CONSTITUENCY PROFILE

100

WA EAST CONSTITUENCY

A PUBLICATION OF THE DATA FOR ACCOUNTABILITY PROJECT









Hewlett Foundation

WA EAST CONSTITUENCY PROFILE

© 2021 by African Centre for Parliamentary Affairs

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law.

ISBN: 978 - 9988 - 3 - 2689 - 0

African Centre for Parliamentary Affairs No. AGR/2B, Farmland, Beach Road P.O. Box BC 215, Accra Ghana Tel: +233 30 295 6811 Cell: +233 26 583 7007

Design and layout: Joseph Leslie Quainoo

TABLE OF CONTENTS

Foreword				
Acknowledgement				
Acronyms and Abbreviations				
CHAP	TER ONE	1		
INTRO	DUCTION	1		
1.1	Background	1		
1.2	Purpose of the Constituency Profile	2		
1.3	Background on Constituency	2		
1.3.1	Creation	2		
1.3.2	Climate	3		
1.3.3	Vegetation	3		
1.4	Society and Culture	4		
1.4.1	Ethnicity and Language	4		
1.5	Governance structure	4		
1.5.1	The Traditional Political System	4		
1.5.2	The Modern Political System	4		
1.5.3	Sub-District Structures	5		
1.6	Local economy (Tourism, Economic activities, financial services, etc.)	5		
1.6.1	Tourism	5		
1.7	Organisation of report	6		
CHAP	TER TWO	7		
METH	ODOLOGY	7		
2.1	Introduction	7		
2.2	Criteria for selection	7		
2.3	Data availability	8		
CHAP	TER THREE	9		
DEMC	OGRAPHIC CHARACTERISTICS	9		
3.1	Introduction	9		
3.2	Population size and distribution	9		
3.3	Age – Sex Structure	10		
3.4	Dependency ratio	11		
3.5	Population Projections	12		

CHAP	TER FOUR	13		
KEY T	HEMATIC AREAS	13		
4.1	Introduction	13		
4.2	Health	13		
4.2.1	Health facilities	13		
4.2.2	Health Personnel	14		
4.2.3	Other Health facilities	15		
4.3	Education	23		
4.4	Food and Agriculture	31		
4.4.1	Population in agriculture	31		
4.4.2	Arable land under cultivation	32		
4.4.3	Livestock Rearing	33		
4.5	Water & Sanitation	35		
4.6	Electricity	36		
4.7	Road Network	36		
4.8	Security	37		
4.9	Earth Observation	39		
CHAP	TER FIVE	41		
REVE	NUE, EXPENDITURE AND SDGs BUDGET	41		
5.1	Introduction	41		
5.2	Revenues and expenditures	41		
5.3	Internally generated funds	42		
5.4	Annual budget allocation and releases (2009 - 2019) - District Common Fund	43		
5.5	Others - DDF, etc.	43		
5.6	Budget allocations, releases and expenditure on SDGs	43		
CHAP	TER SIX	50		
SUMM	IARY AND RECOMMENDATIONS	50		
6.1	Introduction	50		
6.2	Summary	50		
6.3	Recommendations	51		
REFERENCES				

FOREWORD

The Constituency Profile Report is the first of its kind coming in the wake of an increased need for evidence-informed decision-making following the adoption of the Sustainable Development Goals (SDGs). Constituencies are well-defined geographical areas from which Members of Parliament are elected. Besides the legislation and oversight roles, Members of Parliament represent their constituents and are expected to lead and advocate the development of these constituencies. This development must be anchored on evidence that is often not readily available in the form and shape that incentivizes its use. All Metropolitan, Municipal and District Assemblies (MMDAs) have medium-term plans and annual work programs that drive their development agenda. The implementation and monitoring of these must be of interest to the Parliament of Ghana for effective representation of the people.

This report provides valuable information on the size, structure, and distribution of the population and socio-economic characteristics of the constituency which provide some insights into the development of the social sector in particular. Indeed, the constituency profile is a singular attempt to provide data to Members of Ghana's Parliament to enable them to monitor the progress of implementation of the SDGs and to advocate more and better alignment of resources for their constituencies.

The Constituency Profile Report mostly relied on administrative data generated by departments of the MMDAs over the period 2009 to 2019. The challenges of administrative data in Ghana notwithstanding, the report is a demonstration of the value these data bring to development planning, monitoring and evaluation. This brings to the fore the urgent need to harness administrative and other non-traditional data sources as the foundational data systems, especially for local government to ensure no one is left behind.

The Ghana Statistical Service, African Center for Parliamentary Affairs, INASP and the other implementing partners are, therefore, delighted to provide data-users, especially Parliamentarians, the Metropolitan, Municipal and District Assemblies, Civil Society Groups and the people of the selected constituencies with this useful report.

Government Statistician
Prof. Samuel Kobina Annim

Executive Director, ACEPA Dr. Rasheed Draman

ACKNOWLEDGEMENT

This maiden profile for the Wa East Constituency would not have been possible without the full collaboration of the Data for Accountability Project Partners and the Leadership of the Parliament of Ghana. The role and time of staff of the various decentralized departments of the Wa East District Assembly who helped us compile the data are acknowledged and appreciated.

We offer special thanks to Sixtus Jeremiah Dery and Nii Odartei Lawson, who collected the data and prepared this report, and to Sylvester Gyamfi for reviewing the data collection templates and the report. We are grateful to Nana Yaw Minta of Ministry of Finance for preparing the budget data, Selaseh Akaho of GSS for the geospatial work, Edward Boamah of Digital Earth Africa for the Earth Observation data analysis and Anthony Amuzu-Pharin of GSS for working on the Census of Agriculture data.

We express our profound gratitude to the Flora and Hewlett Foundation for funding the DAP initiative in Ghana. We are also grateful to the ACEPA team, namely, Agnes Titriku, Issifu Lampo, Fayeda Alidu and Emmanuel Benchie for the support provided during the data collection and report preparation.

We are equally grateful to Omar Seidu of GSS for providing the leadership and general guidance in the preparation of this report, and coordination of the DAP from the GSS.

ACRONYMS AND ABBREVIATIONS

ACEPA	African Centre for Parliamentary Affairs
AIDS	Acquired Immune Deficiency Syndrome
CHPS	Community-based Health Planning Services
DAP	Data for Accountability Project
DCE	District Chief Executive
DDF	District Development Fund
DDFP	District Development Facility Project
DPCU	District Planning and Coordinating Unit
EIPM	Evidence Informed Policy Making
GAR	Gross Attendance Ratio
GER	Gross Enrolment Ratio
GPI	Gender Parity Index
GPRTU	Ghana Private Road Transport Union
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
ICC	Implementation Coordinating Committee
ICT	Information and Communications Technology
IGF	Internally Generated Fund
INASP	International Network for Advancing Science and Policy
ITNs	Insecticide Treated Mosquito Nets
JHS	Junior High School
L.I	Legislative Instrument
MDGs	Millennium Development Goals
MMDAs	Metropolitan Municipal Districts Assemblies
MoFA	Ministry of Food and Agriculture
MTTD	Motor Transport and Traffic Directorate
MUSEC	Municipal Security Committee
NER	Net Enrolment Rate
NRTTFC	National Road Transport and Transit
NSS	National Statistics Service
OPD	Out-patient Department
PHC	Population and Housing Census

VIII | WA EAST CONSTITUENCY PROFILE

SDGs	Sustainable Development Goals
SHS	Senior High School
ТВ	Tuberculosis
TBAs	Traditional Birth Attendants
UNESCO	United Nations Educational, Scientific and Cultural Organization
VNR	Voluntary National Review
WHO	World Health Organization

CHAPTER ONE INTRODUCTION

1.1 Background

Following the progress made under the Millennium Development Goals (MDGs), which shaped development efforts in most developing counties from 2000 to 2015, Ghana joined the rest of the world to adopt the Sustainable Development Goals (SDGs) in September 2015. The SDGs are continuing the fight against extreme poverty whilst addressing the challenges of ensuring equitable development and environmental sustainability. The ability of nations to achieve the SDGs is underpinned by the availability and use of their data systems to understand and inform decisions.

After the adoption of the global indicator framework by the United Nations Statistical Commission in March 2016, the Ghana Statistical Service (GSS), as the coordinating body for the National Statistics System (NSS) in Ghana, in collaboration with the SDGs Implementation Coordinating Committee (ICC) developed a framework to provide the required data and statistics to inform programming and to monitor progress. Consequently, a national SDGs Baseline Report, SDGs Budget Report and a national SDGs reporting platform were launched in 2018. These were followed by a Voluntary National Review (VNR) on SDGs and SDG Budget Reports in 2019.

The Data for Accountability Project (DAP) is being jointly implemented by the African Centre for Parliamentary Affairs (ACEPA), Ghana Statistical Service (GSS) and INASP, with funding from the Hewlett Foundation. DAP is a two-year project that seeks to enhance the use of evidence in parliament, specifically, towards improving the capacity of Ghana's Parliament for monitoring the country's progress on the SDGs. In furtherance of this objective, DAP seeks to achieve the following goals:

- (i) Strengthened systems: Contribute to improvements in policy processes, systems, capacities and incentives that enable ongoing use of evidence in policymaking, and
- (ii) Contribute to the field: Fortify the emerging field of evidence-informed policymaking in Africa.

The key expected outcomes the project aims to work towards include the following:

- Strengthened oversight capacity in two parliamentary committees
- Improved representation capacity in two committees
- Improved collaboration between data producers and parliament
- Shared learning on Evidence Informed Policy Making (EIPM) cultures in Africa.

Traditionally, the main functions of the Ghanaian Parliament are executive oversight, legislation, and constituent representation. Parliament is the supreme forum for the ventilation of grievances aimed at seeking redress. The Member of Parliament (MP) is the communication link between his

constituents and Government. Through parliamentary mechanisms/tools such as question time, statements, motions, debate on policy/bills, among others, an MP has the opportunity to draw attention to developments in his/her constituency and explore avenues for their socio-economic development. For effective representation, MPs need to better understand their constituencies and the people they represent.

1.2 Purpose of the Constituency Profile

Parliament is expected to play a unique role in the achievement of the SDGs as part of their representation and oversight roles. In view of that the Data for Accountability Project is the first focused effort to introduce data for monitoring SDGs to any sub-committee in the Parliament of Ghana. This is expected to help Parliament oversee the implementation of the SDGs in Ghana, by providing the evidence needed to monitor progress and advocate better for their constituencies. The project's goal is to help Parliament improve the quality of life in Ghana by using data to oversee progress towards the SDGs and other national and international development frameworks.

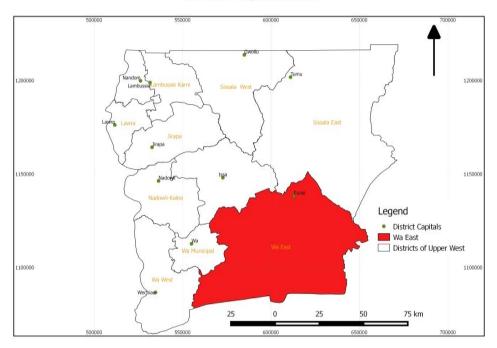
In recent years, the role of parliament and the MPs in particular has come into sharper focus, with varying degrees of perspective from citizens, especially in the area of representation. Often, MPs are overwhelmed by demands from constituents to provide resources for the welfare of individuals and services that ought to be provided through local government. How much of this support is based on evidence on the development trajectory of the constituency? The constituency profile is therefore an attempt to document evidence through time series data analysis to provide background or context to the development needs of constituencies. This is the first attempt to compile time series data from selected sectors for five constituencies to help shed light on the development in those sectors.

1.3 Background on Constituency

This section discusses the creation of the constituency as well as its climate and vegetation. It must be noted that the Wa East Constituency is the same as the Wa East District, and the two designations are used interchangeably.

1.3.1 Creation

The Wa East District was carved out of the former Wa District by Legislative Instrument (L.I) 1746 of July 2004. The district is in the south eastern part of the Upper West Region. Funsi, the district capital, is about 115kilometres (km) from Wa, which is the Regional Capital. The district shares boundaries with Mamprugu Morgduri District to the northwest, West Gonja to Southeast, Wa Municipal to the Southwest, Daffiama-Bussie-Issa and Nadowli-Kaleo Districts to the Northeast, and the Sissala East District to the north, as shown in Figure 1.1. It has a landmass of about 3,196.4km², located between latitudes 9° 55"N and 10° 25"N and longitude 1° 10"W and 2° 5"W. The district covers 17.3% of the total landmass of the Upper West Region (18,478.4Km²).



Wa East in Regional Context

Figure 1.1: Map of Wa East district

1.3.2 Climate

The climate is tropical equatorial, which prevails throughout the northern part of Ghana. Temperatures are high all-year round, reaching their peak of 42°C in March/April. Temperatures are lowest at about 22°C in the Harmattan season, which is characterized by cold, dry dusty winds with occasional haze conditions, occurring from November to April. The district has a single rainfall regime(May-October). The average annual rainfall is about 1,200mm and the rains are torrential, erratic and stormy. The torrential and stormy nature of the rainfall perennially comes with destruction of buildings and farmlands. The single rainfall regime does not also make farming all year round possible, resulting in limited or no alternative livelihood employment avenues. Most farmers therefore become redundant during the long dry season, from November to May.

1.3.3 Vegetation

The vegetation is made up of scattered trees, shrubs and grasses of varying heights. The common trees in the district include shea, baobab, kapok, dawadawa, acacia, neem, ebony, mango and cashew. Annual bush burning, inappropriate farming practices, indiscriminate cutting of trees for lumber, firewood and charcoal, in addition to poor animal husbandry practices have destroyed 30 percent of the natural vegetation. Thus even the few state and community forest reserves and sacred grooves in the district have not been spared. The district is also blessed with the Ambalaara

Forest Reserve, which has various species of animals including antelopes, baboons, monkeys and lions. Nevertheless, the grassy nature of the vegetation is excellent for grazing, which presents a potential for commercial livestock production. Thus, alien Fulani herdsmen are attracted to this area seasonally to graze their cattle. The environmental degradation puts the district at risk of climate change and threats to social cohesion.

1.4 Society and Culture

1.4.1 Ethnicity and Language

There are four major ethnic groups in the district: Wala (45 %), Sissala (21 %), Chakali (19 %) and Dagaaba/Lobi (15 %) along with other minority ethnic groups including Gonjas, Builsas and Fulanis (GSS, 2014). These ethnic groups co-exist peacefully in the district, and such co-existence is a prerequisite for development. The dominant languages spoken in the district are Waale, Chakali and Sissali.

1.5 Governance structure

The governance of the Wa East District consists of both the traditional and the modern political systems. These systems, which ensure effective administration of the district, peacefully operate side-by-side to achieve the district's developmental agenda.

1.5.1 The Traditional Political System

The traditional system has existed since the colonial era and it is still seen as a major development partner. Its main role of assisting in mobilizing local human and material resources for development, and resolving and mediating in conflicts, cannot be underestimated. The district has divisional and sub-divisional seats which resolve conflicts and maintain law and order in the communities. The District also experiences pockets of chieftaincy disputes, which adversely affect the social cohesion, peace and unity required for sustainable development.

1.5.2 The Modern Political System

The modern political system hinges on the Local Government Act (Act 462) of 1993, which makes the Wa East District Assembly the highest political authority in the district. It is charged with the formulation and implementation of development plans, programmes, projects and strategies for sustainable local content development. The Wa East General Assembly, like all the other local assemblies, comprises both elected and appointed members. The Assembly is, therefore, made up of 25 elected and 11 appointed members in addition to the Member of Parliament and the District Chief Executive.

The assembly is led by a Presiding Member who presides over meetings of the Assembly and performs both deliberative and legislative functions. The Assembly has two main committees, namely the Executive Committee and the Complaints and Public Relations Committee. While the DCE chairs the Executive Committee, the Presiding Member chairs the Complaints and Public Relations Committee. The executive committee has five statutory sub-committees:

Development and Planning, Social Services, Works, Finance and Administration, as well as a Security and a Justice Sub-committee. These sub-committees assist the executive committee to perform its functions. All decisions and policies are made by the General Assembly.

The district assembly implements its policies and decisions through the District Assembly's Secretariat, which is usually made up of civil servants. A key unit of the secretariat is the District Planning and Coordinating Unit (DPCU), which is the technical wing of the Assembly in charge of implementing, monitoring and evaluating programmes and projects initiated by the General Assembly. The DPCU is made up of all the decentralized departments which meet quarterly to review activities and plans.

1.5.3 Sub-District Structures

The decentralization policy makes room for grassroot participation of communities through District Assembly sub-structures of Area Councils and Unit Committees. To this end, the Wa East District has two Area Councils and 25 Unit Committees/Electoral Areas. There are, therefore, 25 elected Assembly members and 11 appointed members. Only four of the 26 Assembly members are women with only one elected. The Area Councils are Bulenga and Funsi. While the Funsi Area Council has seven units/electoral areas, the Bulenga Area Council is made up of 18 units/ electoral areas. The current local government reform, which seeks to make each electoral area conterminous with a unit committee, is in the right direction, if implemented. This will afford the district with five area councils instead of the current two which makes it difficult to efficiently and effectively manage the district.

1.6 Local economy (Tourism, Economic activities, financial services, etc.)

The local economy of an area is a critical contributor to its development. It consists of the day-today market and networking systems that are part of a specific community. The interactions and interrelationships generate a better understanding of the needs and demands of the community and leads to a higher level of social capital.

1.6.1 Tourism

Tourism in the district is not only undeveloped but also neglected as an avenue for wealth creation and poverty reduction. The district abounds in potential tourist sites which include: a waterfall at Gbantala, artistic rocks, shrines, caves at Bulenga, Belekpong, Duccie, and the Babatu and Samori caves. The famous Mole National Park also stretches to the south-eastern part of the district and the Ambalaara Forest Reserve has various species of wild life such as elephants, antelopes, monkeys, lions, tigers, chimpanzees, leopards, and warthogs. These potential tourist sites could be developed into important sectors of the local economy. The existing tourism industry is bedeviled with poor documentation and lack of promotion of tourist sites.

There is only one rural bank in the district and a credit union operating in the district capital. The culture of saving and that of banking, especially among farmers, petty traders and other informal

sector employees, are virtually non-existent. However, with the establishment of the rural bank, savings are gradually gathering momentum.

1.7 Organisation of report

The report is organised into six chapters. Chapter One deals with the introduction of the report. This chapter looks at the background of the constituency and its characteristics. The methodology is presented in Chapter Two and highlights the selection of the constituencies, data collection and analysis. Chapter Three focuses on demographic characteristics of the constituency, specifically the estimated population, its structure and distribution as well as dependency ratio. Chapter Four is devoted to thematic areas such as health, education, agriculture, water and sanitation, electricity, road network and security. Geospatial information is also included for selected indicators. Revenue performance and expenditure are discussed in Chapter Five. The chapter deals with revenues from Common Fund, Internal Generated Fund and other sources as well as annual budgetary allocation and releases. The chapter further highlights the constituency's budgets allocation and expenditure on the SDGs while Chapter Six presents the summary and recommendations.

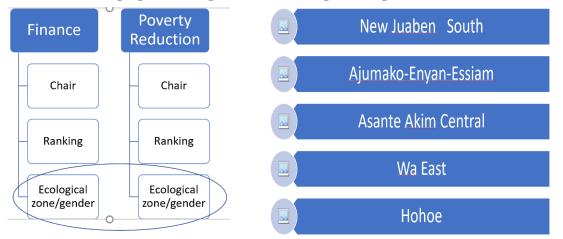
CHAPTER TWO METHODOLOGY

2.1 Introduction

Ghana has a unicameral Legislature composed of 275 Members of Parliament from singlemember constituencies with an Executive President. Out of the 275 constituencies, five were selected for the Data for Accountability Project's constituency profiles. This chapter provides an overview of the selection of constituencies and how data were compiled for the publication.

2.2 Criteria for selection

The Data for Accountability Project targeted the constituencies of members of two subcommittees of the 7th Parliament of Ghana. These were the Finance Committee and the Committee on Poverty Reduction. To ensure fairness in the selection process, the project team used a criterion of proportional representation of the parties in parliament.



For the Finance Committee, including the chair and ranking members, were selected and a third member in the forest ecological zone was included. Regarding the Committee on Poverty Reduction, both the chair and the ranking member were from the Savannah ecological zone (Upper West and East respectively) The team therefore dropped the constituency of the ranking member and selected another from within the political party of the ranking member, whose MP was a female. The constituencies selected for the project were: New Juaben South in the Eastern Region, Ajumako-Enyan-Essiam in the Central Region and Asante Akim Central in the Ashanti Region. The rest were Wa East in the Upper West Region and Hohoe in the Volta Region. All five selected constituencies were in alignment with their districts which are the planning authorities, therefore making it easy for data compilation.

Method of data compilation

The project focused on compiling data on key selected sectors of the Metropolitan, Municipal and District Assemblies (MMDAs) based on data availability. To ensure consistency across all five districts/constituencies data templates were developed for the selected sectors to guide data collection. A series of review sessions and an orientation was provided for a team from GSS staff that led the data collection. Data for the preparation of the report were basically secondary/ administrative data covering a ten-year period from 2009 to 2019. Where data was available for the year 2020, it was also included. This offered an opportunity to analyse trends on key issues of interest.

2.3 Data availability

Generally, data was available for most districts but was not well disaggregated in the format needed. All the departments had some data but not for all the variables needed.

For the Wa East Constituency however, data was available for most of the selected departments, but not well disaggregated in the format needed. The data requested was for the period 2009 to 2020. However, not all the departments were able to provide data for all the years required, while others could only provide an aggregated data for the period. This made it difficult to have a trend analysis of the indicators involved. Again, data collection for most departments was delayed, because most of the decentralized departments for the constituency were sited outside the district capital and in some cases, they depended on the regional office for data. In fact, in a few cases, some departments were reluctant to provide information, and this contributed to the overall delay in data collection. In all, 13 departments were consulted for data.

CHAPTER THREE DEMOGRAPHIC CHARACTERISTICS

3.1 Introduction

Population composition is a demographic snapshot of a population based on the birth rate, migration and mortality. Population composition or characteristics can be represented in diverse ways, such as age and sex distribution, population size, composition and age-sex structure are critical in understanding the components of the population. It also helps to understand the variations and changes in fertility, mortality and migration dynamics of any country. The age-sex structure are useful for population projections. A country's population composition, for example, greatly influences its needs and wellbeing. The objective of this chapter is to analyse the size, composition, distribution, age-sex structure and sex ratio of the population of Wa East constituency based on the 2019 projected population.

3.2 Population size and distribution

Age and sex are the most basic characteristics of a given population. Every population has a different age and sex composition signifying the number and proportions of males and females in each age group. This structure can have considerable impact on the population's current and future social and economic situation (PRB's Population Handbook, 2011).

The 2020 projected population of Wa East Constituency stood at 89,182, an increase of about 25% from the 2010 population of 71,483 (Table 3.2.1). The population is made up of 43,880 males (49.2%) and 45302 females (50.8%).

	2010 (actual)			2020 (estimated)				
Age	Both	Sexes	Male	Female	Both Sexes		Male	Female
groups	Number	Percent	Number	Number	Number	Percent	Number	Number
All Ages	71483	100.0	36078	35405	89182	100.0	43880	45302
0-4	12055	16.9	6196	5859	14823	16.6	7379	7444
5-9	12141	17.0	6283	5858	14901	16.7	7462	7439
10-14	9402	13.2	5076	4326	10460	11.7	5521	4939
15-19	7204	10.1	4046	3158	8401	9.4	4612	3789
20-24	4782	6.7	2308	2474	5778	6.5	2869	2909
25-29	4782	6.7	2093	2689	5779	6.5	2642	3137
30-34	4232	5.9	1871	2361	5541	6.2	2426	3115
35-39	3695	5.2	1778	1917	4976	5.6	2314	2662
40-44	3115	4.4	1463	1652	4253	4.8	1880	2373
45-49	2425	3.4	1153	1272	3513	3.9	1569	1944
50-54	2067	2.9	1010	1057	2730	3.1	1288	1442
55-59	1097	1.5	581	516	1854	2.1	912	942
60-64	1628	2.3	750	878	2307	2.6	1016	1291
65-69	764	1.1	408	356	1322	1.5	687	635
70-74	961	1.3	483	478	962	1.1	499	463
75-79	698	1.0	342	356	787	0.9	379	408
80+	435	0.6	237	198	795	0.9	425	370

Table 3.2.1: Population distribution (2010 - 2020)

3.3 Age - Sex Structure

A population pyramid is a graphical illustration of the distribution of the age-sex structure in a population. The shape of the pyramid is influenced by the levels of fertility, mortality and migration. The broadness of the base is determined by the level of fertility, while the narrow apex is determined by mortality and to some extent, migration. This type of pyramid normally depicts the age-sex population structure of a developing country.

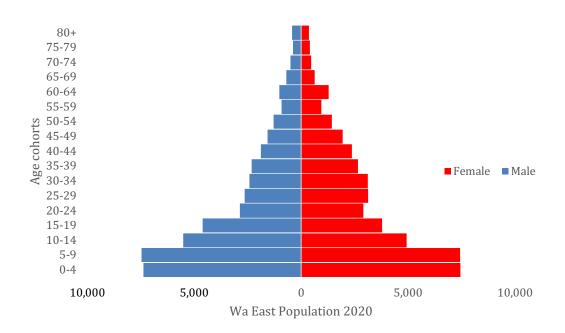


Figure 3.3.1: Population pyramid of Wa East district

Figure 3.3.1 illustrates the age-sex structure of the population of Wa East. The broad base of the pyramid depicts a younger population consisting of large numbers of children, while the narrow apex signifies a small older population. This has implications for the economic development of the district. It is interesting to note that from age 20-24, there is a sharp decline of the male population compared to the population 10-19 years. This is likely to be the result of out-migration of young adults to other parts of the country.

3.4 Dependency ratio

The age-dependency ratio is the ratio of the dependent-age population (those under age 15 and above age64 years) to the working-age population (15 to 64 years). The age-dependency ratio is often used as an indicator of economic burden that the productive portion of a population must carry. Countries with very high birth rates usually have the highest age-dependency ratios because of the large proportion of children in the population. The higher the dependency ratio, the more individuals a potential worker in the working class is assumed to be supporting and vice-versa.

Table 3.4.1 shows the age dependency ratio for the constituency to be 104.1. This means that 104 persons in the inactive population group (child 0-15years and old age 65+ years) are dependent on 100 persons in the active population group (population between 15 and 64 years). This represents an increase on the 2010 dependency ratio of 97.6, which means the working population group are more overburdened in 2020 compared with 2010, since one person in the active group takes care of more persons in the inactive population.

12 | WA EAST CONSTITUENCY PROFILE

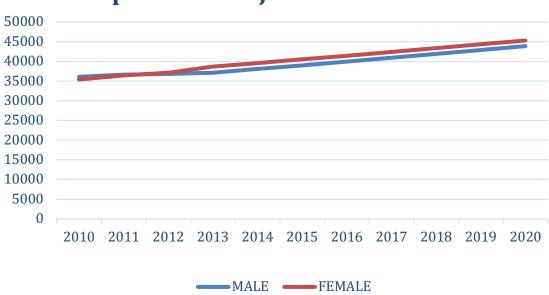
Age group/ratio	2010	2020
All ages	71483	89182
0-14	33598	40184
15-64	35027	45132
65+	2858	3866
Total dependency ratio	97.6	104.1
Child dependency ratio	89	95.9
Old age dependency ratio	8.6	8.1

Table 3.4.1: Age dependency ratio

3.5 **Population Projections**

Population projection gives a picture of what the future size and structure of the population by sex and age might look like. It is based on knowledge of the past trends and is used to predict future trends based on assumptions made for three components: fertility, mortality and migration. Population projection is important to policy-makers, governments and researchers, because it helps in planning for the future. Population projections are useful in estimating the basic needs of the human population, such as demand for food, water, power, transportation, schools, etc.

Figure 3.5.1 shows the population projection of the Wa East constituency with the base year being 2010 PHC. From the graph it is seen that the population of the constituency increased steadily over the years. The figure shows that the population of males was marginally higher than females in 2010, but from 2013the population of females surpassed that of males.



Population Projection 2010 - 2020

Figure 3.5.1: Population projection

CHAPTER FOUR **KEY THEMATIC AREAS**

4.1 Introduction

Key thematic areas such as health, education, food and agriculture, water and sanitation, electricity, the road network, as well as issues of security in the constituency are discussed in this chapter. The chapter also presents geospatial information on the constituency.

4.2 Health

Health is defined by the World Health Organization (WHO) as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, and political belief, economic or social condition. This is clearly articulated in SDG goal 3: "To ensure healthy lives and promote well-being for all at all ages". The achievements of a country in the promotion and protection of health is of value to all. Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social facilities. In the Wa East constituency much has happened in terms of provision of proper healthcare delivery over the years. A number of health facilities available for the provision of health care delivery to the people of the constituency have been detailed below.

4.2.1 Health facilities

Most health services are provided in hospitals, clinics and medical centers run either by the government or the private sector. Health facilities play a very significant role in the treatment of diseases and mitigation of disasters because of their particular function of treating illnesses and injuries, and of handling outbreaks of diseases.

The Wa East constituency, as of 2020, had no hospital. From 2009 to 2019, the constituency had only three private health centers. However, the constituency's first public health centres were established in 2012 with the initial four health centres increasing to seven by 2019.

Health delivery in most parts of the district is through the Community-Based Health Planning and Services (CHPS). In the structure of the Ghana Health Service health care delivery system, the CHPS Compound is the lowest level of health care delivery. The CHPS is an initiative for reorienting and relocating primary health care from sub-district health centres to convenient community locations. Figure 4.2.2 shows the number of CHPS compounds in the constituency. In 2009, the constituency had a total of 11 CHPS compounds and this increased to 32 CHPS compounds in 2019, representing an increase of 190% over 2009. All the CHPS compounds are public facilities.

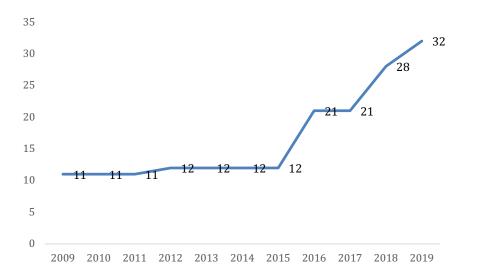


Figure 4.2.2: Number of CHPS compounds in the Wa East district

4.2.2 Health Personnel

Health professionals play a central and critical role in improving access to and quality of healthcare for the population. They provide essential services that promote health and prevent diseases. They also deliver health-care services to individuals, families and communities based on the primary health-care approach. Figure 4.2.3 shows the number of physicians, midwives and nurses in the Wa East constituency. The data covers only health personnel in public health facilities. Data for the three private health facilities was not available at the time of data compilation. The number of health personnel has increased over the years, from a total of 44 physicians, midwives and nurses in the year 2010 to 166 in 2019. However, the increase seems to have stalled after 2017 with only a slight decrease.

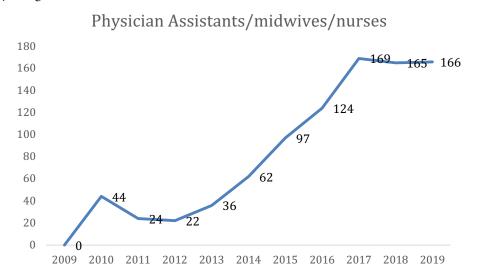


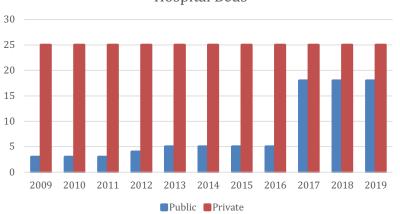
Figure 4.2.3: Number of physicians, midwives and nurses in public facilities

4.2.3 Other Health facilities

In addition to health facilities and personnel, health-care equipment and facilities such as beds, pharmacies ambulances are critical in the health-care delivery chain. This section discusses the availability of hospital beds, pharmacies and ambulances at our health centers and hospitals.

Hospital Beds

The total number of beds in the constituency stood at 43 as of 2019, of which 25 were located in the 3 private health facilities, while only 18 beds were in the 7 public health centers in the district. These beds were patently inadequate to serve the over 87,000 people in the constituency (Figure 4.2.4). The threshold recommended by WHO is 18 beds per 10,000 population, excluding maternity and delivery beds.



Hospital Beds

Figure 4.2.4: Number of hospital beds in Wa East constituency

Pharmacy

Figure 4.2.5 shows that the constituency had no pharmacy in any of the health facilities until 2012 when 2 pharmacies each in the private and public health sectors were opened. This number remained the same till 2019.



Health facilities with a Pharmacy

Figure 4.2.5: Number of health facilities with a pharmacy

Availability of Ambulances

The availability of ambulance services at health facilities is critical for ensuring effective and efficient delivery of emergency services. Currently there is only one ambulance serving the entire constituency and until the one-constituency one-ambulance programme there was no ambulance after the last one was decommissioned in 2015.

Nurse-patient ratio

The importance of an adequate number of nurses for the delivery of high-quality patient care cannot be underestimated. The World Health Organization (WHO) recommends a nurse-to-patient ratio of 1:4. Inadequate numbers and poor distribution of health workers have been identified as crucial challenges for the health-care delivery system, particularly in rural areas. The nurse-to-patient ratio in the Wa East Constituency has improved from 1:820 in 2015 to one nurse to 525 patients in 2019 (Figure 4.2.6).

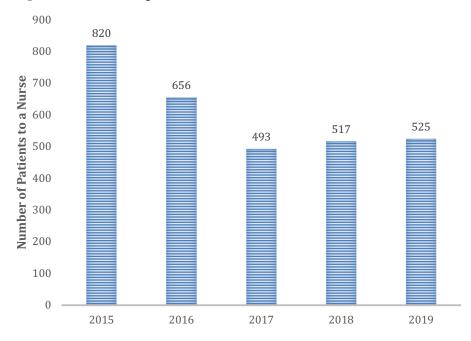


Figure 4.2.6: Nurse-patient ratio

Access and use of health care during pregnancy

Figure 4.2.6 presents the number of women who had access and used health-care during their pregnancy in the Wa East. Generally, eight or nine pregnant women out of every 10 used antennal services, which is very encouraging.

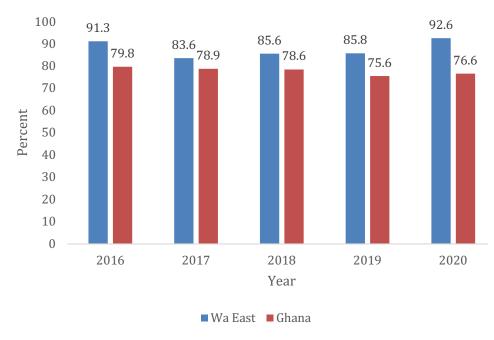


Figure 4.2.6: Antenatal coverage

Accredited professionals trained to conduct deliveries

Skilled delivery is an important determinant of maternal and child survival. Figure 4.2.7 shows that only half of deliveries in the constituency are attended to by an accredited professional. While some progress has been made this still does not bring the situation on par with the national average.



Figure 4.2.7: Deliveries attended to by accredited professionals

Birth Attendance

The recommendation that skilled birth attendants should support all births has been universally acknowledged. Skilled attendance during pregnancy, childbirth, and postpartum is among the most critical interventions for improving maternal and neonatal survival (WHO, 2012).

The percentage of births attended to by skilled health personnel in the constituency has improved over the years, from 27.3 percent in 2009 to 52.2 percent in 2019. Conversely, there has been a significant reduction in the number of deliveries attended to by Traditional Birth Attendants (TBAs) from 46.1 percent in 2009 to 8.4 percent in 2019. A worrying trend is the increasing number of births being attended to by neither health personnel nor TBAs. Figure 4.2.8 presents this worrying trend increase from about a quarter (26.6%) in 2015 to almost 40 percent in 2019. This puts mothers and babies at risk before, during and after child birth.

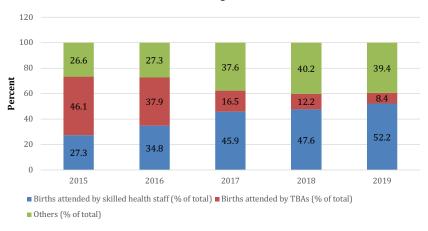


Figure 4.2.8: Birth attendance by type of personnel

OPD attendee insurance

The percentage of out-patients with valid health insurance declined from about 85 percent in 2016 to 71 percent in 2020. ,

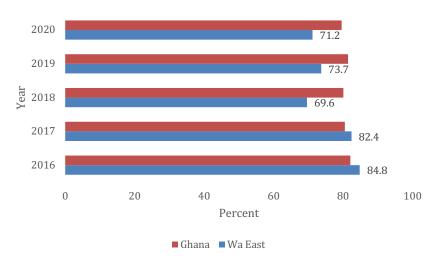


Figure 4.2.9: Percentage of out-patients with valid health insurance

Teenage Pregnancies among antenatal attendees

Figure 4.2.10 shows teenage pregnancies among ANC attendees in Wa East Constituency. Nearly one out of every five pregnant women who attended ANC were teenagers. This situation remained constant over a period of five years. It means that for every 100 ANC attendees there were 17 to 18 pregnant teenagers amongst them.

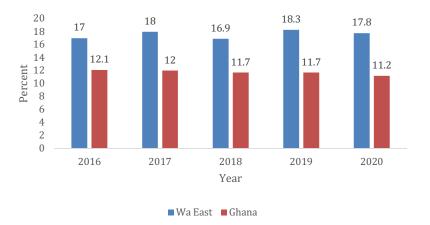


Figure 4.2.10: Teenage pregnancy among ANC attendees

Vaccinations

Vaccinations not only protect children from deadly diseases, such as polio, tetanus, and diphtheria, but they also keep them safe by eliminating or greatly decreasing the spread of infectious diseases. Figure 4.2.11 shows childhood immunization for measles. Childhood immunization for measles saw some improvements from 2015 and peaked at 71.6 percent of children 12-23 months old in 2017 and has since been on the decline (Figure 4.2.11). If similar patterns exist for other childhood immunizations, then immediate steps need to be taken to address the situation.

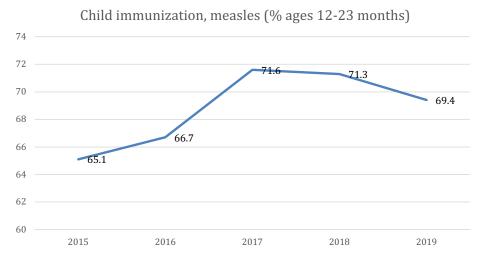


Figure 4.2.11: Child immunization for measles (% aged 12-23 months)

The number of children below one year who successfully received Penta 3 Vaccination

Similar to the trend in measles vaccination, Penta3 vaccination declined to its lowest point in 2018 and started picking up again (Figure 4.2.12).

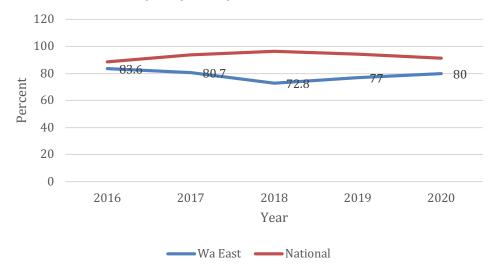


Figure 4.2.12: Penta3 coverage for infants under one year

Use of insecticide-treated mosquito nets (ITNs)

The use of treated mosquito nets as a measure to reduce malaria infections in the country has been adopted by the Ghana Health Service. As a result, many policies have been formulated to increase the distribution and use of insecticide-treated nets. Figure 4.2.13 shows a rather erratic pattern of use of ITNs for children under five years. Except in 2017, less than half of children under 5 years slept under treated mosquito nets in the constituency.

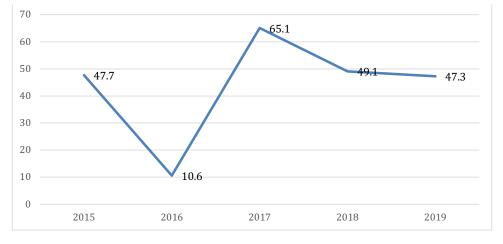


Figure 4.2.13: Percentage of children under 5 years sleeping under treated nets

HIV Prevalence

Prevalence measures the frequency of existing disease in a defined population at a specific time. HIV-prevalence in the Wa East Constituency over the years increased from one in every 1,000 persons in 2015 to two persons per 1,000 population in 2019 with a peak of 0.05 percent or five in every 1,000 persons in 2018 (Figure 4.2.14).

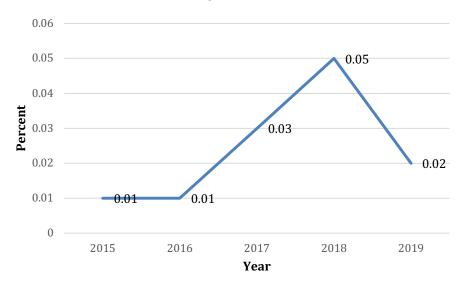


Figure 4.2.14: HIV prevalence rate for persons aged 15-49 years

Number of HIV positive patients screened for tuberculosis

All persons who are positive for HIV are as well tested for tuberculosis (TB). About 16 percent of those tested for TB in 2019 were positive, which is far above the national prevalence (Figure 4.2.15).

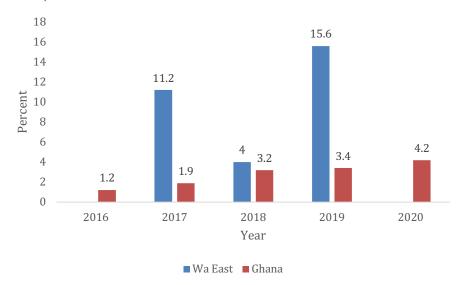


Figure 4.2.15: Number of HIV positive patients screened for TB

Institutional Maternal Mortality Ratio

Data on institutional maternal deaths were only available for the year 2019. The numbers obtained were below the national average of 118 maternal deaths per 100,000 live births. The unavailability of data for other years does not imply non-occurrence.

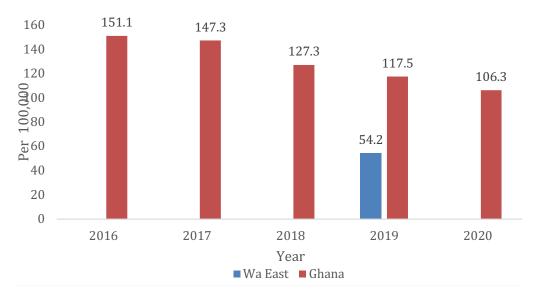


Figure 4.2.16: Institutional maternal mortality

The still-births rate

A still birth occurs when a baby does not show any sign of life at the time of birth, which indicates that it was not alive at birth. The rate of still-births has consistently been high in the constituency relative to the national prevalence of about one still birth in every 1,000 births.

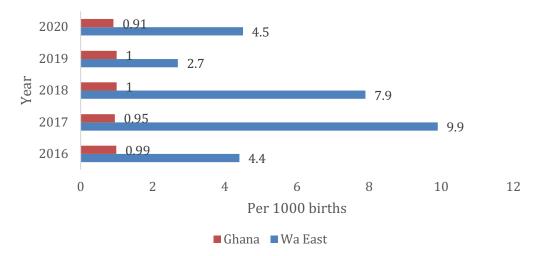
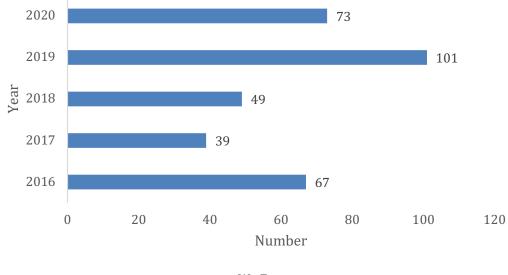


Figure 4.2.17: Number of deliveries that do not show any sign of life per every 1000 births

Anaemia in pregnancy

Figure 4.2.18 indicates that the number of cases of anaemia in pregnancy in the district has been high especially in 2019 and 2020.

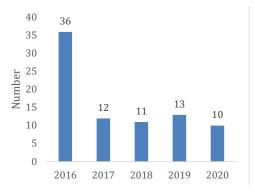


Wa East

Figure 4.2.18: Anaemia in pregnancy

Hypertension and Diabetes Mellitus

The reported cases of hypertension and diabetes in the constituency over a period of five years (2016-2020) are shown in Figures 4.2.20/21. While hypertension cases increased, diabetes saw some decline.



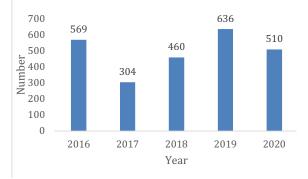


Figure 4.2.19: Annual reported diabetes case cases

Figure 4.2.20 Annual reported hypertension

4.3 Education

The data on education in the constituency cover areas such as number of schools, number of trained teachers, number of pupils enrolled and access to basic facilities such as library, laboratories and toilets.

In 2009, there were 38 kindergartens, 63 primaries schools and 26 junior high schools in the constituency but no senior high school. As of 2019, these numbers increased to 67 kindergartens, 75 primary schools, 54 junior high schools and 2 senior high schools. The number of schools at all levels has increased over the 10-year period, with significant increases in kindergartens and junior high schools as seen in Figure 4.3.1. The constituency had its first senior high school in 2014.

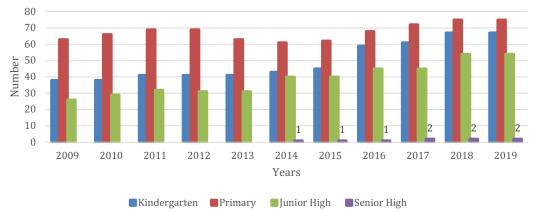


Figure 4.3.1: Number of schools

Trained teachers

In general, from 2009 to 2019 the proportion of trained teachers in all levels of education increased. In 2019, over 80 percent of the total number of teachers in the constituency were trained teachers compared with 2009 when the constituency had only 10.7 percent of kindergarten, 22.2 percent of primary school and 52.6 percent for Junior High School teachers of trained teachers (Figure 4.3.2).

It can also be observed that, from 2014 when the first senior high school was established, the number of trained teachers increased from 50 to 69.6 percent and 100 percent in 2016. This continued till there was a slight decrease in 2019.

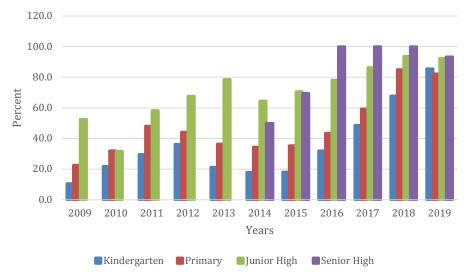


Figure 4.3.2: Proportion of trained teachers

Gross enrolment and admission rates

In this section gross and net enrolment rates are discussed. Pre-primary education programmes in Ghana are targeted at children aged 4 years while the age range for primary education is from 6 to 11 years, and Junior High School from 12 to 14 years. The gross enrolment rate at kindergarten experienced a huge increase from 54.3 percent in 2009 to 143 percent in 2019, with a peak of 154 percent in 2018 (Figure 4.3.3). Similarly, the primary schools' gross enrolment increased from 80 percent in 2009 to 112 percent in 2017 and then declined marginally to about a 100 percent in 2019. In the case of junior high and senior high schools, enrolment was not encouraging. The constituency has not seen corresponding increases in junior high school gross enrolment rates within the period. GER in 2009 was about 37 percent, increased to about 50 percent in 2011, and has since stalled, ending at about 56 percent in 2019. This situation raises some concern as especially the primary school completion rate remains above 80 percent. Senior high school enrolment was very low and consistently below 15 percent from 2016, two years after the establishment of the first senior high school in the constituency.

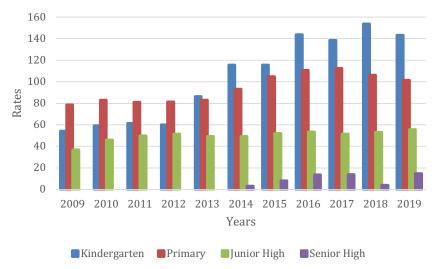


Figure 4.3.3: Gross enrolment rate

Net enrolment by sex

The net enrolment rate is the number of children of the school going age of a particular level of education that are enrolled in that level of education, expressed as a percentage of the total population in that age group. Net enrolment rates for the primary levels are relatively higher compared with net enrolment rates at the junior high and senior high levels. In 2014/2015, net enrolment rates at primary levels were 84 and 86 percent for boys and girls, respectively. These rates had increased over 83 percent from 2014/2015 to 2018/2019 for both sexes at the primary level (Figure 4.3.4). However, net enrolment rates for junior high schools remain low in the constituency, ranging from 19 percent and 18 percent for boys and girls respectively in 2014/2015 to about 28 percent and 33 percent in 2019/2020. The NER at the senior high school level is even worse and was below 20 percent for both sexes in 2014/2015 and below 34 percent in both sexes in 2019/2020, which calls for immediate action.

26 | WA EAST CONSTITUENCY PROFILE

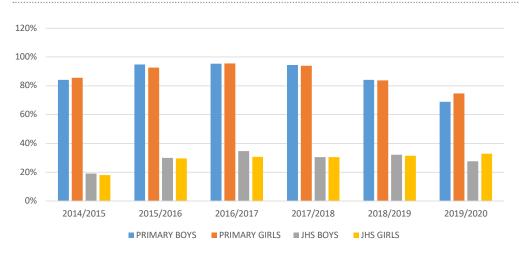


Figure 4.3.4: Net enrolment rate by sex

Net Admission Rate

The net admission rate is the number of children of school going age at a particular level of education who are enrolled in that level of education, expressed as a percentage of the total population in that age group. Net admission rates for the primary levels are relatively higher compared with net admission rates at the junior high and senior high levels

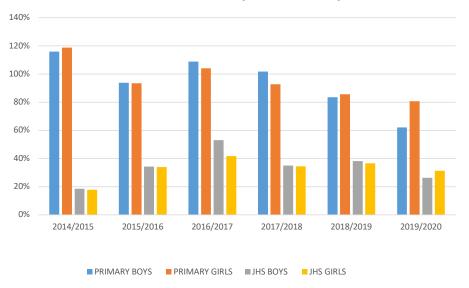


Figure 4.3.5: Net admission rate by sex

BECE Core Subjects

Figure 4.3.6 shows the performance of school children in the BECE core subjects in the district. The best-performing core subject has been Mathematics with the worst being English. Social Studies saw great improvements from 2017 to 2020.

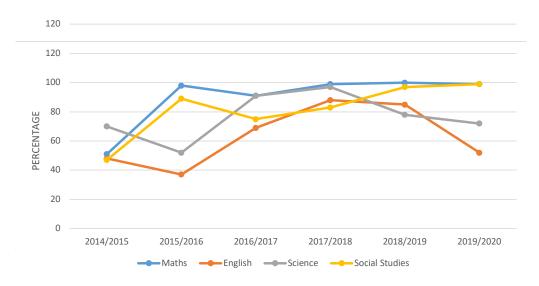


Figure 4.3.6: Core BECE subjects Passed

Completion Rate

Completion rates tended to decrease as the pupils moved to a higher level. In other words, the completion rate is very high at the primary level compared with junior high. For instance, in 2014, about 73 percent and 69 percent of the boys and girls respectively completed primary school, but only 50 percent and 35 percent respectively were able to complete junior high school. In all years except the 2019/2020 academic year, more boys than girls completed JHS (Figure 4.3.7).

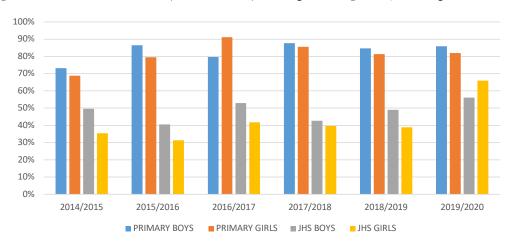


Figure 4.3.7: Completion rate by sex

Gender Parity Index

Gender parity in education at a particular level is the ratio of girls to boys at that level. A value of one indicates parity between the two groups. Generally, the ratio of girls to boys at the primary level clusters around parity, ranging from 0.98 to 1.08. This signifies an almost equal enrolment between girls and boys at the primary level with 8 percent more boys than girls in the 2019/2020

academic year. At the junior high school (JHS) level more boys than girls are enrolled and in the 2019/2020 academic year. There were 16 percent more boys than girls in JHS.

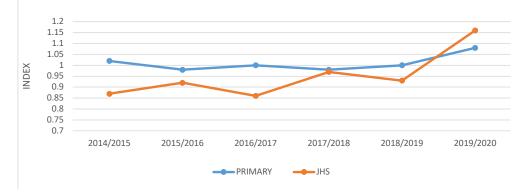


Figure 4.3.8: Gender parity

Pupil/Student-teacher ratio

The pupil-to-teacher ratio is the number of pupils enrolled in a particular level divided by the number of teachers in that level (regardless of their teaching assignment). A low pupil-to-teacher ratio is an indication of a small class size and means a teacher has fewer pupils to manage in class. From Figure 4.3.9, the pupil-to-teacher ratio in kindergartens was 55 pupils to a teacher in 2009. In 2014, the number rose to 90 pupils to a teacher in kindergartens and as of 2019 it was about 80 pupils to one teacher. At the primary level, the ratio was 80 pupils to a teacher in 2013 but dropped to about 33 in 2014, and subsequently remained at 36 until 2019. The pupil-to-teacher ratio in the junior high schools was fairly stable and was around 15 pupils to a teacher from 2009 to 2019.

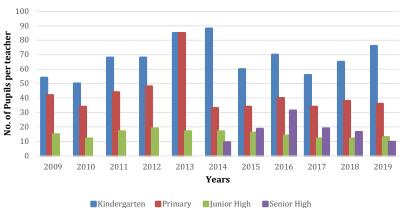


Figure 4.3.9: Pupil-to-teacher ratio

Pupil-to-textbook ratio

The pupil-to-textbook ratio refers to the number of textbooks per pupil provided by the school during the reporting period. The ideal pupil-to-textbook would be 1:2 (0.5 or 50%). However, anything less (example 1:10 or 10%) makes learning very challenging. From 2009 to 2019, pupil-

to-textbook ratio for primary and junior high schools has improved, decreasing from a high rate 1.5 for primary and 2.1 for JHS, to about 0.3 and 0.2 for primary and JHS respectively. However, that of senior high school (SHS) has increased over the years from 0.1 in 2017 to 1.8 in 2019 (Figure 4.3.10).

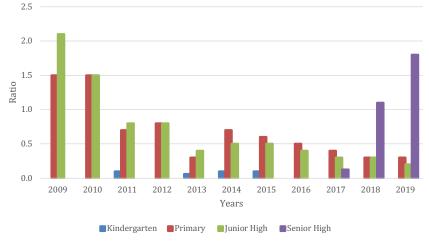


Figure 4.3.10: Pupil to textbook ratio

Average classroom density

Average classroom density in kindergartens for the year 2009 was 140 pupils in a class. This was very high and seemed to be a general trend at the kindergarten level throughout the 10-year period even though there was a slight drop to 120 in a class in 2013, according to figure 4.3.11 below. There were about 40 pupils in each class at the primary level and that was quite consistent through to 2019. Generally, the number of pupils in a class at the JHS and SHS levels is lower as compared to that of kindergarten and primary levels.

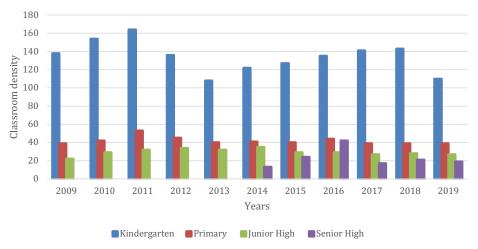


Figure 4.3.11: Average classroom density

Schools' access to basic social amenities

This section focuses on schools' access to basic social amenities such as potable water, electricity and toilet facilities. Between 2009 and 2014, only about 20 percent of the schools had access to potable water. From 2014 to 2019, all the senior high schools had access to potable water but a majority of kindergarten, primary and junior high schools had relatively less access to potable water within that same period as shown in figure 4.3.12.

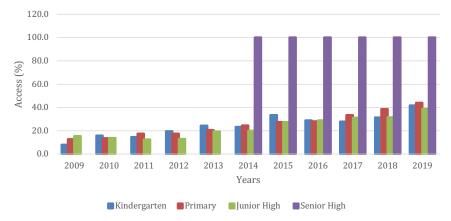


Figure 4.3.12: Percentage of schools with access to potable water

Figure 4.3.13 shows that as of 2019, all the senior high schools had access to electricity. About 80 percent of the junior high schools also had access to electricity, and about 40 percent of the primary schools had electricity in 2019.

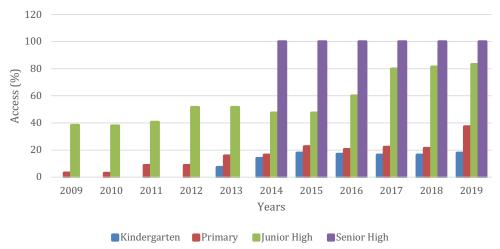


Figure 4.3.13: Percentage of schools with access to electricity

Generally the provision of toilet facilities for schools in the constituency improved from 2009 to 2019. All the senior high schools had access to toilet facilities with about 63 percent of the junior high schools, 69 percent of primary schools and 46 percent of kindergarten schools having toilets facilities (Figure 4.3.14).

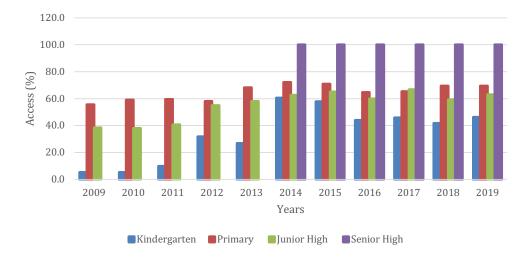


Figure 4.3.14: Percentage of schools with access to toilet facilities

4.4 Food and Agriculture

Agriculture is the backbone of the economic system of Ghana. In addition to providing food and raw materials, agriculture also provides employment opportunities to a very large percentage of the population, thereby reducing unemployment.

4.4.1 Population in agriculture

It is seen from Figure 4.4.1 that a greater part of the population of Wa East Constituency are engaged in agriculture, with males dominating with an average percentage of 66 percent from 2009 to 2019. Females accounted for 28.8 percent of the population in agriculture over the period.

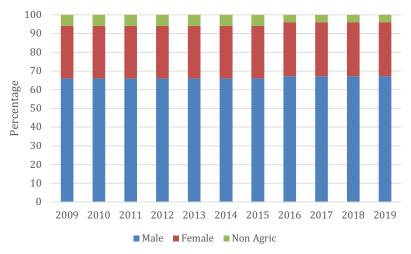


Figure 4.4.1: Percentage of population in agriculture

4.4.2 Arable land under cultivation

Arable land is land that is devoted primarily to agricultural purposes. From Figure 4.4.2, arable land that was available for cultivation stood at about 55 percent from 2009 to 2014. From 2015 to 2019 arable land for cultivation made a quantum leap to about 66 percent. While the proportion of the population in agriculture has remained relatively stable, the increase in the arable land under cultivation could be due to several factors that need further investigation.

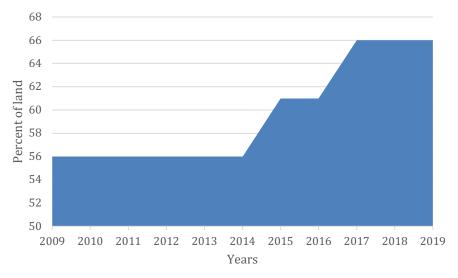


Figure 4.4.2: Percentage of arable land under cultivation

Production and Output of major staple crops

Yam, rice (paddy) and groundnuts are the three most cultivated crops in the Wa East Constituency. Yam has been the most cultivated crop over the years. From 2009 to 2019, about 20 to 21 hectares of land was cultivated with yam, followed by rice (paddy) on 3 to 4 hectares from 2009 to 2019. In 2009, 1.60 hectares of groundnuts were cultivated, and this increased marginally to 1.68 hectares in 2019. Other crops such as soya beans, maize, millet, sorghum and cowpeas are also cultivated in the constituency.

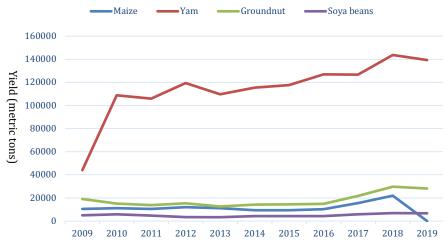


Figure 4.4.3: Annual production of major crops (Metric Tonnes)

Annual production of major crops (Metric Tonnes)

Yam remains the largest contributor to the annual production of crops in the constituency. The annual production of yam increased from 44,000 metric tonnes in 2009 to 139,324 metric tonnes in 2019, representing a 216 percent increase in production. The second largest contributor to annual production was groundnuts, with an average annual production of 18,092 metric tonnes. This is closely followed by maize and soya beans (Figure 4.4.4).

The figures show that though rice (paddy) is the second largest cultivated crop in the constituency, its contribution to annual production of crops is significant. There is the need to investigate further to identify the low yield of rice as several factors could be accounting for this.

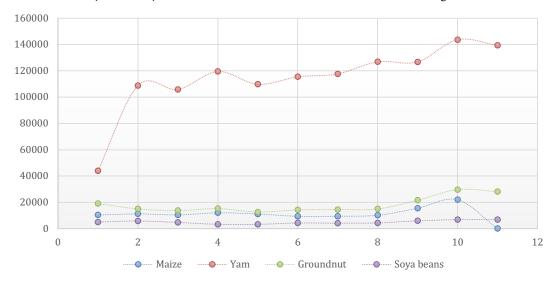


Figure 4.4.4: Annual production of major crops (Metric Tonnes)

4.4.3 Livestock Rearing

Chickens are the most reared livestock in the district, accounting for 77,312 birds in 2009 and 181,098 in 2019. Goats are the second most important livestock, numbering about 52,789 in 2009 and increasing to 86,203 in 2019. The least reared livestock are pigs, numbering 8,382 in 2019. The dominance of goats and chickens has persisted over the years. Other reared livestock include cattle, sheep and guinea fowls.

34 | WA EAST CONSTITUENCY PROFILE

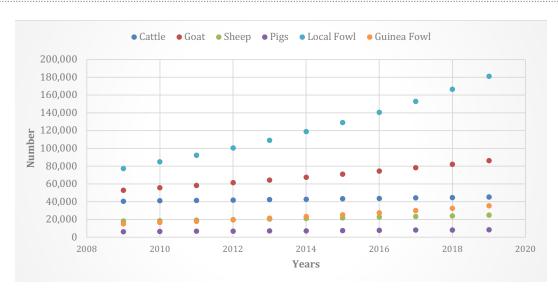


Figure 4.4.5: Number of livestock reared

Veterinary/Extension-officer-to-farmer ratio

The number of veterinary and extension officers available to provide support and guidance to farmers is essential. Figure 4.4.6 shows that the ratio of veterinary and extension officers to farmers in the constituency improved from one veterinary officer to 13,607 farmers in 2009 to one veterinary officer to 7,559 farmers in 2019. With regard to extension-officer-to-farmer ratio, in 2009, there was one extension officer to 5,233 farmers. This improved to one extension officer to 3,500 farmers in 2019.

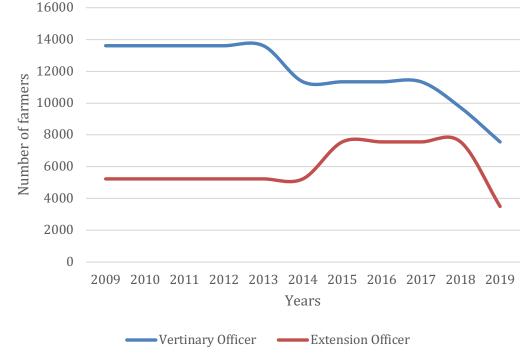


Figure 4.4.6: Veterinary /Extension-officer-to-farmer ratio

4.5 Water & Sanitation

Water sources are often classified as 'improved' or 'unimproved'. Sources considered as improved are pipe-borne water into homes, public standpipes, boreholes, protected wells, protected springs, and stored rainwater. Unimproved sources are the unprotected wells and springs, vendors, and tanker-trucks (WHO and UNICEF, 2000). Generally, about half of the constituency population had access to improved sources of drinking water in 2009 and this increased to two-thirds of the population in 2019. The year with the highest percentage of the population with access to improved water sources was 2019, when 68.6 percent of the population had access to improved water sources was 48.8 percent, recorded in 2011.

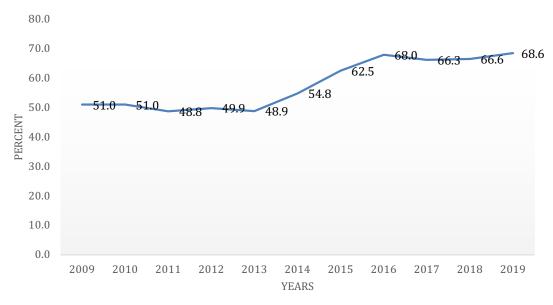


Figure 4.5.1: Percentage of the population with access to an improved water source

The percentage of population with improved access to sanitation in the district did not improve over the decade. From a low of 2.1 percent in 2009 it increased slowly to its highest of 11.6 percent in 2019.

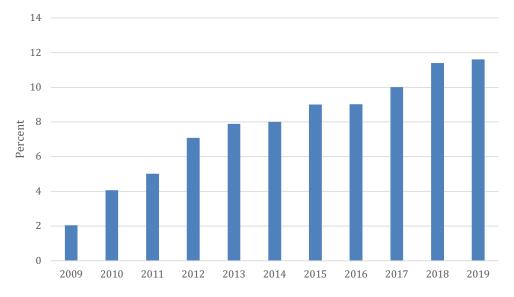


Figure 4.5.2: Percentage of population with improved sanitation

4.6 Electricity

More than half of the constituency population (57.1%) was connected to the national grid. With an average household size of around six or seven persons, it is estimated that 49,784 people had access to electricity in the constituency in 2019 (Table 4.6.1). Data for previous years was not readily available.

Table 4.6.1: Number of people/households connected to electricity, 2019

Categories	Number	Connected to National Grid	Percent
Population	87197	49784	57.1
Household (HH)	13212	7543	57.1
Average HH size	6.6		

4.7 Road Network

The road network is the system of interconnected roads designed to accommodate wheeled roadgoing vehicles and pedestrian traffic. A good road network facilitates movement of people and transportation of goods and services and plays a crucial role in the economic development of every locality. The road network in Ghana links main cities, towns and villages and agricultural production areas with local, regional and national markets.

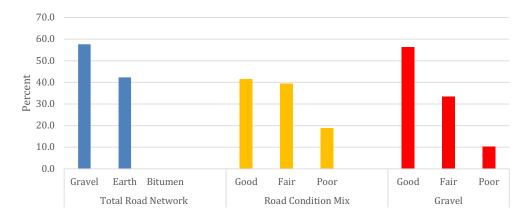


Figure 4.7.1: Road condition mix

In the Wa East constituency, 57.7 percent of the total road network is graveled surface and 42.3 percent bare earth with no bitumen or asphalt surface. Out of the total road network in the constituency, 41.6 percent is considered to be in good condition, 39.5 percent in fair condition and the remaining 18.9 percent in very poor condition. Of the graveled road network, 56.3 percent are in good condition, 33.5 percent in fair condition and 10.3 percent in poor condition (Figure 4.7.1).

4.8 Security

The Wa East Constituency, like any other society, is not free from crime. The types of crime/ offences common in the constituency include assault, theft, causing unlawful damage, causing unlawful harm, threat of harm and threat of death. Figure 4.8.1 shows that the recurrent crime/ offence is assault, representing 27.3 percent of the total crimes in the Wa East Constituency, followed by stealing (i.e. burglary) representing 26.6 percent) and robbery, accounting for 4.7 percent of total crimes.

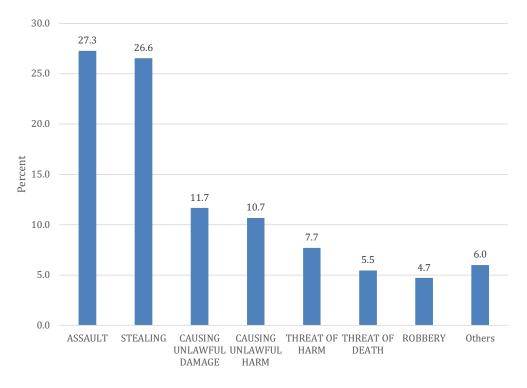


Figure 4.8.1: Percentage of reported offences, 2009-2019

		TOTAL	ARR	EST		C	CASES	
S/N	OFFENCES	TOTAL CASES	TOTAL	%	SENT TO COURT	%	CONVICTED	%
٦	ASSAULT	110	82	74.55	1	0.9	1	100.0
2	STEALING	107	68	63.55	13	11.8	5	38.5
3	CAUSING UNLAWFUL DAMAGE	47	30	63.83	2	1.8	0	0.0
4	CAUSING UNLAWFUL HARM	43	31	72.09	0	0.0	0	0.0
5	THREAT OF HARM	31	21	67.74	0	0.0	0	0.0
6	THREAT OF DEATH	22	17	77.27	0	0.0	0	0.0
7	ROBBERY	19	3	15.79	1	0.9	1	100.0
8	OTHERS	24	13	54.17	2	1.8	1	50.0
	TOTAL	403	265	65.76	19	17.3	8	42.1

Table 4.8.1:	Number	of reported	offences
--------------	--------	-------------	----------

4.9 Earth Observation

This section uses Earth Observation (satellite imagery from Digital Earth Africa) to provide insights on the landscape change related deforestation and urbanization.

Gold mining is the extraction of gold ore, mainly through an open pit but sometimes from beaches and inland dunes or by dredging ocean and riverbeds. Although gold mining remains a good source of income for a country, its operations can result in deleterious impacts on farmland, forests, and water bodies. Wa East is one of the constituencies in Ghana where sand-winning or mining is a productive business venture. Earth observation data make it possible to monitor these activities and its impact on the environment. Below is an analyzed satellite imagery showing locations mined for gold from 2017 to 2020. Also, the area that has undergone vegetation loss due to this activity as seen in Figures 4.9.1 and Figure 4.9.2.

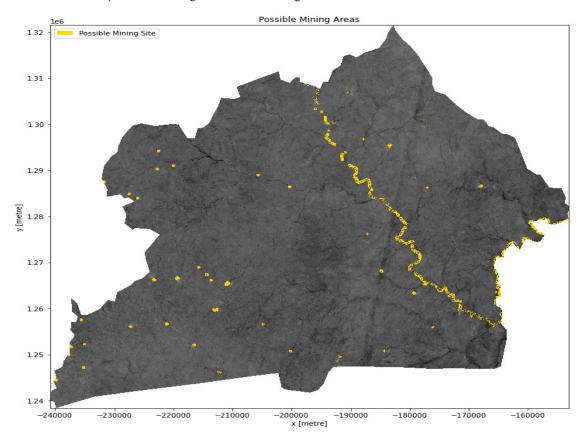


Figure 4.9.1: Gold Mining (surface mining)

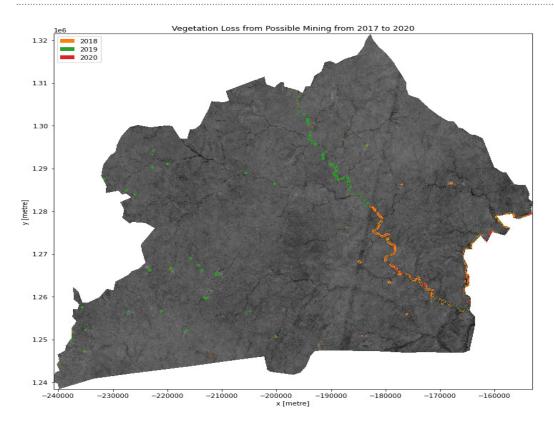


Figure 4. 9.2: Location areas that has undergone vegetation loss due to mining, 2017-2020

Between January 2017 and December 2020, Figure 4.9.3 shows the vegetation lost in square kilometers for the Wa East Constituency. The highest loss of about 2,500 km sq of vegetation was recorded in January 2019.

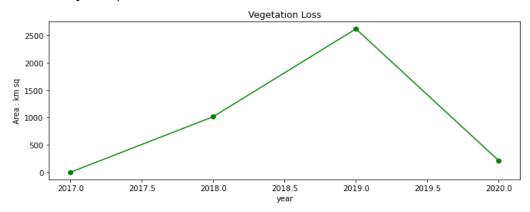


Figure 4.9.3: Vegetation lost possibly from mining, 2017-2020

CHAPTER FIVE REVENUE, EXPENDITURE AND SDGs BUDGET

5.1 Introduction

Budget performance is one that reflects both the input of resources and the output of services for each unit of an organization. Relating the inflows of revenue and expenditure activities of assemblies is important in determining the extent of services that can be carried out. Revenue sources to MMDAs are varied. The ability of MMDAs to effectively generate revenue from all the various sources will determine the quantum of revenues accrued to them and the services they could render. Revenue sources available to MMDAs include fees and charges, market tolls, property rates, the District Assembly Common Fund (DACF), and the District Development Fund (DDF).

5.2 Revenues and expenditures

Figure 5.2.1 shows the trend in total revenue and total expenditure from 2009 to 2019. It can be observed that revenue inflows fluctuated for the period, with lowest (GH¢1,473,738.19) being recorded in 2009 and the highest (GH¢9,075,987.44) in 2015. Revenues increased sharply from 2013 and peaked in 2015 thereafter falling sharply to GH¢1,716,991.97 in 2017. Expenditure over the years followed the same pattern as revenue inflows with almost all revenues spent except for the period 2014 to 2016 where revenue exceeded expenditure.

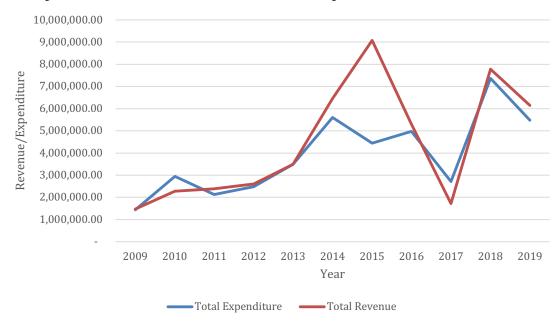


Figure 5.2.1: Amount of revenue and expenditure

5.3 Internally generated funds

Internally generated funds (IGF) are one of the sources of revenue inflows for MMDAs. As its name implies, it is generated by the district assembly from sources within the district such as taxes from market (market tolls), property rates, fees, and charges for granting permits and others. The amount of revenue generated depends largely on the efficiency of revenue mobilization strategies including accountability measures implemented by the district. Figure 5.3.1 shows IGF generation as a percentage of total revenue from 2009 to 2019. Generally, inflows of revenue from IGF fluctuated over the years from 5.3% in 2009 to 12.5% in 2019. The best performance in IGF relative to total revenue was in 2017 where IGF was 20.3 percent of total revenue while the lowest of 3.5 percent of the total revenue, recorded in 2013.

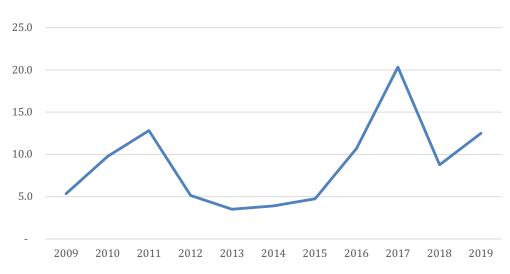


Figure 5.3.1: IGF as a percentage of total revenue

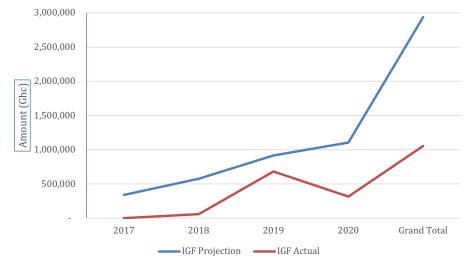


Figure 5.3.2: IGF projections and actual revenue Source: Ministry of Finance

5.4 Annual budget allocation and releases (2009 - 2019) - District Common Fund

Constituencies draw their programmes and projects dependent on the central government budgetary allocation for the year under review. However, the margin of difference between the annual budget allocated to a constituency/district and the actual amount released greatly affects development in the constituencies. Figure 5.3.2 shows that from 2009 to 2019, less than 50 percent of annual budget allocations were released to the constituency. Only in 2010, 2011 and 2018 did the releases exceed 50 percent (66.5%, 76.5% and 62.0% respectively) of the approved budget for the district. The year 2014 recorded the lowest annual budget release with only 8 percent of total annual budget allocation released to the constituency.

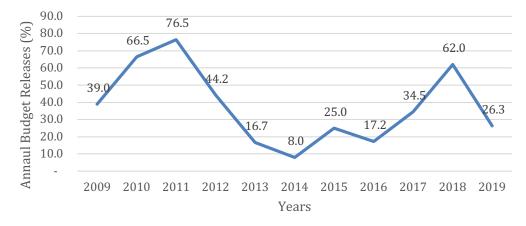


Figure 5.4.1: Percentage of annual budget allocation released.

5.5 Others - DDF, etc.

The District development facility project (DDF) is a Government of Ghana facility with partnerships with the governments of Germany, France, Canada and Denmark established in 2008 to ensure improved access to funds for MMDAs. Wa East constituency is one of the beneficiaries of the facility. The DDF has been a valuable contribution to revenue for the constituency. Data is only available for 2018 and 2019. In 2018, DDF constituted 10.1 percent of total revenue and dropped to 2.1 percent in 2019.

5.6 Budget allocations, releases and expenditure on SDCs

This section seeks to understand the performance of the constituency's budget in the realization of the Sustainable Development Goals. The availability and allocation of resources to well-targeted programmes will determine the extent to which the district achieves the SDGs. Figure 5.6.1 shows that.

44 | WA EAST CONSTITUENCY PROFILE

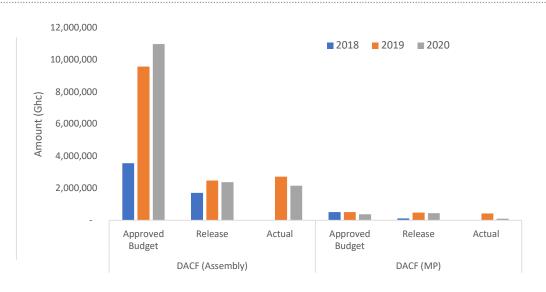


Figure 5.6.1: Approved budget, release and actual receipts

Source: Ministry of Finance

Budget allocation to SDGs

In 2019, the Minister for Finance directed all MDAs and MMDAs to align their budgets and withdrawals from the Consolidated Fund to specific SDG targets. This provides an opportunity for districts to implement programmes towards the achievement of specific targets relevant to the MMDAs or MDAs. Figure 5.6.2 shows compliance to the directive in terms of budgetary allocation. An amount of GH \pm 8,447,076 was budgeted for SDGs in 2019 as against GH \pm 5,672,995 for non-SDGs related programmes. Funds released for both SDG-related (GH \pm 2,379,589) and non-SDG-related (GH \pm 2,440,084) activities were all used for non-SDG related programmes. In the year 2020 however more than 90 percent of the release for SDGs related activities were used for the purpose.

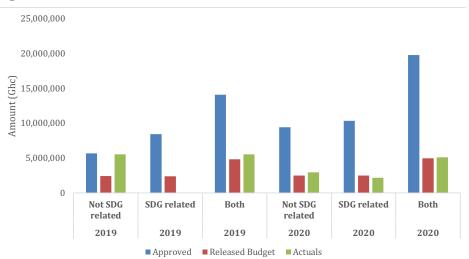


Figure 5.6.2: Budget allocation to SDGs

The Sustainable Development Goals have 169 targets in all 17 goals. In 2019 the Wa East District budgeted for 17 of the targets and eight targets in 2020 (Figure 5.6.3 and Table 5.6.1). The targets with the most expenditure in 2020 were health (target 3.8), education (target 4.1) and resilient infrastructure (target 9.1).

Table 5.6.1 shows that out of the 17 targets that received budget approval, funds were released for 16 of them, but in all cases the funds were diverted to other programmes in 2019. The year 2020 saw improved expenditures for all but one of the targets that were budgeted for.

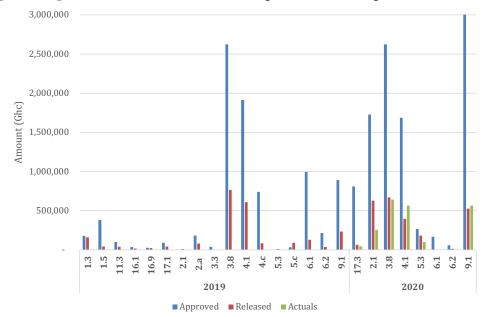


Figure 5.6.3: Budget allocation to specific SDG targets

Year		SDG Target	Approved	Released Budget	Actuals
2019	1.3	Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	180,023	162,212	0
2019	1.5	By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	383,000	42,989	0
2019	11.3	By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	99,000	39,127	0
2019	16.1	Significantly reduce all forms of violence and related death rates everywhere	35,000	16,051	0
2019	16.9	By 2030, provide legal identity for all, including birth registration	27,000	23,355	0
2019	17.1	Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection	91,311	42,524	0
2019	2.1	By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	_	11,479	0

Table 5.6.1: SDGs approved budget, release and use, 2019-2020

2019	2.a	Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	184,312	80,075	0
2019	3.3	By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water- borne diseases and other communicable diseases	38,487	-	0
2019	3.8	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	2,622,500	766,689	0
2019	4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	1,913,062	610,591	0
2019	4.c	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	740,360	85,159	0
2019	5.3	Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation	-	11,476	0

					1
2019	5.c	Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels	33,000	90,764	0
2019	6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all	995,000	128,115	0
2019	6.2	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	214,176	35,517	0
2019	9.1	Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well- being, with a focus on affordable and equitable access for all	890,845	233,468	0
2020	17.3	Mobilize additional financial resources for developing countries from multiple sources	810,800	63,896	45,520
2020	2.1	By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	1,728,648	628,293	257,564
2020	3.8	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	2,622,000	669,908	640,777
2020	4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	1,686,000	396,163	566,477

2020	9.1	infrastructure, including regional and trans-border infrastructure, to support economic development and human well- being, with a focus on affordable and equitable access for all	3,018,346	528,419	566,364
		Develop quality, reliable, sustainable and resilient			
2020	6.2	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	58,500	13,485	5,000
2020	6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all	166,028	0	0
2020	5.3	Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation	267,300	184,192	100,796

CHAPTER SIX SUMMARY AND RECOMMENDATIONS

6.1 Introduction

The availability of timely and reliable data is a very critical requirement for the achievement of the Sustainable Development Goals. It is therefore very important for policy-makers like parliamentarians to be provided with the requisite data on all facets of the economy to help them to perform their constitutional roles. The Data for Accountability Project therefore is opportune to the work of members of parliament and staff of the parliamentary research unit since it provides the data required to monitor progress on the attainment of the SDGs. Through this report the developmental challenges of the constituency are brought to the fore, to enable the Constituency's parliamentarian to advocate the provision of more resources for its development in fulfilment of the aspirations of the constituents.

6.2 Summary

The projected 2020 population for the district is 89,182 and is made up of 50.8 percent females and 49.2 percent males. The municipality has a youthful population with about 76.5 percent of the population below 35 years.

The district, as of 2020, had no hospital, and had only 4 health centers, three of which were private health centers. All four health centers together had only 43 beds. The number of CHPS compounds as of 2019 was 32, and were equipped with a total of 178 beds. The number of critical health staff - mainly doctors, laboratory technicians, optometrists and pharmacists - was inadequate to serve the patients. The district, until 2012, had no pharmacy. As of 2020, only 2 pharmacies served the entire district, and it had no functional ambulance. Access to health- care during pregnancy was generally high in the district: about 9 in 10 women accessed and availed themselves of health-care during pregnancy. However, only 5 in 10 deliveries in the district were attended to by an accredited health professional as of 2019. The percentage of out-patients with valid health insurance declined from about 85 percent in 2016 to 71 percent in 2020. Childhood immunization for measles declined from 71.6% among children aged 12-23 months in 2017 to 69.7% in 2019. The use of treated mosquito nets by children under five years declined from 65.1% in 2017 to 47.3% in 2019. The HIV prevalence rate as of 2019 was 2 persons per 1000 population. Institutional maternal deaths stood at 54 per 100,000 live births as of 2019.

As of 2019, there were 67 kindergartens, 75 primary schools, 54 junior high schools and 2 senior high schools in the district. About 8 out of 10 teachers at all levels of education were trained teachers. Gross enrolment and net enrolment rates for the primary level are relatively high compared with enrolment rates at the junior high and senior high levels. Enrolment rates for boys and girls remained relatively the same over the years at both primary and JHS levels. However, in the 2019/2020 academic year, enrolment rates were slightly higher for girls than for boys at

both primary and JHS levels. In all academic years in the period under review, except 2019/2020, more boys than girls completed JHS. Access to basic social amenities such as potable water, toilet facilities and electricity in the schools remained a challenge for the district. Less than 50% of primary and JHS schools had access to portable drinking water as at 2019.

Agriculture is an important sector of the district, with over 90% of the population engaged in the sector. More males than females are engaged in agriculture. As of 2019, 66% of arable land was under cultivation. Yam is the most cultivated stable crop, followed by rice (paddy) and groundnuts. Chickens are the most reared livestock in the district, accounting for 181,098 birds in 2019, while goats were the second most important livestock. Veterinary and extension services to farmers remained a challenge in the district. As of 2019, the ratio of veterinary officers to farmers stood at 1 veterinary officer to 7559 farmers, while the ratio of agricultural extension officers to farmers stood at 1 extension officer to 3500 farmers.

About 69% of the population had access to improved water sources in the district as of 2019. The percentage of the population with access to improved sanitation in the district remained very low over the last decade, at 2.1% in 2009 and 11.6% in 2019. More than half of the district population (57.1%) were connected to the national grid. The district had 57.7% of its total road network with a gravel surface, and 42.3% earth with no bitumen or asphalt surface.

The district has never achieved its IGF targets. Generally, inflows of revenue from IGF have fluctuated over the years from 5.3% in 2009 to 12.5% in 2019. The main source of revenue for the district is the DACF. However, on average, only about 29% of the DACF allocation was released to the district for the period 2012-2019. An amount of GH¢8,447,076 was budgeted for SDGs in 2019 as against GH¢5,672,995 for non-SDGs related programmes. Funds released for both SDG-related (GH¢2,379,589) and non-SDG-related activities (GH¢ 2,440,084) were all used for non-SDG-related programmes.

6.3 Recommendations

The following recommendations are made for consideration to help resolve the developmental challenges in the Municipality:

- 1. As a matter of urgency, government should build a district hospital to cater for referral cases from the health facilities in the district;
- 2. Critical health personnel such as doctors, laboratory technicians and pharmacists should be posted to the district to improve service delivery in the district;
- 3. There should be increased sensitization among pregnant women to improve supervised delivery by skilled health personnel;
- 4. More resources should be provided to the Municipal Health Directorate to roll out more effective health interventions to improve health-service delivery, especially immunization;
- 5. There should be increased access to potable water and toilet facilities in the basic schools;

- 6. More sensitization should be carried out by the District Directorate of Education and the management of basic schools to increase enrolment at the JHS and SHS levels;
- 7. More veterinary and agricultural extension officers should be employed in the district to provide services to farmers to improve crop yield;
- 8. Efforts should be made to improve the road network in the district and to pave at least one major road;
- 9. The Central Government should adhere to the legal provisions of the DACF and dutifully disburse funds. The District Assembly should also ensure that funds budgeted and released for implementation of SDG-related activities are disbursed accordingly.

REFERENCES

- 1. Bulletin of the World Health Organization Past issues, Volume 86: 2008; Volume 86, Number 1, January 2008, 1-80
- 2. https://www.sharecare.com/health/health-society/what-is-nurse-patient-ratio
- 3. https://www.wolterskluwer.com/en/expert-insights/the-importance-of-the-optimalnursetopatient-ratio
- 4. United Nations Educational, Scientific and Cultural Organization. Education Statistics Glossary. Montreal. Internet site http://www.uis.unesco.org/glossary
- United Nations (2008). Principles and Recommendations for Population and Housing Censuses: Revision 2. New York. Available from http://unstats.un.org/unsd/publication/ SeriesM/Seriesm_67rev2e.pdf.
- WHO Recommendations: Optimizing Health Worker Roles to Improve Access to Key Maternal and Newborn Health Interventions Through Task Shifting. Geneva: World Health Organization; 2012. 2, Introduction. Available from: https://www.ncbi.nlm.nih.gov/books/ NBK148510/

East
Wa
for
2011-2020 f
201
population,
Estimated
Ä
Appendix

	2010		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020	
AGE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
•	1162	1162	1410	1368	1415	1389	1415	1434	1436	1452	1455	1 471	1473	1 489	1491	1505	1507	1520	1522	1534	1537	1547
-	1015	606	1224	1160	1363	1343	1367	1388	1389	1409	1410	1 430	1430	1 448	1449	1466	1467	1483	1484	1499	1500	1513
7	1252	1115	1210	1147	1187	1143	1331	1352	1354	1374	1377	1 396	1398	1416	1418	1435	1437	1453	1456	1470	1473	1486
м	1393	1363	1200	1139	1176	1133	1161	1154	1321	1342	1345	1 365	1367	1386	1388	1406	1409	1425	1428	1444	1447	1461
4	1374	1310	1193	1132	1168	1126	1152	1146	1153	1147	1314	1334	1338	1358	1360	1378	1382	1399	1403	1418	1422	1437
Ŋ	1316	1 303	1316	1229	1289	1224	1270	1245	1271	1244	1273	1244	1448	1448	1474	1473	1500	1496	1523	1518	1545	1539
9	1363	1 205	1271	1197	1285	1220	1267	1241	1267	1240	1268	1 240	1268	1240	1444	1443	1470	1468	1495	1491	1518	1513
7	1327	1 220	1249	1180	1243	1190	1265	1240	1265	1238	1265	1 238	1265	1237	1267	1238	1442	1440	1468	1465	1493	1488
8	1125	1139	1 226	1162	1223	1174	1224	1210	1264	1238	1264	1 237	1264	1 237	1264	1236	1266	1237	1441	1438	1467	1463
ი	1152	166	1 202	1144	1201	1156	1204	1192	1223	1207	1263	1 236	1263	1 235	1262	1234	1263	1234	1264	1234	1439	1436
10	1452	1354	1 030	898	1029	606	1033	940	1053	954	1070	966	1106	066	1107	166	1108	166	1109	992	1112	993
=	824	743	1 009	883	1008	893	1012	924	1032	939	1052	953	1069	965	1104	686	1105	686	1106	066	1107	066
12	1134	889	988	869	988	879	992	606	1011	923	1031	938	1051	952	1068	964	1102	987	1103	988	1104	988
13	858	713	967	854	968	865	972	895	166	606	1011	922	1030	936	1048	949	1066	962	1100	985	1100	985
14	808	627	946	839	946	850	952	880	971	894	066	907	1009	920	1028	935	1046	948	1063	960	1098	983
15	1232	912	833	671	834	680	840	704	857	716	874	727	892	738	908	749	926	760	943	177	958	781
16	639	536	813	659	815	668	821	692	839	705	857	715	874	726	891	737	907	748	925	759	941	770
17	700	520	794	979	796	656	802	679	820	691	838	703	855	714	873	726	889	736	906	747	923	758
18	898	696	774	634	777	643	783	667	801	679	819	691	837	702	854	713	871	724	888	735	904	746
19	577	494	753	623	757	631	764	654	782	666	800	678	817	689	835	701	852	712	869	723	886	734
20	894	908	506	513	509	518	515	536	528	546	540	556	552	565	565	575	577	584	589	594	600	603
21	375	395	164	504	495	510	501	527	514	536	527	545	539	554	551	564	563	574	575	583	587	592
22	381	466	477	494	480	501	487	518	500	526	513	535	526	544	538	554	550	564	562	573	574	582
23	343	356	462	485	467	164	473	509	486	517	665	525	512	533	525	543	536	553	549	562	561	571
24	315	349	450	475	452	482	458	667	472	508	485	516	498	524	511	532	523	542	535	552	547	561
25	714	966	456	548	460	559	465	580	478	591	492	601	505	610	519	620	532	630	545	641	557	652
26	341	387	445	535	447	545	451	567	464	579	477	590	490	599	504	609	517	618	530	628	543	639
27	387	452	432	521	434	532	439	554	450	566	462	577	475	588	489	598	503	607	516	617	529	627
28	367	514	419	507	423	518	427	540	438	552	450	565	461	576	474	587	487	597	501	606	514	615

WA EAST CONSTITUENCY PROFILE | 53

54 | WA EAST CONSTITUENCY PROFILE

4	6	-	4		5	~		20	_	_		0	4		~	6	4		4	2	5	_	2	2	4	u	2	6			
604	679	637	624	610	595	563	548	533	517	501	508	490	474	458	443	419	404	390	374	357	315	301	287	275	264	206	197	189	180	170	288
66†	514	667	485	470	458	493	478	463	448	432	404	389	375	362	350	337	326	314	302	290	280	268	257	247	236	200	191	182	174	165	227
595	639	626	612	597	582	550	536	519	503	486	492	476	460	445	431	90 1	392	376	359	343	302	289	276	266	255	199	191	181	172	162	275
486	501	486	472	459	447	480	465	677	433	417	390	376	364	352	340	328	316	304	292	280	270	259	249	238	229	194	185	174	167	158	217
585	628	614	599	584	569	537	520	504	487	471	477	462	447	433	419	393	378	361	344	329	291	279	268	258	247	193	184	174	164	155	264
473	487	473	194	448	435	466	451	435	419	403	378	365	353	342	330	318	306	294	282	271	261	251	241	231	222	187	178	169	160	151	209
575	615	600	585	570	554	522	506	489	473	457	797	448	435	421	405	380	362	346	329	317	280	172	260	248	239	185	175	166	157	150	254
460	475	462	677	437	423	452	436	420	405	390	366	354	343	332	320	307	295	284	272	262	253	243	234	224	214	180	172	162	154	145	202
563	602	588	572	556	540	508	164	474	460	444	451	437	423	407	392	365	348	332	318	305	271	261	251	240	230	177	168	158	150	143	246
677	463	450	438	425	114	438	421	90 7	391	378	356	345	333	322	310	297	285	274	263	253	245	236	226	216	207	173	164	155	147	140	196
551	588	574	558	541	525	492	475	460	445	432	439	424	409	393	376	350	334	319	306	295	263	253	242	231	220	169	160	152	145	139	240
									380 4									265 3				228 2	219 2	209 2	199 2						
437	452	440	426	412	397	423	407	393	38	367	346	335	324	312	300	287	275	26	255	245	237	22	21	20	19	166	157	671	142	135	190
539	575	560	543	526	509	477	194	9446	433	419	426	114	395	378	360	336	321	308	297	285	254	244	233	221	210	162	153	146	071	135	232
427	440	427	413	398	384	408	394	381	368	357	336	325	313	301	289	277	266	255	247	238	231	122	112	200	190	159	151	144	137	131	184
526	561	545	528	112	493	194	448	434	421	407	412	398	379	363	346	322	310	298	287	276	245	234	223	211	201	155	148	142	136	131	225
416	428	415	007	384	371	394	381	370	358	346	326	315	303	291	279	268	258	248	239	230	222	213	202	192	182	153	146	140	133	128	178
4	9	6	2	9		_		4	_			4		_	9	ъ	4	2	2	2	2	0	6	8	8	9	0	4		2	5
504	536	51	502	486	470	144	428	414	104	388	390	374	358	341	326	305	294	283	272	262	232	220	209	198	188	146	140	134	130	123	212
410	421	406	392	377	364	388	376	365	353	341	322	309	297	285	275	263	253	244	235	226	217	207	197	187	178	150	143	138	133	125	174
492	523	506	684	473	458	430	417	404	390	375	377	360	344	329	316	296	286	275	264	253	222	211	200	191	183	142	136	131	125	120	203
405	416	400	386	372	360	384	373	362	349	336	316	304	292	281	271	260	251	241	232	222	213	203	193	184	175	148	142	136	130	123	170
370	1 203	299	382	277	200	860	250	247	376	184	1041	167	206	123	115	599	186	132	205	150	708	75	106	85	83	214	86	62	77	77	623
	8									_																					
284	16	239	320	217	177	697	269	284	337	.61	849	156	207	144	107	522	144	143	195	149	614	65	E	120	100	243	109	78	88	63	476
29	30	31	32	33	34	35	36	37	38	39	9	4	43	43	\$	5 5	46	47	8 4	64	50	5	52	53	54	55	56	57	82	29	60

272	257	243	231	143	135	127	119	111	108	66	92	85	79	96	88	81	75	68	370	45,302
215	202	191	181	156	146	138	128	119	117	108	66	16	84	92	83	75	68	61	425	43,880
261	248	236	224	138	131	122	114	106	103	ß	6	4	8	3	9	L	4	æ	377	44,318
										95	89	84	78	93	86	81	74	68		42,879 4
206	195	185	175	150	142	132	123	113	112	104	96	88	82	89	82	74	67	61	428	
251	240	229	218	134	126	117	109	101	66	92	87	82	77	92	85	79	74	89	386	43,345
199	189	179	170	145	136	126	711	108	108	100	93	87	80	87	80	73	66	60	432	41,888
243	232	221	210	129	120	112	104	97	96	90	85	81	75	16	84	79	74	68	395	42,374
192	183	174	164	140	131	121	112	104	104	97	92	86	79	86	79	72	64	60	439	40,915
236	225	215	202	122	115	107	100	94	94	06	85	80	75	06	85	80	74	68	407	41,434
186 2	177 2	168 2	158 2	134 1	125 1	116 1	107 1	101	101	96 9	90 8	83 83	77 7	84 9	77 8		65 7	59 6	448	39,948
-	-	-	-	-	-	-	-	-	-	6	6	8	7	0	~	12	و	Ň	4	
228	219	206	194	118	110	1 03	97	93	92	88	84	80	75	06	85	80	74	69	421	40,507
181	171	162	152	128	119	111	104	98	100	94	87	82	75	83	77	17	64	58	460	39,007
221	211	198	185	112	106	100	95	16	92	88	83	79	74	16	86	80	74	72	434	39,595
175	165	155	145	123	115	108	102	96	97	93	87	81	75	83	77	70	63	60	471	38,074
213	201	189	177	108	103	66	94	06	16	86	83	79	75	91	86	80	79	76	448	38,701
169	158	148	138	211		106	100	94	96	61	85	79	75	82	76	69	66	62	484	37,158
201	189	178	169	103	100			m	8	4	2	8	4	0	4	4		2	452	37,142
						95	92	88	88	84	82	78	74	06	84	84	80	77		36,803 3
164	154	144	136	116	109	105	98	95	97	06	85	81	75	82	75	73	69	64	505	
192	181	172	164	102	86	94	16	87	88	84	82	79	74	16	06	88	84	82	465	36,425
160	151	142	134	116	Ξ	1 05	100	95	97	92	87	82	76	84	81	76	72	67	531	36,635
55	108	45	47	196	32	44	51	33	307	31	45	39	56	129	78	57	65	27	198	35,405
65	74	81	54	217	67	47	44	51	324	25	53	37	44	145	58	43	61	35	237	36,078
61	62	63	64	65	99	67	68	69	70	Г	72	73	74	75	76	77	78	79	80+	Total

