

Ghana Rising: Sustainable Infrastructure Post COVID-19

Pipeline of Infrastructure Projects

2021 SDG Investment Fair

SUSTAINABLE
DEVELOPMENT  GOALS



ACKNOWLEDGEMENTS

Technical Committee on Pipeline of Bankable Projects

- Ministry of Finance
- Ministry of Planning
- National Development Planning Commission
- Ghana Investment Promotion Centre
- United Nations Office for Project Services

United Nations

- UN Department of Economic and Social Affairs (UN DESA)
- UN Office for Project Services (UNOPS)
- United Nations Resident Coordinator Office (UNRCO)

University of Oxford

Ministries, Departments and Agencies that submitted Projects

- Ministry of Transport
- Ministry of Railways Development
- Ministry of Energy
- Ministry of Works and Housing
- Ministry of Education
- Ministry of Local Government, Decentralisation and Rural Development/ Department of Parks and Gardens
- Coastal Development Authority





FOREWORD

Since adopting the 15-year groundbreaking global Agenda 2030—the Sustainable Development Goals (SDGs)—and the African Union Agenda 2063, in 2015, Ghana has ensured their systematic implementation by integrating them into the national development framework. Through the President’s Coordinated Programme of Economic and Social Development Policies (CPESDP 2017-2024), the Government has adopted several forward-looking policy initiatives creating a positive policy environment for trade and investment in the country. The Government also instituted Flagship Programmes and projects under the CPESDP to help address specific challenges in education, agriculture and health among others. Additionally, the Ghana Infrastructure Plan (GIP), which encapsulates Ghana’s long-term vision and strategic direction for infrastructure development and provides the physical manifestation of social and economic ideals of the country, has been formulated.

As a developing country, the government continues to play a major role in the planned socio- economic transformation of the country. However, partnership with the private sector is critical in the mobilisation of adequate resources both technical and financial to drive the implementation and attainment of the SDGs, the AU Agenda 2063 as well as national development aspirations. Indeed, the 2019 Ghana Voluntary National Review (VNR) underscored that financing is one of the critical issues that needed to be addressed for Ghana to achieve the SDGs.

As the government reflects on its past accomplishments over the previous four years and plans for another term in office, there is the need to consider ways of reversing, in the shortest possible time, the negative impact of the COVID-19 pandemic, regaining the momentum for national development in the pre-pandemic era and accelerating the attainment of the SDGs, as articulated in the Ghana COVID-19 Alleviation and Revitalisation of Enterprises Support (2020-2023).

This brochure presents projects at different stages of development compiled from various sectors in Ghana expressly for the 2021 SDG Investment Fair. The brochure provides information on priority projects in railway development, transport, agriculture and education, as well as many other projects, in their early stages of development.

It is our expectation that these projects would generate interest among investors and ultimately lead to the mobilisation of the much-needed resources to propel the achievement of the SDGs in Ghana and improvement in the quality of life of the people of Ghana.

These projects have been selected by the Government of Ghana and packaged with technical support from United Nations Department for Economic and Social Affairs (UN DESA), the United Nations Office for Project Services (UNOPS) and the United Nations Resident Coordinator’s Office. We are grateful for their support and look forward to achieving the purpose for which this exercise was undertaken.

Ken Ofori-Atta, Honorable Minister for Finance

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i	PRIORITY PROJECTS	13
FOREWORD	iii	Transportation	15
TABLE OF CONTENTS	iv	EARLY STAGE PROJECTS	19
WHY INVEST IN GHANA	2	Transportation	21
Country Profile	2	Energy	31
Market Opportunity	3	Solid Waste	35
Sustainable Development through Infrastructure Investment	5	Housing	37
Commitment to SDGs, NDCs and Gender Equality	6	Education	39
Sectoral Opportunities For Growth	7	Green Infrastructure	41
Improving Business Climate	9		
Investor Road Map	10	REFERENCES	43
OVERVIEW OF PROJECT DIGEST	12		



WHY INVEST IN GHANA

COUNTRY PROFILE

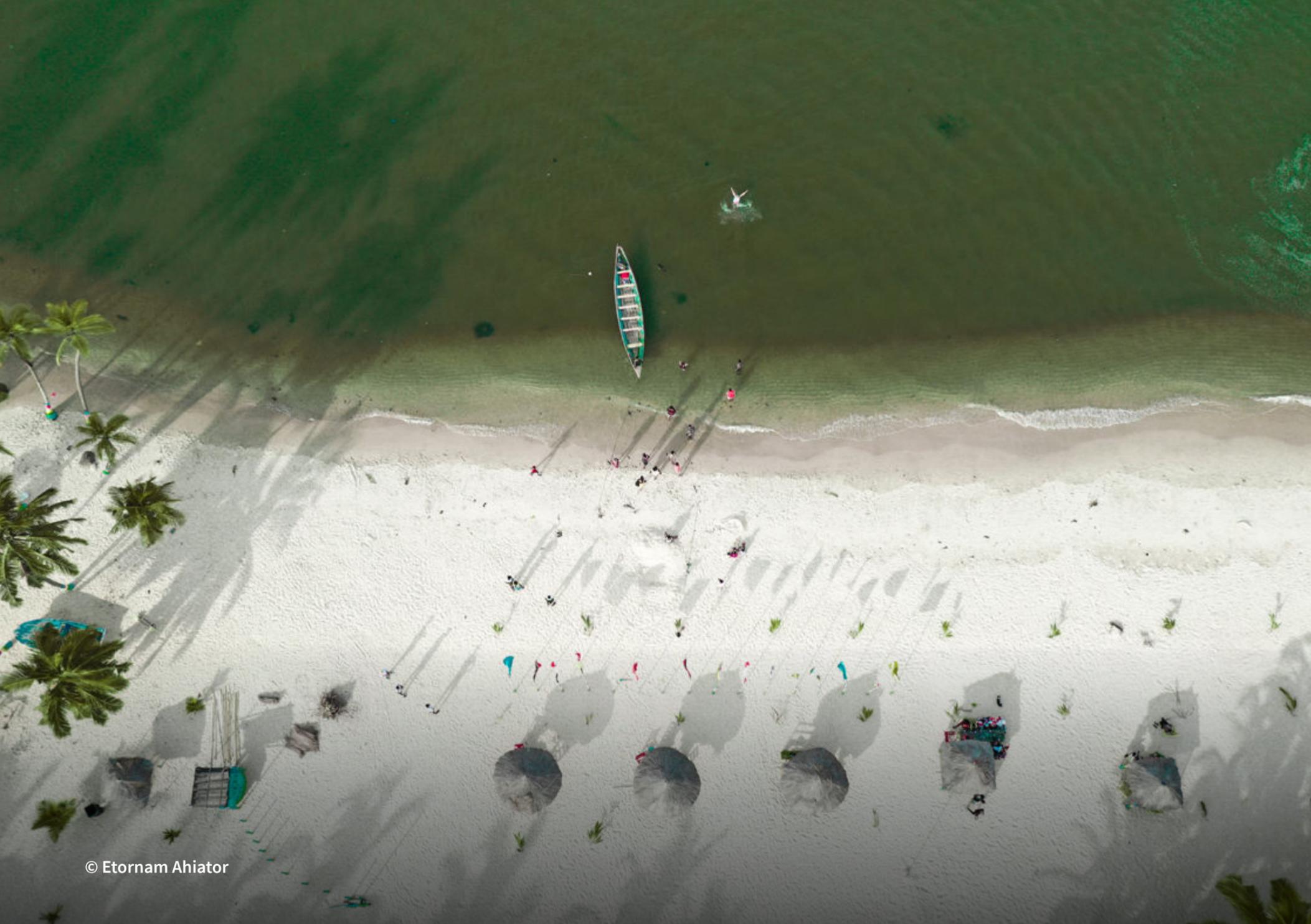
Ghana's demographic profile signals that the country is ready for future growth, with significant gains made in improving development outcomes over the last thirty years. Ghana is the second most populous country in West Africa with 31.7 million people (UN DESA, 2019). The country boasts a significant growing youth population with 57% of this demographic under the age of 25 (GSS, 2014). Ghana has the advantage of comparatively high levels of education and human development. Education levels of the growing workforce are above the sub-Saharan standards and ~54% of the population has at least secondary education (PwC, 2013). Ghana's rapid growth over the last thirty years has correlated to improved progress across numerous development indicators. The country's Human Development Index rose 31% from 1990 to 2019 and poverty levels have shown a steady decline during this period (UNDP, 2020).

The country is blessed with a diverse geography and abundant natural resources. Situated along the Gulf of Guinea, Ghana's 535-km-long shoreline includes lagoons and mangrove forests. The country has a diverse landscape spanning from tropical forests to savannahs. Apart from its natural beauty, Ghana is endowed with several natural resources including timber, diamonds, bauxite, and manganese, as well as gold and oil which are Ghana's primary exports.



Key Demographic Indicators

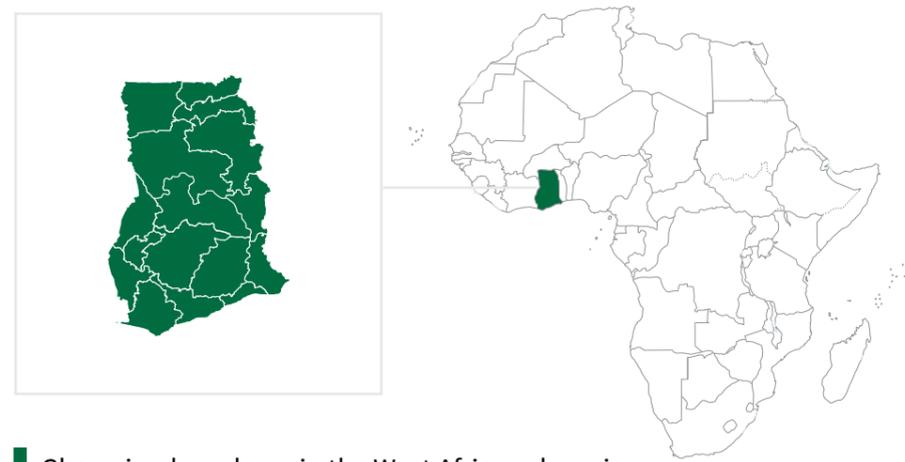
- 31.7 Population - 2021 (million, UN DESA, 2019)
- 2.2% Population growth rate - 2019 (World Bank, 2019)
- 138th Human Development Index Rank - 2019 (UNDP, 2020)
- 27th Gini Index Ranking - 2016 (World Bank, 2021)
- 23% Poverty Rate - 2016 (World Bank, 2021)
- 79% Literacy Rate - 2018 (15 and older, UNESCO UIS, 2021)
- 54% Population Completed Secondary Education (PwC, 2013)
- 57% Urban Population - 2020 (Worldometers, 2021)
- 57% Population Under 25 Years - 2020 (GSS, 2014)



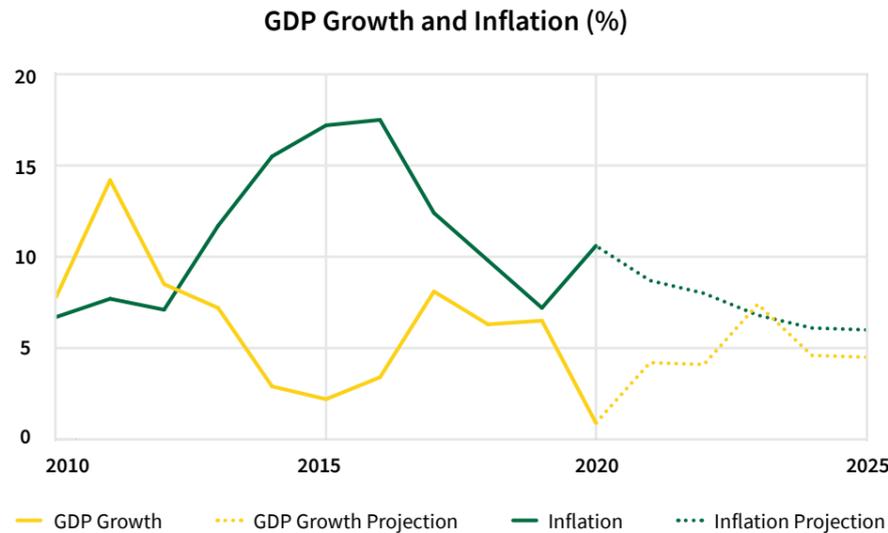
MARKET OPPORTUNITY

Ghana is Africa's 8th largest economy with a historically robust growth trajectory, however COVID-19 will impact growth. In 2020, Ghana's GDP growth rate is ranked 89th in the world and 18th in Africa, making it one of the continent's rising stars (IMF, 2021). Since 2010, Ghana has experienced high levels of economic growth with annual GDP growth averaging 6.2% (IMF, 2021). The coronavirus pandemic resulted in GDP growth contracting to ~1% in 2020 (IMF, 2021). Future growth is positive, however the 2021 growth rate is projected at 5.0% due to lower oil prices and a reduction in trade, investment and tourism activities.

Ghana's diverse economy has cemented its status as a regional powerhouse. Ghana is a net-exporting country, with a trade balance of \$2 billion USD (Bank of Ghana, 2021). The country's primary economic activity is agriculture, which accounted for almost 20% of its exports in 2020 (OEC, 2021). Ghana is a key member of the Economic Community of West African States (ECOWAS) where it seeks to promote economic cooperation and development alongside 14 other member countries. As one of the wealthiest nations in the region, Ghana continues to foster positive trade relationships in West Africa and across the continent.



Ghana is a key player in the West Africa sub-region

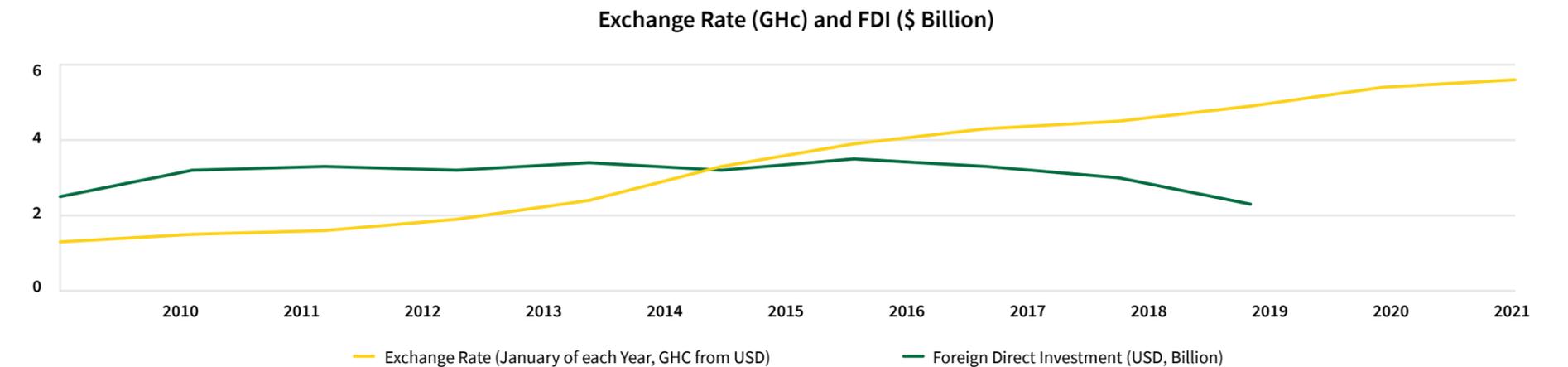


Ghana's investor-friendly legal and regulatory environment has buoyed its status as a strategic entrypoint to the West African Market. Ghana's attractiveness as an investment hub is based on its continued political stability, complemented by its strategic location along the Gulf of Guinea. Since gaining independence in 1957 and attaining democracy in 1992, Ghana's political stability has attracted substantial investor interest with net foreign direct investment growing significantly and reaching 2.65 billion USD, representing 3.5% of GDP in 2019 (GIPC, 2021). The Ghanaian Cedi remains stable against the US Dollar, with import-driven demand driving fluctuations in the currency. Regionally, Ghana remains one of the most politically and economically stable states. Ghana ranks second in West Africa on the Global Peace Index and boasts a liberal business environment and strong macroeconomic policies.



Key Economic Indicators

66.5	GDP - 2020 (USD billion)
5.0%	Projected GDP growth rate -2021
\$2,190	GDP per capita - 2020 (IMF, 2021)
9.9%	Inflation - March 2021 (Bank of Ghana, 2021)
Cedi	Currency
GHS 5.76	Exchange Rate (value of \$1USD, Xe.com, 2021)
25%	Corporate Income Tax Rate -2020 (KPMG, 2021)



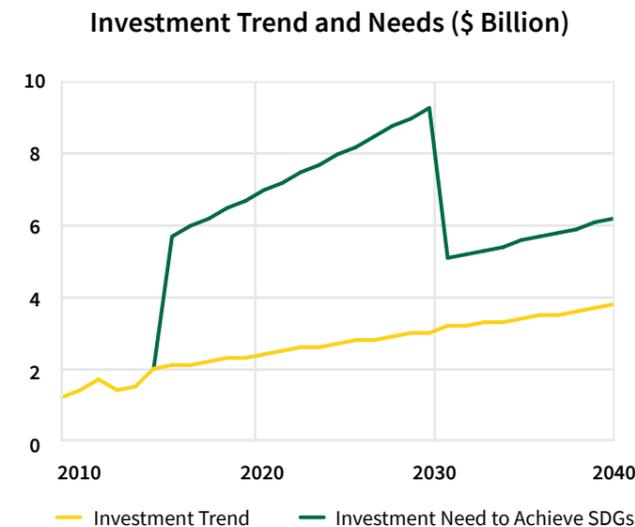
SUSTAINABLE DEVELOPMENT THROUGH INFRASTRUCTURE INVESTMENT



Infrastructure delivery remains key for the attainment of Ghana’s development priorities with annual infrastructure financing growing 208% over the last 10 years (GIH, 2021). Since 2007, Ghana has invested ~\$23 billion in infrastructure development (GIH, 2021). Ghana’s Infrastructure Plan (GIP) sets the benchmark for the attainment of the post-2015 development agenda and Sustainable Development Goals (SDGs). The GIP aims to build world-class, resilient infrastructure assets to support Ghana’s continued growth and to improve the quality of life of all Ghanaians by 2047.

Foreign Direct Investment towards infrastructure development needs to be increased to close the infrastructure gap and ensure development targets are met. In line with global trends, the Government of Ghana is increasingly looking for mechanisms to close this infrastructure financing gap. The

private sector is seen as a key partner in the attainment of infrastructure development outcomes. In order to facilitate the attainment of the SDGs, annual infrastructure investment will need to reach USD 9.3 billion by 2030 (GIH, 2021). This means that total infrastructure investment in Ghana will need to reach \$96 billion by 2040.



COMMITMENT TO SDGs, NDCs AND GENDER EQUALITY

Ghana has placed infrastructure at the centre of the attainment of its national development targets. Ghana’s Infrastructure Plan (GIP) is aligned with the Sustainable Development Goals (SDGs) and Paris Agreement as it aims to deliver sustainable, climate resilient infrastructure across major sectors. Gender mainstreaming is also a key focus throughout the infrastructure development process, and is integrated into Ghana’s policies and impact monitoring. Ghana is committed to achieving the SDGs, Paris Agreement and gender outcomes.



For Ghana, implementing its national development agenda and achieving the SDGs are one in the same. Infrastructure is key to achieving the SDGs - infrastructure systems influence 92% of the 169 SDG targets, across all 17 Goals. Ghana has integrated the SDGs into its development agenda, as reflected in the country’s Coordinated Programme of Economic and Social Development Policies (CPESDP, 2017-2024) and its Long-Term National Development Plan (2018-2057). Ghana’s focus on transportation, energy, water, sanitation and agriculture demonstrates the broad range of socio-economic impacts infrastructure development will create towards achieving the SDGs.



Ghana’s Nationally-Determined Contributions (NDCs) provide a framework for integrating existing and proposed adaptation and mitigation actions in line with its commitment to tackle global climate change. Climate-related extreme events have the potential to put years of progress toward growth and development targets at risk - infrastructure plays a critical role in mitigating and adapting to climate risks. The development of climate-proof infrastructure is central to Ghana’s NDCs, including development of sustainable mass transportation, energy security, forest management, alternate urban waste management, integrated water resource management and agricultural resilience.



Infrastructure plays an important role in promoting gender equality and empowering women. When planned, delivered and managed following a gender mainstreaming approach, infrastructure can address the gender-based barriers impeding access to essential services. Ghana’s National Gender Policy recognises the importance of access to infrastructure such as transportation and housing, and identifies priority sectors and strategies to achieve gender equality through infrastructure.

SECTORAL OPPORTUNITIES FOR GROWTH

Over the past 3 decades, Ghana has made great progress in its infrastructure development, driving socio-economic growth.



The national road network grew 9,000km between 2006 and 2015 (GIPC, 2021; Adams, 2016), with 74% of roads being in good or fair condition (MoRH, 2019).



Agricultural yields for major crops grew as much as 9.5% between 2004 and 2014 (GSS, 2021), with the total value of harvested crops reaching \$2.2 billion USD in 2017 (GSS, 2019).



Electricity access has become ubiquitous, with 85% of the population having access, a 32% increase since 2010 (Ghana Energy Commission, 2019).

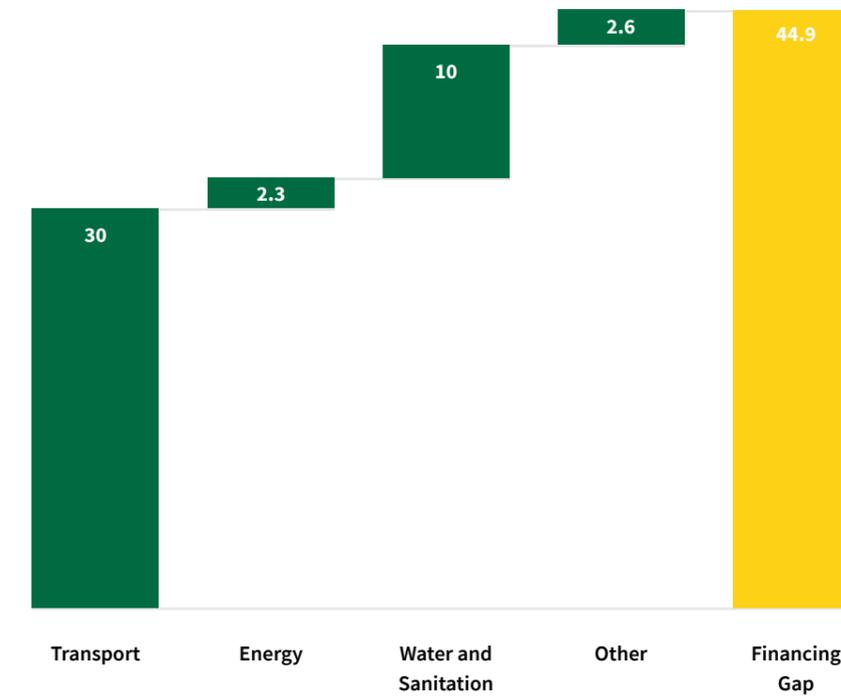


By 2017, 81% of the population has access to basic drinking water services, a 26% increase since 2000 (JMP 2021).



Access to basic sanitation services has more than doubled since 2000, with 19% of the population having access by 2017 (JMP 2021).

Future investment will need to be focused across key sectors to fill the ~\$45 billion infrastructure investment gap by 2040 (GIH, 2020).



Ghana has a clear vision and strategy for the development of infrastructure in some key sectors.

Transportation



Ghana's extensive **road network** is essential to the economy, carrying 96% of all passenger and freight traffic (GIPC, 2021). In addition to developing and maintaining road infrastructure, Ghana seeks to expand its **rail networks, ports, inland water transport system, and aviation** infrastructure (GIP, 2019).

Agriculture



Strengthen the **agriculture value chain** and increase productivity in the sector to meet growing demand by improving business linkages, investing in infrastructure and improving technological capacity (GIP, 2019).

Energy



Ghana is well endowed with untapped **renewable energy** resources, including biomass, hydro, wind and solar. Renewable energy contributes 1% to the energy mix (Ministry of Energy, 2021); Ghana aims to **increase this to 18% by 2047** (GIP, 2019). Expanding and maintaining electricity and oil and gas infrastructure are also priorities.

Water, Wastewater and Sanitation



Enhance physical and institutional infrastructure to deliver **piped drinking water** for all Ghanaians, expand **drainage and flood** infrastructure for proactive disaster prevention, and develop **integrated sanitation and waste management** infrastructure systems (GIP, 2019).

IMPROVING BUSINESS CLIMATE

Ghana has taken significant steps to create an environment conducive for private sector investment by establishing a robust PPP Framework.

Since 1990, 30 PPP projects have been financed in Ghana equating to a total investment of \$9.99 billion USD. The active PPP portfolio includes 22 projects with \$8.92 billion USD invested in projects primarily from the transportation, water and wastewater sectors (PPP Knowledge Lab, 2021). These projects have been facilitated through the strengthening of upstream project planning facilities and the adoption of several policies to establish a stronger PPP framework.

Ghana has strengthened its institutional capacity to plan and deliver PPPs. A PPP Advisory Unit was established within the Public Investment and Assets Division of the Ministry of Finance to manage the development and implementation of PPP projects. Ghana also adopted several PPP related policies, namely the:

- National Policy on Public Private Partnerships (June 2011)
- PPP Bill
- Ghana Investment Promotion Centre Act, 2013 (Act 865)

Ghana continues to improve its business climate, as evidenced by its rising Ease of Doing Business Scores. Ghana's ease of doing business score rose from 56.99 to 59.96 between 2015 and 2019, and it currently ranks at 118th in the world, and 3rd in West Africa (World Bank, 2020).



Ghana's PPP framework and delivery are near or better than average in Sub-Saharan Africa (World Bank, 2021)

World Bank Thematic Scores for Public-Private Partnerships in Ghana



Despite the COVID-19 pandemic, Ghana still maintains good credit ratings and a stable economic outlook.



INVESTOR ROAD MAP

Ghana has established a clear roadmap for investors seeking to invest in the country, with 3 simple steps to ensure compliance:

1 STEP 1: REGISTRATION WITH REGISTRAR GENERAL'S DEPARTMENT

Incorporate a company at the Registrar General's Department (RGD) and obtain the following:

- Certificate of Incorporation and TIN number
- Company Regulation

2 STEP 2: MINIMUM EQUITY CONTRIBUTION

Foreign investors are required to comply with the GIPC Act 2013 (Act 865) regarding minimum equity requirements either in cash or in capital goods relevant to the investment; or a combination of both. The breakdown of minimum equity contributions is as follows:

- US\$200,000 for Joint Venture with Ghanaian partner having not less than 10% equity participation
- US\$500,000 for 100% foreign ownership
- US\$1,000,000 for Trading Activity with a minimum of 20 skilled Ghanaians employed by such an enterprise.

There is no minimum equity requirement for foreigners interested in the following sectors: manufacturing, export trading and portfolio investment.

3 STEP 3: REGISTRATION WITH GHANA INVESTMENT PROMOTION CENTRE (GIPC)

After paying relevant fees, the Investor then registers with the GIPC for the process to be completed.

This procedure takes five (5) statutory working days to complete, provided the registration forms and all supporting documents are in order.

Requirement for Renewal: renewal with GIPC permitted every two (2) years.



OVERVIEW OF PROJECT DIGEST

16 Projects

3 Feasibility | 4 Pre-Feasibility | 9 Concept

2 Priority | 14 Early Stage

 **10** Transportation Projects

 **2** Energy Projects

 **1** Green Infrastructure Project

 **1** Solid Waste Project

 **1** Education Project

 **1** Housing Project

The maps displayed in the project digest are for illustrative purposes only.

PRIORITY PROJECTS

2 Feasibility Stage Transportation Projects



TRANSPORTATION

2 Feasibility Projects



TRANSPORTATION – PRIORITY PROJECT

Metro / Light Rail Transit System

Description:

A Light Rail Transit (LRT) network composed of seven corridors, located in Kumasi, Ghana’s second largest city. Kumasi is a converging point of commercial activity and a key transportation hub. It’s economic progress and rapid urbanization have led to urban mobility challenges and traffic congestion, which inhibit the city’s socio-economic growth. The Kumasi LRT aims to strengthen the city’s transportation system.



Location: Kumasi
Subsector: Light Rail
Project Start: 2025
Operation Start: 2025
CapEx: \$5.8 Billion
O&M: \$137 Million
Agency: Ministry of Railways Development

Investment Details:

Project Structure: PPP
Financing: Debt (70%), Equity (30%)
Concession Period: 30 years
NPV: \$404 Million
FIRR: 15.6%
B/C Ratio: 1.12

Mr. Desmond Boateng, Ag. Chief Director, MoRD
 desmond.boateng@mrd.gov.gh | +233-547-888-085

Project impacts towards the SDGs

	3 GOOD HEALTH AND WELL-BEING	Inexpensive, safe form of transport reduces traffic jam and deaths due to traffic incidents.
	7 AFFORDABLE AND CLEAN ENERGY	Public transport options reduce CO2 emissions from vehicles.
	11 SUSTAINABLE CITIES AND COMMUNITIES	Enhanced satisfaction with public transport safety, affordability, reliability and frequency.

Project impacts towards Paris commitments

	Scale up sustainable mass transportation .
	Resilient infrastructure planning city-wide for improved movement of people and goods.

Potential impacts towards gender outcomes

	Build resilience for gender through equal employment opportunities in construction and O&M.
	Accessible transport options enable women to participate in public life and other activities.



Pre-Feasibility Study	Feasibility Study	Environmental Impact Assessment	Social Impact Assessment	Cost Benefit Analysis	Multi-Criteria Analysis	Procurement Plan	Planning Permissions
-----------------------	-------------------	---------------------------------	--------------------------	-----------------------	-------------------------	------------------	----------------------

Central Spine Rail Line

Description:

A rail line originating from the Central district of the City of Kumasi and routes through major cities and towns such as Mankranso, Bechem, Sunyani, Techiman, Kintampo, Buipe, Tamale, Walewale, Bolgatanga, and Navrongo before terminating in Paga, near the Burkina Faso border. The approximate length of the Central Spine Line is 672km. The project is expected to link Ghana to Burkina Faso and open up economic development.



Location: Kumasi - Paga
Subsector: Rail
Project Start: 2023
Operation Start: 2029
CapEx: \$3.3 Billion
O&M: \$123 Million
Agency: Ministry of Railways Development

Investment Details:

Project Structure: PPP/BOT
Financing: Debt, Equity
Concession Period: 30 years
NPV: \$945m (at 8% interest)
FIRR (until 2055): 9.45%
EIRR (until 2055): 13.2%

Mr. Desmond Boateng, Ag. Chief Director, MoRD
 desmond.boateng@mrd.gov.gh | +233-547-888-085

Project impacts towards the SDGs

	<p>3 GOOD HEALTH AND WELL-BEING</p>	Inexpensive, safe form of transport reduces traffic jam and deaths due to traffic incidents.
	<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	Improved trade by increased logistical efficiencies to reduce time and cost.
	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	Enhanced satisfaction with public transport safety, affordability, reliability and frequency.

Project impacts towards Paris commitments

	Scale up sustainable mass transportation and open up economic development between cities and regions.
	Resilient infrastructure planning between cities.

Potential impacts towards gender outcomes

	Build resilience for gender through equal employment opportunities in construction and O&M.
	Inter-regional transport increases access to essential services for rural women (i.e. healthcare, education).



Pre-Feasibility Study	Feasibility Study	Environmental Impact Assessment	Social Impact Assessment	Cost Benefit Analysis	Multi-Criteria Analysis	Procurement Plan	Planning Permissions
-----------------------	-------------------	---------------------------------	--------------------------	-----------------------	-------------------------	------------------	----------------------



© Reuben Hayfron

EARLY STAGE PROJECTS

14 Projects

1 Feasibility | 4 Pre-Feasibility | 9 Concept

8 Transportation | 2 Energy | 1 Solid Waste | 1 Housing |
1 Education | 1 Green Infrastructure



TRANSPORTATION

8 Projects

1 Feasibility | 2 Pre-Feasibility | 5 Concept



© Shutterstock

Trans-ECOWAS Railway Line

Description:

The proposed route is estimated at 550km from Aflao to Elubo, including a branch line to Keta. The proposed railway will ensure the smooth and rapid movement of goods and people within Ghana, as well as facilitate the movement of people and transit cargo for trade between Togo and Côte d'Ivoire. The project promises to bring tremendous socio-economic benefits to Ghana and other neighbouring territories of Benin and Nigeria to the East and Liberia and Sierra Leone to the West of Ghana.



Investment Details:

Project Structure: PPP (Hybrid BOT options)

Financing: Debt

Location: Aflao - Elubo	CapEx: \$3.8 Billion
Subsector: Rail	O&M: \$29 Million
Project Start: 2022	Agency: Ministry of Railways Development
Operation Start: 2025	

Mr. Desmond Boateng, Ag. Chief Director, MoRD
 desmond.boateng@mrd.gov.gh | +233-547-888-085

Project impacts towards the SDGs

		Inexpensive, safe form of transport reduces traffic jam and deaths due to traffic incidents.
		Facilitate increased and more efficient trade thereby increasing GDP.
		Enhanced satisfaction with public transport safety, affordability, reliability and frequency.

Project impacts towards Paris commitments

	Scale up sustainable mass transportation , connecting Ghana with neighboring countries.
	Resilience for vulnerable communities with smoother provision of goods and services.

Potential impacts towards gender outcomes

	Build resilience for gender through equal employment opportunities in construction and O&M.
	Inter-regional transport increases access to essential services for rural women (i.e. healthcare, education).



Pre-Feasibility Study	Feasibility Study	Environmental Impact Assessment	Social Impact Assessment	Cost Benefit Analysis	Multi-Criteria Analysis	Procurement Plan	Planning Permissions
-----------------------	-------------------	---------------------------------	--------------------------	-----------------------	-------------------------	------------------	----------------------

Establishment of Home-Based Carrier

Description:

Establishment of the Home Based Carrier to promote tourism, boost trade and investment, create jobs and support the vision to make Kotoka International Airport the Aviation Hub within the sub-region. The carrier has the potential to generate indirect financial and economic benefits with its multiplier effects within the West Africa sub-region and Ghana in particular.



Location: Accra	CapEx: \$61 Million
Subsector: Aviation	O&M: \$237 Million
Project Start: 2022	Agency: Ministry of Transport
Implementation Time: 5 Years	

Mrs. Mabel Sagoe, Ag. Chief Director, MoT
mabel.sagoe@mot.gov.gh | +233-577-736-863

Project impacts towards the SDGs

SUSTAINABLE DEVELOPMENT GOALS

- 8 DECENT WORK AND ECONOMIC GROWTH:** Promote tourism, boost trade and investment and create jobs, contributing to **GDP growth**.
- 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE:** **Improved transport logistics** through an enhanced, world-class airport and related infrastructure.

Project impacts towards Paris commitments

PARIS2015
AGREEMENT ON CLIMATE CHANGE
COP21-CMP11

- Economic benefits and multiplier effects** from scaled up sustainable air transportation.
- Resilient infrastructure planning** with indirect financial and economic benefits, strengthening the Ghanaian and West African economy.

Potential impacts towards gender outcomes

Build resilience for gender through increased access to employment opportunities for women in the aviation sector.



Volta Lake Transport System

Description:

The Volta Lake Transport System will enhance the capacity of cargo operations along the Volta Lake to ease the movement of goods and services. It will link the Eastern Multi Modal Transport Corridor to the railways from Tema to Mpakadan.



Location: Along Volta Lake	CapEx: TBD
Subsector: Water Transport	Agency: Volta Lake Transport Company
Project Start: 2022	

Mrs. Mabel Sagoe, Ag. Chief Director, MoT
mabel.sagoe@mot.gov.gh | +233-577-736-863

Project impacts towards the SDGs

SUSTAINABLE DEVELOPMENT GOALS

- 8 DECENT WORK AND ECONOMIC GROWTH:** **Faster, efficient cargo delivery** contribute to economic growth.
- 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE:** **Improved transport logistics** through efficient cargo system.
- 13 CLIMATE ACTION:** **Lower carbon emissions** on the lake transport system.

Project impacts towards Paris commitments

PARIS2015
AGREEMENT ON CLIMATE CHANGE
COP21-CMP11

- Scale up **sustainable mass transportation** through the Volta Lake, creating regional linkages.
- Resilient infrastructure planning** to ease movement of goods and services along the lake.

Potential impacts towards gender outcomes

Build resilience for gender through increased employment opportunities in construction and O&M.

Increased cargo transportation increases **access to markets** for rural women in the agricultural sector.



Airport City II

Description:

The Airport City II is a high end, mixed-use commercial precinct covering 291 acres for the development of hotels, shopping malls, offices, parks etc. It will have roads and access ways, open space car park, residential facilities and intermodal transport terminal among others.



Location: Accra	CapEx: TBD
Subsector: Aviation	Agency: Ministry of Transport
Project Start: 2022	

Project impacts towards the SDGs

	Cut unemployment through construction, operation, and maintenance jobs.
	Increased trade volumes contribute to GDP growth.
	Increased satisfaction with convenient, safe and improved transport system.

Project impacts towards Paris commitments

	Scale up sustainable mass transportation with access ways, and intermodal terminal.
	Resilient infrastructure planning with high end mixed use commercial precinct.

Potential impacts towards gender outcomes

	Build resilience for gender through access to equal employment opportunities for women in the aviation sector and adjacent commercial operations.
--	--

Mrs. Mabel Sagoe, Ag. Chief Director, MoT
 mabel.sagoe@mot.gov.gh | +233-577-736-863



Tamale Airport MRO Facility

Description:

Develop a state-of-the-art Maintenance, Repair and Overhaul (MRO) facility at the Tamale Airport. The project when completed will serve Ghana and the West Africa sub-region and beyond.



Location: Tamale	CapEx: TBD
Subsector: Aviation	Agency: Ghana Airports Ltd
Project Start: TBD	

Project impacts towards the SDGs

	Cut unemployment through construction, operation, and maintenance jobs.
	Improved transportation logistics at airport.
	Increased government revenue from facility activities.

Project impacts towards Paris commitments

	Scale up sustainable mass transportation by serving Ghana and West Africa region.
	Resilient infrastructure planning through technical support to airport.

Potential impacts towards gender outcomes

	Build resilience for gender through increased access to equal employment opportunities for women in the aviation sector.
--	---

Mrs. Mabel Sagoe, Ag. Chief Director, MoT
 mabel.sagoe@mot.gov.gh | +233-577-736-863



Air Cargo Facility

Description:

Develop an air cargo facility at Tamale Airport to support the movement of goods to other parts of the West Africa sub-region and beyond.



Location: Tamale	CapEx: TBD
Subsector: Aviation	Agency: Ghana Airports Ltd
Project Start: TBD	

Project impacts towards the SDGs

		Faster, more efficient cargo delivery leading to economic growth and development.
		Improved transport logistics through quicker, efficient movement of cargo.

Project impacts towards Paris commitments

	Scale up sustainable mass transportation by serving Ghana and West Africa region.
	Resilient infrastructure planning through technical support to airport.

Potential impacts towards gender outcomes

	Build resilience for gender through equal access to employment opportunities in the aviation sector.
	Efficient inter-regional transport networks allow for access to essential goods for rural women.

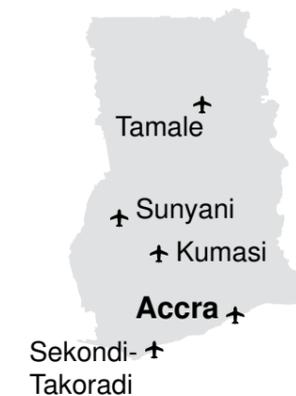


Mrs. Mabel Sagoe, Ag. Chief Director, MoT
mabel.sagoe@mot.gov.gh | +233-577-736-863

Green Airports (G-Gap)

Description:

Partner with the private sector to install solar panels at all the airports to complement the energy demand at the airports.



Location: All Airports in Ghana	CapEx: TBD
Subsector: Solar	Agency: Ghana Airports Ltd
Project Start: TBD	

Project impacts towards the SDGs

		Increase renewable energy generation.
		Job creation in construction and O&M.
		Reduced carbon footprint of airports due to renewable energy.

Project impacts towards Paris commitments

	Scale up renewable energy penetration in airports.
	Support Green Cooling Africa Initiative with greenhouse tech.
	City-wide resilience planning through partnership with private sector.

Potential impacts towards gender outcomes

	Development of the clean energy and aviation sectors provide opportunities for women's employment and training in a variety of roles, including technical, operational and administrative posts.
--	---



Mrs. Mabel Sagoe, Ag. Chief Director, MoT
mabel.sagoe@mot.gov.gh | +233-577-736-863

Keta Sea Port

Description:

Construct a third port in Keta to ease current and projected pressure on the two existing ports in the country. The project will boost economic growth, create employment opportunities for the people of the Volta Region and surrounding areas.



Location: Keta
Subsector: Port Infrastructure
Project Start: 2022

CapEx: TBD
Agency: Ministry of Transport

Mrs. Mabel Sagoe, Ag. Chief Director, MoT
 mabel.sagoe@mot.gov.gh | +233-577-736-863

Project impacts towards the SDGs

	Increased port infrastructure for trade will contribute to economic growth.
	More employment opportunities for people in Keta.
	Improved transport logistics through improved cargo system.

Project impacts towards Paris commitments

	Addition of third port in Ghana scales up sustainable transportation infrastructure .
	Boost economic growth and employment through resilient infrastructure planning .

Potential impacts towards gender outcomes

	Build resilience for gender through increased employment opportunities in construction and O&M.
	Increased port infrastructure increases access to markets for rural women in the agricultural sector.



© Shutterstock

ENERGY

2 Pre-Feasibility Projects



© Shutterstock

ENERGY – EARLY STAGE PROJECT

Ghana Nuclear Power Plant

Description:

Diversify Ghana’s energy mix to bring stability in energy delivery and provide energy security to stimulate growth in all sectors of the economy in Ghana and West Africa. The project will develop nuclear energy infrastructure that provides clean, affordable and reliable baseload power with the view to reducing the incidences and effects of climate change. Two (2) units of the nuclear power plant will add 2,000MW to 2,400MW of affordable electricity to the national grid.



Location: Classified	CapEx: \$5.5 Billion
Subsector: Nuclear Energy	Agency: Ministry of Energy
Project Start: 2024	

Mr. Lawrence Apaalse, Chief Director, Ministry of Energy
 law.apaalse@energymin.gov.gh | +233-243-446-338

Project impacts towards the SDGs

		Lifting communities out of poverty with the provision of basic energy services.
		Enhanced quality of life throughout Ghana with more reliable electricity.
		Greater electricity coverage and access to clean energy.

Project impacts towards Paris commitments

	Scale up renewable energy penetration to increase access.
	Resilient infrastructure planning through diversified energy mix and climate resilient infrastructure.
	Promote clean energy for rural households .

Potential impacts towards gender outcomes

	Build resilience for gender through accessible electricity which can reduce the time women and girls spend collecting fuel and firewood , typically unpaid activities that limit educational attainment.
	Development of the nuclear energy sector provide opportunities for women’s employment and training in a variety of roles.



Petroleum Hub

Description:

Partner with the private sector to develop Ghana as a hub for refined petroleum products for the West Africa sub-region and the continent. The hub comprises of three new refineries with a total capacity of 900,000 bpsd; storage tanks for Crude with total capacity of 10,000,000m3; jetties; five petrochemical plants with the capacity to process 90,000 bpsd worth of feedstock; port infrastructure and other ancillary infrastructures.



Location: Western Region	CapEx: \$60 Billion
Subsector: Petroleum	Agency: Petroleum Hub Development Corporation
Project Start: TBD	

Mr. Lawrence Apaalse, Chief Director, Ministry of Energy
 law.apaalse@energymin.gov.gh | +233-243-446-338

Project impacts towards the SDGs

	8 DECENT WORK AND ECONOMIC GROWTH	GDP growth from refined petroleum products for manufacturing.
	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Research and development in manufacturing industry.
	17 PARTNERSHIPS FOR THE GOALS	Increased government revenues and foreign investment.

Project impacts towards Paris commitments

	Private gas operators improve energy efficiency in industry.
	Petroleum hub supports sustainable transport with reliable fuel supplies.
	Increased efficiencies in power generations and supply private sector.

Potential impacts towards gender outcomes

	Growth of the sector provides opportunities for women's employment and training in a variety of roles, including technical, operational and administrative posts.
--	--



SOLID WASTE

1 Concept Project



© Shutterstock

SOLID WASTE – EARLY STAGE PROJECT

Plastic Waste Recycling

Description:

There is a growing demand for recycled plastic as raw material for road construction. Plastic waste collection will generate income and create a value chain where production of granules, film bags and pellets also generate additional revenue.



Location: Coastal Areas	CapEx: TBD
Subsector: Plastic Waste	Agency: Coastal Development Authority
Project Start: TBD	

Mr. Jerry Ahmed Shaib Chief Executive Officer,
Coastal Development Authority
jerry.shaib@coda.gov.gh | +233-267-555-755

Project impacts towards the SDGs

SUSTAINABLE DEVELOPMENT GOALS	3 GOOD HEALTH AND WELL-BEING	Limit landfills and ensure air quality to improve health.
	8 DECENT WORK AND ECONOMIC GROWTH	Job creation in operations reduce unemployment.
	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Reduced generation of municipal solid waste.

Project impacts towards Paris commitments

PARIS2015 UN CLIMATE CHANGE CONFERENCE COP21-CMP11	Adopting alternative urban solid waste management.
	City-wide resilience planning through sustainable waste management in urban areas.

Potential impacts towards gender outcomes

♀♂	Growth of the plastic waste sector provides opportunities for women's employment and training in a variety of roles, including technical, operational and administrative posts.
----	--



HOUSING

1 Concept Project



© Shutterstock

Affordable Housing Project

Description:

Construction of 130,000 units comprising 78,000 2-bedroom and 52,000 3-bedroom in the: Western (50,000), Eastern (50,000) and Savannah (30,000) Regions.



Location: Nationwide

Subsector: Affordable Housing

Project Start: 2022

CapEx: \$4.6 Billion

Agency: Ministry of Works and Housing

Solomon Asoalla, Chief Director, Ministry of Works and Housing
solomon.asoalla@mwh.gov.gh | +233-208-504-387

Project impacts towards the SDGs

		Lifting communities out of poverty with the provision of affordable housing.
		Greater satisfaction and quality of life .
		Reduced housing costs , providing more disposable income.

Project impacts towards Paris commitments

	Resilient infrastructure planning through increased provision of housing.
	Enhanced resilience and well-being of marginalized segments of the population.

Potential impacts towards gender outcomes

	Build resilience for gender through equal access to affordable housing for women.
	Ownership of their own home can promote autonomy and independence for women.



EDUCATION

1 Concept Project



© UNOPS

EDUCATION – EARLY STAGE PROJECT

Hostels for Education Institutions

Description:

Provision of hostels to address gaps in accommodation in secondary and tertiary institutions due to increase in school enrolment.



Location: Nationwide

Subsector: Facilities

Project Start: TBD

CapEx: TBD

Agency: Ghana Education Service

Mr. Benjamin Gyasi, Chief Director, Ministry of Education
benjamin.gyasi@moe.gov.gh | +233- 208-198-378

Project impacts towards the SDGs

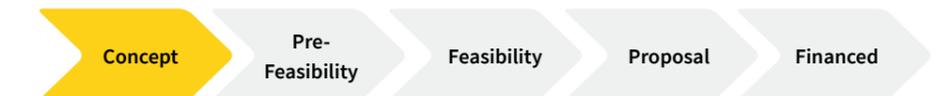
SUSTAINABLE DEVELOPMENT GOALS	4 QUALITY EDUCATION	Potential to increase access to and improve attainment of education.
	8 DECENT WORK AND ECONOMIC GROWTH	Remove barriers to lower youth not in education or training.
	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Improved quality of service of education institutions.

Project impacts towards Paris commitments

PARIS2015 UN CLIMATE CHANGE CONFERENCE COP21-CMP11	Strengthen resilience of education infrastructure by addressing accommodation gaps and increasing enrolment.
	Increased accessibility to improve resilience for the vulnerable.

Potential impacts towards gender outcomes

♀♂	Build resilience for gender through equal access to schools and education through increased accommodation, allowing girls to advance in their education attainment.
----	---



GREEN INFRASTRUCTURE

1 Concept Project



© Shutterstock

Aburi Botanical Gardens Upgrade

Description:

Currently only 20% of the Gardens have been fully developed - the project aims to refurbish the garden and establish an historic site, education facility, visitors centre, retreat centre, research laboratory, herbarium and seed banks.



Location: Aburi	CapEx: \$5.2 Million
Subsector: Garden	Agency: Ministry of Local Government and Rural Development
Project Start: 2022	

Mr. Charles K. Dondieu, Chief Director, Ministry of Local Government and Rural Development
charles.dondieu@mlgrd.gov.gh | +233-244-841-634

Project impacts towards the SDGs

SUSTAINABLE DEVELOPMENT GOALS	4 QUALITY EDUCATION	Increased access to scientific education and training.
	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Improved capacity and resources for scientific research .
	11 SUSTAINABLE CITIES AND COMMUNITIES	Restoration of historic site and natural heritage.

Project impacts towards Paris commitments

PARIS2015 OF CLIMATE CHANGE CONFERENCE COP21-CMP11	Promote sustainable use of forest resources .
	Restoration creates value addition-based utilization of forest resources.

Potential impacts towards gender outcomes

♀♂	Build resilience for gender through increased equal employment opportunities for women in science, technology, research and innovation fields.
----	---



REFERENCES

Adams, Charles, 2016. GhIE Ghana Infrastructure Report Card 2016. 10.13140/RG.2.2.27160.70409. [online] Available at: <https://www.researchgate.net/publication/318489648_GhIE_Ghana_Infrastructure_Report_Card_2016> [Accessed 19 March 2021].

Bank of Ghana, 2021. January Summary of Economic and Financial Data. Bank of Ghana.

Energy Commission Ghana, 2020. National Energy Statistics 2000 - 2019. [online] Available at: <<http://energycom.gov.gh/files/2020%20ENERGY%20STATISTICS-revised.pdf>> [Accessed 19 March 2021].

Ghana Investment Promotion Centre (GIPC), 2021. Transportation Infrastructure . [online] gipcghana.com. Available at: <<https://www.gipcghana.com/invest-in-ghana/why-ghana/infrastructure/transportation-infrastructure.html>> [Accessed 19 March 2021].

Ghana Statistical Service (GSS), 2019. Ghana Living Standards Survey (GLSS) 7. [online] Available at: <https://www.statsghana.gov.gh/gssmain/fileUpload/pressrelease/GLSS7%20MAIN%20REPORT_FINAL.pdf> [Accessed 19 March 2021].

Ghana Statistical Service (GSS), 2014. The World Factbook. [online] Available at: <https://statsghana.gov.gh/docs/countrypdf_gh.pdf> [Accessed 25 March 2021].

Ghana Statistical Service (GSS), 2021. CountrySTAT Ghana. [online] Available at: <<http://countrystat.org/home.aspx?c=GHA&p=ke>> [Accessed 19 March 2021].

Global Infrastructure Hub (GIH), 2021. Infrastructure Outlook - Ghana. [online] GIH. Available at: <<https://outlook.gihub.org/countries/Ghana>> [Accessed 18 March 2021].

International Monetary Fund (IMF), 2021. Ghana - At a Glance. [online] imf.org. Available at: <<https://www.imf.org/en/Countries/GHA>> [Accessed 18 March 2021].

Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP), 2021. Data - Ghana. [online] United Nations International Children's Emergency Fund (UNICEF), World Health Organization (WHO). Available at: <<https://washdata.org/data/household#!/gha>> [Accessed 19 March 2021]

KPMG, 2021. Corporate tax rates table. [online] KPMG. Available at: <<https://home.kpmg/gh/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>> [Accessed 18 March 2021]

Ministry of Energy, 2021. Overview of the Ghana Power Sector - Renewable Energy. [online] Available at: <<https://www.energymin.gov.gh/sector-overview>> [Accessed 19 March 2021]

Observatory of Economic Complexity (OEC), 2021. Ghana (GHA) Exports, Imports, and Trade Partners. [online] oec.world/en. Available at: <<https://oec.world/en/profile/country/gha/?depthSelector1=HS2Depth#trade-products>> [Accessed 18 March 2021].

PPP Knowledge Lab, 2021. Ghana. [online] Available at: <<https://pppknowledgelab.org/countries/ghana>> [Accessed 18 March 2021].

PricewaterhouseCoopers (PwC) South Africa, 2013. Africa Gearing Up. [online] PwC South Africa, pp.43-49. Available at: <<https://www.pwc.co.za/en/assets/pdf/africa-gearing-up.pdf>> [Accessed 18 March 2021].

United Nations, 2021. Ghana | Geospatial, location information for a better world. [online] Available at: <<https://www.un.org/geospatial/content/ghana>> [Accessed 6 April 2021].

United Nations Department of Economic and Social Affairs (UN DESA), 2019. World Population Prospects - Population Division - United Nations: Data Query - Total Population by sex (thousands). [online] Available at: <<https://population.un.org/wpp/DataQuery/>> [Accessed 25 March 2021].

United Nations Development Programme (UNDP), 2020. The Next Frontier: Human Development and the Anthropocene, Briefing note for countries on the 2020 Human Development Report, Ghana. [online] UNDP, p.2. Available at: <http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/GHA.pdf> [Accessed 18 March 2021]

United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS), 2021. UNESCO UIS - Ghana: Education and Literacy. [online] Available at: <<http://uis.unesco.org/en/country/gh>> [Accessed 18 March 2021].

The World Bank, 2021. Population growth (annual %) - Ghana. [online] data.worldbank.org. Available at: <<https://data.worldbank.org/indicator/SP.POP.GROW?locations=GH>> [Accessed 18 March 2021]

The World Bank, 2021. Gini index (World Bank estimate) - Ghana. [online] data.worldbank.org. Available at: <<https://data.worldbank.org/indicator/SI.POV.GINI?locations=GH>> [Accessed 18 March 2021]

The World Bank, 2021. Poverty headcount ratio at national poverty lines (% of population) - Ghana. [online] data.worldbank.org. Available at: <<https://data.worldbank.org/indicator/SI.POV.NAHC?locations=GH>> [Accessed 18 March 2021]

The World Bank, 2021. Benchmarking Infrastructure Development - Ghana. [online] bpp.worldbank.org. Available at: <<https://bpp.worldbank.org/economy/GHA>> [Accessed 18 March 2021]

The World Bank, 2021. Ease of doing business score (0 = lowest performance to 100 = best performance) - Ghana. [online] data.worldbank.org. Available at: <<https://data.worldbank.org/indicator/IC.BUS.DFRN.XQ?display=graph--%3E&locations=GH>> [Accessed 18 March 2021]

Worldometers, 2021. Ghana Population (2021) - Worldometer. [online] Available at: <<https://www.worldometers.info/world-population/ghana-population/>> [Accessed 25 March 2021].

Xe.com. 2021. Xe: USD / GHS Currency Chart. US Dollar to Ghanaian Cedi Rates. [online] Xe.com Available at: <<https://www.xe.com/currencycharts/?from=USD&to=GHS&view=1M>> [Accessed 1 March 2021].

