands (Agriculture) occupied 0.2 per cent, 2.2 per cent and 4.4 per cent respectively.

Demographic Characteristics

The 2000 National Population and Housing census results put the Lawra District population at 87,525. This is about 15.2 per cent of the Upper West Region's total population of 576,583. With an estimated growth rate of 1.7 per cent, the projected population of Lawra district as at 2008 is 100,162. The sex ratio of the population is about 47 per cent males to 53 per cent females. The distribution of the population into rural and urban is 86% and 14% respectively. The growth rate of the district is 1.7 per cent. This is below the national growth rate of 2.7 per cent. With a total land area of 1,051.2 sq km and a population density of 96 people per sq km, Lawra District is the most densely populated in the Upper West Region. This is also slightly higher than the national population density of 79.3 per sq km. Consequently, there is intense pressure on the natural resources, particularly land for agricultural production as well as socio-economic facilities.

Profile of Lawra District

Map 2.3: Distribution of Land Cover/Land use in Lawra District.



With respect to religious composition, Christians dominate with a figure of 56,312 (57%). Traditional African Religion follows the Christian religion with a figure of 35,569 (36.46%) while Muslims constitute a figure of 4,084 (4.19%) and others constitute 701 (0.72%). Majority of the people are subsistence farmers while a few along the banks of the Black Volta engage in fishing. Most of the women engage in pito brewing, petty trading and sheabutter extraction. The most predominant tribe in the district is the Dagaaba with dialectical variations, followed by the Lobis. There are other minor tribes such as the Hausa, Waala, Asantes, etc. They co-exist peacefully and inter-marry.

Seasonal migration is an important characteristic of the Lawra District population. Migration is now a global phenomenon and generally refers to the movement of people from their birthplace to a new place of residence for various reasons. In the case of Lawra District, it was confirmed from the focus group discussions and the community household members during the 2008 GIMPA Survey that the most important reasons for migration of the people of the district is underemployment and unemployment. This happens during the long period of dry season from October to April annually when the youth especially migrate to the southern parts of Ghana to undertake any jobs they can find to avoid staying underemployed throughout this period.

Socio-Economic Infrastructure

Road Network

Good road infrastructure is one of the key needs for the development of any district, region or country. During focused group discussions conducted by the 2008 GIMPA Household Survey, community members whose roads were being re-shaped expressed sentiments of relief while others who are still

suffering with poor road conditions expressed fears of being cut off from the main marketing, health and educational centres whenever there is heavy rainfall. These various sentiments underscore the extent to which good road network can affect the quality of life and progress of the people and thereby influence their overall human development.

Lawra district has only two trunk roads, namely, Babile-Lawra-Hamile road and Lawra-Boo to Domwini-Nandom road both of which need improvements. The only tarred portion of the district roads are the Lawra township roads. In 2007, work was on-going to tar the Nandom township roads also. However, the district is not linked by any tarred road. There are about 218 km road lengths of feeder roads and over three quarters of them have been reshaped or worked upon. Some of the roads that have seen improvement are:

1. *Tuma-Tongu-Kalsagri Road*
2. *Koro-Kalsagri Feeder Road*
3. *Bazing-Eremon Feeder Road*
4. *Babile Kunyukuo-Tanchara Feeder Roads*
5. *Kamba-Gengenke Feeder Road*
6. *Kokoligu-Dagbali Road.*

In 2007, more feeder roads were constructed to link small communities and villages to each other and to major towns. Some of the feeder roads constructed are:

1. *Zambo-Kamba*
2. *Zambo-Bagri*
3. *Lawra-Yagpelle*
4. *Kalsagri-Tampie*
5. *Parish area-Hamile road*
6. *Amburi-Gberi road.*

Generally, road infrastructure in the district is of average to poor quality. This can have a negative impact on economic activities and investment potentials.

Energy

The Lawra District has recognized that extension of electricity to many communities would greatly improve the quality of life of the people; as the facility is being used for other industrial works such as carpentry workshops, blacksmithing, welding, Vulcanizing, fitting shops and agro processing (sheabutter and groundnut extraction). This helps to generate some employment as well. In 2007, 11 more communities had been connected to the national grid while seven others were being worked upon. There is also a plan to extend the national grid to about 20 more communities in the district in the near future. The district hopes that this would help reduce the migration of the youth to the south in search of non-existing jobs.

However, in spite of these efforts, the 2008 GIMPA Survey revealed that the predominant source of energy for lighting in the district is still kerosene or sheabutter as shown in Table 2.1.

Table 2.1: Main Source of Energy Amongst Households

Source of Energy	Frequency	%
Kerosine/Sheabutter	167	72.8
Gas	3	1.3
Electricity	56	24.3
Battery	3	1.3
Other	3	1.3
Total	230	100

Source: 2008 GIMPA Household Survey.

Human Settlement and Housing

Settlement Characteristics

The Lawra District population is distributed among one hundred and 153 settlements. Only eight localities in the district have population above 1,000. Nandom settlement has the highest population of 6,526 followed by Lawra, the district capital with a population of 5,763.

The settlements in the district are basically the rural type. While the rural

settlements are basically agrarian, the urban settlements are commercially oriented with emphasis on income-generating activities. The three major settlements have population above 5,000 and are nucleated in nature due to lack of proper physical planning and non-compliance with building regulations. In the rural settlements however, houses are scattered with compound farms around them. This poses problems of meeting the threshold population as criterion for providing development projects.

Housing Conditions and Household Amenities

The 2008 GIMPA Household Survey sought to elicit housing conditions and household amenities since these relate to many aspects of human development and the MDGs. For example, sustainable access to basic facilities such as safe drinking water, basic sanitation and energy used by household members are a concern of MDG 7 (ensuring environmental sustainability). Also, houses built with cement blocks or concrete could be a reflection of a relatively high standard of living of the household members. The results of the survey show that majority of the people live in mud houses, as captured in Figure 2.1.

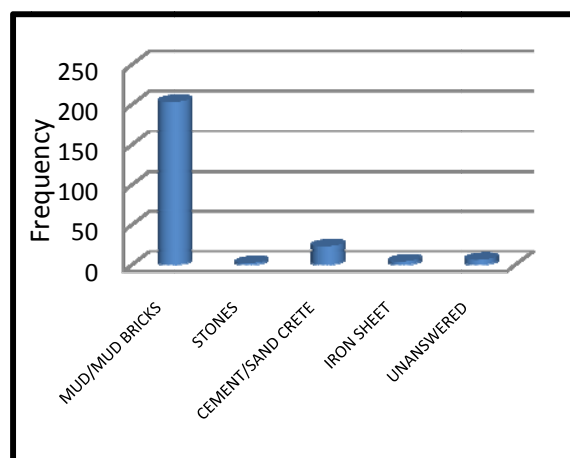


Figure 2.1: Materials used for Building Walls of the House.

Source: Household Survey.



Picture 2.1: A Typical House in the Rural Areas of Lawra District.

Table 2.2: The Kind of Toilet Facility used by Households

Toilet facility	Frequency	%
None/bush	164	69.5
Covered Pit Latrine	28	11.9
Uncovered Pit Latrine	5	2.1
Kvip	33	13.9
Other	2	0.6
Total	238	100

Source: 2008 GIMPA Household Survey.

Table 2.3: How the Households Dispose of Refuse

Disposal of Refuse	Frequency	%
Collected By Refuse	10	4.3
Burned By Household	19	8.2
Public Provided Dump	19	8.2
Dumped Elsewhere	171	73.7
Buried By Housefold	9	3.9
Other	4	1.5
Total	232	100

Source: 2008 GIMPA Household Survey.

Table 2.4: How the Households Dispose of Liquid Waste

Disposal of Liquid Waste	Frequency	%
Thrown onto the Street	151	65.0
Thrown in the Gutter	8	3.4
Thrown onto the Compound	73	31.5
Total	232	100

Source: 2008 GIMPA Household Survey.

Although the majority of the people (84.5%) state that they are occupancy owners of the houses in which they live, the fact that

the vast majority of these houses are built of mud, as seen in Picture 2.1, points to the high level of poverty in the area, thereby challenging the ability of Lawra District to achieve eradicating extreme poverty (MDG 1) by 2015.

In terms of household facilities the survey revealed that a high percentage of household members of Lawra District (69.5%) have no toilet facilities and use the bush as a

toilet. This is captured in Table 2.2.

In terms of waste disposal, Tables 2.3 reveals that as many as 73.7 per cent of households interviewed dispose their solid waste by dumping it elsewhere and Table 2.4 shows that 65 per cent of households dispose liquid waste by throwing it onto the street. These are disturbing findings from the survey; as they threaten public health of the people and risk environmental sustainability.

Household Assets

Household assets complement household amenities and other attributes of life to adequately describe the standard of living of people. The responses of household members to the 2008 GIMPA Survey on household assets provides additional evidence on the high level of poverty in the Lawra District. The assets investigated which had to be in good working condition, were quite numerous and varied and provided the opportunity for both male and female members of the households to state their ownership of assets in the mix. The data of this study is provided in Table 2.5. The top numbers in the responses to each asset in the table are the actual numbers of respondents while the bottom decimal numbers are the percentages of those responses.

Table 2.5: Assets of the Household and Ownership

Assets	Gender Response	Male				Female			
		Yes		No		Yes		No	
		Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent
Motor car		4	1.7	235	98.3	3	1.3	236	98.7
Motor bike		17	7.1	222	92.9	2	0.8	237	99.2
Bicycle		136	56.9	103	43.1	15	6.3	224	93.7
Truck		5	2.1	234	97.9	0	0.0	239	100.0
Tractor		3	1.3	236	98.7	1	0.4	238	99.6
Furniture		92	38.5	147	61.5	20	8.4	219	91.6
Sewing machine		49	20.5	190	79.5	28	11.7	211	88.3
Refrigerator / freezer		19	7.9	220	92.1	6	2.5	236	97.5
Radio (no cassette)		75	31.4	164	68.6	3	1.3	236	98.7
Radio cassette		47	19.7	192	80.3	1	0.4	238	99.6
Television		27	11.3	112	88.7	2	0.8	237	99.2
Video recorder		8	3.3	231	96.7	1	0.4	238	99.6
Electric stove		3	1.3	236	98.7	1	0.4	238	99.6
Electric iron		7	2.9	231	97.3	2	0.8	237	99.2
Electric fan		17	7.1	212	92.9	4	1.7	235	98.3
Air condition		1	0.4	238	99.6	0	0.0	239	100.0
Mobile phone		50	22.2	189	78.8	11	4.6	228	95.4
Canoe		10	4.2	229	95.8	1	0.4	238	99.6
House		134	56.1	105	43.9	5	2.1	234	97.9
Land		139	58.2	100	41.8	6	2.5	233	97.5
Account with financial inst.		15	6.3	224	93.7	3	1.3	236	98.7
Shares in a company		2	0.8	237	99.2	2	0.8	237	99.2
Jewellery		7	2.9	232	97.1	6	2.5	233	97.5
Cloth: Dumas, Lace, etc.		45	18.8	176	81.2	29	12.1	210	87.9
Cattle		39	16.3	200	83.7	3	1.3	236	98.7
Sheep/goats		114	47.7	125	52.3	12	5.0	227	95.0
Chickens		120	50.2	119	49.8	11	4.6	228	95.4
Non-farm business		23	9.6	216	90.4	10	4.2	229	95.8
Donkeys		4	1.7	235	98.3	0	0.0	239	100.0
Treasury bills		1	0.4	238	99.6	1	0.4	238	99.6
Gt fixed lines		3	1.3	236	98.7	3	1.3	238	99.6
Farm tools		76	31.8	163	68.2	31	13.0	208	87.0
Cart		21	8.8	218	91.2	2	0.8	237	99.2
Corn mill		2	0.8	237	99.2	1	0.4	238	99.6
Blender		6	2.5	233	97.5	4	1.7	235	98.3

Source: 2008 GIMPA Household Survey.

Table 2.5 provides some startling evidence including the following:

- Out of 35 assets that the household members have responded to, it is only four assets (bicycle, house, land and chickens) that more than 50 per cent of the household members own. This clearly points to a high level of poverty in the area and further challenges Lawra District's ability to achieve the first MDG's goal of eradicating extreme poverty by 2015.

There was not a single asset out of the lot which up to 15 per cent of the women owned while in the case of men, 15 per cent or more owned up to 11 assets. For, even assets such as jewelry, cloth (Dumas, lace, etc), sewing machine and blender which are believed to be more for women, men owners of these assets were more than women owners; suggesting that women are a lot more poor than men in Lawra District. Therefore if Lawra District is to make a meaningful impact towards achieving MDGs Goal 1 —

Targets 1 and 2, it needs to give a stronger focus on eradicating poverty among women.

Another disturbing finding is that a relatively high percentage of the people (41.8% men and 97.5% women) do not own land. Since agriculture is the main economic activity of the district, the high percentage of people not owning land could constrain agricultural growth and creation of jobs.

Governance (State and Traditional) and Administration

Local Governance

Local governance in Lawra district, like other districts in Ghana, reflects the provisions in the Local Government Act of 1993 (Act 462). The District Assembly is the highest political, administrative and planning authority in the district and has deliberative, legislative and executive functions. Lawra district has a three-tier local governance structure consisting of the District Assembly, eight (8) Town/Area Councils; 36 electoral areas and 113 Unit Committees. The Unit Committees and Area Councils are expected to mobilize community members for popular decision-making, identification of development needs as well as organizing community labour. Unfortunately, focus group discussions during the survey revealed that most of these structures were weak. This was attributed to the unrewarding nature of the job. The survey also revealed a general low knowledge of the decentralized system of administration and its relevance to their well-being. For example, as many as 48% of respondents did not know their DCE, neither do they see the need to engage the DCE on various development issues.

In line with Act 462, Lawra district, like other districts, discharges its functions through sub-committees. Apart from the mandatory sub-committees (Finance and Administration, Development Planning,

Social Services, Works, and Justice and Security), Lawra District has four other sub-committees, namely: Environment, Education, Child Survival and Development, and Public Relations and Complaints. The creation of these additional sub-committees has great relevance, especially if they focus strongly on the development issues of those areas. For example, the Environment Sub-committee could contribute significantly to the protection/conservation of environmental resources of the district such as the two forest reserves, natural water bodies such as the Black Volta, etc. — as important resource endowments for the benefit of the current and future generations. This would also be in line with the seventh goal of the MDGs which focuses on ensuring sustainability of the environment and requires that the principles of sustainable development are integrated into policies and programmes for reversing the loss of environmental resources. Also, a sub-committee on Education should enhance more focused educational development of the district's human resources as well as contribute to a more rapid attainment of MDGs 2 and 3.

Another important layer of the district structure is the decentralized departments; which in case of the Lawra District are Education, Youth and Sports, Health, Food and Agriculture, Finance, Works, Community Development, Social Welfare, Physical Planning, Natural Resources Conservation, and Disaster Prevention. The Department of Trade and Industry is currently a vacant office in the Lawra District. All decentralized department heads are members of one or more of the district assembly's sub-committees. The specialized units of the Central Administration of the district such as Births and Deaths Registry, Information Service, Environmental Health Division, Statistical and Local Government Inspectorate/Audit are all functional in the Lawra District; although Local Government Inspectorate does not have a qualified local

government inspector/internal auditor. The absence of a trade and industry officer could hamper the process of having a focused effort on promoting the idea of a Savannah-Sahel Regional Market to the benefit of the Lawra District while the lack of a qualified local government inspector/internal auditor could constrain the attainment of good and accountable governance as envisaged in GPRS II.

The elaborate administrative set up described above has the broad responsibility of the overall planning and development of the Lawra District.



Picture 2.2: Lawra District Administration Block.

Traditional Authority

Alongside the decentralized governance system is a parallel traditional governance system which is mainly based on the chieftaincy institutions, even though there are other less powerful traditional authorities like the *tendaana*, who is the sacred custodian of the land as well as the *pognaa* who is the traditional women leader. With respect to the chieftaincy institution, Lawra district has two paramount chiefs, one in Lawra and one in Nandom, with their divisional chiefs. There are 8 divisional chiefs and another 8 sub-divisional chiefs of which more than half of the skins are not occupied due to disputes over who should be enskinned as chief. However, these conflicts have not

degenerated into violent confrontations like in other parts of the country.

The chieftaincy institution in Lawra district appears to be in disharmony with the district assembly system, as some chiefs expressed concern for the inadequate recognition and respect shown them by the decentralized structures. Interactions between District assembly and traditional authorities in the district is often limited to ceremonial role of chiefs during major functions as well as seeking land from chiefs for development. The implication for such disharmony is the stifling of local area development, since the

two governance systems are not able to complement each other as a team towards achieving the common goal of development. This may be traced to the subtle power dynamics and competition for control of resources between the two systems.

Lawra District's Status of the MDGs

In September 2000, 189 member nations of the United Nations (UN) adopted the Millennium Development Goals (MDGs) at a UN Millennium Declaration. Most of the Goals and targets were set to be achieved by 2015 on the basis of the global situation in the 1990s. Ghana was one of the 189 nations that adopted the MDGs.

From the various findings of the 2008 GIMPA Household Survey on economic activities, poverty, education, health, water and sanitation; as well as annual performance reports from the district departments, some summary conclusions can be drawn on the status of the relevant MDGs in Lawra District. The relevant MDGs and their targets are presented in Table 2.6, along with comments on Lawra District status of the

MDGs in the last column. As can be seen from Table 2.6, Lawra district is making progress in decreasing child mortality but

lagging behind the attainment of most of the other MDG indicators.

Table 2.6: The MDGs and Lawra District Status

MDG	T argets	Status in Lawra 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	— Majority of household interviewed cannot afford 3 meals a day or even 2 meals during April and June. — Per capita income from the survey indicated GH¢0.87= US \$0.87 at the time of survey. — Out of 35 assets in the survey, 50 per cent of Lawra District households could afford only up to 4 assets.
Goal 2: Achieve universal primary education	Target 3: Ensure that by 2015, children everywhere, girls and boys alike, will be able to complete a full course of primary schooling	— Estimated gross enrolment rate in Lawra is 54.2 per cent. — Secondary data showed no significant difference in the enrolment between boys and girls.
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	— Secondary data revealed a higher drop-out rate for girls in the transition from primary to secondary school.
Goal 4: Reduce child mortality	Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	— Under 5 mortality rate decreased from 3.45 per cent in 2003 to 1.73 per cent in 2007. If current trend is maintained, this goal could be achieved.
Goal 5: Improve maternal health	Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	— Absolute figures from the DHD showed an increase in maternal mortality from 5 in 2006 to 10 in 2007. — The Ghana Health Service Regional Directorate reported of MMR per 100,000 births as 402 for 2007 in Lawra district.
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	— Despite high awareness creation, the incidence of HIV continues to increase in Lawra District. — Malaria continues to be the number one cause of morbidity and mortality for all age groups in the district.
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 Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	— Isolated success stories of sustainable development practices are found in some communities such as Goziire where there has been effective control of bushfire for more than 10 years. — However, widespread environmental degradation could be observed in the district.

Source: Field Survey and Secondary Data.

Economic Activity

Agriculture

The major economic activities in the district include agriculture, commerce rural industry, tourism and other services. Agriculture accounts for 80% of the Lawra District economy. Most farmers undertake a combination of crops and animal production. The main crops grown by the farmers are maize, millet, maize, cowpea and groundnut. Of these the district has comparative advantage in groundnuts and cowpea production. However, productivity of crops is low due to a combination of factors such as inadequate rainfall, low fertility, poor cultural practices and low technology application. For example, rainfall distribution and amount in the district are concentrated in within the second and third quarters of the year as shown in Table 3.1. Since the district is dependent on rainfall agriculture, the implication of such rainfall pattern is low crop productivity and inability to produce all year round. This is one of the major causes of poverty in the area.

Table 3.1: Rainfall Distribution

Quarter	Quarterly Total Rainfall (mm)			Number of Wet Days		
	2003	2004	2005	2003	2004	2005
1st	40	76.5	0	3	4	0
2nd	396	407	460	21	19	23
3rd	606	587	541	44	29	35
4th	67.5	52.8	44.9	5	4	5
Total	1132	1123	1046	73	56	63

Source: Lawra District Agricultural Development Unit, 2008.

These findings confirm that in rural communities such as those of Lawra where

rain-fed agriculture accounts for over 80 per cent of the economic activities, there is a high risk of food insecurity. The case of Lawra, like most other districts of the three northern regions of Ghana, is compounded by the long dry season and high food prices of even the available imported foods from Burkina Faso and Techiman. This situation calls for the need to enhance the provision of water for dry season gardening and improved agricultural technologies. Indeed all communities visited asked for community dams for small-scale irrigation as well as for watering their animals during the dry season.

It is therefore strongly recommended that irrigated agriculture should be increased substantially in all parts of Lawra District; by taking advantage of the perennial water of Black Volta, developing irrigation water bodies from its feeder tributaries and from the available underground water; as well as rain water harvesting.

Crop Production and demand

An analysis of records from the district MOFA office shows relatively good self sufficiency levels for most crops except rice.

A further analysis of Table 3.2 shows that the production of sorghum experienced consistent increase since 2005 when there was concerted support and investment in sorghum from NGOs and government, as well as availability of market through the purchase of sorghum by Guinness Ghana for its brewery.

Table 3.2: Crop Production and Demand in Lawra District

Crop	Year	Production (MT)			Demand (MT)		
		2005	2006	2007	2005	2006	2007
Maize		2,010	2,763	3,087	2,812	2,810	2,626
Millet		3,896	3,338	13,403	3,749	3,813	3,813
Sorghum		28,448	28,844	31,282	3,749	3,813	3,813
Rice		380	692	1,043	1,843	1,906	1,906
Groundnut		9,221	8,750	13,403	2,812	3,860	2,860
Cowpea		1,760	1,511	2,281	1,406	1,430	1,430

The lesson here is that given the same kind of support for any of the crops or animals in the district could also experience similar growth. In other words, when serious/reliable/well-paying markets have been found for locally produced crops or animals, this can stimulate high production levels by small-scale farmers in the district. This in turn contributes significantly to poverty reduction of the people. There is need therefore for agriculture in the district, and indeed the other districts in the north to be re-structured to focus on market-stimulated agriculture, with particular emphasis on crops eaten locally and yet have good market linkage beyond the district. Examples of such crops are groundnuts, beans, sesame and sorghum.

Livestock Development

The second most important type of primary agricultural production in Lawra District is livestock rearing. The livestock sub-sector continues to make steady but moderate gains as it is now becoming the most lucrative investment in the midst of low income levels emanating from crop production.

Table 3.3 shows that Poultry, Goat and Sheep production continues to be the most commonly reared livestock species in the district. Poultry attracts the attention of the youth and farmers alike since little labour is required for an excellent income. The Lawra District has a huge comparative advantage in the area of goat and sheep rearing. It has over the years established itself as the marketing

centre for goats and sheep. The Babile market every week receives buyers from Wa (the regional capital), Ashanti and the Brong Ahafo Regions. These business-men patronize the Babile market every week to buy hundreds of sheep and goats to

transport to the south. However, over half of the goats and sheep sold at the Babile market are imports from neighbouring Republic of Burkina Faso.

Pig rearing, despite the high labour demand continues to receive a boost since it is fast becoming the most affordable meat within the district. The presence of CSIR — funded pig feed formulation meal in the district has further enhanced the potentials of pig rearing in the district. It has become a strong source of security in terms of income, especially for the vulnerable and the excluded in the society; for example, the aged and widows. Pig rearing is further boosted by the presence of Babile Agricultural Research Centre of CSIR that specializes in pig rearing research.

Table 3.3: Livestock Production Levels

Type of Animal	2003	2004	2005
Cattle	13,730	14,005	14,285
Sheep	13,433	14,776	16,254
Goats	20,603	21,633	22,715
Pigs	10,973	12,070	12,191
Poultry	63,004	66,154	69,462
Dogs	2,000	2,352	2,766
Donkeys	30	36	43
Horses	0	0	0
Cats	1,400	1,638	1,917
Rabbits	1,000	1,110	1,232

Source: Lawra District Agricultural Development Unit, 2008.

The district has the potential to develop fully the livestock sub-sector. The livestock sub-sector despite the potential and achievement is faced with many problems. Some of these areas are:

1. Low genetic potential of the local breed of small ruminants and poultry,

2. High incidence of pests and disease on livestock and poultry,
3. High cost of veterinary drugs and charges,
4. Inadequate veterinary drugs and equipment,
5. High cost of feeding pigs,
6. Lack of supplementary feeding for ruminants in the dry season, and
7. Inadequate veterinary staff.

The above problem calls for district and national support towards the full development of the livestock sector to boost the private sector investment potential. This could be achieved through funds from both the Assembly, the government and in collaboration with MOFA.

Irrigation Infrastructure

The Lawra District Assembly places a high priority on irrigation facilities to enhance dry season gardening. Under the CBRDP programme the district constructed a dam at Kokoligu. Another dam was constructed at Eremon under the UWADEP. However, the combined potential irrigated area for these two dams is less than 15 hectares. This shows that irrigation is highly underdeveloped in the districts, despite its critical role in the farming activities and poverty reduction strategies of the people. There is need to expand the irrigatable area through appropriate technologies like creating small water retention reservoirs during road construction as well as construction of dug-outs and check dams along waterways. Such small dams will not only support dry season gardening on a small scale but also provide water for animals, particularly during the dry season. The advantage of such small dams located in various communities rather than one big dam is the spread of benefits across the district.

Rural Industrialization/Processing and Commerce

Commerce and industry account for about 18.2 per cent and 0.8 per cent respectively of the district economy. The industrial sub-sector is basically on a small-scale basis and run by micro-entrepreneurs. The private sector of the economy would only assert itself with the existence of an industry that is closely linked to the agricultural potentials of the district. Agro-based industry accounts for 75 per cent of the industry within the district as shown in Table 3.4.

Table 3.4: Types of Industry

Type of Raw Material	Industry	%
Agro-based	Milling, pito brewing, chop bar, sheabutter processing	75
Wood-based	Carpentry, carving, weaving, charcoal burning	10
Clay and sand-based	Block making, pottery, sand wining stone quarrying	12
Metal-based	Blacksmithing.	3
Total		100

Source: National Board for Small Scale Industries, Lawra, 2007.

A major agro-processing activity particular for women in Lawra district is shea butter extraction and pito brewing. The shear butter extraction is mainly done manually and very laborious as shown in Picture 3.1.



Picture 3.1: A Woman Extracting Shear Butter in Kalsegri.

All the industries in the district are rather rudimentary, despite their tremendous potentials. It is therefore recommended that the Lawra District should prioritize and focus on developing a strong modern light industrial sector based on its comparative and competitive advantages.

Tourism and Other Services

The tourism potential of the Lawra District is found in its rich natural, cultural, historical and man-made attractions. These, however, have not received the needed support and development to exert their competitiveness within the private sector. The most significant of them are:

1. *The Crocodile Pond at Eremon, 10 km from Lawra. The pond has over 400 crocodiles. These reptiles are totems of the people of Eremon, and are highly revered. A key investor could support the establishment of rest stops or homes around the area to boost the economic potential of the pond.*
2. *The detention camp of the Late President Dr. Kwame Nkrumah and the residence of the British Colonial Administrator.*
3. *The Slave centres located at Gengenkpe and Zimuopare.*
4. *Natural spring at Brefo.*
5. *The Black Volta basin in Lawra that has a beach-like environment and an atmosphere for relaxation and recreational activities.*

Besides these natural and man-made sites, the culture of the people is greatly expressed in two major festivals — the Kobine Festival of the Lawra and the Kakube Festival of the Nandom traditional areas. When coordinated well, these festivals, natural and man-made sites could make Lawra District a good tourist destination for local and foreign tourists.

Alongside the tourism is the hospitality industry such as drinking bars, restaurants and guest houses. These are however, poorly developed.

Poverty Situation in the District

The incidence of poverty in Lawra District is high; estimated from the household survey as GH¢0.87 = US\$ 0.87 per capita (as was the prevailing exchange rate at the time of the study). This suggests a poverty incidence of 100 per cent Lawra District; as compared with the national poverty incidence of 28 per cent in 2005/06 and the Upper West Region figure of 88 per cent in 2005/2006 (NDI, 2008). Such a high poverty incidence as captured by the survey may be due to the fact that most of the sampled households are located in rural areas where income levels are generally very low. Comparison of the poverty incidence among other regions clearly shows the Upper West region to be the poorest, as shown in Table 3.5.

Table 3.5: Trends in Poverty Incidence (%) in Ghana

Region	1991/2	1998/9	2005/6
1. Ashanti	41	28	20
2. Brong Ahafo	65	36	30
3. Central	44	48	20
4. Eastern	48	44	15
5. Greater Accra	26	5	12
6. Northern	63	69	52
7. Upper East	67	88	70
8. Upper West	88	84	88
9. Volta	57	38	31
10. Western	60	27	18

Source: NDI, 2008; originally from Ghana Statistical Service, 2007.

A dimension of poverty is the level of food security in the household. The 2008 GIMPA Household Survey included the availability of food to household. When household members were asked on average how many times people eat in a day, the majority of them said only two times a day. This finding is summarized in Table 3.10.

On the question of whether there are periods in the year that the household is not able to eat the number of times that they themselves have stated, 58.4 per cent of respondents answered in the affirmative, indicating that even those who could eat only once or twice a day are not able to sustain this. As many as 79.8 per cent household respondents stated that this phenomenon occurs every year. When questioned why there was difficulty in satisfying their food needs, the households provided multiple reasons; including poor harvests, problems with storage and food prices becoming too high.

Table 3.10: The Number of Times People Can Eat in a Day

Food Availability	Frequency	%
Once	5	2.3
Twice	147	65.9
Thrice	71	31.8
Total	223	100

Source: 2008 GIMPA Household Survey.

Focus group discussions revealed that the hunger period in the area lingers for about six months every year, becoming severer during the months of May and June. These are the two months that most households cannot afford even two meals in a day. During the focus group discussions, community members identified the causes of poverty in the district to include the following:

- Long dry season without rainfall or irrigation for agriculture.
- Lack of jobs in other sectors of the district economy.
- Low soil fertility and poor crop yields.
- Post-harvest losses and rush to sell produce during the harvest period for low prices.
- Inadequate support for the youth to get seriously focused on agriculture.

In terms of solutions, most community members stated the following:

- Develop more irrigation infrastructure.
- Diversity income earning opportunities beyond farming.
- Provide more credit for framers and other income generating activities.

From the discussions, the community members seemed to understand the problem and some of the solutions but may lack the capacity in terms of technical know-how and investment opportunities.

Employment, Unemployment and Under-employment in Lawra District

Employment, unemployment and under-employment are critical indicators directly related to the absence or incidence of poverty. It is estimated that 83 per cent of the Lawra District working population is engaged in subsistence agriculture; while the remaining 17 per cent are distributed in commerce, services, rural industry and government (central and district assembly) employment. Food production is low due to the poor fertility of the soil and unfavourable weather conditions. Most of the youth have to migrate to the southern part of the country every year either immediately after harvesting the poor yields of crops from their small size farms or after writing their Junior Secondary School or Senior Secondary School Certificate examinations. The aim of the migration is to marshal resources for the upkeep of their families during the lean season and cater for their education in the case of those able to progress on the educational ladder. Animal farming, especially poultry rearing is also a lucrative venture in the district. Fishing goes on along the Black Volta and its tributaries to supplement the meagre income of the families of fishing communities.

Unemployment Situation in Lawra District

According to the International Labour Organization, a person is said to be “unemployed” if he/she is available but does not have a job and is actively looking for work. When this question was asked to household members who are adults, their responses indicated that 30 % of them were unemployed. This is captured in Figure 3.2.

Further probing revealed that some of those who indicated that they were engaged in some work for income or in kind, were indeed under-employed as they indicated

willingness to do extra work which was unavailable. This picture is captured in Figure 3.3.

Under-employment

Under-employment is said to exist when people are working but are willing to take additional work or willing to work for extra hours but can not find such a job. The household survey revealed that 58 per cent of the people are underemployed. Such a high figure may be explained by the fact that the survey was conducted during the dry season when majority of farmers are idle.

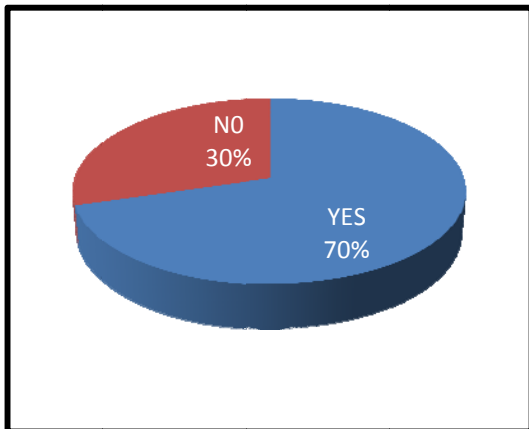


Figure 3.2: Household Members Doing Any Type of Work for Cash or in Kind.
Source: 2008 GIMPA Household Survey.

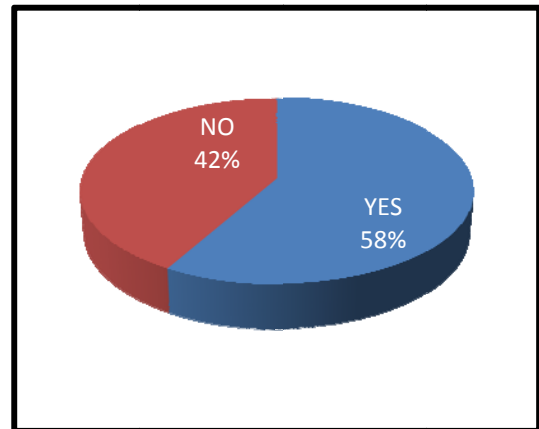


Figure 3.3: Responses to Willingness to Work for More Hours.
Source: 2008 GIMPA Household Survey.

Education and Literacy

Educational Infrastructure

Records from the Ghana education Service of Lawra reveals that the district has all the categories of schools (pre-school/day nursery, basic/primary, vocational/technical and secondary schools) except training college. The distribution of the schools among the various circuits of the district is captured in Table 4.1.

Table 4.1: Categories of Schools in Lawra

Sub District	Pre-School	Pri- mary	JSS	SSS/ Tech	Voca- tional
Babile	8	6	5	0	1
Baseble	3	3	1	0	0
Dowine	4	3	2	0	1
Eremon	2	3	2	1	0
Gengenkpe	2	2	1	0	0
Ko	8	9	7	1	1
Lawra sub	14	10	8	1	0
Nandom sub	13	10	7	1	1
Puffien	9	7	7	0	0
Zambo	8	5	2	0	0
Total	71	58	42	4	4

Source: Lawra District Educational Office.

District Director of Education. However, religious organizations have set up education management units to oversee the schools they established. These units give the religious groups significant influence in the day-to-day operation of their schools. By this arrangement, schools under education management units acquire some quasi-private status, as religious bodies and have a big sway in the definition of operational guidelines for their schools. These schools are, nonetheless, classified as public schools largely because they have been absorbed by government which consequently takes responsibility for the provision of most of the essential school materials as well as the payment of salaries of teaching staff. Schools that do not belong to any religious group are classified as Local Authority Schools or District Assembly Schools. Table 4.2 shows the distribution of schools by management units.

The Table 4.2 reveals that the highest number of unit schools fall under the Catholic Unit. This is due to the fact that Catholic Church has a firm domination in the district.

Table 4.2: Distribution of Schools by Management Units

Management Unit	Pre-Sch.	Pri- mary	JSS	SSS	Tech. /Voc.	Total
Islamic	3	3	2	—	—	8
Catholic	23	23	18	1	3	68
Methodist	1	1	1	—	—	3
Local Authority	32	31	21	3	—	87
Others	13	—	—	—	1	14
Total	71	58	42	4	4	179

Source: Lawra District Educational Office.

Access to Education and Quality

Access to education is examined in terms physical access to school at all levels as well as quality. These are elaborated below.

Nearness to School and Means of Transport for Going to School

The management of education in the district is ultimately the responsibility of the

Physical access to any important social service such as education, health, water, etc,

may be defined as the ability of an individual to reach the service facility within 30 minutes.

Table 4.3: Time Used to Travel to the Nearest Primary School, JHS or SHS

Time	Primary School		JHS		SHS	
	Freq.	%	Freq.	%	Freq.	%
0–14 min	16	6.7	10	4.2	6	2.5
15–29 min	30	12.6	33	13.9	8	3.4
30–44 min	54	22.7	54	22.7	43	18.1
45–59 min	57	23.9	54	22.7	37	15.5
60+min	47	19.7	50	21.0	104	43.7
Unanswered	34	14.4	37	15.5	40	16.8
Total	238	100	238	100	238	100

Source: 2008 GIMPA Household Survey.

Table 4.4: Percentage of Pupils with Seating and Writing Places, 2004/2005

Circuit	Total Enrolment	Seating Places			
		With Seats	%	Without Seats	%
Lawra	3709	2257	60	1469	40
Nandom South	3216	2633	50	2522	50
Nandom Central	5313	2810	52	1774	48
Nandom North	2623	1657	63	1021	37
Doweni	4762	2311	48	2421	52
Babile	3411	1834	53	1577	47
Total	23034	13502		10784	

Source: Lawra District Education Directorate's School Mapping.

Thus the 2008 GIMPA Household Survey sought to elicit the time spent by pupils to travel to the nearest primary, junior high and senior high schools in the Lawra District and the means of transport commonly used. The results showed that most pupils spend between 30 and 60+ minutes to travel to the various levels of schools; with a sizeable percentage travelling for more than 60 minutes to attend primary (19.7%), junior high (21%) and senior high (43.7%) schools, as indicated in Table 4.3.

Travelling such long distances to school could affect both learning quality and the regularity of attendance at school. Moreover, the only means of

transport for most of these pupils is walking by foot to the primary (78.2%), junior high (73.9%) and senior high (66.4%) schools.

This finding corroborates well with the Lawra District Education Directorate's own school mapping results which showed over 90 per cent total number of pupils in virtually all circuits travelling to school by foot. These pieces of evidence suggest that physical access to all the three levels schools (primary, junior and senior) high is an important challenge to the Lawra District.

Availability of School Furniture

Records from Lawra District Education Directorate's school mapping in 2004/2005 revealed that 13,502 pupils in the district had seating places. This represented 59 per cent of total number of pupils in the districts.

As many as 10,784 representing 41 per cent of total enrolment had no seating places, as indicated in Table 4.4. It was therefore not uncommon to find children sitting on stones or lying on the stomach to write and this still happened in 2007. Picture 4.1 tells the story.



Picture 4.1: School children in Eremon Primary School.

The availability of school furniture affects the quality of education; as pupils sitting on stones or lying on their stomachs cannot have full concentration in the classroom.



Picture 4.2: Nicely Built School at Zambo Tanpuor, but Overcrowded Inside.



Picture 4.3: Over Crowded School at Zambo Tangpuor with Three or Four Children Sharing a Table.

The other major concern is the overcrowding of the basic schools as enrolment of children has increased over the years without the corresponding expansion in the educational infrastructure. It is a common phenomenon in the district to have about 3 or 4 pupils sharing a table in an overcrowded class room, as captured in Picture 4.2. This

definitely will inhibit progress in educational attainment.

Pupil-Teacher Ratios

The number of pupils to one teacher is an important indicator of the outcome of quality or poor education in terms pupil to teacher contact/attention and the effectiveness of teaching and learning in the classroom. The expected norm of pupil-teacher ratio is 33:1 in primary schools. However, the situation in Lawra district as captured in Table 4.5 show higher ratios in all the circuits.

Table 4.5 reveals that in the Nandom Central and Doweni circuits enrolments are high but teachers are not enough, especially with the Doweni situation where the ratio is 74:1.

Satisfaction with Quality of Education

The 2008 GIMPA Household Survey sought the opinion of households on their satisfaction with the quality of education for their wards. Their responses on satisfaction with quality are provided in Table 4.6.

Table 4.5: Pupil-Teacher Ratio for All Schools

Circuit	Total Enrolment	No. of Teachers	PTR
Lawra	3709	89	42:1
Nandom South	3218	70	46:1
Nandom Central	5313	137	38:1
Nandom North	2623	65	40:1
Doweni	4762	89	74:1
Babile	3411	70	49:1
Total	23036	520	44:1

Source: District Education Directorate, Lawra.

Table 4.6: Satisfaction with Quality of Education by Households

Variable	Frequency	%
Very satisfied	13	5.5
Satisfied	133	55.9
Uncertain	14	5.9
Dissatisfied	15	6.3
Very dissatisfied	1	0.4
Unanswered	62	26.1
Total	238	100

Source: 2008 GIMPA Household Survey.

Table 4.4 reveals that majority of households feel satisfied with the quality of education. However, this is not supported by the evidence in terms of performance of children in the Basic Schools exams conducted over the years, as many schools recorded less than 50 per cent of their candidates passing the Basic Education Examination over the years. The favourable responses from households may therefore be due to their lack of appreciation as to what constitutes quality education.

School Enrollment

The Lawra District has witnessed an improvement in the number of children enrolled in basic schools in absolute terms, particularly in pre-school and primary as depicted in Figure 4.1.

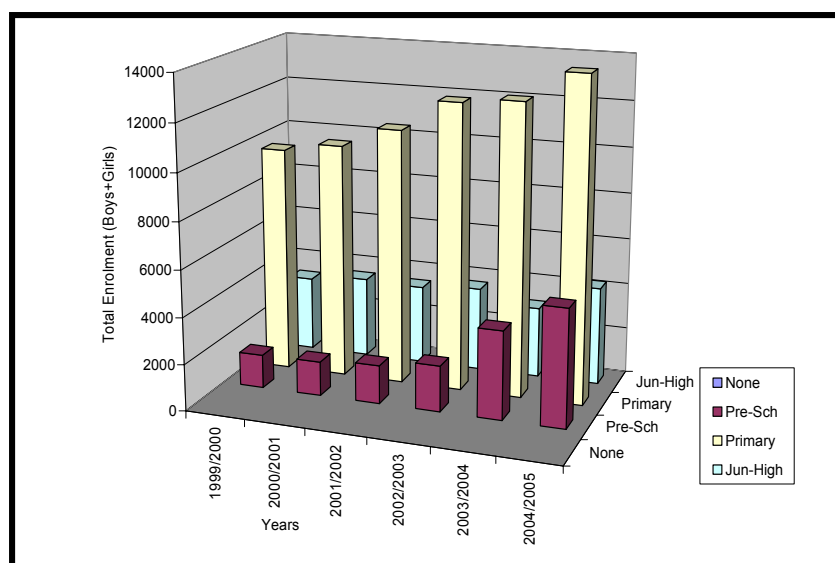


Figure 4.1: Lawra District Basic School Enrollment Over Six Years.

Figure 4.1 shows that Pre-School enrolment increased from 1441 in 1999/2000 school year to 5,052 by 2004/2005; while that for Primary increased from 9,729 in 1999/2000 to 13,858 by 2004/2005. These trends were still persistent in 2007 (according to the District Directorate of Education). However, total enrolment at the Junior High School level has been rather unpredictable; increasing and decreasing in alternate years from 3,236 in 1999/2000 up to 3,492 in 2000/2001 and down to 3,418 the following year. It went up again to 3,633 in 2002/2003 but decreased quite drastically to 3,051 in 2003/2004 and sprang up again to 4,239 in 2004/2005. No clear explanation was found for this behaviour and it needs to be investigated more thoroughly by the district authorities. The generally low enrolment at the junior high level in relation to the preceding primary school enrolments suggests very high examination failure rates to transition from primary to junior high or very high willful drop-out rates or both. Additionally, the figures for girls are declining at this level. This is a very disturbing phenomenon for the attainment of the MDGs and the Lawra District authorities need to investigate and solve this problem for more continuous development of their human resource base.

The household survey in Lawra district revealed gross enrolment rate of 83.5 per cent as captured in Table 4.7. This is, however, lower than the 94 per cent gross enrollment rate as reported by the Lawra District Education office for the 2008/2009 academic year. The difference may be due to a possibility that the number of school-going children (6–11 years) as projected by GES from the

2000 population census, which was used for the computation, may not reflect the reality on the ground. The other possibility for the difference in the school enrolment rate may be due to the fact that the sample size for the GIMPA survey was rather small and may not capture the total picture.

Table 4.7: Estimated Gross School Enrolment (Survey Results)

Enrolment Indicator	Total
Number of households covered in survey	238
Total number of children between 6 and 11 years recorded in survey	212
Total number of children attending school	177
Percent Gross Enrolment	83.50%

Source: 2008 GIMPA Household Survey.

Education Attainment

Educational attainment was assessed in terms of completion and transition as well as adult literacy rate.

Completion and Transition in School

Table 4.8 shows the completion and transition from the basic level to the SSS level in the District from 2003–2005.

Table 4.6 above depicts that only about 50 per cent of JSS pupils are qualifying at the BECE for entry into SSS; and this includes up to aggregate 30 which may not be enough to place a pupils in any senior secondary school. The worrying question is what happens to the almost 50 per cent of the JSS drop-outs? They are left in the world with inadequate skills and knowledge to be gainfully employed.

Educational attainment is one of the major determinants of economic activity of the labour force and, for that matter, income distribution and poverty incidence. The GIMPA 2008 Household Survey therefore sought to elicit the general educational attainment and adult literacy in the Lawra

District at the household level. The responses to this aspect of the survey are presented in Figures 4.2 to 4.4.

Table 4.8: Completion and Transition from Basic to SSS Level (In bracket are numbers)

No.	Indicator	2003	2004	2005
1	Gross primary enrolment rate			
	Total	73.3%	85.2% (13010)	82% (3748)
	Girls	75.2%	86.5% (6508)	83.8% (6905)
	Boys	71.4%	84.02% (6502)	80% (6843)
2	Primary School completion rate			
	Total	58%	78% (1426)	60.3% (14830)
	Girls	61%	72.3% (7230)	57.2% (701)
	Boys	55%	64.8% (728)	63.4% (782)
3	JSS students qualifying for SSS (Agg. 6–30)			
3a	Total	53% (126)	52.4% (497)	54.6% (612)
3b	Girls	40.4% (180)	43.6% (216)	42.2% (216)
3c	Boys	69.4%	59% (317)	65.02% (396)

Source: District Education Directorate, Lawra.

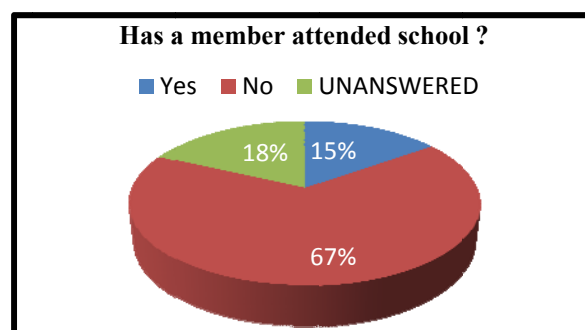


Figure 4.2: Household Members That Have Attended Any Form of School.

Source: 2008 GIMPA Household Survey.

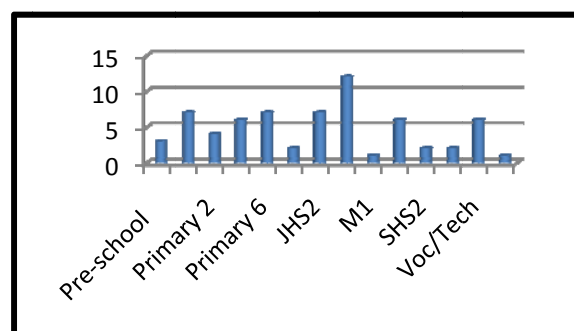


Figure 4.3: The Highest Grade Completed by Household Members.

Source: 2008 GIMPA Household Survey.

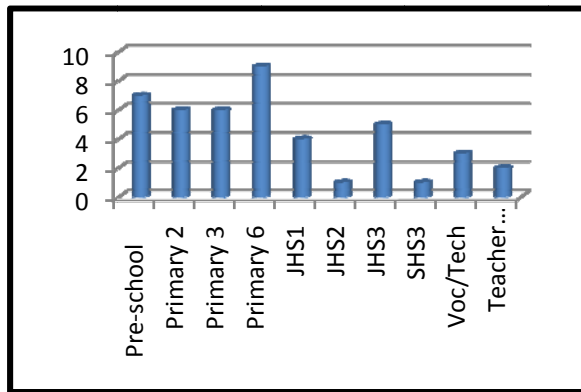


Figure 4.4: Household Members Aged 3 Years and above Currently in School; by Grade.

Source: 2008 GIMPA Household Survey.

Adult Literacy

Adult literacy rate was captured by asking the adults in the household who could read and write in English or the local language. The responses are captured in Figures 4.5 and 4.6.

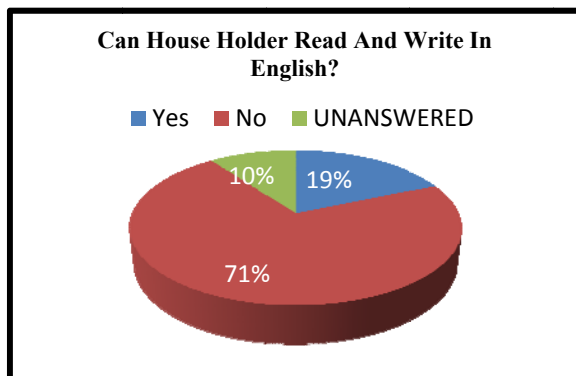


Figure 4.5: Household Adult Member's Ability to Read and Write in English.

Source: 2008 GIMPA Household Survey.

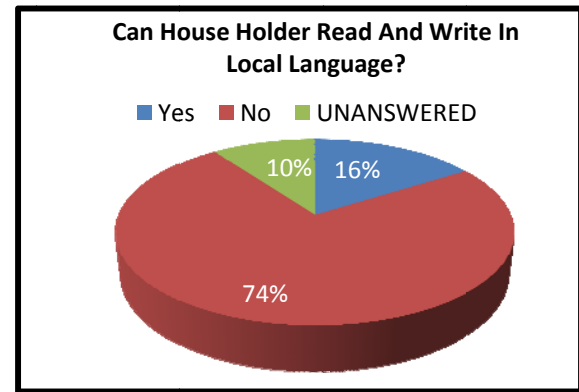


Figure 4.6: Household Adult Member's Ability to Read and Write in the Local Language.

Source: 2008 GIMPA Household Survey.

Educational Problems and the Way Forward/ Recommendations

The major problem facing the education sector is the transition of students from the JSS level to the SSS or Vocational and Technical Institutions. The gains or achievements recorded at basic level seems eroded by the poor rate of transition to the SSS, especially the girl-child as the Table indicates. This calls for concerted efforts towards improving teaching and learning in schools, especially in the area of schools supervision and increased access to library materials and resource centres. It is also desirable to establish a training college in the district so that more teachers from the locality could be trained to teach in order to improve the teacher-pupil ratio.

Health, Water and Sanitation

Health Infrastructure

A summary of the total numbers of hospitals, health centres, maternity homes and community health compounds in Lawra District is provided in Table 5.1. Lawra District has a total of 16 health institutions made up of two hospitals, 8 health centres, one maternity home and five Community-based Health Planning and Services (CHPS) centres that have community health officers' compounds (CPOs). This implies that there exists a wide gap between health facility requirements and what is actually available for the District.

Table 5.1: Health Facilities by Sub-district

Sub District	Estimate 2007 Population	Hos pital	Health Centre	Mater nity Home	CHPS — CHO Compou nds
Babile	11,582	0	1	0	1
Baseble	4,190	0	1	0	0
Dowine	4,467	0	1	0	0
Eremon	5,356	0	1	0	1
Gengenkpe	3,467	0	1	0	0
Ko	13,873	0	1	0	1
Lawra sub	14,671	1	0	1	2
Nandom sub	19,812	1	0	1	2
Puffien	10,385	0	1	0	0
Zambo	10,684	0	1	0	1
Total	98,487	2	8	2	8

Being a rural district, it has been difficult for Lawra to have medical doctors or even medical assistants in the relatively few health centres and the few of them available are all located in the two hospitals. Consequently, the doctor and nurse to patients' ratios are high, thereby limiting the quality of health care delivery.

Access to Health Care and Quality

Physical access may be defined as the ability of an individual to reach a health facility in less than 30 minutes. The 2008 GIMPA Household Survey solicited responses from households in the Lawra District on their physical access to health facilities in the district based on the time to reach the facility and the means of travel to the facility. From 238 households surveyed, only 14.7 per cent claim to be less than 30 minutes away by walking to the nearest health facility. Table 5.2 further reveals that as many as 69.3 per cent claim to be 45 to 60+ minutes from the nearest health facility. This could pose a danger to child and maternal health issues thereby threatening the ability of the district to achieve MDGs 4 and 5.

Table 5.2: Time to Walk to Nearest Health Facility

Time	Frequency	%
0–14min	6	2.5
15–29min	29	12.2
30–44min	25	10.5
45–59min	38	16.0
60+min	114	47.9
Unanswered	26	10.9
Total	238	100

Infant Admissions and Deaths

Table 5.3 captures the top ten diseases accounting for infant admissions and deaths from 2005 to 2008.

Table 5.3: Top 10 Infant Admissions and Deaths Over the Years

2005					
S/n	Diseased Condition	M	F	Total	PMR
1	Malaria	597	443	1040	58%
2	Anaemia	148	130	278	15%
3	Pneumonia	53	46	99	5%
4	Asthma/Bronchitis/ URT1	29	39	68	4%
5	Urinary Tract Infection	10	19	29	2%
6	Malnutrition	9	8	17	1%
7	Other Diarrheal	11	4	15	1%
8	Cellulites/Abscess	6	9	15	1%
9	Convulsion	6	5	11	1%
10	Enteric Fever	6	0	6	0%
	All Other Conditions	123	104	227	13%
Total		998	807	1805	100%

2006					
S/n	Diseased Condition	M	F	Total	PMR
1	Malaria	263	212	475	49%
2	Anemia	88	72	160	17%
3	Pneumonia	39	36	75	8%
4	Asthma/Bronchitis / URT1	21	18	39	4%
5	Other Diarrheal	8	12	20	2%
6	Malnutrition	7	6	13	1%
7	Urinary Tract Infection	12	0	12	1%
8	Enteric Fever/Typhoid	1	5	6	1%
9	Hepatitis	4	1	5	1%
10	Cellulites/Abscess	1	4	5	1%
	All other Conditions	80	75	155	16%
Total		524	441	965	100%

2007					
S/n	Diseased Condition	M	F	Total	PMR
1	Malaria	420	278	698	67%
2	Anaemia	43	30	73	7%
3	Pneumonia	34	26	60	6%
4	Asthma/Bronchitis/ URT1	18	20	38	4%
5	Gastro Enteritis	8	10	18	2%
6	Urinary Tract Infection	8	10	18	2%
7	Cellullitis/Abscess	9	6	15	1%
8	Septicaemia	7	3	10	1%
9	Other Diarrhoeal	4	4	8	1%
10	Enteric Fever/Typhoid	5	1	6	1%
	All Other Conditions	60	35	95	9%
Total		616	423	1039	100%

2008					
S/n	Diseased Condition	M	F	Total	PMR
1	Malaria	263	212	475	49%
2	Anaemia	88	72	160	17%
3	Pneumonia	39	36	75	8%
4	Asthma/Bronchitis/ URT1	21	18	39	4%
5	Other Diarrhoeal	8	12	20	2%
6	Malnutrition	7	6	13	1%
7	Urinary Tract Infection	12	0	12	1%
8	Enteric Fever/ Typhoid	1	5	6	1%
9	Hepatitis	4	1	5	1%
10	Cellullitis/Abscess	1	4	5	1%
	All other Conditions	80	75	155	16%
Total		524	441	965	100%

Source: Lawra District Health Directorate.

Table 5.3 shows that malaria continues to be the leading single disease condition responsible for admissions and deaths for infants, under-fives and all other ages in the Lawra District, over the last three years. It is worth noting, however, that malaria admissions among infants dropped from 67 per cent in 2007 to 49 per cent in 2008. This may be attributed to the various interventions such as the supply of treated mosquito nets to nursing mothers.

Infant Mortality Rate in the Lawra District (2003 to 2007)

Records from the District Health Directorate reveal that infant mortality rate decreased in 2006 from 3.32 to 1.73, as shown in Table 5.4.

Table 5.4: Total Admissions/ Morbidity and Mortality of Infants

Year	Admis- sions	Morta- lity	Percent Mortality
2003	1681	58	3.45
2004	2033	67	3.29
2005	1805	41	2.27
2006	965	32	3.32
2007	1042	18	1.73

Under-Five Mortality

One of the MDG indicators seeks to reduce by two-thirds, between 1990 and 2015, the under-five mortality rate. Records from the Lawra District Health Directorate reveals that the under-five deaths decreased from 46 in 2005 to 18 in 2007, as indicated in Table 5.5. If such a progress can be maintained over the years, then

Lawra District might be on track towards the attainment of the MDGs related to Child Mortality.

Table 5.5: Total Admissions/Morbidity and Mortality of Under-Fives over a Five-Year Period

Condition	Admission				
	2003	2004	2005	2006	2007
Malaria	2018	2271	2579	1227	2113
Other Diarrhoea Diseases	56	69	44	68	38
Anaemia	642	1027	375	425	205
Malnutrition	24	45	38	29	16
Condition	Deaths				
	2003	2004	2005	2006	2007
Malaria	44	52	46	19	18
Other Diarrhoea Diseases	4	6	2	0	0
Anaemia	27	26	12	12	8
Malnutrition	3	3	2	0	2

Table 5.5 reveals that there is a general decrease in both morbidity and mortality among children of age less than five in 2007 as compared to 2007. The decline in malaria under-5s mortality may be due to various interventions like the expanded programme of immunization, use of insecticide-treated mosquito nests and integrated management of childhood illness. It is therefore important to sustain and expand such health interventions if MDG's goal 4 and 5 are to be achieved in the district.

Maternal Deaths

Records from the Lawra District Directorate reveal that maternal deaths increased from 3

Table 5.6: Maternal Deaths In Lawra District (2001 To 2007)

Sub districts	Maternal Deaths						
	2001	2002	2003	2004	2005	2006	2007
Babile		—	—	—			1
Baseble		—	—	—			1
Dowine		—	—	—	1		
Eremon		—	—	—			
Gengenkpe		—	—	—			
Ko		—	—	—			
Lawra Hospital	2	3	2	1	1	3	3
Nandom Hospital	5	3	1	2	1	1	4
Puffien		—	—	—			1
Zambo		—	—	—		1	
Good Shepherd							
Total	7	6	3	3	3	5	10

in 2005 to 10 in 2007, as shown in Table 5.6. This development is a major threat to the achievement of MDG 5, with a target of improving maternal health and reducing by three-quarters the maternal mortality ratio by 2015. The increase of maternal death rates may be explained by the delay of pregnant women to seek skilled delivery.

Source: Lawra District Health Directorate.

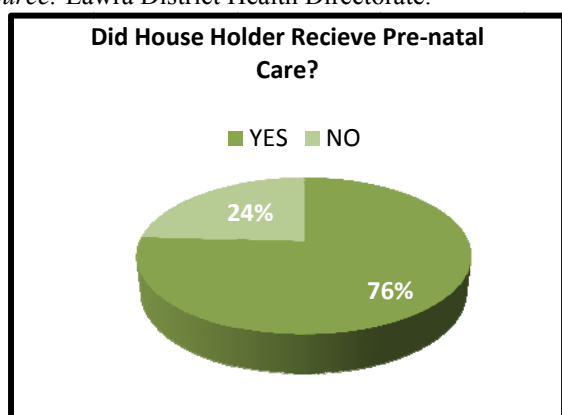


Figure 5.1: Pre-natal Care from Pregnant Women in Lawra District.

Source: GIMPA Household survey of 2008.

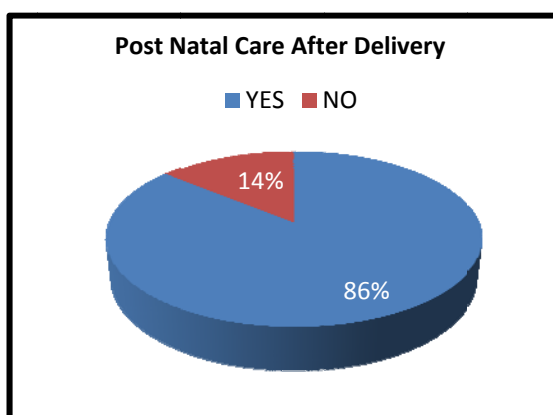


Figure 5.2: Post-natal Care of Women in Lawra District.

Source: GIMPA Household survey of 2008.

Anti-natal and Post-natal Care

To assess the health care situation of women, the households survey asked if women in the households who were pregnant or delivered during the last three years ever attended anti-natal care and post-natal care. The results are summarized in Figures 5.1 and 5.2. They show that many women in Lawra district seek pre-natal and post-natal care. However, a further probing of answers revealed that the care is not sought on a regular basis as required to be a preventive measure but they rather seek such care when the mothers or the new-born child feel sick. The implication is the high exposure these women and their babies are exposed to as medical attention may be sought rather late.

Mode of Delivery

As to the mode of delivery of pregnant women in Lawra District, majority indicated that they were delivered by traditional birth attendants (TBAs) who are easily accessible in the villages (Figure 5.3).

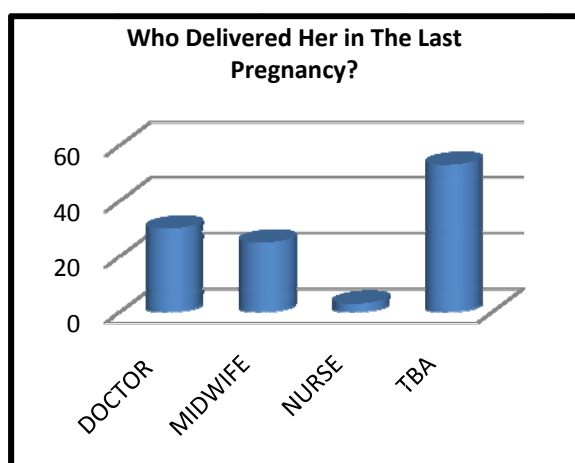


Figure 5.3: Mode of Delivery of Women in Lawra District.

This points to the need, in short-term, to support these TBAs to improve their services, since many women by default depend on them, due to inadequate midwives

and medical doctors to provide skilled delivery to these women. For example, it is important for the TBAs to be trained to appreciate their limits such that complicated deliveries could be recognized early and quickly referred to health centres for skilled delivery. In the long-term, however, there will be need to train more skilled personnel like midwives and medical officers who can gradually take over the role of the TBAs in providing skilled delivery to women in the district.

Community Members' Satisfaction Level with Health Services in the District

To supplement the secondary data on health, the study asked the sampled households about their perceptions and general satisfaction level with health services in the district. The responses are summarized in Table 5.7.

Table 5.7: Level of Satisfaction with Healthcare Services in Your Community

Level of Satisfaction	Frequency	%
Very Satisfied	34	14.2
Satisfied	127	53.4
Dissatisfied	6	2.5
Very Dissatisfied	3	1.3
Unanswered	68	28.6
Total	238	100

Table 5.7 reveals that majority of people interviewed were satisfied with health services received in the district, especially in relation to quality of examination and treatment received from the health facilities.

The HIVAIDS Menace

Target number 7 of the sixth MDG is to halt and reverse the spread of HIVAIDS. It is in line with this that the Lawra District has intensified efforts in this area as a priority.

As a result, awareness creation on the disease has been on the increase in the district over the years, largely through the support of Ghana AIDS Commission and some voluntary organizations operating in the district. However, despite the soaring of

awareness creation, the trend of HIV/AIDS positive cases is increasing in the district; with Nandom Zone outweighing Lawra Zone in the positive cases obtained during screened throughout the district, as captured in Table 5.8.

Table 5.8: A Summary Table of District HIV/AIDS Situation

	<i>Nandom</i>				<i>Lawra</i>				<i>District Total</i>					
	05	06	07	08	05	06	07	08	03	04	05	06	07	08
Clinical	337	106	831	155	104	124	464	1013	231	216	441	230	1295	1168
Total	111	34	149	27	39	59	72	88	133	121	150	93	221	115
Screened	32.9	32.1	18	17.4	37.5	48	16	8.7	58%	56.	34.	40	17	9.8
Positive cases														
Prevalent rate														
Donors	1485	453	1340	1510	142	315	409	423	959	1672	1627	768	1749	1933
Total	206	63	165	223	6	11	7	35	82	167	212	74	172	258
Screened	13.9	13.9	12.0	14.7	4.2	3.5	2.0	8.3	9%	10.	13.	9.6	10.0	13.3
Positive cases														
Prevalent rate														

Source: Lawra District Health Directorate.

Table 5.8 shows that while the prevalence rate of the clinical cases is decreasing from 40 per cent to 17 per cent that of the donors is increasing from 9.6 per cent in 2006 to 10 per cent in 2007. The 10 per cent is higher than the national average and therefore constitutes a major threat to achieving MDG 6; not only for the Lawra District but also for the nation. This finding also suggests that no matter the urgency for blood transfusion, it must be screened to avoid transfusing unwholesome blood to a recipient.

The other worrying dimension is that an analysis of the age distribution of HIV infected cases shows that the disease is centred on the age range of 20–49 years, which is the most viable and economically productive age group. This affects man-work hours as well as production, leading to low productivity either in food production, income generation or salary earned jobs, leading to poor feeding due to lack of money. This also affects other services such as education, health, good housing etc. due to low-income levels of parents/ guardians. The gross impact is increase in poverty.

National Health Insurance Scheme

In addition to infrastructure and human resources, one major resource that ultimately determines the access and quality of health care delivery is financing. The heavy burden of this has been greatly alleviated by the National Health Insurance Scheme which has been established in every district in Ghana. The Lawra District Health Insurance Scheme started operating in June 2004; after it was launched on 30th April 2004. However, the package was limited to only admissions. Records from the District Health Insurance Scheme indicate that in 2007, 55,268 people registered with the scheme, representing 56 per cent of the population. This is quite good even though it falls short of the national target of 60 per cent coverage. The premium collected for 2007 was GH¢146,248.00.

Figure 5.4 shows that there is consistent increase in the number of people registering for the NHIS over the last three years. This demonstrates increasing confidence in the scheme, which should be sustained.

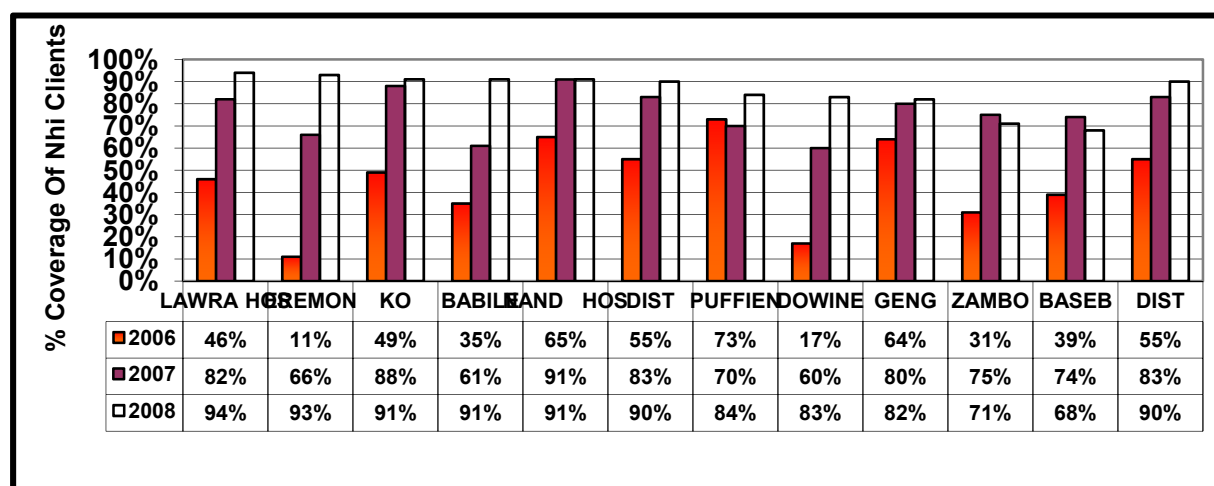


Figure 5.4: The Percentage Coverage of the NHIS in various Locations.
Source: Lawra District Health Annual Health Report for 2008.

Guinea Worm Eradication Programme

The trend of guinea worm cases in the district for the past three years is stable, meaning that we can comfortably eradicate this disease with maximum effort. Indigenous cases are not found in the district except imported cases, which normally happen during the farming season when people move down to Brong Ahafo Region to look for money to supplement their family income during the lean season. The endemic communities are Bo area where their relatives are living in Poposo in the Atebubu district (where they get infected and bring the disease home).

Water Situation

Currently, the Lawra District Assembly can boast of 404 Boreholes fitted with hand pumps. However, 47 of these boreholes are non-functional. It is also worth noting that during the dry season, the water table becomes deep and many boreholes yield very little or no water at all. The existing small town water system for Lawra and Nandom towns are currently being rehabilitated at a

cost of 9.8 billion cedis. The aim is to increase portable water in the district, thereby decreasing the rate of water born diseases in the district.

Lawra District Assembly has also stepped up the drilling or sinking of hand-dug wells in communities. Currently seven hand-dug wells are under construction while three of them, tube wells have been completed. It is also the intension of the Lawra District Assembly that, Ko Area Council could benefit from the small towns water systems after the one for Babile Area Council takes off.

The water coverage is currently estimated to be around 85–90 per cent from the 65 per cent level recorded in 2002 and at a projected population of 102,000 as against 84,700 thousand in 2002.

Source of Household Water and Distance to Walk to Nearest Water Source

To gauge the accessibility of households to portable water supply, the sampled households were asked about their source of water and how long it takes them to walk to the nearest water source. The responses are captured in Tables 5.9 and 5.10.

Table 5.9: Source of Water to Households in Lawra District

Source of Drinking Water	Frequency	%
Insight taps in dwelling	27	11.3
Public outdoor tap	18	7.6
Borehole	169	71.0
Protected/covered well	3	1.3
Uncovered well	2	0.8
Purchased treated water tanker, bucket sachet barrels	3	
River/pond/lake	10	4.2
Unanswered	6	2.5
Total	238	100

Table 5.10: Time Taken to Walk to Nearest Supply of Drinking Water

Distance	Frequency	%
0–14min	103	43.3
15–29min	63	26.5
30–44min	34	14.3
45–59min	18	7.6
60+min	12	5.0
Unanswered	8	3.4
Total	238	100

Table 5.9 shows that about 90 per cent of the sampled households have access to portable water. Table 5.10 also reveals that about 70 per cent of the households walk less than 30 minutes to the nearest source of water. The data points to good coverage and accessibility to portable water in Lawra district.

Table 5.11: Toilet Facilities in Lawra District

Type	Public	Private	Total
2004			
Septic tank latrines	3	–	3
Household latrines		406	406
KVIP	65	4	69
Water Closet		–	–
2005			
Septic tank latrines	3	–	3
Household latrines	406	293	699
KVIP	14	–	83
Water Closet	–	–	–
2006			
Septic tank latrines	2	–	5
Household latrines	699	498	1197
KVIP	28	83	111
Water Closet			

Source: DWST — Lawra.

Sanitation

Sanitary facilities in the district are woefully inadequate at both urban and rural dwellings. As shown in Table 5.11, Lawra district currently has 5 septic tank latrines with 46 drop holes as well as 111 KVIPs and 1197 household latrines.

With the limited public toilets and their deplorable state, defecating in the bushes and behind houses is a common practice as shown in Table 5.12. As to waste disposal, indiscriminate dumping of refuse around houses and other surroundings has become a popular norm in the district as captured in Tables 5.13 and 5.14.

Table 5.12: Toilet Facilities Used by Household Members

Toilet Facility	Frequency	%
None/Bush	164	68.9
Covered Pit Latrine	28	11.8
Uncovered Pit Latrine	5	2.1
KVIP	33	13.9
Other	2	0.8
Unanswered	6	2.5
Total	238	100

Table 5.13: Disposal of Solid Waste by Household

Disposal of Refuse	Frequency	%
Disposed By Refuse Collectors	10	4.2
Burned By Household	19	8.0
Public Provided Dump	19	8.0
Dumped Elsewhere	171	71.8
Buried By Housefold	9	9
Other	4	1.7
Unanswered	6	2.5
Total	238	100

Table 5.14: Disposal of Liquid Waste by Household

Disposal of Liquid Waste	Frequency	%
Thrown Onto The Street	151	63.4
Thrown In The Gutter	8	3.4
Thrown Onto The Compound	73	30.7
Unanswered	6	2.5
Total	238	100

District Level Resources

Natural/Environmental Resources

The natural resources in Lawra District include the geology, soils, water bodies and forests. These are elaborated upon in this chapter.

Geology

The geology of the District is mainly characterized by Birrimian rock formation. Associated with these rocks are extensive masses of granite. Map 6.1 presents the rock series found in the district. The underlying Birimian Rock is rich in minerals that could be explored for the development of the district. Indeed, the study encountered gold prospecting in Tanchara, near Lawra. Also, the well-developed fracture pattern in the rocks provides a high potential for obtaining ground water in the district.

Soils

The soils throughout Lawra district are closely associated with the geology. In all, seven different soil series characterized with varied agricultural potentials are encountered. The dominant soil in the district is generally found across the land-scape is

Ferric Lixisol. Map 6.2 presents the spatial distribution of soils in the district.

Land Suitability for Selected Crops (Major Crops)

The major traditional crops cultivated in the district include maize, sorghum, millet, soya, groundnuts, cowpeas, sweet potatoes and rice. The suitability of land for cowpea, groundnuts and sorghum are captured in Maps 6.2, 6.3 and 6.4 respectively.

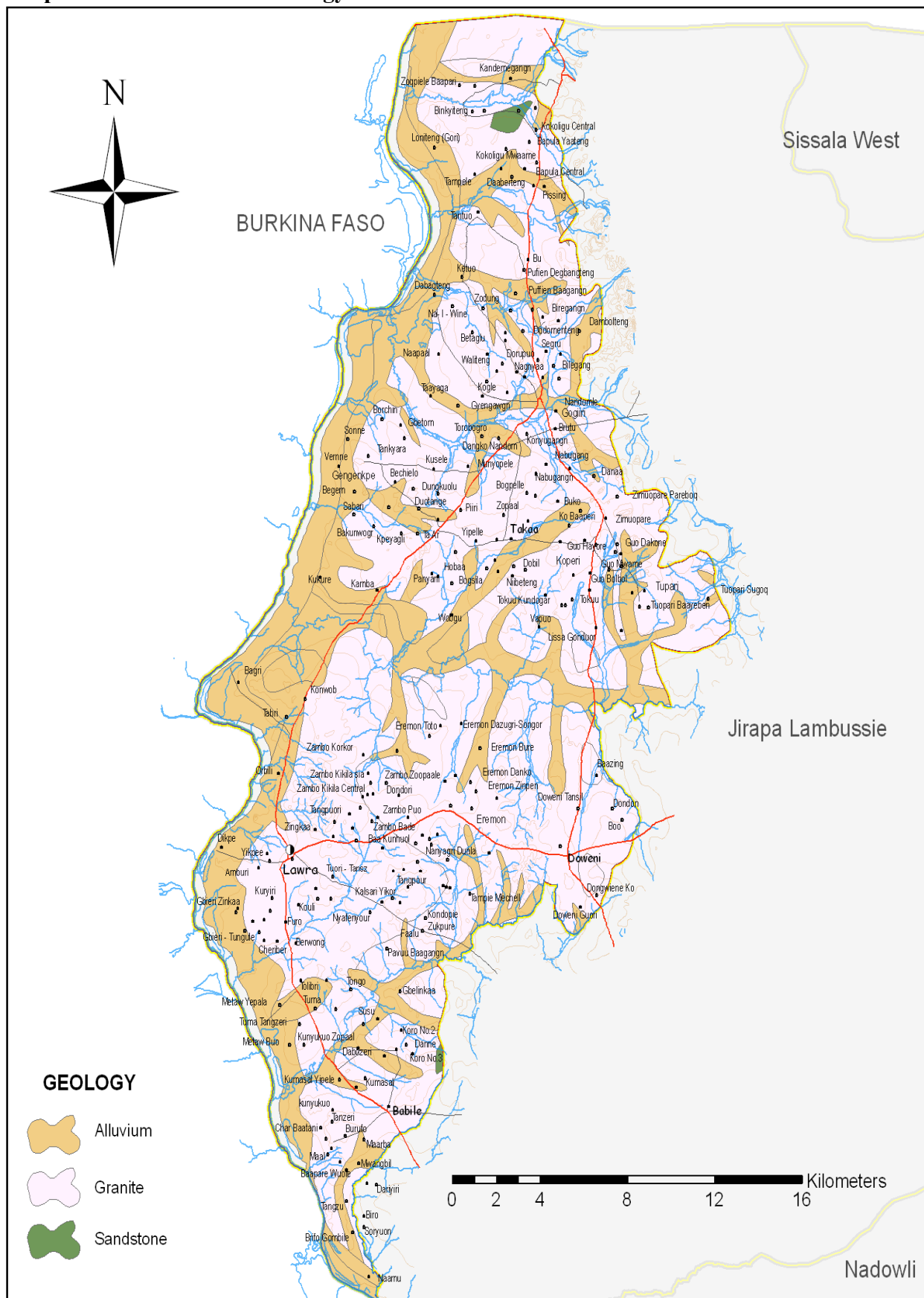
Water Bodies

The natural water bodies of the Black Volta and its many tributaries within Lawra District present opportunities for irrigation to support all year round cultivation of crops. Such river water could be pumped for irrigation. The Black Volta river running along the western border of Lawra also has some locations with good scenery that can support tourism.

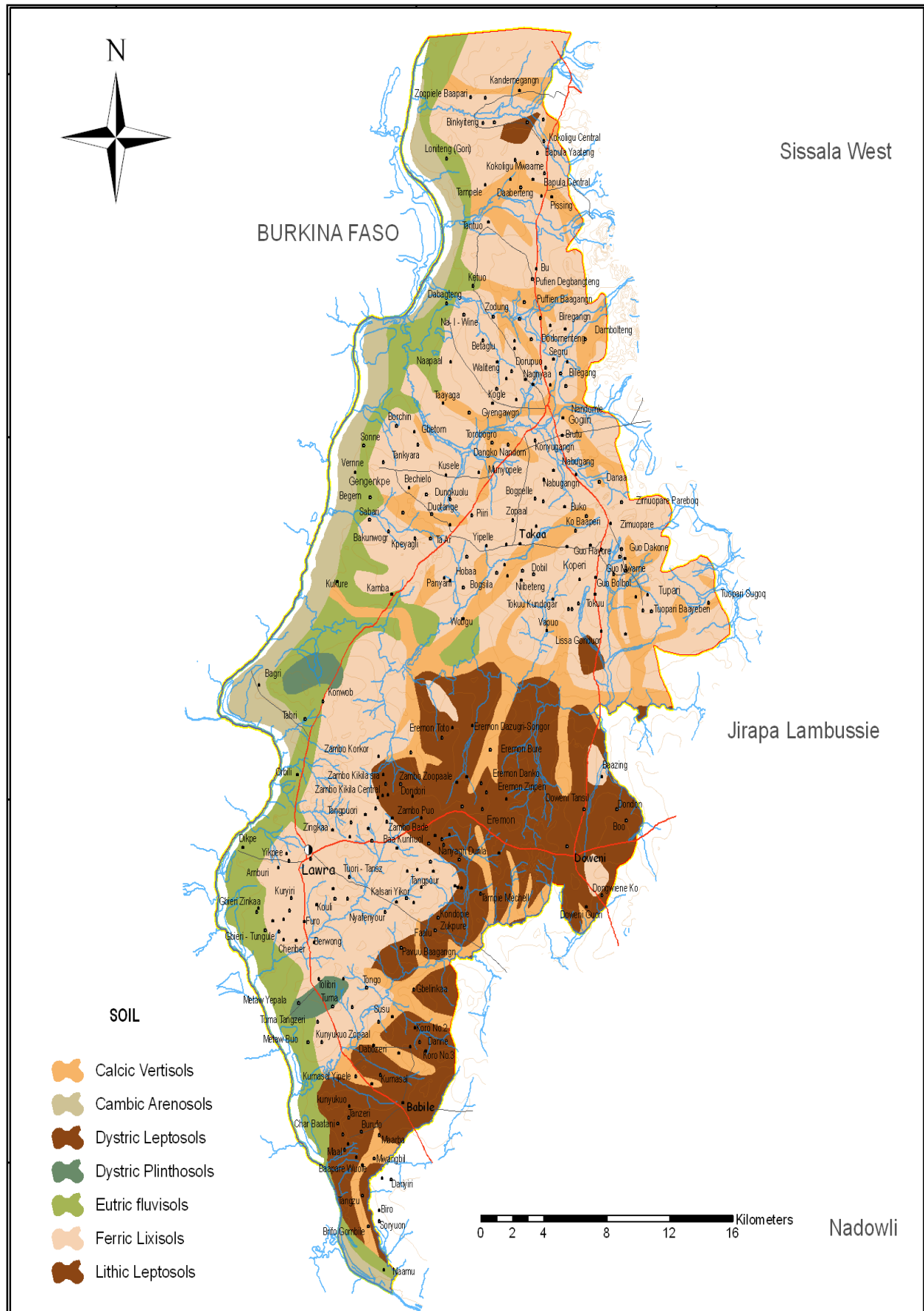
Physical Resources

These comprise the basic infrastructure and socio-economic facilities needed to support development or livelihood of the people. They include access to reliable transport and information, educational facilities, health facilities, adequate water supply and sanitation.

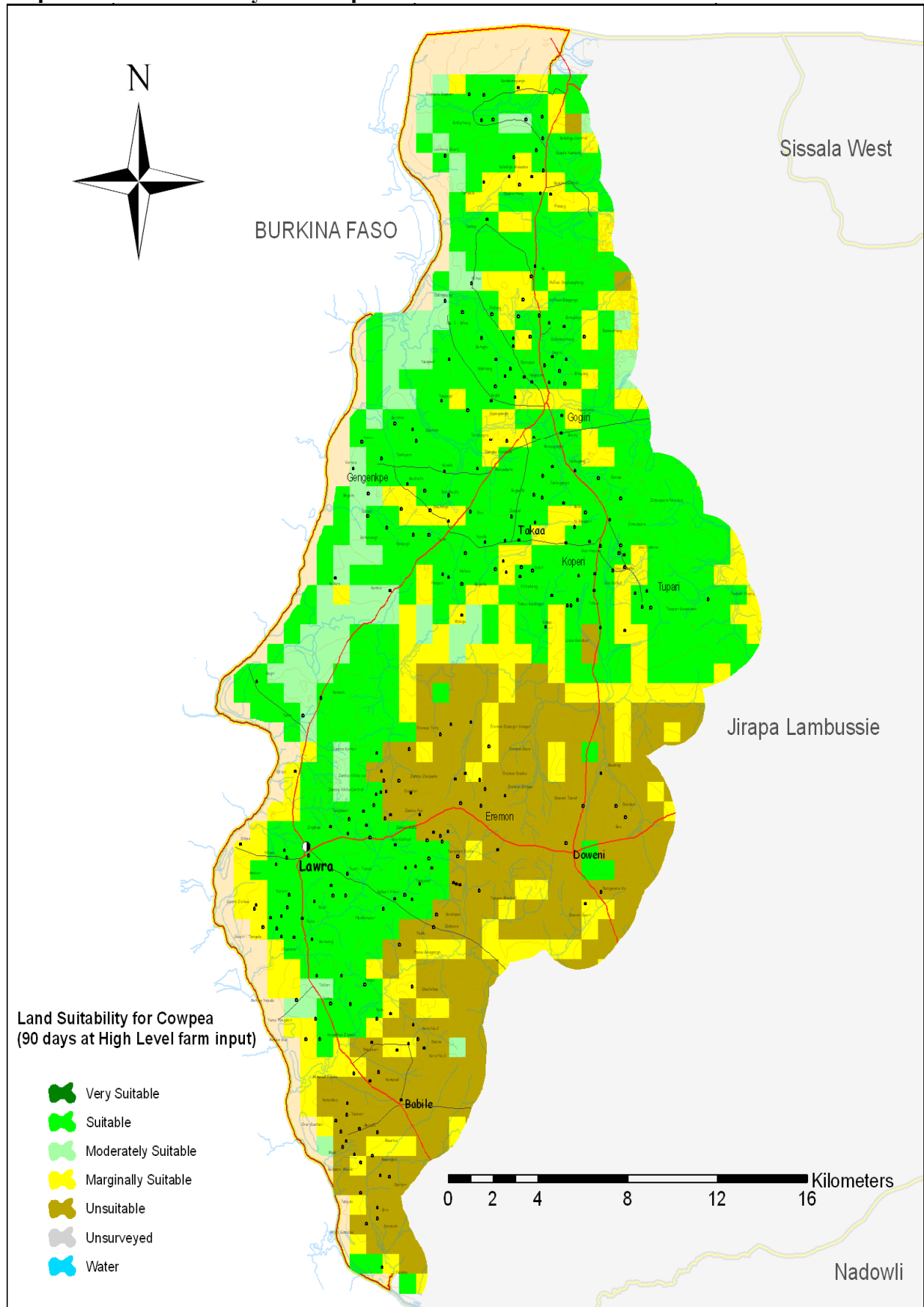
Map 6.1: Distribution of Geology in Lawra District.



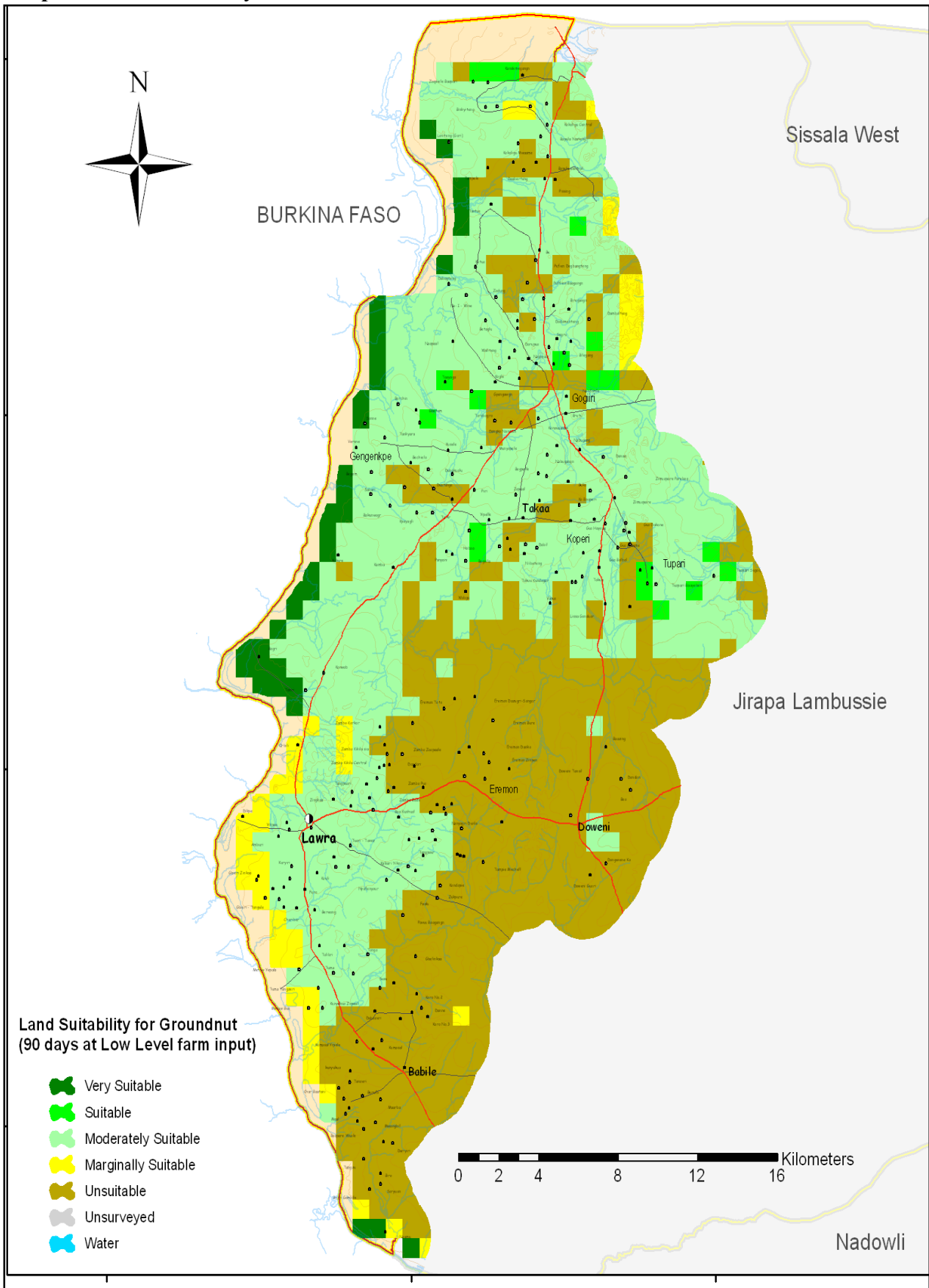
Map 6.2: Distribution of Soils in Lawra District.



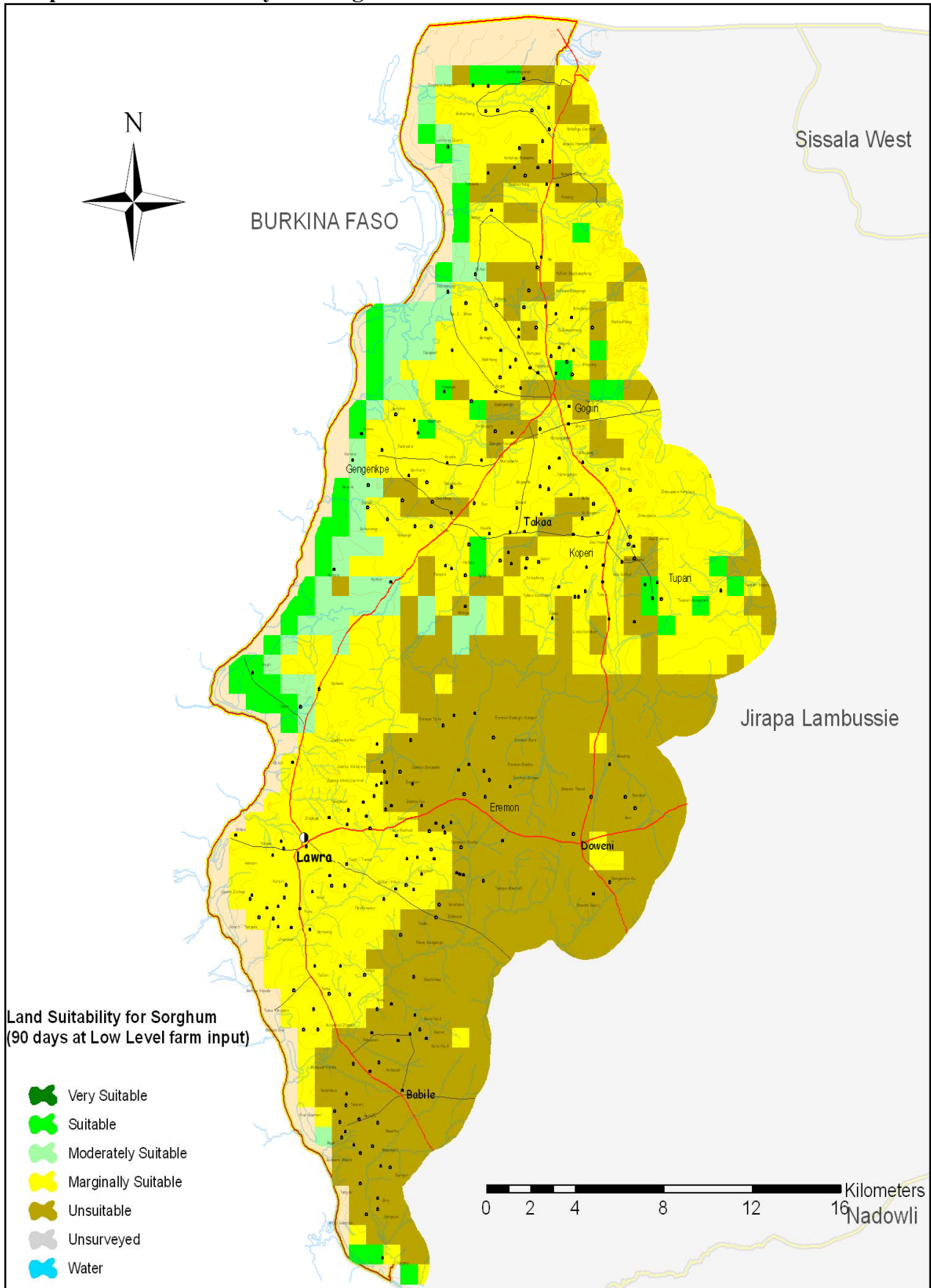
Map 6.3: Land Suitability for Cowpea.



Map 6.4: Land Suitability for Groundnut.



Map 6.5: Land Suitability for Sorghum.



Transportation and Communication Infrastructures

Lawra District has a total of 453.77 kilometres of road network (see Map 6.6). Trunk roads represent 32 per cent (145.43 km), while feeder roads represent 68 per cent (308.34 km). Postal and Telecommunication Services are very limited and access is also difficult due to distance and poverty. The district currently has only one post office located at the district capital, Lawra, and two postal agencies; one each at Babile and Nandom.

Majority of people have to travel one hour or more walking or using a vehicle to be able to access postal services. This is captured in Tables 6.1 and 6.2. About 4 per cent of the population of the Lawra District takes about 14 minutes to reach the nearest Post Office; while more than 71 percent of the population takes over one hour to reach the nearest Post Office.

Table 6.1: Time used to travel to the nearest Post Office

Time	Frequency	%
0–14min	7	3.7
15–29min	26	13.6
30–44min	11	5.7
45–59min	10	5.2
60+min	137	71.7
Total	191	100

Source: 2008 GIMPA Household Survey.

In terms of telephone services, there are very few landlines and many people have to resort to the use of mobile phones. Coverage of mobile phone services is limited to some

areas of the district and signals from major mobile service providers like Vodafone, MTN and Tigo can be obtained in different parts of the district, but not total coverage.

Table 6.2: Means of Transport to the Nearest Post Office

Means of Transport	Frequency	%
Vehicle	33	17.3
Motor-cycle	7	3.7
Foot	126	65.9
Animal	4	2.1
Canoe/boat	6	3.1
Bicycle	15	7.9
Total	191	100

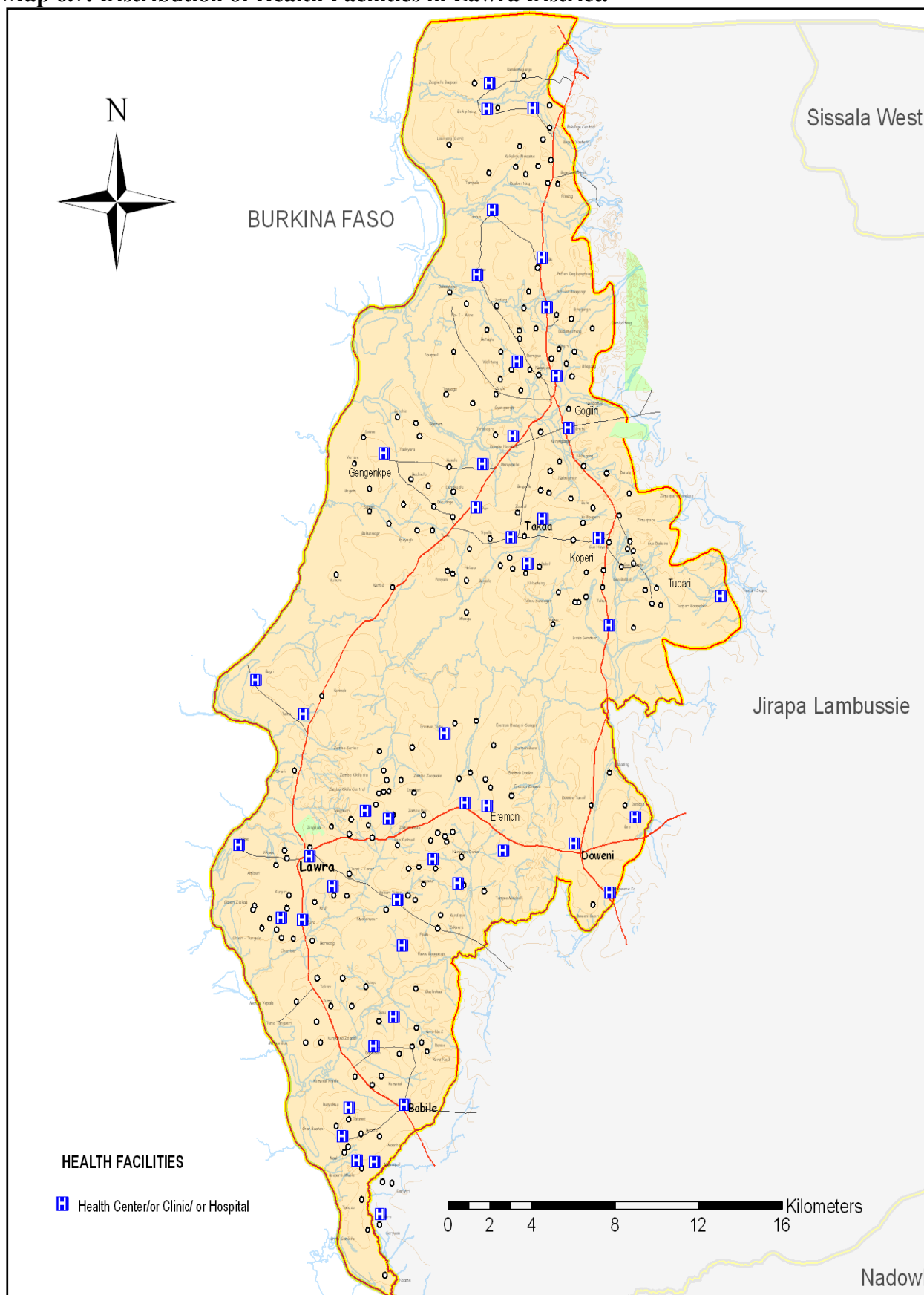
Source: 2008 GIMPA Household Survey.

The communications network in Lawra District is generally poor; as acknowledged by the district authorities themselves in the following statements: “There is limited access to telephone, television and radio network. The Radio REED, the only rural radio which operates in the district has very limited coverage and is restricted only to the Nandom area. The other communication networks that operate in the district include the MTN, One Touch and Tigo. The effectiveness of these networks is greatly reduced due to a very frequent and constant jam of the air waves.

Health Infrastructure (Hospital, Clinics, Health Posts etc)

The health infrastructure in Lawra District comprise two hospitals, eight health centres, two reproductive and child health centres or maternity homes, eight CHPS zones and 15 chemical sellers distributed in various communities as shown in Map 6.7.

Map 6.7: Distribution of Health Facilities in Lawra District.



Educational Infrastructure

The educational infrastructure of Lawra District is made up of 71 Kindergarten or Nurseries; 58 Primary Schools; 42 Junior High Schools, four technical or vocational schools and four Senior High Schools, distributed in various communities as shown in Map 6.8.

Water and Sanitation

Lawra District has 531 water facilities spatially located in 230 out of 257 communities in the district. These are made up of 415 boreholes, 101 hand-dug wells as well as 15 stand pipe facility as indicated in Table 6.3 and Maps 6.9 and 6.10.

Table 6.3: Matrix of Water Facilities Distribution within Lawra District

Type of Facility	No. of Settlement	No. of Facilities
Borehole	218	415
Hand-dug Well	70	101
Stand Pipe	10	15
Total	230 out of 257	531

Markets

Markets play a major role in the commerce and other related economic transactions of the people of any area. The Lawra District has three main markets located in Lawra, Babile and Nandom. Two of these markets (Babile and Nandom) were up-graded with modern market facilities under the Village Infrastructure Project of the Ministry of Food

and Agriculture. The remaining markets (very small and undeveloped) are located at Eremon, Bo, Baseble, Tuopare, Domwine, Tome, Ko, Kusepele and Zambo. Markets in the district are classified into two categories, namely, daily markets and periodic markets.

While there is continuous improvement of the Lawra market, the major problem facing the District Assembly is rehabilitation of the Nandom market which has been twice hit by rainstorm disaster.

Human Resource

This represents the number of human beings, their skills, knowledge, health status and physical capability that together enable them to pursue different livelihood strategies or which can be harnessed for the area development.

The current population of the district is estimated at 101,864 based on projections from the 2000 population census and an annual growth rate of 2.7 per cent. However, many of the highly educated people from the district as well as other able-bodied adults have migrated out of the district to seek job opportunities. This has deprived the district of able and skilled human resource base for development. Furthermore, the adult literacy rate in Lawra District is estimated (from the household survey) as 19 per cent. This shows a low literacy level of the population which can limit the self-help capacity of the people.

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Map 6.9: Map of Lawra District Showing Distribution of Dug-out Wells.

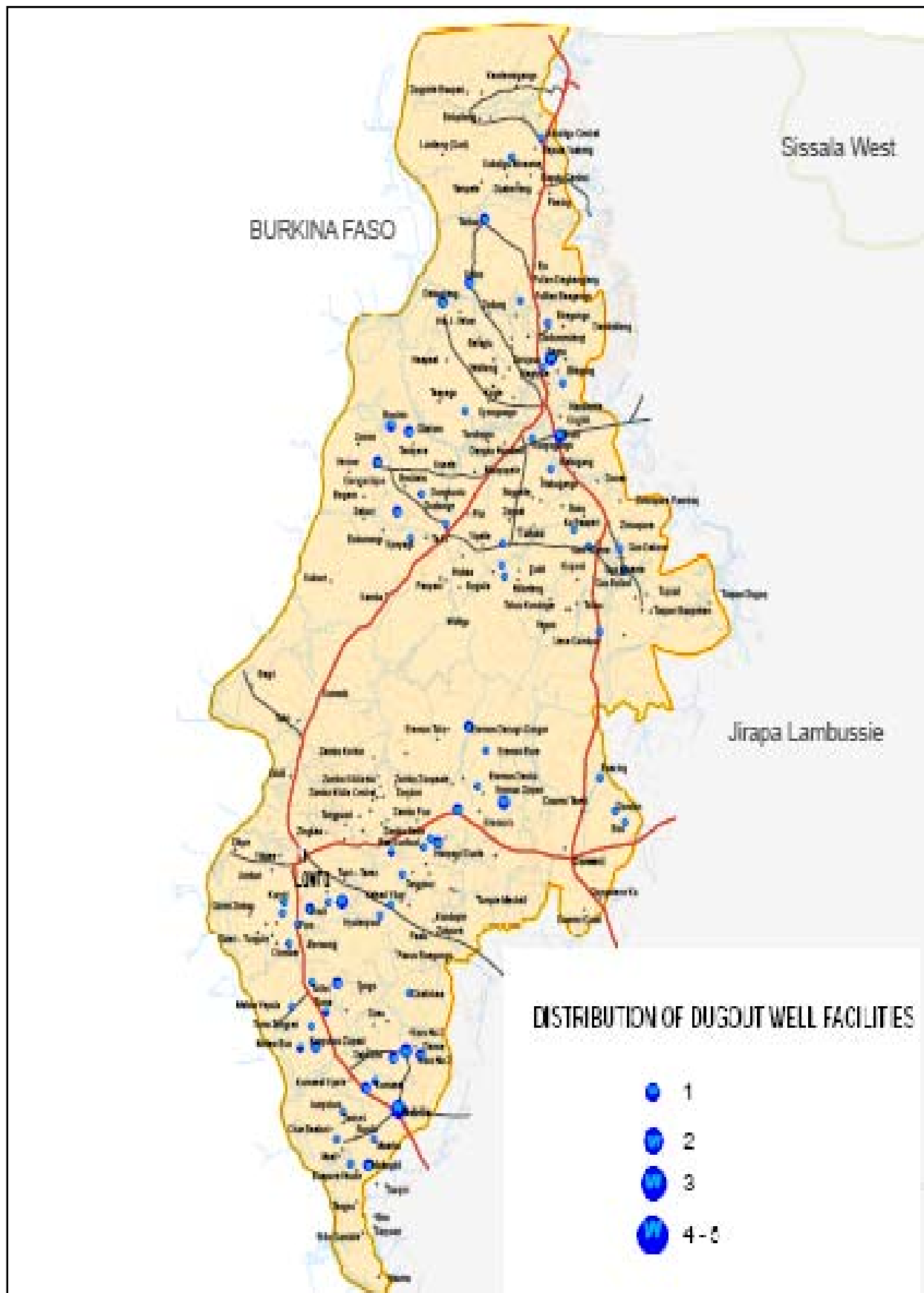




Fig. 6.11: Distribution of Market Facilities in Lawra District.



Social Assets (Resources)

These include social networks, membership of groups, and relationships of trust and reciprocity from which one can draw to support one's livelihood strategies. Focus group discussions with communities in Lawra District revealed the erosion of traditional values like communal solidarity, extended family system and reciprocity in favour of modernization values like individualism and rationalism. This has generated growing mistrust among community members, thereby weakening community members' ability to take advantage of social capital. There may be need to reactivate the traditional values that can strengthen the social capital available for community members to draw on. Indeed, for the poor, such social capital is critical for their livelihood.

Financial Resources

This denotes the financial resources available to people to deploy for their livelihood. Two main sources of financial resources to the people were identified during the study:

- *Available stocks*: comprising cash, bank deposits, or liquid assets such as livestock.
- *Regular inflows of money*: comprising labour income, pensions or other transfers or remittances from others.

Cash Holdings and Credit Opportunities

As already stated earlier, the per capita income in the area is so low that virtually everything is used for consumption with little or no cash savings for reinvestment or for future emergencies. Credit opportunities too are limited as the combined credit portfolio of the three financial institutions in the area

is merely GH¢1,004,855. This is captured in Table 6.4.

Table 6.4: 2008 Total Lending to Various Sectors of the Lawra District

Sector	Credit from Nandom Rural Bank (GH¢)	Credit from Lawra Rural Bank (GH¢)	Credit from GCB (GH¢)
Agriculture	8,608.68	1,000	0
Transport	1,325.99	0	0
Trading/ Commerce	52,436.78	24,950	277,834
Others	94,304.04	8,250	536,146
Total	156,675.04	34,200	813,980

Source: Records from the various financial institutions.

Access to credit has always been difficult; mainly due to lack of collateral and poor loan repayment by the public. Access to credit facilities at the bank seems to be in favour of salaried workers whose salaries pass through the banks for easy deduction of loans. This lack of trust in the private sector is greatly affecting the expansion of micro-businesses as well as modernization of agriculture. For example, although agriculture is the most important and largest economic activity, it receives little attention in terms of credit lending from the banks as seen in the volume of total lending by the major financial institutions in the district, as indicated in Table 6.4.

Table 6.4 shows that a total of GH¢ 904,855 was disbursed in 2008 as credit facility to various people in the district by the main financial institutions in Lawra District. Much of this credit went into commerce and consumption credit to salaried workers. The major financial institution in Lawra, the Ghana Commercial Bank, did not provide credit facilities in 2008 to the agricultural sector. Similarly, the other financial institutions, Nandom and Lawra Rural Banks offered very little credit to the agricultural sector in 2008. Yet, agriculture is the major economic activity and source of employment in the area. The implication is the low capital

District Level Resources

investment in this sector, leading to low productivity and deepening of poverty.

Other credit sources include the small amounts disbursed by NGOs and other government agencies. Such credit mainly goes to women's groups to support their income generating activities.

It is recommended that if Lawra District wants to be serious about growing a strong district economy, it must design innovative ways to have various credit

service providers show interest in financing the productive sectors of the district economy such as agriculture and rural industry. It should also educate district members to take loan repayment more seriously.

A major source of cash for the people to meet some emergency needs is to sell their animals. The rearing of animals is thus a lifeline for the people and must be promoted vigorously.

Investment Opportunities and Risk Factors

Introduction

The investment opportunities in Lawra District in relation to the available resources include Tourism, Agriculture and Agro-processing, Minerals, and Services - Information Communication Technology (ICT). These are outlined below.

Tourism

Some of the potential tourism investment opportunities in Lawra District include the following:

- The beach-like physical features of the portion of the Black Volta Basin in Lawra District which could be developed into a beach resort. During the survey, it was learnt that an investor has started a small bar and restaurant service in the area. This needs to be encouraged to develop into a proper beach resort.
- The Crocodile Pond at Eremon which is only 10 km from Lawra town and has over 400 crocodiles. Potential investors could design conservation measures around the pond area, establish rest stops or homes to attract more visitors/tourists and thereby boost the local economy.

- The Slave Centres located at Gengenke and Zimuopare which could also be conserved and publicized to tourists.
- The Detention Camp of the Late President Dr. Kwame Nkrumah and Residence of the British Colonial Administrator. These could be attractive tourist sites for certain categories of visitors from both within and outside Lawra District.
- The Kobine Festival of Lawra and the Kakube Festival Nandom traditional areas.

When coordinated well, these festivals, natural and manmade sites could make Lawra District a good tourist destination for local and foreign tourists.

Agriculture and Agro-processing

Lawra District has relatively good water resources for irrigated agriculture. The Black Volta has several tributaries in the district; notable amongst them are the Kamba/Dangbang, Nawer, Duodaa and Kokoligubaa. These if developed for irrigated agriculture, could offer an agro-based employment for the youth who migrate to the

south in search of non-existing jobs during the dry season.

Also, the river basin and its tributaries have enhanced the development of alluvial and sandy loam soils which are suitable for agriculture. A number of crops that the communities already grow have huge market potentials and could attract more serious local and external investors. Notable among these are sorghum and groundnuts.

The livestock sector also has investment potential in Lawra District. The vegetation and climate greatly favour livestock production. Goats and poultry appear to be the most promising and also have a high market demand within Ghana.

In terms of agro-processing, it is conceivable that sheabutter processing has a big potential since the raw material already exists and community members, especially women, can easily pick the nuts for any serious buyer/processor. Currently sheabutter processing is done on a small scale by women as shown in Picture 7.1.



Picture 7.1: A Woman Processing Shea-butter

Other crops that could be grown and sold fresh or processed for the market include mangoes and water melons which are currently grown on a small-scale by some farmers. However, the inadequate marketing opportunities for these crops have limited their large scale cultivation.

Mining

Traces of gold, diamond, iron ore and clay are known to occur in Lawra District. Some small-scale gold miners commonly called “galamsey” have been operating illegally in the district. However, to understand the full potential of these minerals, more organized prospecting needs to be carried out; and this is currently going on at Tanchara, near Lawra. The challenge will be how investments in mining can bring about development as well as reclaiming and conserving the environment.

Services

Information and Communication Technology (ICT) services could be another potential investment area since such services are currently limited to only two in Lawra District; one in Lawra and the other in Nandom towns. ICT services such as internet are cheaper than telephone and if strategically established by investors near to JHS, SHS, Vocational and other higher

schools could attract a good local market and improve communications within and outside the district.

Utilization of Opportunities and Constraints

In terms of utilization, most of the potential resources have not been well exploited. The utilization of these potentials and associated constraints are discussed in subsequent sections.

Agriculture

Even though the district has competitive advantage in the cultivation of various crops such as groundnuts, cowpea, and mangoes as well as livestock, there are no serious investments in this sector as agriculture is left to small holder farmers who still employ traditional methods of production. Inadequate investments in the agricultural sector so as to modernize the production system as well as the processing and marketing of the various agricultural produce are major challenges limiting the full exploitation of the agricultural potentials. There is also the challenge of obtaining a vast track of land by an investor who will like to go into large scale commercial production, since land holdings are fragmented and owned by different families. To overcome this challenge and ensure that the agricultural promotion in the district is poverty focused, it may be desirable to design a market-based out-grower system whereby an investor supports the various farm families to cultivate their lands with crops that have market demand, such that the produce are bought by the investor for this bigger market. By this arrangement, the

investor will also have to support the out-grower farmers with appropriate technologies and extension education to improve their farming practices and increase productivity. The fact that sorghum production in the district has increased significantly over the years as a result of available market and support from some NGOs demonstrates that farmers are willing and capable of responding to market opportunities by producing any crop or livestock desired by the market.

Tourism

The only attempt in utilizing the tourism potentials in the district are the small drinking bars and restaurants at the Black Volta beach-like area. Due to the low investments in these facilities they are not very attractive to many tourists. Besides, these tourist sites are not developed with tour guides who can conduct tourists around and tell them good stories about each site. Another dimension is the inability of the district to advertise these sites to attract tourists to the area.

Minerals

Despite the various mineral deposits in the district there is only a limited scale prospecting for gold at Tanchara. The main limiting factor is the huge investments required for mining gold and other minerals.

Information Communication Technology (ICT)

There are currently only two internet facilities in the district, which are also unreliable and often out of use. This is a huge

investment potential since many people in the district are interested to keep connected with their relatives and friends in other parts of the country by email or telephone.

- Lack of capital, especially for agricultural ventures.
- Limited publicity about the investment potential of the district.

General Constraints

Some general constraints that were noted in focus group discussion and observations during the 2008 GIMPA Survey that could also hamper the full exploitation of the investment potentials include:

- Poor road conditions and network, including trunk roads to other districts and to the regional capital (Wa).

Many people in the locality do not have the business orientation or entrepreneurial skills to take advantage of these opportunities. Furthermore, due to the limited credit opportunities, access to venture capital is a problem to the effective utilization of the available resources towards poverty reduction. All these constraints have to be addressed as a matter of urgency in order to unleash the potentials of the Lawra District.

Summary and Recommendations

Resources Endowment and Utilization

Lawra district is endowed with a variety of resources which present various potentials for investments and utilization to improve the living conditions of the people. Unfortunately these resources are not utilized effectively as highlighted below.

Natural Resources

The soils and climate in Lawra district are suitable for crops such as groundnuts, cowpea, sorghum and millet. The climate and vegetation also support livestock production, particularly goats and poultry. However these agricultural commodities are produced by subsistence farmers using traditional methods with low productivity.

Even though the Black Volta flows through the district with various tributaries that could be harnessed for irrigation and watering of animals, this has not been done, thus reinforcing the poverty situation of the people who are mostly farmers but have no water to produce during the long dry season (November to May).

The predominant Birimian rock in the district is rich in minerals like iron and gold. But these are not exploited for the development of the area. There is, however, some limited prospecting for gold at Tanchara, a village near Lawra.

Human Resources

The current population of the district is estimated at 101,864 based on projections from the 2000 population census and an annual growth rate of 2.7 per cent. This implies the availability of labour to be tapped in utilization of the natural resources and opportunities. However, many of the highly educated people from the district have migrated out of the district to seek job opportunities elsewhere. Similarly, there is high out-migration of the youthful farmers during the dry season to the southern part of the country in search of additional income or food to supplement the upkeep of their relatives back home. There is therefore a high out-migration of people in the district which tend to deprive the district of some valuable human resource base for development. Nevertheless, remittance from relatives who have migrated out of the district is a major way of coping with life in the district.

Furthermore, the adult literacy rate in Lawra District is estimated (from the household survey) as 19 per cent. This shows a low literacy level of the population which can limit the self-help capacity of the people.

While there is great improvement in the number of children enrolled in basic schools over the years, there is high drop-out rate, thus greatly reducing the numbers that continue to the Junior High School. Furthermore, the transition of school children from Junior High School to Senior High

School or Technical School is low. Consequently there is a growing generation of youth who are less equipped to face life, since they are not well educated and are not also skilled farmers.

In terms of health of the people, infant mortality rate in the district decreased from 3.3 in 2004 to 1.7 in 2007, indicating good progress towards MDG 4, target 5. However, absolute figures from Lawra Health Directorate indicate an increase in maternal mortality from 5 in 2006 to 10 in 2007. This was attributed to the over-reliance of traditional birth attendants who usually delay in referring complicated deliveries to the hospitals.

Malaria continues to be the number one cause of morbidity and mortality in the district, with negative implications for the quality of life of the people. The incidence of HIV/AIDs in the district continues to increase over the years despite the awareness creation. The worrying aspect of this trend is that it is the youthful and most productive segment of the population that is affected.

Poverty Level

The incidence of poverty in the district is high with an estimated per capita daily income to be about \$0.87. This is a far cry from the MDG 1 which seeks to reduce by half the number of people earning less than \$1 a day. There is a chronic food shortage every year between the months of April to June when many households cannot afford 2 meals a day.

Employment Situation

It is estimated that 83 per cent of the Lawra District working population is engaged in subsistence agriculture; while the remaining

17 per cent are distributed in commerce, services, rural industry and government (central and district assembly) employment. Food production is low due to the poor fertility of the soil and unfavourable weather conditions. Most of the youth have to migrate to the southern part of the country every year immediately after harvesting their crops so as to marshal resources for the upkeep of their families during the lean season.

The household survey revealed that 58 per cent of the people are underemployed. Such a high figure may be explained by the fact that the survey was conducted during the dry season when majority of farmers are idle.

Credit Opportunities

Credit opportunities in the district are limited. The total loan portfolio disbursed in the district by the major financial institutions in the district (Ghana Commercial Bank, Nandom and Lawra Rural Banks) for 2008 was GH¢904,855. Much of this credit went into commerce and consumption credit to salaried workers. Agriculture which is the major economic activity and source of employment of the people had very little credit support for 2008. The implication is the low capital investment in this sector, leading to low productivity and deepening of poverty.

Water and Sanitation Situation

Using the number of water points (boreholes and hand-dug wells) it is estimated that water coverage in the district is about 85–90 per cent, which is pretty good, compared to the national coverage of about 55 per cent. However, most of the boreholes and hand-dug wells, which provide water to the people, do have good yield during the long dry season when the water table become deeper.

Sanitation facilities in the district are woefully inadequate, leading to many people defecating in the bush and indulging in unhygienic waste disposal practices.

Recommendations

Based on the findings the following recommendations are made:

- Even though Lawra district is endowed with a variety of resources which present various potentials for investments and utilization to improve the living conditions of the people, these resources are under-utilized. It is therefore desirable for these investment opportunities to be explored seriously in order to promote more rapid development of the district. This may require entrepreneurial education and training such that the people could develop the requisite business orientation and skills to take advantage of these resources.
- Given the success story of sorghum production in the district as a result of available market and necessary support to farmers by some NGOs, there is need to restructure agricultural development in the district to focus on market-stimulated agriculture where the whole value-chain is developed in an integrated manner. The availability of ready market for some agricultural commodities will motivate farmers to respond with increased production and willingness to invest in appropriate technology and improved farming practices.
- The development of irrigation facilities in the district is highly recommended to enable the people engage in dry season farming as well as watering of their animals.
- The district has great potential for animal production, particularly small ruminants and poultry but these have not been developed as the emphasis seems to be on crop production. It is therefore recommended that conscious efforts be given to the promotion of animal production in the district. The animals can then be integrated with crop farming so as to take advantage of circular resource flow from the two farm enterprises. For example, farm yard manure could be generated by introducing crop residue into pens as animal bedding, which could then be further decomposed and applied to crop farms. Similarly, some crop residue like groundnut vines (haulms) could be dried and stored properly as feed to livestock and the droppings of livestock sent back to crop farms. This will require development and introduction of appropriate housing for livestock instead of the current practice of free range. Indeed the livestock production should be addressed in an integrated manner from appropriate housing, feeding, particularly during the dry season, as well as appropriate breeding.
- In view of the reluctance of skilled workers like doctors, nurses and teachers to accept posting to the district, it recommended that the district and indeed government explore avenues of providing incentives to attract such skilled workers to deprived districts.

Appendix 1: Household Survey Questionnaire

Notes for Interviewers:

1. Assign an identification number for each person in the household and maintain the ID number throughout. For each set of questions there are columns for the ID number and the name of the person from whom information is being collected.
2. ID numbers and names of members of households are needed to ensure that consistency is maintained. It is crucial that the characteristics of and information pertaining to individuals are not mixed up.
3. A person is a member of a household if he or she has been sharing food, i.e. “eating out of the same pot” with other members of the household for a period of at least three months. Thus a child of a member of the household who is now married and living away from home is **not a member of the household**, even though he or she may be a member of the family. On the other hand children in boarding school who return to the household during holidays are members of the household.
4. Before the start of the interview inform the members of the household that the information received from them is **confidential**. Information provided by any individual household or person will not be revealed either to any other households or to the District Administration etc.
5. For most of the sections it is expected that the head of the household will be able to provide the necessary information on all members of the household. However where it is clear that the head of the household is in doubt, as tactfully as possible please ask for information from the person whose information is being requested or another knowledgeable member of the household.
6. The questionnaire has fourteen modules-General Information, Structure of the household, Employment, Assets, Health, Maternal Health, Child Health, Education, Adult Literacy, Food availability, Resource Endowment, Household Amenities, Access to Services and a module on political participation.
7. At the start of each module or sub-module it will be indicated which category of household members should answer the question. Even though it is expected that the head of the household would have a fair amount of knowledge about the household members it is expected that for some questions it will be necessary to ask the person directly to ensure accuracy.
8. For some sections of the questionnaire privacy is required, i.e. the individual should respond to the questions separately and not in the presence of other persons. If this is not done the person may either not respond to the question or else give a false answer.
9. At relevant points of the questionnaire explanatory notes will be provided to assist the interviewer.

Thank you for collaborating with us in this important exercise.

Section 1: General Information

1. District Name
2. Enumeration area/code.....
3. Locality
4. Household Number.....
5. Household Address.....
6. Name/Code of Interviewer
7. Date of Interview
8. Time Interview Started
9. Time Interview Ended
10. Name of Supervisor

District	Code
Bole	101
Nanumba North	102
Zabzugu/Tatale	103
Tamale	104
Karaga	105
East Mamprusi	106
Bolgatanga	201
Bawku West	202
Kasena-Nankana	203
Wa	301
Lawra	302
Sissala East	303

Notes: Locality: 1. Urban

2. Semi-urban

3. Rural

Questionnaire Number.....

Section 2: Structure of Household

[Obtain information about all living members of the household]

I.D.	1. Name of person belonging to Household.	2. Sex	3. Age in years	4. Relationship to HH Head	5. What is your marital status?	6. Were you born in this town?
		1. Male 2. Female	(at last birthday); If less than 1 year, Code 0	1. Household Head 2. Spouse 3. Child 4. Adopted child 5. Sibling 6. Parent 7. In-law 8. Other Relative 9. Other (specify)	1. Never married 2. Loose/ informal union 3. Married (monogamous) 4. Married (polygamous) 5. Divorced 6. Separated 10. 7. Widowed	1. Yes 2. No

Section 2 (Cont'd): Structure of Household

[Obtain information about all living members of the household]

I.D.	7. If No, in what year did you move to this town?	8. Why did you move to this town/ village? 1. To work/farm 2. To attend school 3. Came with spouse 4. Came to retire 5. Other (specify)	9. What is your ethnic group? (see table below)	10. What is your religion? 1. Christian 2. Muslim 3. Traditional 4. Other (specify)

Codes for ethnic groups

1. Asante	6. Krobo	11. Dagomba	16. Kusasi	21. Other (<i>specify</i>)...
2. Akwapim	7. Ewe	12. Mamprusi	17. Kassena-Nankani	
3. Fanti	8. Guan	13. Gonja	18. Konkomba	
4. Ga	9. Nzema	14. Grussi/Frafra	19. Nanumba	
5. Dangme	10. Hausa	15. Dagarti	20. Builsa	

Section 3: Employment

I.D.	Name of person belonging to Household	1. Did you do any type of work for pay in cash or in kind, in the last 7 days?	2. Have you been looking for work and been ready for work in the last 7 days?	3. If you are not working why?	4. If you are currently working what economic sector do you work in (main job)?
		1. Yes → q4 2. No	1. Yes 2. No	1. Attend school-ànext section 2. Too old to workàq9 3. Disabledàq9 4. Lost previous job. àq8 5. Cannot find a jobàq8 6. Work is Seasonalàq8 7. Other (specify) àq8	1. Agriculture 2. Fishing 3. Mining & Quarrying 4. Manufacturing 5. Construction 6. Transport/ Storage/ Communication 7. Finance/ Insurance/ Services 8. Utilities 9. Wholesale/Retail trade 10. Community/ Social Services 11. Other (Specify)

[Please administer to household members aged 7 years and over]

Section 3 (Cont'd): Employment

[Please administer to household members aged 7 years and over.]

I.D.	5. What are the problems you face with regard to your work?	6. What is your employment status in your main job?	7. For whom do you work in the main job?	8. If you are not working now, how long have you been without a job?	9. If you are not working how do you support yourself?
	1. Finance 2. Difficult to access land 3. Erratic weather conditions 4. Uncertain demand for output 5. Poor health 6. Inadequate fish catch 7. High cost of inputs (e.g. fuel) 8. Difficulty in marketing products 9. Low price of products 10. Other (specify)	1. Self-employed with employee 2. Self employed without employee 3. Unpaid family worker 4. Casual Worker 5. Regular employee 6. Domestic employees 7. Student/apprentice 8. Other (specify)	1. Public 2. Private formal 3. Private Informal 4. Semi-Public/ Parastatal 5. NGO's/Intl Org 6. Other (specify)	(in weeks)	1. Own savings 2. Pension 3. Remittance from relatives 4. Borrow from family/friends 5. Gifts 6. Credit purchases 7. Depend on spouse 8. Other (specify)

Section 4: Assets of the Household

[Include items only if they are in working condition]

1. Does any member of the household currently own any of the following assets?	Check 1. Yes 2. No	3. Does a female member of the household own any of these assets? 1. Yes 2. No
1. Motor car		
2. Motor bike		
3. Bicycle		
4. Truck		
5. Tractor		
6. Furniture		
7. Sewing machine		
8. Refrigerator/Freezer		
9. Radio		
10. Radio cassette		
11. Television		
12. Video recorder		
13. Electric/Gas Stove		
14. Electric Iron		
15. Electric Fan		
16. Air conditioner		
17. Mobile Telephone		
18. Boat		
19. Canoe		
20. Outboard Motor		
21. House		
22. Land for farming		
23. Other land		
24. Account with financial institution		
25. Shares in a company		
26. Jewellery		
27. Cloth: Dumas, Lace etc		
28. Cattle		
29. Sheep/Goats		
30. Chickens		
31. Non-farm business enterprise		
32. Donkeys		
33. Treasury Bills		
34. GT Feed line		
35. Farm tools		

Section 5: Health

[All Members of the Household]

I.D.	Name of HH Member	1. During the last 3 months did ... suffer from:	2. When ... was ill did ... visit	3. Why did not seek medical attention?	4. Has ... ever been vaccinated against measles?	5. Has ... ever been vaccinated against polio?
		1. Fever/Malaria 2. Diarrhoea 3. Injury/Accident 4. Skin condition 5. Eye/trachoma 6. Ear/nose/throat 7. Coughing 8. Snake bite 9. Blood pressure 10. Stroke 11. Diabetes/Sugar 12. None (go to next section) 13. Other (specify)	1. Private hospital/clinic 2. Public hospital/clinic 3. Community health centre 4. Private doctor/dentist 5. Traditional healer 6. Religious Healing Centre 7. Missionary Hospital 8. Pharmacist/chemical shop 9. Other (specify) 10. None	1. No need 2. Too expensive 3. Too far 4. Other (specify)	1. Yes 2. No	1. Yes 2. No

Question 6: What measures does the household take to prevent malaria?

[Multiple responses allowed]

1. The children sleep in treated bed nets
2. Adults sleep in treated bed nets
3. The house is sprayed regularly
4. The compound is weeded regularly
5. The gutters are cleaned
6. Take anti-malaria tablets regularly
7. Use mosquito coil regularly
8. The windows in house have mosquito nets
9. Other (Specify)
10. Nothing

Section 5 (Cont'd): Health

[All Members of the Household]

I.D.	7. Has ... ever been registered or covered with a health insurance scheme?	8. If ... has never been registered, why?	9. Is ... still registered, or covered?	10. If ... is no longer a member, why?	11. If ... is registered or covered, what type of scheme is he/she registered with now? [check membership card]
	1. Yes, registered → q9 2. Yes, covered → q9 3. No	1. Premium is too high 2. Do not have confidence in operators of the scheme 3. Covered by other avenues 4. No knowledge of any scheme 5. Other (specify)... ..	1. Yes, registered → q11 2. Yes, covered → q11 3. No	1. Premium is too high 2. Do not have confidence in the operators of the scheme 3. Covered by other alternatives 4. Was not getting benefits 5. Other (specify)...	1. District mutual 2. Private mutual 3. Private company 4. Other (specify).....

Section 5 (Cont'd): Health

[All Members of the Household]

I.D.	12. How many times has ... registered with scheme since first registration?	13. What are the expected benefits from the scheme?	14. Does pay all/part of the premium?	15. How much premium has ... paid or expected to pay for the current insurance year?		16. Has ... ever benefited from the scheme?	17. How many times has ... benefited from the scheme since first registration?
		1. Only OPD services 2. Only in-patient services 3. Both	1. All 2. Part 3. Exempted → q15 4. N/A → q15	A. Paid [Cedis]	B. Expected to Pay [Cedis]	1. Yes 2. No	[code 99 if cannot remember]

Section 6: Maternal Health

[This section should be answered by women aged 12-55 years]

I.D.	Name of HH Member	1. Has..... been pregnant in the last 12 months?	2. Did... receive pre-natal care during pregnancy?	3. Did ... have a live birth in the last 12 months?	4. Did receive post-natal care after delivery?	5. Who delivered the child?
		1. Yes 2. No → go to q6	1. Yes 2. No	1. Yes 2. No - Still pregnant 3. No - Lost pregnancy 4. No - Still birth	1. Yes 2. No	1. Doctor 2. Nurse 3. TBA 4. Other

Question 6: How many members of the household died during childbirth in the last twelve months?

Section 7: Child Health

1. In the last 12 months has the household lost any children through death?

1. Yes 2. No

2. Age of Child	3. Number that passed away in the last 12 months	
	Male	Female
a) Before or during childbirth		
b) 0- 12 months		
c) 13 months-2 years		
d) 25 months – 3 years		
e) 37 months – 5 years		

Section 8: Education

[Household Members aged 3 years and above]

I.D.	Name of person belonging to Household aged 3 years and above	1. Does ... currently attend school?	2.If... currently does not attend school, has ever been to school?	3.If yes to q2 what is the highest grade completed?			4.What is the current grade?		5.What is ... mother's highest educational level?	6.What is ... father's highest educational level?
		1. Yes →q4 2. No	1. Yes 2. No → go to next section	01 Pre-school 11 Primary 1 12 Primary 2 13 Primary 3 14 Primary 4 15 Primary 5 16 Primary 6 17 JSS1 18 JSS2 19 JSS3	20 M1 21 M2 22 M3 23 M4 24 SSS1 25 SSS2 26 SSS3 27 S1 28 S2 29 S3	30 S4 31 S5 32 L6 33 U6 41 Voc/Tech 42 Teacher T 43 Nursing 51 Tertiary 52 Koranic 53 Special 54 Agric	01 Pre-school 11 Primary 1 12 Primary 2 13 Primary 3 14 Primary 4 15 Primary 5 16 Primary 6 17 JSS1 18 JSS2 19 JSS3	24 SSS1 25 SSS2 26 SSS3 41 Voc/Tech 42 Teacher T 43 Nursing 51 Tertiary 52 Koranic 53 Special Sch 54 Agric College	[See question 3 for codes] 00 None 99 Don't know	[See question 3 for codes] 00 None 99 Don't know

Section 8 (Cont'd): Education

[Household Members aged 3 years and above]

I.D.	7. During the current academic year, has missed some days at school?	8. How often was not able to attend school?	9. The last time did not go to school, what was the reason?	10. How long has been out of school?	11. Is back in school?	12. Has ever repeated a class?	13. How old was in Primary 1?
	1. Yes 2. No	1. Once 2. Twice 3. Thrice 4. Several times	1. Sickness 2. Needed on farm/shop/home 3. No money to pay fees and other expenses 4. Child not interested 5. Marriage 6. Bad weather 7. Other	(in days)	1. Yes 2. No	Yes 2. No	(in years)

Section 9: Adult Literacy Rates

[Ask of members aged 15 years and above]

I.D.	Name of household member	1. Can ... read and write in English?	2. Can ... read and write in a local language?
		1. Yes 2. No	1. Yes 2. No

Section 10: Availability of Food

[- will elicit information on hunger]

1. How often in the last year did this household have problems satisfying food needs?

1. Never → *go to next section* 2. Seldom 3. Sometimes 4. Often 5. Always

2. If interviewee suffered from the above, does this happen every year? 1. Yes..... 2. No.....

3. Why was there difficulty in satisfying food needs? **[Multiple answers allowed]**

1. An Income earning member of the household died
2. An Income earning member of the household left
3. Additional member joined the household.....
4. An Income earning member of household lost job
5. An income earning member of household is no longer working because of illness.
6. Remittances no longer received
7. Reduction in remittances received
8. Poor harvest
9. Problem with storage
10. Sold most of product right after harvest and did not get a good price
11. Food prices became too high
12. Reduced access to land
13. Other

Household Agriculture

1. If farming is your principal occupation what type(s) of agricultural production unit(s) (farming) are you engaged in? Rank by importance where 1 equals most important

	<i>Rank</i>
Foodcrop	1
Cashcrop	2
Livestock	3
Fish rearing	4
Other (specify)	5

2. Which **Major Crops** do you cultivate? (Use Table 3 to List at most five (5) major crops cultivated)
3. For each of the major crops mentioned, please indicate the plot size, whether inter-planted with other crops and the output.

[illegible]

4. Please indicate the seed type used in planting each of your Major Crops, the source and the price.

[illegible]

Seed Type

Source of seed

1. Traditional
2. Improved (include name)

1. Own seed
2. Market
3. NGO Development Project
4. MOFA (Govt) Development Project

5. Please indicate the types and sources of fertilizer you used on your major crops

[illegible]

Type of Fertilizer Code:	Source of Fertilizer
1. <i>NPK</i>	1. <i>Market</i>
2. <i>SA</i>	2. <i>NGO Development project</i>
3. <i>Urea</i>	3. <i>MoFA (Govt) Dev. project</i>
4. <i>Organic</i>	4. <i>From own animals</i>
5. <i>None</i>	

Appendices and References

6. Please indicate the type of any other agrochemical you used on the crops (including field and storage) as well as the source.

List of Major Crop on which used	Current season (2008)					Last season (2007)				
	Type of agro-chemical (see codes below)	Qty (number)	Unit Price	Source of agrochemical (see code below)	Distance to source (km)	Type of agro-chemical (see codes below)	Qty (number)	Unit Price	Source of agrochemical (see code below)	Distance to source (km)

Type of agro-chemical

1. Field pesticide
2. Weedicides
3. Storage pesticides
4. None

Source of agro-chemical

1. Market
2. NGO Dev. projects
3. MoFA Dev. project
4. Own Extract Prepared
5. Other (Specify)

7. Please, for your Post Harvest Crops (Major crops), what proportion of your harvest do you store and where?

Type of crop	Current season (2008)		Last season (2007)	
	Proportion of Crop Stored (%)	Where do you store the produce (See Code below)	Proportion of Crop Stored (%)	Where do you store the produce (See Code below)

Where stored

1. On Farm barns
2. Off farm barns
3. Under ground
4. Other (Specify)

Appendices and References

8. How many bags/sacks/calabashes, etc of Crop produce did you harvest last season (2008) and at what price did you sell a unit?

Major Crop	Current season (2008)					Last season (2007)				
	Qty Harvested (indicate unit)	Qty Sold (indicate unit)	Month most crop sold	Unit price	Value	Qty Harvested (indicate unit)	Qty Sold (indicate unit)	Month most crop sold	Unit price	Value

Indicate the land preparation technique(s) used by the household

Which of the following land and water management techniques do you practice?

Practice	Is farmer practicing? 1=Yes 2= No	Estimated area of land applied in acres	Number of years farmer has adopted practices
Earth Bonding			
Stone Bonding			
Ridging			
Mounding			
Mulching			
Cover Cropping			
No burn land clearing(cutlass/hoe)			
Zero-tillage(chemical)			
Plough-in vegetative cover			
Ploughing across slopes			
Ridging across slopes			
Apply manure (rate)			
Apply chemical fertilizers (rate)			

Appendices and References

9. (a) Please indicate your Livestock size (numbers). (b) Which of the livestock did farmer start rearing within the last 10 years?

Livestock	Number 2008	Number 2007	Started rearing in last 10 years? 1 = YES 2 = NO
Cattle < 2year			
> 2 year			
Sheep < 1 year			
> 1 year			
Goat < 1 year			
> 1 year			
Donkey < 1year			
> 1 year			
Pigs < 1 year			
> 1 year			
Other(specify)			

10. Please indicate the size of your Poultry enterprise as well as those that the farmer started rearing within the last 10 years.

Poultry	Number 2008	Number 2007	Started rearing in last 10 years? 1 = Yes 2 = No
Chicken			
Duck			
Turkey			
Guinea Fowl			
Pigeon			
Other(specify)			

Appendices and References

13. Please provide information on the ownership of livestock in your household

Livestock type	Current season (2008)		Last season (2007)	
	Number owned by MALE HH members	Number owned by FEMALE HH members	Number owned by MALE HH members	Number owned by FEMALE HH members
Cattle				
Sheep				
Goats				
Guinea Fowl				
Chicken				
Pig				
Turkey				
Ducks				
Donkeys				
Other (specify)				

39. How does your household manage its livestock? Enter all codes that apply. *See code below*

Livestock type	Mode of feeding	Mode of watering	What type of housing	Disease management
1. Cattle				
2. Sheep				
3. Goats				
4. Guinea Fowls				
5. Chicken				
6. Pigs				
7. Turkey				
8. Ducks				
9. Donkeys				
10. Other (specify)				

FEEDING:

1. Free range
2. Cut and feed forage
3. Feed crop residue/ by-product
4. None

WATERING:

1. At home
2. Ponds/dams
3. Streams and rivers
4. Other (specify)
5. Other (specify)

HOUSING

1. None
2. Kraal in house
3. Thatch hut
4. Other (specify)

DISEASE MGT.

1. Self treatment
2. Seek vet. advice
3. None
4. Other (specify)

Appendices and References

13. How many animals (Livestock) did you sell?

Livestock	Units Sold	
	Current season (2008)	Last season (2007)
1. Cattle		
2. Sheep		
3. Goats		
4. Guinea Fowls		
5. Chicken		
6. Pigs		
7. Turkey		
8. Ducks		
9. Donkeys		
10. Other (specify)		

14. Do you do fish farming? 1. YES..... 2. NO.....

15. What percentages of your farm labor use were from the following sources?

Source of labour	Percentage of total labour used	
	Current season (2008)	Last season (2007)
Family		
Hired		
Exchange		
Other (specify)		

16. Credit for farming

Season	Did you borrow money for farming (from any source)? (1) YES (2) NO	If YES, from which source? 1. Formal 2. Informal
Current season (2008)		
Last season (2007)		

Does your household own a woodlot? 1. Yes 2. No

If Yes, indicate when it was established and size of the woodlot. When: Size: acres

Does your household do a collection of sheanut? 1. Yes 2. No

If yes, indicate the quantity and unit selling price for the following season

Season	Quantity collected (bags)	Quantity processed (bags)	Qty sold unprocessed (bags)	Unit selling price for the unprocessed
Current season (2008)				
Last season (2007)				

Appendices and References

Welfare Indicators:

(a) Food availability

How long does the household's harvest of staple crops last?

..... months

During which months does the household experience severe food shortages? Please tick

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

When do you harvest and how long does the following household food staples last in a year:

Household Food staples	Period food crop is harvested (See code below)	Food last till beginning of the Rainy Season	Food last till ending of the Rainy Season	Food last till beginning of the Dry Season	Food last till ending of the Dry Season
Maize					
Cassava					
Yam					
Sorghum					
Millet					
Rice					
Cowpea					
Other (specify)					

Food Harvest period code:

1. Beginning of the Rainy Season 2. Beginning of the Dry Season

Which part (s) of the year do your household consume most the following products?

(Tick all that apply).

	Beginning of the Rainy Season	Beginning of the Dry Season
beef		
mutton		
goat meat		
fresh fish		
smoked fish		
poultry meat		
bush meat		
Eggs		
Other (specify)		

Have made any investments in the last 3 to 5 years?

If yes, what type of investments did you make and how much (GH¢)?

Non-Farm

- Building of a house.....
- Renovation.....
- Education.....
- Training.....

Farm

- Seeds.....
- Fertilizer.....
- Farm tools.....
- Livestock.....

Name any association(s) you belong to.

Do you make any contributions to this association?

If yes, state the amount (GH¢)?

Have you contributed towards any community projects?

If yes, name the project and state the amount (GH¢)?
.....

Have you contributed towards the maintenance of any community projects?

If yes, name the project and state the amount (GH¢)?
.....

Section 12: Household Amenities

1. What kind of toilet facility does the household use?

1. None/beach/bush
2. Flush toilet
3. Pan/bucket
4. Covered pit latrine
5. Uncovered pit latrine
6. KVIP
7. Other

2. How does your household dispose of refuse?

1. Collected by refuse agency
2. Burned by household
3. Public provided dump
4. Dumped elsewhere
5. Buried by household
6. Other (specify).....

3. How does the household dispose of liquid waste?

1. Through the sewerage system
2. Thrown onto the street/outside
3. Thrown in the gutter
4. Thrown into the compound
5. Other.....

4. What is the main source of drinking water for this household?

1. Inside taps in dwelling or compound
2. Public outdoor tap
3. Borehole
4. Protected/Covered well
5. Uncovered well
6. Purchased treated water – tanker, bucket, barrels, sachet
7. River/pond/lake
8. Other (specify).....

5. Does the household or a household member own the dwelling?

1. Owns the dwelling
2. Rents the dwelling
3. Use without paying rent

6. What is the material of the roof of the house?

1. Mud
2. Thatch
3. Wood
4. Metal sheets
5. Cement/concrete

6. Roofing tiles

7. Asbestos

8. Other (specify).....

7. What is the material of the walls of the house?

1. Mud/mud bricks
2. Stone
3. Burnt bricks
4. Cement/sand crete
5. Wood/bamboo
6. Iron sheets
7. Cardboard
8. Other (specify).....

8. What is the main fuel used for cooking?

1. Firewood
2. Charcoal
3. Kerosene oil
4. Electricity
5. Crop residue/saw dust
6. Animal waste
7. Gas
8. Other specify

9. What is the main fuel for lighting?

1. Kerosene/oil/sheabutter
2. Gas
3. Electricity
4. Generator
5. Battery
6. Candle
7. Other specify.....

Section 13: Access to Services

[Please tick appropriate box]

1. How long does it take to reach the nearest facility

2. By what means does one travel?

	Time to reach facility in minutes						By what means?				
	0-14	15-29	30-44	45-59	60+		Vehi- cle	Motor- cycle	Fo- ot	Ani- mal	Canoe/ boat
a. Supply of drinking water											
b. Food market											
c. Public transportation											
d. Primary School											
e. Junior Secondary											
f. Senior Secondary School											
g. Health Clinic or Hospital											
h. Telecommunication facility											
i. Bank											
j. Post office											
k. Police Station											

Section 14a: Political Participation

[Ask of household members aged 18 and over]

I.D.	1. Name of Member of HH aged 18 years and over	2. Did you vote in the last district elections? 1.Yes→go to 4 2.No	3. If No, why did you not vote? 1.Was not registered to vote 2.Was not eligible to vote 3.Was not in the country 4.Do not care to vote because it will have no effect on policies 5.Religious beliefs 6.Ill or injured 7.Other (specify)	4. Did you vote in the last national elections? 1.Yes → go to 6 2.No	5. If No, why did you not vote in the last national elections? 1.Was not registered to vote 2.Was not eligible to vote 3.Was not in the country 4.Do not care to vote because it will have no effect on policy 5.Religious beliefs 6.Ill or injured 7.Other (specify)	6. Have you ever been consulted prior to the start of any community projects? 1. Yes 2. No

Section 14b (Cont'd): Political Participation

[Ask of household members aged 18 and over]

1. Has any member of this household benefited from a community level project 1. Yes 2. No	
2. Has any member of this household benefited from a project of the district assembly? 1. Yes 2. No	
3. Please name the project	
4. Is any member of this household a member of a unit committee? 1. yes 2. no	
5. Does any member of the household know how much money was allocated to the district through the District Assembly Common Fund last year? 1. Yes 2. No	

Annex 2: Guidelines for Focus Group Discussions

1. Economic Activities

Questions

- 1a. What are the major economic activities in this community?
- 1b. Who are the major participants engaged in these activities? (Gender, youth, migrants, indigenes)

2. Governance/Institutions

- 2a. Level of security in the community? (Police protection, watchdog committees, fire volunteers, security of resources, rights of individuals/groups)
- 2b. Level of participation in the community development programmes? (youth, female, males, marginalized groups etc.)
- 2c. Contact with the elected and appointed govt representatives (e.g. district assemblies, MPs, DCEs etc)
- 2d. Access to legal services?

3. Resource Endowments

- 3a. What resources are available to the community? (natural and physical resources e.g.
 - Roads,
 - hospitals,
 - schools,
 - irrigation facilities/dams,
 - rivers,
 - land,
 - forests,
 - community wood lots,
 - protected areas (sacred groves, shrines),
 - reliable rainfall etc.)
- 3b. Who has access to these resources? (physical, financial etc.)
- 3c. How are the resources made available to the people? (timeliness, quality, effectiveness etc.)
- 3d. How are these resources managed?
- 3e. What rights do the traditional rulers/state authorities have over resources in the communities?
- 3f. What are the rules governing the usage of these resources? (e.g. land tenure arrangements, soil fertility regulations etc.)
- 3g. Why do you have these rules? (probe for sustainability)
- 3h. Are there any punitive actions for breaking rules?

4. Investment Opportunities

4a. What opportunities exist for investments in this community?

4b. Which opportunities are being exploited?

4c. Who is investing (e.g. indigenes, migrants, foreigner etc) and in which area(s)?

5. Constraints

5a. What are the constraints to the utiliz

5b. What development challenges face the community?

5c. What actions are being taken by the community to address them?

5d. What actions are taken by the district assembly to address them?

References

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