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GHANA SOCIAL DEVELOPMENT OUTLOOK 2020



**INSTITUTE OF STATISTICAL, SOCIAL
AND ECONOMIC RESEARCH**
COLLEGE OF HUMANITIES
UNIVERSITY OF GHANA

Ghana Social Development Outlook 2020



INSTITUTE OF STATISTICAL, SOCIAL & ECONOMIC RESEARCH
COLLEGE OF HUMANITIES
UNIVERSITY OF GHANA
LEGON

Published by the

Institute of Statistical, Social & Economic Research (ISSER)

College of Humanities

University of Ghana, Legon, Ghana

E-mail: isser@ug.edu.gh

Tel: 057-7699900 (front desk); 057-7699901; (Director's Office) 057-7699902
(Director's Secretary)

Website: www.isser.ug.edu.gh

Twitter, Facebook: @ISSERUG

© Institute of Statistical, Social & Economic Research (ISSER), 2021

Printed: 2021

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ISBN 978-9964-75-303-0

Editorial Consultant

Mrs. Korantema Adi-Dako

Page Design and typesetting

Hellen Sunu

Printing

Sundel Services, Accra Ghana

E-mail wilsundel@yahoo.com

Tel +233-302 230474

Cell +233- 20-7703816

This volume was published out with financial support from the Agricultural Development Bank (ADB)

Contents

<i>Tables</i>	<i>vii</i>
<i>Figures</i>	<i>viii</i>
<i>Boxes</i>	<i>ix</i>
<i>Appendix</i>	<i>ix</i>
<i>Plates</i>	<i>x</i>
<i>Acronyms/Abbreviations</i>	<i>xi</i>
<i>Acknowledgements</i>	<i>xix</i>
<i>Foreword</i>	<i>xxi</i>
 CHAPTER 1: OVERVIEW	 1
Introduction	1
Synergies Between Social Policy and Development	2
GSDO 2020: The Report—Conceptions, Contents and Omissions	2
The State of Social Development in Ghana: A Summary	4
Education	4
Health	6
Water and Sanitation	8
Housing	9
Work and Employment	11
Energy	12
Governance	13
Environment	15
Gender	16
Social Values	17
References	18
 CHAPTER 2: EDUCATION	 24
HIGH SCHOOL TO HIGHER EDUCATION TRANSITION IN GHANA - AN ASSESSMENT OF CHALLENGES AND OPPORTUNITIES	24
Introduction	24
Access and participation in pre-tertiary education in Ghana	26
Access to basic education and transition to secondary	28
Completion and transition	30
Secondary education and transition	33
Transition to higher education institutions	41
Higher education in Ghana	42
Issues confronting access to higher education in Ghana	45
Policy opportunities for higher education in Ghana	50
Conclusion	56
References	57

CHAPTER 3: HEALTH	62
COVID-19 HEALTH AND HEALTHCARE SERVICES IN GHANA	62
Introduction	62
COVID-19 statistics: Ghana, Africa and the world	64
Some ramifications of COVID-19 on Ghana	67
Impact of COVID-19 on Health Services	69
Children's Care Services	71
Ghana Government's Response to / Management of COVID-19	75
Lockdown measures and social restrictions	75
Health measures implemented to control and manage COVID-19 in Ghana	76
COVID-19 clinical management protocols	78
Risk Communication	80
Expansion of Healthcare Infrastructure	85
Expansion of testing laboratories	87
Other health promotion support	90
Additional quasi-health interventions	91
Reflections	93
Policy recommendations	96
References	98
 CHAPTER 4: WATER AND SANITATION	 106
WATER AND SANITATION: EXAMINING THE COVID-19 PANDEMIC AND ITS MANAGEMENT	106
Introduction	106
Current State of Water and Sanitation in Ghana	109
Update on Water Situation in Ghana	111
Update on Sanitation Situation in Ghana	117
The Covid-19 Pandemic	122
Conclusion and Recommendations	126
References	126
 CHAPTER 5: HOUSING	 130
SUSTAINABLE HOUSING IN GHANA	130
Introduction	130
Definition and principles of sustainable housing	131
National policies and strategies on sustainable housing: A review	134
Sustainability and housing industry practices	135
Challenges of sustainable housing	138
Conclusion and policy recommendations	142
References	145
 CHAPTER 6: WORK AND EMPLOYMENT	 148
HOMEWORK AND HOMEWORKERS IN GHANA IN A TIME OF COVID-19	148
Introduction	148
Overview of Work and Employment in Ghana	149
Homework in Ghana: Observations and Issues	152

Homeworkers in the Agro-Processing Sector	156
Homeworkers in the Arts and Crafts Sector	160
Industrial homeworkers	164
Homeworkers in the Services Sector	165
Some Concluding Remarks	166
References	168
 CHAPTER 7: ENERGY	 170
TRAJECTORIES OF SOLAR ENERGY DEVELOPMENT IN GHANA: DRIVERS AND BARRIERS PRE-COVID-19 AND BEYOND	170
Introduction	170
Solar Power in Ghana pre-COVID-19	172
Ghana's Policies and Plans for Promoting Solar Energy	175
Drivers of Solar Energy Initiatives in Ghana	178
Energy Sector Reforms	177
Increasing Demand for Modern Energy	180
Relative Adverse Effects of Fossil Fuels	180
Ensuring Energy Security and Rural Electrification	181
Improved Technologies	181
High Initial Capital Cost	183
Lack of public awareness and information	184
Small Market Size of Renewable Energy	184
Low level of Local human capacity & Training	184
Ineffective Regulations and Administrative complexities	185
Solar Energy During and After the COVID-19 Pandemic	185
Conclusion and Policy Recommendations	186
References	189
 CHAPTER 8: GOVERNANCE	 195
THE ANTI-CORRUPTION FIGHT: HOW FAR AND WHICH WAY FORWARD?	195
Introduction	195
Definition and Cost of Corruption	197
The Anti-Corruption Landscape in Ghana: A review of Anti-Corruption Legislative, Policy and Institutional Frameworks over the Decade	200
Progress in the Anti-Graft Campaign: Perception or Reality?	203
Audit Reports	210
Situation So Far	212
Conclusion and Policy Recommendations	212
References	215
 CHAPTER 9: ENVIRONMENT	 219
DECONSTRUCTING THE SOCIO-ECONOMIC COST OF DEFORESTATION IN GHANA AND THE PLACE OF THE GREEN ECONOMY	219
Introduction	219
Conceptual Framework and Methodology	221
An Overview of Ghana's Forest Resources	223

Deforestation trend in Ghana since 2000	225
Drivers and Pressures of Deforestation in Ghana	227
Socio-economic and environmental costs of deforestation in Ghana	238
The place of the Green Economy in the deforestation menace	242
Anticipated policy implications	248
References	250
 CHAPTER 10: GENDER	 255
GENDER EQUALITY	255
Introduction	255
Gender Data and Gender Data Gap	256
Global Gender Data Indices and Ghana	258
Methodology	262
Gender Data Collection in the Public Sector in Ghana	262
Gender Data Gap in Ministries, Departments and Agencies (MDAs)	263
Gender Data Gap in the Health Service	264
Gender Data Gap in Household Surveys	266
Gender Data Gap Intervention	267
Gender Data from Civil Registration and Vital Statistics Systems	267
Mandatory Gender Data Collection in all Public Institutions	269
Gender Research and Gender Analysis Consultations	270
Multi Sectoral Approach to National Statistical Systems	271
Conclusion	271
References	272
 CHAPTER 11: SOCIAL VALUES	 276
SOCIAL VALUES AND THE GHANA BEYOND AID AGENDA	276
Introduction	276
“Beyond Aid” and the Aid Effectiveness Debate	279
Values, Attitudes, and Structural Transformation	282
Societal Values and Attitudes in Ghana	283
National Belonging	284
Core Values or Ideological Positioning	293
Conclusion: Ghana and Ghanaian Society	296
Recommendations	297
References	298

Tables

2.1	Number of basic schools	29
2.2	GER and NER in Basic Education	29
2.3	Trend in transition from basic to secondary education	32
2.4	Number of SHS schools	33
2.5	Enrollment, GER and NER in SHS	34
2.6	SHS graduate eligibility for tertiary education based on pass rate in core subjects	38
2.7	Student admission to Public Universities	41
2.8	Tertiary Institutions in Ghana	44
2.9	Student/Lecturer Ratio (SLR) in Public Universities 2016/2017 Academic Year	46
3.1	Confirmed cases of COVID-19 and treatment outcomes, Ghana, as at 14 June, 2021	64
3.2	Positivity Rate by Surveillance Type for samples tested in Ghana (March 2020-June 14, 2021)	64
3.3	Summary of recoveries by Region, March 2020 - 27 July, 2021	66
3.4	Regional Distribution of Accredited COVID-19 laboratories in Ghana certified to test for COVID-19	88
6.1	Formal and Informal Employment in Ghana (2000, 2010)	150
7.1	Distribution of Sunlight Radiation across the Ecological Zones in Ghana	173
7.2	Solar PV Installations in Ghana	174
7.3	Renewable Energy Policies and Plans	176
8.1	The Basics of Corruption	198
8.2	Legislation, Institutional and Policy Frameworks against Corruption in Ghana over the Decade (2010-2020)	203
8.3	Ghana's Performance with respect to Security and Rule of Law (2010-2019)	205
8.4	Summary of Various Financial Irregularities Observed by the Auditor-General in the Public Accounts by MDAs (2010 -2020)	211
9.1	Area of tree cover loss per region from 2001 to 2019	228
9.2	Plantation Establishment Achievement under the NFPDP (2002-2015)	243
10.1	Global Gender Gap Index 2020	260
10.2	Selected Data in Gender Gap of Ghana	261
11.1	Thematic arrangement of values prioritised by the Ghana Beyond Aid Charter	283
11.2	Ethnicity versus national attachment	284
11.3	Membership of Associations	286
11.4	Causes of communal conflicts	288
11.5	Social Inclusion and diversity	289
11.6	Generalised Trust	291
11.7	Ideological positioning	294
11.8	Elements of public and private morality	295

Figures

2.1	Trends in completion and transition for basic education to SHS	31
2.2	Trends in growth of SHS enrollment in Ghana between 2010 and 2018	34
2.3	Completion Rate in SHS 2010-2018	37
2.4	Trends in percentage passed in the core subjects	37
2.5	Students offered admission to public universities but did not enroll (%)	49
3.1	Places households sent their children for medical treatment during the COVID-19 lockdown in Ghana	72
3.2	Ghana Health Service COVID-19 Clinical Management Protocol	79
4.1	Real GDP of water and sewerage in (%)	111
4.2	Trends of improved water and sanitation coverage in Ghana	113
4.3	Trends of rural water coverage	115
4.4	Sanitation Situation in Ghana	118
4.5	Completed Rural Sanitation Situation from January to September 2019	118
6.1	Employment Status	149
7.1	Installed Solar Renewable Generation Capacity (kW)	175
8.1	Corruption Perception Index for Ghana (2012-2020)	202
9.1	Conceptualising deforestation with the DPSIR framework	222
9.2	Ecological Zone Map of Ghana	224
9.3	Forest Cover in Ghana since 2000	225
9.4	Extent of Land Area covered by Tree per Region as at 2010	226
9.5	Tree cover loss per year from 2001 to 2019	229
10.1	2019 SDG Gender Index Score by Country	259
11.1	Elements of national attachment	285
11.2	Willingness to die for country	286
11.3	Experience of unfair treatment on the basis of social identity	287
11.4	Preference for neighbours	290
11.5	Trust in the private sphere	291
11.6	Trust in the public sphere	292
11.7	Important Child Qualities	294
11.8	Justification for moral violations	295

Boxes

5.1	Ten principles of sustainable housing	133
8.1	Major Cases of Corruption over the 2010-2020 (led by the Media)	208
8.2	Outcome of Manasseh Awuni Azure and the Public Procurement Authority Saga	209

Appendix

4.1	Regional distribution of overall potable water coverage for rural communities and small towns as at the end of 2018	129
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Plates

4.1	The looming water crisis in Ghana and the way forward	108
4.2	We're doing our best to solve water crisis – GWCL	110
9.1	1-kilometre swath of forest cut off in the Tano-Offin Forest Reserve	229
9.2	Degraded lands in the Upper Wassa Forest	230
9.3	Ongoing illegal mining operations in Ghana's forests	235
9.4	Operation Vanguard members taking actions at illegal mining sites (land surface and water bodies)	245
9.5	Examples of improved charcoal and wood fuel stoves in the Ghanaian market	247

Acronyms/Abbreviations

AAC	Annual Allowable Cost
ACARP	Accra Compost and Recycling Plant
ACLED	Armed Conflict Location and Event Data
AFOLU	Agriculture, Forestry and Other Land Use
AG	Attorney-General
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal care
ARAP	Anti-Corruption, Rule of law and Accountability Programme
ARV	Antiretroviral
AU	African Union
BBC	British Broadcasting Corporation
BE	Basic Education
BECE	Basic Education Certificate Examination
BOST	Bulk Oil Storage and Transportation
BRICS	Brazil, Russia, India, China, and South Africa
BRRI	Building and Road Research Institute
CDD	Centre for Democratic Development
CFC	Chlorofluorocarbons
CFMP	Community Forestry Management Project
CH ₄	Methane
CHAG	Christian Health Association of Ghana
CHRAJ	Commission on Human Rights and Administrative Justice
CLTS	Community Led Total Sanitation
CMAc	Citizen Movement against Corruption
CMWS	Community Mechanized Water Systems
CO ₂	Carbon dioxide
CODED	Coalition of Domestic Election Observers
COMWS	Community Operated and Managed Water Systems
COTVET	Council for Technical and Vocational Education and training
COVID 19	Coronavirus disease
CPI	Corruption Perception Index
CR	Completion Rates
CRC	Constitution Review Committee
CRVS	Civil Registration and Vital Statistics
CSIR	Council for Scientific and Industrial Research
CSO	Civil Society Organisation
CSSPS	Computerised Schools Selection and Placement System
CSP	Concentrated Solar Power
CTVET	Commission for Technical and Vocational Education and Training
CWSA	Community Water and Sanitation Agency
DOVVSU	Domestic Violence and Victim Support Unit

DOWU	Domestic Workers Union of Ghana
DP	Development Partners
DPSIR	Drivers, Pressures, States, Impact and Responses
DSWU	Domestic Services Workers' Union
DTI	Design and Technology Institute
EC	Electoral Commission
ECF	Extended Credit Facility
ECG	Electricity Company of Ghana
ECOWAS	Economic Community of West African States
EIB	European Investment Bank
EKN	Embassy of the Kingdom of the Netherlands
EMIS	Education Management Information System
EM 2030	Equal Measures 2030
EOCO	Economic and Organised Crime Office
EPA	Environmental Protection Agency
EPP	Expanded Plantation Programme
ESP	Education Strategic Plan/ Education Sector Plan
ESPR	Education Sector Performance Reports
ESSDP	Energy Sector Strategy and Development Plan
EU	European Union
F4W	Football for WASH
FAO	Food and Agriculture Organization
FBO	Faith-Based Organisation
FC	Forestry Commission
FCUBE	Free Compulsory Universal Basic Education
FDA	Food and Drug Administration
FEEM	Future Energy, Environment, and Materials
FH	Freedom House
FIDA	Federation of International Women Lawyers
FIP	Forest Investment Program
FiTs	Feed-in-Tariffs
FLEGT	Forest law enforcement, governance and trade
GACA	Ghanaians Against Child Abuse
GACC	Ghana Anti-Corruption Coalition
GAF	Ghana Armed Forces
GAMA	Greater Accra Metropolitan Area
GAPD	Ghana Association of the Physically Disabled
GARID	Greater Accra Resilient and Integrated Development
GASSLIP	Greater Accra Sustainable Sanitation and Livelihoods Improvement Project
GAVI	Global Alliance for Vaccines and Immunisation
GB	Green Building
GBA	Ghana Beyond Aid
GBP	British pound sterling
GCM	Global Circulation Model

GDP	Gross Domestic Product
GEDAP	Ghana Energy Development and Access Project
GEMA	Ga East Municipal Assembly
GER	Gross Enrolment Ratio
GETFund	Ghana Education Trust Fund
GFPS	Ghana Forestry Plantation Strategy
GFW	Global Forest Watch
GWFP	Ghana Forest and Wildlife Policy
GGBC	Ghana Green Building Council
GHACCO	Ghana Alliance for Clean Cooking
GHG	Greenhouse Gases
GI	Global Integrity
GIA	Ghana Institute of Architects
GII	Ghana Integrity Initiative
GIS	Geographic Information Systems
GIS	Ghana Immigration Service
GKMA	Greater Kumasi Metropolitan Area
GLHS	Ghana Living and Household Survey
GLSS	Ghana Living Standards Survey
GNA	Ghana News Agency
GNAT	Ghana National Association of Teachers
GNI	Gross National Income
GoG	Government of Ghana
GPASS	Girls Participatory Approach to Student Success
GPDP	Government Plantation Development Project
GPEG	Global Partnership for Education Grant
GRATIS	Ghana Regional Appropriate Technology Industrial Service
GREDA	Ghana Real Estate Developers' Association
GRM	Grant Reporting and Monitoring
GSBA	Globally Significant Biodiversity Areas
GSDI	Ghana Skills Development Initiative
GSDO	Ghana Social Development Outlook
GSDP	Ghana Statistical Development Project
GSFP	Ghana School Feeding Programme
GSGDA	Ghana Shared Growth and Development Agenda
GSHRDC	Gender Studies and Human Rights Documentation Centre
GSS	Ghana Statistical Service
GTUC	Ghana Trade Union Congress
GTVP	Ghana TVET Voucher Project
GUWL	Ghana Urban Water Limited
GWCL	Ghana Water Company limited
GWh	Gigawatt-hours
GWJN	Ghana Watson Journalist Network
GYEEDA	Ghana Youth Employment and Entrepreneurial Development Agency
HCW	Healthcare workers

HEI	Higher Education Institution
HES	Human Environment Systems
HFZ	High Forest Zone
HIV	Human Immunodeficiency Virus
IAEA	International Atomic Energy Agency
ICGC	International Central Gospel Church
ICT	Information and Communications Technology
ICU	Intensive Care Unit
ICU	Industrial and Commercial Workers Union
IDEG	Institute for Democratic Governance
IDMC	Internal Displacement Monitoring Centre
IDRC	International Development Research Centre
IEA	Institute of Economic Affairs
IFC	International Finance Corporation
IGF	Internally Generated Funds
ILO	International Labour Organization
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contribution
IPA	Innovations for Poverty Actions
IPAC	Inter-Party Advisory Committee
IPCC	Intergovernmental Panel on Climate Change
IPEP	Infrastructure for Poverty Eradication Programme
IPPs	Independent Power Providers
IRENA	International Renewable Energy Agency
ISODEC	Integrated Social Development Centre
ISSER	Institute of Statistical, Social and Economic Research
IUCN	International Union For Conservation of Nature
IWDF	International Domestic Workers Federation
IWMI	International Water Management Institute
JHS	Junior High School
JHU	Johns Hopkins University's
JMP	Joint Monitoring Programme
KCCR	Kumasi Centre for Collaborative Research
KG	Kindergarten
KIA	Kotoka International Airport
KITE	Kumasi Institute of Technology, Energy and Environment
KNUST	Kwame Nkrumah University of Science and Technology
KOICA	Korean International Cooperation Agency
KTOE	Kilotonnes of Oil Equivalent
KVIP	Kumasi Ventilated Improved Pit
LCOE	Levelised Cost of Electricity
LFS	Labour Force Survey
LMVCA	Let My Vote Count Alliance
LPG	Liquefied Petroleum Gas
LUSPA	Land Use and Spatial Planning Authority
MCA	Millennium Challenge Account

MCP	Master Craft Persons
MDAs	Ministries, Departments and Agencies
MDG	Millennium Development Goal
MEHSOG	Mental Health Society of Ghana
MESTI	Minister of Environment, Science, Technology and Innovation
MFWA	Media Foundation for West Africa
MLGRD	Ministry of Local Government and Rural Development
MLNR	Ministry of Lands and Natural Resources
MMDA	Metropolitan, Municipal and District Assemblies
MMDCE	Metropolitan Municipal and District Chief Executives
MoF	Ministry of Finance
MoE	Ministry of Education
MOFA	Ministry of Food and Agriculture
MoGCSP	Ministry of Gender, Children and Social Protection
MRV	Measurement, Reporting and Verification
MSWR	Ministry of Sanitation and Water Resources
MtCO ₂ e	Million tonnes of CO ₂ equivalent
MTS	Modified Taungya System
MW	Megawatt
MWRWH	Ministry of Water Resources, Works and Housing
N ₂ O	Nitrous oxide
NABTEX	National Board for Professional and Technician Examination
NACAP	National Anti-Corruption Action Plan
NADMO	National Disaster Management Organisation
NAMA	Nationally Appropriate Mitigation Actions
NBSSI	National Board for Small Scale Industries
NCCE	National Commission for Civic Education
NCCP	National Climate Change Policy
NCTE	National Council for Tertiary Education
NCWSP	National Community Water and Sanitation Programme
NDA	Non-Disclosure Agreement
NDC	National Democratic Congress
NDCs	Nationally Determined Contributions
NDP	National Democratic Party
NDPC	National Development Planning Commission
NEA	National Environment Agency
NEA	National Education Assessment
NEDC	Northern Electricity Distribution Company
NEM	Net Energy Metering
NEP	National Employment Policy
NEP	National Energy Policy
NER	Net Enrolment Ratio
NFED	Non-Formal Education Division
NFPDP	National Forest Plantation Development Programme

NFS	National Fire Service
NGO	Non-Governmental Organisation
NH ₄ -N	Ammonium
NHIS	National Health Insurance Scheme
NHP	National Housing Policy
NIB	National Intelligence Bureau
NMC	National Media Commission
NMIMR	Noguchi Memorial Institute for Medical Research
NO ₃ -N	Nitrate as Nitrogen
NPA	National Petroleum Authority
NPP	New Patriotic Party
NTFP	Non-timber Forest Product
NUPF	National Urban Policy Framework
NWP	National Water Policy
NYEP	National Youth Employment Programme
ODA	Overseas Development Assistance
ODF	Open Defecation Free
OECD	Organisation for Economic Cooperation and Development
OSP	Office of the Special Prosecutor
PAC	Public Accounts Committee
PAGE	Partnership for Action on Green Economy
PFC	Per fluorocarbons
PHC	Population and Housing Census
PNDC	Provisional National Defence Council
PO ₄ -P	Phosphate as Phosphorus
PPA	Public Procurement Authority
PPE	Personal Protective Equipment
PPP	Public-Private Partnership
PRINPAG	Private Newspaper Publishers' Association of Ghana
PSP	Private Service provider
PTA	Parent Teacher Association
PTR	Pupil to Teacher Ratio
PTS	Political Terror Scale
PTTR	Pupil to Trained Teacher Ratio
PURC	Public Utilities Regulatory Commission
PV	Photovoltaic
PWD	Persons with disabilities
R&D	Research and Development
RBZP	Riparian Buffer Zone Policy
RDT	Rapid Diagnostic Test
REL	Reference Emission Level
REMP	Renewable Energy Master Plan
RFO	Residual Fuel Oil
RSIM	Research Statistics and Information Management
RSMS	Rural Sanitation Model and Strategy
RTI	Right to Information

SADA	Savannah Accelerated Development Authority
SARI	Severe Acute Respiratory Infection
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SDG	Sustainable Development Goals
SDO	Social Development Outlook
SE4ALL	Sustainable Energy for All
SF	Sulphur hexafluoride
SHS	Senior High School
SLR	Student-Lecturer Ratio
SO ₂	Sulphur dioxide
SNEP	Strategic National Energy Plan
SpED	Special Education Division
SREP	Scaling-Up Renewable Energy Programme
SRWSP	Sustainable Rural Water and Sanitation Project
SSNIT	Social Security and National Insurance Trust
SZ	Savannah Zone
TCC	Technology Consultancy Centre
TCO ₂ e	Tonnes of Carbon Dioxide Equivalent
TEWU	Teachers and Educational Workers Union
TVET	Technical and Vocational Education and Training
TZ	Transitional Zone
UCC	University of Cape Coast
UCDP	Uppsala Conflict Data Programme
UDS	University of Development Studies
UENR	University of Energy and Natural Resources
UESD	University of Environment and Sustainable Development
UEW	University of Education Winneba
UG	University of Ghana
UHAS	University of Health and Allied Sciences
UN	United Nations
UNCAC	United Nations Convention Against Corruption
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USD	United States Dollar
USDS	United States Department of State
USEPA	United States Environmental Protection Agency
VIIRS	Visible Infrared Imaging Radiometer Suite
VPA	Voluntary Partnership Agreement
VRA	Volta River Authority
VSA	Virtual Security Africa

WACCBIP	West African Centre for Cell Biology of Infectious Pathogens
WAEC	West African Examinations Council
WAG	WaterAid, Ghana
WAGP	West African Gas Pipeline
WAHO	West African Health Organisation
WASSCE	West African Secondary School Certificate Examination
WC	Water Closet
WEF	World Economic Forum
WFI	World Forest Institute
WHO	World Health Organization
WJP	World Justice Project
WOM	Widows and Orphans Movement
WRC	Water Resources Commission
WRC	Water Research Centre
WRI	World Resources Institute
WRMP	Water Resources Management Plan
WSMP	Water and Sanitation Monitoring Platform
WSP	Water and Sanitation Programme
WTP	Water Treatment Plant
WVS	World Values Survey
YEA	Youth Employment Agency
YES	Youth Enterprise Support

Acknowledgements

The **Ghana Social Development Outlook 2020** is a publication of the Institute of Statistical, Social and Economic Research (ISSER) of the University of Ghana, Legon. The team that prepared the report is made up of the following contributors:

Overview:	Prof. Adobea Y. Owusu (Coordinator)
Education:	Dr. Clement Adamba
Health:	Prof. Adobea Y. Owusu
Water and Sanitation:	Dr. Martha Awo
Housing:	Prof. George Owusu
Work and Employment:	Prof. Akosua K. Darkwah and Prof. Dzodzi A. Tsikata
Energy:	Dr. Aba O. Crentsil
Governance:	Dr. Cynthia A. Addoquaye Tagoe
Environment:	Dr. Simon Bawakyillenuo
Gender:	Dr. Elizabeth A. Asante
Social Values:	Dr. Kofi T. Asante

ISSER is grateful to the following reviewers whose thoughtful comments improved each chapter of this volume:

Name of Reviewer	Institution
Prof. Nana Akua Anyidoho	University of Ghana
Prof. Jonathan Fletcher	University of Ghana
Prof. Eric Y. Tenkorang	Memorial University of Newfoundland and Labrador, St. Johns, Canada
Dr. Stephen Ntow	WASH Health Solutions
Dr. Irene Appeaning Addo	University of Ghana
Prof. William Baah-Boateng	University of Ghana
Prof. Daniel Twerefou	University of Ghana
Prof. Emmanuel Debrah	University of Ghana
Prof. Joseph Teye	University of Ghana
Prof. Charlotte Wrigley-Asante	University of Ghana
Dr. Emmanuel Kumi	University of Ghana

We are also grateful to Mrs. Henrietta Fleischer-Attakpah and Mr. Emmanuel Hanson, Jr. for typing the preliminary pages of this report, including the acronyms. Our profound gratitude goes to Mrs. Vicentia Quartey, Mrs.

Mawuena Akuamoah-Boateng and the administrative staff of ISSER who, in various ways, supported the production of this report. Miss Sandra Yaa Adifu and Bless Gloria Agbesi, National Service Personnel attached to the Social Division of ISSER, are singled out for providing administrative assistance.

Our sincere appreciation goes to Mrs. Korantema Adi-Dako for editing the entire report and Mrs. Hellen Sunu for typesetting the final manuscript. We would like to thank all the individuals and organisations that provided data, reports and other documentation for this publication. Finally, ISSER is grateful to the Agricultural Development Bank (ADB) for providing financial support for the dissemination of the Ghana Social Development Outlook 2020.

Foreword

The Ghana Social Development Outlook (GSDO) has been consistently published biennially by the Social Division of the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon, since 2012. The GSDO is the flagship publication of ISSER's Social Division. It has been published since 2012, making the current 2020 edition the fifth in the series. Inspired by ISSER's motto, "Knowledge for Development", the GSDO is targeted at the Government of Ghana, policy makers, researchers and is also meant to provide course material for teaching and academic reference. It projects the inter-disciplinarity of social development as well as the critical synergies between social realities, social policy and development. The GSDO aims to provide a timely and authentic mouthpiece, with a focus on the Ghanaian social space, and to particularly inform the Government of Ghana's social transformation and social protection agenda.

The GSDO has usually covered key thematic areas which are central to Ghana's development and has included *education, health, water and sanitation, housing, work and employment, energy, governance, environment, gender and population*. Overall, the GSDO has had two main focuses over time. It has also typically provided key indices for measuring progress in Ghana's social development in the key areas referenced above. Some issues (the 2012, 2016 and 2018 GSDO editions) have concentrated on tracking socio-economic indices in the primary thematic areas. On the other hand, GSDO 2014 and the current 2020 edition, have rather concentrated on issues deemed to be of burning national interest within the key thematic areas.

Based on the dynamism of society, the GSDO editions have varied in their focuses. GSDO 2012, in particular, set the tone by providing a historical overview of social policy-making in different sectors, from colonial to contemporary times. It was particularly epoch-making in responding to the need for policy realignment leading to the end of the United Nations post-2015 Millennium Development Goals consultations, and advocating policy redirection in improving social protection for the marginalised in society.

GSDO 2014 focused on elucidating answers to the social issues in Ghana between the period 2012 and 2014, in order to provide the evidence-based framework needed to guide Ghana's attempts to scale up its activities towards fulfilling its outstanding MDGs, and international efforts to finalise the next set of global development goals. Thus GSDO 2014 critically argued for the

expansion of Ghana's tertiary education, with a focus on quality and equity, the need for Ghana to strategically position itself to take advantage of the demographic dividend, and the need to improve access to healthcare and ensure social equity in the provision of healthcare. Other areas of concentration included a call, particularly, to improve upon the huge urban housing deficit as well as the state of marginalised housing for the youth and vulnerable populations. It also called for paying critical attention to the big threat to Ghana's socio-economic development posed by huge unemployment and marginalised employment opportunities, especially for young persons, as well as proactive efforts to end Ghana's frequent power outages at the time.

GSDO 2016, the third in the series, strategically addressed the changes in Ghana's social development space since GSDO 2012. It examined the state of social development and related policy prescriptions in the key thematic areas of concern to the Social Division's flagship publication. Coming at the intersection between the immediate post-MDG era, and the onset of the Sustainable Development Goals (SDGs), the chapters of GSDO 2016 mostly devoted their attention to the legacy of the MDGs in relation to Ghana's social development policy and practice, and also envisioned the implications of the SDGs for Ghana with respect to these.

Written three years after the onset of the SDGs, GSDO 2018 uniquely applied itself to critically assessing the progress in Ghana's social development towards achieving the 17 SDGs. The 2018 edition of the GSDO was also unique in engaging in an in-depth discussion of gender equality in Ghana.

Capitalising on the Government of Ghana's social development agenda, the current edition of the flagship publication, GSDO 2020, undertakes a critical analysis of the progress and challenges of key social development issues in Ghana since the publication of the 2018 version. It targets developmental issues against the backdrop of the social developmental goals of Ghana, locally and internationally. The chapters fall under four broad areas typical of the GSDO: *quality of life, material conditions, sustainability, and governance and social values*. Including an overview chapter, GSDO 2020 has 11 chapters in the aforementioned usual thematic areas, except population. The 2020 edition has two highlights: 1) the gender data gap in Ghana and its implications for public discourse and sustainable development, and 2) an added unique chapter on the contemporaneous Ghana Beyond Aid Agenda, within the context of the social values of Ghanaians.

Furthermore, being a special edition and against the pervasiveness of COVID-19 over the period under review, it is imperative for this edition of the GSDO to

examine the ramifications of the pandemic in the analysis of social policy and social development. Consequently, some chapters, such as water and sanitation, work and employment, and energy, touch on the consequences of the pandemic within their thematic context. However, the health chapter takes advantage of these unusual times to focus wholly on the repercussions of COVID-19 for the health of the population and the healthcare system in Ghana.

GSDO 2020 persists with a recommendation made in GSDO 2018 for the need to disaggregate data to provide a critical basis for evaluating progress in key national and international development indicators in Ghana.

With this carefully debated inter-disciplinary social development piece to guide the Government of Ghana's social development transformation agenda and to provide a critical reference document for researchers, students, citizens, the media, civil society organisations, policy makers, governmental agencies and the Government of Ghana, ISSER ardently hopes that this masterpiece will meet the expectations of these targeted groups to inform policy and the general public.

Peter Quartey
Director

Overview



Introduction

The Ghana Social Development Outlook (GSDO) is the flagship publication of the Social Division of the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon. The GSDO has been published biennially since 2012. Usually, its volumes focus on key and recent indices provided by the Census, the Ghana Demographic Health Survey and the Ghana Living Standards Survey. The volume is organised in thematic areas that are of importance to social development, such as education, health, water and sanitation, housing, work and employment, energy, governance, environment and gender equality. The GSDO editions of 2012, 2016 and 2018 tracked socio-economic indices in these key thematic areas, with GSDO 2012, in particular, setting the tone by providing a historical overview of social policy-making in different sectors, from colonial to contemporary times. Other editions of the GSDO, including GSDO 2014 and the current GSDO 2020, have focused instead on issues of burning national interest in the key thematic areas.

The next sections of this Overview Chapter of GSDO 2020 look at the link between well-articulated research, social policy and social development. These are followed by chapter by chapter summaries of GSDO 2020. The final section features key recommendations from each chapter.

Synergies Between Social Policy and Development

The Ghana Social Development Outlook reflects the Institute's motto, "Knowledge for Development". It is written to provide a critical reference document for researchers, students, citizens, the media, civil society organisations, policy makers, governmental agencies and the Government of Ghana (GoG). ISSER recognises that a critical link exists between social realities, social policy, and development (Sen, 2004; ISSER, 2013, 2015). For instance, GSDO 2012 noted that "social development is driven by robust social policy. Social policy is the roadmap and the means by which we engineer a better life for all and address the impact on people of some developmental problems" (ISSER 2013, p. 3). Similarly, GSDO 2014 articulated ISSER's purpose for writing the GSDO: "... to provide a serialised one-stop source of critical information that will contribute to policy formulation and implementation in social and development issues in Ghana" (ISSER 2015, p. 3).

GSDO 2020: The Report—Conceptions, Contents and Omissions

GSDO 2020 discusses the progress and challenges in social development in Ghana during the period under review through a critical analysis of social development issues in four broad areas: *quality of life*, *material conditions*, *sustainability*, and *governance and social values*. In presenting this analysis, the volume highlights the gender data gap in Ghana and its implications for public discourse and sustainable development.

Given the pervasiveness of COVID-19 over the period under review, this edition of the GSDO unavoidably examines the impact of the pandemic in the analysis of social policy and social development. Thus, some chapters touch on the effects of the pandemic within their thematic contexts; however, the health chapter seizes the opportunity to focus wholly on the implications of the pandemic for the health of the population and the healthcare system in Ghana. Similarly, the water and sanitation chapter takes advantage of the crucial interface between water, sanitation, and the pandemic to examine the water and sanitation situation in Ghana within the context of the pandemic.

This edition of the GSDO has an added unique chapter on the contemporaneous Ghana Beyond Aid Agenda, within the context of the social values of Ghanaians. Being a special edition, each chapter provides a critical debate about an essen-

tial issue within the thematic areas, beginning with critical conceptual and contextual definitions, and reviews related national policies and strategies. The chapters further provide data and highlight targeted developmental issues against the backdrop of the social developmental goals of Ghana, locally and internationally. Each chapter ends with policy recommendations for sustainable socio-economic development.

Importantly, GSDO 2020 highlights ISSER's recommendation, in GSDO 2018, for opportune disaggregated data to provide a critical basis for evaluating progress in key national and international development indicators in Ghana. Consequently, this edition of GSDO maintains ISSER's call on the Government of Ghana and other stakeholders to strengthen the Ghana Statistical Service (GSS) to collect and disseminate the whole gamut of essential data needed for socio-economic development, particularly by expanding the collection of labour and employment statistics. We affirm the importance of data collection for labour and employment statistics to include data on home-based work, homework and homeworkers. The onslaught of COVID-19 has accentuated this crucial national need.

Similarly, we call for improving the collection, analysis, storage, dissemination and capacity building for collecting gender data to support sustainable national development. The chapter on gender inequality pinpoints entrenched, systemic discrimination in gender data collection, leading to the problem of a gender data gap at all levels of programmatic operations in Ghana. Furthermore, there is the absence of a national policy for gathering gender data to facilitate gender-responsive decision-making in policy and legislation.

Also recommended are the need to narrow the gap in access to critical healthcare, as well as the need for Ghana to boost its emergency preparedness for pandemics. We underscore the need to step up scientific and social research on COVID-19 and to provide data on COVID-19 infections among healthcare workers.

GSDO 2020 omits the typical section on socio-economic indicators that have accompanied past editions due to the lack of comprehensive data during the period under review. The results of the 2021 Population and Housing Census will mostly fill this important data gap for GSDO 2022. The highlights of the individual chapters are provided below.

The State of Social Development in Ghana: A Summary

Education

High School to Higher Education Transition in Ghana - An Assessment of Challenges and Opportunities

The chapter affirms that Ghana's education sector has been on a growth path and is on course to achieve Universal Basic and Secondary Education for all. This is the result of the series of strategic reforms and an upscale of investment in the sector, including the abolition of fees, free school feeding, and a massive investment in infrastructure in the basic and secondary education sub-sectors. The implementation of the Free Senior High School Policy (free SHS) has provided further impetus towards the achievement of universal access to secondary education. The biggest challenge of the pre-tertiary education sector, however, remains the poor rate of transition from secondary to higher education. The challenges of space, human resource capacity, and cost constitute potential hindrances for the transition of students of the Free Senior High School Policy to higher education.

The following are key highlights of the chapter.

Access to basic education and transition to secondary education have improved significantly, with the number of non-enrolled Basic Education Certificate Examination (BECE) graduates reducing from 26.5% in 2016 prior to the free SHS to 12% in 2019. Although impressive, this suggests that there are still a number of qualified Junior High School graduates who do not enroll in Senior High School (SHS) even though they are offered free admission. This suggests that there may be other issues that matter besides the direct cost of SHS education, such as physical access and the associated costs of transportation, accommodation, and the basic necessities of school life. Hence, much more needs to be done, in addition to the elimination of the direct cost, in order to make secondary education truly accessible and equitable.

Between 2010 and 2018 (one year after implementing the free SHS), there has been a significant growth in the number of secondary schools across the country, from 720 to 921, an increase of about 28% (Ministry of Education, 2015, 2018, & 2019). While this is remarkable, evidence suggests that some SHSs may have closed down in the immediate aftermath of the free SHS programme. Indeed, the number of private SHSs decreased significantly between 2016 and

2018. There is the need for some discussions about sustaining the operations of the private sector as they are contributing towards serving some underserved areas and cohorts of people.

Learning outcomes at the SHS level have seen progressive improvement. There are, however, a number of challenges that have continued to affect excellence. These can be summarised into *resources, incentives, accountability and leadership*. The Education Sector Plan (ESP 2018 - 2030) has suggested that key to achieving the theory of change of secondary education is strengthening school management and leadership (Ministry of Education, 2018). In addition to this, the answers to the problems in the sub-sector lie in policy and strategy. There is the need for proper alignment of incentives and accountability mechanisms. Also, quite critical, is the fact that resources (textbooks, other teaching and learning materials, finances, etc.) to schools must be sufficient for the use of adequately trained management.

The desire to transition to higher education is paramount on the minds of many SHS graduates, compared to entering the world of work. However, the data suggest that the public universities can offer admissions to just about 60% of eligible students according to the National Council for Tertiary Education (NCTE, 2018). The challenge of accessing higher education in Ghana is principally due to a general under-investment in physical infrastructure expansion, lack of strategies for retention and attraction of personnel, high costs (fees and accommodation), insufficient adoption of technology and the weak linkage with industry (towards attracting private-sector driven scholarship schemes and employment opportunities).

The chapter identifies five key areas (mechanisms) as opportunities for a long term improvement in the secondary to higher education transition challenge. These are:

- Leverage ICT to expand and innovate distance learning programmes;
- Public-private partnership investment and management arrangements to provide infrastructure;
- Rejuvenate, and reorganise professional and specialised post-secondary institutions;
- Expand the distribution of higher education institutions (equitable regional distribution); and
- Restructure the student loan scheme for equitable access for all students.

Health

COVID-19, Health and Healthcare Services in Ghana

Based on Ghana's COVID-19 recovery and case-fatality rate, relative to those of other African countries and the world's average COVID-19 related indicators, Ghana has successfully managed and treated the pandemic (Afriyie et al., 2020; Antwi-Boasiako et al., 2021; ISSER, 2021). Ghana was the first country internationally to receive vaccines from the Global Alliance for Vaccines and Immunisation's (GAVI) COVAX facility, the COVID-19 vaccine drive initiative supported by the WHO and the United Nations' Children's Fund (UNICEF) for African and other less developed countries. GoG plans to vaccinate all its adult population, estimated at 20 million, by the end of 2021, to generate herd immunity.

COVID-19 has had a strong negative psycho-social effect on several aspects of the livelihoods of citizens. Among others, this situation stemmed from the financial insecurities engineered by the pandemic (GSS, 2020a; 2020b, ISSER, 2021; Owusu and Crentsil, 2021); the fear of infection, deaths from it and fear of death (Afulani et al., 2020, 2021). In Ghana, another contributory factor to the psycho-social stress and mental health burden unleashed by COVID-19 is the stigma and stigmatisation associated with the infection, and the reduced social space associated with the infection and its concomitant social restrictions. This is against the background of mental healthcare services at a very low ebb and low funding for mental health currently existing in Ghana (Osei¹/Daily Graphic, March, 2018; ISSER, 2019; Owusu and Asante, 2020). Furthermore, Ghana and Africa have a reduced capacity for COVID-19 research (Afriyie et al., 2020; Ashinyo et al., 2020; Antwi-Boasiako et al., 2021).

As is the case globally, COVID-19 also highlighted the inequities in access to and distribution of healthcare infrastructure in the country. These are the usual dichotomies of the North-South, rural-urban, and Greater Accra Region versus the rest of the country divides. For instance, as at September 28, 2021, 10 regions in Ghana did not have any suitable COVID-19 accredited testing laboratories while 29 out of the 36 accredited laboratories with the capacity to test for COVID-19 (constituting 80.56%), were in the Greater Accra Region, mostly in wealthier enclaves of Accra.²

¹ Prof. Akwasi Osei is the Chief Executive, Mental Health Authority, Ghana Health Service.

² Source: Author, 28 September, 2021; based on COVID-19 Updates | Ghana (ghana-healthservice.org). Accessed 28 September, 2021, from: https://www.ghs.gov.gh/covid19/accredited_labs.php.

GoG and the Ghana Health Service's concentration on COVID-19 (UN, 2020; UNICEF, Social Policy Research Institute, and National Development Planning Commission, 2021) had an opportunity cost in terms of healthcare provision for other equally important diseases and healthcare needs such as HIV/AIDS, malaria, and maternal and child healthcare (Fenny and Otioku, 2020; UNICEF, World Bank, and Social Policy Research Institute, 2020). Furthermore, research has shown that some citizens stopped seeking healthcare for essential services for fear of COVID-19 infection (Africa News, 2020³; UNICEF Ghana and Social Policy Research Institute, 2020; UNICEF, World Bank, and Social Policy Research Institute, 2020; UNICEF et al., 2021). Similarly, some elderly, very experienced healthcare personnel quit working to protect themselves. These thwarted efforts to promote good health, led to worsened ailments and loss of lives, and may have long term effects on the healthcare space and citizens' health in Ghana.

Given the massive negative impact of the pandemic on the mental health and psychological well-being of citizens (Fenny and Otioku, 2020; Afriyie et al., 2020; Afulani et al., 2021), GoG, the Ghana Health Service and allied agencies should step up mental health and clinical psychology services to support citizens to cope with the fallout related to the pandemic. GoG and the Ghana Health Service should also attend to the increased demand for mental and psycho-social healthcare in the wake of the pandemic.

We call for pragmatic efforts to distribute healthcare infrastructure more evenly, regionally and also across the rural-urban, North-South divides, particularly in the provision of suitable laboratories that can test for the pandemic, in order to more equitably and efficiently prevent infections and treat persons who get infected by COVID-19 nationwide. GoG should ensure that at least one well-resourced COVID-19 testing centre/laboratory is built in each region to facilitate more timely testing, treatment and needed documentation, such as for external travel, in the wake of the pandemic's geopolitics.

GoG and private partners should facilitate the intensification of scientific and social research on COVID-19 in Ghana (Afriyie et al., 2020; Ashinyo et al.'s, 2020; Antwi-Boasiako et al., 2021; Quakyi et al., 2021). This should include the impact of the pandemic on healthcare workers.

³ Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana | Africanews

Water and Sanitation

Water and sanitation: Examining the COVID-19 pandemic and its management

The chapter shows that despite the efforts of successive Ghanaian governments at closing the water and sanitation gap, there still exist some challenges. The increasing population has a direct impact on available resources and in the water sector, where government has made progress, nearly three million of the population lack access to potable water, particularly in rural areas, hence their reliance on surface water, that comes with health risks.

Reports show that national sanitation is about four times below the current water situation of the country. The proportions of Ghanaians who had access to at least basic sanitation is (18%), unimproved (13%) and open defecation (18%) (WHO/UNICEF data, updated 2019). Geographically, twice as much of a smaller proportion of rural dwellers in Ghana had access to basic sanitation compared to urban dwellers (12%; 24%, respectively), while a smaller proportion of Ghanaians in the urban areas compared to the rural areas had unimproved sanitation as well as open defecation (WHO/UNICEF data, updated 2019).

In many areas sanitation facilities are non-existent, leading to open defecation, with about 22% of Ghanaians engaging in the practice (Appiah-Effah et al., 2019). Though this practice is more common in the rural areas where 4.2 million people representing 31% practice open defecation, about 1.8 million people representing 11% of the urban population also engage in the practice. Extensive use of shared toilet facilities coupled with the practice of open defecation make the achievement of the Millennium Development Goal target of 54% sanitation coverage almost impossible (Appiah-Effah et al., 2019).

The outbreak of COVID-19 has also posed serious implications for the water and sanitation sector. Though, it is evident that there exist inadequate water supply and very limited sanitation facilities in the country, the pandemic has brought to light the need to expand infrastructural investment in the water and sanitation sector to increase accessibility and provide constant and adequate quality water supply, as well as toilet facilities.

Regardless, some successes have been chalked across the country over the period under review in the area of open defecation and toilet coverage. Select examples among these are the Ministry of Sanitation and Water Resources (MSWR)'s collaboration with the Greater Accra Metropolitan Area (GAMA) under the Sanitation and Water Project on the 'One House One Toilet' programme to construct about 26,000 household toilets, which targeted about 180,000 low-

income households in GAMA. 406 beneficiary schools were also provided with sanitation facilities to benefit 200,000 school children under the same GAMA project (MoF, 2020a).

Further, to support its campaign to reduce open defecation, the MSWR provided 13,000 household toilets and 50 institutional latrines in GAMA in 2019 through the 'Toilet for All' agenda in selected communities in GAMA (MoF, 2019). The Community Led Total Sanitation (CLTS) programme witnessed its expansion to construct 22,348 household toilets to the benefit of about 229,789 people living in 765 communities within the Central, Volta, Northern, Upper East, and Upper West Regions which had been declared Open Defecation Free (ODF) earlier on in 2018 (MoF, 2019). Additionally, through the three Development Zones, GoG completed 500 10-seater water closet toilet facilities under the "Toilet for All" project which were ready for use at the end of 2019 (MoF, 2020a), and 100 additional ones were completed as at July, 2020 (MoF, 2020b). Under the Sustainable Rural Water and Sanitation Project, the government constructed 12,972 household toilets and 351 out of 685 targeted communities attained ODF status in 2019. Also, the Inner-Cities and Zongo Fund completed 252 household toilets at Ga Mashie and 30 inner-city communities of Accra; with an anticipated 5,000 beneficiaries. Sixteen institutional and public toilets were constructed in nine regions under the same arrangement (MoF, 2020b).

However, it is obvious that the sector still needs more commitment by all sub-actors with rigorous reforms at the institutional level accompanied by well-planned policies that will not just be on paper but enforced to particularly curb open defecation. Indeed, it is important to recognise the complexities of the rural-urban divide and the dynamics of poverty so that additional interventions can be directed at the poor, given the health implications and the socio-economic cost. The COVID-19 pandemic particularly has brought to the limelight the need to expand infrastructural investment in the water and sanitation sector to increase accessibility, consistent supply and adequacy of quality water supply, toilet facilities and waste/sewage treatment facilities, buttressed by a high level of commitment from GoG, CBOs, NGOs, the populace and all other stakeholders, in order to improve the sanitation situation in the country.

Housing

Sustainable Housing in Ghana

Sustainable housing is critically interlinked with achieving several of the Sustainable Development Goals (SDGs). These include decent work and economic growth; clean water and sanitation; good health and well-being; affordable and

clean energy; industry, innovation and infrastructure; climate action and sustainable cities (Holland, 2018). In this regard, housing is a precursor to socio-economic development and both the direct and indirect attainment of literally all the SDGs (World Bank, 2015; ISSER, 2017). Moreover, housing is a major contributor to climate change, pollution, and resource depletion through inappropriate materials for construction and inefficient utilities (Ampratwum et al., 2019; Anzagiraa et al., 2019; Agyekum et al., 2020).

Ghana has a favourable policy climate for sustainable development and improving her housing and infrastructure (International Finance Corporation [IFC], 2017, 5). Contrarily, advocacy and awareness of sustainable housing in Ghana's housing sector is generally low. Ghana's housing industry, particularly in the urban enclaves, has long been dominated by the use of imported or foreign building materials (Wellington, 2009; ISSER, 2013; Danquah et al., 2017). Ghana's National Housing Policy (2015) gives attention to the key components of sustainable housing – environment, economic and social. However, there is an absence of mandatory government regulations and legislation on green buildings in Ghana, hence, the practice of sustainable housing is relegated to the discretion of the developer (Anzagiraa et al., 2019). Challenges against sustainable housing include high costs and financial burdens, limited knowledge, disconnection between sustainability goals and regulatory regimes, weak land use planning and urban sprawl.

Nevertheless, there is growing advocacy and awareness of the need for sustainable buildings in Ghana. This has particularly been spearheaded by the Ghana Green Building Council (GGBC), a non-governmental organisation (NGO) of housing industry stakeholders which was established in 2009, and is committed to facilitating the creation of sustainable building and communities in the country, through awareness creation and collaborative efforts. Promoting sustainable housing in Ghana should include enhanced research and use of local building materials like straw bales, bamboo, earth roofs, cob structures, and other non-traditional materials.

GoG should take pragmatic efforts to implement the National Housing Policy, 2015, and other housing-related policies, for example, the National Urban Policy Framework and Action Plan, 2012; and the Water Sector Strategic Development Plan (2012-2025). GoG should also promote research on the development and the use of local building materials as a basis of contributing to sustainable housing practices, under the leadership of stakeholders such as the Ministry of Works and Housing and the Building and Road Research Institute of the Council for Scientific and Industrial Research (CSIR), and the Ghana Institute of Architects (GIA).

Additionally, there is the need for the promulgation of an explicit public policy on sustainable housing practices in Ghana to be incorporated into the National Housing Policy, 2015 (Djokoto, Dadzie, and Ohemeng-Ababio et al., 2014; Ako-Adjei and Danso, 2019). ISSER further recommends enhanced education and sensitisation of stakeholders in the construction industry on the application of green housing technology and other sustainable and cost-saving practices.

Work and Employment

Homework and Homeworkers in Ghana in a Time of COVID-19⁴

The Work and Employment Chapter presents data from a study titled *Homework and Homeworkers in Ghana* conducted by the authors of the chapter in 2019 for the International Labour Organisation [ILO]. While home-based work refers to work that takes place within the home, homework refers to work commissioned by someone or an entity other than the worker that takes place within the home or in a place designated as a workplace by the worker and not the commissioner of the work. In essence, homework can be a subset of home-based work. The authors' research with homeworkers show that they work largely in the informal economy and earn low wages.

There is a wide spectrum of work in the Ghanaian context with terms and conditions that qualify as homework. However, different from what often pertains globally in the labour value chain, in the Ghanaian context, some homeworkers had entered into contract arrangements with other workers who were also invisible in labour statistics and analysis. In particular, this applied to the agro-processing sector of the economy.

Homeworkers in both formal and informal sectors and in agriculture, industry and services commonly lack benefits, paid leave, health and safety provision, insurance, social security and pensions. These make workers in the informal economy even more vulnerable to COVID-19. Given workers in this sector's lack of work-related benefits too, they necessarily find themselves in particularly difficult economic circumstances as work opportunities have shrunk due to the COVID-19 pandemic (ILO 2020). In the era of COVID-19, home-based work, homework, and homeworkers need more apt conceptualisation for policy and socio-economic development.

⁴ The data presented in this subsection draw on a study titled 'Homework and Homeworkers in Ghana' conducted by Akosua Darkwah and Dzodzi Tsikata for the International Labour Organisation in 2019. We gratefully acknowledge the ILO for their support in conducting the study and for permission to reproduce parts of it here.

The chapter highlights the implications of the COVID-19 pandemic for home-based work and homeworkers. It contends that there is a lack of data on homework and homeworkers because certain categories of workers are not identified in labour surveys in Ghana. Moreover, many people combine homework with home-based work activities, making it difficult to distinguish between the two.

We recommend that labour surveys in Ghana expand to include data on home-based work, homework, and home workers. Labour and work surveys in Ghana should begin to capture the prevalence, variations, as well as terms and conditions of homeworkers in Ghana. Ghana's Labour Act also needs to be revised to take the wide range of employment relationships in Ghana into account.

Energy

Trajectories of Solar Energy Development in Ghana: Drivers and Barriers pre-COVID-19 and Beyond

The chapter on energy notes that by virtue of Ghana's geographical location in the tropics, solar radiation is available almost throughout the year across all the regions (Kemausuor et. al., 2011). Nevertheless, the use of non-renewable energy sources in the generation of electricity in Ghana is increasing (Energy Commission, 2021), which is a source of great concern for the environment. As countries around the world begin to consider post-COVID-19 socio-economic recovery plans, the use of renewable energy sources such as solar has risen to the top of the priority list (Institute of Economic Affairs [IEA], 2021). In spite of this, there are numerous challenges that prevent the country from using its renewable energy resources to their full potential. This chapter investigates the development of solar energy in Ghana prior to the outbreak of the COVID-19 virus and provides an in-depth discussion of the drivers and obstacles to investments in renewable energies in Ghana. It further explores the role of solar energy in Ghana's response to the pandemic.

Ghana has enacted a number of policies, actions, and laws to aid in the deployment and implementation of solar energy in the country, including the Renewable Energy Law (Act 832), the Renewable Energy Master Plan, and the 2010 National Energy Policy (Kuamoah, 2020; Aboagye et. al., 2021). The drivers of solar energy in Ghana are energy sector reforms, the pressure to reduce CO₂ emissions/footprint, the growing demand for modern energy, relatively negative effects of fossil fuels, ensuring energy security and rural electrification, and improved technologies. In Ghana, barriers to solar energy include a strong national preference for fossil fuels, a high initial capital cost, and a lack of financing institutions, and currency risk. Others include a lack of public awareness and information, a small market size for renewable energy, a lack of local human

capacity and training, and ineffective regulations and administrative complexities.

Although Ghana has a large amount of solar energy resources, the chapter concludes that the country suffers from a number of drawbacks, including a lack of technical, financial, and human resources, weak institutional and regulatory frameworks, and socio-political barriers that prevent the country from fully exploiting its potential. In addition, several initiatives using solar energy to assist in mitigating the impact of COVID 19 were implemented in Ghana as well. One of the most notable of these initiatives is the installation of solar-powered hand washing basins made of locally sourced materials with automatic sensors to promote personal hygiene to enhance compliance with COVID protocols.

The chapter recommends strengthening the institutional and regulatory framework, capacity building, harmonisation of financial resources, and enhancement of security and political environments, in order to attract investors (Bishoge, Kombe, and Mvile, 2020), to assist in driving Ghana's recovery following the COVID 19 disaster. The Ministries of Environment, Science, Technology and Innovation and Energy should lead Ghana to take advantage of the favourable policies, laws, climatic conditions and other constructive/beneficial drivers to educate citizens on and facilitate the increased use of solar energy. This will include/require training and human capital development.

Governance

The Anti-Corruption Fight: How Far, and Which Way Forward?

The chapter presents corruption as having various cost dimensions spanning political, social, environmental and economic which undermine good governance everywhere but especially in poor economies (United Nations, 2004; Bracking, 2007; Transparency International, 2020). The fight against corruption, therefore, is a responsibility of all stakeholders both in the public and private sectors, and involves appropriate legislative, policy and institutional frameworks.

Ghana's fight against corruption has been wavering with modest gains with respect to the legal, policy and institutional frameworks. Overall, Ghana's performance is below the global average; yet, it is nearly always above the Sub-Saharan African average. However, the country's corruption fight needs much more commitment from the government for the enforcement of related laws, prosecution of culprits irrespective of their political party affiliations or stature in society, and instituting and enforcing severe sanctions as a deterrent to many

others who may be contemplating engaging in various corrupt acts. The chapter further argues that the role of the media/civil society organisations and citizens in the fight against corruption is extremely crucial and, therefore, must be protected and empowered for their concerted efforts to be harnessed effectively.

The chapter proposes that commitment to and appreciable progress in the fight against corruption will be made with:

- the adequate resourcing of oversight institutions with funds, logistics, and human resources to minimise their dependence on the goodwill of any government and avoid a debilitating effect in the delivery of their mandates;
- the capacity building of state prosecutors in institutions such as the Attorney General's Office, the Office of Special Prosecution, and the Police Service in addition to good remuneration, to keep them ready to prosecute these corrupt cases without fear or favour;
- the building of the culture of integrity among the citizenry with leadership showing the way, and involving young children through the educational system;
- the passage of the Public Officers' Conduct Bill which will contribute to the management of conflict of interest scenarios and declaration of assets, among others; ensuring impartiality of the judiciary so that justice should not only be done, but should manifestly and undoubtedly be seen to be done; and
- the monitoring of public procurement processes to minimise sole-sourcing and conflict of interest situations and enhance anti-corruption efforts not only in the public sector but the private sector as well.

The chapter further recommends that the Government of Ghana must show greater commitment to fighting corruption in the country.

- A freer, safer, more protected and more empowered space for the media/civil society organisations and citizens for a concerted effort to better fight the canker of corruption in Ghana is needed.
- There is the need for the dependence on the goodwill of the government to fight corruption in the country to wane. Rather, there is need for GoG to adequately resource the oversight institutions with funds, logistics, human resource capacity strengthening, and an improved legal atmosphere with greater supervision, to effectively carry out their mandate. State prosecutors in institutions such as the Attorney General's Office, the Office of Special Prosecution, and the Police Service

should have their capacities strengthened. The need to pay these personnel good remuneration is also recommended.

- Among others, some of the ways to more seriously tackle corruption are imbibing a culture of integrity in the citizenry, leaders setting a good example, using the education system to groom young children against corruption, passing the Public Officers' Conduct Bill/Act, and implementing more seriously, the requirement that leaders at the management level declare their assets prior to ascending high positions in the country.

Environment

Deconstructing the Socio-Economic Cost of Deforestation in Ghana

This chapter asserts that the quality of Ghana's forests, notably its forest reserves, has been on a sharp/precipitous decline. Between 2001 and 2019, Western and Ashanti Regions alone accounted for 58% of all the area of tree cover loss in Ghana, with pristine areas such as the Atewa Range forest turned into agricultural lands and settlements (Ghartey-Tagoe, et al., 2020; Global Forest Watch, 2020). Agriculture is the primary driver of deforestation in Ghana, with cocoa farming activities contributing extremely (about 50%) to the phenomenon, based on the clearing of large tracts of land by farmers to boost cocoa yields (Asamoah et al., 2020).

Deforestation alone accounted for about 66% of the total greenhouse gases emissions produced in Ghana between 2000 and 2015. Deforestation has accounted for more emissions in the country than any other contributor. It has reduced the ability of forests to absorb carbon and act as a natural sink (Forestry Commission, 2017). By adopting the right set of measures, Ghana can preserve the existing forest cover and re-afforest the lost forest cover.

To preserve Ghana's forests from further depletion, the chapter recommends that the Government and other stakeholders, including local government and traditional leaders, should:

- Undertake a well-orchestrated awareness creation and public education campaign on deforestation.
- Engage community members in the fight against deforestation as well as address rudimentary/primary/basic livelihood issues driving some citizens into illegal activities in forests.

- GoG and related stakeholders should vigorously implement already existing laws which proscribe/prohibit illegal lumbering and exportation of timber.

Gender

Gender Equality

The chapter on gender equality highlights the growing urgency for gender data collection in Ghana. Gender data gap is a massive problem in Ghana at the institutional, policy and programmatic levels. The gender data gap is the continuous systemic discrimination in gender data collection that has a profound pervasive invisible bias upon women's lives. There is insufficient gender data to assist decision-making to close the gender gap; that is, data on the different vulnerabilities between women and men as reflected in social, political, intellectual, cultural, or economic attainments or attitudes (Harris/ Schwab, 2017; Care, 2021).

Ghana currently has a competent research and national coordinating statistical system in the GSS, and a 'gender machinery' in the Ministry of Gender, Children and Social Protection (MoGCSP, 2017) which has the primary responsibility for gender data. However, both institutions alone cannot undertake gender data collection in the multidisciplinary areas of Ghana's development. Virtually all public institutions, ministries, departments and agencies (MDAs) are equipped with Research Statistics, and Information Management (RSIM) units. However, very few collect, or are equipped to collect gender data.

A collaborative assessment of gender statistics at the national and district levels by the GSS and MoGCSP in 2017 revealed that there was no national policy for the production of gender statistics in Ghana (MoGCSP, 2017). This situation virtually remains the same in 2020. With the exception of MoGCSP, no MDAs in Ghana are mandated by law to collect and generate gender data. The result is that few policies and programmes for addressing gender equality in Ghana can be formulated out of accurate gender statistics. Generating gender data will provide quality statistics on women and girls that will enable gender-responsive decision-making in policy and legislation to end female vulnerability to poverty, exploitation, discrimination, abuse and violence.

The chapter proposes that the GoG should formulate a national policy on gender data and equip all public institutions, ministries, departments and agencies as well as the private sector to collect quality gender data under the leadership of the Ministry of Gender, Children and Social Protection and the Ghana Statistical Service.

A National Gender Data Registry should be set up, under the auspices of these two governmental agencies. The existence of this Registry should be widely communicated, with user-friendly apps, and both electronic and physical guidance to enable users access it with ease.

Social Values

Social Values and the Ghana Beyond Aid Agenda

The Ghana Beyond Aid (GBA) agenda aspires to radically transform Ghana's economy and society. It is built on two core components, a 'technical pillar' focused on structural economic transformation and a 'social pillar' that aims to totally reorient social attitudes and values. This chapter focuses on the 'social pillar' of GBA, categorising the values identified in the *Ghana Beyond Aid Charter and Strategy Document* into three broad themes, namely i) *belonging, patriotism, and participation*, ii) *trust*, and iii) *core values and ideological positioning*. The chapter draws on two large datasets (Afrobarometer and World Values Survey) to examine the national pattern of values orientation. The chapter finds that while the GBA agenda is built on the assumption that the essential social values and attitudes necessary for the success of the technical strategies of the agenda are absent, or only minimally present, in Ghanaian society, this assumption is not supported by the available data.

The data show that there is a strong sense of national attachment among Ghanaians. Accordingly, expressions of patriotic sentiments are high while ethnic antagonism is low. This does not, however, directly translate into conventional forms of civic participation, which tends to be very low, outside of voting. There are very low levels of generalised trust among Ghanaians. Trust tends to be reserved for close relations and dissipates as one moves towards the public sphere. There also seems to be a preference for informal over formal institutions. For instance, traditional and religious leaders are more trusted than public officials.

Ghanaians exhibit a slightly right-to-centre political ideology, showing a strong tolerance for wealth inequality and a preference for private enterprise. The pattern of social values emphasises hard work and honesty. It is clear that Ghanaians already embrace the values that the *Charter* intends to instill in them. However, translating values into practice is an elusive problem for both theory and practice. For instance, espousing the virtues of honesty and ethical conduct in public life does not automatically yield anti-corruption dividends (Asante and Khisa, 2019; Asante and Mullard, 2021).

The chapter makes the following recommendations:

- The key assumptions of the Social Pillar of the Ghana Beyond Aid Agenda needs to be re-tweaked, embedded in existing credible data. The Afrobarometer and World Values Survey datasets are recommended for more apt data-driven assumptions to guide the Ghana Beyond Aid agenda.
- The state should work in collaboration with some of these informal institutions like churches and neighbourhood or communal organisations, to increase participation in social life.
- Public institutions should be empowered to carry out their regulatory mandate in order to increase public trust in such institutions.

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Education

2

HIGH SCHOOL TO HIGHER EDUCATION TRANSITION IN GHANA – AN ASSESSMENT OF CHALLENGES AND OPPORTUNITIES

Introduction

Education is a primary priority of every Government and its people, as such, countries and their international development partners have been involved in developing strategic policies and programmes towards producing and delivering quality and accessible education for all. Ghana, since independence, has undertaken many educational reforms, all aimed at achieving an educated population, with the goal of ensuring a gradual reduction of poverty through a well-trained well-educated citizenry and by providing needed capacity building for its people (Iddrisu, 2016).

Ghana's education sector has been on a growth path and is on course to achieve universal basic and secondary education for all. This is the result of a series of strategic reforms and upscaling of investment in the sector, including the abolition of fees, free school feeding, and a massive investment in infrastructure in the basic and secondary education sub-sectors. The biggest challenge of this sub-sector (the pre-tertiary education sector) is the level of internal inefficiencies characterised principally by the poor rate of transition from basic to secondary education. However, with the implementation of the Free Senior High School (Free SHS) policy, the transition from basic education to secondary education is guaranteed to increase. The nature of the Free SHS policy and accompanying efforts to improve internal efficiency in secondary education,

further present a higher probability that a student who enters senior high school will be able to complete his or her education. What is not guaranteed, is the transition from high school to higher education (tertiary education). The challenges of space, human resource capacity and cost constitute potential hindrances for the transition of students of the Free SHS policy to higher education. It is important to state upfront that the terms “higher education” and “tertiary education” are used interchangeably as they mean almost the same thing. Although elsewhere the two terms may mean different levels of education, higher education appears to be subsumed by tertiary education. The focus of the chapter, however, is on post-secondary education in pursuit of an academic degree.

Secondary education in Ghana, according to the Education Sector Plan (2018-2030) is expected to adequately prepare graduates for tertiary institutions and for the world of work, however, it appears senior high school graduates are more and more interested in transitioning to higher education than in joining the world of work. As a result, the demand for higher education continues to see year-on-year increases. The Free SHS policy and the rise in the number of students completing secondary education is expected to result in a historic level of demand for higher education in the next few years. This will put pressure on public tertiary education institutions in the country. It is worth noting that higher education in Ghana has also witnessed significant growth. The recent Government policy to split the University for Development Studies (UDS) into three independent institutions to serve the Northern, Upper West and the Upper East Regions, the establishment of the University of Energy and Natural Resources (UENR) in Brong Ahafo Region (now Bono Region), the University of Health and Allied Sciences (UHAS) in the Volta Region, and the University of Environment and Sustainable Development (UESD) in the Eastern Region, has contributed to increasing the number of tertiary institutions in the country. These new institutions are in addition to the already existing public universities, notably the University of Ghana (UG), Legon, the Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, the University of Cape Coast (UCC) and the University of Education (UEW), Winneba. However, the pace is still far lower than desired, and human resource capacity issues, coupled with the costs of enrollment, have put supply-side constraints on the expansion of higher education institutions.

Nevertheless, policymakers and the public alike would like to see a smooth transition from secondary to higher education for students, while maintaining the quality of education. This provides an opportunity in the midst of the many challenges, for government to make special efforts to cope with the rising demand for tertiary education by further expanding the grid of universities, colleges, and

professional institutions, opening up funding and scholarship opportunities for students, and investing in entrepreneurship as a viable alternative to ‘classroom’ education. Managers of tertiary education institutions too have an opportunity to expand and innovate. Higher education institutions have an opportunity to expand physical infrastructure and increase recruitment of personnel, as innovation in the provision of education is most imperative at this time. The need to leverage technology to expand virtual education and distance education programmes that allow for enrollment of higher numbers of students can be real game changers.

In this chapter answers are provided to three key questions:

1. What are the challenges that higher education institutions face in absorbing the increasing numbers of students of the Free Senior High School policy?
2. What opportunities do these challenges present to government and the management of higher education institutions?
3. What does the future for getting highly educated and the transition to higher education look like in Ghana?

Access and participation in pre-tertiary education in Ghana

In the 1992 Constitution of Ghana, the need for accessible free and compulsory basic education for all has been outlined as a human right in Article 25. Clause (1) of Article 25 of the 1992 Constitution provides as follows:

25 (1) All persons shall have the right to equal education opportunities and facilities and with a view to achieving the full realisation of that right:

- a. basic education shall be free, compulsory and available to all;*
- b. secondary education in its different forms including technical and vocational education, shall be made generally available and accessible to all by every appropriate means, and in particular, by the progressive introduction of free education;*
- c. higher education shall be made equally accessible to all on the basis of capacity by every appropriate means, and in particular, by progressive introduction of free education;*
- d. functional literacy shall be encouraged or intensified as far as possible;*
- e. the development of a system of schools with adequate facilities at all levels shall be actively pursued.*

The 1992 Constitution further states in Chapter Six, under “The Directive Principles of State Policy”, in Article 38, that the State shall ensure the realisation of the Education policy objective by providing educational facilities at all levels and in all the regions of Ghana to make education available and accessible to all citizens. Specifically, Article 38 (Clauses 1, 2 & 3) of the Constitution provides as follows:

38 (1) The State shall provide educational facilities at all levels and in all the Regions of Ghana, and shall, to the greatest extent feasible, make those facilities available to all citizens.

(2) The Government shall, within two years after Parliament first meets after the coming into force of this Constitution, draw up a programme for implementation within the following ten years, for the provision of Free, Compulsory and Universal Basic Education.

(3) The State shall, subject to the availability of resources, provide

- a. equal and balanced access to secondary and other appropriate pre-university education, equal access to university or equivalent education, with emphasis on science and technology;*
- b. a free adult literacy programme, and a free vocational training, rehabilitation and resettlement of disabled persons; and*
- c. life-long education.*

To reiterate the need for and as a basic human right, the policy of free Compulsory Universal Basic Education (fCUBE) was introduced in 1995. In conjunction with fCUBE, school fees were abolished. In addition, free school uniforms, a school feeding programme, affirmative action, the capitation grant, free school sandals, and a pupil teaching policy module under the National Youth Employment Programme (NYEP) meant to train and supply teachers to fill gaps in the classrooms, have been implemented (Arkorful, et al. 2019; Nudzor, 2012; Osei-Fosu, 2011), all indicating efforts by successive governments to ensure access and participation in basic education.

The introduction of the progressively free senior high school (SHS) policy in 2015 was in fulfillment of Sub-clause (b) of Article 25(1) and a progression from the fCUBE policy. The fully free SHS policy implemented in 2017 is also a progression from the progressively free SHS policy. While the progressively free policy was a form of partial funding for the direct cost of SHS education for some students, the fully free SHS policy is a complete abolition of all direct payments typically made towards SHS education for all students entering SHS in the 2017/2018 academic year. All approved costs relating to tuition, library fees, boarding fees, utility fees, science laboratory fees, examination fees, meals for both boarders and day-students, parent-teacher association (PTA) dues, and textbooks user

fees are abolished and fully absorbed by government (Ministry of Finance [MoF], 2017; Ministry of Education [MoE], 2018a; Abdul-Rahaman et al. 2018). It must be observed that this wholesale absorption of all fees by government including the voluntary payment of dues by PTAs has its own consequences which will be discussed later.

Access to basic education and transition to secondary

The basic education sub-sector in Ghana comprises pre-primary (kindergarten), primary, and junior high school (JHS) levels. The basic education level is for children between the ages of 4 and 15 years. Public basic education is predominantly provided by government and complemented by the private sector (Ministry of Education [MoE], 2019). Access to basic education aids human resource development, increases productivity, deepens insight and understanding, promotes social and political stability, peace and harmony, promotes science and technology, even ups income distribution and the eradication of poverty (Ozturk, 2001). Governments strive to prioritise investment in basic education to make it more accessible and participatory. In collaboration with individuals, non-governmental organisations (NGOs) and international development partners, governments have identified and implemented several policies tailored towards the attainment of access, participation and enrollment. Some policies and programmes as already mentioned include school feeding, affirmative action, the capitation grant, free school sandals and uniforms, and other supportive programmes.

The result of these policies and programmatic interventions is that, on the whole, access to kindergarten education, in its general sense, has increased substantially. Table 2.1 is comprised of data from 2010-2018 on basic education school statistics. The table presents the number of existing schools per year nationally. The statistics show a commendable increase in the number of schools across the country. In the 2010/2011 academic year, 18,801 kindergarten schools were available in Ghana. Eight years later, an impressive 5,617 more schools were established which increased the number to 24,418 in the 2018/2019 academic year. This shows an increase of about 30% of kindergarten schools across the country between 2010 and 2018. A similar trend is noted for primary schools and JHS schools. An average of 545 primary schools and 643 JHSs are added annually to the existing schools between 2010 and 2018. This shows a significant improvement in the provision of infrastructure at the basic level of education in the country.

With respect to enrollment, the Gross Enrollment Ratio (GER) and the Net Enrollment Ratio (NER) are presented in Table 2.2 to show the growth trend at the three levels of the basic education sub-sector between 2010 and 2018. At the

TABLE 2.1: Number of basic schools

Year	KG schools	Primary Schools	JHS Schools
2010	18,801	19,729	11,709
2011	18,915	19,833	11,567
2012	19,277	19,854	12,436
2013	20,100	20,502	13,082
2014	20,960	21,309	13,840
2015	22,092	22,460	14,802
2016	23,285	23,672	15,850
2017	23,285	24,145	16,450
2018	24,418	24,488	16,850

Source: MoE 2015, 2018

kindergarten level GER and NER increased by 14 percentage points between 2010 and 2018, from 98% to 112% and 60% to 74%, respectively. This is a remarkable growth considering that early childhood education was formally included as part of the basic education system in 2004. This suggests that Ghanaians have paid good attention to early childhood development.

TABLE 2.2: GER and NER in Basic Education

LEVEL	KG		PRIMARY		JHS	
YEAR	GER	NER	GER	NER	GER	NER
2010	98	60	96.4	77.8	79.6	46.1
2011	99	64	96.5	81.7	80.6	46.1
2012	114	75	105.0	84.1	82.2	47.1
2013	123	91	107.3	89.3	82.0	49.2
2014	129	83	110.4	91.0	85.4	49.0
2015	124	80	113.3	91.5	88.0	50.3
2016	122	82	112.0	92.5	90.0	52.5
2017	116	75	111.4	91.1	86.8	49.7
2018	112	74	106.2	89.3	86.1	48.5

Source: MoE 2015, 2018

With regard to primary school enrollment, GER and NER also showed significant increases between 2010 and 2018. GER increased by about 10 percentage points from 96.4% in 2010 to 106.2% in 2018, and NER increased by about 11 percentage points from 77.8% in 2010 to 89.3% in 2018. At the JHS level, even though the increase is not as significant as the kindergarten and primary levels, on the average growth between 2010 and 2018 has been positive. GER increased by about 7 percentage points from 79.6% to 86% between 2010 and 2018, respectively. NER at the JHS, however, in large part grew marginally between 2010 and 2018 by about 2 percentage points from 46% to 48.5%, respectively.

Completion and transition

Many of the educational reforms and programmes implemented in Ghana can be praised for ensuring increasing basic school enrollment, completion and transition. Figure 2.1 shows in percentage terms the trend of students completing and transitioning from primary school to junior high school, and percentage of students completing junior high school and transitioning to senior high school between 2010 to 2018. The data indicates a sustained level of primary school completion of 100%. For example, after primary school the completion rate decreased from 99.6% in 2010 to 93.7% in 2011, increased significantly to 112% in 2012, and has since remained impressively around 100% between 2013 and 2018.

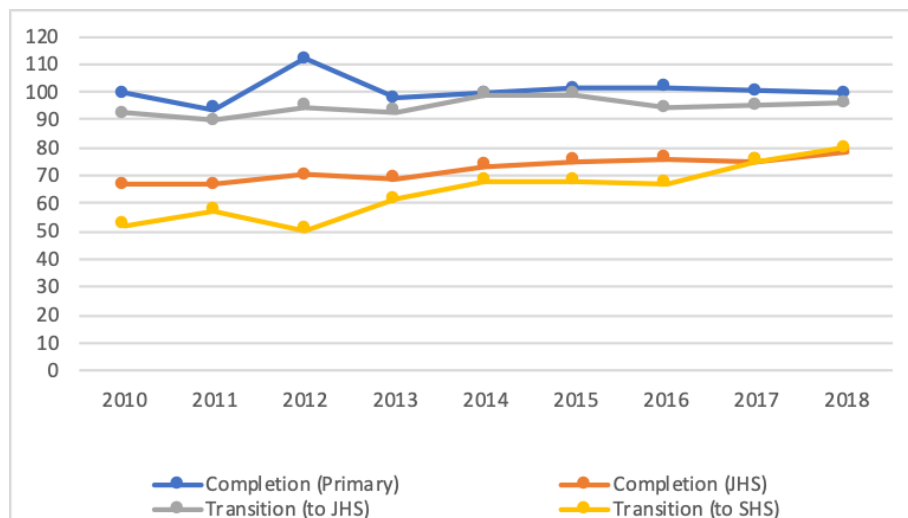
With respect to the percentage of pupils transitioning primary school to junior high school (P6 to JHS1), the overall transition rate is impressive despite remaining slightly below full transition, signifying that there are still some pupils who do not progress to JHS after completing primary school. In 2012 for instance, while the completion rate was about 112%, the transition rate was 94.5%, giving rise to a gap between completion and transition of about 17.5 percentage points. This gap however, has since decreased to an average of 4 percentage points between 2012 and 2018. Despite the commendable rise in the transition from primary school to junior high school, there is still the need for research to understand why some pupils fail to transition to JHS after completing primary school, notwithstanding the incentives available at the basic education level. It would appear that one factor would be the lack of direct demand-side incentives at the JHS level.

The JHS level which is the 'knot' between the basic and SHS levels suffers what we may call 'policy bypass'. All the major demand-side incentives at the pre-tertiary education level target the primary, pre-primary and SHS levels, leaving

the JHS level in the middle. For instance, the Ghana Free School Feeding programme provides meals to only primary and kindergarten pupils and does not include the JHS level. Invariably, the benefits of the massive increase in enrollment and attendance at the primary level due to the Free School Feeding programme, for example, are not realised at the JHS level. This is perhaps because primary school pupils who have completed school do not look to benefit from any such incentives at the JHS level. This brings up the age-old discussion about the adverse effects of social assistance and incentives which revolve around the ‘dependency syndrome’ – concerns about recipients becoming over-dependent on incentives and not wanting to let go. While the case for the favourable impact of school feeding may be anecdotal, there is the need to investigate reasons for children failing to progress to JHS after completing primary school.

At the JHS level completion and transition to SHS has also been growing, albeit slowly. It is still significantly below 100%. JHS completion in 2010 was 66.9%, increasing to 76% in 2016 and 78.8% in 2018 (Figure 2.1). This means that over 20% of pupils enrolling at the junior high level do not survive to successful completion of JHS. On the other hand, the rate of transition to SHS has seen a remarkable increase between 2010 and 2018, increasing by nearly 30 percentage points, from 50.5% to 80%, respectively. Remarkably, the gap between JHS completion and transition to SHS has effectively been eliminated. This faded off in 2017 when the gap between the percentage of students completing JHS and those transitioning to SHS completely merged. In 2018 the percentage of students entering SHS was higher than the percentage of students completing JHS. This suggests that the Free SHS policy may have brought to school students who completed JHS in previous years but could not progress immediately.

Figure 2.1: Trends in completion and transition for basic education to SHS



Source: MoE 2015, 2018a, 2019

Table 2.3 gives further illustration of the improvements in the rate of transitioning from JHS to SHS using data on students who registered for the Basic Education Certificate Examination (BECE) in various years. The BECE is the completion examination for JHS education in Ghana. Persons completing the BECE can enter senior high school, vocational institutes, or technical institutes, depending on their BECE marks, grade, programmes and interests. The BECE is therefore the main mechanism through which students are sorted and placed in the various public secondary, technical or vocational education institutions in Ghana. Table 2.3 shows the number of JHS graduates who are offered admissions into SHS, the total number of JHS graduates who enroll and the number who gain admission but do not enroll. The evidence shows that, prior to 2017/2018 academic year, a total of 115,363 (27.8%) and 111,336 (26.5%) BECE candidates in 2015 and 2016, respectively, had placement to enroll in senior high school but were unable to enroll. With the introduction of the Free SHS policy in 2017, the number of non-enrolees reduced to 14.7% and further to an average of 12.5%.

Evidently, with the Free SHS policy there has been a phenomenal increase in SHS enrollment. Indeed, following the introduction of the Free SHS policy, secondary education has become a *de facto* basic requirement for all Ghanaians of school-going age. Cost is no more a strong alibi for non-progression to senior high school. By virtue of a student obtaining the eligible grades in the BECE and

TABLE 2.3: Trend in transition from basic to secondary education

Year	Total Registered (BECE)	Number Placed	No. Enrolled	No. Placed but not Enrolled	% Placed but not Enrolled
2015	440,469	415,012	299,649	115,363	27.8%
2016	461,009	420,135	308,799	111,336	26.5%
2017	468,060	424,224	361,771	62,453	14.7%
2018	521,811	486,641	433,819	52,822	10.9%
2019	512,083	459,912	404,856	55,056	11.9%

Source: MoE, 2020¹

desirous of going to SHS, such a student will be placed in a school. The situation however is that there are still a number of qualified JHS graduates who do not enroll in SHS even though they are offered placement. This suggests that there may be other issues which also matter besides the direct cost of SHS education. Some of these may include physical access and associated costs of transportation and accommodation, and costs related to acquiring the basic necessities of life for school. Hence much more needs to be done, in order to make secondary education truly equitable and accessible.

Secondary education and transition

Growth in the number of secondary schools is a good indicator of the situation with regard to physical access to secondary education. The available data from various reports of the MoE (2015, 2018, & 2019) show overall that the number of senior high schools (both public and private) increased between 2010 and 2018 by about 28% from 720 schools to 921 schools, respectively. While this is remarkable, it has to be pointed out that between 2016 and 2017 the number of senior high schools decreased from 927 to 916 showing a 1.2% decrease. Even though the number increased slightly between 2017 and 2018 from 916 to 921, this suggests that some senior high schools must have closed down in the immediate aftermath of the Free SHS policy. Indeed, the number of private senior high schools reduced by 6.8% between 2016 and 2017 from 307 to 286 and decreased even more significantly by 13.6% between 2017 and 2018 from 286 to 247. This still suggests that a number of private schools must have closed down following the introduction of government's Free SHS policy which brought about reduced enrollment in private schools (Table 2.4).

TABLE 2.4: Number of SHS schools

¹ <http://freeshs.gov.gh/index.php/digest/>

Year	Public	Private	Total
2010	511	209	720
2011	515	242	757
2012	535	293	828
2013	556	284	840
2014	562	301	863
2015	578	294	872
2016	620	307	927
2017	630	286	916
2018	674	247	921

Source: MoE 2015, 2018a, 2019

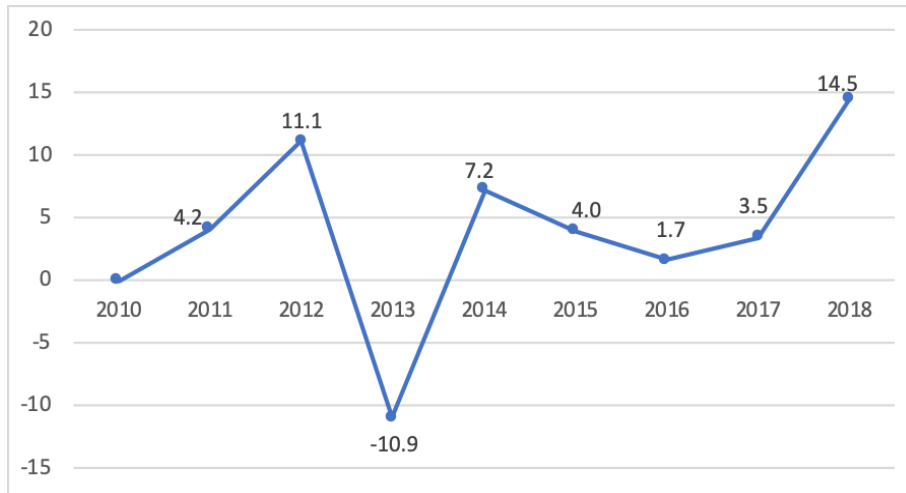
Table 2.5 presents the number of students enrolled in SHS in Ghana between 2010 and 2018. In the 2010/2011 academic year, SHS enrollment stood at 728,076, increasing to 758,468 in 2011, showing a 4.2% increase (shown in Figure 2.2). The largest increase in enrollment in the years before the Free SHS policy is observed in 2012 where enrollment increased by about 11% from 758,468 in 2011 to 842,587 in 2012. The largest year-on-year increase is observed in 2018 where enrollment increased by 14.5% from 880,770 in 2017 to 1,008,237 in 2018. Figure 2.2 shows the change in nominal enrollment levels in various years from 2010 to 2018.

TABLE 2.5: Enrollment, GER and NER in SHS

Year	Enrollment	GER	NER
2010	728,076	36.5	24.3
2011	758,468	37.1	23.6
2012	842,587	36.8	23.6
2013	750,706	43.9	21.8
2014	804,974	46.2	22.5
2015	837,204	45.6	25.2
2016	851,312	49.6	25.7
2017	880,770	50.1	26.5
2018	1,008,237	55.9	29.8

Source: UNESCO, 2020; MoE, 2015, 2016, 2017, 2018a, 2019

Figure 2.2: Trends in growth of SHS enrollment in Ghana between 2010 and 2018



Relative to the population, GER in 2016 was 49.6% increasing from 36.5% in 2010. NER on the other hand stagnated around 24% between 2010 and 2016. Following the introduction of Free SHS in the 2016/2017 academic year enrollment levels increased significantly between 2016 and 2018. SHS enrollment increased from 851,312 in 2016 to 1,008,237 in 2018, showing an increase of about 18.4%. In terms of enrollment at the appropriate age, NER shows that, from 2010 to 2013, there has been a decrease from 24.3% to 21.8%. However, between 2014 and 2016 NER increased by about 3 percentage points from 22.5% to 25.7%, respectively. Between 2016 and 2018 NER increased again by 4 percentage points from 25.7% to 29.8%. In so far as Free SHS is operational, NER is guaranteed to continue to increase, but more needs to be done to bridge the incentive gap at the JHS level.

As earlier observed, it is suggested that physical access and cost of transportation and accommodation serve as latent barriers to the full enjoyment of the Free SHS policy. There is anecdotal evidence of students not being able to accept placement in some schools because the schools are far away from their places of origin. This is reinforced by the fact that some of these students are placed as day students and have to find accommodation by themselves. There are also stories of schools turning away students because of lack of space in terms of accommodation, and classroom facilities. That is why many people have not understood the rationale for the ban on the payment of PTA dues under the Free SHS policy, which are often used to support the provision of infrastructure (teachers' and student accommodation and classroom blocks), furniture, and other teaching and learning facilities. The claim is that the payment of PTA fees will be a financial burden on parents and may discourage

enrollment. The ban, therefore, is to enable the Ghana Education Service (GES) to streamline and review all such levies in all second cycle schools. How and why PTA dues also need to be streamlined is not clear.

PTAs, unlike in other jurisdictions, are supposed to be voluntary in Ghana, even though over time, their existence has *de facto* become part of the governance structure of pre-tertiary educational institutions. It must also be observed that even though the name reflects an association of parents and teachers, in terms of operation and functionality, the greater burden is often borne by parents. For example, PTA dues are fixed when parents meet to deliberate on the welfare of the school and to determine what kind of help they can give to the school. As such, what is agreed upon is dependent upon the will and capacity of parents as a unit. This means that the amounts parents pay as PTA dues vary from school to school, even in the same district or region. The absorption of PTA dues under the Free SHS policy is therefore, by and large, a disservice to schools that hitherto depended heavily on the contributions of their PTAs. Government should be seeking to encourage parents to support schools voluntarily by fashioning out regulations that will make PTAs function more independently outside the school system. That way, they can continue to help their affiliated schools as far as their capacity determines without detracting from the desired *freeness* of the Free SHS Policy.

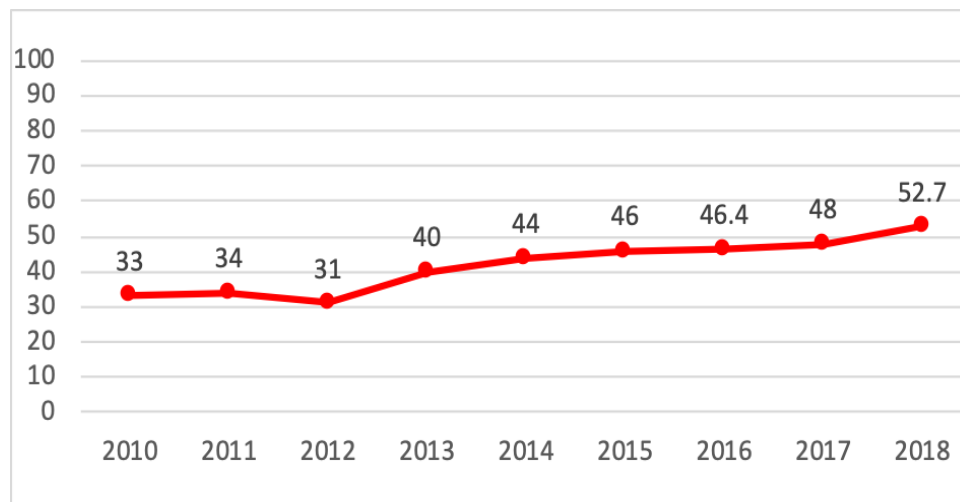
The rate of completion of SHS has seen some significant increase over the period of 2010 – 2018. This is shown in figure 2.3. Between 2010 and 2018 the completion rate increased by almost 20 percentage points from 33% to 52.7%. The rate of completion crossed more than 50% in 2018. It was slower between 2013 and 2016 compared to the rate of completion between 2017 and 2018 which increased by almost 5 percentage points from 48% to 52.7%. While this is positive, we must be certain that the increase in completion is not rather attributable to the Free SHS policy of discouraging grade repetition at the SHS level. According to the Minister for Education, it was the policy principle that government would only fund the education of students over a three-year duration. As he explained: “We said you can carry your free SHS for three years because that is the duration of the lifetime of your SHS study. So, if you go to first year, that is first year we will pay. You repeat first year, year two we will pay. When you get to second year, year three we will pay. Year four we won’t.” (*Daily Graphic*, July 27, 2017). The Minister added that a student who is repeated as a result of failing an examination or for any other reason, would not continue to enjoy Free SHS as government would have paid for the person’s allocated three-year duration in SHS.

This must however, be seen within a context. Various factors could account for a student repeating a grade in school. Poor performance, ill-health, migration,

school returnees, among others. The first and oft mentioned is poor performance. However, as several studies have shown, students' academic performance is determined by several factors, some of which could be school-related, teaching and teacher-related, and individual student factors (Glewwe et al. 2011; Adamba, 2018). It is, therefore, not clear how and under what conditions a student repeating a grade could be accommodated or pardoned under the Free SHS policy. To suggest that if for whatever reason, a student who is repeated will subsequently have to pay their own fees when they stay in school for more than three years could be construed as somewhat discriminatory. We do not have to be oblivious of the fact of uneven and inequitable resource allocation across schools in Ghana. Resources that are needed to give all students a level playing field, vis à vis, textbooks in equitable quantities, together with access and use of modern and improved technology for teaching and learning, are factors to be borne in mind when performance is a determinant of a student's fate.

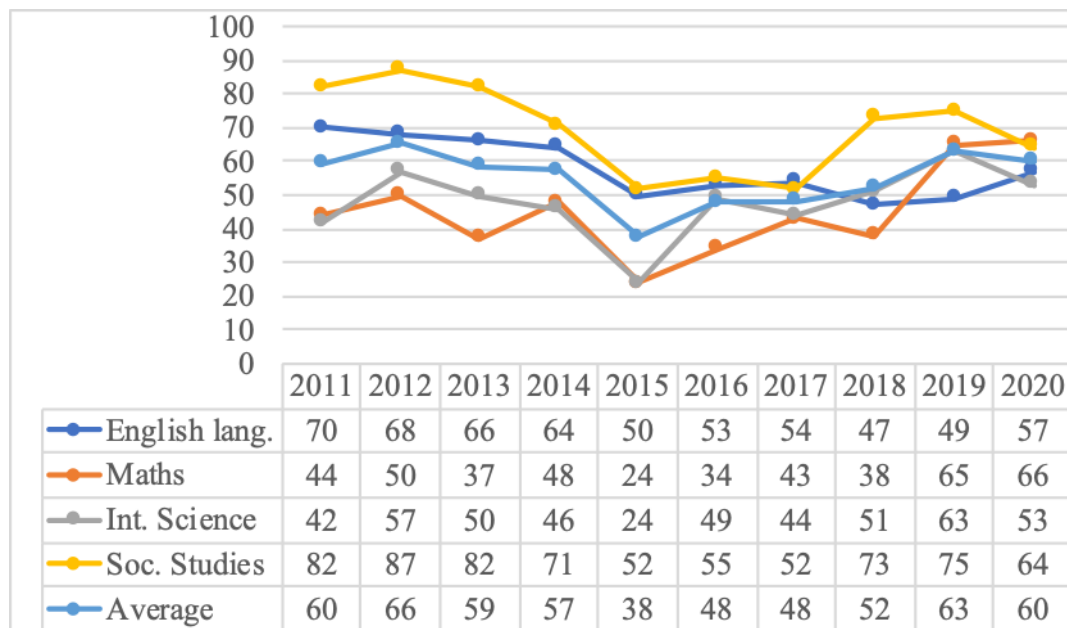
There are two options generally available to a completing SHS graduate; either join the labour market or continue to post-secondary options, comprising secondary, technical, vocational and agricultural education. The transition to post-secondary education depends in large part on a student's performance in the terminal West African Senior Secondary Certificate Examination (WASSCE).

Figure 2.3: Completion Rate in SHS 2010-2018



Source: MoE, 2015, 2018a, 2019

Figure 2.4: Trends in percentage passed in the core subjects



Source: MoE, 2018a; WAEC Ghana, 2020

Note: WASSCE was not taken in 2010

Passes in the four (4) core subjects of English, Mathematics, Integrated Science and Social Studies constitute basic requirement for transitioning to post-secondary education. Figure 2.3 shows the trend in the percentage of students obtaining the pass grade in these core subjects (students with a minimum of C6 in the core subjects: Mathematics, Science, English and Social Studies). The overall average pass rate for all four subjects increased from 37.5% in 2015 to 63% in 2019. Even though there is a small drop by about 3 percentage points between 2019 to 2020, the average pass rate of 60% still shows a substantial improvement over the previous years. The data does not afford us the opportunity to know the actual proportion of SHS graduates who are eligible for post-secondary education, nonetheless, it gives a sense of the proportion of students who have a likelihood of meeting the criteria for post-secondary education.

It is clear that every year, since 2016, the number of students qualifying for higher education has been increasing. Table 2.6 further presents data on the number of students registering for the WASSCE and the number of students eligible for higher education based on the average pass rate in the core subjects.

TABLE 2.6: SHS graduate eligibility for tertiary education based on pass rate in core subjects

Year	Average Pass Rate in Core Subjects	SHS Graduate (Registered WASSCE)	Pass Graduates
2011	59.5%	149175	88759
2012	65.5%	174385	114222
2013	58.8%	409832	240776
2014	57.3%	242157	138634
2015	37.5%	268771	100789
2016	47.8%	274263	130960
2017	48.3%	289207	139542
2018	52.3%	316999	165632
2019	63.0%	346098	218041
2020	60.0%	375737	225442

Source: WAEC Ghana, 2020

In 2016 the number of students who were eligible for higher education increased by about 30% from a 100,789 in 2015 to 130,960 students. Between 2018 and 2019 the number of eligible students increased by about 32% from 165,632 to 218,041 respectively. In 2020 about 225,442 were eligible for post-secondary education, an increase of about 3% higher over the number of students who were eligible in 2019. This gives a sense of the number of students who are potentially eligible for tertiary education in 2021 following Free SHS. If that is looked at against the backdrop that every year there is a cohort of students who may not get the chance to enter higher educational institutions due to financial, and other eligibility reasons, then the real number of students who would be looking to apply for tertiary education could be huge.

It is important to note that, notwithstanding the progressive performance of the secondary sub-sector, there exist a number of challenges that have prevented higher percentages in the number of students who are eligible to participate in tertiary education. This can be put into three main categories. They are management capacity issues, teacher effectiveness, and learner effort. The first problem confronting secondary education in Ghana is management and supervision. There is no question about educational qualifications, but about leadership and management capacity. In Ghana a headship position remains based on academic qualification and longevity or seniority in rank. Possession of leadership or management qualifications are not requirements for heading a school in Ghana. A strategy could therefore be that instead of teachers who desire to become school heads being required to acquire a Master's degree; the requirement should be that their Master's degree be relevant

to school leadership and management. The Ministry of Education could collaborate with institutions such as the Department of Educational Studies and Leadership of the University of Ghana which runs a Master of Arts Degree Programme in Educational Leadership and Management; the University of Cape Coast which runs an Educational Administration Programme; and the University of Education Winneba which runs an Educational Administration and Management Degree Programme, to provide professional development support programmes for current heads of senior high schools.

The second issue for management is resource constraints. Resources in education refer to all the financial, material and manpower available or required in a school system to facilitate school administration and make teaching and learning effective. These resources need not just be available but also be adequate in quantity and quality to make school management effective and efficient, thereby enhancing quality of schooling outcomes. However, issues of inadequate and irregular provision of educational resources by government are well known and severely debilitating for management. Consequently, the best alternatives available to management include prudence where possible or sacrificing other activities. The implementation of various accountability mechanisms, which is the third plank for improvement in management performance, can be justified only if heads of schools have had their capacity built enough and been given the necessary resources to manage their schools. The nature and scope of accountability mechanisms being deployed in Ghana appear insufficiently focused. Accountability policies appear to be premised on the assumption that a focus on student outcomes will lead to behavioural changes which will linearly translate into effective performance and learning outcomes. This however, creates scope for moral hazard, in the absence of appropriate incentives and resources. The introduction of accountability mechanisms, in the nature of performance contracts therefore, can only lead to decision-making anxiety and other unintended consequences.

The problems of teaching and teacher-effectiveness for that matter, are not about qualifications, but about *resources* (textbooks, equipment, and other relevant teaching materials), *incentives* (these can be programme or performance-based incentives, etc.), and *accountability* (professional standards, effort, commitment, etc.). These are not mutually exclusive, but cumulative. Teaching is more effective when it is done with the relevant teaching and learning materials. For example, teaching science will require well equipped laboratories; mathematics and all the other subjects are more effectively taught when the relevant textbooks and resources are available in adequate quantities. Incentives and accountability mechanisms are the second and third mechanisms for

achieving teacher effectiveness. When effectively combined, these two mechanisms work together to affect teacher behaviour in a positive way. However, as indicated earlier, in Ghana the understanding of accountability for teachers is narrowly focused on increasing test scores. Test scores in education typically fall short of providing a complete measure of desired educational outcomes, and an overemphasis on this is likely to reduce emphasis on outcomes that are not measured by the test. Incentives for teachers have to be properly targeted and properly framed. Teacher incentives can be designed for people in different positions or locations who can affect different outcomes in different ways. To be effective, incentives need to be framed and communicated in ways that elicit or enhance teachers' commitment to the educational system and its goals.

The specific challenges of the secondary education sub-sector can therefore be summarised into four: resources, incentives, accountability and leadership capacity issues. These are the elemental ingredients of an educational system which then impact on learners' effort and ultimately performance. The Education Sector Plan (ESP 2018–2030) has suggested that key to achieving the theory of change for secondary education is strengthening school management and leadership (MoE, 2018b). In addition to this, it is important to indicate that the answers to the problems in the sub-sector lie in policy and strategy. There is the need for proper alignment of incentives and accountability mechanisms. More importantly, resources (textbooks, other teaching and learning materials, finances, etc.) to schools must be adequate for the use of management, who have the capacity to manage these resources effectively and efficiently.

Transition to higher education institutions

The desire to transition to higher education is paramount for many SHS graduates compared to entering the world of work. In a survey of final year SHS students in 2019, 97% of them indicated that they would pursue higher education after completing senior high school (Adamba, 2020). The few that indicated they would not continue schooling after senior high school, cited financial difficulty as the main reason. The data being relied upon for the current analysis suggests that, since 2011, the percentage of students who qualified for tertiary education, and who applied to public universities and were offered admissions has been increasing, as shown in Table 2.7. In 2011 for example 47.4% of the students who applied were offered admissions, increasing to 49.9% in 2012. The proportion of applicants offered admissions, however, dropped between 2012 and 2014 from 49.9% to 36.7% and to 15% in 2012, 2013 and 2014, respectively. In 2015 and 2016, however, the percentage of students offered admissions in public universities increased to 53.6% and 60.7% respectively.

TABLE 2.7: Student admission to Public Universities

Admission year	Applications for admission	Applicants qualified	Admission offered	% offered admissions	% of qualified applicants who do not gain admission offers
2011	71,790	54,163	34,010	47.4	37.2
2012	133,563	111,140	66,589	49.9	40.1
2013	202,274	126,472	74,173	36.7	41.4
2014	471,435	90,699	70,901	15.0	21.8
2015	130,201	87,516	69,763	53.6	20.3
2016	136,647	107,225	82,913	60.7	22.7

Source: NCTE, 2018

In 2015 about 46% of qualified students who applied to public universities did not get placement, and in 2016, nearly 40% of student applicants were not placed. Even though the data used for this analysis is from public universities alone, it still helps us to appreciate the challenge of SHS transition to university education. The large number of students who do not get places in the public universities may, in large part, be attributed to inadequate physical capacity of institutions to admit more qualified applicants. This may include academic facilities, such as lecture halls, laboratories, and residential halls. The evidence, therefore, is that before free SHS, the public higher education institutions were already inundated by the demand for university education by students.

It is expected that applications for places in public universities will increase following the completion of the first cohort of the free SHS policy in 2020. Though there is no data available for 2017-2020, it is evident from 2011 to 2016 that averagely, less than half of qualified applicants get admission into public universities. Considering the expected increase in demand due to the free SHS policy and the high completion rate, the pressure on higher educational institutions is expected to increase. All other things being equal, it is likely that there is going to be an increase in the number of students who will not gain admission into public higher educational institutions. One of three things may happen. While some may pursue other routes of post-secondary education including colleges of training for nurses and teachers and polytechnics, those who have the means may apply to private universities. For persons who cannot afford the fees charged in private institutions and prefer none other than the public universities

for higher education, they may have to wait and try again in subsequent years. The latter is more likely, because in Ghana, the ultimate dream of every student (parent) is to pursue university education after secondary school to obtain a degree. This is notwithstanding the fact that there may be other opportunities that are profession-oriented with job placements guaranteed.

Higher education in Ghana

Higher education or tertiary education in Ghana is conventionally seen as university education and typically considered the preserve of the traditional public universities. These include the University of Ghana, the University of Cape Coast, Kwame Nkrumah University of Science and Technology, the University of Education, Winneba, and the University for Development Studies. In reality, public universities make up only a small fraction of institutions in the higher education landscape. Statistics compiled from the National Accreditation Board (NAB) show that, in 2020 the number of fully-fledged public universities (excluding technical universities) make up about 10% of publicly-funded higher education institutions and about 5% of all higher education institutions in Ghana (both public and private institutions).

It needs to be stated that the higher education landscape is rather a mixed system, similar to all the other levels of the educational system, with a co-existence of private and public systems. The landscape consists of all post-secondary educational institutions. These comprise public universities, private universities, public and private colleges of education, colleges of agriculture, public and private nursing training institutions, polytechnics, and other specialised professional institutions. Over the last five years, the sub-sector has seen some impressive growth in numbers and diversity. Government policy to upgrade all polytechnics and teacher training colleges into degree-awarding institutions has contributed to improving the attraction of these institutions in the country. Table 2.8 shows the growth in the number of higher education institutions in Ghana (data compiled from various reports of NAB). The total number of higher education institutions (both public and private universities, polytechnics and colleges) has increased remarkably from 166 in 2014 to 260 in 2020, an increase of about 56%. It appears, however, that the increase is due in large part to an increase in the number of private institutions.

The number of Private Tertiary Institutions increased from 73 institutions in 2014 to 126 in 2020, an increase of about 73%. Private Nursing and Midwifery training institutions increased from just about three in 2014 to 21 in 2020. Public institutions also increased in general terms by about 43%, the highest addition being in terms of the number of Public Nursing and Midwifery Training Colleges.

The five public universities that have been added since 2014 include the two new universities created out of the former University for Development Studies for the Upper West Region (SD Dombo University of Business and Integrated Development Studies, Wa) and for the Upper East Region (CK Tadam University of Technology and Applied Science, Navrongo), and the University of Energy and Natural Resources, in the Brong Ahafo, now Bono Region, University of Health and Allied Sciences in the Volta Region, and the University of Environment and Sustainable Development located in the Eastern Region.

If the general inclination of a parent to choose a public institution for higher education over private is anything to go by, then it would be worthy of comment that the number of public institutions is not growing fast enough to meet the growth in potential demand. This is further worrying, if we consider that even though nearly 50% of tertiary schools are private, they accounted for only 19% of total students enrolled in higher education institutions in the 2015/2016 academic year (Newman, 2018). This supports the view that the overwhelming majority of students typically select public institutions over private institutions.

The reasons for this, perhaps, may include public institutional reputations, affordability of public institutions as against the profit and cost recovery oriented private institutions, and sheer lack of physical space and human resources in private institutions. Most private institutions are typically small in terms of physical structure and human resource capacity, such that their numbers may mushroom, but they may lack the capacity to take up higher numbers of students.

TABLE 2.8: Tertiary Institutions in Ghana

Type of institution	Year						
	2014	2015	2016	2017	2018	2019	2020
Public							
Public Universities	9	9	9	9	9	9	14
Technical Universities and Polytechnics	10	10	10	10	10	10	10
Public Colleges of Education	37	36	45	45	44	46	46
Public Specialised Institutions	7	8	8	8	8	8	7
Public Nursing and Midwifery Training Colleges	27	23	15	23	34	38	53
Colleges of Agriculture.	3	3	3	3	3	3	4
Total	93	89	90	98	108	114	134
Private							
Private Tertiary Institutions*	65	65	74	74	78	92	101
Private Colleges of Education	5	8	3	3	5	3	4
Private Nursing and Midwifery Training College	3	2	4	3	5	3	21
Total	73	75	81	80	88	98	126
All	166	164	171	178	196	212	260

Source: Compiled from various reports of National Accreditation Board (2018, 2019, 2020a & 2020b)

*Includes Chartered Private Tertiary Institutions, Distance Learning Institutions, Private Polytechnics, Private Tertiary Institutions offering HND/Degree Programmes, Tutorial Colleges and Registered Foreign and Regionally-Owned Tertiary Institutions.

Issues confronting access to higher education in Ghana

As the secondary school graduate population grows, the total number of publicly-funded higher learning institutions is not growing correspondingly to absorb qualified applicants. The rapid SHS graduate population growth requires a significant growth of learning institutions, in order to give sufficient space for admission of these graduates. The Free Senior High School policy and rise in the number of students completing secondary education, as shown above, is expected to result in a historic level of demand for higher education in Ghana. This will put pressure on higher education institutions, and in particular public universities. Generally, Ghana as a country suffers from an inadequate number of public universities, and the rate of growth is slow. Access to higher education in Ghana faces many challenges principally due to general under-investment in physical infrastructure expansion, insufficient training of academic staff, poor retention and attraction of personnel, high cost of school fees and accommodation, low or poor adoption of technology, and weak or poor linkages with industry (to attract private-sector driven scholarship schemes).

Under-investment in physical infrastructure expansion

Globally, access, equity and quality form the basis of every educational system. This is particularly germane to the higher education sector where a nation's productive labour force is trained. Access, equity and quality are defined largely by the adequacy or inadequacy of infrastructure. Even though, the last five years have seen some growth in the number of higher education institutions in Ghana, the pace is still lower. Associated with the low number of higher education institutions for the increasing number of SHS graduates is insufficiency of the physical infrastructure in existing public institutions to enable increased intake. At least for now, higher education institutions in Ghana mainly organise their programmes through face-to-face encounters using available physical infrastructure and resources. Inadequate infrastructure such as lecture halls, halls of residence, and laboratories, which are the primary facilities for delivering face-to-face tertiary education are a barrier to access. It is worth pointing out that some institutions are relying on virtual sessions and highlight the challenges of the practice, which threaten increased access, equity and quality.

Lack of infrastructure has many implications for student placement, significantly affecting access and enrollment. When institutions lack the basic infrastructure and tools that aid their educational processes, they are incapacitated from expanding admission, thereby, denying students their constitutionally-

guaranteed educational rights. This problem is linked to the fact that public institutions depend largely on government funds, not only for staff compensation, but also for development of critical infrastructure. However, over the years, government expenditure on university education in relative terms has been declining. Newman and Duwiejua (2015) noted that the funding gap in higher education in Ghana has been in the range of 39.7 to 41% between 2012 and 2015. The growing financing gap means that institutional growth is not able to match up with increasing student demand. The effect of the huge financing gap is exacerbated by public institutions' inability to attract sufficient private sector interest to invest in infrastructure in public universities due to legal and other capacity requirements (constraints).

Low academic (faculty) capacity

Higher education quality is also dependent in large part on the adequacy of academic staff. A National Council for Tertiary Education (NCTE) report in 2018 observed that all higher education institutions in Ghana suffer from a shortage of qualified faculty (NCTE, 2018). Shortage of qualified faculty means a poor student-lecturer ratio (SLR). SLR is a benchmark used to determine whether quality is being maintained in the various tertiary institutions. According to the report by the NCTE (2018), the ratio of students to the population of academic staff in Ghana is about six times more than the internationally acceptable SLR in all disciplines. In Table 2.9 it shows that, in Business Administration, for instance, the SLR stands at 67:1, against the normal standard of 27:1. In Medicine, the ratio which is supposed to be 12:1, is at 27:1. All the other courses such as Humanities, Applied Sciences, and Engineering, show similar non-standard proportions.

TABLE 2.9 Student/Lecturer Ratio (SLR) in Public Universities 2016/2017 Academic Year

Subject	Norm	Actual
Social Science and Humanities	27:1	55:1
Business Administration	27:1	67:1
Science	18:1	29:1
Applied Science, Technology and Health Sciences	18:1	27:1
Engineering	18:1	38:1
Pharmacy	15:1	17:1
Medicine	12:1	27:1

Source: NCTE, 2018

The high SLR is the result of two things. The first being the high enrollment which continues to increase due to increasing demand. The second is the lack of corresponding growth in the number of academic faculty to match the growth in the number of students being admitted into higher education institutions. With the current rate of secondary school completion, shortage of academic faculty is going to be a major constraint to any plan to increase intake of students. Fewer lecturers, combined with inadequate infrastructure facilities result in large class sizes, thus affecting learning (Yelkpieri et al. 2012). There are three reasons for the low faculty strength of public universities. The first is the intermittent freezing of public university recruitment by government. The second is a general inadequacy of persons with the minimum requirement of a doctorate to teach in the university. The NCTE requires that to teach in the university, a person must hold a doctorate degree, and persons recruited with MPhil degrees are required to, at a maximum, within three years, enroll in a doctorate programme. A corollary challenge with this requirement is that, even for persons with a doctorate degree, a person has to have a specialty in a cognate subject relevant to teach in a given department. The NCTE frowns upon what they refer to as lecturers with mismatched first, second and terminal degrees. The third reason is a general inability of universities to invest in training and retaining quality MPhil students or attracting qualified personnel to join the public university system. These reasons are valid and poignant in Ghana's tertiary education landscape generally and must be pointed out for critical review.

Financing and cost of higher education

Principally, public higher education in Ghana is funded by the government through direct budgetary allocation, and funds from the Ghana Education Trust Fund (GETFund). Government financing mainly covers payment of salaries (both teaching and non-teaching), infrastructure, and administration. The GETFund predominantly finances infrastructure and gives scholarships to students. Other prominent sources of financing higher education in Ghana include funds from development partners, internally generated funds (IGF) by institutions, and contributions from students, and finally the private sector. Public higher educational institutions in Ghana finance a large portion of non-salary expenditures through internally generated funds, by way of academic and residential facility user fees from regular students, payment of fees by "fee-paying students" and admission of foreign students. Alumni associations also make significant contributions to the non-salary expenditures of universities, particularly in the area of infrastructure. Suffice it to observe that a significant shortfall in Ghana is that we do not sufficiently attract alumni, industry and benevolent persons to support our universities financially. In recent times, the

trend seems to be changing much more positively, but more needs to be done in a more vigorous manner to attract more financial support.

Ghana is one of the highest performing countries in terms of resource allocation to education relative to GDP. Government's budget dedicated to education in general, is relatively high, above 20% of GDP since 2011, surpassing the international standard of 6% of GDP (MoE, 2018; World Bank, 2019). It must be noted however, that a large proportion of government education expenditure is at the basic education level. In 2015 for instance, a greater percentage of government expenditure on education (21.4%) excluding IGF was allocated to the primary level. The SHS level was given 17.5% and 19.0% to tertiary level (Ministry of Education, 2018). This trend is expected to change in favour of the secondary level, given the current Free SHS policy. Not much is expected to go towards financing the higher education level, where there may rather be a contraction in allocations.

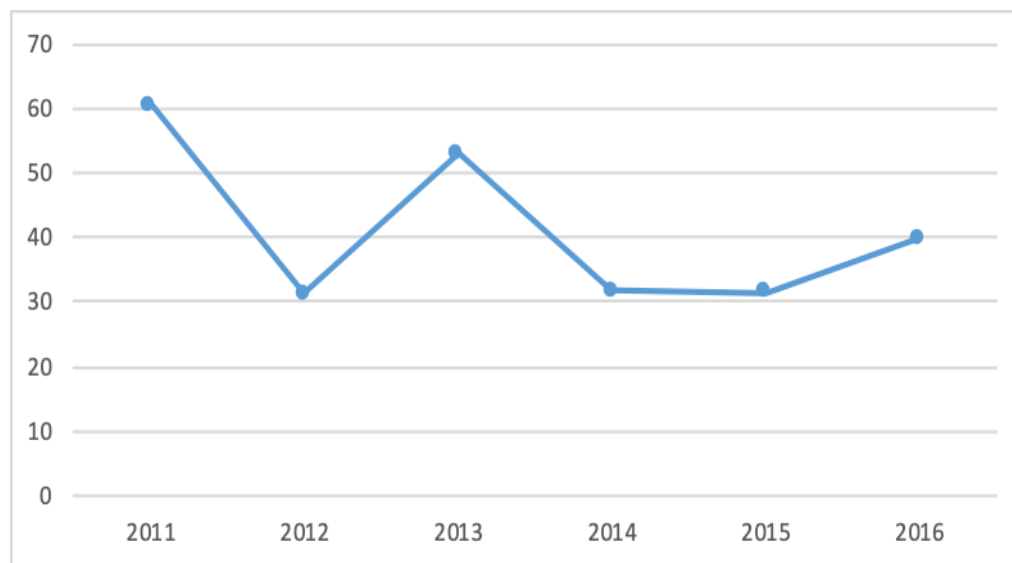
It is expected that with the commencement of the Free SHS policy, a greater proportion of government expenditure on education will be allocated to the secondary level, while allocation to higher education in relative terms will diminish and the existing funding gap in the higher education sector is envisaged to widen. Over the period 2011-2015 for instance, the funding gap in higher education has been in the range of 39.7 to 41% (Newman & Duwiewua, 2015). This means that household expenditure on higher education will continue to rise, as higher education institutions continue to depend heavily on internally generated funds (from payment of academic and facility-user fees by students, increases in admission of fee-paying students, etc.) to finance non-salary expenditures.

Household education expenditure analysis by the Ghana Statistical Service (GSS, 2019) using data from the Ghana Living Standards Survey (GLSS Round 7 - data collected over a period of 12 months [22nd October, 2016 to 17th October, 2017]) shows that a household spent an annual average of GH¢4,738.19 per person attending university for a bachelor's degree. The GSS (2019) Report shows that registration fees alone constituted more than half (53.3%) of the average total expenditure that a household spends on a person attending university for a bachelor's degree. This is followed by food and lodging, which constitutes about 18%. Registration fees and lodging (academic and residential-user fees) incidentally constitute the two most important items that contribute the most to the internally generated funds of public universities.

Meanwhile, it must be noted that the average household expenditure on a university degree for instance, is about 37% of average annual household expenditure, estimated to be about Ghc12,857. Households in the lowest and

second lowest of the poverty quintile will need about 92% and 57% of their average annual expenditure to cover a university bachelor's degree programme for a year. In an educational system where student support schemes (i.e. scholarships, bursaries, etc.) do not exist or are inadequate, the size of the expenditure required for university education is a possible reason a number of applicants to university programmes offered admissions are unable to enroll. Figure 2.5 shows that in 2011, 60% of applicants to public universities who were admitted failed to enroll. Even though this declined to an average of 30% between 2012 and 2015, it increased to about 40% in 2016. With the continuous decline in government allocation to higher education, the most reliable source of funding to public higher education institutions will continue to be through income from academic and residential-facility-user-fees and this may continue to keep a growing number of students from accessing tertiary education. In the absence of sufficient government funding, higher educational institutions have limited options including to reduce the number of students admitted, to protect the quality of knowledge produced and delivered, increase the quota of fee-paying students admitted, or leverage technology to introduce virtual learning programmes.

Figure 2.5. Students offered admission to public universities but did not enroll (%)



Source: NCTE, 2018

Policy opportunities for higher education in Ghana

Recent developments in the Ghanaian education landscape require more feasible and realistic policy updates, most importantly in areas where challenges persist. Trending issues, namely the high rate of SHS completion, the high rate of SHS graduate unemployment, access and equity issues confronting higher learning institutions, financing difficulties leading to infrastructure deficiencies, and many others, present great challenges, but also uncommon opportunities to higher education institutions, government and other stakeholders which are keen on bridging the transition gap between secondary and tertiary education in Ghana.

In this chapter we identify five key areas (mechanisms) as opportunities for a long term improvement in the secondary – tertiary education transition challenge. These are:

1. Expand the distribution of higher education institutions (equitable regional distribution);
2. Rejuvenate, and reorganise professional and specialised post-secondary institutions;
3. Public-Private Partnership Investment and Management arrangements;
4. Leverage ICT to expand and innovate distance learning programmes;
5. Restructure student loan scheme for equitable access for all students.

Expand the distribution of higher education institutions

A major opportunity offered by the increase in demand for higher education institutions (HEI) from Free SHS graduands is for government to expand the grid of universities, colleges, and professional institutions across the country. The splitting of the University for Development Studies into three independent institutions to serve the Northern, Upper West and Upper East Regions, and the establishment of the University of Energy and Natural Resources in Sunyani (Bono Region), the University of Health and Allied Sciences in Hohoe (Volta Region), and the University of Environment and Sustainable Development in Somanya (Eastern Region), are commendable and proactive steps towards achieving the equitable regional distribution of higher education institutions in Ghana. The conversion of polytechnics, which incidentally are in regional capitals only, into technical universities, coupled with the introduction of the new

Bachelor in Education (B.Ed) curriculum in all teacher training institutions is also commendable. This is expected to reduce the pressure on the few degrees awarding public universities. Although converting polytechnics and colleges of education into degree awarding institutions may not necessarily increase the space available, it will alter the subject choice patterns of SHS graduates in the future and the attractiveness of these institutions of learning.

Rejuvenate, and reorganise professional and specialised post-secondary institutions

Another area to provide transitional opportunities for SHS graduates is to expand the number of specialised or professional post-secondary education institutions that will provide skills training and entrepreneurship programmes for willing and desirous SHS graduates. This will be a more sustainable approach to dealing with youth unemployment. A corollary proposal will be to regionalise or localise these institutions as well, and they could potentially be a sure way to reduce the patronisation of Accra and Kumasi as the centres of attraction for internal migration. Indeed, accessing higher education in Ghana is one of the plausible causes of stepwise internal migration of mostly young people to the big cities, thus continually depleting underdeveloped towns of working age populations. An approach of expanding post-secondary education through regionalisation or localisation of higher education institutions will contribute to reverse this trend. A low hanging fruit in this regard is to rejuvenate and pay attention to the Technical and Vocational Education and Training (TVET) programme. TVET needs to be rebranded to rid the minds of people of the perception that it is intended for people who have not qualified for the university. TVET must be recognised, reorganised and given its proper orientation as a post-secondary education system. A starting point to achieving this is to revisit the SHS curriculum, resource and strengthen the practical aspects of the technical and vocational, business and entrepreneurship, and information and communication technology (ICT) aspects of the curriculum to give meaning to the SHS status as a terminal level. This responsibility is for Government and relevant stakeholders in education with the support of interested development partners.

It is important to highlight some positive steps taken by government towards rejuvenating the TVET sub-sector worthy of commendation. The first is the merger of the erstwhile Council for TVET (COTVET) and the National Board for Professional and Technician Examination (NABPTEX) to establish the Commission for Technical and Vocational Education and Training (CTVET). This is provided in Part Two (Commission for Technical and Vocational Education and Training) of the Education Regulatory Bodies Act, 2020 (Act 1023). It is deemed

that this will ensure effective regulation, administration and promotion of technical and vocational education and training in order to accelerate transformation and innovation for sustainable development. Additionally, government in collaboration with both local and foreign partners has executed a number of programmes and projects to support the TVET sub-sector. The Ghana TVET Voucher Project (GTVP) is one of such schemes aimed at promoting and improving accessibility to demand-oriented TVET. Co-financed by the German Federal Ministry for Economic Cooperation and Development (BMZ), the GTVP affords targeted groups (Small and Medium Enterprises (SMEs) within the informal sector – specifically Master Craft Persons (MCPs), apprentices and workers) access to employment. The GTVP has financed Competency Based Training in sectors including but not limited to automotive repair, dressmaking, electrical installation, catering and hospitality as well as block laying and tiling.

A programme that is aimed at promoting TVET awareness and supporting skills training and development is the National Skills Competition. Organised by the Commission for Technical and Vocational Training (CTVET) in collaboration with the Ministry of Education and the Ghana Skills Development Initiative (GSDI). The National Skills Competition provides the platform for participants to showcase their skills in various industries such as welding, bricklaying, carpentry, fashion, beauty therapy and graphic design. The competition is in line with GSDI's support to COTVET to participate in the World Skills Competition and to contribute to an improved image of TVET in Ghana. The National Skills Competition was launched in 2018. The second Ghana National Skills Competition was launched in 2021 with the addition of a TVET Expo to allow stakeholders in TVET to exhibit their skills. Government also collaborated with the private sector to launch the Design and Technology Institute (DTI). DTI is an ultramodern technical and vocational training centre which offers the opportunity for students from the various institutions (universities, polytechnics, technical and vocational institutes) to gain industry experience. Under DTI, students work closely with industry experts to gain hands-on skills in their respective fields. Additionally, in collaboration with the Mastercard Foundation, DTI provides scholarship packages for students. These programmes and projects have or are expected to serve as an incentive mechanism to make the TVET sub-sector attractive.

All the above are positive initiatives, albeit insufficient, to cleanse the unfavourable image of TVET as an alternative post-high school educational system. Over the years, the TVET sub-sector has suffered an image crisis over a general public perception of being the refuge of students who are not academically endowed. Together with obsolete machinery, a fragmented TVET landscape, an outdated curriculum, a lack of standardisation, duplication of roles amongst agencies and

poor investment, this sector has struggled². Changing policies and creating institutions is good but not sufficient to bring about transformation of a system such as the TVET sub-sector. The sub-sector needs two fundamental interventions: infrastructure and transforming people's mindset about TVET. Government can make the sector more attractive by taking vigorous steps to address issues of unavailability of modern infrastructure that ought to facilitate quality training. The government needs to provide modern equipment for each course offered in institutions that provide TVET programmes, as a way of attracting students. The government also needs to intensify collaboration with the private sector to provide hands-on training opportunities for TVET students and take deliberate steps to organise the economy in such a way that TVET graduates can easily fit in. In terms of transforming mindsets, government needs to have a constructive pact with the media, give reports and carry out public sensitisation that emphasises the benefits of TVET programmes. This way the benefits of TVET will be more visible and more attractive to the youth. It is worth noting that the TVET sector is an area where government can 'kill two birds with one stone'. With a rejuvenated TVET, government can make more higher education opportunities available and at the same time develop the youth for self-employment (thus simultaneously also limiting graduate unemployment).

Public-Private Partnership Investment and Management arrangements

Most universities are facing intense financial pressures and fundamental challenges to their operations. At the same time, stakeholders are asking these same institutions to do more by providing more and better options for an expanding student base, improving student outcomes, and competing in an increasingly global marketplace. One innovative approach to reduce the widening financing gap is for management of higher education institutions to strike innovative partnership arrangements with the private sector that will attract investment in both infrastructure and human resource training. This can be achieved through innovative funding models such as public-private partnership investment and management arrangements. Public-private partnerships mechanisms are fast becoming the financing model of choice to construct academic facilities, student accommodation, and other auxiliary campus facilities. Universities do not have the money to spend on student accommodation, for instance a public-private partnership investment and management arrangement which involves the pooling of resources, sharing of risks, and a joint management structure would be an innovative approach for providing student accommodation. There are several variants of public-private partnership arrangements, and

² <https://moe.gov.gh/the-technical-vocational-and-skill-training/>

management of higher education institutions can evaluate and select from them on a fit-for-purpose basis. What is cardinal for an effective and successful public-private partnership arrangement is equity and accountability. Public universities' ability to engage the private sector will be enhanced if they are allowed to exercise the autonomy with which they are clothed by the Constitution. This is a responsibility for government, management of higher education institutions, interested private sector entities and other relevant stakeholders.

Leverage ICT to expand and innovate distance learning programmes

As higher education institutions receive or generate relatively less funding for infrastructural expansion and personnel recruitment, there are limited opportunities to increase enrollment and still operate teaching and learning - using traditional face-to-face approaches. Innovation in provision of education is, now or never, more imperative. The need to leverage technology to introduce virtual education programmes that will allow for enrollment of a higher number of students can be a real game changer. Expansion of tertiary enrollment can be achieved through effectuating the open university concept, improving distance learning, and institutionalising the use of online teaching-and-learning models for delivering higher education.

The global COVID-19 pandemic may be a natural disaster that has frustrated many governments and, in particular, traumatised institutions accustomed to face-to-face rendering of services. The pandemic has, however, led to the evolution of some lessons. The use of virtual or online spaces to deal with issues of congestion, overcrowding and health risks in higher educational institutions has provided test or pilot phases for transitioning to blended approaches towards the delivery of higher education curricula. Many institutions are on an irreversible trend towards adopting and blending online models of delivering services. Virtual learning, in addition to the traditional face-to-face delivery models will allow higher learning schools to increase enrollment in order to meet demand. Institutions need to make or explore a shift from face-to-face traditional teaching and learning systems to a more innovative and flexible mode of delivering higher education learning and assessments that will include open university-type programmes.

Although this will raise a variety of challenges such as lecturers' inability to switch due to low levels of technological competence and a lack of technological resources for students, training academic staff on technological and online delivery will effectively promote a paradigm shift in the process of delivering higher education learning, thus yielding positive results. Virtual learning programmes are advantageous in a number of respects, including being less

costly for both households (students), and institutions, while satisfying the political imperative in terms of increasing student intakes.

An area that can easily lend itself to the application of information communication technology (ICT) is the Distance Learning programmes that a number of public higher education institutions run in Ghana. These programmes have continued to be important avenues for increasing access to higher education institutions in Ghana. Their contribution to tertiary enrollment has been enormous. But the problems surrounding distance learning sometimes discourage qualified students from opting to access higher education via this route. One of the biggest challenges and complaints about distance learning programmes is low or no contact with qualified or actual lecturers and over-reliance on teaching assistants for tutorials. This tends to give the wrong impression that distance learning students are not well tutored, and on completion are not able to measure up to other university graduates who have completed regular on-campus scheduled programmes. People must be disabused of this mindset, which can be done through the use of ICT to support virtual engagement of students with university professors themselves. This will change the misperception of distance education students and make distance education programmes more attractive. This will also help to attract applicants when distance learning is deemed to be similar to the regular on-campus university education programmes. This re-orientation is a responsibility for the managements of higher education institutions.

Restructure student loan schemes for equitable access for all

One crucial aspect of access to higher education that needs policy revitalisation and reconsideration is financial assistance to students. The data shows that households spend a high proportion of their incomes on university education. On the average, a person pursuing a University Bachelors' Degree spends about GHc4,738.19 annually. Meanwhile, according to the 2017 financial Budget Statement, the Student Loan Trust Fund approved a minimum amount of GHc1000 and a maximum of GHs 2,000 (subject to 50% increase in the following year) to be paid annually to a student. This means that the maximum amount of the student loan is less than half of what a household spends on a student annually. The issue of the size of the amount is compounded by two other challenges. First is the requirement for a student to have a guarantor before he or she can access the loan. The quality of the guarantor is even more of a problem. A student loan application must be guaranteed by any one of the

following; a SSNIT contributor; a recognised religious body; a Metropolitan, Municipal and District Assembly; or a Corporate body³. This requirement deters students, especially from poor socio-economic backgrounds without qualified guarantors, from accessing the financial facility. The second is the timing of the release of the loan to the student, which usually comes several months after the academic year has commenced. Meanwhile universities typically require admitted students to make an initial payment of a minimum of 50-60% of the fees before they can register to begin the academic year. Invariably, students cannot depend on the student loan to support the payment of their fees.

There are various proposals by government and other political actors to reorganise and expand the student loan scheme to properly support students. One such proposal is to remove the existing requirement for a student to provide guarantors as pre-condition to accessing the student loan facility. This is innovative, but guarantor-free student loan schemes generate high repayment risks, thus increasing public debt. The transition rate from tertiary education to work also shows a discouraging level of uptake. A Labour Force Survey conducted in 2015 by the Ghana Statistical Service (GSS) found that 66.2% of persons 15-35 years completing tertiary education successfully transitioned to work (GSS, 2016). Meaning that after a year's grace period, about 34% of graduates may still be unemployed. This will have severe implications for repayment of the loan, thus generating more public debt. Regardless of this, guarantor-free student loans would relieve stress for students, help minimise difficulties in accessing finance and improve tertiary enrollment. This policy change would be a fundamental step in restructuring the scheme. Increasing the loan amount to make it commensurate with prevailing average annual cost outlays per student would be an extremely important step in making the loan facility worthwhile. Making the loan immediately available to students in a timely fashion, before higher educational institutions reopen for the academic year, would also be helpful and more meaningful for students.

Conclusion

The chapter has discussed the implications and opportunities of increasing senior high school completion and the transition to higher education in Ghana. The chapter provided a background, utilising data, on access, participation, completion and the transition from basic to secondary education. The chapter also looked at SHS completion and further transition to tertiary education and the potential implications and policy opportunities thereof. From the data used, access, enrollment and completion of basic education have increased

³ <https://www.slrf.gov.gh/loan-process/requirements-of-a-guarantor/>

considerably, but the transition from high school to higher education is a challenge. The Free Senior High School policy is expected to result in a historic increase in demand for higher education in Ghana, putting pressure on public higher education institutions in the country.

The transition to tertiary education is improving but is slower in relation to the number of qualified graduates from SHS demanding access. For example, the data indicates that an average of about 30% of qualified applicants do not gain admission into public universities. This is as a result of limited infrastructure and human resources in universities and other tertiary institutions. Physical facility deficiencies, poor lecturer-student ratios and poor financing opportunities for students, are key issues challenging higher education enrollment. While these may appear as challenges, it is important that they are seen as opportunities for restructuring the higher education landscape. We must reckon the opportunities that the challenge of increasing demand for higher education presents, with some further lessons learned from the impact of the COVID-19 global pandemic.

In the midst of the COVID-19 global pandemic, individuals, institutions and governments in Ghana have been innovative and proactive. Basic and secondary education appear to have been privileged, as far as government expenditure on education vis à vis COVID-19 is concerned. But that it is not entirely abnormal, considering that government's intention to increase expenditure on basic and secondary education, in the middle of the implementation of the Free SHS policy, was unequivocal. Even though higher educational institutions receive allocations and support from government and other donors, the quantum of support is significantly below what is needed. Indeed the current increase in demand for higher education, coupled with the lessons learned from the COVID-19 pandemic, have taught government to increase investment in education. The same set of circumstances has taught the managements of higher education institutions to be more innovative and pragmatic. Households have also been taught to be more supportive and resilient. In particular, for higher education institutions, the opportunity to leverage technology to introduce virtual education programmes that will support increased enrollment is a 'now or never' imperative that can facilitate a win-win for all.

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Health

COVID-19 HEALTH AND HEALTHCARE SERVICES IN GHANA



Introduction

The maiden chapter on health in the Ghana Social Development Outlook (GSDO) 2012 was focused on the history of health policy in Ghana. It also looked at Ghana's performance on key indicators used to track health, both nationally and internationally. Among others, these indicators are maternal health, infant and under-5 health, HIV/AIDS, malaria, and healthcare financing. The health chapter in GSDO 2014 centred on healthcare and reviewed its geographical, human, financial, equity, and logistical aspects. In GSDO 2016, we concentrated on a critical analysis of the trends, achievements or setbacks in health and healthcare in Ghana, with particular reference to the milestones covered in GSDO 2012 and other timelines set by the Ministry of Health and Ghana Health Service (GHS). Furthermore, the health chapter of GSDO 2016 analysed progress or otherwise in key healthcare sector indicators as set by the Ghana Health Service and the Ministry of Health, with a hindsight view of the Millennium Development Goals (MDGs) and a forecast of the plausibility of achieving the Sustainable Development Goals (SDGs) within Ghana's context. Mental healthcare in Ghana was a third focus of GSDO 2016. The health chapter of GSDO 2018 focused on health and social development, while this chapter of GSDO 2020 is another special issue which concentrates on the impact of the COVID-19 pandemic on health and the health sector in Ghana. The chapter mostly leaves out healthcare worker related issues due to space.

December 2019 stands out as an epoch-making moment in the world's history, particularly regarding health-related issues. The world got inundated with news about a strange disease occurring in the Wuhan Province of China. The Corona Virus Disease (COVID-19) was first reported to the World Health Organisation (WHO) in December 2019 (WHO, 2020a). WHO subsequently declared it a Public Health Emergency of International Concern in January 2020 and a pandemic on March 11, 2020 (WHO, 2020a). Just a day after it was declared a pandemic, Ghana recorded its first two cases of COVID-19 on March 12, 2020, which were confirmed by the Noguchi Memorial Institute for Medical Research (NMIMR). These two cases were imported from Norway and Turkey into the country (Ministry of Health, 2020a).

COVID-19 is a Severe Acute Respiratory Infection (SARI) caused by a novel Coronavirus named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) (Ministry of Health and Ghana Health Service, 2020). The spread of the COVID-19 pandemic is from person to person and mainly through droplets from people coughing, sneezing, exhaling, or speaking, which deposit on surfaces. It can also be transferred from contaminated surfaces to mucosal surfaces (eyes, nose, mouth) via the hands. Aerosol transmission is also possible when people have prolonged exposure to high concentrations of droplets in relatively closed spaces (Ministry of Health and Ghana Health Service, 2020).

The literature on the impact of the pandemic on Ghana concentrates on its effects on work and economic lives of the people. Using secondary literature mostly, this chapter fills the void in having an important focus on the impact of COVID-19 on the health of Ghanaians and the healthcare services of the nation. I argue that health is a central life force as far as the welfare and livelihoods of citizens and the nation as a whole are concerned. Thus, the effect of the pandemic on the health and healthcare of the people is a critical component of the socio-economic ramifications of the pandemic in Ghana, and internationally. Specifically, this chapter concentrates on the health and health-related impact of COVID-19 on Ghana and its peoples. The chapter gives a general overview of the COVID-19 infection, with a focus on health and healthcare services. This is followed by a discussion on the effects of the pandemic in Ghana, both negative and positive. It continues with the Government of Ghana (GoG) and others' responses to managing the pandemic locally, and provides the author's reflections on the local management of the pandemic in particular. Finally, some policy recommendations are proffered to guide policy makers in the management of the COVID-19 pandemic at the national level.

COVID-19 statistics: Ghana, Africa and the world

By the first half of 2020, Ghana was among the 10 most infected African countries (Antwi-Bosiako et al., 2021). Ghana recorded 41,212 COVID-19 infections and 215 deaths by August 10, 2020. This placed Ghana as the third highest COVID-19 infected country in Africa and 51st globally (Afulani et al., 2021). Ghana's sub-regional and global placement was attributed to the stringent efforts by the nation to test infections from the pandemic in the country, details of which are discussed later in the chapter. Table 3.1 shows details of the corona virus infection in Ghana as of the middle of June, 2021. Table 3.2 gives the positivity rate and the enhanced contact tracing and testing carried out in Ghana from March 2020 to 14 June, 2021.

TABLE 3.1: Confirmed cases of COVID-19 and treatment outcomes, Ghana, as at 14 June, 2021

Category	No. of cases	Recovered/ Discharged	Severe	Critical	Dead	Active
Routine Surveillance	33,040	91,124	13	9	793	1,239
Enhanced Contact Tracing	60,059					
International travellers (KIA)	1,814	1,757				
Total	94,913	92,881	13	9	793	1,239

Source: <https://www.ghanahealthservice.org/covid19/latest.php>. Accessed June 19, 2021

TABLE 3.2: Positivity Rate by Surveillance Type for samples tested in Ghana (March 2020-June 14, 2021)

Surveillance Type	Total No. Tested	Total No. Positive	Positivity Rate
Routine surveillance	341,717	33,040	9.7
Enhanced contact Tracing	578,743	60,059	10.4
International Travel- lers (KIA)	309,665	1,814	0.6
Total	1,230,125	94,913	7.7

Source: Ghana Health Service, 2021. <https://www.ghanahealthservice.org/covid19/latest.php>. Accessed June 19, 2021.

As at 4 September, 2021, Ghana's active COVID-19 cases were 6,135, recoveries were 115,145, there were 206 new cases, 122,363 confirmed cases, and 1,083 deaths (Ghana Health Service, 2021). As at 25 September, 2021, the GHS's COVID-19 dashboard provided information about the following infections from the pandemic in the regions:

- Greater Accra Region: 68,034
- Ashanti Region: 20,645
- Western Region: 7,232
- Eastern Region: 6,379
- Volta Region: 5,009
- Central Region: 4,522
- Bono East Region: 2,532
- Bono Region: 2,093
- Northern Region: 1722
- Upper East Region: 1,426
- Ahafo Region: 1,054
- Western North Region: 999
- Oti Region: 830
- Upper West Region: 695
- North East Region: 266
- Savannah Region: 243

The Johns Hopkins University's (JHU) COVID-19 dashboard records that as at 10.21 a.m. on 25 September, 2021, Ghana's COVID-19 situation had the under-listed record high:

- New cases: 1,975, on 2 August, 2021
- New deaths: 28, on 13 February, 2021

Table 3.3 gives the regional breakdown of infections, recoveries, and active cases for Ghana as at July 27, 2021.

Ghana's COVID-19 pandemic has shown uneven infection rates. Unsurprisingly, the concentration is mostly in the urban areas. The Greater Accra Region, with more than 50% of the infection rates nationally, is leading in infections. This is followed by the Ashanti Region, the most populous region as at the 2010 National Population Census, with about 18% of infections nationally. The Western Region places third with infected cases (Table 3.3). There are, however, 43 districts earmarked as COVID-19 hotspots in Ghana. These include the Greater Accra Metropolitan Area (GAMA), involving the city of Accra and its sprawling enclaves including the twin-city of Tema and its surroundings such as Ashiaman.

The rest include the Greater Kumasi Metropolitan Area (GKMA) and its neighbouring areas, and the Awutu Senya East Municipality area around the city of Kasoa in the Central Region, an urban spill-over enclave from GAMA (ISSER, 2021; Owusu, A.Y. and Crentsil, 2021).

TABLE 3.3: Summary of recoveries by Region, March 2020 - 27 July, 2021

Region	Cases	Recovered/Dis-charged	% Recovered/Dis-charged	Active Cases
Ahafo	847	768	90.7	56
Ashanti	18,195	16,692	91.7	1,356
Bono	1,619	1,448	89.4	126
Bono East	1,576	1,460	92.6	86
Central	3,790	3,614	95.4	127
Eastern	4,868	4,546	93.4	237
Greater Accra	56,224	53,337	94.9	2,632
North East	232	221	95.3	1
Northern	1,672	1,625	97.2	17
Oti	544	455	83.6	82
Savannah	135	121	89.6	11
Upper East	1,326	1,276	96.2	6
Upper West	500	481	96.2	0
Volta	3,025	2,687	88.8	302
Western	6,042	5,940	98.2	62
Western North	937	920	98.2	9
International travellers (KIA)	2,257	1,970	87.3	287
Total	103,789	97,561	94.0	5,397

Source: <https://www.ghanahealthservice.org/covid19/latest.php#> (accessed 09 September, 2021)

Like most places globally, including Sub-Saharan Africa, Ghana has experienced its third wave of the pandemic as of July-September, 2021. Nevertheless, Ghana has mostly escaped what could have been a worse onslaught from the COVID-19 infection mainly due to the early attention given to the pandemic, which has received international acclaim (Ghana News Agency [GNA], 2020a; Taylor and Berger, 2020, in Antwi-Bosiako et al., 2021; Afriyie et al., 2020). Particularly the stringent testing and follow-up measures at the Kotoka International Airport (KIA), Ghana's sole official international airport, has been credited for the reduced impact of the pandemic on the nation (Happyghana.com/Ghanaweb, 2021).

By 30th April 2021, GoG had provided free care for 92,740 positive cases, including 1,641 (1.77%) international passengers who arrived at KIA (GHS, 2021; Table 3.3). As at 27 July, 2021, of the 103,789 confirmed cases, 2,257 were among international travellers whose cases were detected at arrival at the Kotoka International Airport, forming 2.17% of all confirmed cases in Ghana (Ghana Health Service, 2021¹). The United Nations (UN) and the WHO had warned of possible devastating implications from COVID-19 for Africa and its healthcare systems (United Nations Africa Renewal, 2020, in Afriyie et al., 2020;). Specifically, the UN had estimated that between 300,000 to 3.3 million lives could be lost across Africa stemming from COVID-19. UN and WHO (United Nations Africa Renewal, 2020, in Afriyie et al., 2020, p. 839), however, speculated that Africa could have up to 44 million cases of COVID-19 infections with up to 190,000 deaths by the end of April or beginning of May 2020 if measures to contain the pandemic on the continent prove unsuccessful. Nevertheless, such predicted impact on Africa has not materialised (Antwi-Bosiako et al., 2021). Worldwide, as of 10.21 a.m. 25 September, 2021, The Johns Hopkins University's (2021) website on COVID-19 reported 231,215,140 total COVID-19 infections and 4,739,211 deaths.

Some ramifications of COVID-19 on Ghana

Although Ghana has mostly managed the pandemic, its ramifications on all aspects of the nation are dire (Republic of Ghana, 2020; Republic of Ghana, 2021; Issahaku and Abu, 2020). COVID-19 has implications for all aspects of the economy (Antwi-Bosiako et al., 2021). These include health, economic, social, and other severely negative impacts on the livelihoods of the people and the nation as a whole. As Antwi-Boasiako et al. (2021, p. 125) poignantly put it "... COVID-19 is testing the resilience of individuals, families, businesses, and nations in responding to pandemics." The next two sub-sections look at the negative and positive effects of the pandemic on Ghana.

Some positive impacts of COVID-19 on Ghana's healthcare sector

Ghana has made some positive strides within the healthcare system in relation to the pandemic. Afriyie et al. (2020, p. 838) call these "opportunities in the midst of the pandemic in Ghana." Ghana has achieved better case-recovery and lower case-fatality rates compared internationally, including Africa (Afriyie et al., 2020; Fenny and Otieku, 2020, p. 3; Antwi-Bosiako et al., 2021). There has been commendable commitment by frontline healthcare workers and industry

¹ Source: <https://www.ghanahealthservice.org/covid19/latest.php#>, accessed 09 September, 2021

players to help protect the population against the pandemic and treat the infected. The University of Ghana's Noguchi Memorial Institute for Medical Research (NMIMR) and the West African Centre for Cell Biology of Infectious Pathogens (WACCBIP), supported by the University of Ghana Computing Systems, achieved a notable feat by being the first in Africa to successfully undertake the genome sequencing of the viral strain of the SARS-CoV2, which is causing the pandemic (Afriyie et al., 2020; Fenny and Otiaku, 2020). This was done from 15 confirmed COVID-19 infected persons in Ghana with the help of Next Generation Sequencing Core and a High-Performance Computing system (Public Affairs, University of Ghana, 2020, in Afriyie et al., 2020). This helps with efforts of Ghana's tracing, testing and treating, christened 3Ts, and containment of the pandemic (Afriyie et al., 2020; Fenny and Otiaku, 2020).

KNUST also collaborated with Incas Diagnostics to develop a Rapid COVID-19 Diagnostic Test kit to facilitate Ghana's 3Ts (Fenny and Otiaku, 2020). The innovative use of the Zipline drone delivery technology to deliver test samples of COVID-19 patients (Afriyie et al., 2020; Fenny and Otiaku, 2020) is another case in point. This was particularly helpful during the initial stages of the pandemic in Ghana when there were very limited testing centres. The drone service helped to quickly submit test results to testing centres, and to return same to their places of origin, thereby facilitating much faster confirmation of infection and treatment. Lately, Zipline drone is delivering COVID-19 vaccines at remote areas in Ghana where it is difficult to keep cold chains, and other difficult-to-reach areas in the North East Region where heavy rains in August and September, 2021, and floods made them difficult to reach. This is because the vaccines require low and ultra-low temperatures. Ghana also greatly boosted aspects of its healthcare infrastructure and logistics and employed additional healthcare personnel, to meet the increased demand for healthcare created by the pandemic. Details of these last two efforts are given later in the chapter.

Some negative impacts of COVID-19 on Ghana's healthcare system

On the reverse side, some negative impacts of the COVID-19 pandemic on the healthcare system include straining the budget for healthcare, "the continuous prioritisation of COVID-19 over other health needs by the government and other development partners" (Fenny and Otiaku, 2020, p. 4) and the fear that potential patients would contract the virus from healthcare institutions. All of these are adversely affecting other equally important health programmes such as HIV/AIDS, malaria, tuberculosis, mental health and child immunisation, among others (Afriyie et al., 2020; Fenny and Otiaku, 2020, p. 4). Projections about Ghana's health sector spending indicates a potential increase in 2020 and thereafter. For instance, projections from multiple sources show that Ghana's

healthcare purse as a percentage of GDP is likely to shoot up from 4.2% in 2019 to 10.3% by 2021. Similarly, per capita healthcare expenditure is estimated “to increase by about 24% in 2020 and 26% in 2021” (World Bank, 2020; Knoema 2020; Ministry of Finance and Economic Planning, 2020, cited in Fenny and Otioku, 2020, p. 4). Furthermore, the pandemic had a negative impact on healthcare personnel and the general psycho-social well-being and mental health of citizens. Again, details of these are provided later in the chapter.

Impact of COVID-19 on Health Services

Ghana’s healthcare system is overwhelmed (Fenny and Otioku, 2020; Afulani et al., 2020, 2021). Apart from the impact of COVID-19 on citizens’ life, health, and lifestyles, health infrastructure is equally strained (UNICEF, Social Policy Research Institute and the National Development Planning Commission [NDPC] (2021). The health sector experienced weak coordination mechanisms, irregular laboratory supplies, inadequate test facilities, inadequate quarantine and isolation facilities amidst the pandemic (UNICEF, 2020; UNICEF, 2021; UNICEF et al., 2021). Also, there was/is limited supply of personal protective equipment (PPEs) (Fenny and Otioku, 2020) as well.

Beyond the direct impact of the pandemic on health, there are some well known indirect and secondary impacts of the COVID-19 pandemic on health and access to health services in Ghana. These indirect impacts include health system overload, the disruption of the timely access of essential health services by households, decline in quality of health services provided and a shift in resource allocation and funding priorities from other illnesses to COVID-19 (UN, 2020; UNICEF et al., 2021). For instance, there were shortages of antiretroviral (ARV) drugs to HIV/AIDS infected patients in 2020, which is indirectly attributed to the fiscal pressure put on Ghana by the pandemic. While constricted fiscal space is the main reason for the ARV stock-out which we experienced in 2020, COVID-19 may have caused the government to be more cautious about expenditure and therefore that may have led to delays in the government providing money for the purchase of ARVs in good time. This is an indication that priority was given to COVID-19 over other healthcare concerns earlier on during the onset of the pandemic in 2020. This may adversely affect millions of HIV patients, particularly children (UNICEF et al., 2021). Among others, outpatient attendance decreased abruptly in many health facilities in the country due to fear of contracting the virus at the various health units while seeking services (Africa News, 2020)². These include a reduction in utilisation of antenatal care services

² Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana | Africanews

(UNICEF, World Bank, and Social Research Institute, 2020), postnatal care services, with dire consequences for child and maternal health.

Some non-emergency healthcare services such as non-emergency surgery and outpatients' services were suspended by some healthcare institutions, particularly at the peak of the COVID-19 pandemic and lockdown period in Ghana (Africa News, 2020)³. This was due to the increased workload from COVID-19, and possibly, the fear of contracting the infection. The suspension of such services was to make room for the increased health resources, including personnel, needed to effectively respond to the pandemic. It would also certainly, facilitate controlling the spread of the infection. Alternatively, though certain services were running, the patronage was low due to fear of contracting the disease (UNICEF, World Bank, and Social Research Institute, 2020).

Consequently, although COVID-19 is overwhelming and causes fear and panic, the possibility that many people have died due to other health conditions and COVID-19-induced restrictions in Ghana is high (Graphic Online, 2020). Data from Johns Hopkins University (2020), used by Graphic Online (2020) indicated that the case fatality for COVID-19 in Ghana as at April 2020 was 0.42%, compared to an infectious disease like meningitis, which had a fatality rate of 15% within the same period, according to the Ghana Health Service (Africa News, 2020)⁴. Yet, although more lives are being lost to meningitis within a short period than COVID-19, it did not get the support and attention required (Graphic Online, 2020).

Also, patients suffering from other illnesses with similar symptoms as COVID-19 were unable to get timely care and management, and some may have lost their lives because of that. This is because every patient with a high temperature, difficulty breathing, coughing, and others who arrived at hospitals had to go through the COVID-19 test first, get isolated, and managed till the test results were out before they would get checked for other possible illnesses with such symptoms. At the early stages of the infection, these procedures were taking between three to seven days, and patients in critical condition might have died before they were discovered to be COVID-19 negative.⁵ Furthermore, anecdotal information indicates that some well-to-do Ghanaians who seek periodic medical care abroad for some of their ailments got restrained by the border closures,

³ Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana | Africanews

⁴ Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana | Africanews

⁵ The health impact of COVID-19 on other medical conditions in Ghana – the opinion of a kidney specialist and health equity specialist - Graphic Online

particularly the closure of the airspace both in Ghana and internationally, and thus could not access the needed healthcare abroad. As a result, some such persons' ailments worsened and others died rather abruptly.

Shiraef (2021) observed that 2.93 billion trips were cancelled, and 1,299 border closures occurred due to COVID-19. In the week of March 11, 2020, when WHO officially declared COVID-19 a pandemic, a total of 348 countries closed their borders, either partially or completely. Starting with North Korea on 22 January, 2020, till 4 June 2020 when Bahrain finally joined in, 189 countries which accommodate 65% of the world's population instituted full border closures due to the COVID-19 pandemic. Although total border closures happened on all continents, they occurred the most in Europe, South America and Asia. By the close of 2020, about half of all countries were completely closed to non-citizens, and non-visa holders, except for emergency situations. In 2020, 193 countries introduced partial border closures, out of which 98 instituted targeted bans of certain individuals based on either their recent travel history, and/or their nationality/place of permanent abode. In addition, there were more than 100 visa bans (Shiraef, 2021). The introduction of the COVID-19 vaccination is facilitating the easing of border closures.

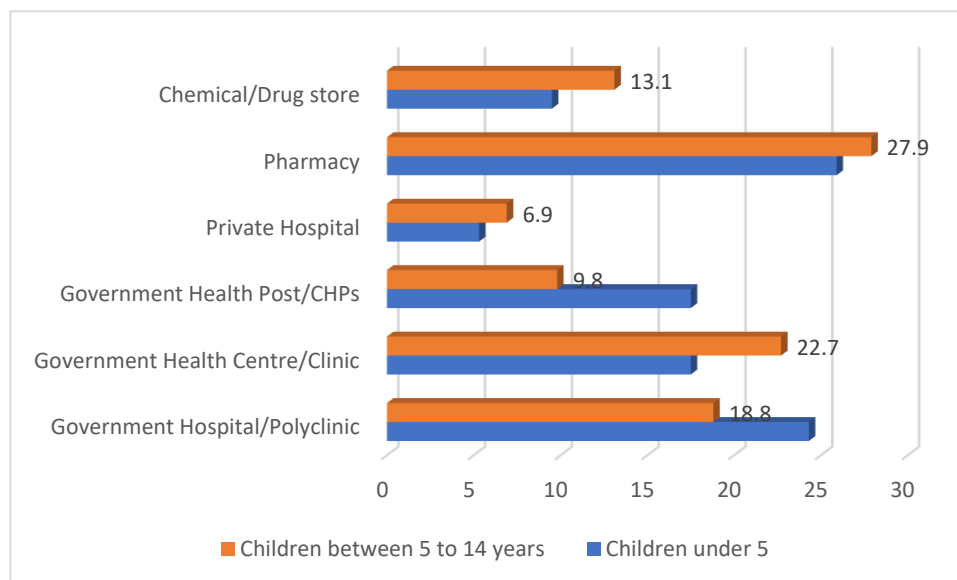
In Ghana, the travel restrictions imposed and the lockdown certainly affected movement of persons, including sick persons, particularly those who did not own a means of transportation in their households. This was in spite of the GoG's decision to allow access to essential services such as healthcare and medicines during the partial lockdown. GoG does not plan to open Ghana's land and sea borders till its objective of vaccinating 20 million residents against COVID-19 is achieved (Gbcghanaonline.com, 2021; Rainbowradioonline, 2021).

Children's Care Services

Though children's healthcare services programmes were still running across the country, the services were done very skeletally⁶ at the early stages of the pandemic. UNICEF, World Bank, and Social Research Institute (2020) found limited use of health services in Ghana among children aged 5-14 years during the COVID-19 lockdown. Many households depended on pharmacies for health services instead of going to health facilities during the lockdown (Figure 3.1). Hence, the lack of attendance could have made it challenging to identify the types of illnesses and thus increase the risk of spreading infection due to lack of identification and isolation.

⁶ Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana : Africanews

Figure 3.1: Places households sent their children for medical treatment during the COVID-19 lockdown in Ghana



Source: UNICEF, World Bank, & Social Research Institute, 2020

The known near neglect of needed healthcare interventions due to COVID-19 adversely affected immunisation vaccines and services for young children (UNICEF et al., 2020). Routine immunisation among children lagged due to the pandemic (UNICEF, World Bank, and Social Research Institute, 2020). UNICEF et al. (2020) specified that the COVID-19 pandemic affected vaccination of children of two years and below. Out of the 14.4% of households whose children aged two years or younger were due for vaccination since March 16, 2020, about 56.5% did not send the children to a health facility for vaccination due to fear of coronavirus infection, 17.1% mentioned lack of vaccines and 16.4% stated movement restrictions during the lockdown as reasons for which their children were not vaccinated during the lockdown and COVID-19 pandemic peak period. This led to about one million children under one year being at the risk of missed vaccinations due to COVID-19. This may pose risks to their health, survival, and development, especially with infectious diseases like measles. Again, about 4.1 million children under age 5 faced high risks of mortality due to the incidence of tuberculosis, malaria, diarrhoea, and limited use of recommended healthcare for these diseases (UNICEF Ghana and Social Policy Research Institute, 2020; UNICEF, Social Policy Research Institute and NDPC, 2021).

Antenatal Care

Research revealed that since March 16, about 20 per cent of pregnant women stopped attending antenatal care (ANC) classes at health facilities due to fear of coronavirus infection at health facilities (UNICEF, World Bank, and Social Research Institute, 2020). Although antenatal care services and children's services programmes were still running, these programmes were very skeletal.⁷ Therefore, the COVID-19 pandemic might have resulted in the inaccessibility of other health services, with negative ramifications.

Negative mental health impact of COVID-19

Naturally, the COVID-19 pandemic causes fear and anxiety among the general populace, particularly healthcare workers, who have to attend to infected patients. As well, the uncertainties and panic associated with the pandemic and the social protective measures imposed by governments, including social distancing, isolation, and confinement of individuals away from their regular lifestyles, increase the risk of mental illness (UNICEF, 2020). Psychological and emotional problems arising from the social restrictions and the required new adjustments to the “new normal” have been reported among the general public (Fenny and Otiaku, 2020; Afulani et al., 2021). Fear of infection is causing fear and panic country-wide (Fenny and Otiaku, 2020; Afulani et al., 2020, 2021). For healthcare workers, the emotional and psychological perturbation has arisen from their own fear of the pandemic, fear of being infected, and fear of possible death from the pandemic as some of their colleagues have succumbed to the infection (Afulani et al., 2020, 2021). This worsens Ghana's already frail mental healthcare resources, even as pre-COVID-19, the general Ghanaian population has been noted to have substantial mental health issues (Osei⁸/Daily Graphic, March, 2018; Owusu and Asante, 2020a).

Without doubt, the accompanying social restrictions, particularly the partial lockdown has untold/enduring effects on several aspects of livelihoods of citizens, corporate bodies and institutions, and the socio-economic fabric of Ghana as a whole (Ghana Statistical Service [GSS], 2020a, 2020b; ISSER, 2021). Among others, the negative impact has been on health and healthcare (Ashinyo et al., 2020), education (UNESCO, 2020; Owusu, A.Y., Asante, Owusu, G., 2021), food security (GSS, 2020c), essential services like water (Smiley et al., 2020; Owusu, A.Y. and Crensil, 2021), and even, family life. Others have included job losses,

^{7 7} Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana : Africanews

⁸ Prof. Akwasi Osei is the Chief Executive, Mental Health Authority, Ghana Health Service.

wage reductions and losses, and related insecurities (GSS, 2020a, 2020b, ISSER, 2021). Persons in urban areas (especially those who are financially vulnerable, and women and children) (Knott, 2020; Innovations for Poverty Actions [IPA]⁹, 2020; ISSER, 2021), workers in the service sector, and daily wage earners particularly were affected (ISSER, 2021; Owusu, A.Y. and Crentsil, 2021). For instance, the GSS's Wave 1 and 2 Business Tracker Study which assessed the effect of the partial lockdown on the economy and occupations in Ghana, for which data collection occurred in May/June and August/September, 2020, showed that 42,000 people lost their jobs and 770,124 had their wages reduced (GSS, 2020a; ISSER, 2021; Owusu, A.Y. and Crentsil, 2021). GSS's (2020b) Wave-2 Business Tracker Survey revealed that in August/September 2020, respectively, an estimated 297,088 of workers from about 28% of businesses had reduced wages, attributed to the impact of the pandemic. This formed an estimated 10% of the total workforce of those businesses. The same wave-2 study indicated that about 11,986 persons forming an estimated 1% of the workforce of businesses, were laid off in August/September, 2020 (also see ISSER, 2021).

Given all the known exigencies with COVID-19, the UN (2020) and UNICEF (2021) have stated that the pandemic has had a devastating effect on citizens' physical and mental health across the globe, Ghana inclusive. Beyond its impact on health, COVID-19 is known to have affected every part of the fabric of citizens' lives, including employment, financial status, time schedules, for instance during the school closures, food and other livelihood securities (ISSER, 2021; Owusu, A.Y. and Crentsil, 2021; Owusu, A.Y., Asante, and Owusu, G. 2021). For instance, it is known that domestic violence increased in Ghana (UN Women, 2020), as it did internationally (Bogart 2020, Meyersfeld 2020; UN Women, 2020), attributable to the pandemic. Families experienced restricted movement outside their homes during the partial lockdown, limited incomes and opportunities, limited space at home and limited recreational and out-door opportunities and activities, restrictions from work spaces outside the home and limited work opportunities/employment. This meant income shortfalls and other repercussions such as limited food. Under these circumstances, existing deviant families particularly faced increased acrimony and psychosocial tensions which increase the chances of conflict and abuse. Furthermore, the general fear and panic and sense of insecurity and gloom occasioned by the pandemic no doubt exerted a high toll on the psychosocial and mental health of citizens.

⁹ The IPA data were from the Research for Effective COVID-19 Response (RECOVER)⁹ study collected over May 6-26, 2020. The RECOVER survey, which is a panel survey, is being conducted in Ghana and eight other countries, by IPA to shed more light on the effect of COVID-19 on livelihoods and to provide data for policy responses in these countries.

Ghana Government's Response to / Management of COVID-19

Antwi-Bosiako et al. (2021, p. 129) report that GoG's motive for handling the country's COVID-19 is "...to ensure that the health sector and healthcare workers can manage the coronavirus situation in Ghana." Other researchers (Afriyie et al., 2020, p. 839; Fenny and Otioku, 2020, p. 3; Ghana News Agency, 2020a) have identified GoG's response to COVID-19 as five-fold These are:

1. limit and stop the importation of the virus;
2. contain the virus from spreading;
3. give adequate care to the infected;
4. cushion the impact of the virus on the socio-economic life of residents; and
5. facilitate the expansion of domestic production capability to deepen self-reliance.

A sixth key intervention, however, is the provision of evidenced-based information and continuous communication to update residents, boost their morale, and inform them of GoG's relief, incentive packages, and decisions. These include invocation of legal instruments, all in the attempt to keep residents abreast with the status of the infection and its management at the local front.

Lockdown measures and social restrictions

Though it was quite unclear how the pattern of the then novel corona virus pandemic would unravel, Ghana, like nearly all countries internationally, imposed some restrictions to help contain the spread of the virus. Primary among these was a three-week partial lockdown from March 30 to April 19, 2020 in the 43 hotspot districts, municipal and metropolitan areas. In addition, several social distancing measures employed by GoG included the initial closure of most public activities and venues, including the national borders by land and sea, and travel bans. These included religious activities, funerals, weddings, political rallies, pubs and restaurants, beaches, contact sports, and schools, among others. Workplace restrictions and shift systems were also imposed which are still in place, as well as admonishments to stay at home if one did not have much to do outside the home. Where feasible, work-from-home possibilities were also encouraged and used.

Health measures implemented to control and manage COVID-19 in Ghana

The health sector became the most prioritised sector in most countries globally, including Ghana, due to the COVID-19 pandemic and the need to combat its spread and save lives (UNICEF, 2020). The Ghana Government was very responsive and active in implementing health measures to stop the spread of COVID-19 in Ghana (GNA, 2020a; UN, 2020). The following are some of the health measures carried out to combat the spread and save the lives of Ghanaians.

Enhanced Contact Tracing and Testing

By 19 April, 2020, when Ghana ended its partial lockdown, it was ranked first among African countries in testing its residents for the virus, per million residents (Afriyie et al., 2020). As at 19 April 2020, Ghana was the only country in Africa to have conducted more than 60,000 tests, and was ranked number one in Africa in terms of administering tests per million people (Ghana News Agency, 2020b, in Afriyie et al., 2020). By 19 April 2020, when the three-week partial lockdown ended, an estimated 86,000 people had been contact traced (Afriyie et al., 2020; Antwi-Bosiako et al., 2021).

Contact tracing and testing are essential in combating the spread of the COVID-19 pandemic (Primary Health Care Performance Initiative, 2020; UN, 2020; UNICEF, 2020). About 300 professionals were initially engaged by GHS to effectively carry out Government's enhanced contact tracing exercise to manage the spread of the COVID-19 in Ghana. The number increased to over 1,000 contact tracers by 30 June 2020. This contact tracing was accompanied by enhanced testing for international arrivals, individuals within the epicentres of the pandemic, individuals identified through the enhanced contact tracing, and voluntary testing (Ofori-Atta, 2020).¹⁰ Through the mass testing, positive cases were identified, isolated, and treated accordingly by the COVID-19 Health Taskforce in Ghana. Also, to speed up the testing process and increase testing, the Kwame Nkrumah University of Science and Technology and Incas Diagnostics, a diagnostic company in Kumasi, created a Rapid Diagnostic Test (RDT) to help test for COVID-19.¹¹ About 1,230,125 free testing, including from international arrivals, had been carried out in Ghana as of mid-June, 2021 (Table 3.2). Other

¹⁰ Coronavirus: About 300 contact tracers deployed for enhanced testing – GHS (ghanaweb.com)

¹¹ KNUST, Incas develop rapid diagnostic test kit for detecting COVID-19 (citinewsroom.com)

than international travellers, COVID-19 testing in Ghana was free for residents of Ghana (Ministry of Health, 2020b).

About 97,561 infected persons had been treated and discharged in Ghana, as at 27 July, 2020 (Ghana Health Service, 2021)¹². Judged by its recovery and case-fatality rate compared to other African countries, Western nations with superior healthcare systems such as the UK, USA, Spain and Italy, and world average indicators, Ghana has successfully managed and treated COVID-19 (Afriyie et al., 2020; ISSER, 2021; Antwi-Bosiako et al., 2021). This feat by Ghana has led to praises being showered on Ghana for an expedient management of the pandemic at the local level. Residents, researchers, international health and development organisations, and the world have hailed Ghana for its effective management of COVID-19 nationally (Afriyie et al., 2020; GNA, 2020b; Antwi-Bosiako et al., 2021). As noted by Bate (2020, in Antwi-Bosiako et al., 2021, p. 130): “Reuters also reports that the President in addressing a conference about Africa’s response to the COVID-19 indicated it is the rigorous programme of ‘Test and Trace’ that has worked for Ghana to avoid an explosion in cases that could have overwhelmed its health system.” Antwi-Bosiako et al (2021) mention WHO, Reuters, and the Washington Post as some of the international agencies which have highly commended Ghana’s handling of COVID-19 infections in the country, with particular reference to the 3Ts. Some researchers have done the same (Taylor and Berger, 2020, in Antwi-Bosiako et al., 2021; Antwi-Bosiako et al., 2021; Vandyck-Sey et al., 2020).

At the initial stages of the pandemic, and in the midst of the understandably unprepared situation, the Ministry of Health made arrangements for two hospitals, the Ga East Municipal and Bank of Ghana Hospitals, both in the Greater Accra Region, to be fully dedicated to the treatment of COVID-19. Additionally, other major hospitals across the country were identified and designated as back up centres for managing the pandemic. Ghana’s Food and Drugs Authority (FDA) facilitated easing shortages of PPEs and other essentials for COVID-19 healthcare by fast-tracking the certification of hand sanitisers as well as the local production of 3.6 million standardised PPEs, such as medical scrubs, nose masks, hospital gowns and head gear (Ngenbe, 2020, in Afriyie et al., 2020, p. 840). This was due to the difficulties with importing such items from the developed nations as a result of shortages, as well as the difficulties with international shipment due to the lockdown measures. Moreover, local prototypes of locally-manufactured mechanical ventilators were produced to augment the need for such items at local intensive care units.

¹² COVID-19 Situation Dashboard | Ghana (ghanahealthservice.org)

Most Ghanaians have resorted to boosting their immune systems through dietary modifications, as well as using both pharmaceuticals and indigenously known herbal supplements with immune boosting/antiviral properties such as neem tree leaves and barks. Initial results from these efforts are encouraging (Afriyie et al., 2020; ISSER, 2021; Owusu, A.Y. and Crentsil, 2021). Local pharmacies took advantage of the pandemic to step up importation of immune boosting supplements such as vitamin C and zinc at the initial stages of the pandemic. With time, local pharmaceutical companies were innovative in producing locally-made hand sanitisers and other items such as different brands of vitamin C. GoG also supported local industries and encouraged individual artisans to produce some PPEs such as face masks and coveralls locally (ISSER, 2021; Owusu, A.Y, Asante, and Owusu, G., 2021).

The Food and Drug Administration (FDA) provided guidelines and specifications for producing some of these PPEs, which were more affordable. The FDA also fast tracked the testing and approval of indigenous production of hand sanitisers which were at cut-throat prices at the onset of the pandemic., at the approved minimum 70% alcohol base. This has resulted in the production and use of locally made hand sanitisers. As well, the FDA rose to the need to undertake urgent market surveillance due to the influx of products for COVID-19 prevention and treatment. This led to discovery of sub-standard products such as sub-standard hand sanitisers which did not meet the recommended alcohol content (Afriyie et al., 2020).

EXIMBANK and Entrance Pharmaceuticals and Research Centre, a subsidiary of TOBINCO, partnered and developed a \$5 million facility to produce hydroxychloroquine and Azithromycin in large quantities locally¹³. These are the drugs globally recognised as efficient in the management of COVID-19 cases. This effort boosted Ghana's capacity to treat and manage more COVID-19 cases at the various health facilities and at home,¹⁴ thus increasing the number of recoveries and reducing the number of critical cases over the period, as depicted in Table 3.2.

COVID-19 clinical management protocols

The Ghana Health Service developed COVID-19 clinical management protocols, which detailed the approach and step-by-step process of managing suspected

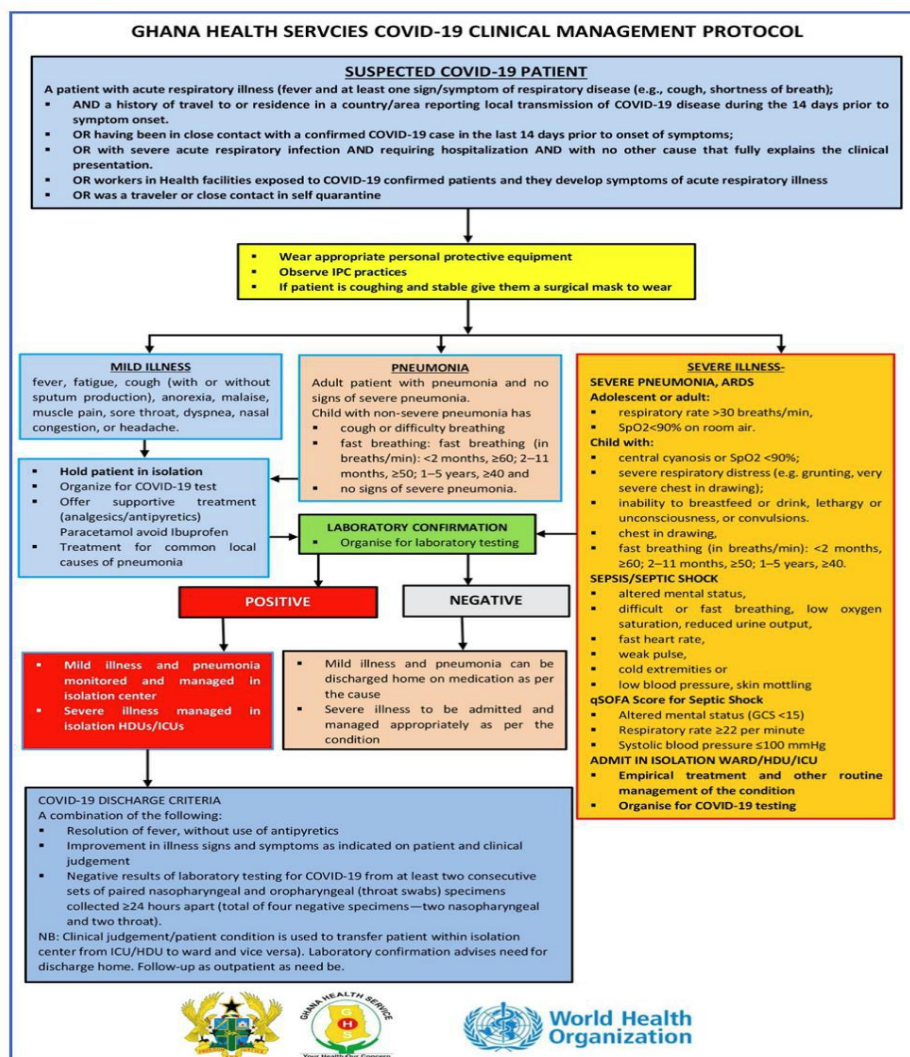
¹³ Ghanaian Times: COVID-19 treatment; EXIMBANK/Tobinco partnership laudable (ghanaweb.com)

¹⁴ Ghanaian Times: COVID-19 treatment; EXIMBANK/Tobinco partnership laudable (ghanaweb.com)

and confirmed cases at the various approved COVID-19 management and treatment health facilities (Ministry of Health, 2020c).

Figure 3.2 shows the Ghana Health Service's COVID-19 Clinical Management Protocols.

Figure 3.2: Ghana Health Service COVID-19 Clinical Management Protocol



Source: Ministry of Health (2020c)

The Health Promotion Division of the GHS has also developed several behaviour change communication materials and messages, and engaged in several other

mass media communication activities to educate the public on the pandemic, and ways to avoid being infected and/or how to seek care when infected.

Risk Communication

The risk communication undertaken by both President Akufo-Addo, popularly called “Fellow Ghanaians”, as he commenced each of his 26 national updates on the pandemic, and the other updates referred to earlier in this chapter, have been very critical in providing risk mitigation information to citizens. These have undoubtedly helped with knowing more about the rather newer virus, signs and symptoms of the infection, GoG’s decisions and rules, behavioural expectations from the general public, and related services. Other such critical information has included sources of aid, if needed, and discouraging stigmatisation and discrimination associated with the pandemic in Ghana. Some researchers are, however, of the view that the COVID-19 risk communication and research in Ghana done so far is non-robust/not comprehensive enough and not adequately data-driven (Quakyi et al, 2021).

Psychological support

Given the near devastating effect of the deadly COVID-19 pandemic on livelihoods in Ghana and internationally, efforts at providing psychosocial cushioning to the populace cannot be overemphasised. Extended/increased prayers, psychosocial counselling, and religious activism have been some of the measures taken. According to UNICEF (2021), the Ghanaians Against Child Abuse (GACA) campaign has provided parents with COVID-19 relevant information, parenting and child protection messages, and helplines which parents can call for support. In January 2021, GACA reached about 26,240 people through their social media handles. In addition to providing parents with relevant COVID-19 information, approximately 1,056,124 girls, boys, women, and men, have benefited from community-based psychosocial support services provided by UNICEF through home visitations, face-to-face interaction, and community announcement systems (ISSER, 2021; UNICEF, 2020a, 2021).

Also, seven Civil Society Organisations in Ghana received 1.2 million cedis from the UK Government Participation Programme (*Ghana Somubi Dwumadie*) to provide psychological support to persons with disabilities, healthcare workers, and persons that recovered from COVID-19.¹⁵ These organisations include the Ghana Association of the Physically Disabled (GSPD), the Christian Health Association of Ghana (CHAG), Presbyterian Community Based Rehabilitation Centre-Sandema, Mental Health Society of Ghana (MEHSOG), Human Rights Advocacy

¹⁵ 7 Disability CSOs Awarded COVID-19 Grants (modernghana.com)

Centre (HRAC), Hope for Future Generations/Psyk Forum, and Presbyterian Community Based Rehabilitation Centre-Garu.¹⁶ Over 20,000 people with disabilities had received from the programme, wheelchairs, psychosocial support, and protective equipment to prevent infection (Gentilini, Almenfi and Dale, 2020).

Similarly, Ghana's Ministry of Gender, Children and Social Protection (MoGCSP) and the Domestic Violence and Victim Support Unit (DOVVSU) of the Ghana Police Service, with the support of UNFPA Ghana, commissioned a Domestic Violence Support Centre in Accra, on 11 March 2021. Named the Orange Support Centre, it is the first of its kind. Its services are both walk-in and call-in, in support of domestic violence victims. Counselling, psychosocial support and legal assistance are provided to its patrons. Furthermore, the *Boame* (help me) app which is a mobile application, was also launched to aid in accessing the Centre. Besides the *Boame* mobile app, a toll-free number: 0800111222 has been provided for ease of access (Philanthropy Space/Aistiphi Gazette, 2021; ISSER, 2021).

Due to the ramifications of the pandemic, faith-based organisations (FBOs) have responded by making extra strides to perform their mandate. They have been providing increased outreach services and psychosocial support to their members and catchment communities. These have included newer innovations to reach out to their members through electronic sources, including preaching, sending You-tube and WhatsApp, and sms messages, using USSB mediums, and increased visitation. These have been in addition of their traditional use of TV and radio to broadcast religious programmes, which they increased. Others have included community announcements/broadcasts, home visitations, and face-to-face media. Additional activities by FBO in this regard include increased prayers for divine intervention and direction for handling the pandemic. These included joining both the National Day of Fasting and Prayer declared by President Akufo-Addo, which was slated for Wednesday, 25 March, 2020, and initiating other such activities as the three-day prayer and fasting scheduled by the mainline Christian organisations for 24-26 April, 2020 (Avevor/Catholic News Service, 2020; ISSER, 2021), among others.

Furthermore, the FBOs themselves provided food and other related needs of their vulnerable members as well as served as conduits for the GoG's, political parties' and politicians', and philanthropists' distribution of relief resources to

¹⁶ 7 Disability CSOs Awarded COVID-19 Grants (modernghana.com)

their catchment communities during and immediately after the partial lockdown (ISSER, 2021; Owusu, A.Y. and Crentsil, 2021).^{17, 18} The Church of Pentecost, the International Central Gospel Church (ICGC), and the Ghana Catholic Bishops' Conference have been at the forefront of providing relief to support treatment of COVID-19. ICGC donated GH¢ 100,000 (US\$ 17,543), the Catholic Bishops Conference gave GH¢ 70,000 (US\$ 12,200), and the Church of Pentecost gave a cash donation of GH¢370,000 (approximately US\$12,200) (Mayaki, 2020a; ISSER, 2021). Furthermore, the Church of Pentecost temporarily supported the National Commission for Civic Education with vehicles and PPEs to facilitate the NCCE's COVID-19 risk communication in remote communities (ISSER, 2021). The Church of Pentecost also temporarily offered its 250-acre, 1,200 bed ultra-modern Convention Centre located at Gomoa Fetteh in the Central Region as a COVID-19 isolation centre for infected persons (Ofori-Atta, 2020). Also, the Catholic Church in Ghana offered 13 of its structures comprising a 750-bed capacity to GoG as treatment centres (Mayaki, 2020b; ISSER, 2021).

Key among the philanthropists are President Nana Akufo-Addo and Vice President Dr. Mahamudu Bawumia. They were the first to pledge, and donated three months' worth of their salaries each to support the National COVID-19 Trust Fund. This gesture was emulated by certain government appointees who donated 50% of their three months' salary to the fund (SEND-West Africa, 2020, in Fenny and Otioku, 2020). Additional outstanding donations from philanthropists included those from Hon. Kennedy Agyepong, Member of Parliament for Assin Central. He sourced \$428,000 from his associates, and personally donated \$200,000, which he specified should be used for evacuating more than 700 Ghanaians from Lebanon (Parliament of Ghana, 2021).

Provision of Personal Protective Equipment (PPEs)

Personal Protective Equipment is generally accepted as one of the best ways to safeguard health professionals, COVID-19 patients, and citizens in general against the onslaught of the pandemic. This is due to the airborne nature of the virus and the hitherto lack of immediate pharmaceutical interventions, particularly until the advent of the emergency approved COVID-19 vaccines (ISSER, 2021; Owusu, A.Y. and Crentsil, 2021). Therefore, to protect students particularly and the general population, the Ghana Education Service developed

¹⁷ <https://www.mofep.gov.gh/news-and-events/2020-04-07/government-distributes-food-items-to-needy-individuals-and-households-affected-by-lockdown-through-faith-based-organisations>

¹⁸ <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Lockdown-If-you-need-food-call-these-numbers-917890>

COVID-19 protocols and supplied over 20 million Personal Protective Equipment (PPEs) such as face masks, Veronica buckets, soap, and thermometers to schools for safe resumption of classes. About 10 million facemasks were provided for all schools in the country, 9.9 million hand sanitisers, 38,000 thermometer guns, and 53,000 Veronica buckets (UNICEF, 2021). Also, face shields and electronic dispensers were provided to children and teachers in special schools (Amoyaw, 2021).

The WHO donated 21,080 PPEs, including 10,000 hand gloves, 9,000 medical masks, 800 face shields, 750 gowns, 350 respiratory masks, and 180 goggles to support frontline health workers practice safety measures for themselves and their patients to combat the spread of the COVID -19 pandemic (WHO, 2020b). Ghana received the second batch of PPEs, including oxygen concentrators, test kits, medical equipment, and surgical masks, from the West African Health Organisation (WAHO) to protect frontline workers and equip COVID-19 testing laboratories across the country (Joyonline and Ghana News Agency, 2021). UNICEF in January and February 2021 delivered additional infection prevention and control-related WASH supplies, including 1,310 Veronica buckets to over 200 schools and 50 public places in high-risk areas (UNICEF, 2020b; UNICEF, 2021).

Virtual Security Africa (VSA) and its sister company, Virtual InfoSec Africa, donated GHS100,000 worth of sanitisers to the Ghana Health Service, procured from Kasapreko Company Limited in Accra, a local manufacturer.¹⁹ Also, on 19 February, 2021, MTN Ghana made donations of PPEs, including 2,000 pieces of washing basins, hand sanitisers, soap, thermometer guns, and boxes of nose masks to some selected SHSs across the country to support the Government's fight against COVID-19 (Modern Ghana, 2021).²⁰ Vodafone Ghana also supported the Ledzokuku-Krowor Municipal Assembly Hospital in Accra with some PPEs donated on 3 February, 2021.²¹ The Former President, John Mahama, also donated PPEs worth GHC 390,000, consisting of sanitisers, head covers, gumboots, face masks, gloves, and other critical PPEs to health facilities, including Korle-Bu Teaching Hospital, the Tamale Teaching Hospital, and other regional and district hospitals²² (also see ISSER, 2021).

The Coalition of Concerned Teachers in Koforidua donated PPEs, including Veronica buckets, cartons of liquid soaps, tissue papers, calendars, and clocks to

¹⁹ VSA donates GH¢100,000 worth of sanitizers to Ghana Health Service - Graphic Online

²⁰ MTN donates PPE to Senior High Schools to fight covid-19 (modernghana.com)

²¹ Vodafone Ghana supports LEKMA Hospital in the fight against Covid-19 - MyJoyOnline.com

²² Mahama donates PPEs to hospitals to fight COVID-19 pandemic (citinewsroom.com)

six education offices within the Eastern Regional Zone.²³ The Ghana National Association of Teachers (GNAT) in Asunafo North Municipality and Asunafo South Municipality donated PPEs to Goaso Government Hospital and the Asunafo District Education Office.²⁴ Also, the Sekyere East Cluster of World Vision donated PPEs, including N95 respirators, goggles, facemasks, Veronica buckets, and detergents to the district to help fight COVID-19.²⁵ Gold Fields Ghana Limited also donated PPEs consisting of 35,700 pairs of hand gloves, 20,000 hand sanitisers, and 8,000 surgical masks to the Tarkwa-Nsuaem Municipal Assembly to support the fight against COVID-19. This donation also added 7,000 pieces of N95 masks, 1,500 pieces of protective gowns, and 1,200 large bottles of alcohol-based hand sanitisers.²⁶

The Presbyterian Church of Ghana, through the support of ACT Alliance, USA, and the Protestant Church of the Palatinate, Germany, donated PPEs to the Bawku Presbyterian Hospital and Donkokrom Presbyterian Hospital. The PPEs from ACT Alliance, worth GHC31,000 comprised 100 pieces of jumbo size tissues, 80 boxes of disposable gloves, 80 rubber aprons, 60 disposable gowns, 50 gallons of liquid soap, 25 gallons of hand sanitisers, 15 infra-red thermometers, and ten handy clean wash systems. The PPEs from the Protestant Church of the Palatinate, Germany, were worth 10,000 Euros and consisted of 100 jumbo size tissues, 90 overalls, 58 goggles, 40 boxes of K95 face masks, 36 surgical gowns, 20 pairs of gumboots, 18 gallons of liquid soap, 18 boxes of sanitisers, 14 boxes of disposable gloves, 16 gallons of disinfectant, 14 boxes of nose masks, and eight infra-red thermometers.²⁷ Additionally, the Presbyterian Church of Ghana made donations of money, food, and other supplies to frontline healthcare workers and other health institutions such as the Greater Accra Regional Hospital (Presbyterian Church of Ghana, 2020; ISSER, 2021).

The Global Evangelical Church, Ghana, also donated an unspecified amount of money and assorted PPEs, including safety boots, overall gowns, goggles, and boxes of nose and faces masks to complement government's efforts. Jesus Prayer Ministry, a philanthropist from OSEIBENZ Ventures, also added Veronica buckets, safety boots, examination gloves, hand sanitisers, tissue paper, liquid soap, goggles, and overall gowns to its Mission Hospital at Apromase, situated

²³ CCT supports Education Offices to fight Covid-19 (msn.com)

²⁴ COVID-19: GNAT Donates Medical Items to Goaso Govt Hospital (modern-ghana.com)

²⁵ WVG provides PPEs to support covid-19 fight in Sekyere East (ghanaweb.com)

²⁶ Gold Fields Ghana Limited Donates Personal Protective Equipment (PPES) to Support the Fight Against COVID-19 – Tarkwa Nsuaem Municipal Assembly (tnma.gov.gh)

²⁷ Presbyterian Church of Ghana Donates PPEs To Donkokrom And Bawku Hospitals | Religion | Peacefmonline.com

in the Ejisu-Juaben District, Ashanti Region.²⁸ The Church of Pentecost also donated PPEs worth GH¢150,000 (US\$ 26,316) to 13 health facilities in the hotspot areas (Fenny and Otieku, 2020).

GOIL Company Limited also donated 30,000 pieces of hand gloves, 2,000 pieces of nose masks, 300 pieces of rubbing alcohol sanitisers, 30 gallons of sanitisers, and GH¢10,000 cash to Ghana Private Road and Transport Union (GPRTU).²⁹ The TOBINCO Pharmaceutical Company Limited and Ghandour Cosmetics Limited donated PPEs worth GH¢250,000, including 120 boxes of hand sanitisers, nose masks, disposable gloves, Veronica buckets, immune boosters, and vitamins to the Ghana Health Service to support the fight against COVID-19 in the country.³⁰ The United Nations Office on Drugs and Crime, with funding from the Government of Germany, also donated PPEs to two Ghanaian Law Enforcement Agencies to help the health sector fight against COVID-19 in the country by enforcement of COVID-19 protocols.³¹ In partnership with a Singapore-based Temasek Foundation, Olam International donated a consignment of PPEs comprised of 3,000 surgical gowns, KN95 masks, face shields, and nitrile gloves for the Noguchi Memorial Institute of Medical Research, through the Ministry of Health.

Expansion of Healthcare Infrastructure

Additionally, to strengthen the health system and increase health infrastructure, the Ghana Government launched Agenda 111 to increase the number of health facilities and improve the existing ones against future pandemics (The Republic of Ghana, 2020; Owusu, 2021; Owusu, A.Y. and Crentsil, 2021). Agenda 111 includes the construction of 101 new 100-bed district hospitals, seven new regional hospitals, two new Psychiatric hospitals, three infectious diseases centres in each of the three ecological zones of the country, and rehabilitation of Effia-Nkwanta Regional hospital (Takoradi) (The Republic of Ghana, 2020). Since then, the GoG has worked on acquiring land for all the remaining healthcare facilities (ISSER, 2021), and the project was inaugurated by President Nana Akufo-Addo on 17 August, 2021, with the hope of completing all of them by the end of 2024. Roughly a total of 7,791 health facilities and 18 intensive care units (ICUs) have been used to respond to the COVID-19 pandemic in Ghana (ISSER, 2021; The World Bank, 2021). Ghana received support from the World Bank to

²⁸ Ghana: Global Evangelical Church Donates, Cash, PPEs to Apromase Hospital - al-Africa.com

²⁹ GOIL donates PPEs, sanitisers to drivers to fight coronavirus spread - MyJoyOnline.com

³⁰ COVID 19: Two companies support Health Ministry with logistics - Graphic Online

³¹ 2020-11-30 PRESS RELEASE Donation PPEs Ghana (unodc.org)

reinforce its case management capacity through establishing 21 treatment centres and 129 Intensive Care Unit (ICU) beds in 10 of Ghana's 16 administrative regions (ISSER, 2021; World Bank, 2021).

Other critical healthcare infrastructure needed to treat COVID-19 patients received gradual boosting. According to Dr. Anthony Nsiah-Asare, the Presidential Advisor on Health to President Nana Akufo-Addo, as at January, 2020, Ghana had 100 ventilators in its healthcare facilities. Additionally, Ghana acquired 50 ventilators due to the onset of COVID-19 (Zurek, 2020, in Afriyie et al., 2020). Mr. Hans-Helge Sander, the Deputy Head of the German Mission in Ghana, however, noted that Ghana had about 200 ventilators at the beginning of the pandemic, constituting one per 146,701 citizens (Ghana News Agency/Ghanaweb, 2021). Furthermore, professionals from Academic City University College, Ghana, have developed what they call "a baseline prototype of a mechanical ventilator" to augment efforts towards treating severely infected COVID-19 patients (Ghana News Agency, 2020c, in Afriyie et al., 2020). According to Afriyie et al., 2020, p. 841). "The power-controlled system should enable these locally-made mechanical ventilators to run on electricity and can be built in 25 minutes once components become available." Ghana News Agency/Ghanaweb (2021) mentioned that on 31 August, 2021, the German government, through GIZ donated the most recent addition of 45 ventilators to Ghana's ventilator fleet. In all, Ghana currently has more than 400 ventilators (Zurek, 2020, in Afriyie et al., 2020).

GoG's boost of Ghana's emergency healthcare services by adding a total fleet of 307 ambulances in the second half of 2019 and January 2020 were timely to boost referral services for COVID-19. These were equipped with mobile ventilators (Zurek, 2020, in Afriyie et al., 2020). This is an important feat because Ghana's functioning public ambulance fleet was 55 in 2018 (ISSER, 2019), which increased to 362 in January 2020 (Owusu and Asante, 2020b).

Free isolation facilities and healthcare for COVID-19 infected persons

By January 7, 2021, free care had been provided by GoG to 56,230 persons who had tested positive for COVID-19 in Ghana. These include foreign nationals and 846 persons who arrived internationally through the Kotoka International Airport (KIA) by then who tested positive. The care included payment for medical bills and boarding and lodging for hotels and other isolation centres. Before the closure of KIA, international arrivals observed a mandatory 14-day quarantine at hotels and other isolation centres at the expense of GoG. Isolation centres scattered across the country number more than 1,000 (ISSER, 2021). Table 3.2 shows that as of mid-June 2021, Ghana had tested nearly 22 (21.88) times the

number of persons (1,230,125) tested as at January, 2021 (Ghana Health Service, 2021).

National Infectious Disease and Isolation and Treatment Centre

COVID-19 exposed Ghana's lack of well-resourced isolation and treatment centres. As a result, Ghana's first world-class and foremost national public health institution, the Infectious Disease Isolation and Treatment Centre, was built within a record 10 weeks and commissioned by Vice-President Dr. Mahamudu Bawumia on July 24, 2020. Valued at US\$7.5 million and resourced from Ghana's COVID-19 Private Sector Fund (Ghanaweb, 2020; Owusu, A.Y. and Crentsil, 2021) free labour and technical know-how for it was provided by 536 men and women comprising both Armed Forces personnel and civilians. A 500 kv transformer which connects the Centre to the national grid, valued at GH¢320,000 was provided free of charge by the Electricity Company of Ghana (Ghanaweb, 2020). It consists of 10 intensive-care units, and 100 beds. The Infectious Disease Centre which is situated in the Ga East District of the Greater Accra Municipality and targeted at the population in the coastal belt of the country, is part of the GoG's Agenda 111.

Expansion of testing laboratories

At the genesis of the pandemic, Ghana had only two COVID-19 testing laboratories, comprising Noguchi Memorial Institute for Medical Research (NMIMR) and the Kumasi Centre for Collaborative Research (KCCR) (Acheampong et al., 2021; Antwi-Bosiako et al., 2021; ISSER, 2021).

Although there were earlier indications that these testing laboratories have been expanded to 16 (Acheampong et al., 2021; GHS, 2021; ISSER, 2021), they keep increasing. Far more laboratories have been accredited to ensure testing is done at Ghana's regional and ecological zones (GHS, 2021). These accredited testing centres, 36 in number as at September 28, 2021, are found in Table 3.4. Table 3.4 depicts the well-known concentration of healthcare resources and services in few regions, to the neglect of the others. Understandably, most of them are private, depicting the economic realities of having profitable ventures.

TABLE 3.4: Regional Distribution of Accredited COVID-19 laboratories in Ghana certified to test for COVID-19

Region	Number	Accredited laboratories
Greater Accra	29	National Public Reference Laboratory, Korle-Bu Teaching Hospital, Accra; Noguchi Memorial Institute for Medical Research, University of Ghana, Accra; Veterinary Service Department, Labone, Accra; MDS-LANCET Laboratory, East Legon, Accra; Nyaho Diagnostic Laboratory, Airport Residential Area, Accra; Akai House Laboratory, Accra; Council for Scientific and Industrial Research, Accra; LEDing Medical Laboratory, Accra; The Trust Hospital Company Limited, Accra; Synlab Ghana, Accra; Omni Diagnostic; GENE LAB; Frontiers Healthcare Services; Airport Clinic, Airport, Accra; Sonotech Medical and Diagnostic Centre, Ring Road East, Accra; Alma Medical Laboratory, Osu, Accra; Spintex Community Hospital, Accra; HAG Hospital, Nmai Djorn, Accra; Quadushah Medical Diagnostic Centre Limited, Tema; Medtech Laboratory, Labone, Accra; Impact Medical and Diagnostic Centre, Accra; Lapaz Community Hospital, Accra; Yemaachi Biotech; Danpong Medical Centre; Claron Medical Centre; Ghana Immigration Service (GIS) Clinic COVID-19 Testing Centre; International Maritime Hospital COVID-19 Testing Laboratory; Careflight Ghana Molecular Laboratory; Alabaster Laboratory
Ashanti	2	Kumasi Centre for Collaborative Research; Kumasi Public Health Reference Laboratory
Western	2	Veterinary Services Department, Takoradi; Public Health Reference Laboratory, Sekondi-Takoradi
Eastern	0	
Central	0	
Volta	1	University of Health and Allied Sciences Laboratory, Ho
Northern	1	Public Health Reference Laboratory, Tamale
Bono East	0	
Bono	0	
Upper East	1	Navrongo Health Research Centre, Navrongo
Western North	0	
Ahafo	0	
Upper West	0	
Oti	0	
North East	0	
Savannah	0	
Total	36	

Source: Author, 28 September, 2021; based on COVID-19 Updates | Ghana (ghana-healthservice.org); https://www.ghs.gov.gh/covid19/accredited_labs.php. Accessed 28 September, 2021

Provision of health services

Amidst the pandemic, the World Health Organisation (WHO) recognised the need for Ghana to continue to provide essential health services during the pandemic (Africa News, 2021)³². It, therefore, supported the efforts of the GoG and GHS to continue to provide various essential health services, especially maternal, reproductive, newborn, and child health services. Also, a step-by-step guide has been provided by Ghana Health Service to ensure quality and safe service delivery with minimal COVID-19 transmission risks (Figure 3.2) (Ministry of Health, 2020c). For instance, at the Greater Accra Regional Hospital, patients are scheduled for services to ensure they can practice social distancing protocols, in addition to the other mandatory protocols like wearing of nose masks, use of sanitisers, and temperature checks. Some departments at the Korle-Bu Teaching Hospital for instance, ensured social distancing by providing extra chairs and sitting places for out-patients, and would call only a few of them to the main areas of care in turns.

In all hospitals, the number of persons who could visit in-patients and or accompany out-patients have been reduced/restricted. Additionally, most healthcare facilities such as the University of Ghana Hospital, Legon, control access, open and guard one main entrance where patrons are screened, made to either wash their hands or are provided with approved hand sanitisers. Temperature checks are also done to ensure that the chances of spreading the infection are reduced. At the entrance of the University of Ghana Hospital, staff are in place nearly 24 hours to ensure patients undergo mandatory temperature testing, washing of and/or sanitising hands, and other screening procedures such as recent health history, before they are allowed to enter. Hand sanitisers are also placed at vantage points at the University of Ghana Hospital for the use of the general public, and on consulting tables. Most health facilities implemented no-face-mask no-entry rules. Since the inception of the pandemic, healthcare personnel stringently wear PPEs and hand sanitiser dispensers are put at various vantage points for free use by the public. Other social distancing measures in healthcare institutions have included creating mandatory “don’t sit here, social distance” vacant spaces at sitting areas/pews in hospitals, and seating arrangements that place patients far away from physicians/healthcare providers. In some instances, healthcare providers do not take identity cards from patients as used to be the case; they rather ask the patients to call out either their names or identity numbers on such cards.

³² Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana | Africanews

These PPE interventions, however, are not without serious financial cost to the health institutions, leading to increased operational costs and revenue bottlenecks. For instance, one cycle of washing and disinfecting one reusable surgical gown at the laundry and Central Sterile Supply Department at the Korle Bu Teaching Hospital was about GHS 20.00 (\$3.40) and the cost of one disposable gown was about GHS 120.00 (\$20.69), around the second quarter of 2020 when Vandyck-Sey et al. (2020) were conducting their research. Services including paediatric clinics, antenatal, child welfare clinic, labour ward, and elective surgical operations slowly reverted to full operation after the lockdown. Also, COVID-19 patients and treatment have been separated from other services to reassure the public that hospitals are safe to respond to their needs (Africa News, 2021).³³

Other health promotion support

The Temasek Foundation, Olam International, also added 20,000 RNA COVID-19 extraction test kits.³⁴ According to *Graphic Online*, Stanbic Bank Ghana donated 8,640 PCR test kits and 8,512 RNA extraction kits to the Ghana Health Service to support the national COVID-19 response. The test kits were procured and delivered to GHS in partnership with the United Nations Office for Project Services.³⁵

UNICEF (2020) reported giving the Ministry of Health over 10 oxygen concentrators and accessories and 1,000 pedal-operated Veronica buckets for 1,000 health facilities across six regions to support the treatment centres and other health facilities within Ghana fight against the pandemic. UNICEF also supports the Tamale Public Health Reference Laboratory to accommodate COVID-19 testing. About 2,500 samples have successfully been processed, and similar support is being given to the Public Health Reference Lab in Kumasi to evaluate and support its COVID-19 testing readiness and capacity. UNICEF provided about US\$780,000 worth of health and nutrition supplies to ensure the continuity of critical health and nutrition services with the support of the Chinese Government. The supplies include 40,760 packs of iron folic acid supplements, 2,109 packs of Vitamin A supplements, 70,276 boxes of micronutrient powder, and 5,400 ready-to-use therapeutic food cartons, among others (UNICEF, 2020b; UNICEF, 2021).

³³ Coronavirus - Ghana: Easing COVID-19 impact on core health services in Ghana | Africanews

³⁴ Olam and Temasek donate coronavirus PPE to Noguchi Institute (ghanaweb.com)

³⁵ Stanbic Bank Ghana donates additional COVID-19 test kits to Ghana Health Service - Graphic Online

Canada donated 8 million USD with a focus on assisting groups rendered vulnerable in the Ashanti Region due to the corona virus pandemic. This is in line with the Canadian Government's strategic partnership with GoG and UNICEF towards revitalising livelihoods in the areas of nutrition, health, sanitation, water and hygiene services focusing on vulnerable women and children in the Ashanti Region, with a strategic focus on gender equality. As at the middle of June 2021, the Ashanti Region's mortality from the virus was 253 (32.03%) of the national figure of 790 (Ghana Health Service, 2021). The Canadian Government's COVID-19 response programme to the Ashanti Region is geared towards strengthening the region's ability to diagnose, treat, and provide supplies, including laboratory supplies, and training of health personnel, in the fight against COVID-19 (3news.com/Ghanaweb, June 2021). In addition to donating 45 ventilators, the government of Germany also donated 5,000 pulse oximeters and other items valued at 376,000 Euros, on 31 August, 2021. Prior to this, the German government had donated PPEs and food packs to frontline healthcare workers, and various medical and other supplies such as Intensive Care Unit equipment through GIZ (Ghana News Agency/Ghanaweb, 2021).

Additional quasi-health interventions

The following were some additional social interventions undertaken which border on health and healthcare services, either by directly or indirectly improving the psychosocial and other health aspects of the citizenry, or by facilitating the delivery of healthcare or reducing the potential for the infection to spread. Thus, they affected the health of the population, healthcare delivery, and healthcare services positively. These were:

- Distribution of food items for vulnerable citizens in lockdown areas.
- Mandatory use of personal protective equipment.
- Fumigation and disinfection of public vicinities, including schools, offices, lorry stations, markets, law court complexes, etc.
- Distribution of food to families with children on the Ghana School Feeding Programme
- Water, electricity, and sanitation interventions for the general public, particularly for vulnerable populations, and businesses. The water relief was for all Ghanaians from April to December 2020 at no cost. The relief for vulnerable populations was extended to the end of June 2021 for water. This was to enable citizens have enough water particularly as they had to stay home the more, reduce going out of the home, and to wash their hands as frequently, as one of the strategies for impeding the spread of the virus. The electricity subsidy was at 50% reduced rate for all residents and businesses in Ghana, from April to December, 2020,

using each entity's March 2020 electricity consumption as a benchmark. The relief for electricity for households who consume the lowest amount, adjudged by a monthly consumption of 0-50 kilowatt-hours (kWh) (Wolfram, 2020; Owusu, A.Y. and Crentsil, 2021), was extended to 30 June, 2021 (Ofori-Atta, 2020; Gentilini et al, 2020; ISSER, 2021).

- Support with accommodation for some vulnerable citizens in the lock-down enclaves.
- Public information, education and communication interventions and support, including President Akufo-Addo's current 26 COVID-19 Update national briefings, as of July 25th, 2021, and efforts made by the media as well as the National Centre for Civic Education. A National COVID-19 Call/Information and Contact Centre was set up, accompanied by a toll-free number, 311, for general information, and for the public to call for information regarding COVID-19 infections particularly. 40 attendants were trained to manage the Toll-free Call Centre (Ofori Atta 2020; ISSER, 2021). Additional toll-free numbers were set up for assistance. These were 112 (for emergency), and hotlines +233(0)509497700, +233(0)558439868, and +233(0)307011419 (toll-free complaints number) to the National Communication Authority (Ghana Health Service, 2020; ISSER, 2021).
- Decongestion of Prisons (Abu-bashal, 2020; Nkansah, 2020; United Nations Ghana, 2020; ISSER, 2021).
- COVID-19 National Task Force.
- Coronavirus business support scheme and economic impact alleviation programme, and related Financial Sector Social Protection Measures, including cash transfers to selected vulnerable persons who applied for it and met the qualification criteria. This relief has the aim of alleviating citizens of the financial and related hardships experienced by the public due to the COVID-19 pandemic and its social distancing interventions (Republic of Ghana, 2020).
- Employment generation through COVID-19 related social intervention initiatives.
- Setting up of the COVID-19 National Trust Fund.
- Social protection measures based on Public-Private Partnership initiatives such as from religious organisations, politicians, and philanthropists, as stated above.
- Closure of Ghana's international borders by land, sea and air, with the aim to reduce international importation of the virus. The latter has been reopened since September 1, 2020.
- Closure of schools to impede the spread of the infection and provision of free boarding facilities for some day students when school resumed.

- Feeding of final year Junior High School pupils and their teaching and non-teaching staff from when their schools were reopened on 29 June 2020 till December 2020.
- Mapping of first and second cycle schools to nearby health facilities for COVID-19 related emergency interventions.
- Enactment of several legal acts which set the legal space for introducing some restrictions and policies which helped to manage the pandemic. These included the Imposition of Restrictions Act, 2020 (Act 1012), which backed the mandatory use of PPEs and their related protocols, and Act, 2020 (Act 1013) which supported the setting up of the COVID-19 National Trust Fund (CNTF) in April 2020 (ISSER, 2021).
- GoG has also strengthened research into COVID-19 (Antwi-Bosiako et al., 2021).
- Publication of a COVID-19 infection control policy for schools by the Ghana Education Service (GES) (GES, 2021; Quakyi et al., 2021).
- COVID-19 vaccinations.
- Motivation for healthcare workers, and
- Employment of additional healthcare workers

Reflections

This chapter has focused on the impact of COVID-19 on healthcare and the health sector in Ghana, mostly using secondary sources of information. This section is the author's reflection on her findings. Ghana's response to the COVID-19 pandemic was timely and effective compared to other countries and must indeed be commended (Afriyie et al., 2020; UN, 2020; UNICEF, 2020; Antwi-Bosiako et al., 2021). For instance, Ghana has done very well with the 3Ts, treatment of infected cases, support to healthcare workers, e.g. in providing tax, income, and other incentives to boost the morale of healthcare workers, and working towards lesser case fatalities (Antwi-Bosiako et al., 2021).

However, fear associated with the pandemic made it difficult for many people to access healthcare services at various health facilities. Moreover, the attention given to COVID-19 deprived other equally or more deadly diseases such as HIV/AIDS and malaria the timely attention required, which may have led to the loss of lives. Neglecting these equally debilitating diseases to understandably focus on COVID-19 came with a very high opportunity cost. Furthermore, the disproportionate availability of COVID-19 accredited testing centres in all regions revealed that Ghana still lacks adequate health infrastructure, and GoG has to strive to fulfill its Agenda 111 promise. It also affirms inequities in healthcare infrastructure in Ghana.

Like all countries, including advanced ones like the US, UK, and Germany, COVID-19 has exposed the inadequate preparedness of healthcare systems for pandemics. Therefore, Ghana has to proactively boost its health emergency preparedness, to ensure essential health services are available and accessible to all during health emergencies, intensify education on these and show the populace the safety protocols put in place. This is to provide safe and a more efficient delivery of essential services during future pandemics to encourage people to seek health services as and when necessary, without being afraid.

The psychosocial support provided by both governmental agencies and FBOs particularly have helped to keep citizens hopeful and to better manage their mental health in the face of the fear and panic unleashed by the pandemic. Other essential healthcare infrastructure and services were rather provided on an urgent basis due to the pandemic. Examples are the National Infectious Disease and Isolation Centre, and additional ventilators. These will boost essential healthcare in Ghana.

The water and electricity reliefs provided by GoG also helped directly and indirectly with reducing the spread of the pandemic as it facilitated reduced movement by both consumers and service providers. Citizens reduced trekking to purchase these services; service providers reduced trekking to read metres and distribute bills to consumers on a monthly basis (Owusu and Crentsil, 2021). Monies citizens saved from paying bills for the water and electricity for which GoG provided relief, particularly life-line consumers who enjoyed both of these services free from April 2020 to June 2021, would provide some financial and related emotional and psychological relief as such monies could be channelled to more pressing needs. The same applies to food, cash and other short-lived donations such as accommodation to Kayayei.

Despite the nation-wide spread of the pandemic, and with the much appreciated massive development of laboratory resources since the onset of the pandemic (ISSER, 2021), the current laboratory services capable of handling COVID-19 testing are overly concentrated in the Greater Accra Region, with two each in the Western and Ashanti Regions, and one each in the Volta, Upper East, and Northern regions. The remaining 10 regions have no capable COVID-19 testing laboratories and have to rely on those in other regions (Table 3.4). This means Ghana has to ensure there is at least one well-resourced testing centre/laboratory in each region against future pandemics.

Given the infrastructural deficit in Ghana's healthcare system, and particularly for responding to the pandemic, the plans to build additional healthcare infrastructure, particularly, the Agenda 111, proposed on 26 April, 2020, by GoG, is a timely policy decision to help cushion the infrastructural deficit in managing

the pandemic at the local level (Antwi-Bosiako et al., 2021). Notably, the proposed additional psychiatric hospitals in the middle and northern belts will have a very positive impact on mental healthcare in Ghana. ISSER (2015) notes that all the three current psychiatric hospitals were built more than half a century ago. For instance, the Ankafu Psychiatric Hospital was built in 1964 and is in quite a deplorable state. In fact, some of the Psychiatric hospitals were built in pre-colonial days. This is against the background that about 40% of all out-patient department services sought in Ghana include a mental health component (Dr. Akwasi Osei/*Daily Graphic*, March 20, 2018; ISSER, 2019).

More seriously, all the three existing psychiatric hospitals are situated in the Southern Coastal Belt of the country, to the great disadvantage of the residents in the Middle and Northern Belts of the country. Working towards redressing this imbalance, The Mental Health Authority of the Ghana Health Service has more recently expanded the geophysical horizon of mental health in Ghana by adding mental health wings to some regional hospitals. Furthermore, attempts are being made by the Mental Health Authority to further expand this critical healthcare at the district/municipal levels. ISSER (2017, 2019) noted an increased appreciation for orthodox mental healthcare services in Ghana.

Although Afriyie et al. (2020) noted that Ghana has poor capacity to undertake research on COVID-19, strengthening COVID-19 related research as noted by Antwi-Bosiako et al. (2021), is another commendable act in the onslaught against the virus, as there is still a lot to unravel about COVID-19, particularly given the emerging variants and vaccine-related issues. Public-private attempts by the FDA, local pharmacies, individuals, and the international community in responding to the emergencies provided by COVID-19 are noteworthy.

Importantly, COVID-19 reinforced to Ghanaians the critical need for contributing to healthcare infrastructure on a private-public basis. Indeed, it awakened public-spiritedness; a virtue which has to be sustained. Conversely, the loss of lives, panic and fear, restrictions, and related socio-economic disruptions facilitated by the pandemic were negative. Furthermore, the disruption in healthcare services generally, and partial short-changing of vertical healthcare programmes due to the shift of attention from programmes such as maternity care, are unwarranted. Yet another negative impact of the pandemic on social life generally, and healthcare/healthcare-seeking in Ghana is the stigmatisation associated with the pandemic. GoG has, however, made frantic efforts to abate this social canker (ISSER, 2021), which has reduced but not been totally eliminated. There is, thus, the need for the Government to continue to control and effectively manage the spread of the pandemic and also continue to provide

essential health services to take care of Ghanaians of all ages, statuses, and health conditions (Primary Health Care Performance Initiative, 2020).

The burden on the GoG for mostly taking up the cost of COVID-19 could negatively affect the attention being paid to other healthcare essentials and aspects of the economy that were diverted towards the pandemic. For instance, GoG relaxed its much acclaimed 3Ts approach by mid-2020, in favour of health facility-based testing of persons who showed symptoms for the virus (Antwi-Bosiako et al., 2021). This policy change from the mass testing has been attributed to the infrastructural deficit and

“... the backlog of samples that had been in the queue for up to a month to get tested. In a press briefing on the 21 July 2020, the Director-General of the Ghana Health Service stated that ‘the numbers I presented today, some of them date back to 22nd June; that’s a month ago. That will be the policy so that we don’t get more backlog so that within 48 hours those who are sick will get their results’” (Antwi-Bosiako et al., 2021, p. 131).

This demonstrates that the initial delayed turnaround time for COVID-19 test results due to the inadequate testing laboratories in Ghana slowed the needed action of isolation and treatment of affected persons to mitigate further spread (Vandyck-Sey et al., 2020).

Policy recommendations

From the foregoing, the under listed policy recommendations are proposed:

- Continuously strengthen infrastructural development to support COVID-19 and other potential/future emergencies.
- The Ghana Health Service (GHS) should institute a better registry of healthcare worker COVID-19 infections, if this has not been done already.
- Intensify public sensitisation about the implications of COVID-19 vaccine hesitancy (Agbozo and Jahn, 2021). Similarly, the efforts to discourage stigmatisation surrounding COVID-19 should be sustained.
- While the land borders remain officially closed, GoG should ensure stringent adherence to the restricted entry and prevent unauthorised entry. This will better help achieve the objective of controlling cross-border transmission of the virus as Ghana’s land borders are very porous. There is known corruption ongoing at the border where persons who enter illegally bribe their way to immigration authorities at the land borders, and use unapproved routes to enter the country.

- Much as the current expansion of the accredited COVID-19 testing laboratories has been appreciable, from where we started off, it is recommended that either GoG or private institutions set up at least one suitable testing laboratory in each region as a public good. Private entities could be enticed with incentives by GoG to help achieve this.
- The psychological and emotional instability arising from the pandemic will necessitate additional mental health services (Fenny and Otioku, 2020) for the already compromised mental health situation in Ghana (Osei³⁶/Daily Graphic, March, 2018; Owusu and Asante, 2020a). While FBOs are augmenting this void, public and private medical establishments should take steps to expand mental health services, including psychological counselling, evaluation and referral services. This should include expanding domestic violence services. Relatedly, there is the need to boost funding to the much under-funded and inadequate mental health services in Ghana, due to the massive effect of the pandemic on the mental health of residents (Fenny and Otioku, 2020; Afulani et al., 2021).
- Further, as UN (2020, p. 1) notes, Ghana's response plans to COVID-19 should be grounded in sound gender analysis.
- There is the need to strengthen COVID-19 related research in academia and industry. Given the sudden onslaught of COVID-19 and its mostly devastating impact on Ghana and the world generally, further comprehensive, data-driven research is needed to understand the dynamics of the pandemic in Ghana, and to provide additional guidance (Afriyie et al., 2020; Quakyi et al., 2021). Continuous research is also critical for understanding the complex nuances of COVID-19 in healthcare and all other settings for the prevention of future coronavirus outbreaks (Afriyie et al., 2020).
- The need for Ghana to produce its own COVID-19 vaccines, as proposed by President Nana Akufo-Addo, is further reaffirmed. Although the current international discourse surrounding COVID-19 vaccines makes it seem like some advanced countries may not appreciate this venture, it will critically serve our purposes at the local front.

³⁶ Prof. Akwasi Osei is the Chief Executive, Mental Health Authority, Ghana Health Service.

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Water and Sanitation: Situational Analysis

4

WATER AND SANITATION: EXAMINING THE COVID-19 PANDEMIC AND ITS MANAGEMENT

Introduction

Water and sanitation are indisputably non-isolating. Their roles are pivotal to development, healthy ecosystems, production of energy and food, human survival, and climate change adaptation¹. They jointly help to reduce the global burden of disease and improve the health, education, and economic productivity of people. Pertinent to the discourse on water is the issue of right, as there is the need to balance the competing commercial demands on water resources due to the growing population (ibid). Global esti-

¹ <https://www.un.org/en/sections/issues-depth/water/>

mates indicate that about 5.3 billion people (71%) in the world use safely managed drinking water and 3.4 billion people (45%) have access to safely managed sanitation services according to the World Health Organisation (WHO, 2019). More broadly, 2.4 billion people (31%) have access to private sanitation facilities connected to sewers from which wastewater is treated, and 1 billion people (14%) use toilets or latrines where excreta is disposed of in situ. Thus, while about 6.8 billion (90%) of the global population use at least a basic service, that is, an improved drinking-water source within a round trip of 30 minutes to collect water, 5.5 billion people (74%) are using at least a basic sanitation service (WHO/UNICEF, 2019). However, there are about 2.2 billion people who are without safely managed services. Of the number of the population using unsafe water, 785 million people lack basic drinking water services, including 579 million depending on unprotected wells, springs, and surface water (WHO/UNICEF, 2019). Relating to sanitation, a global estimate of about 2 billion people lack access to basic sanitation facilities such as toilets or latrines, with a population of 673 million engaging in open defecation (ibid). This shows a reduction of the statistics obtained in 2015, where 844 million people had no access to safe drinking water, and 2.3 billion people did not have ready access to basic sanitation services (WHO/UNICEF, 2017).

Future projections show that a global population of 50% will be living in water-stressed areas by 2025 (WHO, 2019). More so, 22% of healthcare facilities will have no water service, 21% with no sanitation service, and 22% with no waste management service in least developed countries (WHO/UNICEF, 2019). Thus, these issues are most severe in Sub-Saharan Africa, Central, and Southern Asia. In Sub-Saharan Africa, people in urban areas are twice as likely as people in rural areas to have clean, safe water. Ghana, like many countries, has witnessed several interventions by past governments yet many people still lack adequate access to water and sanitation.

Though Ghana is touted to have achieved the Millennium Development Goal (MDG) on water, with Ghana Statistical Service (GSS) estimates showing that access to basic drinking water is 79%, with a respective 93% and 68% urban coverage and 68% urban and rural coverage (GSS 2018), water provision continues to be a thorny issue as both urban and rural areas experience water shortages. The situation in rural areas is even worse with the menace of illegal mining and water pollution. Over the past decade, governments, with the support of non-governmental organisations (NGOs) and community-based organisations (CBOs), have initiated policies and programmes in an attempt to address constraints and improve services. While these are ongoing, the increasing population in deprived areas depends on unsafe water from private water vendors despite the high cost and possible health consequences. Although water vending

provides employment and is a valuable source to populations with no access to water, depending on water from vendors for the household is more expensive than water from piped systems. Beyond the price, the process of transporting water by vendors can result in contamination, leading to health issues. Both water and sanitation sectors have become a major health concern, however, the sanitation sector is much poorer and access for both rural and urban populations is inadequate. According to Mariwah, rapid urbanisation due to economic growth is responsible for the pressure on resources and the provision of sanitation facilities (Mariwah 2018). Issues of sanitation have been relegated to the background among competing demands. Ghana failed to meet the sanitation target of 54% coverage thus, achieving only a 4% increment (11% in 2000 to 15% in 2015) at the end of the MDGs (Appiah-Effah et al, 2019). The current coverage of 21% gives a rural coverage of 17% and 25% urban coverage (Ibid), a clear indication that not much progress has been made and sanitation is still lagging behind the MDG target of 54%. These figures show that following the MDGs, there has been an increment of 6% (15% in 2015 to 21% in 2018) leaving 79% of the population to find solutions to their sanitation needs (GSS 2018; Appiah-Effah et al, 2019). It is believed that the dream of achieving the target for sanitation remains elusive, with significant socio-economic impacts. According to the Water and Sanitation Programme (WSP), poor sanitation causes an annual economic loss of US\$290 million, equivalent to 1.6% of Ghana's GDP (WSP, 2012). Currently, close to 80% of the population has no access to toilet facilities and this is a great health concern (Mariwah *et al.* 2017). In many areas, sanitation facilities are non-existent leading to open defecation, with about 22% of Ghanaians engaging in the practice. Though this practice is more common in the rural areas where 4.2 million people, representing 31% practice open defecation, about 1.8 million people representing 11% of the urban population also engage in the practice. The situation became more worrying with the onset of the COVID-19 pandemic.

The present global pandemic is putting great strain on humanity by delaying economic expansion, which has significant repercussions for public health and public water utility services in the global space. The World Health Organization has classified the situation as a new pandemic (Gates, 2020), and it is most certainly the deadliest calamity of our era (Harari, 2020). While stringent precautions have been put in place around the world to protect public health and prevent the virus from spreading; water, sanitation, and hygiene services which are critical in reducing the spread of COVID-19 are not available to everyone. The pandemic struck at a crucial time for the water sector that has been shifting in recent years toward the so-called "fourth revolution" (Sedlak, 2014), that aims for more logical and sustainable water resource management. In an attempt to contain the pandemic, the Ghana government carried out important measures

in the water and sanitation sectors. How the interventions helped to control the pandemic is of interest to this chapter. The chapter will serve three main purposes. First, it will provide an update on important issues regarding water and sanitation. Second, it will discuss the current state of water and sanitation. Third, it will examine COVID-19 within the context of water and sanitation in Ghana. The paper uses secondary data from sources such as institutional reports, media releases, and online publications of relevant governmental and international agencies. It is organised as follows: Section two (2) focuses on the current state of water and sanitation in Ghana, sections three (3) and four (4) give an update on water and sanitation situations in Ghana respectively, while section five (5) looks at the COVID-19 pandemic and its associated implications for water and sanitation. Section six (6) presents the conclusions.

Current State of Water and Sanitation in Ghana

In general, about 60% of Ghanaian households get water from both the Ghana Water Company Limited (GWCL) and the Community Operated and Managed Water Systems (COMWS), with GWCL and COMWS supplying about 39% and 21% of water respectively. Other suppliers include Community Water Sanitation Agency (CWSA) (4.0%), NGOs (6.8%), others (12.9%) and own-household production (5.2%). Aside that, there are other households (about 11%) that get water from sources other than any of the above-listed (GSS, 2019). In spite of the significant growth Ghana has achieved over time, access to improved water and sanitation remains a challenge in most parts of the country, particularly rural and peri-urban communities. Nearly three million people of the total population lack access to potable water, leaving them to resort to surface water (as shown in plate 4.1) to meet their daily needs. Similarly, the proportion of the population facing basic sanitation challenges remains high with about 31% of Ghanaians lacking access to improved sanitation.²

According to the Ghana Living Standards Survey (GLSS 7) Report, households' main sources of drinking water are varied. Piped water is used by 27.3 percent of Ghanaian residences, 28.5 percent consume well water, 8 percent utilise natural sources, and 36.1 percent utilize other sources (GSS, 2019). According to the survey, pipe-borne water is the most common water source for most homes (48.5%), followed by dug wells (36.4%), and natural sources such as rivers/streams and rainwater (5.2%). Most urban homes, on the other hand, rely on groundwater from wells and other related sources for general use, whereas rural dwellers rely on dug wells and other related sources (GSS, 2019).

² www.water.org/our-impact/where-we-work/ghana

Plate 4.1: The looming water crisis in Ghana and the way forward



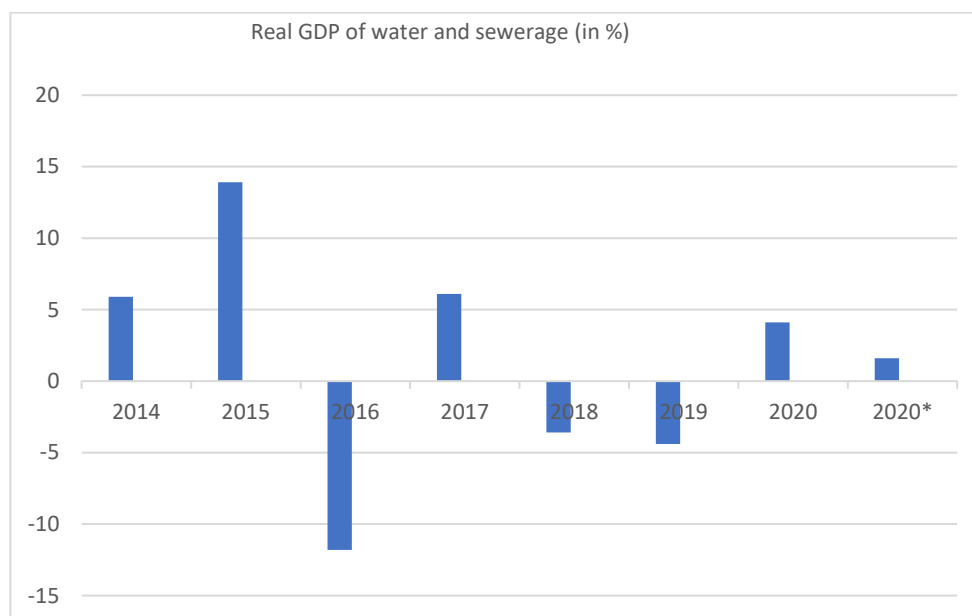
Source: <http://ghheadlines.com/agency/news-ghana/20170405/38751627/the-looming-water-crisis-in-ghana-and-the-way-forward>³

In terms of sanitation, Ghana's situation can be viewed from two angles: disposal of waste and the use of toilet facilities. When it comes to garbage disposal, the majority of families (47.8%) utilize public refuse dumps, 19.5 percent use burning, 10.8 percent use indiscriminate dumping, and 21.9 percent employ waste management businesses. According to statistics on toilet usage, 36.2 percent of urban households use public latrines and 28.6 percent use water closets (WCs) in their homes. In the rural-urban split, the number of households without access to a toilet is considerably higher (29.0 percent) in rural areas than in urban areas (5.9 percent).

Although there has been an expansion in the water and sewerage infrastructure of the country, the growth of the sub-sector has significantly reduced in recent years (as shown in Figure 4.1).

³ Available at <http://ghheadlines.com/agency/news-ghana/20170405/38751627/the-looming-water-crisis-in-ghana-and-the-way-forward> Retrieved: 27th April 2021 report by Pius Doozie, 2017

Figure 4.1: Real GDP of water and sewerage in (%)



Source: MoF, 2020

Update on Water Situation in Ghana

The WHO/UNICEF define drinking water as water drawn from safely managed drinking water services. That is, water from an improved water source that is located on premises, available when needed, and free from faecal and chemical contamination or simply put, water that is basic service⁴. Based on this definition, data from the Joint Monitoring Programme (JMP) of WHO/UNICEF shows that Ghanaians' access to drinking water in 2017 is presented as at least basic (81%); limited (taking more than 30 minutes to get to the water source) (8%); unimproved (4%); and surface water (6%). Relating to the proportion of the population using improved water supplies, the following figures from 2017 give an overview of the proportion of access: safely managed (36%); accessible on premises (36%); available when needed (78%); free from contamination (55%); piped (33%), and non-piped (57%) (WHO/UNICEF data, updated 2019). In spite of Ghana being one of Africa's major nations in terms of water delivery coverage (see figure 4.2), there is still an investment gap in the water and sanitation sector, as basic services are out of the reach of many rural and urban dwellers.

⁴ A basic service is an improved drinking-water source within a round trip of 30 minutes to collect water (WHO/UNICEF, 2017)

Plate 4.2: We're doing our best to solve water crisis – GWCL

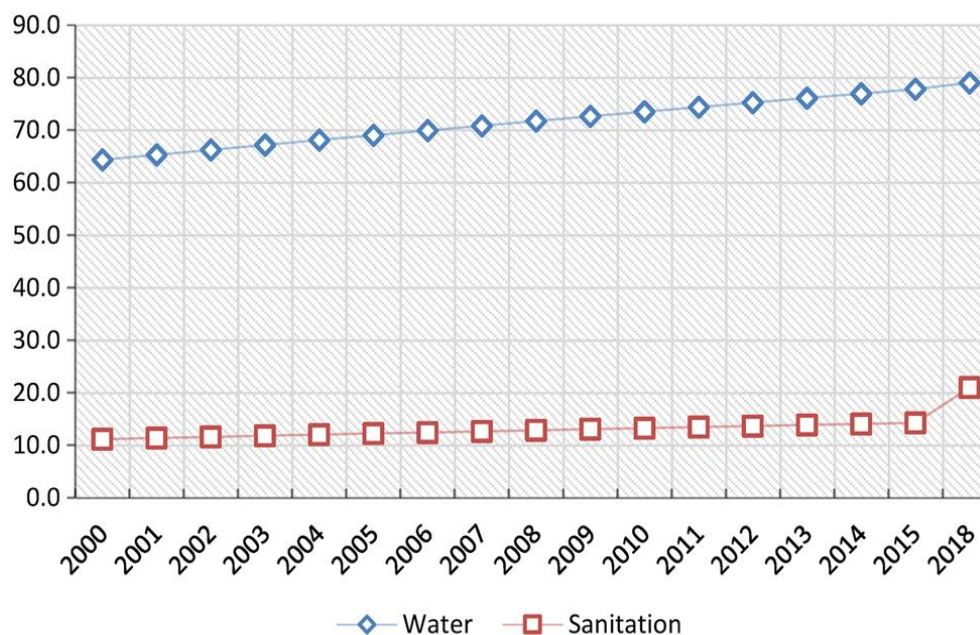


Source:<https://citinewsroom.com/2020/01/were-doing-our-best-to-solve-water-crisis-gwcl/>⁵

To better situate the issue in relevant discourse and policy direction, the government in 2017 created a new ministry, the Ministry of Zongo and Inner Cities Development, to function alongside the Ministry of Sanitation and Water Resources (MSWR). The government through these ministries undertook projects such as Water and Sanitation for All, the Zongo Development Fund, the Greater Accra Resilient and Integrated Development (GARID) Project, and the Greater Accra Sustainable Sanitation and Livelihoods Improvement Project (GASSLIP), among others, in an attempt to find solutions to the water and sanitation situation in the country. These major steps are highlighted in the National Budget Statements of 2017, 2018, 2019 and 2020 presented to Parliament.

⁵ Available at <https://citinewsroom.com/2020/01/were-doing-our-best-to-solve-water-crisis-gwcl/> (Retrieved 27th April 2016) Report by ellen Dapaa ,2020

Figure 4.2: Trends of improved water and sanitation coverage in Ghana



Sources: WHO/UNICEF (2017) and GSS (2018).

Urban Water Supply

Based on the definition of water by WHO/UNICEF, urban communities access to water is represented as follows: at least basic (93%); limited-more than 30 minutes (5%); unimproved (2%); and surface water (less than 1%). Urban distribution for the proportion of the population using improved water supplies is: safely managed (57%); accessible on premises (57%); available when needed (83%); free from contamination (63%); piped (40%); and non-piped (58%) in the same (WHO/UNICEF data, updated 2019).

The Ghana Water Company Limited (GWCL) has been the main provider of water to urban households – serving about 58% of the households and predominantly important for households in the Greater Accra (79.3%), Central (61.4%), Northern (38.8%), Ashanti (33.0%), Volta (30.5%) and Western (24.9%) regions (GSS, 2019).

Aside that, the Government of Ghana through the Ministry of Sanitation and Water Resources (MSWR), undertook several programmes that resulted in the expansion of urban water supply. For instance, MSWR continued with the

Greater Accra Metropolitan Area (GAMA), Kumasi, and Cape Coast water extension projects. According to the ministry, other projects that were considered included “Kpong, Akim Oda and Ho water expansion projects, Tono Water Treatment project in Navrongo, and those of Yendi and Damongo.” (Ministry of Finance (MoF), 2017). In addition, works on Kpong Water Supply Expansion Project (Phase 2), Aqua Africa, Tamale, Sunyani, Sekondi-Takoradi, and Esiam Water Projects were also undertaken in 2018 (MoF, 2018a; 2019a). Financing and approval have been secured for the various projects listed above. The Tamale and Damongo Water Supply Projects which started in September 2018 are expected to be completed by the end of August 2021 (MSWR, 2020). These are expected to produce 30 million gallons of water daily to serve Yapei, Damongo and surrounding communities (MoF, 2019a).

Additionally, the 2019 Annual Budget Statement highlighted that “GWCL extended its service to include 3,740 households in low-income urban communities within the Greater Accra Metropolitan Area (GAMA). Additionally, in 2018 the company laid 214km of pipelines within the GAMA area to improve service delivery and also started works for the improvement of water supply in the Upper East Region” (MoF, 2019a). Furthermore, the Ministry through GWCL proposed to lay 190 km of pipelines in 2019 across the country and also implement the Enhancement Nationwide Water Network Management (SCADA) (MoF, 2019a). According to the 2021 Budget and Financial Statement, 282 km of pipes were laid, beyond the proposed target (MoF, 2020b; MSWR, 2020; MoF, 2021).

Under the review period, there was also the completion of a 3-km drain pipe work to connect the Veia Dam and the Water Treatment Plant (WTP) and a 4.4-km drainpipe that connects Navrongo and Paga. The reservoir in Bolgatanga in Northern Ghana was examined for its ability to boost the stability and maintenance of water supply.

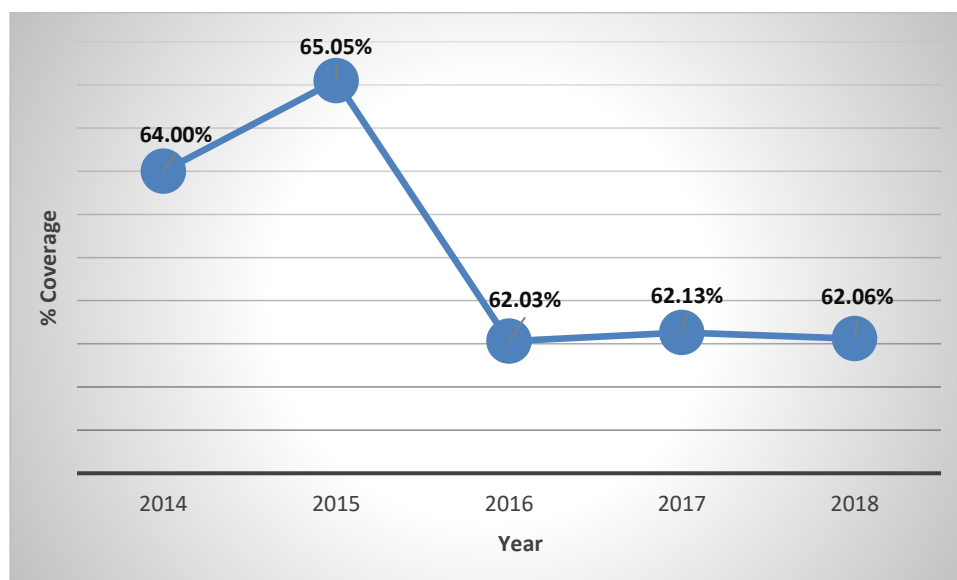
Rural Water Provision

Access to drinking water in rural areas in 2017 is reported as at least basic (68%), limited-more than 30 minutes (13%), unimproved (6%), and surface water (13%). In a related situation, the proportion of the rural population using improved water supplies shows safely managed (11%), accessible on premises (11%), available when needed (72%), free from contamination (45%), piped (24%), and non-piped (57%) in 2017 (WHO/UNICEF data, updated 2019).

Ghana’s rural water supply, under the Community Water and Sanitation Agency (CWSA), has witnessed impressive growth over time. Though water coverage for rural communities and small towns experienced a slight decline in 2018,

from 62.13% in 2017 to 62.06% in 2018, representing a reduction of 0.07 percentage points, the Agency continues to set targets each year to increase rural water coverage (CWSA Annual Report, 2019). Figure 3 below illustrates the trend of coverage. For instance, in 2018, the CWSA increased the number of boreholes by 136 and rehabilitated about 20⁶. In addition, about 12 new small community piped systems were constructed with 10 of them partially completed. Also, 17 small town piped systems were contracted out, of which 2 have been completed; 16 more small town piped systems were contracted out for rehabilitation, as well as 46 new limited mechanised systems, with feasibility studies for an additional new limited mechanised systems completed (ibid).

Figure 4.3: Trends of rural water coverage



Source: Extracted from GWSA⁷ Annual Report 2018

Also, the GLSS 7 Report indicates that Community Operated and Managed Water Systems (COMWS) has been an important water supplier to rural households, serving about 35% of rural dwellers and mostly in areas such as Upper West (39.7%), Upper East (35.3%), Brong Ahafo (26.6%) and Eastern (22.8%) Regions (GSS, 2019). Table 4.1 in the Appendix presents the overall potable water coverage for rural communities and small towns in all the regions as of the end of 2018.

⁶ <https://www.cwsa.gov.gh/publications/annual-reports/>

⁷ <https://cwsa.gov.gh/wp-content/uploads/2019/12/2018-Annual-report.pdf>

Broadly speaking, the government, from 2017 to 2020, has taken steps towards the achievement of the Sustainable Development Goal (SDG) Agenda 6. The government through the Ministry of Sanitation and Water Resources set out in 2017 to complete the 1000 ongoing borehole projects and begin processes to construct at least 2,000 additional boreholes across the country to ensure that the Government's goal of 'Water for All' (MoF, 2017) is achieved. Consequently, work began on the construction of 1000 boreholes under the 'Water for All' agenda through the Infrastructure for Poverty Eradication Programme (IPEP), which saw 119 boreholes (47% of the target) drilled in the Northern Development Zone; 264 boreholes (79%) drilled in the Middle Belt Development Zone; and 156 boreholes (40%) in the Coastal Development Zone (MoF, 2018a). However, some variations in these figures were identified in the 2020 Budget Statement. The Development Authority in the Coastal zone built 112 improved drinking water systems (boreholes), with another 200 units projected to be finished before the beginning of 2020 (MoF, 2020a). According to the Ministry, "beneficiary communities and institutions include the following: Efutu, Ankaful, Nkanfoa, Amamoma in the Cape Coast North Constituency, Adisadel College, Ola Girls and Ghana National College in the Cape Coast South Constituency, Dominase, Dampoase in the Gomoa East Constituency, Newtown, Nglesi, Assin Darmang in the Assin Central Constituency, and Mbem, Frami, Ampenkro, Abrafo in the Lower Heman Denkyira Constituency" (see MoF, 2020a).

Similarly, the Annual Budget statement highlighted that the Middle-Belt Development Zone completed "about 200 out of 330 Community Mechanised Water Systems in communities and institutions such as Eshiem, in the Asene Manso Akroso Constituency, Pokukrom in the Ahafo-Ano South East Constituency, Bonkwaso in the Ahafo Ano South West Constituency, Yamfo in the Tano North Constituency, Pienyina in the Nkoranza North Constituency, Nyamebekyere, Kutre and Namasua in the Berekum East Constituency, Asantekrom, Adinkrakrom and Febi in the Jaman North Constituency, and Wamfie Bronikrom and Wamanafo in the Dormaa East Constituency among others" (MoF, 2020a).

The Northern Development Zone completed 105 of 283 Community Mechanised Water Systems (CMWS) that were under construction. Going by the timelines, before 2020, some communities like Tidando, Warvi, Adiboo, etc. are scheduled to be given about 200 units of CMWS (see MoF, 2020a).

The Sustainable Rural Water and Sanitation Project (SRWSP) procured materials to construct 25 Small Town Pipe Schemes in 2019 (MoF, 2019a). As of March 2021, a total of 23 of these water systems were constructed in over 160 areas located across most of the regions in Ghana (MSWR, 2020; MoF, 2021). In 2019, according to MSWR "the Community Water and Sanitation Agency proposed to

construct 9 water systems each in the Northern and Central Regions, 5 in Brong-Ahafo Region and 2 in the Upper West Region with 250 boreholes in the Brong-Ahafo Region and 750 nationwide. Additionally, there was a proposal to construct 12 fully reticulated small town pipe systems and six limited mechanised systems in the Volta Region” (MoF, 2019a), which were at various stages of completion as at 2020 (MSWR, 2020). In furtherance of this project, the Ministry awarded contracts for the construction of 750 boreholes and 50 limited mechanised schemes (MoF, 2019b). The Upper West region also had about 250 boreholes being built under SRWSP to serve about 325,000 of its population (MoF, 2021).

In addition, the Inner-City and Zongo Development Fund expanded access to drinking water (47 systems of water supply were constructed) to more than 20 districts made of zongo settlers in most of the regions in the country (MoF, 2020b).

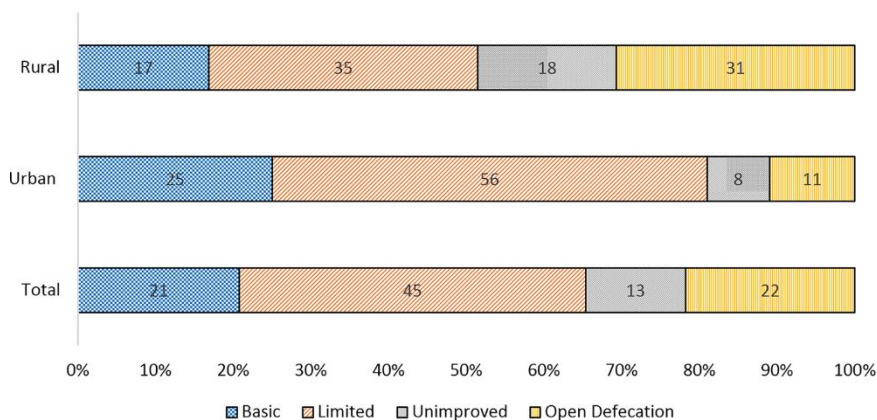
Update on Sanitation Situation in Ghana

Provision of Toilets

Data presented by the Ghana Statistical Service shows that national sanitation is about four times below the current water situation of the country (shown in Figure 4.4). That notwithstanding, WASH data from WHO/UNICEF also reports that the following proportions of Ghanaians had access to sanitation: at least basic (18%), limited-shared (50%), unimproved (13%) and open defecation (18%). Relatedly, the distribution for the proportion of the population using improved sanitation facilities (including shared) is presented as: latrines and other (48%), septic tanks (17%), and sewer connections (3%) (WHO/UNICEF data, updated 2019). Geographically, the proportion of Ghanaians who had access to sanitation for rural and urban populations respectively are: at least basic (12%; 24%), limited-shared (38%; 60%), unimproved (19%; 8%), and open defecation (31%; 7%). Also, the geographical distribution of the proportion of the population using improved sanitation facilities (including shared toilet facilities) as presented for rural and urban are: latrines and other (47%; 50%), septic tanks (2%; 29%), and sewer connections (<1%; 6%) (WHO/UNICEF data, updated 2019).

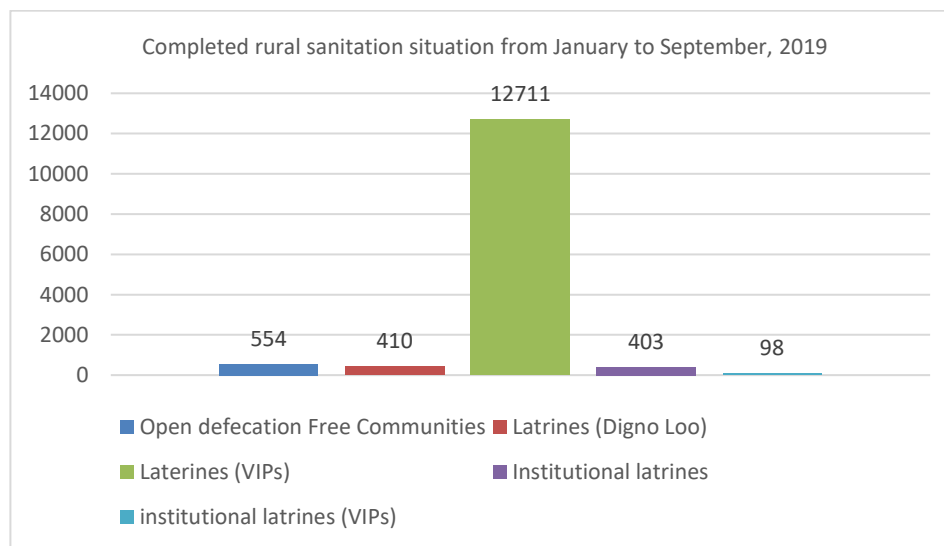
Figure 4.5 presents an update of the sanitation situation in rural communities in Ghana. Due to limited data, the figure shows information for quarters 1-3 of 2019 only.

Figure 4.4: Sanitation Situation in Ghana



Source: GSS (2018)

Figure 4.5: Completed Rural Sanitation Situation from January to September 2019



Source: CWSA quarterly report 2019

The government, in taking steps to address the sanitation situation through MSWR announced its intention for the year under review. In partnership with the Greater Accra Metropolitan Area (GAMA), MSWR arranged to provide 15,000 and more toilets in deprived households in GAMA under the Sanitation and Water project on the '1-House 1-Toilet' programme (MoF, 2017). The Ministry also continued with the campaign to reduce open defecation in selected

communities by providing 200,000 household toilets and 20,000 institutional latrines through the 'Toilet for All' agenda in 2018 (MoF, 2018a). According to the Annual Budget statement of 2019, the programme was also extended to communities such as "Ngleshie Amanfrom, Tema New Town, Zingishore, Nima, Maamobi, Glefe, Ablekuma by providing 13,000 household toilets and 50 institutional latrines" in 2019 (MoF, 2019a).

The Community-Led Total Sanitation (CLTS) programme was expanded to include 200 additional communities in 2018 (MoF, 2018a). This programme saw 765 communities within the Northern, Upper East, Upper West, Central and Volta Regions being declared Open Defecation Free (ODF) in 2018 (MoF, 2019a). It further led to the construction of 22,348 household toilets for the benefit of about 229,789 people living in these communities (MoF, 2019a). Also, in the review period, the Inner-City and Zongo Fund rehabilitated toilet facilities of 22 schools and constructed 10 additional school toilet facilities (MoF, 2018b).

The 2020 Budget Statement and the Mid-Year Review of the Budget Statement highlight that the government, under the "Toilet for All" agenda and through the three Development Zones, started the construction of 1000 10-seater water closet toilet facilities in 2018 (MoF, 2018b). Of this, 500 units were ready for use as at the end of 2019 (MoF, 2020a), and 100 additional units were completed as at July 2020 (MoF, 2020b). According to the Ministry, "about 150 completed toilet facilities are in the Northern Development Zone, in communities and institutions such as Yekpee Market, Eremon Secondary Technical School, Dowine Market (all in the Lawra Constituency), as well as KO Polyclinic and Nandom Naa's area in the Nandom Constituency" (MoF, 2020a). Similarly, 200 units are also found in the "Middle Belt Development Zone in communities and institutions such as Osei Djan School in the Nsawam Adoagyiri Constituency, Dawu in the Okere Constituency, Tweneboah Kodua SHS in the Kumawu Constituency, Bohyen Abease in the Bantama Constituency, Akrokerri in the Fomena Constituency and Fumso in the Adansi Asokwa Constituency" (ibidem). The rest can be found in areas and institutions like "the Landing Beach and Coco Beach in the Krowor Constituency, Klagon Ayigbe Kope in the Tema West Constituency, Otinibi in the Madina Constituency, Bibiani SHS and College of Health Sciences in the Bibiani Constituency, among others, in the Coastal Development Zone" (MoF, 2020a; MSWR, 2020). The reorganisation of the Infrastructure for Poverty Eradication Programme (IPEP), under which the three Development Zones operate under the auspices of the Office of the President, has however resulted in the delayed completion of the remaining 400 units (MoF, 2021).

Under SRWSP, the government constructed close to 13000 toilets for households and more than half of 685 localities selected passed ODF status in 2019.

Also, 165 localities are in the process of being ODF-licensed. Again, according to the 2020 Annual Budget statement, about 26,000 household toilets were constructed, which benefitted “about 180,000 low-income households in the Greater Accra Metropolitan Area, in addition to 406 beneficiary schools that were provided with sanitation facilities to benefit 200,000 school children under the GAMA Sanitation and Water project” (MoF, 2020a).

In addition, the Inner-Cities and Zongo Development Fund also completed 252 household toilets at Ga Mashie and 30 inner-city communities of Accra, which is expected to benefit about 5,000 people. Also, 16 educational and communal restrooms were built in nine regions (MoF, 2020b), and an additional 12 educational restrooms were finalized in nine districts across five regions as of March 2021 (MoF, 2021).

The State of Sanitation

Sanitation is when individuals seek, create, and maintain a sanitary and clean atmosphere for themselves by forming a barrier to restrict potential pathogens from spreading. Thus, sanitation is not limited to latrines, but includes an awareness and capacity for managing waste control, domestic wastewater, solid waste, and human and animal waste. Sanitation can also be considered as collecting and treating waste water and safely discharging it into the environment or reusing it (Butler et al., 2020). Their definition essentially adopts the United Nations’ Sustainable Development Goals’ classification of sanitation into the following categories: safely managed, basic, limited, unimproved, and no service. From the perspective of WHO/UNICEF, sanitation refers to the use of the safely managed sanitation service – private sanitation facilities connected to sewers, and toilet facilities or latrines where excreta are disposed of in situ – or in a generic term the use of a least a basic sanitation service (WHO/UNICEF, 2020).

Generally, the sanitation sector in Ghana is largely dominated by private sector firms such as Zoomlion Ghana Ltd, Zoompak Ghana Limited, Meskworld Limited, Rural Waste Limited, Daben Limited, Zoom Alliance, J. Stanley-Owusu (JSO) Limited, among others, which have several disposal sites that are currently being used by most of the service providers (The Netherlands Enterprise Agency, 2021). There are only a few landfill sites, namely the Kpone Landfill (Waste Landfills Company Ltd), Weija, Nsumia and Accra Compost and Recycling Plant (ACARP), that are government-sponsored or approved (MSWR, 2018).

In 2018, MSWR rolled out and implemented the “Total Sanitation Campaign” to ensure that Accra and all regional capitals are clean (MoF, 2018a). The Ministry indicated that there had been an evacuation exercise of six unauthorised dumpsites in the Accra Metropolis and the subsequent development of plans

for solid and liquid waste management in 2018. During the period, the Ministry, with support from the Netherlands Enterprise Agency (2021), also planned to acquire and develop material recovery sites such as waste transfer stations and final disposal sites in all regions to ensure the sorting and temporary holding of solid waste prior to treatment (MoF, 2018a). However, similar to the Waste Transfer Station at West Legon (in the Ga East Municipal Assembly (GEMA) located on the University of Ghana's land) (MSWR, 2018) which is yet to take off, this is also yet to be realised (MSWR, 2020). According to the Netherlands Enterprise Agency (2021) there are currently two facilities in Accra (IRECOP – 400 tonne capacity and ACARP – 600 tonne capacity) and there are plans to expand the capacity of ACARP to 1,200 tonnes per day.

There were also intentions to construct transfer stations and additional landfill cells in GAMA under the Greater Accra Sustainable Sanitation and Livelihoods Improvement Project (GASSLIP) in 2019. The plans also include building a faecal sludge transfer station at Ofankor as part of the GAMA initiative, as well as starting the process to build five other faecal sludge transfer stations under the review period (MoF, 2019a). These targets set by the Ministry were, however, not achieved (MSWR, 2020).

The launch of a Street Litter Bin Campaign also achieved significant success in 2019. A total of 7,000 dumpsters were installed in certain Metropolitan, Municipal and District Assemblies (MMDAs) as well as governmental organizations, to aid in the proper disposal of waste. About 8100 dumpsters were installed before the year 2021 (MoF, 2021). To support the program, the Greater Accra Sustainable Sanitation and Livelihoods Project (GASSLIP) purchased 1,000 (120-litre) waste containers (MoF, 2020b). A corporation headquartered in the United States also contributed 100 (240-litre) dumpsters to assist the initiative, in addition to 30 Public Refuse Dumpsters and 24 Trash Collection Infrastructure which were provided by the ministry (MoF, 2021).

In the quest to achieve a clean Ghana, the government acquired 65.5 acres of land at Ayidan in the Ga South Municipality for the construction of sustainable state-of-the-art waste treatment facilities. Also, MSWR intends to initiate the construction of a modernised faecal sludge treatment plant at Ashaiman and Bankuman Sewerage Network under the GAMA Sanitation and Water Project in 2020. Works on these two projects were ongoing when the Minister visited the sites in September, 2020 (Ghanaian Times Newspaper, 2020).⁸ The state purchased 65.5 acres of property in Ayidan, Ga South Municipality, in order to build long-term, cutting-edge recycling facilities. Also, MSWR intends to undertake

⁸ <https://allafrica.com/stories/202009210195.html>

the building of an ultra-modern Faecal Waste Processing Facility at Ashaiman and Bankuman Sewers System in 2020. The Ministry will build an Integrated Resource Recovery Plant and Toxic Waste Rehab Centre as part of the Greater Accra Resilient and Integrated Development (GARID) Project to improve solid waste management in the Greater Accra. In addition, as part of its long-term waste management strategy, the state has begun and is continuing to retool and re-engineer old dumpsites in Kpone-on-sea, Oti, Kumasi Metropolitan.

The Covid-19 Pandemic

Since the report of the first cluster of coronavirus on 31st December, 2019, the virus has spread massively and affected around 218 countries in all continents. Over 85 million people worldwide have been infected, with almost 1.85 million deaths. Currently, the United States of America (USA) is the epicentre of the virus, nearing 21 million cases with over 358,743 deaths. Following USA in cases are India, Brazil, Russia and the United Kingdom (UK), representing the top five countries with the highest case count. For the African continent, the top five countries with the highest number of case count are South Africa, Morocco, Tunisia, Egypt, and Ethiopia, while the top 10 countries is dominated by North African countries (5) with Nigeria and Ghana as the only West African countries, placed at 9th and 10th positions respectively as at January 3, 2021.⁹

Generally, pundits and scholars have predicted a significant slowdown in national and international economic activities due to the measures that have been taken in the wake of the COVID-19 pandemic. The fast-paced spread of the virus has led governments, institutions and organisations like the World Bank, International Monetary Fund (IMF), Organisation for Economic Cooperation and Development (OECD) and so on to revise their respective global growth projections. For example, the OECD projected that, in the best-case scenario of a limited outbreak, global economic growth would fall by 0.5 percentage point to 2.4% in 2020 (OECD, 2020). Regionally, the latest Africa's Pulse (World Bank's bi-annual economic update for Africa) forecast a sharp fall in Sub-Saharan African Growth from 2.4% in 2019 to -2.1 to -5.1% in 2020. As a result, the International Labour Organisation (ILO) estimated that, in the worst-case-scenario, 24.7 million people globally would be left unemployed.

In Ghana, the case count stood at 55,168 with 335 deaths between 12th of March and 31st December 2020 (Badu et al, 2021). Greater Accra was earmarked a hotspot region with 30,668 cases, followed by Ashanti (11,171) and Western (3,096). In a bid to halt the virus spread, the government came out with measures such as border closures, lockdowns, a ban on public gatherings and

⁹ <https://www.worldometers.info/coronavirus/>

frequent hand washing under running water as well as the use of hand sanitisers, which have more or less become the existing 'new normal'. Notwithstanding that, COVID-19 has not spared the Ghanaian economy, affecting growth of the various sectors of the economy including agriculture, trade and particularly water and sanitation which are crucial areas for managing the pandemic.

COVID-19 Pandemic effect on Water and Sanitation

The outbreak of the COVID-19 virus has revealed several loopholes in the Water, Sanitation and Health sub-sector (also labelled as 'WASH'). Before the outbreak of COVID-19, major trends that had impacted Ghana's water sector included: global warming, which has led to an increase in extreme floods and droughts, challenging the resilience of water and sanitation systems; illegal mining operations and unsafe environmental practices, which have caused significant pollution to water bodies; an increasing urban population facing water stress (Greater Accra for example currently numbers about 5 million), which has increased supply vulnerabilities; rapid urbanisation and development of slums and peri-urban areas in the cities, which have strained existing water resources and ecosystems; as well as ageing infrastructure.

However, the most pressing issues in water and sanitation in Ghana during the peak of the pandemic were accessibility, availability and adequacy in rural, peri-urban and urban communities. To circumvent these challenges, the Ghana Water Company instituted a strategic water supply-demand management plan, with the aim to collaborate with stakeholders such as the National Disaster Management Organisation, National Security and other agencies to ease water provision¹⁰. Additionally, various water suppliers, both public and private, were engaged to supply water to vulnerable communities¹¹. The government also deployed the use of technology to assist under-served areas. The Accra Digital Centre was used as a call centre to make it possible for peri-urban dwellers who lacked water during the lockdown to call for assistance and send alerts. Though essential service providers, for example waste management companies, were supposed to function without interruption, there were general concerns in the area of sanitation.

¹⁰ public-water-covid-19_chapter_15.pdf (tni.org)

¹¹public-water-covid-19_chapter_15.pdf (tni.org)

COVID-19, Government Intervention - Water Relief Programme

In response to some of the pertinent issues brought to the limelight by the COVID-19 pandemic, the Government of Ghana (GoG) adopted some relief measures, including free water. This was to ensure that Ghanaians adhered to the safety protocols of frequent hand washing under running water with soap, and to encourage landlords and vendors to refrain from selling water, so that people could effectively adhere to the safety protocols. According to the 2020 Annual Budget Statement report, GoG “through the Ministry of Sanitation and Water Resources, supplied 3,447,612 cubic metres of additional potable water, representing a 37% increase over and above pre-COVID levels, to 522,864 and 10,763 domestic and commercial customers of GWCL from April to June, 2020” (MoF, 2020b).

Additionally, in the report the ministry stated that “630 Rambo 10,000-litre Polytanks were mounted across the country to supply free water to unserved communities through the deployment of 118 privately-owned and GWCL-owned water tankers. The stock of public standpipes managed by GWCL within communities increased by 531, reaching 11,038 as at end of June 2020” (MoF, 2020b). Also, the Budget Statement noted that “the Community Water and Sanitation Agency, through this intervention, provided 174 piped-water systems to serve 268,861 persons between April and June 2020. A total of 1,755,907.82 cubic metres of water was delivered at no cost to beneficiaries as part of the relief programme. In terms of monetary value, the total cost of the Water Relief Programme to Government is projected at GH¢275.5 million out of which GH¢199.3 million was paid by end June 2020” (MoF, 2020b). Considering the challenges that most poor Ghanaians were experiencing owing to COVID, the water relief intervention was extended until the end of 2020 (MoF, 2020b) and has further been extended to the end of March, 2021.

COVID-19 and Sanitation

The lockdown period during COVID-19 resulted in the increased generation of household waste. During the period, normal household waste produced was accompanied by extra plastic generated because of the increased purchases of hand sanitizers, disinfectants, gloves, disposable nose masks, liquid soaps, and other related protective equipment. The growth in the household waste production rate further deepened an already precarious situation. Waste collectors, classified as essential services providers, were permitted to collect the waste produced to improve sanitation and also help curb the spread of COVID-19.

To strengthen this effort, the Ministry of Sanitation and Water Resources in partnership with Zoomlion Ghana Limited organised clean-up activities: weeding, waste collection and painting in selected public places in Accra (Tudu, Makola, Agbobloshie, Kaneshie, Madina, Shiashie, East Legon, Adenta and Accra Mall areas, among others), Kumasi, the Tema motorway, Ewutu Senya East District (Kasoa), and other Metropolitan, Municipal and District Assemblies (MMDAs) that were heavily littered. The exercise was also geared towards tidying up of markets and lorry parks during the lockdown period due to reduced vehicular and human traffic. Thus, Zoomlion Ghana, under the auspices of the Ministry of Local Government and Rural Development (MLGRD), the Ministry of Education (MoE) and the Ministry of Sanitation and Water Resources (MSWR) undertook a nationwide fumigation of markets, lorry stations, schools and colleges and all open spaces.

The other activities undertaken were done in collaboration with the Ghana Armed Forces, Prisons Service, the National Disaster Management Organisation (NADMO), Ghana Police Service and the Environmental Health Units of the various Assemblies together with Metropolitan, Municipal and District Chief Executives (MMDCEs) of adjoining MMDAs. Clean up exercises, weeding of road medians, painting of road curbs and collection of waste were carried out in the following areas: Central Business Districts of Accra, the Tema Motorway, Accra Districts (Shai Osudoku, Adenta, La Nkwantanang, Ga West, Ga East, Ga North, Ga South, Weija Gbawe and Ga Central municipalities), the Tema Metropolitan Assembly, Ashaiman Municipal Assembly, Kpone Katamanso Municipal Assembly, Ningo Prampram District, Kasoa in the Ewutu Senya East District, Greater Kumasi Area, Ada West and East Districts as well as Tema West Municipal Assembly.

Furthermore, during one of the weekly press conferences organised by the Ministry of Information, the Ministry of Sanitation and Water Resources announced Government's effort at controlling public littering by deploying 5,100 litter bins to various MMDAs in Ashanti, Central, Greater Accra, Northern, Oti, Volta and Western Regions as part of its Street Litter Bin Programme. MMDAs were urged to make the bins visible and also place them at vantage points to prevent indiscriminate littering. In addition, several hand washing stands, including Veronica buckets, were also distributed, especially in open spaces, and a directive was issued to all institutions to ensure strict and effective compliance with the hand washing regulations announced by the government in line with the anti-COVID safety protocols laid out by the World Health Organization.

Conclusion and Recommendations

The chapter has demonstrated that despite the government's efforts at closing the water and sanitation gap, challenges still exist. The increasing population has a direct impact on available resources, and in the water sector where the government has made progress, nearly three million of the population still lack access to potable water, particularly in rural areas.

The pandemic has heightened the issue of inadequate water supply and limited sanitation facilities in the country, and brought to light the need to expand infrastructural investment in the water and sanitation sector.

As has been established, the objective to halve the proportion of the population of Ghanaians without sustainable access to safe drinking water and basic sanitation saw more progress in improving access to water than sanitation. Thus, the underperformance of the sanitation sector at the end of the MDGs and the incidence of sanitation-related health problems (such as the cholera outbreak in 2015) came as no surprise. Though attention has now been drawn to the sanitation sector, with some interventions by the government, NGOs and other CBOs, access to sanitation is still inadequate. Extensive use of shared toilet facilities and the practice of open defecation need more attention. The sector still needs more commitment by relevant institutions and all stakeholders, with rigorous reforms at the institutional level accompanied by well-planned policies that will not just be on paper but will get enforced to curb open defecation.

Indeed, it is important to recognise the complexities of the rural-urban divide and the dynamics of poverty so that interventions can be directed at the poor, given the health implications and the economic and social cost to government and families.

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APPENDIX

TABLE 4.1: Regional distribution of overall potable water coverage for rural communities and small towns as at the end of 2018

Region	No. of communities	Bore-holes	Hand Dug Well	Small Communities Piped Systems	Small Towns Pipe Scheme	Limited Mechanised Systems	RHS	GWCL	Population served	% Coverage
Greater Accra	1104	521	103	8	7	3	-	53	583305	61.74
Central	3597	2192	457	12	51	8	79	192	1648609	64.2
Western	1832	18681	452	24	47	2	-	-	1082764	59.54
Ashanti	3041	5192	247	-	32	219	3	22	2343939	58.25
Brong Ahafo	3555	3416	427	2	59	137	-	-	1579679	66.11
Volta	3336	2566	56	76	60	27	9	175	1489317	64.42
Northern	4227	4730	597	2	45	83	-	54	1787501	60.95
Eastern	3331	2970	1142	-	35	3	15	-	1367095	56.45
Upper East	2193	2879	512	-	23	17	-	-	970476	65.89
Upper West	1152	2139	-	2	22	27	-	-	657570	74.37

Source: Extracted from GWSA¹² Annual Report 2018

¹² <https://cwsa.gov.gh/wp-content/uploads/2019/12/2018-Annual-report.pdf>

Housing

5

SUSTAINABLE HOUSING IN GHANA

Introduction

It has been widely argued that housing delivery, especially in developing countries, is saddled with the challenges of inappropriate construction materials and methods as well as implementation procedures which are unsustainable (Bruen et al., 2013; Chan et al., 2018; Holland, 2018; Ampratwum et al., 2019; Agyekum et al., 2020). Consequently, sustainability within the context of affordable housing is now at the core of the debate on housing in developing countries. This debate is framed within the Sustainable Development Goals (SDGs) and the on-going debate about reducing Greenhouse Gases (GHGs) and continuous efforts to achieve low-carbon emissions (Dauda, 2011). Furthermore, the debate about sustainable housing is against the backdrop of unprecedented high demand for housing due to high population growth, urbanisation, disasters and conflicts in the developing world (Bruen et al., 2013; Chan et al., 2018).

Although housing is connected to virtually all aspects of development, it has been argued that sustainable housing has the potential to profoundly impact many of the SDGs including decent work and economic growth; clean water and sanitation; good health and well-being; affordable and clean energy; industry, innovation and infrastructure; climate action and sustainable cities (Holland, 2018). Indeed, housing is at the core of socio-economic development and the direct and indirect attainment of virtually all the SDGs (World Bank, 2015a; ISSER, 2017). While the critical role of housing in development has been widely acknowledged, it is also the case that housing contributes to climate change and

resource depletion through inappropriate materials for construction, inefficient utilities (especially water and energy), poor siting of structures, etc. (National Building Museum Symposium, 2007; Ampratwum et al., 2019; Anzagiraa et al., 2019; Agyekum et al., 2020). Additionally, Levin (2013) notes that sustainable development presents a triangular tension involving the elements of the environment, economy, and social equity, and there is the need to have a balance of these three elements. Levin (2013, 36) adds that:

We are in a time when there is a great need for affordable housing and environmental consciousness. Promoting affordable green housing is a way to build sustainable communities, taking on the aims of social and economic development while incorporating environmental initiatives.

This chapter of the Ghana Social Development Outlook 2020 (GSDO 2020) examines policies and strategies towards sustainable housing in Ghana within the context of the SDGs and climate change, and efforts to reduce the country's GHGs and carbon emissions and on-going efforts to promote affordable housing. In addition, it examines housing industry practices in terms of materials for construction, energy-efficient lighting, cooling and heating systems, and water-efficient systems. The chapter is structured into six sections. After the introduction, it looks at the definition and principles of sustainable housing, followed by a review of Ghana's national policies and strategies on sustainable housing (with a particular focus on the National Housing Policy, 2015). Next, the chapter examines housing industry practices with respect to sustainability, and then there is a section on the challenges of pursuing sustainable housing in the context of affordable housing and national targets on reducing carbon emissions. The chapter ends with a conclusion and policy recommendations towards achieving sustainable housing in Ghana.

Definition and principles of sustainable housing

Sustainable development as broadly defined involves three key components, namely environmental protection, economic growth, and social equity (Turcotte & Geiser, 2010; Chandrashekeran et al., 2017). Therefore, any definition and measurement of sustainable housing needs to incorporate these key components. However, Turcotte & Geiser (2010) have argued that “green” is often interchangeably used with “sustainable” when reference is made to housing and buildings. It therefore needs to be stressed that “while green design is an important element of sustainable housing, it is not the exclusive dimension” (Turcotte & Geiser, 2010, 88).

Equally important in any attempt to define sustainable housing is the recognition that ‘home dwelling structures are as diverse as cultures’ (Holland, 2018,

124). Holland (2018) adds that the diversity is as a result of geographical location (where an individual or household resides), income, age, class, occupation, marital status and family dynamics. These dynamics have implications for housing choices and designs, and the materials for construction, and consequently the environment, economic and social dimensions of housing and how these dimensions are defined.

A review of the literature on sustainable housing suggests that while the issue of sustainability with respect to housing development has gained global attention, the focus differs between the global North and South. While green designs and environmental sustainability seem to be the order of the day in much of the global North, the focus of attention in the global South has largely been about affordability (economic and social sustainability) given the fact that millions in this part of the world are without adequate housing, and hence, the prevailing high incidence of slums and congestion (Bruen et al., 2013; Holland, 2018; Anzagarra et al., 2019). However, sustainable housing suggests clearly that the three pillars of the environment, economic and social status are interlinked, and that one must not take precedence over the others. In other words, the social dimensions of housing, including issues of equity, culture and heritage, should be given as much prominence as issues of economics (especially costs) and the environment. Nevertheless, policy makers, housing professionals and consumers of housing (the public), especially in the global South, are confronted with a real dilemma. This is because in many instances introducing green and healthy environmental design elements, though in the long-term will lead to lower operational costs through less energy, water, and maintenance costs, can also lead to an increase in overall construction costs of housing, thus denying many low-income households access to decent housing. For instance, Chan et al. (2018) in analysing critical barriers to the adoption of green housing to achieve sustainable communities identified higher costs as the most critical barrier, although this barrier is also driven by a lack of government supports and incentives.

In a developing country such as Ghana, sustainable housing may be defined as housing that is affordable and sensitive to the Ghanaian culture as well as the environment. According to Dauda (2011), sustainable housing ensures that citizens are adequately provided with shelter that meets their basic needs as well as satisfying the environmental sustainability dimension through the use of materials, processes and systems that are geared towards reducing greenhouse emissions. It needs to be stressed that any attempt to define sustainable housing needs to take into account issues of affordability and the use of locally accessible building materials.

According to Turcotte and Geiser (2010), in the absence of a precise definition of sustainable housing, a framework is appropriate than a specific definition. Consequently, Turcotte and Geiser (2010, 90-91) provide ten principles which should constitute any practices of sustainable housing (see Box 5.1).

Box 5.1: Ten principles of sustainable housing

Ten principles of sustainable housing:

- *Incorporate green design:* Promote integrative approaches through water and resources conservation, energy efficiency and renewable energy use, improved indoor air quality, use of natural sunlight, recyclable and less toxic materials, and ongoing sustainable operation practices to minimise adverse environmental impact.
- *Provide safe internal conditions:* Maintain an indoor environment with adequate space, comfortable temperature and humidity levels that are physically safe and healthy, and where overall psychological well-being is promoted.
- *Encourage affordable and equitable distribution/consumption of housing resources:* Maintain occupant housing costs at a level that does not sacrifice resident's ability to meet other needs; allow individuals at the same income level and housing needs to access comparable housing resources with the targeting of these resources (subsidies and tax incentives) to groups with the greatest needs; such that regardless of household income, all individuals will have access to a level of housing quality as defined by and occupied by most groups in society.
- *Support financial viability for housing producers:* Create an economic environment with sufficient incentives (but not so excessive as to impact affordability) to address community demands and needs for shelter over the long-term.
- *Promote occupant-neighbourhood linkage:* Locate and design housing in mixed-use neighbourhoods to maximise density and efficient land use, minimise sprawl and automobile use by encouraging alternative transportation options (trains, buses, metro, biking, walking, etc.), and to promote active living near employment, commercial establishments, and important community institutions.
- *Maximise access to healthy environments and support services:* Promote access to safe and attractive public recreational areas, community institutions, and healthy, affordable food outlets and support services, recognising the relationship between occupant health and a safe, attractive, cohesive, and quality neighbourhoods and development of positive social capital.
- *Support worker well-being:* Maximise the health and safety of workers throughout the supply chain, during construction and maintenance of buildings, and provide fair compensation.
- *Preserve cultural and housing heritage:* Design housing that preserves, respects, and recognises the unique historical and cultural characteristics of an area and its residents.
- *Foster participation and harmonious decision-making:* Promote full stakeholder participation as appropriate to their interests, while addressing the needs of current and future residents, regardless of socio-economic status, ethnic, religious, and racial background, while enhancing understanding, consensus, and harmony.
- *Increase adaptability and flexibility:* Provide occupants with flexibility to economically change and upgrade the shape and layout of their homes to meet changing needs within their households (e.g., "Open Building" systems), and offer "visitability" for everyone.

(Turcotte & Geiser (2010, 90-91))

National policies and strategies on sustainable housing: A review

Housing demand in Ghana goes back in time, including colonial era slum clearance, and subsequent ad hoc and piecemeal measures to provide affordable housing in a few selected towns for colonial authorities and local civil servants (Konadu-Agyemang, 2001). However, housing has taken more of a centre stage in national debates in Ghana in the last three decades largely due to the growing housing deficit and deepening challenges in accessing housing (Arku, 2009; Ansaah, 2014; ISSER, 2019). This is especially the case in large urban centres such as Accra and Kumasi and other large cities, where inadequate housing to meet the needs of low-income groups have led to the growing incidence of slums, streetism and homelessness (ISSER, 2017, 2019). The growing housing challenge in Ghana have led to various initiatives from the public and private sectors as well as civil society organisations to increase residential housing development, particularly in the terms of affordable schemes, including the provision of soft loan packages and direct provision of low-cost housing. However, the reality of the Ghanaian housing sector is that an overwhelming proportion of housing continues to be delivered by the informal housing sector through incremental construction processes which can take up to 15 years to complete (UN-Habitat, 2011). Government, however, has a major role to play, both as a direct supplier of housing and indirectly by creating an enabling environment for the supply of housing through various initiatives such as providing tax holidays and land banks to the private sector. To help government play this critical role, the National Housing Policy (NHP) after a decade of formulation was finally completed and adopted by the government in 2015. This policy document attempts to address in comprehensive fashion the challenges confronting the Ghanaian housing sector as a whole – a clear departure from earlier fragmented and piecemeal responses from the state (ISSER, 2017).

The National Housing Policy provides a lens through which to assess sustainable housing in Ghana. The main goal of the housing policy is to provide adequate, decent and affordable housing that is accessible, to satisfy the needs of all people living in Ghana; ensure that housing is designed and built to sustainable building principles leading to the creation of green communities; ensure that there is participation of all stakeholders in decision-making on housing development and allocation in their localities; and ensure adequate and sustainable funding for the supply of a diverse mix of housing in all localities (Ministry of Water Resources, Works and Housing [MWRWH], 2015). Analysis of the goal of the NHP reveals that the policy gives attention to all the key components of sustainable housing: environment (creation of green communities), economic

(costs, funding and affordability) and social (access to all people living in Ghana, and participation of all stakeholders). In addition, the words “sustainable” and “sustainability” in terms of the environment, economic and social status are used about 12 times in the NHP, a reflection of the strong emphasis on sustainable housing in the policy document.

Furthermore, the NHP provides a number of policy initiatives on sustainable housing including affordable housing for low-income groups, green buildings and ratings, and efficient utilisation of water and energy as well as waste management. For instance, among the policy initiatives to promote orderly human settlement growth with physical and social infrastructure, the NHP calls for local government to “assess and grant credits in the form of property tax deductions to all developments that reduce storm water run-off as stipulated in the Ghana Green Building rating tool...” per the MWRWH (2015, 23).

A review of the NHP and other related policy documents including the National Urban Policy Framework (NUPF) and Action Plan, 2012, and National Climate Change Policy (NCCP), 2013, have policy goals and measures which put sustainability as key and central to Ghana’s socio-economic progress (IFC, 2017). However, policy implementation remains a key challenge in Ghana mainly due to resource constraints and weak institutions for promoting sustainable development according to the Partnership for Action on Green Economy (PAGE, 2015). As PAGE (2015) notes improving resources for policy implementation on sustainable development would be a powerful step towards greening industry, resource use and environmental impact. Specifically, for the housing sector, many of the sustainable policy measures of the NHP, NUPF and Action Plan as well as related measures on energy, water, waste management and infrastructure are yet to be fully implemented, especially at the community level where they are needed most.

Sustainability and housing industry practices

All national policies including NHP indicate that “Ghana is dedicated to sustainable development and improving the country’s housing and infrastructure” (IFC, 2017, 5). However, advocacy and awareness of sustainable housing in the housing sector is generally low. Writing on Malaysia, Olanrewaju et al. (2018, 847) attributed the low supply of sustainable affordable buildings despite strong policy formulations to a number of factors. These factors include: developers do not have an incentive to supply sustainable housing; stakeholders are not certain about critical success factors of supplying sustainable housing; and stakeholders are not aware or certain about the benefits of sustainable buildings. These factors may also be applicable in the context of Ghana, where in the face

of a growing housing deficit the focus has been about increasing the quantity or number of affordable houses to meet demand, a situation which has remained largely unfulfilled (ISSER, 2017, 2019).

According to Ako-Adjei & Danso (2019), Ghana's built environment industry is one of the most vibrant sectors of the country's economy, and contributes an average of 12.6% of GDP and employs about 2.8% of the economically active population. According to IFC (2017, 5), Ghana's GDP from construction is estimated at over US\$683 million, which ranked as the 8th highest in Africa. Indeed, Anzagiraa et al. (2019) citing the African Statistical Yearbook 2013 of the African Development Bank Group noted that the construction industry's contribution to GDP growth in Ghana is better than that of manufacturing and other industries.

However, "the [construction] industry puts a lot of stress on the environment due to the consumption of substantial natural resources such as non-renewable resources like energy, timber, water, farmlands etc., thereby contributing to climate change" (Ako-Adjei & Danso, 2019, 988). An obvious example of the extensive harm to Ghana's physical environment as a result of housing construction is the uncontrolled sand-winning and consequent destruction of farmlands and agricultural livelihoods, and other sensitive ecological sites such as rivers/streams and wetlands, especially around large metropolitan centres like Accra, Kumasi, Sekondi-Takoradi and Tamale (Owusu & Oteng-Ababio, 2015).

Equally important is also the fact that analyses conducted so far indicate that housing delivery in Ghana is not affordable and therefore not accessible to all sections of the population (Songsore, 2003; Teye et al., 2013; ISSER, 2017, 2019; Centre for Affordable Housing Finance in Africa, 2017; Inclusive Business Action Network, 2017). In other words, housing delivery in Ghana fails the economic and social sustainability ratings to a large extent. According to the Inclusive Business Action Network (2017, 7):

Housing sold on the formal real estate market is beyond the financial means of most households, with only about 1% of households able to afford the cheapest houses offered by formal developers. For example, in 2015 the cheapest house cost USD 24,297. After paying the 20% deposit, the mortgagee is required to make a monthly payment of USD 245 over a 20-year period and must have a monthly income of USD 612 to qualify. Meanwhile, monthly income of households' average USD 347.

Consequently, it is estimated that about 90% of Ghana's housing supply is delivered in an incremental process which typically takes between 5 to 15 years to complete through informal sector operations involving homeowners, small-

scale contractors and artisans (UN-Habitat, 2011; Inclusive Business Action Network, 2017). Many of these informal housing deliveries are built without any approval permits by local governments and are therefore not subjected to any sustainability ratings or assessments. The encumbrances involved in building permit application and registration of land titles as well as the weakness of local governments to enforce development controls and building inspection regimes have led to a situation where many developers build without development permits (Antwi & Adams, 2003; UN-Habitat, 2011; Owusu et al., 2012).

The use of imported or foreign building materials has long dominated the Ghanaian housing industry, especially in urban areas (Wellington, 2009; ISSER, 2013; Danquah et al., 2017). This situation prevails as result of a number of factors including limited investment in research in local building materials; strict enforcement of building regulations by Metropolitan, Municipal and District Assemblies (MMDAs) through the issuance of building permits which do not allow use of cheap and local materials such as bamboo, clay/mud, thatch, etc.; and the strong local taste for foreign building designs and materials. A clear case in point is the increasing demand for glazed buildings with high energy consumption in a hot tropical environment such as Ghana.

However, there is growing advocacy and awareness of sustainable buildings in Ghana particularly with the establishment in 2009 of the Ghana Green Building Council (GGBC), a non-governmental organisation (NGO) of housing industry stakeholders committed to facilitating the creation of sustainable building and communities in Ghana. The Council through collaboration with other agencies is helping to create awareness in promoting sustainable buildings especially energy saving, water conservation, resource management and cost-efficient techniques. Overall, GGBC's mission is to transform the built environment in Ghana by ensuring that communities are planned, designed, constructed, operated and maintained in sustainable ways.

According to IFC (2017), GGBC supported by other global partners of the Green Building Council have trained local stakeholders in the housing sector on sustainable buildings. IFC (2017) adds that GGBC has established memoranda of understanding and work relationships with Ghana's Environmental Protection Agency (EPA), and the Ghana Real Estate Developers' Association (GREDA), Ghana Home Loans (mortgage financing company), and Appollonia City (a large real estate company developing housing on the eastern outskirts of the Greater Accra metropolitan area). Furthermore, as part of a number of policy initiatives to promote orderly human settlement growth with physical and social infrastructure, the NHP has recommended the adoption of GGBC's framework for

green community development and green building rating tool which it has developed for Ghana with the support of the South Africa Green Building Council.

However, it needs to be stressed that much of GGBC's advocacy and awareness creation on sustainable housing has focused on real estate agencies in the formal housing sector. For the large majority of stakeholders in the informal sector who deliver the overwhelming proportion of housing, they remain unreached with respect to GGBC's advocacy on sustainable housing. Yet, it is without doubt that given the large amount of housing delivered through the informal sector, stakeholders in this sector remain critical to any discussions of sustainable housing. According to Anzagiraa et al. (2019, 2), "there are no customised mandatory government policies, regulations, and legislation for GB [green building] implementation in building developments in Ghana, hence, GB [green building] adoption is relegated to the discretion of the individual stakeholders". Anzagiraa et al. (2019, 2) adds that for the whole of Ghana:

... there are only five (5) certified green buildings (i.e., the One Airport Square building, the Ridge Hospital, the Komfo Anokye Mother and Babies Unit, the Standard Chartered Bank Head Office building, and the Takoradi Mall). Two others have received Preliminary EDGE certifications (i.e., the Radisson Blu Hotel and Exchange Complex Residential Blocks A & B (Preliminary) while two (2) others (i.e., Consar Ltd Head Office building and the Ghana National Petroleum Corporation [GNPC] Head Office) are registered for assessment and certification.

The above illustrates the extent to which mandatory public policies, regulations, and legislation on sustainable housing are lacking in the housing industry in Ghana. Nevertheless, it must be stressed that the informal housing sector has shown resilience in the face of the numerous challenges in the supply of housing in Ghana with regard to delivering affordable housing (e.g., compound housing) to a majority of the population (at least meeting some level of social and economic sustainability thresholds) even if they fail in terms of environmental sustainability.

Challenges of sustainable housing

Levin (2013) identified a number of challenges against sustainable housing which to a large extent are applicable in the Ghanaian case. These challenges include *costs and financial burden*; *limited knowledge about green technology*; and *quantifying benefits of sustainable technologies*. To these challenges in the context of Ghana can be added *disconnection between sustainability goals and regulatory regimes*; and *weak land use planning, limited development control and massive urban sprawl*. These challenges that are impeding sustainable housing practices are discussed below.

Costs and financial burden

According to Levin (2013) and Chan et al. (2018), cost is often viewed as a key barrier to delivering housing which is sustainable and affordable, as traditionally there are more initial costs associated with sustainable buildings, even though the total costs are likely to be recovered over the lifetime of the buildings. Consequently, this situation may compromise green housing measures such as the use of solar power, which currently involves huge initial costs, much larger than are required for conventional electricity. This is more so when many households, as reflected by Ghana's growing housing deficit, cannot access conventional housing.¹ Therefore, any efforts towards green technologies that add to the cost of housing are likely to further deny many access to decent housing, thus raising equity issues and the broader debate about sustainable housing. This situation probably accounts for the limited attention paid to green housing in Ghana in particular and Africa in general.

However, costs and the financial burden as barriers to pursuing sustainable housing practices have been discounted by many analysts (Shewmake & Viscusi, 2015; Chan et al., 2018; Holland, 2018; Ampratwum et al., 2019; Agyekum et al., 2020). Their arguments are premised on a number of considerations including resource efficiency, energy conservation, minimizing water consumption and waste generation and providing a healthy indoor air environment (Shewmake & Viscusi, 2015; Levin, 2013). In other words, sustainable housing practices are seen as positive in terms of reducing carbon emissions and ecological footprints as well as contributing to households' health and well-being and as such these costs need not be a barrier. The other considerations of sustainable housing practices relate to achieving global development goals and specifically SDG 11 on Sustainable Cities and Communities. Holland (2018) has argued that given the rising urban population and housing supply challenges, alternative housing options for the future could include the use of sustainable materials such as straw bales, bamboo, earth roofs, cob structures, and other non-traditional materials. In other words, pursuing sustainable practices in the housing sector should not be about only expensive technologies, materials and practices but the inclusion of locally available and cheap building materials in construction.

Limited local knowledge about green technology

The limited knowledge about green technology in developing countries such as Ghana has been well acknowledged in the literature. According to Anzagiraa et al. (2019, 2), countries in "Sub-Saharan Africa are noted to still be grappling with

¹ Solar panels costs between USD 150-350 per panel in 2019. www.nocheski.com. Accessed on July 5, 2021

the basics of GB [green building] adoption and are largely characterised by the absence of or few tried and tested rating systems of their own, the existence of few certified green buildings and the absence of mandatory laws, policies and incentives”. As such building contractors, architects, artisans, etc. may not be conversant with green technologies and their integration into the buildings, and how these technologies work to function at capacity (Ampratwum et al., 2019). In particular, Ampratwum et al. (2019) have stressed the need for professional bodies to liaise with GGBC to train professionals, artisans and others in the housing and the built environment on green buildings and technologies.

Limited awareness and knowledge of sustainable housing practices requires that housing industry stakeholders are sensitised and re-educated about the practices and their benefits (Ampratwum et al., 2019). However, Olanrewaju et al. (2018) have argued that to market sustainable buildings, key industry players and government must not only be aware of the sustainable practices in the industry but also be ready to apply the principles and be convinced themselves as well as convincing renters and homeowners about the benefits.

Quantifying benefits of sustainable technologies

While many scholars have emphasised the benefits of sustainable housing principles and practices, it is still the case that there are lingering doubts about the benefits. According to Levin (2013), although progress has been made in terms of reduction in water and energy use, and human health benefits, there is still perceived uncertainty about the benefits and costs of green technology and sustainable buildings. This situation of perceived uncertainties about sustainable buildings and the challenges of quantifying their benefits is not only limited to developing countries but exists also in the developed world. Olanrewaju et al. (2018) cite studies conducted in the UK, USA, Canada and New Zealand which conclude that one of the main barriers to the supply and demand of sustainable buildings in these countries is the lack of data that measures the benefits of these buildings. In particular, they note that consumers or homeowners’ demand is critical in the uptake of the supply of sustainable buildings. On the other hand, Levin (2013) calls for more documentation of the benefits of using green practices and technologies as critical in generating innovation and more development of affordable sustainable housing.

Disconnection between sustainability goals and regulatory regimes

There is also the barrier of lack of consistency between building regulations and sustainability goals. Many analysts of housing sustainability have concluded that

the use of readily available local materials for the housing sector is critical towards achieving sustainable housing (Holland, 2018). In Ghana, building permits issued by MMDAs do not permit the use of local and readily available unprocessed clay/earth, bamboo, straw, wood, etc. as building materials although these materials are the dominant materials used for the construction of housing in rural Ghana.² In other words, building regulations and permit requirements are caught in the sustainability triangle and the associated tensions among sustainability goals (Chandrashekeran, 2017; Danquah et al., 2017).

Related to the above, Bruen et al. (2013) have argued that developed countries have dominated research in relation to sustainable construction, much of which is aimed specifically towards the context of these countries. To a large extent, the standards of sustainability of the developed countries have to a large degree been employed in the developing countries context with little consideration given to what housing means for its users (Bruen et al., 2013; Ampratwum et al., 2019). As earlier noted, consumers of housing (renters/homeowners) in a developing country such as Ghana have acquired foreign tastes for housing designs and materials partly on account of existing building regulations and codes which run contrary to sustainable principles and goals.

Weak land use planning, limited development control and massive urban sprawl

Perhaps the greatest barrier to sustainable housing in Ghana is the existing weak land use planning and limited development control, and the resultant massive urban sprawl, especially around large metropolitan centres. The Metropolitan, Municipal and District Assemblies (MMDAs) are legally mandated to oversee the overall socio-economic development of their jurisdictions, including planning and development. However, MMDAs hardly undertake forward planning and the few plans that are prepared are rarely implemented due to a number of reasons including inflexible land ownership systems; an unresponsive legislative framework; undue political interference; acute human resource shortages; and inadequate sustainable financial resources (Yeboah & Obeng-Odoom, 2010; World Bank, 2015b). Consequently, a closer look at many Ghanaian settlements reveals strong outward expansion (or massive sprawl) and

² The Ghana Building Code 2018 makes provision for local materials but these materials must be processed to a high quality. However, at present processed local materials such as built clay tend to be relatively expensive and out of reach to many households. Until production costs of processed local building materials are lowered, they will remain out of reach to several households and their use in housing construction will be limited by this constraint.

relatively moderate and patchy densification within the inner city (Owusu et al., 2012; Owusu & Oteng-Ababio, 2015).

According to Owusu et al. (2012), the current use of land for construction, particularly residential construction has been described as unsustainable as it results in rapid sprawl and land scarcity, and consequently the uncontrolled outward expansion of settlements. In addition, this situation tends to increase the cost of providing services such as water and electricity to communities, partly contributing to the cost of housing as well as the destruction of the physical environment through uncontrolled sprawl. At the same time, measures advocated by the Ghana Building Code 2018 for greening of residential communities are hardly enforced. For instance, the Code states among others that for residential occupancy, for smaller plots (less than 200m²) in slum areas and the like, the requirement is 100m² of trees to be planted so as to provide shade and improve the quality of the environment for every 50 families. In the case of plot sizes of 200m² or more, 10% of space needs to be reserved for greenery. However, these guidelines for greenery are hardly enforced.

Conclusion and policy recommendations

There has been renewed attention by the international community on the subject of housing as reflected in the SDGs and UN-Habitat's New Urban Agenda as well as other international policy documents. This renewed attention is against the backdrop of rapid urbanisation across the developing world, especially in Sub-Saharan Africa, where challenges in accessing decent housing are manifesting in the growing incidence of slums. At the same time, the growing threat of climate change and the need to reduce greenhouse gas and carbon emissions have placed sustainable development at the centre of international discourse. It is within this context that sustainable housing is being championed as housing that is affordable and socially acceptable while at the same time being designed and constructed as environmentally-friendly and resource efficient. In other words, sustainable practices in housing imply the balancing of the tensions and conflicts among the core elements of sustainability – social, economic and environmental.

While sustainable housing practices have, to a large extent, been mainstreamed into the construction industry in the developed world, these practices are basically in their infancy in developing countries like Ghana (Chan et al., 2018; Agyekum et al., 2020). As already highlighted a number of challenges militate against sustainable housing principles and practices in Ghana and these require attention. Consequently, the policy recommendations that follow have been proposed towards enhancing sustainable housing practices in Ghana.

Explicit public policy on sustainable housing practices

There is the need for the promulgation of an explicit public policy on sustainable housing practices in Ghana to be incorporated into the existing NHP. This recommendation is shared by Ako-Adjei and Danso (2019) and Djokoto et al. (2014) who note that an explicit sustainable policy for the construction industry will provide clarity regarding sustainable measures in existing policy frameworks and signal the future direction of government policy and enforcement. In addition, such a policy will consolidate and harmonise sustainability policies and instruments related to the housing industry scattered across various public policies.

Enhance education and sensitisation of stakeholders in construction industry

Although Ghana as a developing country is preoccupied with providing affordable housing to meet the needs of a majority of her population who due to poverty and low-income are not able to access decent housing, there is still the need for the state to enhance education and sensitisation of stakeholders in the construction industry, especially the informal sector of the industry. The application of green technology and other sustainable practices represent the future outlook of the housing industry, as these are increasingly being accepted as necessary ingredients towards sustainability, due to cost-savings to low-income homeowners and renters over the long-term and minimal impacts on the environment. Therefore, green housing within the limits of acceptable costs to households should be an integral part of Ghana's housing industry.

Although some green technologies and tools can be described as “expensive” in a developing country such as Ghana, there is the need to educate and sensitise stakeholders in the housing sector, especially those in the informal sector, about low-cost sustainable design features. These include sustainable design features such as harvesting of rainwater to reduce the costs and uses of water, and proper tropical-friendly sun and wind orientation of buildings in order to take advantage of natural light and cooling effects as well as enhance ventilation.

Localised rating tools on sustainability

Rating of buildings to assess their sustainability in terms of the economic, socio-cultural and ecological environment is new to Ghana and much of the developing world. While such ratings of buildings facilitate adherence to sustainable practices, the ratings and tools for assessment need to be localised, taking into account the Ghanaian context.

Promote research on and use of local building materials

As emphasised in previous housing chapters of the Ghana Social Development Outlook, limited use of local building materials partly contributes to the high cost of housing, which makes housing unaffordable to a vast section of the Ghanaian population, thus failing the economic and social tests of sustainable housing. Research and development (R&D) of local building materials and technologies such as those undertaken by the Building and Road Research Institute (BRRI) of the Council for Scientific and Industrial Research (CSIR), Ghana's foremost national science and technology institute, have not received serious attention as desired. Government through the BRRI/CSIR and various tertiary institutions on building technology and design is encouraged to give serious attention to relevant R&D of local building materials as a basis of contributing to sustainable housing practices. This therefore supports the policy recommendation of the NHP for further research to be done "to improve local building materials (burnt clay brick and tile, pozzolana, compressed earth blocks, micro concrete roofing tiles, bamboo, etc.), and promote their production and usage in the country" (MWRWH, 2015, 30).

Implement National Housing Policy and housing-related policies

While the state has been credited with formulating comprehensive NHP, 2015, and other relevant housing-related policies such as the National Urban Policy Framework and Action Plan, 2012; Water Sector Strategic Development Plan (2012-2025), etc. in recent years, the implementation of these policies and plans is a challenge. It is recommended that government makes conscious efforts to implement the NHP and other related relevant policies and plans for the housing sector, paying particular attention to the core sustainability elements of these policies.

Strengthen land use planning and development control

Sustainable housing requires the strengthening of institutions such as the MMDAs and Land Use and Spatial Planning Authority (LUSPA) responsible for land use and spatial planning. This is because these institutions and their roles have significant long-term impacts on access to housing and basic services in a sustainable manner. Indeed, land use and spatial planning are critical for the provision of housing and basic services as they allow these services to be delivered in an effective and cost-efficient manner. This is because retrofitting housing with services after development has taken the lead instead of prior planning tends to be expensive or in some instances nearly impossible. Furthermore, the role of MMDAs and LUSPA in land use planning and enforcement is critical in

reducing the uncontrolled expansion of cities and its attendant sustainability challenges.

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Work and Employment

6

HOMework AND HOMEWORKERS IN GHANA IN A TIME OF COVID-19¹

Introduction

Homework, which the International Labour Organisation defines as work commissioned by a person or entity other than the worker, that takes place within the home or at a location determined by the worker, is difficult to identify and map, particularly in economies with longstanding traditions of home-based work (any work that takes place within the home), labour markets dominated by self-employment and with labour statistical systems that do not capture home-based work (Gough, Tipple and Napier 2003). Ghana ticks all these boxes, and its recent efforts to re-establish a labour survey tradition does not adequately capture all these dimensions of the labour market. As a result, the prevalence and forms of homework in Ghana are not known beyond anecdotal evidence, and no one thinks of Ghana when homework is being discussed.

The invisibility of homework in Ghana, which is largely agrarian - with a large segment of workers in poorly capitalised services - is compounded by the fact that homework elsewhere is traditionally associated with the industrial sector (Mies 1982) and has been linked with de-industrialisation and the erosion of large-scale mechanised production. Not surprisingly, attention to homework by

¹ The data we present in this chapter draws on a study titled 'Homework and Homeworkers in Ghana' conducted by Akosua Darkwah and Dzodzi Tsikata for the International Labour Organisation in 2019. We gratefully acknowledge the ILO for their support in conducting the study and for permission to reproduce parts of it here.

labour unions has tended to be uneven between the industrialised and less industrialised worlds. While associations of homeworkers in the garment and ICT sectors exist in countries such as India, Turkey and Bulgaria, Ghanaian trade unions are yet to identify homeworkers, let alone organise them. This chapter addresses the gap in our understanding of homework in Ghana by providing an account of this sector of work in the Ghanaian context.

The nature of work in Ghana and indeed the world has been dramatically transformed with the onset of the COVID-19 pandemic. A few surveys have been conducted by various agencies to ascertain the nature of the impact. The most representative of these is a survey conducted by the Ghana Statistical Service (GSS) in collaboration with UNDP and the World Bank. This survey of 4311 firms gives us a fairly robust understanding of the economic costs of the pandemic. The study conducted between May 26 and June 17, 2020, showed that 770,124 workers representing 25.7% of the workforce had their wages reduced while 41,952 employees (1.4% of the workforce) were laid off (GSS 2020a:1). Business owners predicted that in the worst-case scenario, 15% of workers would lose their jobs (GSS 2020a:6). While the Business Tracker Survey (GSS 2020a) gives insights into the fate of employees in firms, the Households and Jobs Tracker allows us to ascertain the impact of the pandemic on other categories of workers. Given that the majority of workers in Ghana are self-employed, the Households and Jobs Tracker (GSS 2020b) is perhaps a more useful dataset for our purposes. This survey documents that roughly three-quarters (77.7%) of households representing 22 million Ghanaians had experienced a decrease in income since mid-March (GSS 2020b: 1).

In recognition of this reality, throughout the chapter, the implications of the COVID-19 pandemic for our discussion will be highlighted. The chapter begins with an overview of work and employment in Ghana with special reference to informal work. This will be followed with a discussion of the main sectors of the economy that employ homeworkers as well as the diverse sector-specific profiles of homeworkers in Ghana. In the ensuing four sections, we provide a more in-depth understanding of the different sectors of homework. In the final section, we offer concluding remarks about the conditions of work in this sector, the manner in which the COVID-19 pandemic has further worsened conditions and the policy implications of these findings.

Overview of Work and Employment in Ghana

Employment and Unemployment in Ghana

The definition of employment in Ghana has changed over the years. In the third round of the Ghana Living Standards Survey (GLSS), people were considered to

be employed if they were 15 years and older and had been engaged in any work for which they were paid in either cash or kind during the past 12 months (GSS, 1995). In the fourth, fifth, sixth and seventh rounds of the GLSS, however, the 12-month period was changed to 7 days. This change in methodology has contributed to the generally high rates of employment; in the seventh round of the GLSS, 70.7% of the population, 15 years and older, had worked the previous week (GSS 2019: 65).

According to the most recent Ghana Living Standards Survey, the estimated household population was 28.4 million (Ghana Statistical Service, 2019: xvii)² and the working age population was 17.28 million. The labour force participation rate was 70.9% (GSS 2019: 69). Although this figure is lower than the 75.2% reported in the Ghana Labour Force Report of 2015 (GSS 2016: 23), it is exactly the same as the rate initially calculated in 1960 (Bortei-Doku Aryeetey 2000: 327).

Formal and Informal Employment

The statistics on formal and informal employment are more helpful for understanding the employment situation in Ghana. In 2000 and 2010, the informal sector accounted for approximately 84% and 86% respectively of employment. The corresponding figures for formal employment for these years were approximately 15% and 13% for both sexes. Table 6. 1 provides more details regarding

TABLE 6.1: Formal and Informal Employment in Ghana (2000, 2010)

Employment sector	2000			2010		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Public	6.4	8.3	4.5	6.2	8.1	4.5
Private Formal	8.5	10.9	6.0	6.8	9.7	4.1
Private Informal	83.9	79.1	88.8	86.2	81.2	91.0
Semi-Public/Parastatal	0.8	1.2	0.4	0.1	0.2	0.1
NGO (Local & International)	0.4	0.5	0.2	0.5	0.7	0.3
International Organisations*	-	-	-	0.05	0.1	0.03
Other**	0.1	0.1	0.1	-	-	-
All Sectors	100	100	100	100	100	100
N	7,428,374	3,748,887	3,679,487	10,243,447	5,005,522	5,237,925

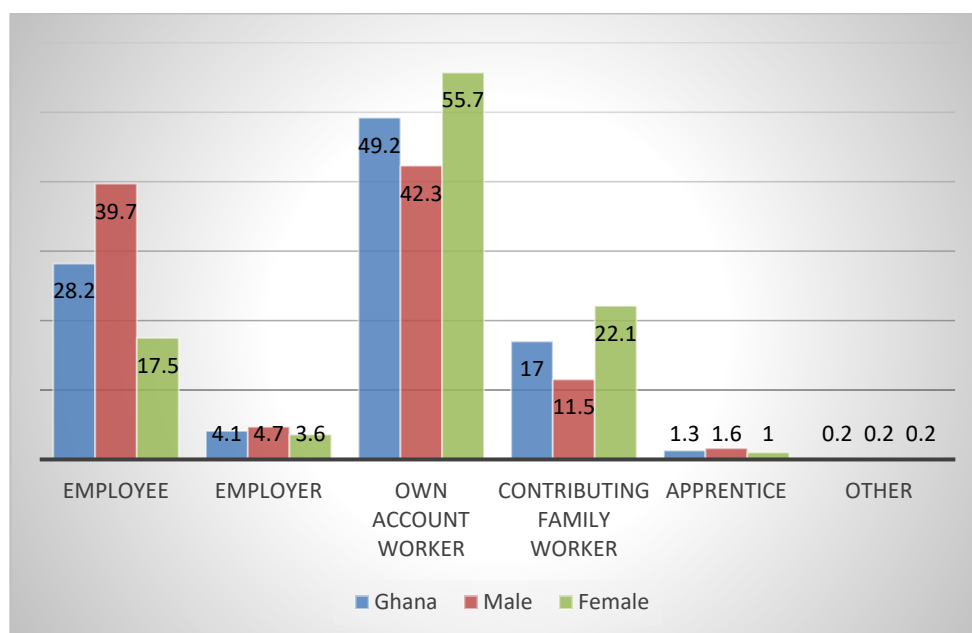
² The provisional results from the 2021 Population and Housing Census put Ghana's population at 30.8 million

Source: GSS 2013: 268

formal and informal employment in Ghana. More recent statistics from the Ghana Living Standards Survey of 2016/2017 puts the rate of informal employment at the much lower rate of 71.3% and by extension the rate of formal employment stands at a much higher 28.7% (GSS 2019: 74).³

As shown in Figure 6.1, more females are likely to be own account workers than males while more males are likely to be employees than females.

Figure 6. 1: Employment Status



Source: GSS 2019: 73

As has been documented in each of the previous editions of the Ghana Social Development Outlook, workers in Ghana's informal economy live precarious lives. This precariousness was made worse at the onset of the pandemic. Available evidence from the Ghana Statistical Service's COVID-19 tracker does not disaggregate its data to enable us appreciate the unique circumstances of workers in the informal sector. Nonetheless, it does paint enough of a picture to give

³ However, the main report does not provide the breakdown of formal and informal employment into the public and private sectors as was done in previous years thus making a comparative analysis over the long term impossible

us some insight into the possible implications of the pandemic for workers in the informal sector. Incomes, for example, had declined in 77.7% of households surveyed in the immediate aftermath of the pandemic (GSS 2020b: 1).

Homework in Ghana: Observations and Issues

The data presented above does not include place of work and employment statuses such as homework and other kinds of casual and seasonal work. As this data is not collected in Ghana's Labour and Living Standards Surveys, there is no way of measuring the prevalence of homework. Homework, as defined by the ILO's Home Work Convention, 1996 (No. 177) and Recommendation, 1996 (No. 184) is "work carried out by a person ... (i) in his or her home or in other premises of his or her choice, other than the workplace of the employer; (ii) for remuneration; (iii) which results in a product or service as specified by the employer, irrespective of who provides the equipment, materials or other inputs used" (Conv. 177, Art. 1). As Darkwah and Tsikata (2021: 5) point out, "This definition does not extend to persons who have 'the degree of autonomy and of economic independence necessary to be considered as independent workers under national laws, regulations or court decisions'. It is a narrower concept than home-based work, which encompasses 'all remunerated work that takes place in the home, including work that is carried out in an employment relationship as well as work performed independently by an own-account or self-employed worker.'" In spite of the lack of data on homework in Ghana's Labour and Living Standards Surveys, homework is found in all the three main sectors of the economy - Agriculture, Industry and Services.

The term homeworker typically conjures up images of a woman working from home for a globally recognised label or more recently, a gig worker providing services for others via the internet. Prügl and Tinker (1997) identify four categories of homeworkers. The Ghanaian context allows for an appreciation of workers in all of these categories: crafts for tourists (and non-tourists), food production, industrial and the gig economy. However, with respect to the industrial category, homework in Ghana differs from the concept as first elaborated by Mies (1982) in one significant way. While the Indian homeworkers Mies (1982) identified were largely incorporated into the global economy as industrial workers, Ghanaian homeworkers who work in the industrial sector are only tangentially incorporated into the global economy. While the former produce items for onward completion in a factory, Ghanaian homeworkers produce finished products mostly for the local economy. Another important distinction between Mies' (1982) work on homeworkers and the Ghanaian context is that unlike the original conception of homework that emphasised the invisibility of homeworkers, not all homeworkers in the Ghanaian context are

as invisible. In the agro-processing as well as in the arts and crafts sectors, we found that some homeworkers undertake their productive activities outside the domestic sphere, often in groups.

Homework is also undertaken by workers in both the public and private formal and informal sectors as well as among all categories of employment status. In addition to the failure to collect data on homework, it is also the case that workers in other employment relationships sometimes combine this with homework. For example, some formal sector employees particularly those in the agricultural sector engage in homework on weekends for clients they probably first met in their duties in the formal sector. Similarly, workers that have been contracted to produce specialty foods for shops can also retail some of their products themselves. In other words, they are simultaneously home-based workers and homeworkers.

The research also established that homework exists in a spectrum of relationships. While some workers are 100% homeworkers, others are engaged in homework to differing degrees up to about 10-15% of their time and income. In other words, there are homeworkers who commit their entire work time to it, earning all of their income from their homework activities, while others devote varying percentages of their work time to homework and therefore earn incomes from other sources as well.

As already mentioned, homework exists across all three sectors of the economy, specifically in the sub-sectors of agro-processing, arts, crafts, and industry, as well as in ICT and platform services. In agro-processing, the activities are concentrated in the processing and production of food items such as cassava products, rice, fruit juice, biscuits and pepper sauce as a condiment. Other areas are in soap making, oil production, and medicinal products and packaging. In the area of arts and crafts, homeworkers produce sandals, bags, key holders, Kente (woven cloth) and baskets. In the industrial sector, homeworkers produce finished uniforms for the local market. In the services sector, there are a range of workers such as software developers and engineers, digital artists, translators, transcribers, video editors and freelance journalists.

These activities straddle the formal and informal economies in that there are written contract-based jobs that come with tax obligations and involve registered companies on the one hand, and transactions that involve neither written contracts nor tax obligations, on the other hand. Written contracts are usually used to contract highly specialised workers in the information technology sector, who are relatively highly paid. What is common for homeworkers in both formal and informal sectors and in agriculture, industry and services is the lack

of benefits, paid leave, health and safety provisions, insurance, social security and pensions. The lack of health and safety provisions for workers in the informal economy make them even more vulnerable to the economic impacts of COVID-19. Given the lack of benefits as well, workers in this sector will necessarily find themselves in particularly difficult economic circumstances since work opportunities have disappeared as a result of the COVID-19 pandemic (ILO 2020).

With the exception of the industrial sector, oftakers of the produce of homeworkers operate in both local and international markets across the other three sectors. For instance, in the services sector, skills in translation, video editing, writing, software engineering and transcriptions are in high demand among various international employers such as banks, academics and NGOs. For the arts and crafts sector, there are contractors on the international market who are interested in Kente fabric, beaded sandals and woven baskets. Similarly, in agro-processing, there is demand for products such as gari, fruits, shea and cocoa butter and soaps. Some of these products are also sourced for local markets. These oftakers can be either companies or they can be individuals.

Some homeworkers work by themselves while others, particularly those in agro-processing, work in groups. Some homeworkers had a loose network of skilled people with whom they shared contracts, particularly when the task could not be completed by one person. Homeworkers may also employ casual labour for the duration of a contract or in a more open-ended relationship. Such casual labourers are paid based on established norms in their sectors. These can be daily wages, a monthly salary or on a commission basis. In a few cases, some casual labourers received meals. In one case, permanent workers were also given accommodation. Others entered into sub-contract arrangements with other homeworkers to fulfil contracts and paid the sub-contractors on the basis of established norms in particular sectors. For example, in the case of a homeworker in the information communication technology sector who was part of a loose network, the person who won the contract got 50% of the earnings and the rest was shared among the sub-contractors. In other cases, a fixed amount is paid for the type of work done, and this is used in the Kente weaving business for example. Some of the highly paid ICT and data homeworkers are required to work alone due to non-disclosure agreements entered into with their employers. Some homeworkers also rely on family members to complete tasks. Often these family members are paid in kind for services rendered.

In terms of gender, educational levels and profiles, homeworkers in agro-processing, especially those processing traditional foods and raw materials are mainly women with very little formal education who earn generally low wages.

Nonetheless, these low wages are an improvement on what they would earn without these arrangements. The arts and crafts homeworkers tend to include both men and women who are semi-skilled artisans. While their earnings are better than those of the agro-processors, they earn only a fraction of what their high-end goods are sold for both within country and abroad. The homeworkers working in the service sector (data and ICTs) are the highest earners, and while the sector had both men and women, it was gender-segmented in terms of positions, tasks and skills sets, and this appeared to translate into differences in earnings.

In several homeworking arrangements, there are intermediaries who serve as aggregators and quality controllers (e.g. shea butter production) while guaranteeing the homeworkers good prices. Some of these intermediaries are individuals who work in the formal sector in other capacities or are ex-state employees. They could also be organisations such as NGOs and shops. These individuals and organisations, who can be based locally or abroad are often knowledgeable about trends in consumption, highly connected (locally and globally) and with access to the state and niche markets.

There are two kinds of intermediaries - those focused only on the aggregation of the produce and those who combined aggregation with production. For example, in the shea industry, there are companies such as TAMA that are both producers and traders in the goods produced (TAMA produces cosmetics from shea butter processed by homeworkers). Those focused solely on aggregation included Ve Flavour Foods, who purchased oil palm produced by women in Ve in the Volta Region of Ghana which they then sold to consumers in Accra, the capital city; the Widows and Orphans Movement, who aggregate shea butter from their members to be supplied to pre-determined buyers; and the Bolga Basket Weavers Association, who aggregated baskets woven by women in the villages for export and sale in local markets.

There were differences in levels of engagement between homeworkers and their employers. Employers were influenced by various considerations - welfare and cooperative concerns, fair trade certification obligations and pure commerce. Those with multiple aims and objectives tended to forge multifaceted relationships, as opposed to the more arms-length approach of those for whom these arrangements were purely commercial. These differences in motivations were reflected in variations in homework arrangements. Some employers provided advance payment for products while others waited until the product is delivered to them, and still others waited until they had been paid for the product by buyers before paying homeworkers. Some employers and aggregators provided equipment, training, loans and in one case, they were even engaged

in forward buying, i.e. they bought the product even when they did not have a buyer to support the producers. Another variation in homework arrangements was the regularity of contracts. Some contracts were one-off. For example, some people organising a wedding would contract the production of souvenirs. Sometimes it would be at the start of the school year, when some people would be contracted to make uniforms for school children on a homeworking contract, and there were some in between with more or less regularity.

Homeworkers in the Agro-Processing Sector

Homework as part of an agricultural livelihood portfolio

A key feature of homeworkers in the agro-processing sector is the fact that very few respondents were engaged in homework full-time. Homework is part of a livelihood portfolio and can constitute either a substantial or small part of an individual's livelihood portfolio. Homeworkers in the agro-processing sector are typically farmers as well who earn extra income by converting the fresh produce they harvest into processed foods. This was particularly true of gari processors. Some homeworkers we interviewed combined homework with work in the formal economy. These workers, most of whom are female, work for the Ministry of Food and Agriculture and parlayed the skills and the knowledge and connections gained in the formal economy into homework in the agro-processing sector.

Group Membership in the Agricultural Homework Sector

A second key feature of homework in the agro-processing sector is the organisation of workers into groups. In both the palm oil/palm kernel oil and the shea butter sectors we investigated, groups of women can be found working together to process collectively. These collective initiatives had either been started by the women themselves or by an NGO. There are both economic and non-economic benefits to this collective arrangement. The economic benefits of such an arrangement include the opportunity to leverage group membership to access resources such as bank loans and labour-saving devices that are otherwise difficult to secure as an individual.

Some shea butter producers in the Upper East Region of Ghana have been organised into a collective by the Widows and Orphans Movement (WOM) since 1993. WOM serves as an intermediary between the homeworkers processing shea and a range of buyers both local and international. The NGO has offered these women training and technology that has greatly improved the quality of the shea butter they produce and thus improved the marketability of the product. Only women who have joined the organisation can benefit from the

training. Currently, there are 300 women registered with the organisation. These women have been organised into ten (10) groups of thirty (30) members each.

When it comes to payment for the services of the homeworkers, the organisation uses different approaches. There are times that funds are provided upfront before the product is processed. If the buyer is requesting large volumes, the organisation gives the women's group half of the money upfront. When the processing is done and the shea butter is supplied, then the remaining balance is paid. If the order is small, the women process first and receive the payment upon delivery of the processed shea.

The NGO operates two models of homework with two different groups of women. The older model, begun 25 years ago is what we describe as the social welfare model while the newer model, which they set up in the last couple of years is a more commercial arms-length model. The two models can be distinguished by marital status as well as the terms and conditions of the contractual arrangements. While the social welfare model is restricted to widows, the commercial model is open to married women as well. In the social welfare model, the group has a relatively stable contract arrangement with the organisation. Even when the organisation does not have a contract to supply shea butter, widows can bring the shea butter they have produced to the organisation and receive payment for it. Such an offer is not presented to those who have been incorporated into the commercial model. They have to take their shea butter to the open market when there is no order to fulfil. Thirdly, the social welfare model also provides the women with raw materials, in this case, shea nuts. Those incorporated into the commercial model of homework have to procure their own raw materials. Similarly, while in the social welfare model, pre-financing can be arranged, this option is not offered to those incorporated into the commercial model. Social protection schemes, such as assistance with health insurance fees is also offered to those incorporated into the social welfare model and not to those incorporated into the commercial model. For the women incorporated into the commercial model of homework therefore, access to a ready market is the main benefit. Given the pandemic, clearly those widows incorporated into WOM using the social welfare model are in a much better position than those incorporated into the more commercial, arms-length model.

The social benefits of group membership include social support particularly during periods of bereavement. Women who processed their oil at the centre also suggested that they felt temporarily freed from home and the problems of domesticity. Such women pointed out that prior to processing at a centre with

others, they had tensions with their husbands over domestic work. Once they worked from home, it was difficult for husbands to appreciate that they needed to concentrate on their productive activities for specific periods of time.

Traditional and non-traditional food production in the agro-processing sector

Homeworkers in the agro-processing sector process a combination of traditional and not so traditional foods. Those who process traditional foods convert cassava into gari, palm fruit into palm-oil or palm kernel oil or coconut into coconut oil and nuts into snacks of various sorts. There are homeworkers processing cassava into flakes and flour for export or use in industrial production. Youthfulness and educational levels are key determinants of the kinds of foods that homeworkers will process. In the shea butter industry for example, the Widows and Orphans Movement cognisant of the changing demands of the consuming public are encouraging the younger women who are participants in the newer groups they have formed to process not shea, but newer products such as neem tree oils and baobab oils. Members of the groups they formed 25 years ago, however, continue to process only shea, and not any of the newer commodities rural women are being encouraged to process.

In similar fashion, more educated women who venture into agro-processing as home-based homeworkers usually focus on the processing of healthy foods and snacks for the small but growing niche market comprising health-conscious Ghanaians both at home and abroad. These women tend to have tertiary education and would have quit jobs in the formal sector to focus on agro-processing. One such person is Khalilah. Khalilah is a university graduate and a married mother of two in her early forties who describes her decision to become a home-based worker engaged in homework in the following words:

I used to work in the government sector, but we relocated to our own house which is very far from the city centre. Considering traffic in and out of town, it was too much. I would leave the house by 4:30 am and get home at 9:00 pm. It started taking a toll on me and the family as well. By the time I got back from work, the kids were asleep. I had to wake up at dawn to fix their supper before I left for work. It was all taking a toll on me. And considering how much I was paid, it was not worth it. I was wasting all my energy on the road and not in the office or the house. So, I thought of something I could do to make money, have time to rejuvenate, and then when the traffic situation improves, I could go back to the office. Unlike before when I woke up at 4:00 am and was running all over, the distance from where I work to the house is just a 2-minute walk. So even if I leave my house at 7:30, I will definitely get to work before 8:00 am. So, I have enough time on my

hands to attend to the family, give them the best that I can humanly do. So, I will say the family is benefitting more now than before.

(Darkwah and Tsikata 2021: 20)

Labour relations of homeworkers in the agro-processing sector

The labour requirements of agro-processing vary widely even in the processing of fairly similar products due largely to the availability of specific mechanised components of the production process such as milling machines for cracking open the palm nuts to extract palm kernel oil. Due to the availability of more machines to reduce tedium, producing palm kernel oil is far less labour intensive than producing palm oil. Nonetheless, even with mechanisation, it takes twice as long to process palm kernel oil than it does to produce palm oil. Homeworkers producing both products relied on machines where available, family labour and hired labour to enable them produce in a reasonable period of time.

Family members were assigned specific tasks for which some were paid and others not. In the oil palm industry for example, young family members are usually tasked to loosen the fruits, pound, stir as well as fetch water and firewood. While they are often paid for pounding, tasks such as fetching water are very unlikely to attract payments. Husbands very rarely participated in the processing of palm into oil palm. In the shea butter industry, young people usually pick and crack the shea nuts, fetch water or harvest firewood to assist their mothers.

Another form of labour employed in the agro-processing sector is what can be described as exchange labour. In exchange labour, when a group member takes ill, members of the group would process the product on the person's behalf. The earnings from the sale of the product are then shared between those who did the work and the sick owner of the produce, with the sick person receiving a smaller proportion than those who did the work. This arrangement guaranteed a source of income to women in times of crisis.

Sometimes, with the exception of the shea butter industry, workers are also hired to undertake specific aspects of the agro-production process. A typical agro-production enterprise that relies on hired labour is cassava processing. Workers in this enterprise are usually hired on contract to undertake a specific activity and paid a specific amount of money for accomplishing that task. Casual workers who assist in processing cassava into gari often peel cassava for a daily wage of 10 cedis (\$1.80) a day. In addition, they are served lunch daily. The amount of money paid and the extra benefit of lunch are agreed orally. Workers in agro-processing enterprises that produce non-traditional foods such as healthy snacks are more likely to have a formal agreement covering the terms and conditions of work and are generally paid more than workers producing

traditionally processed foods. Neither group receives social protection benefits though and are thus likely to have suffered great income losses as a result of the pandemic.

Advantages of homework in the agro-processing sector

In rural communities in particular, homework offers a major advantage especially for farmers who engage in it as part of their livelihood portfolio. In such communities, many farmers process the raw materials they grow in order to make more money. However, with so many of them processing similar items, marketing is a challenge especially during periods of glut when prices are generally low. In the shea butter industry for example, prices fluctuate quite severely between the dry and rainy season. During the dry season when the nuts are not in abundance, a unit of shea butter goes for 50 Ghana cedis (\$8.25). This drops to nearly half the price, 30 Ghana cedis (\$5) during the rainy season. In addition to the lower price, the glut makes it difficult to sell what women produce. Producing as a homemaker therefore relieves these women of the burden of finding an outlet for their produce. A similar situation prevails in the oil palm industry as well where offtakers relieve the producers of the burden of being stuck with goods for long periods of time. A final advantage to offering processed goods to offtakers is the fact that homeworkers then receive cash in bulk which they can use to cover major expenditures such as children's school fees. Nonetheless, there are quite wide gaps between the prices that offtakers pay producers and the prices at different levels of the value-chain. The ability of offtakers to continue to buy from these processors in bulk is likely to have been undermined with the pandemic. These processors might therefore find themselves stuck with goods they cannot sell for long periods of time.

Homeworkers in the Arts and Crafts Sector

Homeworkers in this sector work in both arts and crafts traditionally made in Ghana, or Africa generally, as well as crafts that have been introduced into Ghana over time. With respect to the former, there are four major kinds of arts and crafts produced; woven fabrics, baskets, wood and leather artefacts. With particular reference to leather, migration has made it possible for Ghanaians to incorporate the designs and techniques of the Senegalese, Burkinabe, Malian and Kenyans into their craft. Over time, Kente is now produced in factories both in Ghana and China. The handwoven Kente that is produced today is also quite different from what was produced in the past. Today, there are a wider variety of colours of thread used as well as designs (Amanor-Wilks, 2015). In the basket industry as well, there are now different colours, different shapes and different items such as woven coasters. The market for all these products is both local and international.

Homeworkers in the Kente industry

In the communities known for weaving Kente, production is both male dominated and gender segmented. Amanor-Wilks (2015, 2016) in a survey of 10% of the households in the town of Bonwire, the town most famous for the production of Asante Kente, found that only 2.48% of the weavers were female. Many cultural taboos keep women away from the production of Kente. Thirty-one-year-old Elikem at Kpetoe recalled that as a child, women were prevented from touching looms. Any woman caught doing this was fined a sheep as a form of penance. In spite of the prevailing cultural prohibitions on women weavers, a few women have broken this barrier with the support of male family members and friends. Although women are now being introduced to the art of Kente weaving, their initiation is limited to design weaving as opposed to speed weaving. Design weaves are the luxury end of the Kente market and limited to a small group of clients who appreciate the value of a design weave and can afford to pay higher prices for them. Design weaves take longer to produce and are more expensive. At an average price of 800 Ghana cedis (\$160), they cost at least twice as much as speed weaves but do not sell as quickly. However, our female respondents prefer the design weave because it is not as physically taxing as the speed weave. In addition, their reproductive roles limit how much time they can devote to weaving on a daily basis. They therefore prefer to spend small amounts of time each day producing what will eventually earn them more when completed.

Individuals in these communities learn to produce the items from a very early age, sometimes as young as 8 years of age (Amanor-Wilks, 2016). One such person we met was now 28 and had been weaving for the last two decades. He earned all his income from Kente weaving to which he devoted his entire work time. He earned the equivalent of \$6 for a day's worth of work. This sum was only for labour with no provisions for social protection. If he does not receive work orders during this pandemic therefore, he and others such as him will have to rely on savings from their meagre earnings for survival.

Labour arrangements in the arts and crafts sector mirror those in the agro-processing sector for the most part. Homeworkers draw on family labour to help with some aspects of the production process and pay such family members for their services. In the Kente production chain, family labour is used for spinning or rolling the thread. Sometimes, workers might be hired to perform this task. A key labour arrangement in the arts and crafts sector that is missing in the agro-processing sector is the use of apprentices. Apprenticeships offer young people

a means of learning skills for the production of arts and crafts. For homeworkers, apprenticeships offer a means of cutting down on labour costs since apprentices are the ones who pay for their training until they graduate. The master weaver might offer the apprentice both meals and housing for their services. With the general loss of incomes across the country wrought by COVID-19, families will be less able to support their young ones in apprenticeships. Homeworkers who rely on apprentices will therefore have to start paying for labour. Given the generally low incomes they receive, this will increase their costs of production and ultimately lower their earnings.

Homeworkers who weave baskets

Basket weaving, unlike Kente weaving, is the preserve of women in the Upper East Region of Ghana. However, as with Kente, this is changing. Unlike Kente, however, where women's social networks are an important source of this change, in the basket weaving sector, the change is attributed to the actions of a Canadian man living in one of the major towns of Upper East Region of Ghana, who had recruited men to work as homeworkers for him. It is arguable that in spite of the high visibility of a single individual, other processes had already propelled men into basket weaving, given that the men recruited by the Canadian were already skilled in basket weaving. The Canadian offtaker expected each homeworker to produce three baskets a week. For these young men who combined homework with a range of other activities including in the case of one young man, tertiary education, working for this particular offtaker was fairly lucrative. At the time of the study, the inputs for each basket cost 50 Ghana cedis (\$8.50) and the offtaker paid 120 Ghana cedis (\$20) for a basket, as opposed to 100 Ghana cedis (\$16.50) on the open market.

Homework in the basket weaving sector of the economy has clearly opened doors for young men while restricting opportunities for women. Apart from the higher wages that young men receive from selling to this particular off-taker, they also have a stable contract with the offtaker and are therefore assured of an income as long as they can produce three baskets a week. In addition, the offtaker provides the dye for painting the baskets, thus eliminating one source of possible conflict over the quality of the final product. Third, the offtaker had also introduced new designs onto the market, such as the Moses basket for babies, which had become largely the preserve of the young men.

An important difference between the young men and women basket weavers, was the former's wider use of smartphone technology. The young men invested in smartphones which enabled them to receive the offtaker's specifications and

instructions via WhatsApp. They were also using WhatsApp, Facebook and Instagram to prospect for better career paths in the sector. Some showcased their work online, and several of them expressed the hope that someone might contract them as agents or intermediaries in the procurement of baskets and other arts and crafts. Some of them also aspired to become exporters themselves. Unlike the women, the young men positioned themselves to move up the value chain. Women's limited access to electronic gadgets and lower levels of education had a negative impact on their options for moving up the value chain.

In spite of clear benefits to young men in rural areas, there were disadvantages associated with being homeworkers. Even though only a few of them work full-time for the offtaker, he treated them as though they were full-time workers. He was in the habit of making impromptu inspections of their activities and expressing unhappiness if he did not find them at home making baskets. Thirty-two-year-old Attoh explained the situation as follows:

With the contract homework, the employer would regularly check on the employees. Usually, they visit unannounced. With the no contract homework, the employee knows what the employer wants and so will deliver. With this, they do not have to check on them. This gives them freedom to work.

(Darkwah and Tsikata 2021: 29)

A second disadvantage of working with the Canadian was the fact that he did not allow homeworkers to sell the products that did not meet his specification on the open market as a strategy to protect his right to the patented design he had given them. He would seize the baskets that did not meet his specifications. This basically translated into unpaid labour for the homeworkers as the offtaker did not pay them for the rejects. Thirdly, there were no pre-financing arrangements for the production of the baskets. Initially, offtakers pre-financed production, but after several instances of workers not complying with the agreed terms and conditions, they had stopped the practice.

Ultimately, though, the young male homeworkers were incorporated into the global market on terms and conditions different from what women homeworkers had, which offered them better prospects. Unlike the young men who worked as homeworkers for an offtaker, women worked with multiple agents and intermediaries who came to the community to take their products for onward sale. Some offtakers were so episodic that once they gained the trust of the women, they would buy the goods on credit and fail to return to pay. Thus, in the basket weaving industry, homework had produced benefits for young men that women for whom basket weaving had been a traditional income earning activity, did not enjoy. Young men's reliance on the production of baskets

sold largely as exports for an income had been greatly undermined by the COVID-19 pandemic. With the worldwide contraction of incomes, foreigners' ability to purchase luxury items such as these baskets has ostensibly declined, thus undermining the incomes of these young men.

Homeworkers working with leather

Unlike the homeworkers described above who are producing quintessential Ghanaian products, there are other homeworkers working with raw materials introduced into Ghana from neighbouring countries. One of our respondents, Francis, who produced leather goods, represents one such group of homeworkers in the arts and crafts sector. He learned the skill of leatherwork while living in Senegal and married to a Senegalese woman. Francis, now 58 is divorced with two children. After many years of living abroad in Senegal, Germany and the United States, Francis had returned home three years before the interview with a renewed appreciation of the arts and crafts sector and had decided to resume work in the sector. Francis now makes leather sandals, Kente bags, key holders and other products for some major hotels, exporters and other individuals. Francis employs four workers with disability to help in his business. Their tasks are to sew the pre-cut materials into bags. He pays them per bag made and also provides them with housing. Given the closure of hotels as a result of the pandemic, Francis has lost a major market for his products. Both he and his employees are therefore financially insecure as a result of the pandemic. Neither Francis nor his employees, and for that matter homeworkers in the arts and crafts sector, have social protection of any kind that they can fall back on in these trying times.

Industrial homeworkers

This group of homeworkers come closest to the more dominant global conception of homeworkers as individuals with vocational skills working piece-rate for an industrial enterprise. Unlike the homeworkers described by Mies (1982) who produced garments at home for large globally recognised labels, however, these individuals worked for both individuals and institutions such as schools, hotels and various companies making either uniforms or work attire. One such homeworker is 55-year-old Angela. Married with five children, Angela owns a vocational school in Cape Coast. She began to engage in homework a decade ago. That year, one of the many schools in Cape Coast announced on radio that they were looking for seamstresses to make anniversary cloths for their students. Angela went to the school to express interest. Her vocational school was one of several selected to make the clothing for the students. Since then, she has been making uniforms for schools annually. She is given a specified number

of uniforms to make in particular fabrics and in different sizes and she spends the months of May through August when students are on vacation making the uniforms in readiness for the first term of school in September. Both teachers and students of her vocational institute assisted in the production of the uniforms. When the contract was for a rather large number of uniforms, she would sub-contract to some seamstresses in her neighbourhood as well. These sub-contracted workers (current and former students, teachers and local seamstresses) are paid per item upon completion of the uniforms. She pays them less than what she is being paid per item by the schools.

In the past two years, government policy has changed the way she engaged with the schools. A new directive from the government now entrusted the production of the uniforms to suppliers of the fabric. This centralised the production of uniforms. Under the new system, the schools she used to sew for had to recommend her to the fabric suppliers who would in turn contract her to sew for them. Angela found the new arrangement problematic because it had centralised the entire process of awarding contracts for uniform production in Accra, making it less likely that individuals living outside the city like herself could participate in this income generating opportunity. With the COVID-19 pandemic, however, Angela is not the only one who has lost an income generating opportunity. With schools closed for nine months in 2020, all those who relied on school uniform contracts for a living lost a major source of income. Even when schools reopened, there is a high likelihood that the numbers of uniforms such homeworkers have been required to sew will be vastly lower than previously given that the earnings of parents have dwindled significantly across the country.

Homeworkers in the Services Sector

We interviewed 7 people working as homeworkers in the services sector. These individuals were by far the most educated of the research sample we had. Three of them had postgraduate degrees in various fields (African Studies, Wire and Mobile Applications and Filmmaking) and 3 others had a first degree. One of them, however, had dropped out of university because in his words, “I did not need that kind of knowledge anymore” (Darkwah and Tsikata 2021: 35). The range of services these individuals provided varied widely. One was a digital artist who combined motion graphics, animation, script writing and narration to develop content for various clients. Another transcribed, edited and translated text. A third edited music videos and films from home while a fourth who was an animator offered services in advertising. Some of them had profiles that were typical of employees in the digital economy. A good example was 34-year old Patricia who had a bachelor’s degree in Business and Information Systems

and a Postgraduate Diploma in Wireless and Mobile Application. After graduation, she worked in the private formal sector as a software developer. Long hours working at night and having to deal with morning traffic led her to quit her job in the formal sector so she could achieve a better work life balance. Since 2017, Patricia has worked full-time as a homemaker offering services, specifically mobile and web applications, to the banking and agricultural industries in both Ghana and other African countries.

The homeworkers in the service industry were also the ones most likely to have a contract with their employers. Contracts often indicated timelines for the tasks to be undertaken and the amount of money they could expect to be paid. For one worker involved in various aspects of cyber security, his contracts also included non-disclosure agreements (NDAs) that prevented him from working with others. The terms of his contracts often included a delivery period, a disclosure period, tools to be used for the work, a requirement to document all the steps taken in delivering the task, giving up intellectual property and grounds for termination. None of the contracts all seven individuals received included benefits such as healthcare and pension arrangements. For the most part, the workers interviewed did not belong to any workplace association or union. Only one of them, the filmmaker, was a member of the Film Editors Guild, but she pointed out that the association was weak and unable to regulate fee rates and social protection conditions for its members.

For these workers, the pandemic has been both a blessing and a burden. On one hand, given that much of what these workers do is done online, they are the ones least likely to have been burdened with mobility issues due to the pandemic. To these workers, the idea of working from home is not new and so their adjustment to the work-related changes wrought by the pandemic would have been minimal. However, like workers in all other sectors, their options for work in this period have shrunk and the lack of social protection in the contracts they sign means that they have no fall-back options in these rather difficult economic times.

Some Concluding Remarks

To conclude, we offer five points that raise issues that are key to understanding homework and the conditions of homeworkers in Ghana. First, there is a lack of data on the subject because certain categories of workers are not identified in labour surveys. Although over the last three decades, the Ghana Statistical Service, in its Ghana Living Standards Survey and the Ghana Labour Force Survey, has collected a variety of labour statistics on a fairly regular basis, neither of

these include a section on homeworkers. As a category of workers then, homeworkers are completely invisible in labour statistics in Ghana. This invisibility in labour statistics has been translated into the policy domain as well. Neither the Labour Act of Ghana (Act 651 of 2003) nor employment policies take this category of workers into account. Additionally, while executives of the Ghana Trades Union Congress (GTUC) who were interviewed recognised the existence of homeworkers in Ghana, they did not have an agenda to organise and represent this group of workers.

The second issue is the wide spectrum of work in the Ghanaian context with terms and conditions that qualify as homework. Some of these, particularly in the ICT and knowledge sub-sectors, are more formal and involved written contracts. Many others, particularly in the agro-processing and arts/crafts sub-sectors, are more informal and were governed by oral agreements. Some individuals had a one-off homeworking relationship with a client while others had a more regular homeworking relationship with one or more offtakers. While some homeworkers entered into agreements with a wide variety of clients or offtakers, others worked with one or two over the long term. Finally, while there are individuals who worked full-time as homeworkers, we found that many more people are likely to engage in homeworking alongside other home-based work or, rarely, alongside formal employment.

Third, an understanding of homeworking and homeworkers in the Ghanaian context requires an appreciation of the complex dynamics underpinning and characterising this category of work in order to have a more complete understanding of the ways in which it does or does not mirror homeworking/homeworkers in other parts of the world, particularly in economies with a much larger industrial manufacturing sector than Ghana. This study is preliminary in this regard, however, it has provided information for further research and for policy and regulatory reform. With regard to policy issues, there is a clear need to reform labour surveys to enable home-based work and homework to be captured systematically to provide knowledge about its prevalence, variations and terms and conditions. Related to this, surveys should include questions on places of work, and what percentages of time and income are represented by different kinds of work. Another urgent need concerns the serious limitations of the Labour Act which offers substantive regulation to the less than 30% of formal workers, while largely ignoring the needs of the more than 70% of the informal labour force that includes homeworkers. Regulations are needed to address issues such as training, the provision of tools of work, paid leave, associational life, health and safety, insurance, regular wage reviews etc. The Employment Policy and social security arrangements also need reform to make them more fit for the purpose of increasing decent work in Ghana. The

labour inspectorate system also needs to be reoriented and equipped to support the development of decent work in Ghana. Ultimately, because labour relations are a function of the structure of the economy and society, policy reforms will be limited in their effectiveness unless the structure of the economy undergoes fundamental change.

Fourth, while globally, the labour value chain often conceptualises homeworkers as at the lowest end of the value chain, in the Ghanaian context, some homeworkers had entered into contract arrangements with other workers who were also invisible in labour statistics and analyses. This was particularly true in the agro-processing sector of the economy. Here, some homeworkers relied on contract workers for either the raw materials that they then converted into processed goods or part-processing of the goods that they then finished for their clients. In terms of wages and conditions of service for such contract workers, they were even more exploited than the homeworkers who hired them.

Finally, Ghana's economy is largely informal. In 2016/2017, 71.3% of Ghanaian workers (72.8% of males and 68.3% of females) were employed in the informal economy (GSS 2019: 74). Work in the informal economy is characterised by generally poor terms and conditions, precariousness, high levels of self-employment and home-based work in the context of a lack of scrutiny and regulation of the terms and conditions of informal work. Many workers in informal work, particularly in rural areas, live in poverty. Homework is just one of a number of categories of informal work available to Ghanaians that offer little beyond low pay and earnings. The precariousness of homeworkers as with all other kinds of workers in informal work in Ghana has been worsened by the negative impact of the COVID-19 pandemic. Moving forward, it is imperative that government conceptualises workers as of primary importance and designs programmes of support for Ghanaian citizens that enable them to live decent lives regardless of the sector of the economy in which they work.

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Energy



TRAJECTORIES OF SOLAR ENERGY DEVELOPMENT IN GHANA: DRIVERS AND BARRIERS PRE-COVID-19 AND BEYOND

Introduction

Energy development is widely recognised as a critical mechanism for economic and social development (Agyekum, 2020; Agyenim et al., 2020; Asumadu-Sarkodie & Owusu, 2016a). The Sustainable Development Goal 7 aims to ensure universal access to affordable, reliable, and modern energy services by 2030, as well as to significantly increase the share of renewable energy in the global energy mix (Energy for Growth Hub, 2019; IEA, 2020). Energy is central to a number of other SDGs, including those on gender equality, poverty reduction, health improvement, and climate change. (Crentsil, Asuman, & Fenny, 2019; FEEM, 2017; González-Eguino, 2015). Ghana's rising living standards, population growth and urbanisation have relatively increased its energy consumption, which is dominated by fossil fuels. In 2019, petroleum products constituted 47percent of the final energy consumed in the country (Energy Commission 2020). Nonetheless, the burning of fuels such as coal and oil emits the greatest amount of CO₂ into the atmosphere, contributing to global warming and climate change. (Akorede *et al.* 2012).

The Special Report on Global Warming of 1.5°C by the Intergovernmental Panel on Climate Change (IPCC) makes it abundantly evident that global greenhouse gas emissions must be decreased by 45 percent below 2010 levels by 2030 (IPCC

2018). To counteract these negative consequences, nations across the globe are pursuing steps to solve the problem by promoting the use of renewable energy (RE) via a variety of national programmes, including the Nationally Determined Contributions (NDCs) (IRENA, 2021). Ghana is no exception, having passed the Renewable Energy Act, 2011 (Act 832), which establishes a regulatory framework for the development, management, utilisation, sustainability, and adequate supply of renewable energy for the generation of heat, with the goal of increasing energy access and combating climate change (IRENA, 2015). Ghana's 2010 National Energy Policy likewise set a goal of incorporating 10percent renewable energy (excluding big hydro) into the power generating mix by 2020 (Ministry of Energy, 2010), a timeline that was recently changed to 2030 (Aboagye et. al., 2020). While renewables offer enormous potential to reduce reliance on fossil fuels, developing nations lag far behind the rest of the world in terms of renewable energy technology implementation (Malahayati, 2020, IRENA 2020). In Ghana, several obstacles stand in the way of renewable energy's integration into the national energy mix, including financial and monetary, technological and network, policy regulatory framework, over-reliance on a centralised system, and reliance on fossil fuel supplies (Oduro et. al., 2020). Renewable energy accounts for about 6¹percent of Ghana's total final energy consumption (Energy Commission 2020).

Ghana has an abundance of renewable energy resources, which include biomass, solar, wind, and, to a lesser extent, small- and micro-hydroelectric power (IRENA 2015). Because of Ghana's high daily irradiance levels (varying from 4kWh/m² to 6kWh/m²) and long yearly sunshine hours (ranging from 1800 to 3000 hours per year), the sun contributes a major share of the country's renewable energy (Asumadu-Sarkodie & Owusu, 2016b; Kemausuor et al., 2011). When compared to other renewable energies, solar energy applications account for 90percent of all renewable energy technologies in the country (Quansah et al., 2017).

Consistent with this, the Government has introduced various measures such as Net Energy Metering (NEM), a Renewable Energy Fund and Renewable Energy Purchase Obligations, to achieve a carbon neutral environment and energy security (Oduro et. al. 2020). The emergence of the COVID-19 pandemic in the latter part of 2019 has also led to a significant decline in energy generation using fossil fuels, while renewable power has gained new momentum (IEA 2020). To maintain the current pace and to meet the Sustainable Development Goals (SDGs) and the Paris Climate Agreement, the Government of Ghana and other

¹ Exclude wood fuels and large hydro (electricity consumed from solar, biogas and small hydro only)

private sector players in the country's solar business must restructure their policies and plans. As such, this chapter aims to address the following objectives: 1) ascertain the state of solar PV technology and related applications in Ghana prior to the COVID-19 pandemic; 2) identify the critical factors affecting development of renewable energy in Ghana; and 3) discuss the role of solar during and following the COVID-19 pandemic, as well as offer policy recommendations to assist the government in promoting and stimulating solar energy development in Ghana.

Solar Power in Ghana pre-COVID-19

Solar energy is regarded as a highly efficient and effective resource among the renewable energy sources for home and commercial use. Solar energy may be used to create electricity, either directly via the use of photovoltaic (PV) cells or indirectly through the use of concentrated solar power (CSP) technology (Hayat *et al.* 2019). According to Essandoh-Yeddu (1997), the worldwide boom in interest in solar energy technology trickled down to Ghana at a period when crude oil imports were the country's primary source of foreign money and inflows from important export commodities such as cocoa and gold lagged below forecasts.

Due to Ghana's tropics-based geographical position, solar radiation is accessible virtually throughout the year in all locations (Kemausuor *et. al*, 2011). Ghana is located between latitudes 50 and 120 N and gets between 4.0 and 6.0 kW/m² of solar radiation per day on a yearly basis (Essandoh-Yeddu, 1997). Additionally, the nation receives around 330 days of sunlight per year and an annual sunshine length of between 1800 and 3000 hours, which may indicate a significant potential for grid connection (Ackah, 2016; Asumadu-Sarkodie & Owusu, 2016b; Essandoh-Yeddu, 1997; Kemausuor *et al.*, 2011). Monthly average sunlight hours range from 5.3 hours in Kumasi, which is located in the overcast semi-deciduous forest zone, to 7.7 hours in Wa, which is located in the dry Savannah Region (Energy Commission, 2012). Solar intensities in Ghana are distributed as follows (Table 7.1): the Savannah Zone receives 4.0-6.5 kWh/m²/day of radiation from the sun; the Middle Forest Zone receives 3.1-5.8 kWh/m²/day of solar radiation; and the Coastal Belt receives 4.0-6.0 kWh/m²/day of solar radiation.

Since their inception, solar photovoltaic (PV) systems have drawn a great deal of interest and enthusiasm, particularly during times of energy scarcity. In Ghana, solar PV is helping to increase access to power for family lights, communication, water pumping, and rural vaccine storage (Kemausuor *et al.*, 2011).

Initiatives to electrify the general public using solar PV were first implemented in the early 1990s, and have since grown in popularity (Kemausuor et al. 2011).

TABLE 7.1: Distribution of Sunlight Radiation across the Ecological Zones in Ghana

Ecological Zones	Regional Locations	Sunlight Radiation (kWh/m ² /day)
Savannah Belt	Upper East, Upper West, Northern and upper parts of Brong-Ahafo and Volta Regions	4.0-6.5
Middle Forest Belt	Ashanti, Eastern, Western and parts of Central, Brong-Ahafo, Volta Regions	3.1-5.8
Coastal Belt	Greater Accra, coastal parts of Central and Volta Regions	4.0-6.0
Annual Monthly Average		4.4 – 5.6

Source: Energy Commission (2012)

By 1991, Ghana had roughly 335 photovoltaic (PV) systems totaling approximately 160 peak kilowatts (Kemausuor et al. 2011 as cited in Essandoh-Yeddu 1993, Institute of Economic Affairs 1999 and Obeng 2008). By December 2003, around 4,911 units had been deployed, totaling 1.0 peak megawatt (MWp) (Kemausuor et al. 2011). Between 2000 and 2014, approximately 38,200 solar home systems and lanterns were erected in over 120 towns around the nation for off-grid applications and 25 grid-connected projects, totaling 8 MW (Ackah, 2016; Asumadu-Sarkodie & Owusu, 2016b). The following systems were installed: a Solar Home System for basic house lighting, radio and TV operation; a Solar School System for classroom lighting and television for the Presidential Special Initiative on Distance Education; a Solar Streetlight System for lighting general meeting points such as markets, lorry stations, water supply points and critical busy paths/roads requiring visibility; a Solar Water Pumping System for the provision of water and irrigation; a Solar Battery Charging System for charging automotive batteries for operating TVs and radios in rural communities; a Solar System for communication and centralised solar systems for providing AC power to the grid (see Table 7.2). With such a diverse range of applications, demand for photovoltaic systems continues to grow. Additionally, three grid-connected solar panels have been installed at the Energy Commission (4.25

kW), the Ministry of Energy (50.0 kW), and the Kwame Nkrumah University of Science and Technology (4.25 kW) (4.25 kW) (Energy Commission , 2012).

TABLE 7.2: Solar PV Installations in Ghana

Solar PV Systems	Installed capacity (kW)	Generation (GWh)
Rural home system	450	0.70-0.90
Urban home system	20	0.05-0.06
School system	15	0.01-0.02
System for lighting health centres	6	0.01-0.10
Vaccine refrigeration	42	0.08-0.09
Water pumping	120	0.24-0.25
Telecommunication	100	0.10-0.20
Battery charging system	10	0.01-0.02
Grid connected system	60	0.10-0.12
Solar streetlights	10	0.04-0.06
Total	853	1.34-1.82

Source: Energy Commission (2012)

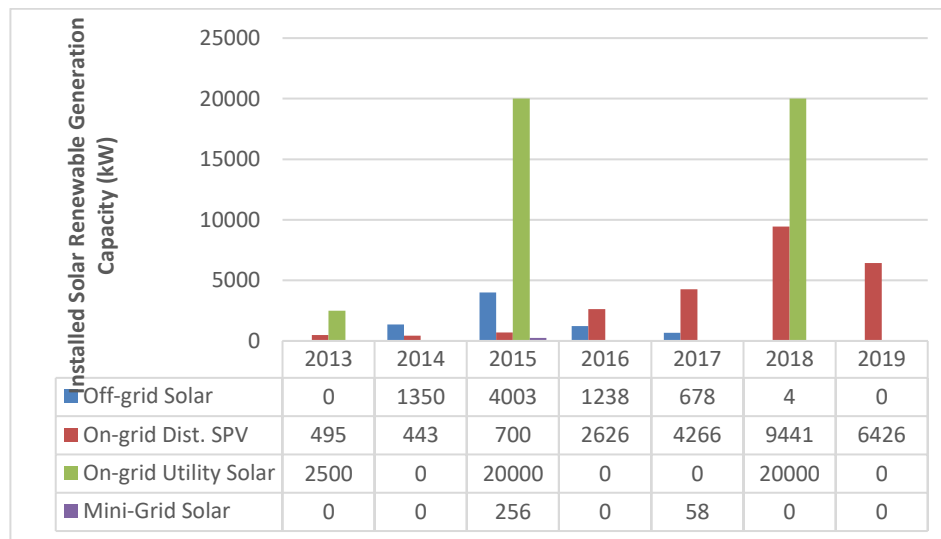
In light of global trends, the Government of Ghana (GoG) has selected renewable energy as one of the possibilities for diversifying the country's energy supply and mitigating the negative environmental impacts of energy production (Energy Commission, 2019a).

Energy production from Ghana's first grid-connected solar plant started in 2013, when the Volta River Authority (VRA) built a 2.5 MW solar facility at Navrongo in the Upper East Region, according to the Energy Commission (2020). A total of 3 GWh of solar energy was produced. In 2019, a 40 MW solar plant and a 100 kW biogas plant were built, bringing the total capacity to 52 GWh. As of the end of 2019, renewable energy accounted for 0.3percentof total power production in the nation. Figure 7.1 depicts the installed generation of Solar Energy across the different generation types from 2013 – 2019. Solar energy generation from utility solar panels has the highest share, with a generation capacity of 4,250 kW, while solar energy generation from mini-grids has the lowest share, with a generation capacity of 314 kW (ibid).

Ghana's Policies and Plans for Promoting Solar Energy

Ghana has implemented a number of policies and targets to promote the development of renewable energy technologies in order to advance broader national objectives such as diversifying energy supply, enhancing energy security, expanding energy access, fostering innovation, and combating global

Figure 7.1: Installed Solar Renewable Generation Capacity (kW)



Source: National Energy Statistics, Energy Commission (2020)

NB: Dist. SPV = Distributed Solar PV

climate change. Targets send a high-level signal to various actors in order to encourage investment in renewable energy, and they serve as the foundation for many of the support policies and measures (IRENA, IEA and REN21,2018). When it comes to renewable energy, Ghana has implemented a wide range of policies. These include policies requiring utilities to purchase renewable energy from independent power producers, as well as policies addressing regulatory and institutional barriers and government procurement. Table 7.3 gives a summary of the various renewable policies and plans in Ghana.

These policies all have a common goal of expanding and developing renewable energy potential in Ghana through the establishment of realistic frameworks and the formulation of constructive initiatives. (Park, 2018).

TABLE 7.3: Renewable Energy Policies and Plans

Policies/ measures	Year	Provisions
RENEWABLE ENERGY PROMOTION POLICIES		
Ghana Energy Development and Access Project ((GEDAP)	2007	<p>The objective of the Energy Development and Access Project in Ghana is to improve the operational efficiency of the electricity distribution system and increase the population's access to electricity. The project has three main components:</p> <ul style="list-style-type: none"> • sectoral and institutional development, which will through technical assistance, capacity building, and studies, strengthen the capacity of key institutions participating in the project; • distribution improvement, which involves the construction of eight new 33/11 kV sub-stations along with the feeders; the construction and strengthening of bulk supply points; and upgrading of existing sub-stations in several targeted distribution areas; and • (c) electricity access and renewable energy, which involves setting up a new institutional, regulatory, and financing framework for access expansion in addition to providing financial support to various sub-components of the access expansion programme²
Strategic National Energy Plan	2006-2020	<p>The goal of the Strategic National Energy Plan (SNEP) is to contribute to the development of a sound energy market providing sufficient, viable and efficient energy services required for economic development. The Plan seeks to identify the optimal path for the development, use and efficient management of the country's energy resources. In terms of renewable energy, the Plan seeks to:</p> <p>Increase use of renewable energy sources to 10percent of the Ghana energy mix by 2020;</p> <p>Achieve 30percent penetration of rural electrification via renewable energy technologies by 2020³</p>
National Energy Policy	2010	<p>This policy sets the goal and strategies to:</p> <ul style="list-style-type: none"> • Increase the proportion of renewable energy in the total national energy mix and ensure its efficient production and use • create fiscal and pricing incentives to enhance the development and use of renewable energy.
Energy Sector and Development Plan	2010	<p>The Energy Sector Strategy and Development Plan (ESSDP) emphasises 'increasing the renewable energy supply in national energy mix to 10percent by 2020', echoing a similar statement from the SNEP. The strategies are to:</p>

² *Ghana - Energy Development and Access Project (English)* Washington, D.C.: World Bank Group <http://documents.worldbank.org/curated/en/578491468249681425/Ghana-Energy-Development-and-Access-Project>

³ IEA/IRENA Renewables Policies Database

		<ul style="list-style-type: none"> • Promote the establishment of dedicated woodlots for woodfuel production; • Promote the production and use of improved cookstoves; • Support development of biofuels as a transportation fuel as well as job creation initiative by creating appropriate financial and tax incentives; • Promote the exploitation and use of mini-hydro, solar and wind energy resources; and • Provide tax incentives for the importation of all equipment used in the development of renewable and waste-to-energy projects.
Sustainable Energy for All Project (SE4ALL)	2012	<p>The Ghana SEforALL Action Plan developed in 2012 sought to address three key areas:</p> <ul style="list-style-type: none"> • Provision of Off-Grid Renewable Energy-Based Power Solutions for Remote Communities; • Access to Modern Energy for Cooking; and • Productive Use of Energy - Ghana's SEforALL <p>The Action Plan has been updated into an action agenda that encompasses all energy-related actions needed to achieve the three global SEforALL goals</p>
The Scaling-Up Renewable Energy Programme in Ghana (SREP) Investment Plan (2015),	2015	<p>The objective is to assist the GoG in meeting its 10percent renewable energy target by 2020 as well as its universal electrification goal through the implementation of flagship renewable energy investments that would provide models for scale-up and leverage additional private and public financial resources to the country's renewable energy sector</p>
Renewable Energy Master Plan	2019	<ul style="list-style-type: none"> • The REMP aims to achieve the following by 2030: • Increase the proportion of renewable energy in the national energy generation mix from 42.5 MW in 2015 to 1363.63 MW (with grid connected systems totaling 1094.63 MW); • Reduce the dependence on biomass as main fuel for thermal energy applications; • Provide renewable energy-based decentralised electrification options in 1,000 off-grid communities; • Promote local content and local participation in the renewable energy industry
DISTRIBUTED GENERATION POLICIES		
Renewable Energy Law (Act 832)	2011	<p>Renewable Energy Act, 2011 (Act 832) The Renewable Energy Act (RE Act) aims to create an enabling regulatory environment to attract private sector involvement in the development, management and utilisation of renewable energy in an efficient and environmentally sustainable manner. The key provisions in the RE Act include:</p> <ul style="list-style-type: none"> • Feed-in-Tariff Scheme under which electricity generated from renewable energy sources is offered a guaranteed price;

		<ul style="list-style-type: none"> • Renewable Energy Purchase Obligations under which power distribution utilities and bulk electricity consumers must purchase some percentage of their electricity from renewable-energy-generated sources; • Designating biofuel blend as a petroleum product; • Licensing regime for Commercial Renewable Energy Service Providers, among others, to ensure transparency of operations in the renewable energy industry; • The establishment of the Renewable Energy Fund to provide incentives for the promotion, development and utilisation of renewable energy resources; and • Establishment of a Renewable Energy Authority. <p>The RE Act defines the roles and responsibilities of key institutions to facilitate the implementation of the provisions of the Act. The following have been achieved under the RE Act:</p> <ul style="list-style-type: none"> • Feed-in-Tariffs (FiTs) have been developed and gazetted; • Framework for the RE Fund has been developed; • Net Metering Code and renewable energy sub-codes for transmission and distribution systems have been developed; • Licensing manual developed for RE service providers; and • Guidelines for the Renewable Energy Purchase Obligation have been drafted.
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Sources: Government of Ghana 2019, Obeng-Darko, (2019), and IEA Renewables Policies Database (<https://www.iea.org/search?q=Ghana>)

Drivers of Solar Energy Initiatives in Ghana

Emerging countries have the mammoth job of closing the energy poverty gap, since a sizable portion of the population continues to lack access to clean and modern energy services. While over 85percent of Ghana's population now has access to electricity (Energy Commission, 2020), there are still a significant number of off-grid villages (Agyekum, Velkin, & Hossain, 2020).

Additionally, biomass, mostly wood fuels in the form of charcoal and firewood, remains a significant component of the final energy supply mix (38 percent). Oil (38.3 percent), natural gas (18.2percent), and hydro (5.6 percent) account for the remaining 62percent (Energy Commission, 2020). Although progress has been gradual, the situation of solar energy development in the nation has been impacted by a number of issues, which are addressed below.

Energy Sector Reforms

The Government of Ghana has adopted key energy policy documents such as the Strategic National Energy Plan (SNEP) 2006–2020 and its revised counterpart, the Strategic National Energy Plan II (SNEP II) 2020–2030, as well as the National Energy Policy (NEP) 2010, all of which contain renewable energy objectives. The dedication of these policies to renewable energy development has been reflected in initiatives to advance renewable energy development. Notable is the passage of 2011 the Renewable Energy Act, which provides for the development, management, utilisation, sustainability, and adequate supply of renewable energy for heat and power generation, thereby increasing the share of renewable energy in the national energy mix and contributing to climate change mitigation (Hagan, 2015). In general, these reforms have resulted in the deployment of significant private capital for investments and revisions to the sector's power system planning.

Pressure to Reduce CO₂ Emission/Footprint

Climate change's hazards have accelerated the transition to renewable energy, notably solar energy resources in Ghana. Climate change has had an effect on the nation by increasing average temperatures, increasing rainfall variability, and altering the intensity and pattern of severe weather events. Until recently, Ghana relied heavily on hydropower for the majority of its electricity output. However, decreased rainfall and recurring droughts have impacted energy output from hydropower systems, most notably in 1983/1984, 1997/1998, 2006/2007, and 2015/2016, when there was a severe shortage in hydropower generation (IAEA, 2018; Owusu-Adjapong, 2018). In 2016, for example, the BXC Solar Plant in Central Region was erected as one of the biggest operational solar farms in West Africa in order to partly supplement the power supply. It is comprised of 89,760 solar panels and generates around 20 MW of electricity, contributing to Ghana's ambitious goal of reaching 10percent renewable energy by 2020. (Clerici, Taylor, & Taylor, 2016). Again, the present higher proportion of fossil fuels in Ghana's energy mix is certain to result in a significant increase in CO₂ emissions. Between 1950 and 2017, Ghana's cumulative carbon dioxide⁴ (CO₂) emissions increased from 637,536 tonnes to 321.79 million tonnes. Thus,

⁴ Cumulative carbon dioxide (CO₂) emissions represents the total sum of CO₂ emissions produced from fossil fuels and cement since 1751, and is measured in tonnes. This measures CO₂ emissions from fossil fuels and cement production only – land use change is not included (OurWorldInData.org/co2-and-other-greenhouse-gas-emissions).

energy production through diverse solar applications will help lower the industry's carbon footprint, thus assisting in the country's climate change mitigation efforts.

Despite its negligible contribution to climate change, Ghana is committed to reducing GHG emissions and has signed or committed to additional international agreements, regulations, or goals such as the Sustainable Development Goals (Goal7), the Climate Change Convention (2015), the Sustainable Energy for All ('SE4ALL') initiative, and the Paris Agreement, as well as ratifying the Kyoto Protocol, all of which require a percentage of energy consumption to come from renewable sources. Ghana's Nationally Determined Contribution, for example, has a goal of achieving 10percent renewable installed capacity by 2030. It intends to accomplish this through conditional support, including increasing installed capacity of small-medium hydro to 150 -300MW, utility-scale wind capacity to 50-150MW, utility-scale solar capacity to 150-250MW, and 55 solar mini-grids with an average capacity of 100kW or 10MW, as well as increasing the number of solar home systems (SHS) to 200,000 for lighting in urban and non-electrified rural households. Another objective is to encourage environmentally friendly rural home illumination, with solar lanterns being installed in 2 million rural houses that are not yet electrified (GoG, 2015).

Increasing Demand for Modern Energy

Ghana's peak demand for electricity has increased from 2,079 MW in 2016 to 2,803.7 MW in 2019, a cumulative yearly average of 10.5 percent (GRIDCO et al., 2020). Additionally, renewable energy is becoming more affordable, resulting in a proportionate rise in demand, which is likely to alter the future face of energy demand (weforum, 2018). According to Bensah et al. (2015), in contrast to developed countries, where concerns about the climate effects of fossil fuels appear to be the primary driver of solar energy initiatives, the primary driver of solar energy adoption in developing countries such as Ghana is the growing need for and access to modern services.

Relative Adverse Effects of Fossil Fuels

In high-, middle-, and low-income countries, respectively, energy-related fossil fuel combustion and biomass burning account for the majority of global air pollution, accounting for 85 percent of airborne respirable particulate pollution and almost all sulphur dioxide and nitrogen oxide emissions (Perera 2017, IEA 2016). Each year, fossil fuel pollution is believed to be responsible for 1 in 5 fatalities (18 to 21.5 percent) (Vohra et. al. 2021). Annually, it is estimated that about 16,600 deaths are caused by the use of dirty fuels and inefficient fuel

combustion technology in Ghana (Bensah et al., 2015). Additionally, indoor air pollution contributes to the yearly loss of 502,000 disability-adjusted life years (DALYs, a standard measure used by the World Health Organization to quantify the burden of mortality and disease caused by a given risk factor) (Energy Commission, 2012). Clearly, transitioning away from fossil and other polluting fuels and toward renewable, clean energy sources has the potential to significantly reduce morbidity and death associated with fossil fuel pollution.

Ensuring Energy Security and Rural Electrification

At the moment, 85 percent of Ghana's population has access to grid-connected energy (Energy Commission, 2020). Nonetheless, the urban-rural gap demonstrates that, although 100 percent of Ghana's urban population has access to electricity, around 30 percent of Ghana's rural population does not (ibid). To provide energy to these distant places, decentralisation techniques for off-grid power generation are required. As a result, the Ghanaian government is developing mini-grids and stand-alone renewable energy solutions to supplement the national grid and contribute to the country's electricity access rate, increasing from 85 to 95 percent by 2025 (representing 100 percent access) (USAID/Ghana IRRP Project and the Energy Commission 2019). The Ghanaian government, for example, proposed encouraging public sector investment in 55 renewable mini-grids and private sector investment in stand-alone solar photovoltaic systems to benefit 33,000 households, 1,350 schools, 500 health centres, and 400 communities in the Scaling-Up Renewable Energy Programme (SREP) Investment Plan (2015)). Additionally, the country's transmission network is overburdened due to a lack of network upgrades and growth, resulting in significant Transmission and Distribution losses. From 2000 to 2020, transmission losses increased at a compound annual growth rate of 7 percent, always exceeding the Public Utilities Regulatory Commission (PURC) target of 4.1 percent, except in 2017. (Energy Commission 2021). Solar energy development has a strong potential for diversifying energy sources and boosting the country's share of domestic energy supply in order to attain energy security.

Improved Technologies

Renewable energy sources are becoming more affordable as a result of technological advancements. Solar energy's cost has decreased so quickly that it is now competitive with coal (Lazard, 2017; weforum, 2018). Earlier assessments from the International Renewable Energy Agency indicate that the cost of renewable energy is fast declining and that it will eventually be a much cheaper energy source than conventional fuels (IRENA, 2017). According to Lazard (2017), the

cost of generating one megawatt-hour of power from coal is currently more than twice that of solar. In Ghana, solar energy is used for drying (open air drying) in its most primitive form, making it impossible to measure and appropriately incorporate into the country's energy balance. This has resulted in a growing interest in solar dryer technologies that would enhance drying procedures, particularly in the agriculture sector. For instance, the government has set a goal of deploying 80 solar dryers by 2020 as part of its Renewable Energy Master Plan (Government of Ghana 2019). Solar water heating systems are also gaining popularity, and numerous installations, mainly in the hospitality industry, have been built. In 2015, it was predicted that solar water heating systems had a total installed capacity of 1,018.48 kWth (1,454.97 m²) (Atsu et. al., 2015).

Barriers to Solar Initiatives in Ghana

Owen (2006) defines a barrier as “anything that slows the rate at which the market for a technology expands” (p. 633). Despite considerable development in the solar energy industry, a number of critical hurdles must be solved before Ghana's electricity sector can completely benefit from solar energy's potential contribution. These are addressed in further detail below.

Strong National Preference for Fossil Fuels

In Ghana, traditional energy planning has prioritised commercial grid power, pushing renewable energy and distributed or embedded production to the sidelines (Energy Commission, 2019b). Ghana's Energy Ministry, according to Kuamoah (2020), has actively pursued a national electrification goal since 1989 through integrated grid expansions and accessibility.

For example, in 2011, crude oil and natural gas accounted for the largest share of Ghana's total primary energy supply (Energy Commission 2014). Fossil fuels accounted for 59percent of overall energy supply in 2020, according to official figures (oil and natural gas accounted for 34 percent and 25 percent, respectively). Biomass accounted for 36percent. (Energy Commission, 2020). In 2020, conventional thermal plants accounted for 69.0 percent of total installed capacity, while renewable energy sources accounted for 1.1 percent. Since 2015, thermal energy has overtaken hydro as Ghana's primary source of power production (ibid). According to Ghana's Energy Commission's projections, natural gas would continue to be the main thermal fuel in 2021 (Energy Commission, 2021) because of its comparative advantage over oil in terms of indigenous origin, cost, and environmental friendliness. Due to lowering costs, fossil fuels continue to be a more affordable option to renewable energy, posing a significant threat to solar energy projects. However, it seems doubtful that Ghana would fully eliminate its reliance on fossil fuels as a key source of energy supply

in the near future, given the rising share of thermal energy in the national energy supply.

High Initial Capital Cost

In Ghana, the cost of solar energy is a big impediment. Although the average price of PV modules per unit energy production has decreased internationally, the initial expense of these technologies inhibits the development of solar energy in Ghana (Agyekum, 2020). This is because, especially in the early phases of development, the investment costs are often greater than equivalent conventional energy choices and traditional fuels. High investment costs, according to Agyekum et al. (2020), have made it impossible for most investors to fund renewable energy sources. Wind and utility-scale solar, on the other hand, may be the least costly energy producing alternatives when expenses throughout the life of the project are included. Renewable power generation costs have dropped dramatically over the last decade, according to the latest cost data from the International Renewable Energy Agency (IRENA, 2021a), owing to steadily improving technologies, economies of scale, competitive supply chains, and improved developer experience. The cost of power produced by utility-scale solar photovoltaics (PVs) reduced by 85 percent between 2010 and 2020. This translates to a 30percent drop in solar PV's global weighted-average levelised cost of electricity (LCOE) in 2020, and a 27percent reduction (USD 0.015/kWh) when compared to the cheapest fossil-fuel rival, coal-fired facilities.

Lack of Financing institutions and Currency risk

Solar PV system investors and end-users need financial packages that operate as enabling factors in order to be able to acquire solar PV systems due to the high cost of the technology. Yet financial services to support renewable energy, particularly solar, are almost non-existent in Ghana, and microfinance has failed to prosper in this area. Additionally, financial institutions' interest rates on financing schemes are often high in Ghana, resulting in high expenses for solar efforts that are prohibitively expensive for end consumers. For example, farmers are reportedly unable to buy solar dryers due to the product's seeming high initial cost (Bensah et al., 2015). Because crowdfunding and equity financing are not completely established in Ghana, they are unavailable to businesses, leaving debt finance the most popular available choice (ibid). Apart from the lack of financing schemes, the depreciation of the Ghanaian Cedi as well as fluctuating inflation rates create uncertainty in the financing market leading to a higher real exchange rate risk for investors (Bensah et al., 2015).

Lack of public awareness and information

The public's understanding and awareness of RE technologies and systems are critical factors in the technology's adoption. Bawakyillenuo (2009, 2012) observes that the degree of knowledge on photovoltaics (PVs) is poor in Ghana as a consequence of the country's excessive dependence on the national grid. Such ignorance on the part of adopters and even non-adopters may result in poor system use and maintenance. By and large, renewable energy sources are seen as unreliable by end users, despite the fact that this may not be the case. Previous demonstration projects that have failed reinforce the idea of an unprepared technology endeavour that cannot be depended upon (Bensah et al., 2015). In Ghana, a significant majority of solar initiative projects did not result in the commercialization of technology, mostly because this was not the primary purpose and partly because the organisations responsible for constructing the projects did not include the private sector (Atsu et al., 2016).

Small Market Size of Renewable Energy

The market size for renewable energy technologies is a significant impediment in Ghana. It is widely assumed that the higher the market size, the more interested entrepreneurs will be to pursue the prospect of purchasing, modifying, and propagating solar technology projects (Bensah et al (2015). Similarly, the smaller the market, the less likely investors would be enthusiastic about solar technologies. While solar technology has enjoyed moderate commercial expansion in Ghana, it has not achieved widespread deployment as it has in other countries. Solar photovoltaic (PV) systems, for example, need broader markets to boost volume and lower prices. As a result of financial restrictions and reliance on traditional energy sources, the solar sector in Ghana remains relatively static (Park, 2018).

Low level of Local human capacity & Training

In general, Ghana lacks a locally trained cadre of professionals and policymakers capable of driving the development and deployment of solar energy technologies within the context of the country's unique national energy situation, as well as addressing related technical, legal, regulatory, institutional, and other issues (Hagan, 2015). Foreign experience is brought in to supplement local skills. However, hiring foreign consultants should be seen as a temporary band-aid solution to the local capacity shortage. Additionally, a standardised curriculum and extensive competency-based training on the technical and entrepreneurial components of solar energy technologies are lacking. This has resulted in an

inadequately skilled workforce capable of planning, designing, and installing solar energy systems properly, as well as providing competent after-sales services, most notably repairs and maintenance.

Ineffective Regulations and Administrative complexities

Complicated administrative processes also impede the implementation of solar energy technology in Ghana. According to Klagge et al. (2012), when many Ministries within a nation are engaged in coordinating renewable energy administration and policy, an issue of authority definition occurs.

Sakah et al. (2017) report that there is no specified production price in Ghana for Independent Power Providers (IPPs), especially in relation to the complete implementation of the Feed-in Tariff (FiT), quota obligations, and tradable Renewable Energy Credits (RECs). Additionally, the authors noted that “Bulk supply tariffs are still susceptible to governmental influence in the form of subsidies so much that energy project developers (renewable and non-renewable) have had to force output prices into their power purchase agreements (PPAs) for project-based negotiation with governmental representatives” (p. 553). Other authors, most notably Obeng-Darko (2019), have also cited a range of legislative and regulatory hurdles to renewable energy adoption in Ghana. As a result, while Ghana compares favourably to other African countries and stands out in the West Africa Sub-Region in terms of established policies, the absence of an independent regulator solely responsible for implementing renewable energy policies and regulatory measures in the sector, as stipulated in the Renewable Energy Act 832, Section 53, has resulted in ambiguous and non-complementary policy directions for sector development (Obeng-Darko, 2019). This conclusion may result in investors losing faith in the government's capacity to sustain and accomplish current and future renewable energy policy objectives (ibid).

Solar Energy During and After the COVID-19 Pandemic

The COVID-19 pandemic has had a substantial influence on the global energy sector. While the energy sector's full impact is unknown, decreased energy demand, falling energy prices, and a sharp decline in oil prices have already been observed (IEA 2021, IRENA 2021b). Despite this global upheaval, Ghana's transition to clean energy did not come to a halt. Energy for households, healthcare facilities, and businesses is critical in the fight against COVID-19. Solar energy is

a solution that governments can rapidly deploy. Several solar-energy-based projects have been established in Ghana to help mitigate the effect of COVID 19. In the midst of the COVID-19 epidemic in 2020, Richard Kwarteng and Jude Osei built a solar-powered hand washing basins from local materials equipped with automated sensors to promote personal hygiene.⁵ The hand wash basin is designed to promote the 20-second hand wash hygiene as recommended by the health and disease control departments of governments.

Yet again in an effort to assist businesses in managing recurring utility costs in the face of slowed business due to the COVID-19 pandemic, German Pay-As-You-Go (PAYG) solar distributor Redavia introduced a new concessionary solar programme, the COVID-19 Resilience Lease, for its clients in Kenya and Ghana⁶. Redavia will supply solar panels to its corporate clients for six months at no cost. After six months, customers may opt to renew the lease or re-deploy the equipment. Mankoadze Fisheries Limited in Tema and the Royal Senchi Hotel and Resort in Ghana have joined this innovative Redavia initiative. With regard to the Royal Senchi hotel, significant revenue losses caused by the pandemic have made utility cost reduction a primary focus for hotel management.

Indirectly, a number of government-led, donor-funded, and private sector programmes that were already underway prior to the COVID-19 pandemic aided in the fight against the pandemic. StellFuturera is creating a pipeline from the 344 Christian Health Association of Ghana (CHAG) health institutions to offer solar energy to off-grid health clinics through power purchase agreements (Larson J et. al., 2020)

The examples above demonstrate that solar energy can play a critical role in combating the devastating effects of COVID-19 in Ghana and also in ensuring a post-COVID-19 green and healthy recovery, thereby reducing vulnerability to life-threatening diseases due to reduced greenhouse gas emissions associated with solar energy use.

Conclusion and Policy Recommendations

Conclusion

Renewable energy is critical for achieving SDG 7 and establishing resilient, equitable, and sustainable economies in the post-COVID-19 era. Now, more than ever, is the time for the Ghanaian government to close the energy access gap and prioritise sustainable energy in economic stimulus and recovery policies.

⁵ <https://edition.cnn.com/2020/05/09/Africa/Ghana-coronavirus-handwash/index.html>

⁶ <https://www.redaviasolar.com/redavia-delivers-free-solar-during-COVID-19-crisis/>

Taking considerable initiatives to support the production and deployment of renewable energy, the Ghanaian government has proved its commitment to renewable energy policy. The enactment of the Renewable Energy Act 2011, Act 832, with the purpose of enhancing Ghana's renewable energy potential, has been one of the most important of these initiatives. Renewable energy, on the other hand, has made just a tiny contribution to Ghana's energy mix to this point. Solar photovoltaic (PV) improvements have been limited when compared to the potential of the country's solar resources.

Based on existing research, the most important drivers and impediments for solar energy investments and deployments have been identified. A number of technical, economic, institutional, and political obstacles have been identified as preventing the widespread use of solar energy technology in Ghana at this time.

The government's resolve to expand the share of renewable energy in the country's energy mix, the public's rising demand for modern energy, and the government's goal to provide energy security and access for rural electrification are all driving forces behind the trend. International organisations' climate change policy and advocacy activities have also made a positive contribution to the cause.

Some of the obstacles cited include a lack of appropriate understanding of solar technology, high upfront costs, and a reluctance on the part of financial institutions to finance solar initiatives. These obstacles may be solved by enacting stringent legislative rules, increasing expenditures in education, training, research, and development, improving the governance of the renewable energy industry, and improving cooperation amongst key stakeholders. Beyond COVID-19, Ghana's solar energy road towards a low-carbon society will need a concerted effort from the government, industry, and small actors to realise this objective.

Policy Recommendations

Renewable energy sources such as solar and wind have been extensively shown to offer various benefits over fossil fuels, including a decreased environmental effect due to low carbon emissions and lower operating costs. Despite its relevance, Ghana's exploitation of solar energy technologies is relatively low. This calls for improvement in incentives, coordinated and targeted efforts, research and development, as well as a strong institutional framework for solar energy technology development in Ghana. These can be achieved if the following recommendations are implemented.

Provision of Solar Energy Subsidies and Tax Rebates

Subsidies and tax rebates are required due to the high cost of renewable energy technology, as well as other issues that the sector is confronting today. Although the Ghanaian government has implemented total import duty and value-added tax exemptions for solar photovoltaic (PV) systems, the same cannot be said for other solar-related technology. In the case of solar water heater components, for example, tax exemptions and refunds are not available. Because of this, tax incentives for solar energy technology and equipment should be simplified to encompass a wider variety of items falling within the category of solar energy technology and equipment. Furthermore, the formation of the Renewable Energy Fund should be geared toward speeding the construction of a clearly defined and transparent disbursement mechanism to support a long-term subsidy system for the growth of solar energy.

Ensuring Coordinated Efforts of Stakeholders in Solar Power Technologies

Various reports have outlined conflicting interests especially in the dissemination of solar panels in Ghana (Ackah, 2016; Atuguba & Tuokuu, 2020; Brass, Schon, Baldwin, & MacLean, 2020). These tensions often occur between the political patronage logic of distribution and the bureaucrats' needs-based evaluation. This necessitates an urgent, concerted effort and regulatory framework that brings together all important players, particularly the Ministry of Energy, the Energy Commission, and the Electricity Company, to streamline and encourage solar energy investments in the nation.

Enhance Research and Development of solar power technologies

Research on renewable energy technologies in Ghana is dispersed over a number of academic units of the various tertiary institutions and research organisations. The government, in conjunction with other private sector developers, can champion the effective collaboration and interactive linkages between industry, research institutions, and universities in order to steer demand-driven R&D efforts on the development and implementation of solar energy technology. Low levels of research have stalled the effective delivery of renewable technology in Ghana. The Energy Commission, for example, should be able to advocate the cooperation of stakeholders from academia, private business, government, and civil society in order to encourage dynamic R&D activities and contribute to the expansion of Ghana's solar energy market.

Harmonisation of Policies, Acts and Institutions

Renewable energy is the driving force behind the present global development change. Ghana has created policies and plans to steer the development of renewable energy resources, but has been unable to implement them on a wide

scale. As a consequence, policy instruments such as regulations, incentives, and market mechanisms must be integrated and applied harmoniously in order to maximise their potential for complementarity or replacement.

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Governance

8

THE ANTI-CORRUPTION FIGHT: HOW FAR AND WHICH WAY FORWARD?

Introduction

There is no doubt that corruption in any society is a threat to good governance and the overall development of any nation. This is especially so due to its rippling effects on other sectors of the nation's development and its ability to negatively affect public trust and socio-economic development, worsen social inequalities and injustice and environmental challenges (United Nations, 2004; Bracking, 2007; Transparency International, 2020). The demand and supply of corrupt practices are limitless and the greed insatiable to the extent of taking advantage of every situation, including pandemic situations. The African Research Bulletin (2020) in a column on '*Corruption and COVID-19's Effect on Economies*' highlights corrupt practices such as misappropriation of funds by officials in the health sector with respect to the COVID-19 pandemic in their respective countries. Countries such as Zimbabwe, Uganda, South Africa, Somalia, Nigeria and Kenya were identified as having reported, and in some cases, prosecuted officials for such COVID-19-related corruption cases. Ghana is no exception as there were instances, at the onset of the pandemic, of health workers who were caught on camera in an investigative documentary, selling much needed personal protective equipment (PPEs) meant for governmental health institutions for private profit (Corruption Watch, 2020a).

Due to the implications of corruption on the development of countries and the well-being of citizens, attention in recent times has been directed at campaigns

in various forms to fight this canker, with bilateral and multilateral organisations at the forefront. The United Nations General Assembly championed a global effort in October 2003 with the adoption of the United Nations Convention Against Corruption (UNCAC) which came into force in December 2005. From the initial number of 140 states signing on to it, the number as at February 6, 2020 has increased to 187. This was one of the foremost global efforts in the fight against corruption. The signing and ratification of this Convention meant that states which were party to the Convention would *'promote and strengthen measures to prevent and combat corruption more efficiently and effectively; promote, facilitate and support international cooperation and technical assistance in the prevention of and fight against corruption, including asset recovery; and promote integrity, accountability and proper management of public affairs and public property'* (United Nations, 2004, p7). As a member of the United Nations, Ghana signed the UNCAC in 2004 and subsequently ratified it in 2007 (UNODC, 2018). As a member of the Economic Community of West African States (ECOWAS), Ghana signed the ECOWAS Protocol on the Fight against Corruption in 2001 and as a member of the African Union (AU) too, the country signed the African Union Convention on Preventing and Combating Corruption, in October, 2003, with its subsequent ratification in June, 2007. By signing on and ratifying these conventions, Ghana commits to instituting and implementing measures to ensure an effective and efficient fight against corruption within and across her borders with the collaboration of other state parties.

The completely-missing focus on corruption in the Millennium Development Goals was compensated for in Sustainable Development Goal 16, which emphasises peaceful and inclusive communities for sustainable development, ensuring access to justice for everyone and establishing equality for all before the law. Of particular focus is Target 16.5 which aims to reduce substantially all forms of corruption and bribery, against the background that corruption is a major challenge to development for all nations across the globe and in every way, and dealing with it from all angles (holistically) is a sure way of making progress towards sustainable development. Additionally, Target 16.6 also aims to develop effective, accountable and transparent institutions at all levels. The efforts of the various governments over the years in the Ghanaian situation as well as progress made towards ensuring a less corrupt economy and a fair and inclusive society will be the crux of this chapter.

This chapter, therefore, examines the various legislative, policy and institutional frameworks in place over the past 10 years in the fight against corruption and the role and contribution of civil society organisations in this fight. The chapter further looks at the fight against corruption and any observed progress made

with the collaboration of both government and non-governmental organisations. Specifically, the efforts of government institutions such as the Office of the Special Prosecutor, the passage of anti-corruption legislation such as the Right to Information Act, the contribution of civil society including the media in the anti-graft campaign over the past 10 years, particularly since the 2018 publication of the Ghana Social Development Outlook, will all be worth discussing to assess the progress or otherwise made in the fight against corruption in Ghana.

Definition and Cost of Corruption

Corruption has been defined in many ways with respect to unacceptable behaviours or practices and involving particularly the public sector. Transparency International defines corruption as ‘the abuse of entrusted power for private gain’ (Transparency International, 2020, p.1). Huntington (1968) defined corruption as the ‘behaviour of public officials which deviates from accepted norms in order to serve private ends’ (p.59). Andreski (1968) also defines it as ‘the practice of using the power of office for making private gain in breach of laws and regulations nominally in force’ (p.92). The World Bank defined corruption as ‘the abuse of public power for private gain’ (World Bank, 1997 p.102). These various definitions allude to the fact that the concept of corruption does not lend itself to one universally-accepted definition for which reason the UN system chooses to rather give examples of acts of corruption instead of defining it (United Nations, 2004). Examples of corrupt acts can range from bribery of an individual to similar acts by many, which are accepted by the society to the extent that corruption could be seen as institutionalised in a country. Corrupt acts include embezzlement, extortion, nepotism, cronyism, clientelism, lobbying, insider trading and influence peddling and yielding to a conflict of interest position among others. In terms of categorisation of corruption, there is a similar observation of the lack of one universal category. However, some common categorisations have been based on the binary options of demand versus supply, petty versus grand, conventional versus unconventional and finally, the public versus the private (UNODC, 2004) which is the context within which this discussion on corruption is framed.

As much as corruption can occur in every country, the UN notes that *“it is in the developing world that its effects are most destructive”* (United Nations, 2004, p. iii). Although it is also applicable in the private sector, much more focus of what it is and what it is associated with has been with reference to the public sector (Senturia, 1931 in Theobald, 1990; Huntington, 1968) for the obvious reason of the public sector’s bureaucracy of impartiality, impersonalness and working according to rules and regulation etc. (Theobald, 1990) as well as the implications

of public-private sector corruption on any public service delivery for citizens (World Bank, 1997). Table 8.1 gives some basics of corruption and the related dimensions of interest as pertain in the public sector.

TABLE 8.1: The Basics of Corruption

Corruption Criteria	Characteristics
Form of Corruption (What)	Many forms - public servants demanding or taking money or favours in exchange for services; politicians misusing public money or granting public jobs or contracts to their sponsors, friends and families, corporations, bribing officials to get lucrative deals
Where	Anywhere - in business, government, the courts, the media, and in civil society, as well as across all sectors from health and education to infrastructure and sports
Who	Anyone – Politicians, government officials, public servants, business people or members of the public
How	In the shadows – with the help of professional enablers such as bankers, lawyers, accountants and real estate agents, opaque financial systems and anonymous shell companies that allow corruption schemes to flourish and the corrupt to launder and hide their illicit wealth
Context (location and time)	Adaptable to different contexts and changing circumstances. It can evolve in response to changes in rules, legislation and even technology

Source: Adapted from Transparency International (2020)

Having identified corruption as a very costly phenomenon to the development of many nations, whether in the developing or developed world, Kofi Annan, the former UN Secretary-General emphasised in his speech to the UN General Assembly in October 2003 on the adoption of the UNCAC that, “*Corruption hurts the poor disproportionately – by diverting funds intended for development, undermining a government’s ability to provide basic services, feeding inequality and injustice, and discouraging foreign aid and investment. Corruption is a key element in economic underperformance, and a major obstacle to poverty alleviation and development*”. (United Nations, 2004, p. iii). The severity and cost of corruption is seen in how it is popularly referred to as ‘a cancer’ and a major contributor to poverty and injustice, since the ultimate losers are the poor and the powerless (Klitgaard, 2008). In the view of Transparency International (2020), the cost of corruption has political, social, environmental and economic dimensions which relate to citizens’ freedom and rule of law, citizens’ participation and trust in government, citizens’ chance for a healthy environment and a sustainable future, and citizens’ opportunity to build and grow wealth respectively.

Although there have been debates on the relationship between transparency and accountability and the assumption that an improvement in the former leads to same in the latter (Fox, 2007; Shkabatur, 2012; Zúñiga, 2018), one cannot still deny the importance of transparency in the fight against corruption. The promotion of transparency by all concerned stakeholders will enlighten the citizenry about the formal and informal rules and procedures and how they can hold duty-bearers accountable for their actions. Ensuring transparency involves the setting-up of anti-corruption institutions and building of trust in these institutions to engender participation of citizens in decision-making, free flow of information as a right and procedures to easily access this information as well as ensuring that relevant information is of common knowledge to and understood by the citizenry. Knowing how relevant these dimensions of transparency are, the context in Ghana will also be looked at to assess the progress towards the fight against corruption in the recent past decade.

The conceptualisation of corruption shows that there are some institutional, political and cultural settings that are conducive for the thriving of corruption: ‘where democracy and good government are *not* widely valued, where the press is *not* free, where government’s role in the economy is large, where there are wars and emergencies, where civil servants are poorly paid and poorly qualified, where the private sector is thin and monopolistic, and where the rules of the economic game are unclear’ (Klitgaard, 2008 p.3). Additionally, he posits that corruption is a crime of calculation and an economic crime with systemic costs and benefits which make it thrive in the face of monopoly and discretion and the absence of accountability ($C = M + D - A$). His proposals with regard to the fight against corruption included changing the institutional culture of corruption, mobilising allies and coordinating various resources both from within and without the government system and finally conceptualising the fight as against a corrupt system rather than against a corrupt individual (Klitgaard, 2008).

The approach to the fight against corruption can be in the short to medium term as well as the long term. Firstly, in changing the institutional culture of corruption in the short to medium term, there is the need for a strong signal of change to be sent by leaders committed to the fight against corruption through action and not just words and ‘frying some big fish’, irrespective of their stature in society or political affiliation. Additionally, “picking low-hanging fruit” to revitalise hope in visible results of change and bringing in fresh people to work with those already working in existing institutions will facilitate the goal of changing the institutional culture of corruption (Klitgaard, 2008). Secondly, the fight against corruption requires allies such as the private sector and civil society who can

provide information about where corruption is occurring and how corrupt systems work. The promotion of e-government initiatives and systems also holds the promise of reducing corruption. Thirdly, in the much longer term, there is the need to improve the system through reforms which reduce monopoly and allow competition, limit discretion and make information easily available to all, and increase transparency through various appropriate means such as improving the measurement of performance with rewards, engaging external agencies in the processes of auditing, monitoring and evaluation and partnering with the media. As much as morality may play a role in the fight against corruption (Klitgaard, 2008) better systems are the key to long-term reforms in the fight against corruption. Fourthly, corruption can be subverted and successfully fought through activism, advocacy and ensuring that citizens and civil society play a part in the diagnosis and remediation of corrupt systems.

The chapter is organised into four sections with an introductory background focused on corruption, followed by the contextual setting of the Ghanaian landscape of institutions, policies and legislations against corruption. The third section examines the efforts of both governmental and civil society organisations (CSOs) in the fight against corruption and some selected cases of interest from the past 10 years to show whether Ghana's anti-corruption fight has seen any progress or not. The chapter then concludes and makes policy recommendations towards achieving sustainable progress in the anti-graft fight in Ghana.

The Anti-Corruption Landscape in Ghana: A review of Anti-Corruption Legislative, Policy and Institutional Frameworks over the Decade

In ensuring the promotion of accountability and transparency in the fight against corruption, various governments, with the collaboration of civil society and donor support in some instances, have made efforts through legislation, policies and institutional arrangements mostly at the national level. Ghana's legal framework in the fight against corruption is very broad with the Criminal Code of 1960 (Act 29) providing a sound foundation in addition to the Commission on Human Rights and Administrative Justice (CHRAJ) Act of 1993 (Act 456), the Criminal Code (Amendment) Act of 2001 (Act 602), (which repealed the Criminal Libel and Seditious Laws), Public Procurement Act of 2003 (Act 663), Financial Administration Act of 2003 (Act 654), Internal Audit Agency Act of 2003 (Act 658), Whistleblower Act of 2006 (Act 720), and Anti-Money Laundering Act of 2008. Though these Acts are geared towards promoting transparency and accountability and preventing corruption in the public space as well as in

the private sector and solidifying the legal framework against corruption, there are some weaknesses relating to their implementation that need attention to explore the full potential of the legislation to contribute to the fight against corruption.

Subsequently within the decade under review, other measures, namely the Whistleblower (Amendment) Act of 2013, the National Anti-Corruption Action Plan (NACAP) of 2014, the Companies Act of 2016, the Public Procurement (Amendment) Act of 2016 (Act 914), the Public Financial Management Act of 2016 (Act 921), The Office of the Special Prosecutor (OSP) Act of 2017 (Act 959), Witness Protection Act of 2018 (Act 975) and the Right to Information (RTI) Act, 2019 (Act 989) have been put in place as additional anti-graft efforts. The OSP Act and the RTI Act in particular were hailed for the prospects they held in revitalising the fight against corruption as against what prevailed before. For instance, the NACAP (a multisectoral operational plan) is aimed at strengthening state agencies to be able to better prevent, investigate and prosecute cases of corruption and also ensure the public is well informed and aware of corruption (Boateng, 2018). However, various post-NACAP reports and studies have still identified lack of/weak implementation, as a major challenge to seeing results from these anti-graft policies and plans (Boateng, 2018). Specifically, after having won elections, ruling governments have been unable to effectively prosecute corrupt persons, presenting a wide gap between promises made during election campaigns (for which some of the electorate would have given their votes) and the actual action of fulfilling these promises after their parties have been elected.

With respect to the institutional framework in the fight against corruption in Ghana, there are several anti-corruption institutions, in addition to the traditional Police Service and the National Intelligence Bureau (NIB) (formerly Bureau of National Investigations (BNI), such as the Courts (both the superior and inferior courts), CHRAJ, The Ghana Audit Service, the Economic and Organised Crime Office (EOCO) and the Office of the Special Prosecutor (OSP), with the swearing in of the Special Prosecutor in January, 2018 and the inauguration of the Governing Board of the RTI Commission in October, 2020. For instance, in accordance with Article 187 (2) of the 1992 Constitution of Ghana, the Ghana Audit Service is to fulfil the role of auditing the public accounts of Ghana to promote good governance, accountability, transparency and probity in Ghana's public financial management. It is the supreme audit institution of Ghana (Ghana Audit Service, 2020). These institutions are, however, challenged in various ways. These challenges include their lack of financial autonomy (Bertelsmann Stiftung, 2018; Myjoyonline, 2021), lack of power to prosecute or initiate investigations without a complaint as in the case of CHRAJ (Boateng, 2018) and

the possibility of the Executive's influence since the President appoints many of the persons to the various high-level positions in these institutions (Global Integrity, 2011; Kukutschka, 2014). Additionally, there are other issues of lack of personnel and needed logistics which are still pertinent. Even with the establishment of the OSP and RTI Commission, these issues have still featured in the challenges facing such anti-corruption institutions (Corruption Watch, 2019; Media Foundation for West Africa (MFWA), 2019; Myjoyonline, 2021).

The institutional framework discussed above is complemented by various civil society organisations (CSOs). A report by the Organisation for European Cooperation and Development (OECD) emphasises the instrumental role civil society plays in the fight against corruption (OECD, 2003). In Ghana, CSOs have been freely formed and are involved in activism and advocacy against corruption. Institutions such as the Ghana Anti-Corruption Coalition (GACC), Ghana Integrity Initiative (GII), Ghana Centre for Democratic Development (CDD-Ghana) and Citizen's Movement against Corruption (CMaC) are worthy of note especially because of their crucial role in holding government accountable and promoting transparency in government business. They have played an indispensable role in the anti-graft campaign over the years in various ways such as providing legal advice or support, advocacy, publicity and organising demonstrations, among others. In recent times, they have collaborated with the Auditor-General's Office in the fight against corruption particularly with the activation of Article 187 (7) of the 1992 Constitution and Section 17 of the Audit Service Act 2000 (Act 584) on disallowances and surcharging of public officials found to have misappropriated public funds. Table 8.2 shows some of the legislative, institutional and policy frameworks over the past decade aimed towards reducing corruption.

Equally worthy of note is the contribution of the media (all forms), journalists in general and investigative journalists in particular, who have risked their lives in various ways to expose corrupt acts by persons in both high and low positions. In some instances, these risks have resulted in various injuries and fatal outcomes. Stapenhurst (2000) distinguishes the effect of their work as tangible and intangible, with direct and indirect outcomes respectively. Some examples of the tangible effects include the media's fuelling of public indignation at acts of corruption, especially by officials in incumbent governments and putting pressure on them to resign or be impeached for wrongdoing. Intangible effects are the driving of citizen support for the introduction of anti-graft reforms while sensitising the public about the economic conditions that can fuel corruption. These efforts by the media have been complemented in recent times by social media activism by groups such as #occupyflagstaff/#occupyflagstaffhouse (OccupyGhana) and #FixTheCountry.

TABLE 8.2: Legislation, Institutional and Policy Frameworks against Corruption in Ghana over the Decade (2010-2020)

Legislation	Institutions	Policy	Partners (Civil Society)
The Companies Act of 2019 (Act 992)		The National Anti-Corruption Action Plan (2014)	<u>National</u> Ghana Integrity Initiative
Right to Information (RTI) Act of 2019 (Act 959)	Right to Information Commission established in 2020		Ghana Anti-Corruption Coalition
Witness Protection Act of 2018 (Act 975)			Ghana Centre for Democratic Development (CDD-Ghana),
Office of the Special Prosecutor Act of 2017 (Act 989)	Office of the Special Prosecutor established in 2018		Citizen Movement against Corruption (CMAc)
Public Financial Management Act of 2016 (Act 921)			Coalition on the Right to Information (RTI Coalition)
Public Procurement (Amended) Act of 2016 (Act 914)	Public Procurement Authority established		#occupyflagstaff (OccupyGhana)
Whistleblower (Amendment) Act of 2013			#FixTheCountry
The Economic and Organised Crime Act 804 of 2010	The Economic and Organised Crime Office (EOCO) established in 2010		

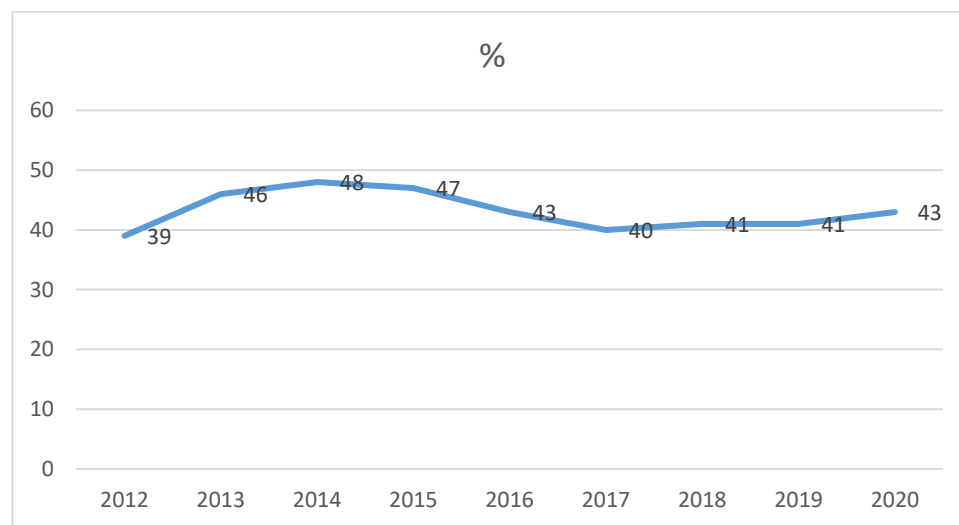
Source: Author's Compilation

Progress in the Anti-Graft Campaign: Perception or Reality?

Flipping the coin in the light of the above, this section discusses corruption through the analysis of various reports at the global as well as local/national levels to assess Ghana's performance in the fight against corruption, also having in mind the conceptualisation of the fight against corruption proposed by Klitgaard (2008). For instance, the Worldwide Governance Indicator by the World Bank shows Ghana's performance to be below 58% with respect to Control of Corruption over the past decade with the minimum being about 49% in 2017. The 2020 percentile rank was reported to be 50.48%, having reduced

from about 52.5% in 2019 (Trading Economics, 2021). The Corruption Perception Index (CPI) record for Ghana, according to Transparency International, also shows a wavering picture. The country's performance since 2012 has been below 50 points with the minimum being 39 and the maximum being 48 points. After an initial rise from 39 points in 2012 to 48 points in 2014, Ghana's performance dipped to 40 points in 2017. Thereafter, the country has seen marginal improvement till date. Although Ghana's CPI score for 2020 saw a marginal increase of 2 points from the 2019 score of 41, this score placed Ghana at the 10th position in Sub-Saharan Africa which had an average score of 32. On the global scene, however Ghana ranked 75th with its score averaging the global score which was not the case in 2018 and 2019. These two years saw Ghana falling below the global average and with worse rankings. Generally, although the country's performance is below the global average, it is almost always above the sub-regional average. Figure 8.1 shows Ghana's performance in the fight against corruption using the CPI from 2012 to 2020.

Figure 8.1: Corruption Perception Index for Ghana (2012-2020)



Source: Transparency International, 2021

According to the Ibrahim Index of African Governance Report of 2020, the general assessment of Security and Rule of Law (the category under which anti-corruption efforts and accountability and transparency fall), was one of slow deterioration at -0.7 percent from 2010 to 2019 with an average score of 49.5 out of 100 for the continent. Specifically, the continent's average on Accountability and Transparency was 38.1 with an 0.8 per cent increase over the same period as against 38.8 and 1.1 per cent respectively for anti-corruption. The

growth against anti-corruption decreased to 0.8 per cent over the 2015-2019 period.

Having placed 8th out of 54 countries for overall governance with 64.3 points and 0.1 per cent growth over the 2010-2019 period, Ghana, however, is classified as being in the warning signs zone. This is because a look at the category of Security and Rule of Law and its sub-categories and indicators, gives more negative than positive assessments. All four (4) sub-categories (*Security & Safety, Rule of Law & Justice, Accountability & Transparency, Anti-Corruption*) had experienced negative rates of growth over the period with observed trends of ‘bouncing back’ or ‘increasing deterioration’ (See Table 8.3). For instance, in the 11th position out of 54 countries and with 66 points in 2019 for Security and Rule of Law, Ghana experienced a -5.4 percent growth over the 2010-2019 period and was one of the 22 countries with an observed trend of ‘increasing deterioration’ (Mo Ibrahim Foundation, 2020).

TABLE 8.3: Ghana’s Performance with respect to Security and Rule of Law (2010-2019)

Security & Rule of Law Trend	Score/100 2019	Rank/54 2019	2010- 2019	Trend
SECURITY AND RULE OF LAW	66.0	11	-5.4	ID
SECURITY & SAFETY	86.4	14	-1.2	BB
Absence of Armed Conflict (ACLED/UCDP)	94.6	35	-4.6	ID
Absence of Violence against Civilians (ACLED/PTS)	82.3	31	-4.9	ID
Absence of Forced Migration (IDMC/UNHCR)	99.4	23	+0.2	SI
Absence of Human Trafficking & Forced Labour (USDS/V-DEM)	65.5	11	-6.4	BB
Absence of Criminality (WHO)	90.0	13	+9.7	SI
RULE OF LAW & JUSTICE	69.2	8	-9.9	ID
Executive Compliance with the Rule of Law (V-DEM/WJP)	80.8	8	+2.1	SI
Impartiality of the Judicial System (GI/V-DEM)	59.6	13	-37.5	ID
Judicial Processes (V-DEM/WJP)	64.1	14	-2.5	SD
Equality before the Law (FH/WJP)	83.2	6	+2.3	SI
Law Enforcement (GI/WEF/WJP)	50.2	12	-12.9	ID
Property Rights (BS/V-DEM/WJP)	77.4	8	-10.6	ID

Notes: SI Slowing Improvement BB Bouncing Back SD Slowing Deterioration ID Improving Deterioration

Table 8.3: Ghana's Performance with respect to Security and Rule of Law (2010-2019) (Cont'd)

Security & Rule of Law Trend	Score/100 2019	Rank/54 2019	2010- 2019	Trend
ACCOUNTABILITY & TRANSPARENCY	68.3	4	-3.3	SD
Institutional Checks & Balances (BS/V-DEM/WJP)	76.8	6	-5.6	SD
Civic Checks & Balances (BS/V-DEM/WJP)	80.9	3	-9.3	SD
Absence of Undue Influence on Government (BS/FH)	94.4	4	0.0	No Change
Disclosure of Financial & Judicial Information (GI/IBP/WJP)	38.3	16	-4.7	ID
Accessibility of Information (GI/WJP)	50.9	5	+2.8	SI
ANTI-CORRUPTION	40.0	25	-7.4	ID
Anti-Corruption Mechanisms (BS/GI)	52.4	11	-4.7	ID
Absence of Corruption in State Institutions (V-DEM/WJP)	47.9	23	+2.9	SI
Absence of Corruption in the Public Sector (V-DEM/WEF/WJP)	44.4	22	+0.6	SI
Public Procurement Procedures (GI)	25.0	26	-25.0	ID
Absence of Corruption in the Private Sector (WB/WEF)	30.4	35	-10.4	ID

Notes: **SI** Slowing Improvement **BB** Bouncing Back **SD** Slowing Deterioration **ID** Improving Deterioration

Data Sources include ACLED (Armed Conflict Location & Event Data Project); BS (Bertelsmann Stiftung); FH (Freedom House); GI (Global Integrity); IDMC (Internal Displacement Monitoring Centre); PTS (Political Terror Scale); UCDP (Uppsala University, Department of Peace and Conflict Research - Uppsala Conflict Data Programme); UNHCR (United Nations High Commissioner for Refugees); USDS (United States Department of State); V-DEM (Varieties of Democracy Institute); WB (World Bank); WEF (World Economic Forum); WHO (World Health Organisation) and WJP (World Justice Project)

Source: Mo Ibrahim Foundation (2020).

With respect to the sub-categories of Rule of Law and Justice, Accountability and Transparency, and Anti-Corruption, many of the indicators were negative with much lower levels in the Accountability and Transparency and Anti-Corruption sub-categories. The observed trend of *slowing improvement* was found to be applicable to indicators such as Executive Compliance with the Rule of Law, Equality before the Law, Accessibility of Information, Absence of Corruption in State Institutions and in the Public Sector. As much as these indicators show some improvement, there are equally other indicators which allude to the de-

terioration in the fight against corruption. The Ibrahim Index of African Governance Report of 2020 observed that there was *slowing deterioration* with respect to Judicial Processes, Institutional Checks and Balances, Civic Checks and Balances indicators, while the *improving deterioration* trend was observed with respect to Impartiality of the Judicial System, Law Enforcement, Property Rights, Disclosure of Financial and Judicial Information, Anti-Corruption Mechanisms, Public Procurement Procedures and Absence of Corruption in the Private Sector.

These negative observations of the anti-corruption effort in the past decade may have been fuelled by ‘incredible’ cases which bordered on procurement issues, sole-sourcing, financial loss to the state and payment of judgement debts. The rampancy of these cases can be described as being overwhelmingly absurd to the extent that it provoked a ‘*create, loot and share*’ comment from a Justice of the nation’s Supreme Court, Justice Jones Dotse, as he sat on the Waterville and Woyome Case in which a 40-million Euro judgement debt was said to have been paid to Waterville Holdings Limited and GH¢51.2 million paid to Alfred Agbesi Woyome under disputed circumstances (GhanaWeb, 2013).

During the decade, other prominent cases that attracted public attention and uproar included the Ghana Youth Employment and Entrepreneurial Development Agency (GYEEDA) scandal in 2013, the COCOBOD Fertiliser Saga in 2014, the Bus Branding Saga in 2015¹ (Modernghana, 2019; GhanaWeb, 2019), the Bulk Oil Storage and Transportation (BOST) Company Limited Saga in 2017 and the Electricity Company of Ghana – Power Distribution Services Saga in 2019. The role of civil society including the media in unearthing some of these cases of corruption cannot be overlooked (Modernghana, 2018). Box 8.1 shows a list of some of these corruption cases championed by the media and which cut across various sectors of the economy and governance.

As much as perception is not reality, perception to a significant extent, reflects the reality in the light of certain occurrences, decisions and observed trends. The observed trend in the fight against corruption is seen as being ‘partisan in nature’ with political opponents largely being prosecuted by incumbent governments who are hesitant to prosecute their own in similar circumstances. The support for the fight against corruption by politicians seems to be more when they are in opposition because when in government, they quickly forget their

¹ This involved the rebranding of 116 buses in the national colours with an embossment of the pictures of the then President John Dramani Mahama and the three former presidents of the Fourth Republic with the cost of each bus having been overpriced and paid for from the Petroleum Fund.

previous stance on and support for good governance practices and get more defensive of corrupt practices associated with their own affiliates.

Additionally, cases of corruption which were used as campaign promises have either only received ‘a slap on the wrist’ or not received closure over a long period of prosecution or going through endless appeal processes. Examples of these include the Waterville and Woyome Cases, the Bus Branding Saga and the COCOBOD Fertiliser Saga. On the other hand, others such as the ECG-PDS and

Box 8.1: Major Cases of Corruption over the 2010-2020 (led by the Media)

Over the decade, there were various corruption cases in the public space with personalities in government (executive, judiciary and legislature), sports, civil service and the private sector, among others. The pervasive nature of corruption in these areas gives credence to the perception of Ghanaian society being corrupt. Examples of cases of corruption during the period under review include:

- ‘*Contracts for Sale*’ - Investigation by Manasseh Azure Awuni into potential corrupt actions of the Former Chief Executive Officer (CEO) of the Public Procurement Authority (PPA) in 2019
- ‘*Number 12*’ – Investigation by Anas Aremeyaw Anas into corruption in Football Administration in Ghana and 15 other African countries in 2018
- ‘*Robbing the Assemblies*’ – Investigation by Manasseh Azure Awuni into corruption in the district assemblies with the connivance of bureaucrats, politicians and the private sector in 2017.
- The *Ford Expedition Gift* given to President Mahama by a Burkinabe Road Contractor - Investigation by Manasseh Azure Awuni in 2016
- ‘*Ghana in the eyes of God: Epic of Injustice*’ – Investigation by Anas Aremeyaw Anas into corruption in the judiciary in 2015.
- The Savannah Accelerated Development Authority (SADA) Scandal – Investigation by Manasseh Azure Awuni in 2014 into misappropriation of funds for tree planting and guinea fowl projects.

Source: Collated from the journalists’ websites and major news websites

BOST cases have not been taken up aggressively and dealt with. In some cases, there is no prosecution in sight. The outcome of the “*Contracts for Sale*” Case is spelt out in Box 8.2.

In 2020, two major incidents in the run-up to the crucial general Presidential and Parliamentary elections, raised doubts in the minds of the citizens with respect to the fight against corruption. The first was the President’s directive for the then Auditor-General, Daniel Yao Domelevo to proceed on his accumulated

leave of 123 days (turned into 167 days to include his 2020 leave) with effect from July 1, 2020 and subsequently his 'forced retirement' upon his return. The government's reason for his retirement was simply his having reached the retirement age, hence the decision for him to proceed on leave. This was not received well at all by many civil society organisations, particularly those involved in the anti-corruption fight. His 'forced retirement' was considered an affront to all anti-corruption bodies with many known corruption campaigners expressing dismay and shock at it and requesting the president to reinstate him particularly because the current NPP Government had touted persistently their vision to fight corruption (Myjoyonline, 2020; Cromwell, 2021). This is particularly so because he had been touted to be very instrumental in the fight against corruption and therefore could have had a post-retirement contract if the government of the day really were committed to the fight against corruption. In any case, there were other appointees in similar positions who had been given post-retirement contracts with the same reasoning of their instrumentality to the success of what they were doing in their respective institutions.

Box 8.2: Outcome of Manasseh Awuni Azure and the Public Procurement Authority Saga

The freelance investigative journalist, Manasseh Awuni Azure through a documentary entitled "*Contracts for Sale*", spearheaded the investigations into potential corrupt actions of the Former Chief Executive Officer (CEO) of the Public Procurement Authority (PPA), Mr. Adjenim Boateng Adjei. The documentary which was aired on Wednesday 21st August, 2019 on the Joy News Channel revealed many acts of malfeasance being undertaken by the then PPA CEO which were heavily reflected in his Bank Statements of Account.

Mr. Adjei was found to have established a company known as *Talents Discovery Limited* shortly after his appointment in 2017 which he used as a front for illegal sale of contracts originally 'won' through single source/ restricted tendering and strong political links. He was assisted by his brother-in-law, Mr. Francis Arhin to engage in such illegal acts for selfish gains. On the basis of these allegations, Mr. Adjei was suspended by the President of the Republic, Nana Addo-Dankwa Akufo-Addo on August 22, 2019 and subsequently, sacked on October 31, 2020 after a series of investigations by the Commission for Human Rights and Administrative Justice (CHRAJ) and the Office of the Special Prosecutor proved that he was guilty of conflict of interest. He was slapped on the wrist with a 5-year ban from holding any public office.

Sources: Arku, 2020; CorruptionWatch, 2020b

Secondly, in the run-up to the general elections, the much acclaimed citizen vigilante who became the first Special Prosecutor, Martin Amidu, resigned from his position and alleged “political interference” in his work which had affected the high expectations of his role. He stated that the last straw for him was the Agyapa Royalties Deal which, in his opinion, was not an investment in the interest of the nation and the downplay by the President himself of a report he had made on the pros and cons of this deal. This was also against the backdrop of the disappointment of Ghanaians in the Office of the Special Prosecutor which had not produced tangible results after three years of existence. This resignation made many question the state of transparency and accountability of the Ghanaian government and fuelled the perception of a losing battle against corruption in Ghana. It was speculated in the public sphere that this resignation and accusation from the Special Prosecutor contributed to the narrow margin lead of the incumbent government over the opposition in the 2020 general elections and the resultant hung parliament.

Audit Reports

Over the years, the audit reports from the Auditor-General’s office have shown various irregularities, misconduct and misappropriation of funds by public officers, in some instances with the connivance of private sector businesses (Ghana Audit Service, 2019a, 2019b, 2021a, 2021b). The Auditor-General’s Report on the use of Public Accounts by the Ministries, Departments and other Agencies (MDAs) for 2020 showed that there were significant increases in financial irregularities within the sub-categories of debts/loans/advances, payroll and contracts (Ghana Audit Service, 2021a). The interesting finding of a significant decrease in tax irregularities (See Table 8.4) could be as a result of the slow business environment due to the COVID-19 pandemic and subsequent lockdown. Table 8.4 shows all the sub-categories of irregularities observed by the Auditor-General in the annual audit reports from 2010 to 2020. The trends observed show a significant increase in the amounts under tax irregularities a year after an election year, at least in the case of the 2012 and 2016 elections, and an increase in cash irregularity amounts during election year, a reduction after elections and an increase again midway through the tenure of the incumbent government. With respect to payroll irregularities, it was observed that there is an increase during election years with fluctuations in between these two years. For procurement irregularities, it was observed that these increased consistently from the year before elections, through the election year to the year after the election. These possible avenues for corruption may be due to opportunities found in the industrial actions undertaken by various groups prior to elections for increases in salaries or citizens’ requests for development projects and the incumbent government’s attempts to give the assurance that they are addressing such issues. In such instances, the awarding of contracts to cronies who may

TABLE 8.4: Summary of Various Financial Irregularities Observed by the Auditor-General in the Public Accounts by MDAs (2010 -2020)

	Tax Irregularities	Cash	Debt/Loans/ Advances	Payroll	Stores/ Procurement	Rent	Contract	Total
2010	72,414,244.00	94,545,872.00	4,665,375.00	498,259.00	684,375.00	82,838.00	283,578.00	173,174,541.00
2011	52,838,612.21	33,972,751.25	5,709,276.16	1,021,062.77	780,027.67	220,388.66	24,946,637.32	119,488,756.04
2012*	1,161,315.24	340,146,161.75	6,776,364.99	45,147,616.54	866,451.98	-	1,620,641.51	395,718,552.01
2013	57,215,082.84	268,764,476.50	19,133,001.39	1,665,500.55	2,740,788.67	333,066.38	127,856,539.47	477,708,455.81
2014	217,186,533.45	5,089,352.06	13,755,902.51	11,426,144.03	2,373,354.81	171,073.85	2,784,226.72	252,786,587.43
2015	305,417,021.42	47,629,013.32	77,857,099.61	1,595,071.13	20,623,604.46	115,505.93	51,941,818.68	505,179,134.55
2016*	42,866,490.70	2,053,622,215.68	6,775,974.47	4,281,994.51	35,940,445.43	9,049,212.49	13,006,034.86	2,165,542,368.14
2017	655,599,736.33	190,560,990.86	2,695,601.00	1,776,893.00	41,668,682.00	94,472.00	-	892,396,375.19
2018	4,788,284,799.00	388,925,019.94	594,889.00	1,875,347.00	6,823,337.00	3,941,756.00	5,598,252.00	5,196,043,399.94
2019	2,666,743,134.56	276,624,480.40	201,000.00	469,953.00	20,604,593.00	43,467,634.19	77,093.00	3,008,187,888.15
2020*#	694,386,436.15	34,034,697.72	1,108,660,041.95	4,487,494.84	10,667,174.60	29,576,414.36	171,364,190.23	2,053,176,449.85

*Election year # COVID Period

Source: Ghana Audit Service (2011 – 2021)/Author's compilation from the Reports of the Auditor-General on the Public Accounts of Ghana: Ministries, Departments and Other Agencies (MDAs) (31 December, 2010 – 31 December, 2020)

not be qualified is not far-fetched and can be associated with the observed trend of an increase in contract irregularities before an election, through the election year to the year after.

Situation So Far

Instances of corruption in Ghana as observed at global levels cover both petty and grand corruption and include bribery, embezzlement, extortion, kickbacks, nepotism, cronyism, clientelism, lobbying, insider trading and influence peddling and yielding to a conflict of interest position, among others (Short, 2009; PPA, 2013; Agbodohu & Churchill, 2014; GII/GACC, 2019). Many of the reported cases of corruption in Ghana are about procurement issues, sole-sourcing, financial loss to the state and payment of judgment debts (GII/GACC, 2019; Ghana Audit Service, 2019a; 2019b; 2021a; 2021b). These are mostly not prosecuted effectively, especially when tagged with the political party colours of an incumbent government. These and other points mentioned earlier give credence to the perception that Ghana is losing the fight against corruption.

The setup of the RTI Commission and the inauguration of its governing council is one positive step in the fight against corruption. However, it is limited with the delay in the drafting and adoption of the supportive Legislative Instrument. This will have to be worked on with some urgency to bring the Commission into full force to contribute to the anti-graft campaign. The appointment of a new Special Prosecutor in August 2021 after the resignation of the previous one is also a step in the right direction but can only yield the best dividends if the supportive logistics, space and collaboration are provided by the various arms of government. In light of the above experiences in the fight against corruption in Ghana and the various legislative, policy and institutional frameworks in place, there is more room for improvement and the opportunities lie in the firm decision to take the bull by the horn and apply the laws/rules and sanctions without fear or favour and particularly, without a partisan lens. This will give hope to many a Ghanaian who has lost hope in the fight against corruption as indicated in the study by Centre for Democratic Development (CDD) (2021).

Conclusion and Policy Recommendations

Ghana's fight against corruption has been wavering. The fight against corruption in Ghana can be described more as a 'see-saw' fight with very good legislations and policies in places but with minimum implementation to achieve results. Despite the presence of the necessary institutions, policy and legislative frameworks, the collective and consistent implementation has evaded the process of ensuring a more successful trajectory of positive prosecution outcomes. Having declared at the beginning of his first four-year tenure (2000-2004) a

'Zero Tolerance for Corruption' policy, His Excellency John Agyekum Kufour, later stated that, 'Corruption is as old as Adam', while calling for evidence that could lead to successful prosecutions as against hearsay and rumours. These sentiments have been echoed by the Presidents who have come after him: President John Atta Mills and President John Dramani Mahama (2009–2016) and President Nana Addo Dankwa Akufo-Addo (2017 to date), thus demonstrating the intractability of and perceived insurmountability of corruption, in spite of ongoing prosecutions.

There are, however, windows of opportunity to translate our laudable legislation and policies into action. The necessary intangibles needed in this fight are: a willing leadership committed to the fight against corruption, a protected, highly ethical media that enjoys its rights responsibly and an empowered citizenry who can put concerted efforts into action to fight this socioeconomic and political canker and make some appreciable progress in the fight against corruption by holding duty bearers accountable as well as being citizens of integrity themselves in daily practical ways. The promotion of digitalisation in government business (e-government) is also a significant tool in eliminating middlemen, improving efficiency and cutting down delays in service delivery to help minimise the bureaucratic bottlenecks that encourage corruption. In light of the conclusions above, the following recommendations have been proposed in the continuous fight against corruption in Ghana:

Sustained commitment to the corruption fight: While Ghana is almost always credited for being the 'first to' do many things in the sub-region, the issue of implementation is, to a large extent, a major challenge against the realisation of the full potential of such laudable policies. It is recommended that government makes more conscious efforts and takes bold and deliberate steps to implement the policies that will facilitate and sustain the fight against corruption. Governments should build the political fortitude to prosecute not only opponents but their own party politicians to show their commitment to the anti-corruption fight. If the cleaning up starts from among their own and culpable party politicians, it would be much easier and more acceptable to the citizens to support the fight against corruption, seeing that there is fairness, justice and the rule of law for all.

Concerted efforts from a dedicated government and an empowered citizenry: There is the need for concerted efforts from government (all arms of government), the private sector and civil society in ensuring the achievement of targets and goals set for the progress of the country in the fight against corruption. To enhance accountability and transparency, which are key to progress in the anti-corruption campaign, the RTI Act needs to be fully operationalised with

the enactment of the legislative instrument, the full set-up of the information unit and the production of manuals to aid citizens' easy access to relevant information.

Strengthening of oversight institutions: There is the need to have oversight institutions that are well-resourced with adequate funds, logistics and human resources to minimise their dependence on the goodwill of any government. State prosecutors in the various institutions such as the Attorney General's Office, the Office of Special Prosecutor and the Police Service must also be supported with capacity building, complemented by a good remuneration, to keep them ready to prosecute corruption cases without fear or favour.

Need for leadership to show and commit to building the culture of integrity among the citizens: Leaders can live by example and campaign for a culture change, from corruption to the promotion of integrity starting from the basic levels of education to the tertiary. A leader who is involved in grand corrupt practices will certainly find it difficult to deal with 'petty' corruption by his/her subordinates. Severe sanctions can be put in place and applied when necessary, to serve as a deterrent to others who may be contemplating engaging in various corrupt acts and this will improve the moral fibre of the society.

Ensuring media freedom and protection of journalists: As the fourth estate of the realm, the media is very key to the democratic development of the country, for which reason there is need to ensure media freedom and the safety of the journalists who risk their lives to expose corrupt practices in the society. The nation stands to gain more from responsible, free and safe journalism than a culture of silence.

Passage of the Conduct of Public Officers' Bill: There is need for urgency in the passage of the Conduct of Public Officers' Bill which was approved by Cabinet in 2013 and has since been at the consideration stage in Parliament. There have been calls by CSOs to re-table it and strengthen some sections. This bill will provide the right legal framework needed to identify and manage conflict-of-interest scenarios with respect to public officers, guide the declaration of assets for office holders and ensure that unethical practices are reduced to the minimum and appropriate sanctions are applied to serve as a deterrent.

Other relevant practices recommended include the promotion of digitalisation in government business (e-government) and the minimalisation of discretion in information flow, ensuring impartiality of the judiciary so that justice is not only done, but should manifestly and undoubtedly be seen to be done. Additionally, monitoring of public procurement processes is important to minimise sole-

sourcing and conflict-of-interest situations, and promote enhanced anti-corruption efforts not only in the public sector but in the private sector too.

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Environment

9

DECONSTRUCTING THE SOCIO-ECONOMIC COST OF DEFORESTATION IN GHANA AND THE PLACE OF THE GREEN ECONOMY

Introduction

Forests form an integral part of the world's biodiversity. As of 2020, global forest resources occupy 4.06 billion hectares of land worldwide, representing about 30.8% of the global land area (FAO and UNEP, 2020). These forest resources are unequally distributed across the globe. More than half of the forest resources are found in only five countries in the world, with the Russian Federation hosting one-fifth (20.1%) of these resources, making it the country with the largest share of forest resources as of 2020 (FAO and UNEP, 2020). More than one-third of the world's forest resources are primary forests and nearly half of these resources remain free from human interference, even though the rate of interference varies among countries and geographical regions of the world, with some countries like Nigeria¹ and the Philippines² losing more than half of their natural forest resources.

Forest resources are critical to the existence, balance and continuity of the natural ecosystem. Besides serving as a habitat to, and preserving the diverse fauna and flora of the ecosystem, forest resources are important for the survival of

¹ see <https://news.mongabay.com/2005/11/nigeria-has-worst-deforestation-rate-fao-revises-figures/>

² see <http://www.fao.org/3/w7730e/w7730e0b.htm>

mankind, through the provision of environmental cushioning, social and economic benefits (Derks, Giessen, & Winkel, 2020; Kajtoch, Wilk, Bobrek, & Matysek, 2016; Ferenti, Cupsa, Sas-Kovács, Sas-Kovács, & Covaciu-Marcov, 2013). Forests provide livelihood opportunities to a significant proportion of the world's population, especially the poorest groups in society (Potthoff, 2005). Around 1.6 billion people rely on forests for a living³. An estimated 13 million people are employed in the formal forest-related sector whereas 41 million people are also employed in the informal forestry sector globally⁴. Forest resources ensure the sustainability of the global food chain, providing one of the basic subsistence needs, food, to all living creatures, including humankind. Forest resources provide the majority of the nutritional needs of man while meeting other life supporting needs such as oxygen, energy or fuel, water and transportation (Vira, Wildburger, & Mansourian, 2015a; Vira, Wildburger, & Mansourian, 2015b). The global climatic changes, largely caused by anthropogenic activities, have amplified the importance of forest resources. Forests help in mitigating climate change by serving change by serving as major sinks for greenhouse gas (GHG) emissions, abating global warming and preserving the health of the global system. (FAO and UNEP, 2020; Hall, Scott, & Gössling, 2011; Fearnside, 2001).

Natural disturbances such as wildfires, pests, diseases and adverse weather conditions are devastating to the health of forests (FAO and UNEP, 2020). However, deforestation mainly driven by human activities is a bigger challenge to the health of the world's forests. Deforestation has accounted for about 420 million hectares of forest loss since 1990, with Africa recording the highest net loss of forest area of 3.94 million hectares per year between the years 2010 and 2020 (FAO and UNEP, 2020; Riitters, Wickham, Wade, & Vogt, 2012; Morris, 2010).

A forest in Ghana is defined as a fifteen percent (15%) canopy cover with a minimum height of 5 meters and a minimum area of 1 hectare (FC, 2017). At the beginning of the 20th century, there were 8.2 million hectares of forest cover in Ghana. This resource expanse has been depleted to an alarming level of 1.6 million hectares as of 2012 (MLNR, 2012). With an annual loss of forest cover estimated around 2% since 2000, which is about 135,000 hectares per year of forest cover loss (FC, 2016b). Citing the World Resources Institute (WRI), Erickson-Davis (2019) notes that Ghana's forest cover depleted at a rate of 60% between 2017 and 2018 going down as the highest depletion rate in the world

³ See <https://www.downtoearth.org.in/news/about-16-billion-people-of-the-world-depend-on-forests-for-living-44647#:~:text=> (Accessed: 12/11/2020).

⁴ See <http://www.fao.org/rural-employment/agricultural-sub-sectors/forestry/en/> (Accessed: 24/01/2021).

at the time. This statement, although denied by the Forestry Commission of Ghana as not a 60% depletion rate but a 60% change in loss⁵, it was confirmed by the Satelligence Data Analytics Company⁶ with satellite images showing the devastating loss of Ghana's forest resources especially in the Tano-Offin forest reserve in the Ashanti region (Yoda, 2019). Deforestation has also increased the presence of GHG in the atmosphere. The annual average emissions of GHGs due to deforestation in Ghana was 41.1 million tonnes of carbon dioxide equivalent (tCO₂e) between 2010 and 2015 (FC, 2017).

Agricultural expansion is the primary cause of deforestation globally (FAO and UNEP, 2020). The high dependence of countries especially, developing economies on agriculture can be attributed to the high rate of deforestation in the world (Adu, Marbuah, & Mensah, 2012). In Ghana, agriculture alone, particularly cocoa farming is the cause of 50 per cent of deforestation, 35 per cent by wood harvesting, 10 per cent by urban sprawl and 5 per cent by mining and mineral exploitation (MLNR, 2012).

This chapter of the Ghana Social Development Outlook 2020 seeks to provide a situational analysis of the forest resources in Ghana from the beginning of the 20th century and the extent to which green economy approaches could support the reversal of the deforestation menace in Ghana. Following this introduction, Section Two lays out the conceptual, data and methodological context of the chapter while Section Three gives an overview of Ghana's forest resources. Section Four discusses the trends of deforestation in Ghana from 2000 to 2019, the factors underpinning deforestation, Covid-19 and the state of forests in Ghana as well as the socio-economic and environmental cost of deforestation. The place of the green economy in the deforestation menace is discussed in Section Five and the chapter concludes with policy implications from the findings in Section Six.

Conceptual Framework and Methodology

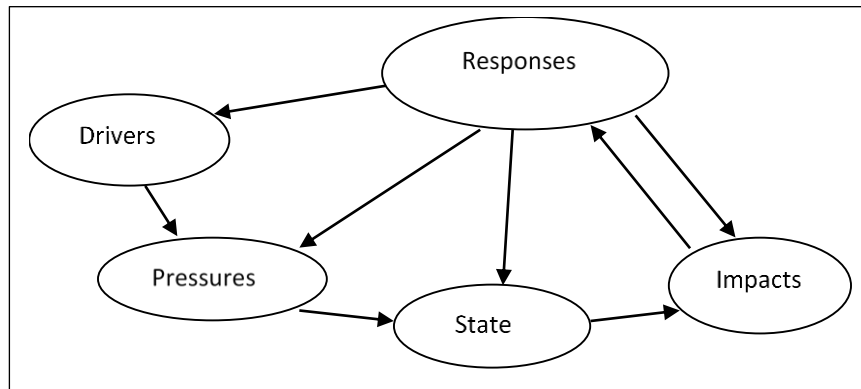
This Chapter leans on the human environment systems (HES) conceptualisation and the concept of the *green economy*. The HES embodies all environmental and technological systems that are critical for or affected by humans (Binder et al., 2013; Scholz & Binder, 2003). The HES underpins the mutual provision of various forms of support and interaction between humans and other environmental media. It is cognate to the broader concept of the Drivers, Pressures,

⁵ See <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Forest-Commission-says-report-on-forest-cover-loss-inaccurate-746296> (Accessed: 30/03/2021).

⁶ See <https://satelligence.com/news/2019/5/17/cocoa-not-main-cause-of-deforestation-in-ghana> (Accessed: 24/03/2021).

States, Impact and Responses (DPSIR) framework, which shapes the discussion in this chapter. The DPSIR framework addresses the main components of the complex and multidimensional, spatial and temporal chain of cause-and-effect that characterise the interactions between human society and the environment. The environmental medium being assessed in this chapter is the nature of deforestation in Ghana, with the DPSIR framework being applied to understand the various levels of anthropogenic causes, the consequences of the interference as well as the responses to mitigate the impacts.

Figure 9.1: Conceptualising deforestation with the DPSIR framework



Source: Author's own construct

Drivers are the fundamental processes/activities in society that influence a change in an environmental medium whereas pressures are the variables that directly bring about observed changes in the environment. States on the other hand refer to the temporal condition of a system or environmental medium at a particular time, exerted on it by the pressures. Impacts are the direct and indirect effects of the state of the environmental medium across all sectors whereas responses are the initiated actions to tackle the drivers, pressures, state and impact (UNEP, 2007). The chapter is basically structured along the pillars of the DPSIR framework. The drivers and pressures of deforestation in Ghana are discussed together as the various human interferences or inactions that have resulted in the degradation of Ghana's forest resources. Various levels of impact of the degraded forest on sustainability in general, are discussed further in the Chapter. By way of response, the Chapter assesses the strategies that the government initiated to reduce the environmental risks of deforestation, to enhance the well-being of the citizenry, to enhance ecological balance, social equity and inclusiveness. These elements embody green economy strategies as defined by the United Nations Environment Programme.

Finally, the chapter uses secondary data from various sources including the Forestry Commission (FC), Ministry of Lands and Natural Resources (MLNR), Ghana Statistical Service (GSS), Food and Agricultural Organisation of the United Nations (Global Forest Resources Assessment), Global Forest Watch and statistics from empirical studies and reports for analyses on the trend of deforestation and its implications in Ghana since the year 2000. The data obtained from the various sources are presented in diagrams and tables, as well as pictorial evidence of deforestation in Ghana.

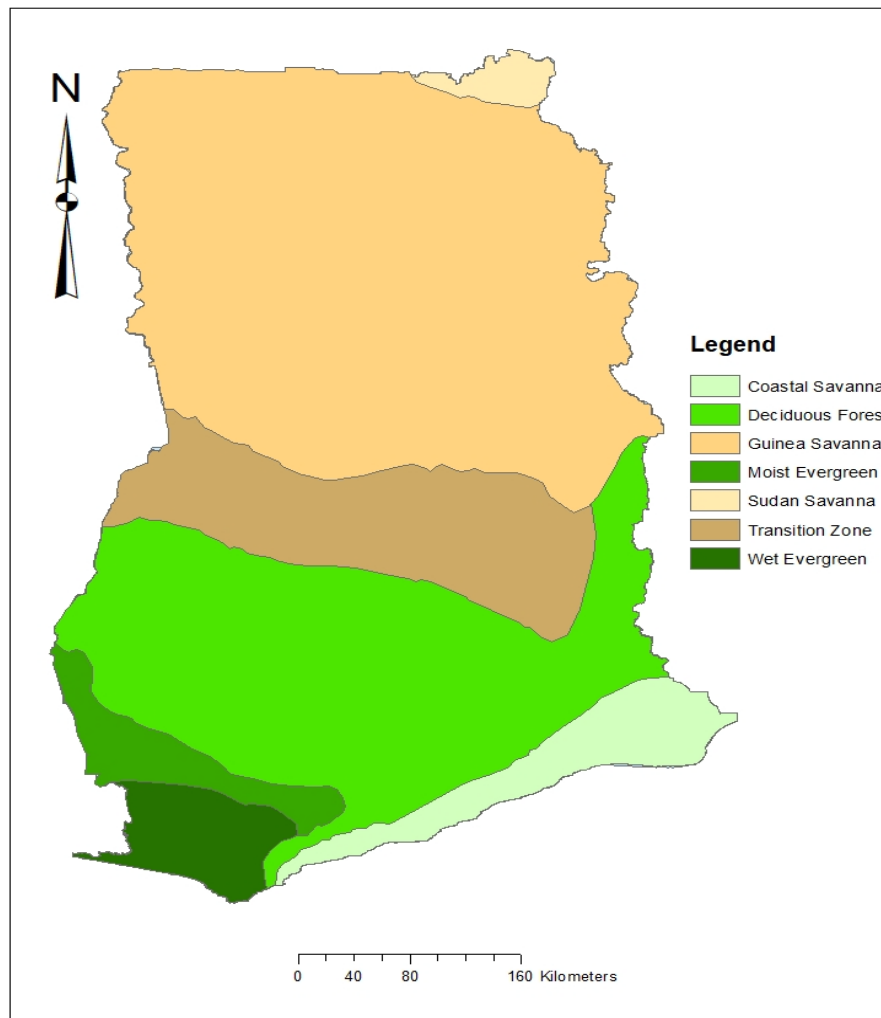
An Overview of Ghana's Forest Resources

The forest resources of Ghana cover 39% of the total land area of the country, with the area divided into three (3) main ecological zones i.e. the High Forest Zone (HFZ), Transitional Zone (TZ) and Savannah Zone (SZ) (Figure 9.2). The HFZ is found in the southern part of Ghana and covers about a third (8.2 million hectares) of the land area. It experiences the highest precipitation rate and is mainly vegetated with rain and deciduous forests. The Savannah Zone (SZ) mainly exists in the northern part of Ghana but stretches southward towards the east coast, covering 15.2 million hectares of forest. The SZ exists in three (3) different forms; Coastal, Guinea and Sudan Savannah. The Transitional Zone (TZ), which is mostly semi-deciduous forests covers 1.1 million hectares in the mid-part of Ghana and has characteristics of both the HFZ and SZ (MLNR, 2016a & FC, 2016).

The forestry sub-sector is critical to the economy of the country through the provision of many ecosystem services and functions. The supply of timber and wood products for local and foreign use, non-timber forest products such as food and medicinal plants, provision of jobs to millions of Ghanaians, and the protection of biodiversity, watershed, and climate change mitigation are some of the important benefits derived from forests. The Forestry sub-sector is considered as one of the largest contributors of foreign exchange to the country (UNEP, 2012). However, there has been a decline in its contributions due to the challenges in the sector such as deforestation. The sector contracted by 1.7% in 2019 and contributed approximately GHS 2.1 million to the country's GDP compared to agriculture (crops) which contributed approximately GHS 22 million to GDP and grew by 4.6% in 2019 (Ministry of Finance, 2020). The top 10 timber native species in Ghana's forests ranked in terms of volume are wawa (*Triplochiton scleroxylon*), esa (*Celtis mildbraedii*), dahoma (*Piptadeniastrum africanum*), onyina (*Ceiba pentandra*), ofram (*Terminalia superba*), esakoko (*Celtis zenkeri*), esia (*Petersianthus macrocarpus*), danta (*Nesogordonia papyrifera*), otie (*Psycanthus angolensis*) and kyenkyen (*Antiaris toxicaria*) (FAO, 2020).

Ghana has 266 forest reserves and 216 off-forest reserves (UNEP, 2015). Thirty forest reserves have been classified as Globally Significant Biodiversity Areas (GSBA). These forest reserves are within the HFZ and have a high repository of biodiversity (MLNR, 2012c). They also contain 1185 known species of amphibians, birds, mammals and reptiles of which 0.8% are endemic and 3% are threatened. Additionally, these forests harbour about 3725 species of vascular plants, with 1.2% being endemic (Butler, 2020). Differences exist in the quality of these forests across the various zones: the South-West forests are the most conserved whereas, the forests in the Savannah are the most degraded (MLNR, 2012c).

Figure 9.2: Ecological Zone Map of Ghana

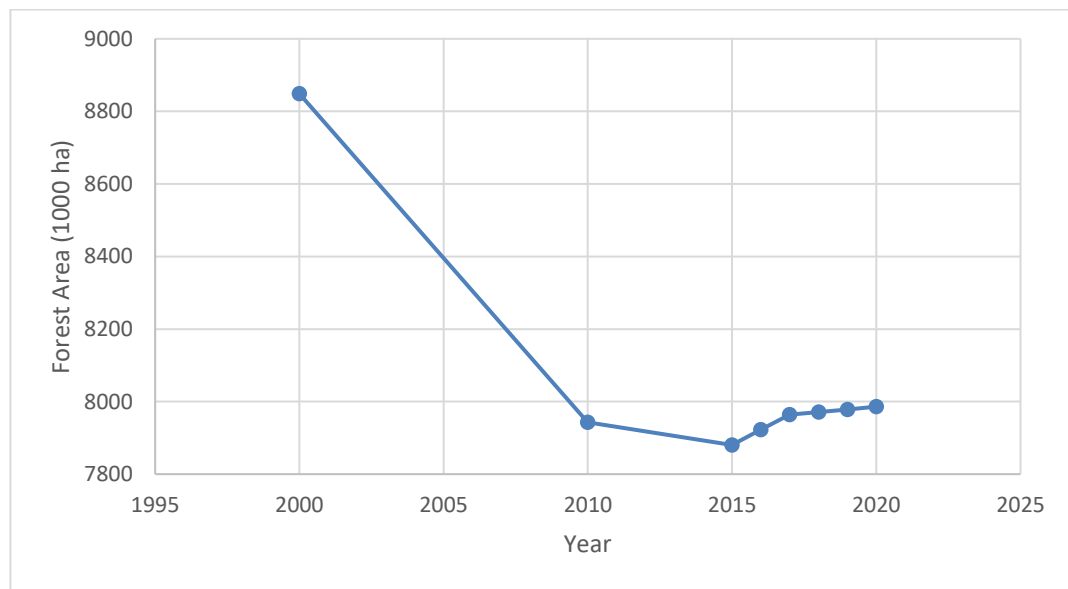


Source: Author's own construct

Deforestation trend in Ghana since 2000

Ghana is counted the countries in the world with the fastest rates of deforestation. At the turn of the 20th century, the country had approximately 8.2 million hectares of closed forest zone having lost approximately 2.7 million hectares (60%) from 1950 to 2000 (FC, 2016b). Since 2000, nearly 135,000 hectares of forest has been lost annually, translating into a deforestation rate of 2% per year (FC, 2016b). The Global Forest Watch (GFW) confirmed Ghana's alarming rate of deforestation in the first decade of the Millennium (see Figure 9.3) given that an estimated 1.17 million hectares of tree cover was lost from 2001 to 2019, which is equivalent to a 17% decrease in Ghana's forests over the period (GFW, 2020). It is, however, worth mentioning that there still exist inconsistencies in national and international agencies' reports on the country's forest cover and deforestation rates. There is very limited current data on the conditions of

Figure 9.3: Forest Cover in Ghana since 2000



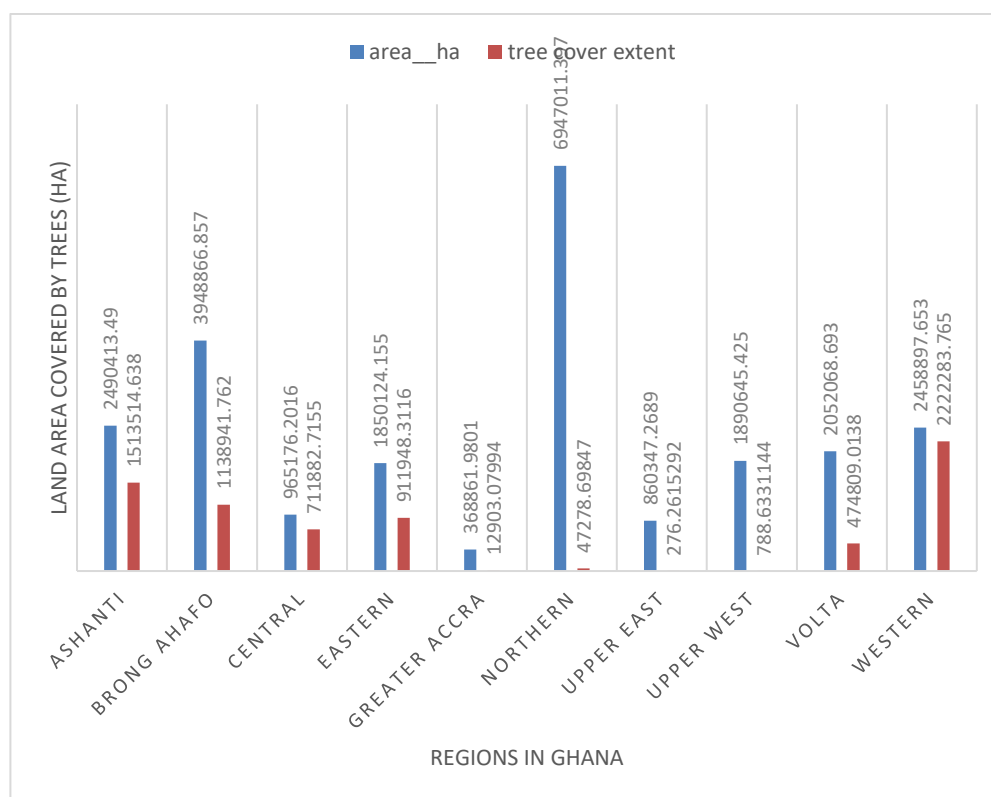
Source: Global Forest Watch, 2020.

Ghana's forest as the few available sources are relatively outdated. The available sources, however, suggest that the quality of Ghana's forests, especially the forest reserves, is on a spiral of decline. As of 1995, a total of 214 forest reserves existed in Ghana. Only 2% of the reserve area was deemed to be in excellent condition while 14% was considered to be in good condition. About 70% of the total protected area was degraded through human interference (Hawthorne & Abu-Juam, 1995). As of 2015, there were 266 clearly defined protected forest

reserves in Ghana (IUCN, 2016). A recent assessment of the status of some Globally Significant Biodiversity Areas (GSBAs) revealed the presence of illegal farming activities and illegal chainsaw operations in some of these enclaves, leading to degradation that is negatively affecting biodiversity, although their status as GSBAs areas has not changed (FAO, 2020).

Despite the general loss of forest cover across the past two decades, there has however been a gradual increase in forest cover since 2015 (Figure 9.3). The forest cover in the count has increased by approximately 105,000 ha within the five-year period (2015-2020). This is proof that with the right measures, the country can salvage and regain the lost forest cover.

Figure 9.4: Extent of Land Area covered by Tree per Region⁷ as at 2010



Source: Global Forest Watch, 2020

As at the year 2010, the Northern Region (now the Northern and Savanna Regions) had the largest land area in Ghana, occupying about 6.9 million hectares

⁷ The data is presented on previous 10 administrative regions since forest issues are yet to be reclassified along the revised 16 regions

of land area whereas the Greater Accra Region has the smallest land area, occupying about 36 thousand hectares of land space. In terms of tree cover, the Western Region has about 2.2 million ha of its 2.4 million ha of land space covered by trees, making it the region with the highest tree cover in Ghana (Figure 9.4). Together with the Western Region, Ashanti, Brong Ahafo (now the Bono, Ahafo and Bono East Regions), Eastern and Central Regions are the top regions with a large share of tree cover in Ghana.

From Table 9.1, the Western Region recorded the highest amount of forest loss from 2001 and 2019, losing about 425,000 ha of tree cover, with the Ashanti Region occupying a second position, with a loss of about 260,000 ha. The two regions accounted for 58% of all the area of tree cover loss from 2001 to 2019. The average area of tree cover loss for the period is 117,000 ha across all the regions in Ghana. In order of the number of areas of tree loss, Western, Ashanti, Eastern, Central and Brong Ahafo were the top five regions with the highest amount of deforestation in Ghana.

Results from Ghartey-Tagoe, Ekumah, Pappoe, & Akotoye (2020) work in the Ashanti Region, which has the second highest rate of deforestation in Ghana show that areas in the forest reserve that used to be rainforests are now turned into agricultural lands and settlements. The rainforest within the Atewa Range forest reserve had a drastic reduction from 345.52 km² in 1986 to 183.48 km² in 2016 whereas farmlands on the other hand increased from 328.43 km² in 1986 to 384.68 km² in 2016. Expansion in settlements within the forest reserve also increased to 354.91 km² in 2016 from 110.48 km² in 1986 (ibid).

Figure 9.5 presents the total amount of tree cover loss per year from 2001 to 2019. The year 2018 saw the highest loss of about 151,444 ha of tree cover and the lowest year being 2004. The World Forest Institute (WFI) confirmed this alarming loss in tree cover of Ghana in 2018 to have been the highest in the world. Plate 9.1 captures pictorial evidence of the devastating rate of deforestation over a three-month period in the Tano-Offin Forest Reserve in 2019.

Drivers and Pressures of Deforestation in Ghana

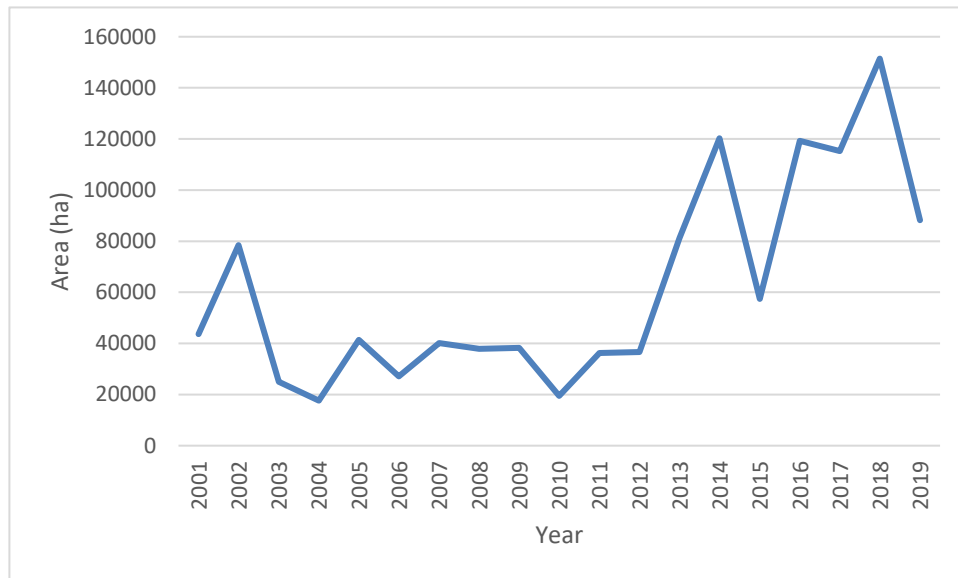
Several direct and indirect factors underpin the degradation of forest resources. The major drivers and pressures of deforestation are anthropogenic (human-induced) factors. These factors, if effectively controlled, can help preserve and restore forest resources that have been degraded. This section, therefore, discusses the key drivers and pressures of Ghana's alarming deforestation situation.

TABLE 9.1: Area of tree cover loss per region from 2001 to 2019

Year	Ashanti	Brong Ahafo	Central	Eastern	Greater Accra	Northern	Upper East	Upper West	Volta	Western
2001	5851.123	6517.158	9795.493	4951.658	73.641	387.746	1.134	14.168	705.023	15346.912
2002	15251.958	3472.815	14066.933	5699.771	92.237	191.453	0.454	1.819	412.356	39205.257
2003	8137.860	1258.319	3761.735	3064.141	61.546	31.415		0.076	594.479	8045.678
2004	2014.371	787.145	2838.917	876.785	18.754	59.224		3.108	1069.411	9957.524
2005	7549.778	3358.366	7846.020	3942.938	106.014	53.470		4.694	550.913	17934.207
2006	3887.669	5243.078	2871.108	1763.446	77.160	193.631	1.286	7.958	200.976	12889.794
2007	6641.420	6705.710	5316.577	7794.671	158.767	169.987	0.756	11.063	535.263	10514.451
2008	7294.648	2604.059	7806.380	6712.296	104.185	131.325	11.197	4.092	1299.116	14205.072
2009	7203.966	1897.882	5129.709	2576.869	126.687	193.938	0.832	9.627	1311.082	19801.931
2010	6155.685	1584.435	2120.358	1575.407	20.592	109.144		1.213	433.797	7499.372
2011	12522.116	4813.215	5442.166	4507.772	119.873	105.634	0.076	1.664	1031.709	7698.404
2012	5216.738	4179.573	3464.594	4220.595	55.721	10.025	0.758		977.273	18500.591
2013	21252.876	7620.917	9839.311	14124.430	108.843	4.336			2400.295	25877.452
2014	34473.828	11896.079	12761.252	14792.753	83.349	1.750			1391.675	44897.431
2015	11587.521	7064.227	6532.281	5729.949	58.930	1.217			919.720	25513.541
2016	34971.672	16647.654	13456.741	18062.593	228.455	0.911			3832.227	32044.308
2017	25325.166	19399.191	8418.511	24336.177	165.321	5.930			6993.387	30642.282
2018	25689.310	22374.061	23680.604	21502.292	115.265	4.933			4556.387	53522.743
2019	18987.304	9497.113	12504.013	12095.733	86.481	2.583			4465.235	30618.117

Source: Global Forest Watch, 2020

Figure 9.5: Tree cover loss per year from 2001 to 2019



Source: Global Forest Watch, 2020

Plate 9.1: 1-kilometre swath of forest cut off in the Tano-Offin Forest Reserve



Source: Planet Labs accessed via Mongabay Forest Series (Yoda, 2019)

Plate 9.2: Degraded lands in the Upper Wassa Forest



Source: Artisanal Small-Scale Mining in Ghana (2019)⁸

Agricultural Expansion

Agriculture has been the backbone of Ghana's economy for several years despite the decline in its contribution to Gross Domestic Product (GDP) over time (UNECA, 2015). That notwithstanding, it still remains a key sector in the economy, contributing about 19.7% of total GDP. Agriculture is also the largest employer of Ghana's population with one-third (37.1%) of the employed population being skilled agricultural workers. Also, over half (53.2%) of the migrant population are into agriculture, while 44.1% of households either own or operate a farm in Ghana, making the sector the largest employer of Ghana's population (GSS, 2019).

Thousands of hectares of forests have been cleared for agricultural activities especially the cultivation of cocoa for exports. At present, Ghana is the second largest exporter of cocoa beans after Ivory Coast. In their quest to boost cocoa

⁸ A presentation by the former Minister of Environment, Science, Technology and Innovation, Prof. Kwabena Frimpong-Boateng on the topic: Illegal mining (galamsey) in Ghana (2019). See <https://www.wrforum.org/wp-content/uploads/2019/11/ASM-IN-GHANA.pdf> (Accessed: 24/03/2021).

yields in the midst of inadequate use of fertilisers and diseases such as swollen shoot and pests, farmers clear large tracts of frontier areas to grow cocoa (Amanor, Yaro, & Teye, 2020; Asamoah et al., 2020). The shift from traditional shaded cultivation of cocoa to open cultivation further drives deforestation in cocoa growing regions in Ghana (MLNR, 2012) and the expansion of farmlands into forest reserves as well as open tree cultivation has exacerbated the rate of deforestation in forest reserves in Ghana (Acheampong, Macgregor, Sloan, & Sayer, 2019). Furthermore, the continual practice of 'slash and burn' by farmers continues to exacerbate the problem of deforestation in the country (UNECA, 2015).

Harvesting of trees for energy and illegal logging

The increasing demand for fuel wood and charcoal by households has devastating effects on forest resources as consumption and production are exceeding the Annual Allowable Cut (AAC) of timber in the off-forest reserves in the country (MLNR, 2016a). The AAC of Ghana is pegged at 2 million cubic metres of large hardwood logs from the natural forests which cannot be sustained due to decreasing supply (FC, 2016). The increased installation of milling companies as well as the depletion in most species of the forest stock has made the AAC unsustainable. The AAC has been exceeded by more than 46% on average over the last decade and should therefore be adjusted (Agyarko, 2011). The known culprits are logging for local and external markets as well as wood harvesting for biomass production.

Fuel wood and charcoal are the main sources of fuel for a majority of households for cooking and heating; and various enterprises such as bakeries, oil processors, breweries, fishmongers, amongst others, as an estimated 2678 Kilotonnes of Oil Equivalent (KTOE) of fuel wood has been consumed annually in Ghana since 2009 (Energy Commission, 2019). In addition to timber products, forests provide the main source of firewood and charcoal with more than 90% of fuel wood estimated to be supplied from farmlands and natural forests within the Transitional and Savannah Zones (MLNR, 2016 & MLNR, 2012). The harvesting of young trees for firewood and charcoal exacerbates the deforestation situation⁹. Similarly, the dependence of forest fringe communities on farming as a major source of economic livelihood also contributes to the gradual degradation of forests. The Atewa Range Forest Reserve, just like other forest reserves in the country, has had its boundaries vastly degraded through illegal logging and farming (Kusimi, 2015).

⁹ See <https://www.climatelinks.org/blog/mapping-charcoal-production-protect-land-ghana> (Accessed: 24/03/2021).

An estimated 17,000 people are engaged in illegal chainsaw operations in Ghanaian forests (MLNR, 2016a). These illegal activities have been carried out over the years, and continue to exist on the blind side of the forestry management authorities due to the pursuance of specific timber species found in such forests that are in high demand. The highly sought-after African Rosewood particularly, is being depleted at a rapid rate through the activities of illegal chainsaw operators (FC, 2016b). The British Broadcasting Corporation (BBC) in 2019 reported that over 540,000 tons of Rosewood, which is approximated to be six million trees, have been illegally extracted and sent into China from Ghana since 2012¹⁰. The lack of effective controls and supervision by the forestry management authorities, and the inadequacy of punishments meted out to culprits have also contributed to increased illegal chainsaw operations in Ghana. Supervision has been deemed poor as a result of the lack of resources and logistics such as geo- and drone monitoring systems needed for effective management of Ghana's forest resources (Hansen, 2011). The destructive nature of the activities of illegal loggers has also killed off new growth and caused patches of degraded land in forests (Kusimi, 2015).

Wildfires and biomass burning

The deliberate setting of fires by farmers in the agricultural practice of *slash and burn* has resulted in wildfires razing down large tracks of forest resources. Similarly, the smoking out of game by hunters has also caused bushfires destroying large portions of forests¹¹. Burning of bushes is part of the cultural/traditional farming practices in Ghana that has detrimental effects and can get out of hand. Increased population recorded in Ghana coupled with the lack of formal opportunities ensure that more people are venturing into agriculture, particularly subsistence farming solely for their survival needs. Due to low income, low mechanisation potential and the competitive demand for land parcels, farmers often use the *slash-and-burn* method in the initial stage of land preparation for farming. If the burning is not properly controlled, this method can result in unmanageable fires that can destroy hectares of agricultural and forest lands. The high taste for bush meat has also pushed some people, especially the youth in the rural parts of Ghana to deliberately set bushes on fire with the intention of gathering restless and burnt wild animals.

Agencies such as the Environmental Protection Agency (EPA), National Fire Service (NFS) and Forestry Commission have not been able to properly implement the anti-bush fire law in Ghana as the 1983 law (PNDC Law 46) on bushfires did not explicitly assign the responsibility to specific agencies¹². The latter part of

¹⁰ See <https://www.bbc.com/news/world-africa-49165636> (Accessed: 24/03/2021).

¹¹ See <https://www.nature.com/articles/547281c> (Accessed: 24/03/2021).

¹² See https://gfmcc.org/gh/gh_1.html (Accessed: 09/02/2021).

the month of December has emerged as the peak fire season in Ghana (GFW, 2020). The year 2020 recorded the most fires in a year with 15,030 Visible Infra-red Imaging Radiometer Suite (VIIRS) alerts (GFW, 2020). According to MLNR (2017), the 2015/2016 fire season had a record of 10,015 ha of plantations being affected by fire, whereas in March 2017 alone, 1,448.51 ha of plantations got affected by fire. Forest plantations in the Savannah and Dry Semi-Deciduous Forest Zones have experienced recurrent fire outbreaks attributed to budgetary constraints and ineffective fire management regimes (FC, 2016a).

Urbanisation and infrastructure growth

The population of Ghana has been growing at an annual growth rate of 2.5% since 2010 and is currently estimated to be 30.8 per provisional results from the 2021 Population and Housing Census (PHC)¹³. The increase in population has translated into an increased demand for both forest and non-forest resources as well as agricultural products. Increased population coupled with the high rate of rural-urban migration has led to the expansion of urban areas and the creation of new settlements. The population of migrants in Ghana is 40% of which 33.9% are in-migrants and 6.1% are return-migrants, with more than half (51.3%) of them located in the Greater Accra Region, whereas the six Northern regions have the least proportion of migrants (GSS, 2019). Population pressure has led to encroachment and the extraction of forest products for housing, infrastructure and agriculture (Kusimi, 2015). Infrastructural demands such as roads, schools, hospitals and many more have also increased due to rising population growth and urbanisation, adding to the pressures on woodlands.

The livelihoods of about 67% of an estimated 11 million people living in forest areas are directly dependent on forest resources (MLNR, 2012a). For instance, Kyekyewere, one of the oldest and largest settlements in the Tano-Offin forest, depends solely on forest resources for survival. The predominant livelihood activity of this settlement is subsistence farming, which has been proven to be one of the major causes of deforestation in West Africa. Expansion in settlements close to forests, coupled with infrastructure development, have also contributed to deforestation over the years (Yoda, 2019).

Mining and Mineral Exploitation

Ghana is endowed with substantial deposits of minerals including gold, diamonds, manganese and bauxite. The extraction of these minerals though

¹³ See <https://statsghana.gov.gh/gssmain/storage/img/in-fobank/2021%20PHC%20Provisional%20Results%20Press%20Release.pdf> (Accessed: 09/11/2021).

predominantly unregulated, creates employment opportunities for communities in the catchment areas¹⁴. The contribution of gold extraction to the annual revenue generation from minerals has been over 90% for many years (Minerals Commission, 2014). Mineral reserves in Ghana are found in the South-Western part of the country, which hosts the major forest belts thus, leading to large swathes of forest resources being destroyed in the exploitation processes of these minerals, as evidenced in Plate 9.3.

The illegal activities of small-scale miners in the country pose serious dangers to the environment. Several hectares of Ghana's forest have been cleared to give way to illegal mining activities, even in protected zones. Policy gaps, ineffective monitoring and formalisation of operations of artisanal and small-scale miners account for the increase in the illegal operations in Ghana¹⁵. Due to the high unemployment rate especially among the youth in Ghana, coupled with the lack of sustainable livelihood activities for many vulnerable people, and widespread poverty, many have been pushed into illegal mining activities. According to Hirons (2013), illicit mining has been a source of income for many people for several years, especially the youth who see the activity as a means of gaining employment and income. Boadi, Nsor, Antobre, & Acquah (2016) noted that 4.4% of the Offin Shelterbelt Forest Reserve has been destroyed by the activities of illegal miners from the surrounding communities. Globally significant biodiversity areas in forest reserves such as the Afao Forest Reserve, the Atewa Range GSBA, Cape Three Points GSBA and Tano Offin GSBA have been rapidly depleted of forest cover due to the activities of illegal miners and open cast mining practices (MLNR, 2012c). Aside from the destruction caused to biodiversity through the removal of the forest, the illegal mining activities (known as *galamsey*) have also destroyed several water sources and impacted many communities that depend on these biodiversity and water resources. Many lives have been lost to these illegal activities and several hectares of land and water resources have been destroyed beyond sustainable levels. According to the former Minister of Environment, Science, Technology and Innovation (MESTI), Professor Kwabena Frimpong Boateng, an estimated \$29 billion dollars is needed for the reclamation of about 23,000 square kilometres of land surface

¹⁴ According to Boadi, Nsor, Antobre, & Acquah, (2016), an estimated 1 million people are engaged in small scale artisanal mining contributing to about 34% of gold production in 2012.

¹⁵ See <https://servirglobal.net/Global/Articles/Article/2725/reducing-illegal-gold-mining-in-the-tropical-forests-of-ghana-and-peru-a-forthc#:~:text=In%20Ghana%2C%20illicit%20artisanal%20mining,deforestation%2C%20forest%20and%20land%20degradation>. (Accessed: 20/02/2021).

area, which has been destroyed through mining¹⁶. This area alone represents 10% of the total land area of Ghana.

Plate 9.3: Ongoing illegal mining operations in Ghana's forests¹⁷



Source: See footnote ¹⁷

Institutional and policy failures

Ineffective and ill-resourced institutions responsible for forestry services coupled with existing policies have failed to adequately protect forest resources from over exploitation in Ghana. The Forestry Commission of Ghana is responsible for licensing and regulating the activities of timber loggers in Ghana. In conjunction with other state agencies, particularly the Ghana Police Force, the Forestry Commission is supposed to monitor and arrest forest product harvesters who have no licenses and are operating illegally. The fact that there are so many illegal operators felling trees indiscriminately, even in protected areas in

¹⁶ See <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ghana-needs-29-billion-to-reclaim-mined-out-areas-Frimpong-Boateng-708982>. Prof. Frimpong Boateng was the Minister in charge of Environment, Science, Technology and Innovation (MESTI) from 2016 to 2020 (Accessed: 09/02/2021).

¹⁷ Source: <https://newsghana.com.gh/reject-mmdces-who-condone-illegal-mining-activities-fon/> (Accessed:14/03/2021)

the Ghanaian forests is testament to institutional failures as far as forest protection in Ghana is concerned.

The institutions lack adequate human resources as well as financial resources to acquire all needed materials to carry out effective monitoring of illegal activities in the Ghanaian forests. Ghana has so far been using Task Force personnel deployed at various times to different places to monitor and arrest illegal timber logging operators. With unsophisticated equipment, the inadequacy of the Task Force personnel presents opportunities for the illegal operators to elude the Task Force. Sometimes, the personnel also fall prey to bribes from these operators hence, they turn a blind eye to these illegal activities for their own personal gain.

Policies regarding forest product (timber) harvesting have also contributed to deforestation in Ghana. The lack of political will to commit to protecting the forest resources of the country has left gaps in the fight against deforestation in Ghana. The inadequate staffing and budgetary allocations to the Forestry Service illustrate this lack of political will. The annual allowable cut (AAC) of forest trees stipulated in the policies has not been revised to limit the exploitation of forest resources even though the deforestation rate continues to rise. Policies intended to discourage households from over-dependence on biomass fuels for cooking have not been very effective as 67% of the household population continue to use biomass as their primary cooking fuel. These failures in policies regarding forest protection have exacerbated the deforestation problem in the country.

Another policy failure contributing to deforestation is the lack of clear and consistent land use planning in the country. A majority of the land in Ghana is customary land with power vested in either chiefs, families or individuals who determine what lands will be used for while disregarding designated plans for the land (Yeboah & Shaw, 2013). This has led to the conversion of lands/forests into other uses such as farming and developmental projects. Disagreements about land-use have also led to serious conflicts as a result of the lack of proper land-use documentation. For example, in some cocoa planting Districts like Asunafo North and Amansie West, land for cocoa farming is finished unless people enter forest reserve areas, while in Northern Ghana there is an abundance of land which could be used for productive purposes, yet trees are rather being cut down for necessary energy needs (Quaye, Ampadu, & Onumah, 2014).

COVID-19 and the state of forests in Ghana

The COVID-19 pandemic has had a wide-ranging effect on all economies. In the midst of this uncertainty though, the world is believed to have benefited from

some short-lived environmental benefits. Global carbon emissions are estimated to have slowed down by 5 - 8% in 2020 because of imposed restrictions on movement as a result of the pandemic¹⁸. Vehicular mobility has been increasingly restricted in all countries around the globe, which has led to a drastic reduction in fossil fuel consumption. Other anthropogenic pollutant gases decreased, air and water quality improved for a short while in many countries, and wild animals have enjoyed some freedom from illegal hunting across the globe¹⁹.

But have forests flourished since the COVID-19 pandemic? From evidence around the world, the answer is, unfortunately, no. The global deforestation rate seems to have accelerated in 2020 instead even though due to the pandemic, enforced mobility restrictions, forestry services, forest protection and conservation activities in most countries were temporarily halted. Ecotourism has often funded forest resource conservation and monitoring of activities in countries like Costa Rica, Kenya and Brazil. The breakdown of this ecotourism sector as a result of the COVID-19 pandemic, coupled with mobility restrictions enforced in many areas have limited effective monitoring of activities in the forest zones. In other countries like Thailand, Indonesia, Cambodia, Colombia, Madagascar, Nepal and Myanmar, it is believed the lack of presence of the government agencies and NGOs responsible for forestry conservation and protection have cleared the way for illegal logging activities, even in protected areas²⁰. The situation on monitoring and conservation practices is not any different from the case of Ghana. Since the first cases of the COVID-19 virus were reported in the country, movement has been largely limited to essential services that include mainly health and security personnel. Most public service workers including forestry services workers were asked to stay at home, which means the illegal felling of trees happened on the blind side of the relevant authorities.

In addition to the above, most people were encouraged to stay and work from their various homes while schools were temporarily closed due to the pandemic. In Ghana, where households prepare and cook their own meals more than depending on fast-food delivery systems, it is expected that the use of utilities (water and fuels) would have increased during the COVID-19 era. The implication is that households that depend on biomass fuels would have had an increased consumption of these fuels over the pandemic period. The statistics show that 67% of households in Ghana used biomass as their main cooking fuel

¹⁸ <https://news.trust.org/item/20200904115518-tezdi/> (Accessed: 09/02/2021).

¹⁹ <https://www.frontiersin.org/research-topics/14527/covid-19-pandemic-impacts-on-forests> (Accessed: 09/02/2021).

²⁰ <https://news.mongabay.com/2020/07/covid-19-lockdown-precipitates-deforestation-across-asia-and-south-america/> (Accessed: 01/02/2021).

before the outbreak of the COVID-19 virus (GSS, 2019). The Stay-Home Agenda means 67% of households in Ghana would have intensified the use of biomass fuels that are primarily harvested from Ghana's forests, which ultimately would have led to an increased extraction of the country's forest resources.

Socio-economic and environmental costs of deforestation in Ghana

Social Impacts

One of the critical social impacts that deforestation has had on the Ghanaian economy is the loss of livelihoods. The over-exploitation of forest resources and increasing rate of deforestation has led to a decrease in non-timber forests products (NTFPs) such as food, bush meat, medicinal plants, nuts, bamboo and many more, that are essential for the survival and livelihoods of both urban and rural dwellers (MLNR, 2012c). The Ghana Living Standards Survey reports reveal that 471,436 households are engaged in the trading of some NTFPs (GSS, 2019). The trading of game is done by 101,075 households, of which 23,599 households sell wild honey; 116,508 households sell fruits and berries; 72,444 households trade in wild mushrooms; 78,905 households are engaged in the collection of wild snails and crabs; while 160,026 households also trade in shea nut and other wild fruits (GSS, 2019). Therefore, the reduction in these NTFPs due to deforestation impinges drastically on the livelihoods of large clusters of households.

Arguably, many households especially, those in the rural areas that engage in farming activities have lost their farmlands (livelihood sources) to deforestation, which has been triggered by mining activities and soil erosion. Accordingly, almost 70% of the total land surface of Ghana is prone to soil erosion due to deforestation (MESTI, 2013). Erosion causes the lifting of soil nutrients that support the growth of food crops. Without trees, the soil is unable to retain moisture and top soil, hence, the desertion of farmlands by farmers. In consequence, the continual search for new farmlands is manifest just like the cycle of deforestation.

Another social impact of deforestation of significant proportion is the pollution of water bodies. Many of the rivers in Ghana take their sources from forests. The Atewa Mountain Range Forest, for instance, is a source for the Densu, Ayensu and Birim Rivers (Schep et al., 2016). Over the course of the years, several water treatment plants by the Ghana Water Company Limited (GWCL) have had to be shut down for lengthy periods due to heavy pollution in the rivers caused by the activities of illegal miners in forests. The *Bunso, Osino, and Kyebi*

water treatment plants were all affected by illegal mining, causing the turbidity of the water to be too high for treatment. Communities have had to deal with the lack of clean water and GWCL risks destroying its equipment in treating the water as well as incurring huge losses because of the treatment (Bentil, 2018). Consequently, the threat to the health of residents living along and depending on streams, lakes and rivers polluted by the activities of miners cannot be overlooked. Water-borne diseases such as diarrhoea, cholera, typhoid, and hepatitis A are recurrent in the country and have led to the subsequent loss of life. The presence of lead, mercury and cyanide used in mining in drinking water is dangerous for both humans and biodiversity. Similarly, concerns have been raised about the drying up of water bodies due to the reduction in rainfall in the country as a result of deforestation²¹. River Owabi, which supplies drinking water to the second largest city of Ghana, Kumasi, experienced continuous drought along the river from 2010 to 2012 (Ikpe, 2016), resulting in acute water shortages in the city during the period.

Deforestation has also cost the country economically in terms of the loss of property and human life brought about by the interference in the ecological function of the forests. The loss of forest cover largely brought about by the activities of illegal miners caused the Birim and Pra rivers to overflow their banks in the upper and middle courses in July, 2011. Five people were reported dead, about 9000 people were displaced, more than 700 houses affected, and farms, crops, roads and personal property destroyed in communities including the Kwahu West, Fanteakwa, Atewa, Birim Central, Kwaebibrim and West Akim Districts in the Eastern Region (Reliefweb, 2011).

Economic Impacts

Deforestation is a major blow to the economy of the country, especially in terms of loss of foreign exchange and revenue earnings. It has been estimated that 3% of Ghana's GDP, about US\$210 million, is lost annually to wildfires (Oduro et al., 2012). Timber, which attracts foreign exchange and vegetation cover, are destroyed through the annual raging fires. The heightened loss of biodiversity as a result of deforestation has caused a dwindling supply in timber stocks in the off-reserve forest areas in the country. Accordingly, indigenous tree species such as *Milicia excels* and *Milicia regia*, the mahoganis (*Khaya* and *Entandrophragma* species), *Pericopsiselata*, *Naucleadiderrichii*, and *Triplochiton scleroxylon*, that generate foreign exchange, are projected to become extinct in less than a decade (MLNR, 2016). Recent data shows that revenue from timber exports for Ghana has declined over time as a result of deforestation. Revenue from exports of timber in 2019 (\$169 million) was the lowest since 2015, with

²¹ See <https://news.mongabay.com/2019/08/we-have-cut-them-all-ghana-struggles-to-protect-its-last-old-growth-forests/> (11/03/2021)

the 2015 figure being \$208.75 million²². Similarly, shea trees are reportedly good for the production of charcoal and thus the trees are being harvested which has affected the supply of shea nuts and butter and other sources of foreign exchange earnings²³. The negative economic effect of dwindling shea nuts production is also felt most by the rural women who engage in the trade as a great source of income for sustaining their livelihoods (FC, 2016b).

Additionally, ecotourism, which is one of the fundamental sources of revenue mobilisation for Ghana, is threatened due to deforestation. A number of tourist sites in the country, including Mole National park, Bui National Park, Kakum National Park, Bobiri Forest and Butterfly Sanctuary, Ankasa Rainforest and many more are unable to function properly. In the wake of the constant disturbances from illegal miners, illegal loggers and farmers, a number of the game in the wildlife have moved away from the parks and deeper into the forests, hence, tourists do not get to see what they pay for (MLNR, 2012a) which is a contributory factor to the dwindling ecotourism sector in the country.

Another economic effect of deforestation is the financial drain on the coffers of the country due to the investment in the reclamation of degraded forests. Reclamation of degraded forests is an avoidable financial expense if forests are protected and maintained. According to the former minister of MESTI, it would cost the country \$12,000 to reclaim a hectare of degraded land. This would therefore amount to about \$29 billion dollars in total to reclaim all affected lands in Ghana for reforestation. An estimated 23,000 square kilometres of land area, representing 10% of the total land area of the country has been destroyed as a result of deforestation²⁴.

Environmental Impacts

Deforestation has caused untold damage to the environment in Ghana. The rate of deforestation in the country has contributed to the global loss of carbon sinks on one hand, and caused emissions that add up to the global GHG emissions, contributing significantly to observed changes in the global climate. Climate change has adversely affected Ghana's weather conditions being experienced season after season. Irregular rainfall patterns, harsh sun rays, long periods of drought, flooding and lowering of water levels in various rivers are some of the

²² See <https://www.statista.com/statistics/1172232/export-value-of-timber-and-timber-products-from-ghana/> (Accessed: 09/03/2021).

²³ See <https://forestsnews.cifor.org/60946/firewood-for-income-in-a-degrading-landscape?fnl=en> (Accessed: 09/03/2021).

²⁴ See <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ghana-needs-29-billion-to-reclaim-mined-out-areas-Frimpong-Boateng-708982#:~:text=09/02/2021>.

critical environmental challenges in the country. The rise in sea level is another extreme climatic condition caused by global warming that has destroyed properties in Ghana, especially in communities along the coast, as recorded in Ada and Keta²⁵. The town of Kporkporgbor in the Ketu Municipality has been completely deserted after the sea completely covered the land. Other communities such as Fuveme, Dzita, Haveddzi, Xorvi, Blekusu, Adina, Agavedzi and others are also being gradually washed away by the sea²⁶ despite the efforts by the government through the construction of the Ada sea defence.

The national GHG emissions of Ghana as at 2016 stood at 42.2 MtCO₂e (million tonnes of carbon dioxide equivalent). Between 1990 and 2016, the national GHG emissions increased at a growth rate of 2.1% annually with the 2016 levels higher than the 1990, 2000, and 2012 levels at 66.4%, 53% and 7.1% respectively (EPA, 2020). Also, between 1990 and 2016, contributions to the country's GHG emissions have been the highest every year from the Agriculture, Forestry and Other Land Use (AFOLU) sector (EPA, 2020). Deforestation has accounted for more emissions in the country than any other contributor has. It has reduced the ability of forests to absorb carbon and act as a natural sink. The average annual emissions of Ghana are about 100% of the average annual removals of emissions between 2000 and 2015. The average annual emissions from 2000 to 2015 were 61.6 million tCO₂e yr⁻¹ whereas the average annual removals were 610 thousand t CO₂e yr⁻¹. Degradation from both legal and illegal logging produced 17 million tCO₂e of emissions, accounting for 28% of total emissions; degradation from wood fuel also produced 899 thousand tCO₂e of emissions also accounting for 6%; degradation from forest fires was 700 thousand tCO₂e accounting for 1%; whereas deforestation produced 41.1 million tCO₂e of emissions. Deforestation alone, therefore, accounted for about 66% of the total emissions produced in the country between 2000 and 2015 (FC, 2017).

Additionally, an environmental cost of deforestation in Ghana is the loss of endangered animal species and plant species, which are indispensable to socio-economic development. Important biodiversity and timber species unique to the forests in Ghana have either become extinct or have drastically been reduced in the forests. Indigenous wood species such as mahogany (*Khayaspp.*), odum (*Chlorophora Excelsa*), obeche (*Triplochiton scleroxylon*), and emire (*Terminalia ivorensis*) which were abundant in the forest landscapes have reduced drastically due to excessive uncontrolled and illegal logging especially, in the Atewa forest (Kusimi, 2015). About 85% of the Guinea Forest Reserve, which is

²⁵ See <https://www.graphic.com.gh/news/general-news/keta-communities-still-under-sea-attack.html> (Accessed: 09/02/2021).

²⁶ See <https://www.graphic.com.gh/news/general-news/keta-communities-still-under-sea-attack.html> (Accessed: 09/02/2021).

a threatened World Biodiversity Hotspot has been degraded through agricultural activities, new settlements, illegal and unsustainable logging (Arcilla, Holbech, & O'Donnell, 2015).

The place of the Green Economy in the deforestation menace

The rate of deforestation in Ghana is a cause for concern with various measures implemented over the years to reverse the trend and preserve the country's forest resources. This section seeks to identify the various green economy activities that have been undertaken in response to deforestation in the country by both governmental and non-governmental agencies and, to examine their effectiveness. Specifically, the effectiveness of the responses in terms of the social and environmental dimensions of the implementation are reviewed. Notable responses that incorporated the core concepts of the green economy in addressing deforestation are the National Forest Plantation Strategy, the Ghana National Reducing Emissions from Deforestation and forest Degradation, plus the sustainable management of forests, and the conservation and enhancement of forest carbon stocks (REDD+) Strategy, Operation Vanguard, and the promotion of clean cooking fuels.

National Forest Plantation Programmes

A number of afforestation programmes have been undertaken since 2000 to restore degraded lands. The National Forest Plantation Development Programme (NFPDP) was launched in 2001 by the Government of Ghana and commenced field implementation in 2002. The objectives of the programme are to rejuvenate the forest cover of degraded forests, create employment as a means of reducing rural poverty, address the future wood deficit situation in the country and enhance food production through the adoption of the Modified Taungya System (FC, 2016a). A host of similar programmes have equally been initiated and implemented as captured below (FC, 2016a).

- National Forest Plantation Development Programme (NFPDP, 2002-2015)
- The Modified Taungya System (MTS) 2002-2009
- Community Forestry Management Project (CFMP): 2005-2009
- Government Plantation Development Project (GPDP) 2004-2009
- Private Commercial Plantation Developers On-Reserve: 2002 to Date
- Public Private Partnership (PPP): 2013 to Date
- Model Plantation component: 2007-2009
- Expanded Plantation Programme (EPP) 2010-2012

- FC/Timber Industry Plantation Development Fund Plantations: 2010 to Date

TABLE 9.2: Plantation Establishment Achievement under the NFPDP (2002-2015)

Year	Public Sector (ha)	Private Sector (ha)	Total (ha)
2002	17,341.00	1,609.00	18,950.00
2003	17,541.00	1,609.00	19,150.00
2004	21,599.84	1,609.00	23,208.84
2005	13,582.93	1,609.00	15,191.93
2006	14,407.50	1,609.00	16,016.50
2007	14,468.32	1,613.00	16,081.32
2008	5,007.67	5,986.65	10,994.32
2009	7,763.14	3,894.35	11,657.49
2010	14,115.66	4,612.84	18,728.50
2011	6,990.48	4,439.88	11,430.36
2012	5,949.64	3,549.89	9,499.53
2013	3,038.35	4,309.51	7,347.86
2014	487.56	7,795.51	8,283.07
2015	108	3,802.20	3,910.20
Total	14,401.09	48,048.83	190,449.92

Source: Forestry Commission, 2016a

As depicted in Table 9.3, trees have been planted on a total of 190,449.92 hectares of land through private and government-led participatory programmes under the NFPDP between 2002 and 2015. The programme has also been used as a means of job creation for people in both the public and private sectors thereby boosting the economy of the country while conserving the environment. The Forestry Commission (FC) and the Ministry of Lands and Natural Resources (MLNR) also launched the Ghana Forest Plantation Strategy (GFPS), a 25-year initiative in 2016. The programme aims at restoring degraded lands and securing the future supply of timber. Accordingly, about 25,000 ha of forest plantations will be developed annually, 5000 ha of degraded lands restored, and 150,000 ha will be developed for the planting of economic timber (FC, 2016a).

Reducing Emissions from Deforestation and Forest Degradation, plus the sustainable management of forests, and the conservation and enhancement of forest carbon stocks (REDD+)

Ghana joined the REDD+ programme in 2008 as a means of significantly reducing emissions from deforestation and forest degradation over the next 20 years

by putting in place measures to curtail the rate of deforestation and restore already degraded lands. At the forefront of the REDD+ programme in Ghana is the FC and the MLNR. REDD+ actions are geared towards the conservation of national biodiversity and heritage values, improvement of the lives of nationals through the adoption of smart agricultural techniques and mitigating climate change. The REDD+ Strategic document, which was launched in 2016 is anchored on three main themes: Achieving REDD+, REDD+ Governance, and Tracking REDD+. All programmes within the domain of REDD+, whether governmental or non-governmental in nature, are considered as REDD+ actions and directed by the aforementioned themes.

The majority of REDD+ activities that have been undertaken so far in Ghana have paid attention to building readiness and the enabling environment to strengthen the implementation of the programme. Some of the activities include stakeholder engagement, rights and tenure, safeguard/GRM (Grant Reporting and Monitoring), benefit sharing, MRV (Measurement, Reporting and Verification)/ (Reference Emission Level) REL, policy law analysis, capacity building, forest carbon project design, improved forest and land management, performance based/carbon offsets and emission reductions (Asare, 2015). Also, there is an ongoing development of projects in the cocoa sub-sector that aims at increasing the yield of cocoa per hectare thereby reducing the need of expanding cocoa farms into the forests and clearing more forests for cocoa farming (Grieg-Gran, Bass, Booker, & Day, 2015). There is therefore no significant environmental evidence from the activities of the REDD+ programme although preparations are far advanced for implementation of REDD+ programmes.

The fundamental ideas behind REDD+ programmes have, however, widely opened the conversation on forests and resonated well with people by further providing enlightenment on the importance of forests in the world and the role of forests in the reduction of climate change and extreme weather conditions. The REDD+ secretariat brought together civil societies, NGOs, traditional leaders, cocoa trading companies, farmer cooperatives, insurance companies, consultancy firms, certifying agencies and scientists with useful contributions to the creation of a programme suitable for the Ghanaian landscape (den Besten, Arts, & Behagel, 2019; Asare, 2015).

Operation Vanguard is an amalgamated force of military-police anti-galamsey²⁷ task force constituted in 2017 to fight illegal mining in Ghana's forests, specifically in the Ashanti, Eastern and Western Regions which are the most affected

²⁷ Galamsey: a local term assigned to the illicit artisanal mining activities in the country's forests and rivers.

and degraded regions. The various constituents of this initiative resonate with green economy issues, as they seek to instill discipline in the way natural resources are exploited so as to benefit society, the economy and the environment. The taskforce comprises several security men from the Ghana Armed Forces (GAF) and the Ghana Police Service as captured in Plate 9.4, who are trained, equipped and fully armed to forestall galamsey activities on the land surface, while trained personnel from the Ghana Navy and Ghana Marine Police also monitor the major rivers and water bodies to curb the menace.

Plate 9.4: Operation Vanguard members taking actions at illegal mining sites (land surface and water bodies)²⁸



Source: See footnote³¹

The activities of the taskforce led to the arrest of several illegal miners and the seizure of different mining equipment: excavators, monitors, control boards,

²⁸ Source: <https://www.google.com/search?sxsrf=ALeKk03PFWnGDxNoqTRNov-REVmml2NS7ww:1628885497381&source=univ&tbm=isch&q=photographs+of+operation+vanguard+in+Ghana&sa=X&ved=2ahUKEwips82r567yAhXMa8AKHUWcBXIQ7Al6BagHEA8&biw=1440&bih=751#imgsrc=-pbfVnVFo8jyTM> (accessed: 22/02/2021)

water-pumping machines, weighing machines, motorbikes, vehicles and many more²⁹. At the end of 2017 the taskforce had seized 1,788 pieces of mining equipment and destroyed 2,919 Chang fa (floating platform) machines³⁰. Additionally, individual illegal miners who were arrested were prosecuted, while over 1,000 small scale miners were vetted and issued with licenses to mine in accordance with the law. The mandate of the taskforce came to an end in March 2020 with the introduction of the mining guards and training of 144 drone pilots to monitor approved miners³¹. The operations of the taskforce have, however, received some backlash from the public. According to Hilson (2017), the use of the military and police forces will not lead to a long-lasting solution and eliminate the problem, but will eventually fail as has always been the case when the military is used in such activities. The operations have also been addressed as a menace and an abuse of human rights as a result of the deaths of innocent citizens through the raids in communities.

Also, a few challenges were encountered during the operations of the taskforce, which possibly limited the success rate. The taskforce lacked assault boats for patrolling water bodies, night vision devices and other special uniforms. Also, the allegations of political interference in the work of the task force as well as the accusation of taskforce members aiding and abetting some of the illegal miners dented the outlook of the implementation process.

Promotion of Clean Cooking Fuels

The Government of Ghana has embarked on several initiatives to discourage the excessive use of fuel wood and charcoal products, which are derived from forest resources. As such, a number of energy acts, policies, action plans and directives in the country have targeted the use of clean fuels and efficient technologies for cooking. These include the Strategic National Energy Plan (2006), Sustainable Energy for All Action Plan (2015), National Energy Policy (2010), Renewable Energy Act (2011), Ghana Forest and Wildlife Policy (2012), Forestry Development Masterplan (1996), Bioenergy Policy Draft (2010) and the Renewable Energy Masterplan (2019).

The *Ahibenso coal pot* programme (1990s) was one of the earliest improved cookstoves programmes by the Ministry of Energy, which culminated in several improved cookstove programmes and projects over the years in the country (EC

²⁹ See <https://www.graphic.com.gh/news/general-news/minister-orders-operation-vanguard-team-to-hand-over-seized-equipment.html> (accessed: 22/02/2021).

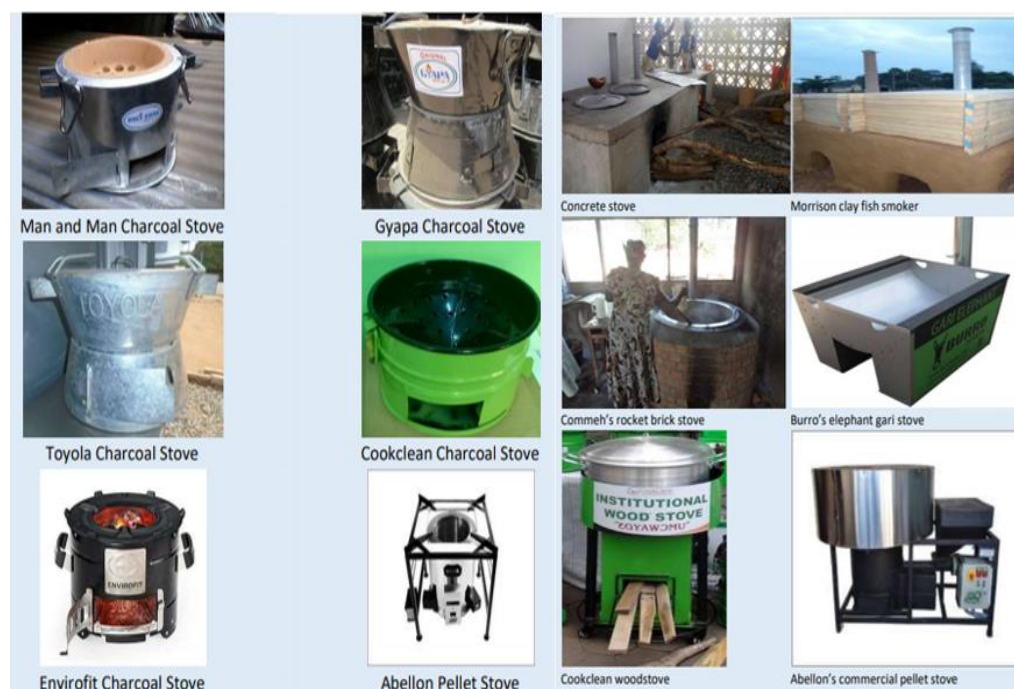
³⁰ See <https://www.ghanabusinessnews.com/2018/01/08/operation-vanguard-arrests-811-illegal-miners-seizes-1788-equipment/> (accessed: 22/02/2021).

³¹ See <https://citinewsroom.com/2020/02/government-to-withdraw-soldiers-from-operation-vanguard/> (accessed: 22/02/2021).

& GACC, n.d.) as pictured in Plate 9.5. The *Gyapa* cookstove technology dominates the market with several other products that seek to replicate the technology, also in circulation in the markets. In addition to the low consumption of fuel when used, the stoves have proven to reduce average 24-hour particulate matter (PM 2.5) concentrations by 52 per cent (Grieg-Gran *et al.*, 2015).

Institutions and NGOs such as the Netherlands Development Organisation (SNV), the Kumasi Institute of Technology, Energy and Environment (KITE), New Energy, the Technology Consultancy Centre (TCC), Energy Commission and Ministry of Energy have all been involved in the promotion of clean fuels by introducing energy efficient cookstoves and technologies (Akolgo *et al.*, 2018). As part of the promotion of improved cookstoves by the Energy Commission, eight new prototypes were developed and displayed under the *National Woodstove Energy Challenge* with rewards given to participants of the challenge (Ghana SE4ALL Secretariat, 2019).

Plate 9.5: Examples of improved charcoal and wood fuel stoves in the Ghanaian market



Source: Ahiekpor, Bensah, & Kemausuor, (2017).

Similarly, the Ghana Alliance for Clean Cooking (GHACCO) with their mandate of promoting a vibrant cookstove sector has partnered with several international organisations. These include the SNV in the Voice for Change (VC4) project, ENI Ghana to implement the ENI-World Bank Rural Clean Cooking project in 10 communities in Elembelle District, and BUSAC to promote advocacy on the bioenergy policy in Ghana³². The organisation aimed at distributing 5 million improved cookstoves by 2020, while the Renewable Energy Master Plan also targeted 1.3 million improved stoves distribution by 2020, while SNV in 2015 produced and distributed about 280,000 improved charcoal stoves (Ahiekpor, Bensah, & Kemausuor, 2017).

Anticipated policy implications

Implement Stricter Punishment against Illegal miners and galamseers to serve as a deterrent

Government initiatives such as Operation Vanguard and *Galamstop* have reprimanded several individuals and groups engaged in illegal mining in the country's forests. The strict application of existing punishments and sanctions against galamseers³³ should be meted out to culprits to serve as a deterrent to potential offenders. The constant interference from political leaders, traditional heads and public officials should be completely discouraged for the law to do its work. In this light, the media should be forthright in naming and shaming political leaders who meddle in the smooth functioning of state institutions tasked with combating the galamsey menace.

Engage community members in deforestation fight and address fundamental livelihood issues driving people into illegal activities in forests

In order to get the cooperation of communities in the fight against deforestation, the Government should consult community members and engage them in various programmes and initiatives that will curtail illegal activities in forests. For instance, communities could be mentored on the cohabitation and sustainable use of forest reserve products instead of the outright ban of their use.

³² See <https://www.ghacco.org/snv-voice-for-change-v4c-project/#:~:text=The%20voice%20for%20change%20partnership,clean%20cooking%20solutions%20in%20Ghana> (Accessed: 09/02/2021).

³³ Galamseyer: Local term for a person engaged in illicit artisanal mining in Ghana

Relatedly, the Government should address the livelihood challenges of the people engaged in galamsey by making available better and alternative job opportunities.

Enforce already existing laws and bans against illegal lumbering and timber exportation

There is an elaborate landscape of policy architecture for the protection of the country's forest resources, unfortunately the critical provisions such as bans and restrictions laid out are not carried out to the letter. The ban on the felling and exportation of Rosewood in Ghana for instance, although has been in enforcement since 2012, the stark reality is that the trade has continued till date. Also, the use of chainsaws in Ghana's forests for commercial purposes is still ongoing although the practice has been banned since 1998. The lack of enforcement of these bans has contributed to the rampant deforestation in the forests and therefore must be of concern to the relevant authorities and government to ensure that they are enforced properly.

Embark on a well-planned awareness creation and information dissemination campaign on deforestation

A nationwide campaign on the glaring and evidential effects of deforestation on the people of the country and the nation as a whole is necessary to sensitise the citizenry. All the various stakeholders and bodies affiliated to the protection of the country's forest resources as well as the media should be involved in such an exercise to ensure its effectiveness. The involvement of the media in the activities of Operation Vanguard contributed to its effective operation and the same gesture should be replicated in all other campaigns and programmes targeting deforestation.

Invest financially in the protection of forest resources

The inadequacy of forest guards and personnel and the lack of requisite equipment for monitoring and patrolling forests are some of the key challenges that have stifled the efforts of the FC in combating deforestation. It is important that the government prioritises the functions of the FC and injects the needed funds necessary to empower it to fulfill its mandate. Increasing the number of forest guards has a positive ripple effect on protection of the forest resources (increment in the natural capital resilience), and the creation of jobs (social and economic benefits), all of which underscore green economic paradigms of development.

Implement smart remote forest monitoring during and after the COVID-19 pandemic and carry out stricter punishment for illegal forest product harvesters

Stricter punishments should be meted out to people who are found to have flouted the laws regarding tree felling in Ghana, especially in protected areas during and after the COVID-19 pandemic. The law should adequately deal with individuals who are caught taking advantage of the inactive state of the regulatory authorities responsible for monitoring and protecting forest resources due to the COVID-19 enforced lockdown. Additionally, the government should take advantage of the new technologies being developed to cope with the pandemic to invest in smart remote monitoring systems to study, monitor and track illegal harvesting of forest products in Ghana.

CSOs and media houses to sustain pressure on governments to implement measures on sustainable behaviour in forest resources protection

Civil Society Organisations (CSOs) and the various media houses have played significant roles in forcing various governments to be more accountable. The most recent one is the media outcry against illegal mining activities that have caused destruction to the nation's forest and water resources. This initiative has yielded positive results as the government moved swiftly to set up taskforces to fight illegal mining. These CSOs and the media houses should continue to apply the same healthy pressures on the government, to effectively regulate and monitor the harvesting of forest products in Ghana.

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Gender

GENDER EQUALITY



Introduction

This chapter on gender equality highlights the growing urgency for action in gender data collection in Ghana. Inadequate gender statistics is a tremendous global problem. We have come to understand that data is a powerful tool to drive accountability and debate for the realization of rights (Equal Measures 2030, 2020). Generating gender data and providing quality statistics on women and girls to enable gender-responsive decision-making in policy and legislation will help end female vulnerability to poverty, exploitation, discrimination, abuse and violence. This is why as far back as 1996, Paragraph 206 (d) of the Beijing Platform for Action recommended that every nation's, "statistical services should designate or appoint staff to strengthen gender statistics programmes and ensure coordination, monitoring and linkage to all fields of statistical work and should prepare output that integrates statistics from the various subject areas" (United Nations, 1996). In 2019, however, the UN Women estimated that only 31% of the data essential to monitor progress for women and girls worldwide was available (UN Women, 2019).

The gender data gap is a massive problem at the institutional, policy and programmatic levels in Ghana. The country must develop a culture of gender data collection if it is to achieve transformative gender equality. Ghana currently has an excellent research and national coordinating statistical system in the Ghana Statistical Service (GSS). Since the Statistical Service Law, 1985 (PNDCL 135) established the GSS, the institution has sought to improve its legal mandate in the collection and dissemination of data in the country. In addition, Ghana has a well-functioning 'gender machinery' which has primary responsibility for gender

data - the Ministry of Gender, Children and Social Protection (MoGCSP). A recent collaborative assessment by these two institutions of gender statistics at the national and district levels revealed that there is no national policy for the production of gender statistics in Ghana (MoGSCP, 2017). With the exception of MoGCSP, no ministries, departments and agencies (MDAs), Metropolitan, Municipal and District Assembly (MMDAs) or statutory body in Ghana are mandated by law to generate gender data. The result is that few policies and programmes for addressing gender equality in Ghana can be formulated from realistic statistics (MoGSCP, 2017). In preparation for this chapter, a combination of comprehensive desk study and follow-up physical research with MDAs was undertaken which confirmed that the situation remains unchanged. The multi-donor statistical reformation project, the Ghana Statistical Development Project (GSDP), necessitated and actually produced some habitual collaboration between the GSS and MDAs, MMDAs and statutory bodies (see Ghana Statistical Service, 2012 & 2016). A few of this partnership, such as between the National Communications Authority and Ghana Statistical Service (2020) produced sex-disaggregated data collection. Years of collaboration in the GSDP, however, has not result in habitually gender data collection. The new Statistical Service Act, 2019 (Act 1003) also did not legislated gender data collection. There is still a tremendous gender data gap in Ghana in 2022. The country urgently needs to develop legal, institutional and civil culture aptitude for gender data collection to provide supporting gender data for gender-responsive decision-making.

Gender Data and Gender Data Gap

Differences and inequalities exist between women and men in the mostly patriarchal societies of our world. The terminology 'gender' is essentially about examining the inequality between males and females. Gender consists of investigating the socially-constructed differences associated with being female or male (sex) that exist in societies, and which lead to imbalances in the social attributes, opportunities, interactions and relationships between women and men (Parpart, Connelly & Barriteau, 2000). These differences have a specific impact on women's and men's lives throughout all life stages. They determine differences in many areas such as health, education, work/labour, family life or general well-being. The difference creates poverty and other inequities from lack of access and control over resources and decision-making opportunities. This variance, called the gender gap, can be defined as the different vulnerabilities between women and men which is reflected in social, political, intellectual, cultural, or economic attainments or attitudes (World Economic Forum, 2021).

In order to combat the gender gap, countries are to collect gender data or gender statistics in order to design policies and monitor progress in people's lives. However, there is gender data gap - insufficient gender data to assist decision-making to close the gender gap. The gender data gap is the continuous systemic discrimination against women in data collection based on male lifestyles and patterns that has profound pervasive invisible bias upon women's lives, according to Caroline Criado Perez (2019). The solution to this deficiency is gender data collection with appropriate methodologies. To achieve gender equity and use data to its full potential, data sets must be comprehensive, pertinent, and consistently challenge the assumption that normal equates to male (Perez, 2019).

Gender sensitive data collection and gender analysis is fundamental to identifying the root causes of gender inequality, in addition to informing and evaluating policies to address them. Problems on gender equality will consistently be influenced by misinformation and assumption instead of clear evidence base; gender data must sufficiently reflect differences and inequalities in the situation of women and men in all areas of life (UN, 2016).

Gender statistics related to individuals when collected, compiled, analysed and presented by sex and age should reflect problems, issues, questions related to women and men in society (United Nations, 1996). Gender analysis of disaggregated data would employ frameworks that,

compare information about men and women, about different categories of women and men (e.g., by ethnicity, sexual orientation, age, class, caste, residence, and race). These comparisons should reveal where there are gaps and inequalities that are likely to affect women's or men's participation rates, leadership, access to services, uptake of behaviours, or that subject men or women to differential risks and vulnerabilities (Jhpiego, 2020).

Hence, gender data is not merely sex-disaggregated statistics. Gender data or gender statistics, is more multifaceted than sex-disaggregated statistics. The latter is exclusive data collected and tabulated separately for women and men. Gender data, on the other hand, is developed through a collection methodology that take into account stereotypes and social and cultural factors that may induce gender bias in the data (Hedman, Perucci, & Sundström, 1996). Producing gender statistics entails disaggregating data by sex and other characteristics to reveal those differences or inequalities and collecting data on specific issues that affect one sex more than the other.

Picking up from Hedman, Perucci and Sundström's (1996) *Engendering Statistics: A Tool for Change*, the United Nations Statistics Division (UN, 2016) de-

clared the following four major characteristics as acceptable to encompass gender statistics. First, gender data must reflect more than sex-disaggregated statistics. Second, it must reflect gender issues. Third, it must be based on concepts and definitions that adequately reflect the diversity of women and men and capture all aspects of their lives. Finally, gender data must reflect data collection methods that consider social and cultural typecasts in order to reduce the creation of gender bias in the data (UN, 2016).

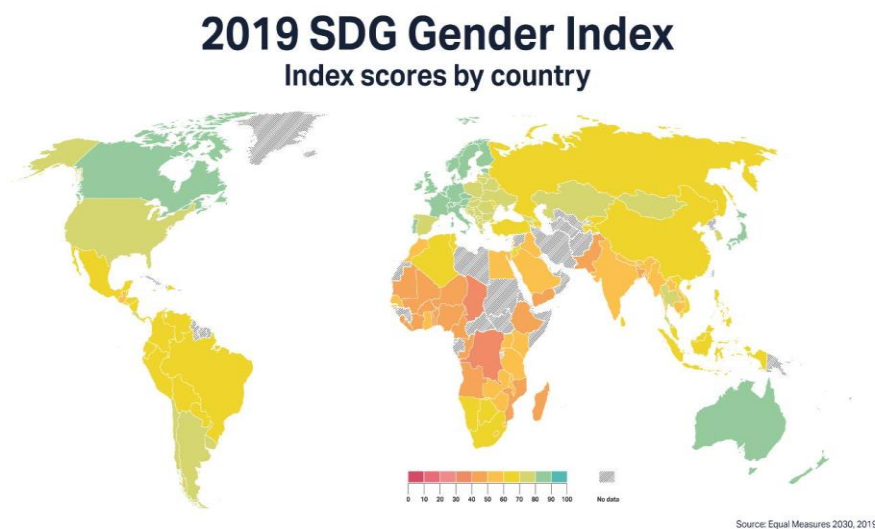
Attaining gender equality therefore requires fundamental quality and policy-relevant data on women and girls to assist public decision-making, planning and resource allocation. (United Nations, 2020). Without effective gender data collection, we cannot measure progress towards the Sustainable Development Goals (SDGs). Without effective gender data, countries cannot re-design their operations to take a transformative agenda towards the SDGs. Any infringements on achievements made in the past decade, and especially during the COVID-19 pandemic, place the nation at higher risk of not realizing the SDG 5 – achieving gender equality and empower all women and girls by 2030.

Global Gender Data Indices and Ghana

Below is an update of gender data index score since 2018. There are indeed gaps in the current gender data worldwide. Even in countries with advanced data systems, there is only partial information collected on the challenges women and girls face. However, a comparative look at the EM2030 2019 SDG Gender Index score by country shows Africa is still at the very bottom of measurement of gender equality.

Figure 10.1 above showing the 2019 SDG Gender Index Score by Country reveals that for a large part of the African continent there is no existing data with which to measure a gender index score. The UN Women Data Hub, Women Count, maintains that gaps exist in key areas needed to measure important indicators such as gender labour Markets Gender Pay Gap and Gender Skills in Information and Communication Technology (ICT). Ghana is still midway between 50 and 60 in this score. In Ghana only “40.8% of indicators needed to monitor the SDGs from a gender perspective are available,” and in several areas “such as gender and poverty, women’s access to assets ... land, physical and sexual harassment, and gender and the environment” there is lack comparable methodologies for comprehensive and periodic monitoring” (UN Women, 2020).

Figure 10.1: 2019 SDG Gender Index Score by Country



Source: Equal Measures 2030

This deficiency makes informed decisions to improve divisions between men and women difficult in Ghana for “[a]ddressing these gender data gaps is a prerequisite for understanding the situation of women and girls in Ghana and for achieving the gender-related SDGs commitments” (UN Women, 2020).

The World Economic Forum (WEF) is another global gender gap index. It measures progress in gender parity comparing country gender gaps for specific important areas. Table 10.1 below presents details of global gender gap index across the four dimensions of economic opportunities, education, health and political leadership. Gender gaps are observed in disparities between women and men across the areas of economic, education, health, and political. Globally in crucial areas such as economic participation and political empowerment, the gender gap showed imparity. In the areas of health and educational attainment where many governments have undertaken equity efforts, the gender gap index is almost at the 1.0 parity mark.

The World Economic Forum (2021) indicates that Ghana is halfway in the Global Gender Gap Index Rankings. The report showed that between 2019 and 2020, Ghana ranked 107 out of 152 countries with a score of 0.673. This is a change in rank score of -18 from 2018. Ghana ranked 117 out of 158 countries with a score of 0.666 in 2020-2021 (World Economic Forum, 2021). This score indicates a position only slightly above the midpoint in terms of parity. In essence, some gains

had been achieved in gender parity from 2018. However, Table 10.1 also showed that in 2020, females constituted about half the population of Ghana (15 million people), yet participation was still lower for women than for men across Economic Participation and Opportunity (0.598) and Political empowerment (0.135).

TABLE 10.1: Global Gender Gap Index 2020

Gender Gap Index	Rank	Score
Global Gender Gap Index	117	0.666
Economic Participation and Opportunity	119	0.598
Educational attainment	120	0.951
Health and survival	40	0.978
Political empowerment	110	0.135

Source: Compiled from WEF Data

0.00 = Imparity

1.00 = Parity

A selection of data in gender gap of Ghana in Table 10.2 below similarly shows gender disparities. The gender gap in labour force participation remains large. Labour force per million people remains slightly larger for females probably because of their dominance of the less secure informal economy of Ghana. Female share of workers in the informal sector remains large (91.50%). Females (4.56%) form the larger share of unemployed adults of labour force (15-64 years). Of employed people, more females (33.31%) than males (27.40%) work part-time. Fewer females (31.60%) have ownership of firms in comparison with males (68.40) and of course, fewer females (14.90%) are at the top management compared with men (85.10%). The WEF confirms that in selected areas dealing with access to finance Ghana has virtually no disaggregated or gender data. Gender data is non-existent on holding a bank account, access to credit, inheritance rights for daughters, and women's access to land use, control and ownership, access to non-land assets use, control and ownership. The health sector has done a tremendous on creating its own gender policy in Ghana. However, with the exception of maternal mortality gender data on health is generally absent in the country. As discussed later, female health is not constituent only in reproduction health. Ghana has some international data on education probably from donor support and monitoring of female education in Ghana. While gender parity has been achieved in education in Ghana, it has been mainly in traditional course areas and not in male-dominated course areas.

TABLE 10.2: Selected Data in Gender Gap of Ghana

General Indicators	Female	Male	Value
Total population, million people	15.00	15.42	30.42
Population growth rate, %	2.17	2.20	2.19
Population sex ratio (female/male), female/male ratio	49.32	50.68	0.97
Work participation and leadership	Female	Male	Value
Labour force, million people	4.92	4.64	0.51
Unemployed adults, % of labour force (15-64)	4.56	4.21	1.08
Workers employed part-time, (% of employed people). Firms with female majority ownership, (% firms). Firms with female top managers, (% firms)	33.31	27.40	1.22
Share of workers in informal sector, % workers	31.60	68.40	0.46
	14.90	85.10	0.18
	91.50	85.60	0.94
Access to finance	Female	Male	Value
Right to hold a bank account & get credit, 0-1 (worst)	-	-	0.00
Inheritance rights for daughters, 0-1 (worst)	-	-	0.25
Women's access to land use, control & ownership, 0-1 (worst)	-	-	0.75
Women's access to non-land assets use, control & ownership, 0-1 (worst)	-	-	0.50
Education and skills	Female	Male	Value
Education, attainment %	31.69	30.32	1.05
Engineering, Manufacturing & Construction, attainment %	3.58	12.70	0.28
Health & Welfare, attainment %	12.90	5.78	2.23
Information & Comm. Technologies, attainment %	1.53	4.31	0.36
Natural Sci., Mathematics & Statistics, attainment %	2.77	5.27	0.52
Services, attainment %	1.43	0.56	2.57
Social Sci., Journalism & Information, attainment %	4.08	4.24	0.96
Vocational training, attainment %	0.64	1.84	0.35
Health	Female	Male	Value
Maternal mortality, deaths per 100,000 live births	-	-	308
Prevalence of gender violence in lifetime, % women	-	-	24.4
Antenatal care, at least four visits, % women 15-49	-	-	85.00

Source: WEF Global Gender Gap Report 2021

The UN Statistics Division revealed that in 2020 more men (74%) worldwide than women (47%) participated in the labour force (UN, 2020). The global gender gap in labour force participation, which was reported at 27 percentage points as of 2020, had narrowed only marginally over the past 25 years (UN, 2020). According to the World Bank, the male labour force participation in Ghana in 2018 was

71.5% compared to 63.6% female labour force participation. In 2019, the female labour force of total labour force in Ghana was 46.7% (World Bank, 2021).

Methodology

In summary, a combination of desk study and physical interviews with MDAs was undertaken in preparing this chapter. The desktop study involved reviews of published material on gender data on Ghana. This included corporate plans, annual reports, project report and statistical reports of various MDAs as well as the strategic reports of international organizations. Semi-structured interviews with the statistical departments of various MDAs, the MoGCSP and the GSS provided the direct information to examine the capacity of specific sectors to produce gender data. A gap analysis combined with a response analysis was employed to determine the needs and performance of MDAs and the extent of Ghana's commitments to Paragraph 206 (d) of the Beijing Platform for Action. Situational analysis was employed to interpret how internal and external factors affected production of gender data. The findings of the study confirmed a serious gender data gap in Ghana.

Gender Data Collection in the Public Sector in Ghana

Data collection in Ghana has a good history in Ghana, yet participatory gender data collection has been overlooked. The Office of the Government Statistician was established first in 1948. It was changed into the Central Bureau of Statistics in 1961. The Statistical Service Law, 1985 (PNDCL 135) subsequently established the Ghana Statistical Service as an autonomous independent public service with a Board of Directors reporting directly to the Office of the President. The GSS planned from 2009-2013 to devote particular attention to gender issues in data collection. The continuing need for quality statistics for the efficient planning and monitoring of national development led to the multi-donor funded initiative to reform the National Statistical Service - the Ghana Statistical Development Project (GSDP). The GSS sought to develop a manual in ten thematic areas including 'Gender, Women and Children.' The GSS collaborated with MoGCSP in this and made progress. Though there was progress in capacity building and partnership with collaborating and consenting public institution, there was not much progress in gender data collections. The GSS collaborated with MoGCSP in the assessment of gender statistics at the national and district levels. The main finding, as stated in the introduction of this chapter, was that there was no national

policy for the production of gender statistics in Ghana (MoGSCP, 2017). In addition, the new Statistical Service Act, 2019 (Act 1003) which replaced the Statistical Service Law, 1985 did nothing in terms of gender statistics. Rather, Act 1003 established the GSS as the central statistics and co-ordination institution for the National Statistical System (Government of Ghana, 2019). Act 1003 fortified the objective of the Statistical Service in the production of “quality, relevant, accurate and timely statistical information for the purpose of national development” (Government of Ghana, 2019:5). The GSS was to provide leadership and direction for the collection and storage of data, capacity building of staff in central and regional statistical systems; and “[d]etermine the manner in which the Ministries, Departments, Agencies, District Assemblies and statutory bodies collaborate with the Service in the collection, compilation and publication of statistical information, including statistics derived from the activities of those entities” (Ghana Statistical Service, 2021). While the GSS has been consistent in executing its legal functions to serve the nation, gender data collection in most MDAs and MMDAs has been largely non-existent. This is because Ghana has not legislated gender data collection for the public sector. Gender-sensitive information remains mainly the task of one ministry (MoGCSP) rather than all MDAs, MMDAs and statutory bodies. The statistical system is thereby severely incapacitated in obtaining national gender statistics from all areas.

Gender Data Gap in Ministries, Departments and Agencies (MDAs)

Findings of semi-structured interviews affirmed the evasion in gender data collection by most public sector institutions. As part of the statistical reform, by 2020 virtually all public sector MDAs had established research or statistical units called the Research Statistics and Information Management (RSIM). Some RSIM divisions encompassed a gender research unit; some did not. For most MDAs the ‘gender desk’ is nominal office. An estimated 90% of MDAs do not habitually collect gender statistics in their specified areas. Therefore, they neither store gender statistics in databases nor disseminate gender information in reports or policy. With the exception of MoGCSP, few MDAs have built the capacity of their RSIM staff for sex-disaggregated data collection, gender-sensitive data collection, gender analysis of disaggregated data and the dissemination of gender data in national reports.

From interviews with RSIM staff on gender statistics, one may safely conclude that quality data on women and girls to assist gender-responsive decision-making in Ghana is generally absent. Statistical reports on specific topics indicate that certain RSIM units have the capacity to actively function. They produce annual statistical reports, collaborating with other MDAs and the GSS to accomplish

several important research. Many RSIM units in the public sectors, however, are virtually inactive. Responses from interviewing RSIM staff point to the interest and motivation of leadership as well as budgetary attention to statistics generation in these MDAs. For the most part gender data was well recognized as an important part of research by respondents. However, many RSIM staff though interested, did not have the resources and training for gender research.

Gender Data Gap in the Health Service

It is impossible to undertake a full analysis of all sectors in this chapter mainly because the gender data simply does not exist for such analysis. The Ministry of Health Service, however, has its own progressive gender policy. This policy acknowledges that, “gender issues are real and permeate every facet of health promotion and delivery” and admits the “differences in the opportunities and resources available to women and men and in their ability to make decisions and exercise their human rights, including those related to protecting health and seeking care in case of ill health” (Government of Ghana, 2009:1). However, gender data gaps is observed in health reporting and dissemination. The study did not find reporting of sex-disaggregated data of diseases in Ghana.

Since the advent of COVID-19, Ghana has manifested strict efforts to record and tabulated national cases. Ghana admirably set up websites to report, inform and educate the public on the trends of the pandemic. The information included confirmed cases, regional distribution of active cases, new cases, recoveries and deaths. Nonetheless, apart from the occasional statement that the pandemic is affecting more women than men, the Ghana Health Service COVID-19 dashboard does not give any gendered information. It lumps up a ‘gender distribution’ figure. Citizen are left ignorant of the constituents of that distribution. Consequently, the COVID-19 Sex-Disaggregated Data Tracker of Global Health 5050 is unable to locate much sex-disaggregated data for Ghana (see March and April 2021 Report). The Tracker was unable to locate disaggregated variables along the clinical pathway such as the proportion of women and men confirmed cases, who from the pandemic who undertook tests, hospitalizations, ICU admissions, vaccinations and etc. Since information on the pandemic is being strictly documented in Ghana, detailed information on such basic sex-disaggregated statistics of these characteristics could be added to enable data for gender analysis.

A similar challenge is disseminating sex-disaggregated data on diseases in Ghana. Desk research of health reports show that is still difficult to assess whether certain diseases kill more women than men simply because of the lack

of foundational sex-disaggregated statistics records and reporting in the country. For instance, the excellent and well-intentioned Ghana Weekly Epidemiological Report have shown no sex-disaggregated statistics and gender data in their reporting over the years (see Government of Ghana, 2021 & 2020). Many important diseases that impact Ghana (such as measles, influenza, malaria, etc.), are reported and disseminated by regional and district characteristics, but not by the different sexes. Data produced without sex-disaggregated characteristics perpetuate inequalities and promote health equity. When health data is not sex-disaggregated, gender norms and inequalities that influence health and health-seeking behaviours remain invisible (Measure Evaluation, 2017). On the other hand, disaggregated data allow decision makers to examine service-delivery, treatment, and health-outcome data in depth, so that they can identify differences between the sexes and other key populations (Measure Evaluation, 2017). Without sex-disaggregated statistics, medical professionals are not alerted if diseases are traceable to a gender source, role or activity and therefore it will be more difficult to find specific solutions to outbreaks.

The Ministry of Health in Ghana must be applauded for the excellent attention paid to maternal care during and after pregnancy. Nevertheless, in addition to reproductive responsibility, females continue to experience disadvantages from adolescence to maturity. It has been noted that often the social and economic roles of girls and women within and outside the household result in heavy workload and financial constraints that lead to exhaustion and irregular meals. Hence, continuous data collection on women and girls mental, physical as well as reproductive health is important. Research showed that, anaemia “affects a third of the world’s population and contributes to increased morbidity and mortality, decreased work productivity, and impaired neurological development” (Chaparro, and Suchdev, 2019). Anaemia in women in low and middle-income countries perpetuates growth and developmental failure in future generations and intergenerational impacts of women’s malnutrition leads to low birth weight, children’s growth failure and eventually small adults (WHO, 2012). Anaemia has been a public health problem in Ghana for many years. Previously Ghana focused mainly on providing pregnant women with iron-supplements. However, Ghana gained massive international support when the Ghana Statistical Service through the Ghana Demographic and Health Survey in 2014 pointed out that 5 out of 10 adolescents aged 15-19 years (48%) were at risk of being anaemic (Ghana Statistical Service, Ghana Health Service, and ICF International, 2015.). The gender data led to a public health intervention programme in 2017. UNICEF Ghana, USAID, World Health Organization, Canada and the Korea International Cooperative Agency Centre for Disease Control all worked in partnership with the Ministry of Health and

the Ministry of Education to put together the Girls' Iron-Folate Tablets Supplementation project which provided adolescent girls with weekly iron and folate tablets free of charge to help prevent anaemia. Specified data therefore produced specific solution for the problem.

Data on the combined reproductive and productive roles of women and men must be consistently documented and gender analysis made of the statistics to produce gender data. Data on the combination of reproductive and productive roles must be consistently collected and recorded and disseminated to close the gender data gap on health. The Ministry of Health in Ghana recognizes that gender roles and unequal gender relations interact with other social and other variables to result in different and inequitable patterns of exposure to health risk, and in differential access to and utilization of health information, care and services (Government of Ghana, 2009). Including columns in health facility's register records to further report communicable and non-communicable diseases by sex is a simple and basic start to initiate sex-disaggregated data collection in the health system.

Gender Data Gap in Household Surveys

Household level data are an important means to provide information about gender equality in a country. Ghana's periodic household surveys are an excellent source of data. However, household surveys and censuses are not always analysed as gender data in Ghana. Lack of national gender data from household surveys is an incomplete use of information. It prevents knowledge about the status of women in the household survey. It obstructs knowledge of the transformations in gender from demographic, economic, political, and social surveys.

The institution of the family, no matter how diverse, is universal and holds particular ability in generating gender data. Families have long been recognized as a contradictory establishment for women and girls. Families "are hugely significant for women to a large extent, shape whether women and girls can enjoy their human rights ... however, are a contradictory space for women: ... they are places of love, care, and solidarity" on the other hand, "they are also spaces where women's and girls' rights are often violated (National Council on Family Relations, 2019). Especially in Ghana where different forms of families (extended, single parent) exist, they become spaces for gender discrimination in households. Pressure for selective abortions, differential investments in childhood education, health, nutrition and other such discrimination that have important and long-lasting effects.

The GSS can be more focuses and transparent about turning aspects of its Ghana Living and Household Surveys (GHLS) into gender data. This will enable female respondents to be bold about responses they give, confident that the government request these answers. Gender statistics derived from the construction of families must depend on timely, reliable household data collection. Government policies which emanate from such statistics will be more likely to bring gender equality to the home and equities to the nation. The UN Women (2020) maintains that women's deficits in education have long-term implications for family well-being and poverty reduction. The Ghana government has a primary responsibility to safeguard women and girls' rights, not only in the public sphere, but also in the home. State support, be it in the form of family friendly legislation or protective public policies is virtually absent in Ghana. From gender data, the government can invest in violence prevention and response, family law reform, reproductive healthcare, education, social protection and increased economic autonomy for women. Obtaining knowledge of the existence and magnitude of gender discrimination through families in household data is crucial for addressing the pervasive gender inequities which persist in Ghana. Gender and family friendly policies resulting from household statistics are essential to the social development of the country.

Gender Data Gap Intervention

The following basic and universally effective intervention strategies for gender data collection are recommended for Ghana. They are not nouvelle to the Nation Statistical System, but they need to be applied to be effective:

- a. Investing in national Civil Registration and Vital Statistics Systems (CRVS)
- b. Mandatory gender data collection for MDAs, MMDAs and statutory bodies
- c. Gender research and gender analysis consultations
- d. A multi-sector decentralized approach in national statistics

Gender Data from Civil Registration and Vital Statistics Systems

In the first instance, Ghana needs to advance her investment in the national Civil Registration and Vital Statistics systems (CRVS). In addition to national data, well-functioning CRVS systems are an important source of quality gender data. The UN advocated CRVS systems for all countries in 1943. CRVS systems comprise two components - civil registration and vital statistics. Civil registration is "the universal, continuous, permanent, and compulsory recording

of vital events occurring in a country's population according to the legal requirements of each country" (UN, 2014:65). The vital events globally recommended for recording are: live birth, foetal death, death, marriage, divorce, annulment of marriage, judicial separation of marriage, adoption, legitimation, and recognition (Cobos Muñoz, Abouzahr, and Savigny, 2018; UN, 2014). The CRVS is a primary responsibility of the national government. In any population, at national and lower administrative levels, civil registrations generate a continuous and complete stream of information to allow the production of accurate, complete and timely vital statistics on births and deaths (Mills, Lee, & Rassekh, 2019).

CRVS systems can be employed to readily give birth and marriage certificates to citizens. Civil registration is therefore critical for protecting the fundamental rights and freedoms of women, girls, and other vulnerable groups in a country. According to the United Nations, statistics are generated from the civil registration system through population surveys and censuses and other sources of data; vital statistics constitute the collection of statistics on vital events pertaining to the population, including relevant characteristics of the events themselves and also of the persons concerned (UN, 2014).

Vital statistics provide essential data needed to monitor progress towards gender equality, including SDG targets such as those related to maternal and infant mortality, education, and access to services (UN, 2014). It is universally recognized that when sufficiently managed, CRVS systems are particularly beneficial to women and girls,

Statistics about vital life events such as births, deaths, marriages, and divorces reside in civil registration and vital statistics (CRVS) systems. When they function well, these systems are particularly beneficial to women and girls. Civil registration provides proof of identity and legal status, while vital statistics provide sex-disaggregated demographic data and key indicators for better planning that meets women's needs (IDRC, 2018a).

CRVS systems provide data as well as the access to services that people need, such as identity, legal entitlements, and social protection. Consequently, statistics about vital life events such as births, deaths, marriages, and divorces legal identity, proof of age, and civil status which facilitate access to key rights and services, including social protection, voting rights, health, education, and financial services and inheritance reside in a well-functioning CRVS systems (Mills, Lee, & Rassekh, 2019; Mills, Abouzahr, Kim, Rassekh and Sarpong, 2017). CRVS systems are particularly beneficial to women and girls because they ensure that females can prove their own identities to access crucial public services such as health, education, social protection and political representation. CRVS provide

vital statistics on sex-disaggregated demographic data which assist the monitoring of key issues such as population distribution and maternal mortality (IDRC, 2018a; Centre of Excellence for CRVS Systems, 2019; Mills *et al.*, 2019).

CRVS systems play a central role in assisting countries measure and achieve gender-related SDGs (IDRC, 2018b). Over “28% of the SDG indicators depend directly or indirectly on CRVS data or would be improved through the use of CRVS-derived data, while 34 out of the 54 gender-related SDG indicators identified by UN Women benefit from data provided by CRVS systems” (UN Women, 2020). The UN defined nine targets and 14 indicators for SDG 5. Aims to adopt and strengthen sound policies and enforceable legislation for SDG Goal 5 are important for the promotion of gender equality by 2030. Targets specify the goals and indicators represent the metrics by which the world aims to track whether these targets are achieved. Indicators for the SDGs especially Goals 5, gender equality, will require data from a well-functioning CRVS system. For instance, SDG Indicator 5.C.1 to track gender equality, measures the proportion of countries with systems to track and make public allocations for gender equality and women’s empowerment. Indicator 5.A.1 measures the (a) proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) the share of women among owners or rights-bearers. Indicator 5.2.1 - violence against women from an intimate partner - is measured as the share of women aged 15 years or older who experienced physical or sexual violence from an intimate partner in the last year. Civil registration provides proof of identity and legal status, while vital statistics provide sex-disaggregated demographic data and key indicators, such as population distribution and maternal mortality, for better planning that meets women’s needs.

In essence, when the CRVS systems function well, these systems are particularly beneficial to women and girls. In the age of virtual learning, CRVS e-Learning courses are developed by global CRVS experts in collaboration with governments. Ghana can harness these courses to provide practical learning tools and approaches to building and maintaining contemporary CRVS systems that are tailored to gendered contexts.

Mandatory Gender Data Collection in all Public Institutions

All MDAs, MMDAs and statutory bodies must be mandated to carry out gender data collection in their specific areas. In her book *Invisible Women*, Criado-Perez (2019) maintains that in the history of women’s rights legislation has always followed social change. The more people are reminded through laws and regulations of gender data collection; the less society will forget that women exist.

Indeed, legislation is needed to effect output of gender statistics in Ghana. MoGCSP should seek to expand gender data collection through legislation. A bill advocating the expansion of gender inclusive data collection in the National Statistical System should be presented to parliament and followed until the bill is enacted into law. The GSS and MoGCSP cannot be expected to bear the multiple sectoral burden of gender data collection. It places unnecessary heavy burden on them. All public institutions must generate their own gender data. This will ensure that the debate on gender is influenced by clear evidence of issues rather than by misinformation and assumption.

When legislated and decentralized, the enormous burden that the MoGCSP bears will shift to expand to enhance its role as national oversight and coordinating body in gender data collection. The partnership between MoGCSP and the GSS, when perfected, will ensure more accurate supervision in training and establishing sectoral and regional statistical systems in Ghana where gender data collection is fundamental. Policies and programmes will habitually incorporate gender data in decisions about design, implementation, monitoring and evaluation. All this will not happen if gender statistics is not a mandated national requirement.

Gender Research and Gender Analysis Consultations

Gender research must be trained established units within all regional and the national statistical systems to promote research on gender. Gender research units must compile statistics on women and men, oversee gender analysis of the information and the dissemination of gender analysed information (UN, 2016; Hedman, Perucci and Sundström, 1996). Gender analysis frameworks must be systematically incorporated into the broader analyses of situational context to gain better understandings of the specific needs, roles, vulnerabilities, risks, access to resources, coping strategies and capacities of women, men, girls and boys.

The expertise of professionals and gender organizations in the causes and consequences of gender inequality ought to be amassed to provide assistance in training and in the methodology and gender analysis of the data collected from the various sector. Gender analysis takes into consideration pre-existing inequalities as well as the impact of programme parameters on these inequalities. Findings from gender analysis are thus an integral element of any programme cycle and quality control systems and should inform central planning documents and regional and country programme documents. The many gender professionals,

groups and women's rights organizations in Ghana are a great source of expertise for gender data and analysis.

Multi Sectoral Approach to National Statistical Systems

A participatory multi-sectoral decentralized approach is necessary to prepare integrate gender statistics into the National Statistics System. Each MDAs, MMDA and statutory body must be incapacitated to support the national statistical systems. Every major public sector institution must be equipped with its own digital statistical system to collect and record gender data within its specific field. Regional and national offices must systematically collect, analyse and use sex-disaggregated data and build standard gender indicators into their digital systems. The capacity of regional statistical offices must be equipped to be efficient in advanced and various statistical systems. So must the capabilities of statistical personnel be developed to world class standards to collaborate with diverse public and international institutions in gender data collection.

The GSS currently works in partnership with about a dozen MDAs to harmonize and ensure the quality of data collection. This is an improvement on reporting for the consenting MDAs. In partnership with MoGCSP, the GSS can ensure replication of gender data collection at national, regional and district levels and with all statutory bodies in all areas. As government stakeholders in national and decentralized CRSV systems, both institutions can ensure standard, quality and gendered input and output.

Conclusion

Ghana looks forward to the day when gender data collection is the norm within the National Statistical System. Gender data collection in many the national and local statistical systems is rarely available because coverage of gender issues in statistics is not mandatory in Ghana. The country needs to legislate gender data collection for MDAs, MMDAs and statutory bodies. With legislative support, gender data will be a basic part of the National Statistical System and Ghana will be in position to provide gender data on past, existing or planned government policies to improve social development. The lack of gender data accumulation in Ghana is the result of the insufficient legislative support. Tools aimed at embedding gender data collection in national fiscal stimulus packages as well as in national monitoring responses should be encouraged. More sector capacity building and resource support is also needed to assist the role of decentralized statistical systems. This will enhance the coordinating role of the GSS and the gender oversight role of MoGCSP to integrate a transformative gender

perspective into statistical collection nationwide.

Ghana must commitment to cultivating a culture of gender data collection and dissemination. Regular collection and use of gender statistics is crucial to effectively measure progress in development and to ensure gender equality by 2030. Gender data is fundamental to strengthening government institutions toward gender responsive policies. Gender data is basic for government to know what to plan, what policy decisions to take and what to measure in actual gender impacts. Where there is gender data gap, Ghana will be incapable of effectively legislating and implementing policies for over 51% of the country's 31,732,128 population who need special attention, access to social protection, education, health care, economic, political and social opportunities.

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Social Values

11

SOCIAL VALUES AND THE GHANA BEYOND AID AGENDA

Introduction

Ghana Beyond Aid (GhBA) is a bold aspirational statement that combines a strong assertion of sovereignty with the imperative of radically transforming Ghana's economy and society. The idea was first unveiled in a Presidential Address at the 2018 Independence Day celebrations and was soon followed by the commissioning of a committee headed by the former Senior Minister, Hon. Yaw Osafo-Mafo, to draft a roadmap to guide its implementation.

In the words of President Nana Akufo-Addo, the agenda is meant to:

... build a Ghana that is prosperous enough to stand on its own two feet; a Ghana that is beyond dependence on the charity of others to cater for the needs of its people, but instead engages with other countries competitively through trade and investments and through political cooperation for enhanced regional and global peace and security (GhBA Committee, 2019: iv).

The President considers this agenda to be so sacred that he has sought to insulate it from the vicissitudes of partisan politics by encouraging Ghanaians to uphold it as a “national vision”. Accordingly, the Committee consulted widely and solicited position papers from a cross-section of Ghanaian society in the preparation of the guiding document. In 2019, the Committee published the *Ghana Beyond Aid Charter and Strategy Document* ([hereafter *Charter*] GhBA Committee, 2019). After the Charter’s publication, the GhBA Committee held further stakeholder engagements to secure the buy-in of various stakeholders (GBC, 11 June 2020; GNA, 12 June 2019; Kumi, 2020; OSM, no date). The Charter is essentially an overarching long-term national development plan.

According to the GhBA document, what distinguishes it from previous development plans is its emphasis on mindsets, values, attitudes, and behavioural patterns. In his Foreword to the Charter, the President refers to these attributes as “the ‘software’ underpinnings of development”. The Charter considers this focus on the “software of development” to be a turning point in development planning in Ghana. Rather than merely creating a list of policies, programmes, and projects, Ghana Beyond Aid aims to approach development planning by focusing on something “much more fundamental”, i.e. “the environment within which, and the manner by which, we pursue development in order to ensure successful implementation of whatever specific plan we decide to adopt” (GhBA Committee, 2019: 4).

Accordingly, the GhBA agenda is built on two strategic pillars: one technical, the other social. The technical pillar is built around the standard mix of macroeconomic policies and programmes for rapid infrastructural development and economic transformation. On the other hand, the social pillar aims at nothing short of sweeping social transformations which would proceed parallel to, while also hastening, the much-desired goal of structural economic transformation. This total social overhaul is considered to be necessary in order to “rid ourselves of the mindset of dependency and do things differently in Ghana” (GhBA Committee, 2019: 16).

The relevant attitudes and values, as stated in the Charter, are as follows:

- 1) Patriotism: putting the national interest above partisan, tribal or regional interests;
- 2) Honesty in dealing with each other and with the State, including paying our taxes;
- 3) Respect for each other, our laws, our institutions, and our natural environment;

- 4) Discipline, hard work, punctuality, responsibility and civic engagement;
- 5) Volunteerism and working with others to address basic challenges within our communities;
- 6) Self-reliance on Ghana's own resources as the primary driver of our development;
- 7) Wise and efficient use of Ghana's resources and safeguarding the public purse;
- 8) Transparency and accountability: a Ghana free of all forms of corruption;
- 9) Equal opportunities for all Ghanaians regardless of gender, tribe, region, or politics;
- 10) Strong support for private sector growth and job-creation; and
- 11) Collaboration among social partners, particularly Labour, Business, and Government, for economic and social development. (GhBA Committee, 2019: 7)

The GBA agenda is to be lauded for putting citizens at the centre of this bold vision. To that extent, it is consistent with the President's invitation to Ghanaians to be "citizens not spectators" and to be actively involved in the task of community and state building (Akufo-Addo, 2017; for a critical examination of the speech, see Asante, 2020a). This focus on citizen engagement and attitudinal change coincides with "beyond aid" arguments which posit that progress on the highway to development depends on a mindset change that would result in "the transformation of people from subjects to citizens" (Gatune 2010: 115).

Nevertheless, the Charter did not clearly spell out exactly what its list of eleven social values entailed. For example, it did not specify what an acceptable level of change in each value category would look like, nor how such change could be attained or measured. In particular, it did not elaborate on how it has conceptualised the relationship between these values and economic development. Overall, the GhBA Committee did not devote as much attention to the social as they gave to the technical aspect of bringing about a Ghana Beyond Aid. A case in point is that Chapter Two of the Charter, which is dedicated to the social pillar, is only one page long.

This chapter, therefore, attempts to throw more light on the social pillar of the GhBA agenda and offers brief reflections on the nature of the relationship between social values and economic development. Specifically, it examines the

Charter's conceptualisation of the Ghanaian character and evaluates this in the light of existing empirical data on the relevant values and attitudinal variables. To carry out the analysis, this chapter draws on the most recent round of the Afrobarometer and the World Value Surveys, two international datasets which include nationally representative samples for Ghana. Two caveats are necessary before we proceed:

1) we will *not* concern ourselves with an assessment of the technical pillar of the GhBA agenda, a task which other scholars have already begun to address (see, for instance, Aklorbortu, 2019; Ananpansah, 2019; Kumi, 2020), and

2) although the concepts of culture, values, attitudes, behaviour, and orientation can be treated as analytically distinct, they are used interchangeably in the chapter for the sake of simplicity.

“Beyond Aid” and the Aid Effectiveness Debate

In recent years, “Beyond Aid” narratives have become increasingly common in both academic and political discourse (Gatume 2010; Janus et al, 2015; Kumi 2020). The most forceful academic enunciation of the tenets of the “Beyond Aid” thesis remains Dambisa Moyo's (2009) *Dead Aid*. In a blistering attack on the aid industry, she points out that far from fuelling economic growth and poverty reduction, increased foreign aid inflows have gone hand-in-hand with economic decline and the rapid deterioration of standards of living across the continent. Aid undermines development “[b]y thwarting accountability mechanisms, encouraging rent-seeking behaviour, siphoning off scarce talent, and removing pressures to reform inefficient policies and institutions, [thus guaranteeing that] most aid dependent regimes [remain] poor” (Moyo, 2009: 59).

Moyo's criticism is premised on the notion that aid-dependence weakens citizens' incentive to hold leaders accountable. On the flipside, because they are beholden to foreign interests, national leaders become more responsive to the opinions and dictates of the donor community than to the needs of their own citizens. Thus, even though the Bretton Woods institutions coerced African countries to democratise, their continuous imposition of austerity policies on donor-dependent countries have resulted in what Thandika Mkandawire (1999, 2010) calls “choiceless democracies” in which national leaders are unable to respond to domestic social demands because their hands are tied by donor agencies. A recent strand of studies attempts to ascribe agency to local political actors in the donor-recipient relationship (Mohan and Lambert, 2013; Harris and Conteh, 2020), but the democratic conundrum created by the fact that donors

enjoy greater access, if not influence, to the policymaking process than citizens remain unresolved.

But even scholars who are much less cynical about aid still argue that it is hardly a catalyst for economic and political transformation. Vondee-Awortwi (2017), for instance, admits that aid can contribute to development but points out that its catalytic impact depends on endogenous factors which, as Mkandawire argues, are undermined under an aid regime. Her research shows that the only period in Ghana's history when aid had catalysed development was between 1983 and 1992 – incidentally, this was also Ghana's longest spell of authoritarian military rule during which civil society was muted and the ruling class had free rein to implement whichever policies that foreign donor institutions demanded without first having to bargain with citizens.

The aid effectiveness debate echoes central themes in the state-building literature which takes domestic resource mobilisation, not foreign aid, as the cornerstone of the project of national development. Even under colonial rule, bargains over appropriate tax policies allowed people under foreign domination to shape policy and influence the provision of social services in a political system which was otherwise closed off to the indigenous population (Akyeampong, 1994; Asante, 2020e). So important is the fiscal bargain between citizens and leaders that Schumpeter (2012 [1919]: 23-4) famously declared that it is by closely observing the politics of revenue mobilisation and fiscal policies that we may hear “the thunder of history more clearly than anywhere else,” because it is “under the fiscal pressure of the state” that a nation acquires its distinctive character. In other words, this fiscal engagement between state and society is so central that by allowing national leaders the opportunity to bypass this process, aid-dependence undermines the *relational* aspects which underpin socioeconomic development.

These debates have emerged in a wider political economy context marked by shifting geopolitical rivalries, in particular the rise of the BRICS (Brazil, Russia, India, China, and South Africa) economies, the growing importance of South-South cooperation, and the fact that many hitherto aid-dependent countries have transitioned from low-income to lower-middle income status, triggering a reduction in aid inflows. In a sense, therefore, “Beyond Aid” initiatives are making virtues out of necessity. In Ghana's case, net overseas development assistance (ODA) as a percentage of Gross National Income (GNI) has declined sharply from 6.1% in 2009 to 3.1% in 2016, “with a further decline projected in the coming years” (Kumi, 2020: 71).

This situation has been exacerbated by the devastating consequences of the COVID-19 pandemic on the global economy, which would most likely trigger widespread aid reduction. In June 2020, the World Bank estimated that the global economy would experience its deepest recession since the Second World War, shrinking by 5.2% by the end of the year. Aid-giving advanced economies, which were particularly hit hard by the pandemic, would shrink aid budgets by as much as 7% (World Bank, 2020). Faced with a combination of economic slowdown, falling revenue, and increased COVID-related expenditure, donor governments are confronted with the hard reality of being “forced to choose between domestic spending and foreign assistance” (Pallas, 2020: 1). In the UK, for instance, the government cut the foreign aid budget by GBP 2.9 billion in response to the economic impact of the pandemic (BBC, 23 July 2020), while most foreign assistance is currently being reprogrammed to address the immediate health impact of the pandemic (Pallas, 2020; Roy, 2020).

At the same time, the sudden disruption of global supply chains induced by the pandemic has forced countries to place a high premium on self-sufficiency. Across the world, leaders have declared that the pandemic is a wake-up call to reduce reliance on “overseas factories for survival” and to stimulate “domestic production” (Paquette, 2020). In Ghana, the rhetoric of self-reliance was also predominant in public discourse in the wake of the outbreak of the pandemic. Local manufacturers swiftly responded to a plea by the president for local production of personal protective equipment (PPEs) and sanitary products. Beverage manufacturer, Kasapreko, suspended drinks production and devoted its facilities to the production of hand sanitisers and rubbing alcohol (Ghanaian Times, 24 March 2020). The government also selected some garment manufacturing companies to produce face masks, medical scrubs, hospital gowns, and other PPEs (MOTI, 12 April 2020). These swift transitions in response to the pandemic have ignited a new spirit of optimism that the country could indeed attain self-reliance if it made a concerted effort at it.

However, it should be pointed out that “Beyond Aid” narratives are neither new nor unique to Ghana. African governments have been making public declarations about their intention to achieve self-sufficiency for decades. These attempts at self-assertion on the global stage go back to the dawn of African independence. The first generation of African leaders were unequivocal about the need to sever the remnants of ties of dependence on former colonial economies. It was this quest for economic independence which made “African socialism” such an attractive option for rapid economic transformation outside of the western capitalist economic orbit. According to Emmanuel Akyeampong (2018), this overarching developmental vision explains the massive developmental projects which proliferated across Africa at the dawn of independence, and which,

in a tragic twist of fate, led these countries back to knocking on the doors of donor countries for project financing, with often devastating consequences.

Values, Attitudes, and Structural Transformation

To adequately examine the Charter's emphasis on social values, we need to be guided by two related objectives. We must:

1. Examine how the Charter understands the Ghanaian character and how this understanding is reflected in empirical data on the relevant values and attitudinal variables; and
2. Gain an analytical grasp of change in societal values or attitudes, and what that means for the success of national development projects such as the GhBA agenda.

In this chapter, our main focus will be on addressing Objective 1 in an attempt to provide a baseline of the Ghanaian national character – to the extent that this can be deduced from existing datasets and secondary literature – against which to measure any future changes. On the Objective 2, this section will offer only a few preliminary comments due to space constraints.

If “economic transformation” is an elusive goal, “value or behavioural change” could be described as chimerical. As an analytical exercise, however, it is possible to theorise social change that embodies transformation in values and attitudes. As a prerequisite for such an analysis, it would be necessary to first address questions about the mutability of values, the conditions under which they change, and the possibility that the process can be shaped by a central state programme. The issue of values and attitudinal change, and how these relate to economic development, touches on important questions which have animated theoretical debates for decades. The connection between values and economic development is rooted in modernisation theory thinking. Modernisation scholars believed that developing countries were characterised by a constellation of social orientations, captured in the so-called pattern variables, that define *the* traditional orientation. According to this theory, the traditional orientation was a major impediment to the drive towards modernist development. The conservative bias of modernisation theory has been well discussed and criticised (see, for instance, Valenzuela and Valenzuela, 1978) and won't be repeated here. Underlying modernisation thinking is the assumption that poor countries need a change in social values and attitudes in order to join the highway to development.

But critical political economists like Mushtaq Khan (2005) argue that symptoms of underdevelopment, such as corruption and patronage politics, are the symptoms of lack of development, rather than the cause of it. More broadly, heterodox scholars maintain that societal values change in response to structural economic circumstances. Ha-Joon Chang (2011), for instance, explains that the social values commonly associated with economic development historically emerged *after*, not *before* economic transformation had been achieved in the West. He cites as evidence “the fact that before their countries achieved a high degree of industrialisation, the Germans and the Japanese were described by visitors from economically more advanced countries as lazy, irrational, and even congenitally incapable of dealing with machinery – completely different from their modern-day racial stereotypes” (Chang, 2011: 492). The debate about the temporal sequencing between value change and economic development rages on (see, for instance Booth, 2011, D’Arcy and Nistotskaya, 2017; Hickey 2012). At the very least, these debates should lead us to adopt more modest expectations about the developmental potential of changes in values or attitudes.

Societal Values and Attitudes in Ghana

The values outlined in the Charter can be grouped under three broad themes, viz. Belonging and Participation, Trust, and Core Values (see Table 11.1 below). The next three sub-sections will each present empirical data on each of these three broad themes.

TABLE 11.1: Thematic arrangement of values prioritised by the Ghana Beyond Aid Charter

National Belonging	Trust	Core Values/ or ideological positioning
Patriotism	Honesty	Discipline & Respect
Volunteerism	Collaboration among social partners	Self-reliance & Efficient use of resources
		Transparency and accountability
		Equal opportunities

Source: author’s own

The following empirical overview of Ghanaian national values and attitudes draws on publicly available data from two large, cross-national datasets with nationally representative Ghanaian samples, namely, the Afrobarometer Survey (Dome et al., 2019) and the World Values Survey (WVS) (Inglehart et al., 2014).

National Belonging

Social belonging is at the heart of citizenship. It has to do with people's sense of attachment to and participation in the social and political life of a country. Studies of citizenship and belonging in non-Western contexts tend to be obfuscated by misleading analytical frameworks inspired by an assumed contradiction between civic and ethnic orientations (for a recent critique of this framework, see Asante 2020c, Asante 2020d, and Godefroidt et al., 2016). This pitfall can be avoided by focusing on how people themselves think about their relations with the nation and with their fellow citizens.

Table 11.2 shows Afrobarometer results for the famous Moreno Question which are used to measure the tension between ethnic and national loyalties. The question asks respondents to report whether ethnicity or nationality was more important in their sense of social belonging. The table shows that ethnicity is only marginal in respondents' identification. Those who felt *only* ethnic or *more* ethnic than national together constituted only 8.2%, while those who felt *only* national or *more* national than ethnic added up to 34.5%. The single largest category of respondents was those who reported equally ethnic and national sentiments (55.8%). The pattern of these responses does not significantly differ by gender or rural-urban residence.

TABLE 11.2: Ethnicity versus national attachment

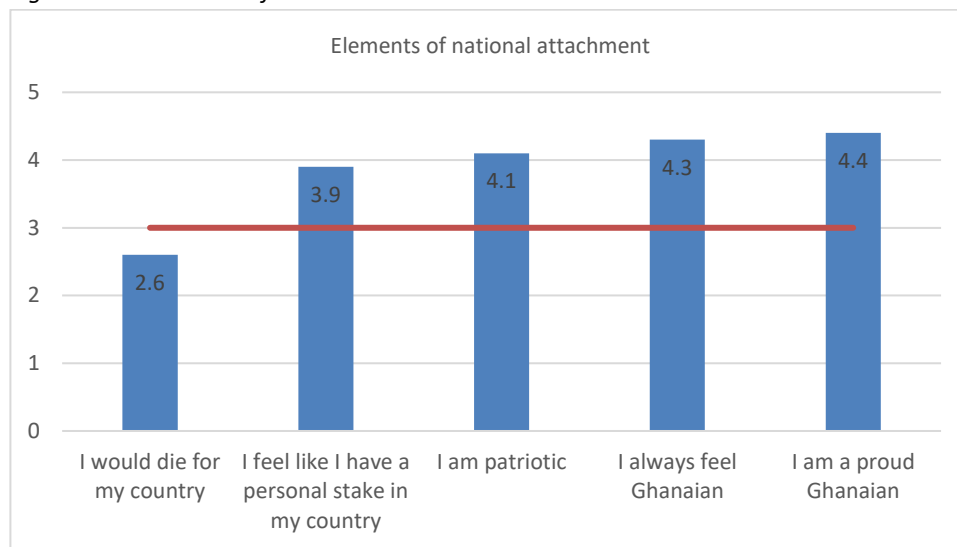
Let us suppose that you had to choose between being a Ghanaian and being a [R's ethnic group]. Which of the following statements best expresses your feelings?						
		Urban	Rural	Male	Female	Total
I feel only (ethnic group)		1.6	3.8	2.4	2.9	2.7
I feel more (ethnic group) than (national identity)		5.3	5.8	5.0	6.0	5.5
I feel equally (national identity) and (ethnic group)		54.5	57.1	55.5	56.0	55.8
I feel more (national identity) than (ethnic group)		6.2	4.9	6.8	4.4	5.6
I feel only (national identity)		30.7	26.9	28.9	28.9	28.9
Not applicable		1.1	0.6	0.6	1.1	0.8
Refused		0.1	0.1	0.1	0.1	0.1
Don't know		0.6	0.7	0.7	0.5	0.6

Source: Afrobarometer Survey Report (Dome et al., 2019)

There also appears to be a widespread sense of patriotism among Ghanaians. In a recent study (Asante 2020b) that measured national attachment using five Likert-scale questions, respondents reported moderate agreement with the

statement that they felt a personal stake in the country (3.9), but their sentiments around patriotism (4.1), sense of national belonging (4.3), and national pride (4.4) were much stronger. However, they reported a disinclination to die for the country (2.6, see Figure 11.1). It is not clear from this study what meaning respondents attached to this “death”, whether literal or symbolic, and under what circumstances. However, data from the WVS, shown in Figure 11.2 below, shows that close to 70% of respondents expressed willingness to fight for the country in a war.

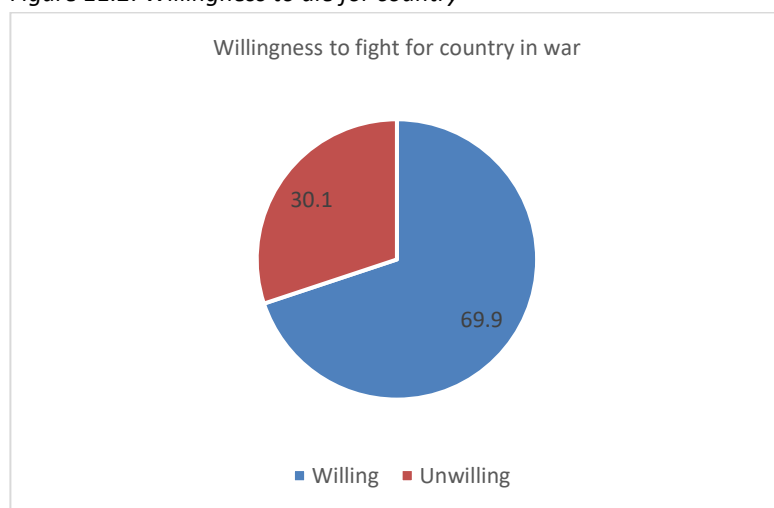
Figure 11.1: Elements of national attachment



Source: Asante (2020b)

The strong sense of national belonging and expressions of patriotism did not translate into political participation, however. Table 11.3 shows membership of various associations or voluntary organisations. Apart from membership in churches or religious organisations, of which close to 70% of respondents reported being active members, associational life appears to be very weak. By contrast, membership in sports or recreational groups, the highest level of active associational membership, was only about 14%, and active membership in political parties was only about 12%. Participation in other types of associations like environmental organisations (5.4%), consumer organisations (1.8%), and professional associations (6.6%) were even lower. The high rates of participation in religious organisations shows the importance of sociality and informal relations in Ghanaians’ sense of national belonging (Darku and Asante, forthcoming).

Figure 11.2: Willingness to die for country



Source: WVS (Ingelhart et al., 2014)

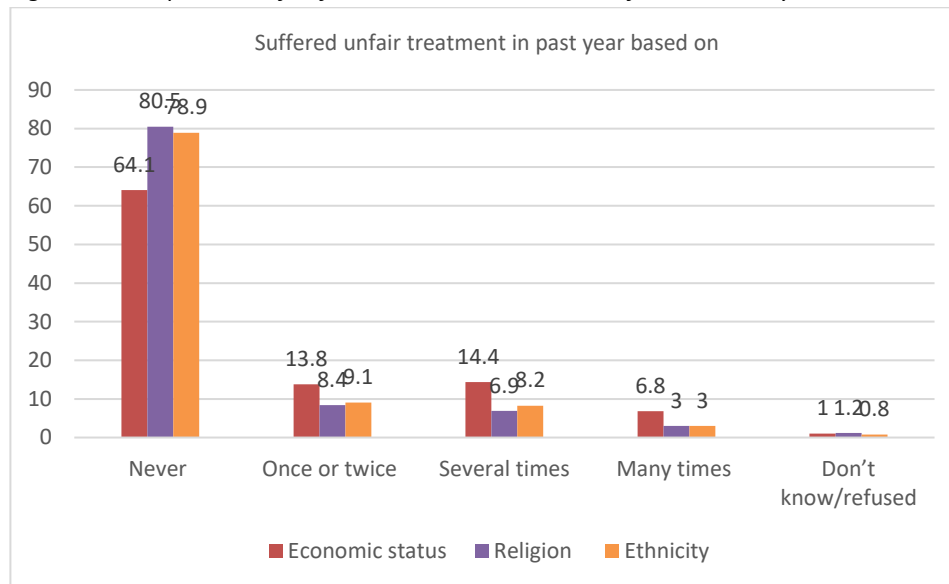
TABLE 11.3: Membership of Associations

Type of Association/Organisation	Activeness Level	Percent
Church/Religious Orgs	Inactive	24.3
	Active	69.2
Sports/Recreational	Inactive	13.1
	Active	14.4
Art/Music/Educational	Inactive	11.1
	Active	12.7
Labour Union	Inactive	11
	Active	6.3
Political Party	Inactive	27.1
	Active	12.1
Environmental Org	Inactive	8.8
	Active	5.4
Professional Assn.	Inactive	5.6
	Active	6.6
Humanitarian/Charitable	Inactive	5.3
	Active	4.1
Consumer Org.	Inactive	4.8
	Active	1.8
Self Help/Mutual Aid	Inactive	7.8
	Active	7.6
Other Org./Ass.	Inactive	4.6
	Active	4.1

Source: WVS (Ingelhart et al., 2014)

Moreover, experiences of status-based mistreatment are relatively rare. Figure 11.3 shows personal experience of unfair treatment across three social domains: economic status, religion, and ethnicity. More than 64% of respondents reported that they had never experienced unfair treatment on the basis of their economic status, but this was even rarer for religion and ethnicity. In fact, those who had experienced economic mistreatment “many times” and “several times” together made up less than a quarter of respondents, while the equivalent for ethnicity was just over 11%. This result is consistent with recent studies that prevailing notions of what it meant to be Ghanaian embraced social diversity (Asante, 2020a; Levstik and Groth, 2005).

Figure 11.3: Experience of unfair treatment on the basis of social identity



Source: adapted from Afrobarometer Survey Report (Dome et al., 2019)

These findings about the overall levels of tolerance and national cohesion seem to contradict so much of the public conversation about the threat that ethnicity poses to national cohesion and development (see, for instance, Modern Ghana, 14 April 2020). However, data from the most recent round of the Ghana Living Standards Survey (GLSS 7) shows that such assumptions are not based on evidence. In fact, ethnicity is a marginal reason for the conflicts that occur within local communities in Ghana. As can be seen from Table 11.4, less than 10% of conflicts in communities are accounted for by ethnicity. On the other hand, chieftaincy is the single most common cause of conflicts in communities, accounting for over 45%, while land disputes account for almost a fifth of such conflicts. Religious conflicts (0.3%) were also rare (GSS, 2019).

TABLE 11.4: Causes of communal conflicts

Causes of conflict in community by region and type of locality												
Major causes of conflict		Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West	Total
ALL												
Indebtedness		1.4	6.8	0.0	4.1	15.6	0.0	0.0	1.7	0.6	5.4	4.4
Ethnic/Tribal conflict		8.2	11.1	25.0	5.2	0.7	0.0	11.1	10.9	30.2	12.6	9.2
Political differences		4.7	16.2	13.0	0.5	9.9	5.2	20.5	21.7	3.3	46.7	11.7
Marriage		0.0	3.9	5.3	2.8	6.1	0.0	1.1	3.7	2.2	0.0	2.9
Land disputes		9.0	10.1	41.9	34.8	19.2	36.7	20.4	4.5	17.8	13.0	19.8
Chieftaincy		76.7	39.6	14.9	51.0	43.4	44.0	44.6	52.1	33.7	22.3	45.2
Religion		0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Other		0.0	10.7	0.0	1.6	5.1	14.1	2.4	5.4	12.2	0.0	6.5
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ghana Living Standards Survey 7 (GSS, 2019)

Similarly, there appears to be a strong belief in the value of diversity within communities. As can be seen from Table 11.5, over 64% of Afrobarometer respondents agreed that communities are stronger when they are made up of people from different ethnic, racial, or religious backgrounds. Moreover, Ghanaians appear to be generally tolerant of other social groups, as reflected in the marginal proportion of respondents who expressed dislike for respondents from different social backgrounds, including religion (less than 10%), ethnicity (6.8%), and

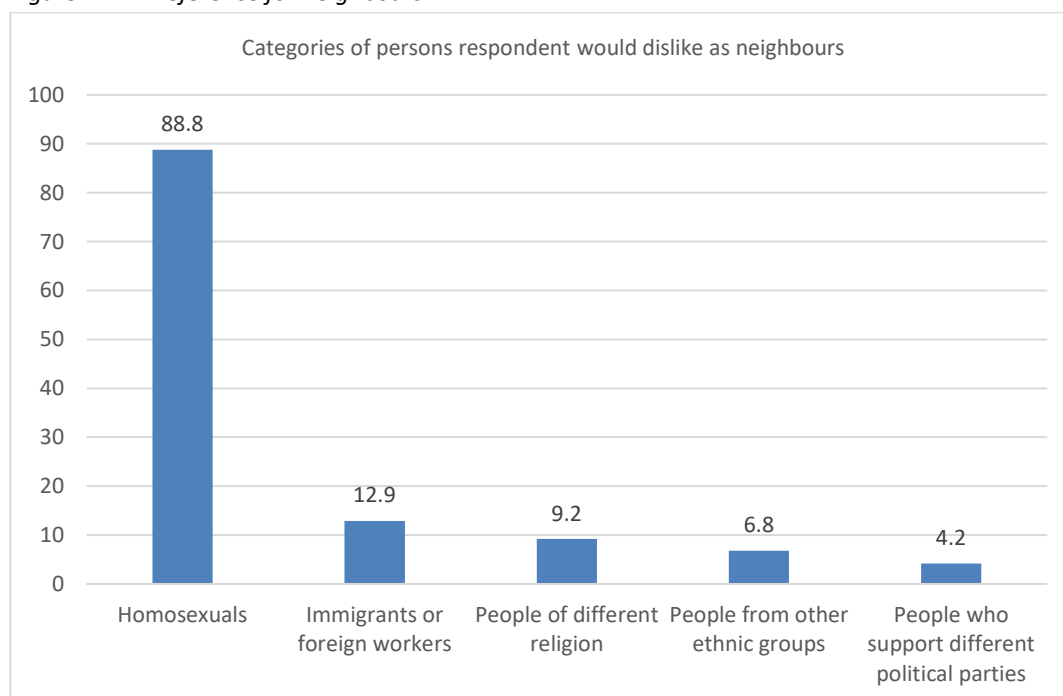
TABLE 11.5: Social Inclusion and diversity

Which of the following statements is closest to your own opinion?					
Statement 1: Communities are stronger when they are made up of people from different ethnic groups, races, or religions.					
Statement 2: Communities are stronger when they are made up of people who are similar to each other, that is, people from the same ethnic group, race or religion.					
	Ur- ban	Rural	Male	Female	Total
Agree very strongly with 1	42.2	42.0	43.8	40.4	42.1
Agree with 1	25.2	19.4	20.1	24.7	22.4
Agree with 2	8.2	11.4	10.8	8.7	9.8
Agree very strongly with 2	19.4	22.0	20.9	20.3	20.6
Agree with neither	3.0	2.5	2.3	3.2	2.8
Refused	0.3	0.0	0.1	0.2	0.1
Don't know	1.7	2.7	1.9	2.4	2.2
Ghanaians are very diverse. They come from different religions, ethnic groups, political parties, and economic social backgrounds. Overall, would you say that there is more that unites all Ghanaians as one people, or more that divides them?					
	Ur- ban	Rural	Male	Female	Total
Much more that divides us	7.5	8.6	9.0	7.0	8.0
Somewhat more that divides us	13.9	15.8	13.8	15.8	14.8
Somewhat more that unites us	31.7	26.3	29.1	29.2	29.1
Much more that unites us	43.0	45.8	45.8	42.9	44.3
Refused	0.0	0.0	0.0	0.0	0.0
Don't know	3.8	3.5	2.3	5.0	3.7

Source: Afrobarometer Survey Report (Dome et al., 2019)

political opponents (4.2%), although there was a slightly higher distaste for immigrants or foreign workers (12.9% and 9.2% respectively). Nevertheless, there are limits to expressions of tolerance when it comes to sexual non-conformity. Almost 90% did not like the idea of having homosexuals as neighbours (see Figure 11.4).

Figure 11.4: Preference for neighbours



Source: adapted from Afrobarometer Survey Report (Dome et al., 2019)

Trust

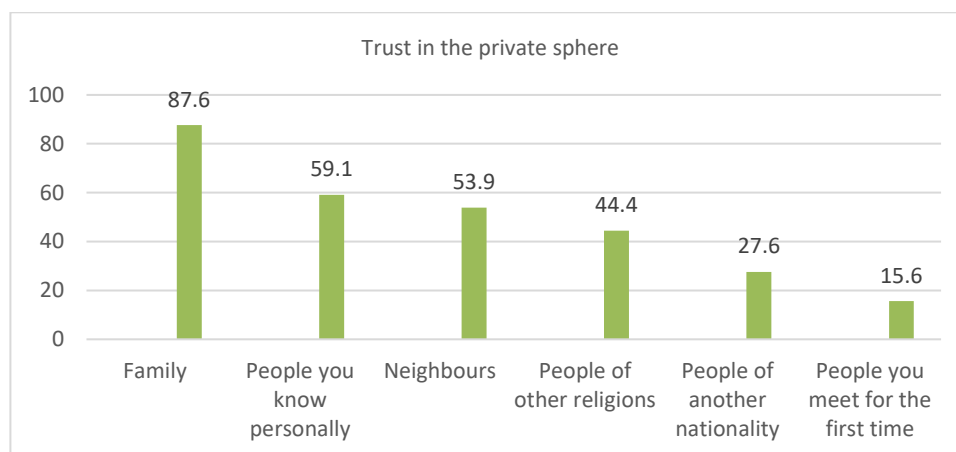
Trust can be seen as a social glue that enables cooperation across a range of social domains, including political life, social interactions, and economic transactions. Although the *Charter* did not explicitly spell it out, engendering greater trust would constitute an important element in the objective of transforming values that support economic development. However, what is clear from available data is that there is a widespread sense of distrust in Ghanaian society. Over 90% of respondents in the Afrobarometer Survey believed that they needed to be careful in dealing with others out of the fear that most people cannot be trusted (see Table 11.6).

TABLE 11.6: Generalised Trust

		Urban	Rural	Male	Female	Total
Must be very careful		93.7	87.6	89.6	92.0	90.8
Most people can be trusted		5.8	11.5	9.6	7.4	8.5
Refused		0.0	0.0	0.0	0.0	0.0
Don't know		0.5	0.9	0.8	0.6	0.7

Source: Afrobarometer Survey Report (Dome et al., 2019)

When unpacked, however, the pattern of distrust seems to confirm the point made above about the underlying informality of Ghanaian life. As shown in Figure 11.5, respondents in the WVS tended to be more trusting of family members (almost 90%), neighbours (over 50%), those they know personally (almost 60%). However, they were more distrustful of people outside their immediate social circles. This includes people they have met for the first time (about 15%), people of other religions (about 45%), and people of other nationalities (less than 30%). This widespread sense of mistrust will need to be addressed because it is relevant to the GhBA Charter, which sees collaboration among social partners as a central ingredient for the success of the agenda.

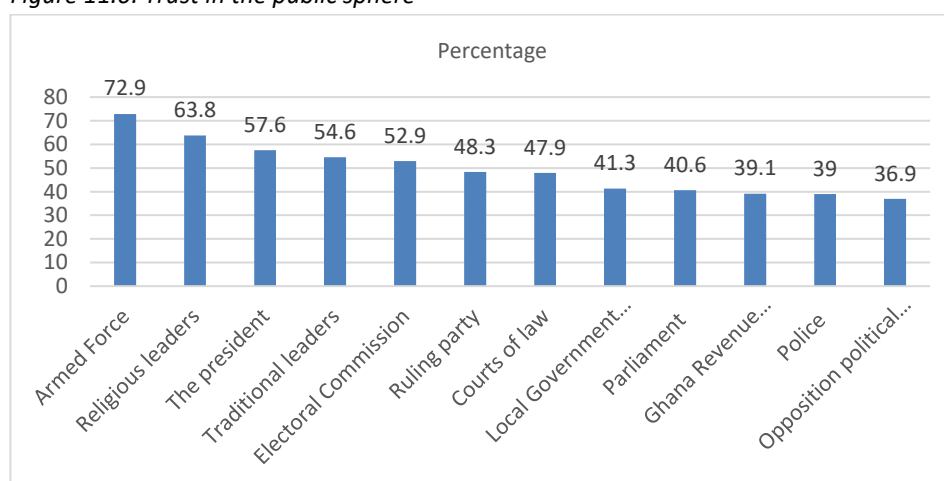
Figure 11.5: Trust in the private sphere

Source: Constructed from WVS (Inglehart et al., 2014)

On the other hand, trust in public institutions and officials shows a slightly different pattern. Figure 11.6 shows that the most trusted institution by far is the military (almost 73%) while the police is one of the least trusted (39%), a pattern

that reflects the widespread public perception that the military embodies discipline while the police are associated with extortion of the vulnerable.¹ The only other institution that enjoyed the trust of more than half of respondents is the Electoral Commission (EC). This faith in the EC may be a reflection of the commitment of Ghanaians to electoral democracy in spite of the multiple controversies that the institution has been embroiled in since the country's return to constitutional rule in 1992, which reached a crisis point during the Supreme Court hearing of the election petition against the EC brought by the then opposition party.

Figure 11.6: Trust in the public sphere



Source: adapted from Afrobarometer Survey Report (Dome et al., 2019)

Other institutions that enjoyed the trust of more than half of the public include the President (57.6%), traditional leaders (54.6%), and religious leaders (63.8%). Tellingly, key national institutions were trusted by less than half of the public. The Law Courts, beleaguered in recent years owing to the damning revelations of judicial corruption in the 2015 Tiger Eye investigative report, *Ghana in the Eyes of God*, still enjoyed more trust than Parliament (47.9% as against 40.6%). Local government councils and the country's tax administration body equally enjoyed low levels of trust (41.3% and 39.1% respectively). The country's largest opposition party, the National Democratic Congress (NDC, 36.9%), was the least trusted public organisation, enjoying even less public trust than the police (39%).

¹ This pattern of trust also suggests a strong value for discipline among Ghanaians and a corresponding disapproval of corruption or dishonesty. Alas, this doesn't necessarily translate into behaviour!

The larger point about these findings, however, is that in both the public and private spheres, patterns of public trust seem to reflect the importance of social closeness. This can be seen in, for instance, the high levels of trust in religious and traditional leaders, and the low levels of trust in Parliament as an institution.

Core Values or Ideological Positioning

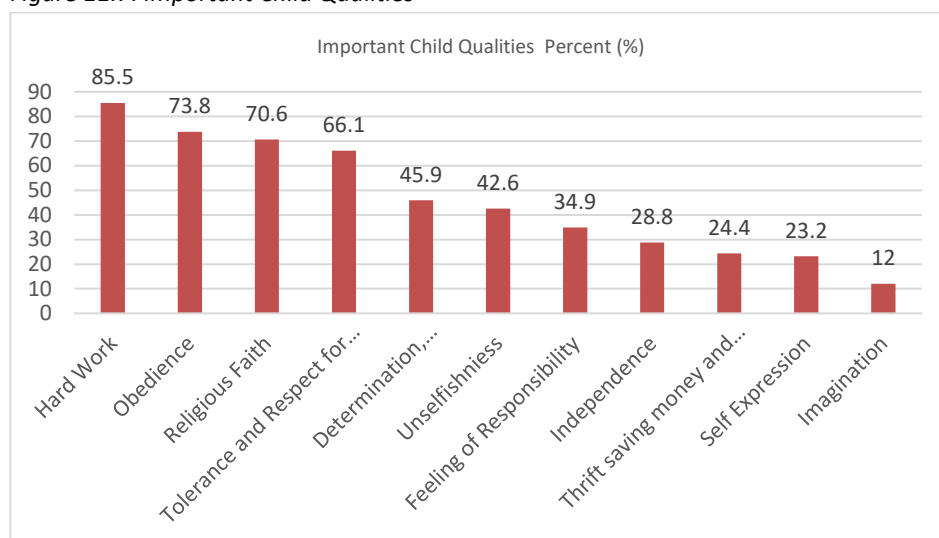
The World Values Survey provides a picture of the prevalence of the core values which the GhBA Charter deems necessary for rapid economic transformation. Before going further though, it should be noted that the WVS measures these values at the attitudinal rather than the behavioural level. Thus, in this section, we shall be largely focusing on the ideational alignment with the core GhBA values, as captured in the WVS, rather than their behavioural manifestations.

To gain insight into the sorts of attitudes that a society holds dear, a good starting point is to look at which values it desires to transmit to the next generation. Figure 11.7 shows the qualities that respondents of the WVS felt should be cultivated in children. The pattern of responses shows a clear conservative bias regarding which values they prioritise. The top three values which respondents mentioned as important to be inculcated in the young are Hard Work (85.5%), Obedience (73.8%), and Religious Faith (70.6%). On the other hand, values relating to assertiveness were sidelined. Accordingly, values like Independence (28.8%), Self-expression (23.2%), and Imagination (12%) were only mentioned by a relatively small number of respondents. However, respondents were not uniformly conservative on all issues. For instance, 66% believed that children needed to cultivate an attitude of Tolerance and Respect.

Ideologically, respondents placed themselves slightly right-of-centre on the ideological spectrum. On a Left - Right (1-10) continuum, the mean score was 5.42. This is reflected in the distribution of specific ideological values (Table 11.7). For instance, there is a reasonably strong ideological commitment to the virtues of Hard Work (3.01 out of 5) and Competition (3.04). On the question of hard work, most of the respondents who answered that question agreed that hard work results in a better life (34.2% against 1.8% who disagreed).

The right-leaning tendency among the public is more clearly visible in the strong belief that income inequality is necessary in order to stimulate individual initiative. Respondents were similarly conservative on other ideological issues such as Private Ownership of Businesses (5.76) and Wealth Distribution (5.71). It was only on the issue of Government Responsibility that public attitudes leaned leftward.

Figure 11.7: Important Child Qualities



Source: Constructed from WVS (Inglehart et al., 2014)

TABLE 11.7: Ideological positioning

Self-positioning in a Political Scale	
Positioning	Per cent
Left	10.5
Right	9.1
Values on Issues: All scales are 1-10	
Income Equality	Per cent
Income should be made more equal	6.2
We need larger income differences as incentives for individuals	20.5
Private vs State ownership of business	Per cent
Private ownership of business and industry should be increased	10.3
Government ownership of business and industry should be increased	15.7
Government Responsibility	Per cent
The government should take more responsibility	17.8
People should take more responsibility for themselves	7.2
Competition good or harmful	Per cent
Competition is good. It stimulates	34.2
Competition is harmful. It brings out the worst	1.8
Hard work brings success	Per cent
Hard work usually brings a better life	34.7
Hard work doesn't generally bring success	1.3
Wealth Accumulation	Percent
People can get rich only at the expense of others	8.3
Wealth can grow so there's enough for everyone	7

Source: WVS (Inglehart et al., 2014)

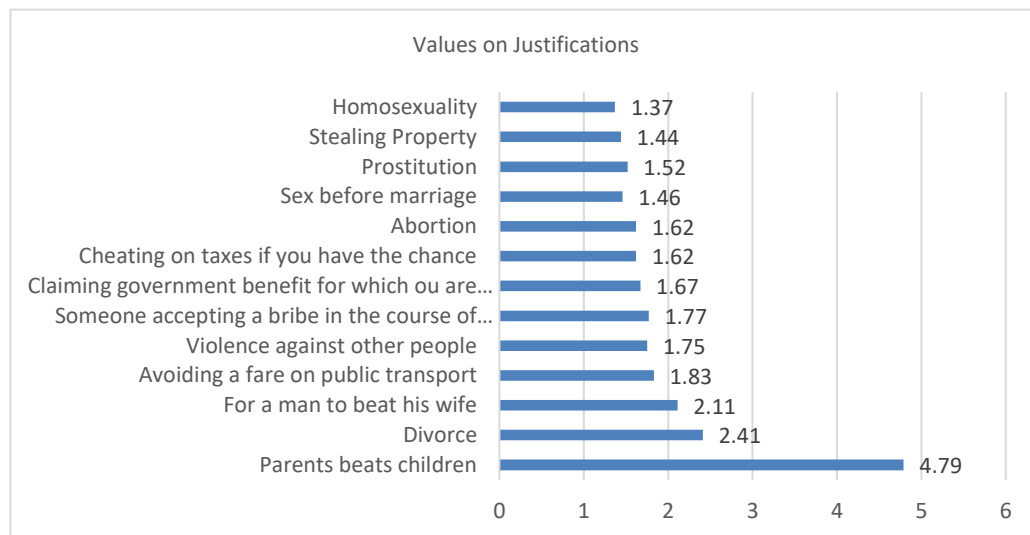
To understand how these ideological or value inclinations bear on the national development agenda as spelt out in the Charter, we must examine how they shape people's attitudes in cases of normative violations. Figure 11.9 shows how many WVS respondents deemed certain acts as justifiable on a scale from 1 (never justified) to 10 (always justified). The results show a general tendency to frown on all the identified instances of normative violations.

TABLE 11.8: Elements of public and private morality

Private morality	Public morality
<ul style="list-style-type: none"> • Homosexuality • Prostitution • Abortion • Divorce • Sex before marriage • Wife-beating • Physically punishing children • Violence against other people 	<ul style="list-style-type: none"> • Claiming government benefits when not entitled • Avoiding a fare on public transport • Stealing property • Cheating on taxes • Accepting a bribe

Source: WVS (Inglehart et al., 2014)

Figure 11.8: Justification for moral violations



Source: WVS (Inglehart et al., 2014)

These issues can be broadly mapped along a public-private morality dimension (see Table 11.8). The only violation on which public condemnation was relatively mild had to do with Parents Beating Children (mean of 4.79). The “public morality” variables bear directly on social values prioritised in the GhBA Charter. As Figure 11.8 shows, the public expressed a strong stance against all actions that were detrimental to the public interest, including Theft of public property, Cheating on taxes, Bribery and extortion.

Conclusion: GhBA and Ghanaian Society

The social pillar of the GhBA agenda is built on the assumption that the essential social values and attitudes necessary for the success of the technical strategies of the agenda are absent or only minimally present in Ghanaian society. However, the analysis above paints a mixed picture; whereas some social values and attitudes show a desirable pattern, others give cause for serious concern and a need for reform. In conclusion, it is possible to make brief comments about the prevailing pattern of values in the country and what this means for the Ghana Beyond Aid agenda.

- ***Belonging, Patriotism, and Participation***

Contrary to popular assumptions that Ghanaians are not committed enough to the country, the findings show that there is a strong sense of national belonging. This is evident in the absence of ethnic antagonism and the strong expressions of patriotism. However, these strong expressions of national belonging do not translate into conventional forms of engagement in national life, which shows in the low levels of participation in voluntary and other associations.

- ***Trust***

The findings show that there are extremely low levels of generalised trust. However, when this is unpacked, we observe that trust is higher in the private than in the public sphere, and that people more readily trust those who are socially close to them than those who are socially distant. There are also low levels of trust for public institutions and officials, although the military and the EC enjoyed higher levels of trust. Informal public leaders (traditional and religious) also enjoy more trust. Interestingly, with the exception of the military, the President enjoyed more trust than all public institutions. The low levels of generalised trust and the reluctance to trust socially distant relations presents a problem for the types of economic and social collaborations which the GhBA agenda desires to promote.

- ***Core Values and Ideological Positioning***

The prevailing ideology in Ghana is slightly right-of-centre. There is a strong preference for private enterprise and a belief that wealth inequality is a justifiable mechanism to stimulate individual economic initiative. Social values also have a conservative orientation, and prioritise hard work and obedience over independence and self-assertion. Interestingly, the attitudes that the Charter desires to cultivate in the population are values that the people already embrace. For instance, dishonesty in economic transactions and in public life are widely frowned upon (but widely practised).

It is important to note that values or attitudes do not necessarily translate into concrete behaviour. For instance, affective attachments to the State do not necessarily coincide with greater participation in associations and other forms of public life. The findings presented above do not provide evidence about how the core values can be translated into concrete action. On the issue of corruption, for instance, the widespread nature of both political and bureaucratic corruption (Appiah and Abdulai, 2017), and the apparent ineffectiveness of anti-corruption strategies (Asante and Khisa, 2019; Asante and Mullard, 2021), suggest that although the public upholds values of integrity, transparency, and ethical conduct in public and private life, this does not necessarily translate into concrete actions.

Recommendations

- Since people were more likely to participate in the informal sphere rather than in formal organisations, the State should work in collaboration with some of these informal institutions like churches and neighbourhood or communal organisations, to increase participation in social life.
- An important source of deficits in generalised trust is the unreliability of public institutions, especially the law courts and regulatory institutions, to satisfactorily mediate when social or economic transactions turn sour. Empowering public institutions to carry out their regulatory mandate will create a conducive atmosphere for the social and economic collaborations which are the central objectives of the Ghana Beyond Aid agenda. Reforming public institutions will also bring the additional benefit of increasing public trust in such institutions.
- Although the belief in the core values of discipline, integrity, and honesty are widespread among the public, what is missing is a mechanism that will ensure that they are translated into concrete action. This can easily be achieved in an environment of rigorous enforcement since many of these core values are already enshrined in law. For instance, enforcing the law against littering will further strengthen the value of discipline among the

public. Additionally, if instances of malfeasance in economic transactions are speedily punished by the relevant regulatory bodies, the public may be greatly encouraged to put into practice the values that they hold dear.

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ISBN: 978-9964-75-303-0



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