

GLOBAL BUSINESS REPORTS

INDUSTRY EXPLORATIONS



Ghana Oil & Gas 2012

Economy • Exploration • Oil • Natural Gas • Challenges • Services

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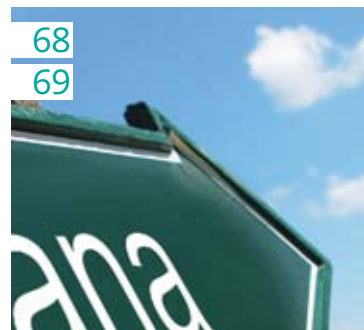


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Ghanaian Hydrocarbons

A brief overview of the oil and gas industry

Ghana's prosperity has always been tied to the extractive industries. The Wagadugu Empire of the 7th to 13th century, the capital of which lay around 500 miles to the north of the country's modern capital, Accra, and from whose rulers the

Population: 25,241,998 (July 2012 estimate)

Capital: Accra

Head of Government: President John Dramani Mahama

Currency: Cedi (GHS)

GDP: \$38.6 billion (2011 estimate)

Growth Rate: 14.4% (2011 estimate)

GDP per Capita: \$3,100 (2011 estimate)

Economic sector breakdown: agriculture: 28.3%, industry: 21%, services: 50.7% (2011 estimate)

Exports: \$13.13 billion (2011): gold, cocoa, timber, tuna, bauxite, aluminum, manganese ore, diamonds, horticultural products

Imports: \$14.03 billion (2011): capital equipment, petroleum, foodstuffs

Major Trade Partners: China, Netherlands, UK, Nigeria, US

name "Ghana" (meaning "warrior king") is derived, controlled the gold trade of western Africa. Muslim writers, brought to the empire through trade, spoke of the wealth contained in the southern gold mines; it was reputed that even the court dogs wore golden collars. The Ashanti Empire

Yet resources have not always brought benefits to the African continent. European's, initially Portuguese, first arrived on the shores of modern Ghana in the 15th century searching for the source of African gold. The Dutch, the British, the Spanish, and other Europeans all followed and soon turned the country into a hub from which they could control the extraction and exportation of gold and other minerals. This stretch of coastline consequently became known as the "Gold Coast": a littoral that gained infamy as one of the primary points of departure for slaving vessels at the height

of the slave trade.

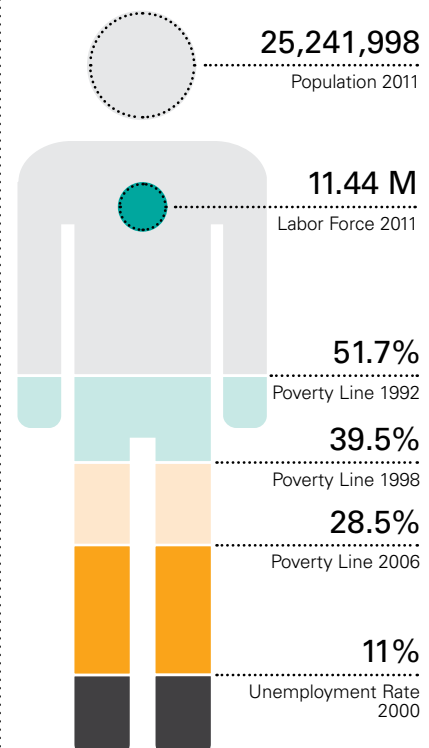
Ghana won independence from Britain in March 1957: the first sub-Saharan African nation to achieve freedom from European colonization. While the immediate post-independence history was one of political strife and economic uncertainty, recent decades have seen Ghana striving to reclaim its ancient prosperity. The country has experienced uninterrupted GDP growth since 1985; 2012 will see this growth enter its 28th consecutive year. In 2011 the country posted an impressive growth rate of 14.4%, making it the second fastest growing economy in the world behind Qatar. Indeed, in many ways Ghana is the poster child of a continent that in recent years has found its economic confidence; until 2015 it is estimated to grow at an average of over 7% per annum, the eight-highest growth rate in the world.

Strong macroeconomic policies, a stable



Domestic Market: Population and Poverty

Source: CIA World Factbook



government and the exploitation of the country's plentiful natural resources have been the foundations for a growth that is apparent wherever you look: vehicle purchase grew by a record 88% in 2011; energy consumption is rising by an annual average of 10%; 2011 saw production of cocoa, of which Ghana is the world's second-largest producer, rise to a record 1 million tons; and a rebasing of national accounts in 2011 has propelled Ghana's global position to among the lower middle income group of countries.

In this context, the addition of an oil and gas industry promises to bring grand rewards. In 2007, commercial quantities of oil were discovered off Ghana's coast in two sites that would come to be known as the Jubilee fields. The effect that this will have on Ghana's rise is promising; the "black gold" could form a basis of wealth just like ordinary-coloured gold did in the past. The African Economic Outlook predicts the oil industry to add 0.7% to GDP growth in 2012 (7.6% non-oil growth, and 8.3% with oil) and 1.4% to GDP growth in 2013 (6.3% non-oil growth, and 7.7% with oil).

Yet the excitement should be tempered by caution. This is the region, after all, for which the phrase "the curse of the black gold" was created. Admittedly, Ghana seems less likely than its regional peers to succumb to the problems stereotypically associated with resource-based African economies: resource nationalism, corruption, and "Dutch Disease". In terms of GDP-per-capita it outperforms its neighbours and even regional giant Nigeria. The proportion of its population living below the national poverty line has fallen from 51.7% in 1992 to 39.5% in 1998 and 28.5% in 2006, and has undoubtedly fallen further since then. In Transparency International's Corruption Perceptions Index 2011 it ranked 69th, tied with the European nations of Italy and Slovakia, and above Latin American powerhouse Brazil.

Nonetheless, however, there are risks. Ghana's decision late last year to re-examine the fiscal arrangements of the mining sector could well be a sensible decision in line with the International Monetary Fund's (IMF) advice to raise taxes. Yet some are seeing it as a popu-

list measure driven by the upcoming elections in December this year. This election may make a continuing reduction of the fiscal deficit politically untenable, especially in a country where GDP-per-capita is still only \$3,100, threatening the sensible macroeconomic policies the government has previously adhered to. Ghana's track record is good. Sensible policies have led the country ever closer to prosperity (ranked seventh in Africa in the Ibrahim Index of African Governance 2010). A free press (one of only five Sub-Saharan African nations ranked as "free" by Freedom House's Freedom of the Press 2012 report) plays an important role in holding politicians accountable. The December 2012 election is expected to maintain Ghana's tradition of peaceful democracy. All of this points to the country's ability to successfully integrate the oil and gas industry into their growth. Today West Africa's warrior king faces a new battle; to ensure that the discovery of petroleum sustains the promising growth of its economy rather than condemning it to the mistakes of past oil exploitation in the region. •

14.4%

GDP Growth Rate
2011

Source: World Bank

8.8%

Inflation Rate
Average Consumer Prices 2011

Source: International Monetary Foundation, CIA World Factbook

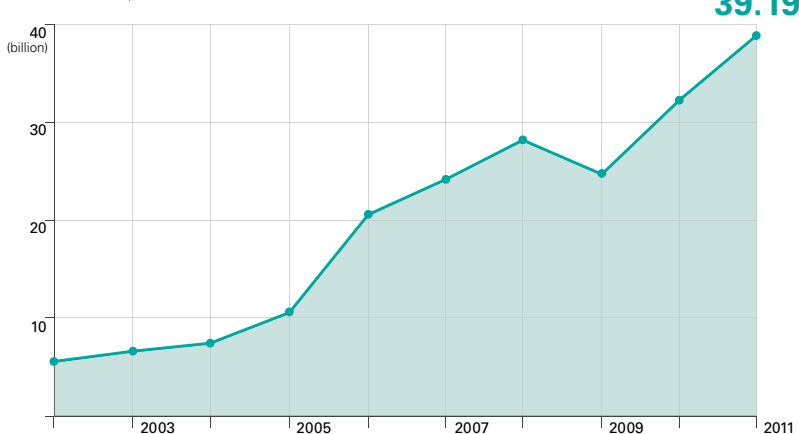
39.4

Gini Index
2005-06

Source: CIA World Factbook

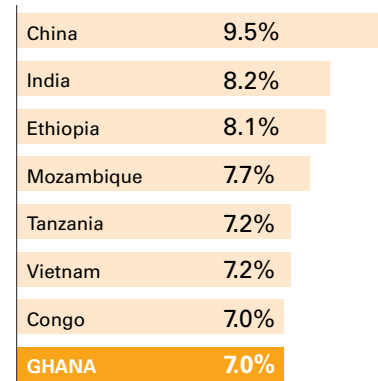
GDP (current US dollars)

Source: World Bank, CIA World Factbook



World's Fastest-Growing Economies (2001-2015)

Source: The Economist, IMF



Interview with Dr. Joe Adjei

MINISTRY OF ENERGY

What measures have been taken to ensure that Ghana will become a major exporter of oil and power by 2012 and 2015? What action still needs to be taken to achieve this target?

Energy is critical for the development of the Ghanaian economy, although a recent study that was carried out by the government highlighted that access to credit and energy are two key constraints to future economic growth. Ghana experienced a major power crisis in 2006-2007, which ultimately reduced Ghana's GDP by 1%. It is vital for Ghana to have an internally robust system. The Ministry of Energy will introduce a business-focused policy for the export of electricity to neighboring African countries. The Ministry of Energy has created structured IPP and PPP models to encourage the private sector to invest in Ghana. The government has created an attractive investment environment for independent power producers, and provides assistance to companies by taking an equity stake, which enables the private sector to remain the operator.

There have been more than 40 discoveries in Ghana since the discovery of the Jubilee Fields. The Ministry of Energy is working with IOCs to develop discoveries that are proven to be of commercial value. Tullow is working with the Ministry of Energy on the TED project, which is three different discoveries that have been combined together to produce 120,000 boe/day. The Ministry of Energy will have 180 days to approve Tullow's Plan of Development. In addition, Kosmos has made four different discoveries, which is estimated to produce an additional 120,000 boe/day. These discoveries will ensure that future oil production in Ghana will be sustained. In addition, Eni and Vitol have made a discovery of 1.6 trillion cubic feet of recoverable gas reserves, which will be fast tracked to enhance the export of power.

What initiatives are the government creating in order support investment throughout the value chain from upstream, downstream and generation?

The government has two different models for investment into power generation, supporting independent power producers by providing easy access to land and basic infrastructure. Companies who choose to work with the government through the PPP Model with the Ministry of Finance can agree on what percentage of equity the government will take and receive help if debt components are necessary.

The FDI for the whole of Africa decreased by 12% in 2011, although Ghana's FDI doubled from \$650 million in 2010 to \$1.2 billion in 2011. The counter-risk in Ghana has decreased significantly because of political stability, which has increased the amount of investment into the country. Ghana will be able to raise the necessary investment that the country requires if it continues to maintain an attractive investment climate with clear regulations for investors.

The government has been encouraging transmission companies to take loans within Ghana. The cost of transmission should not be a significant component in the tariff; investments have been created to make the pass through tariff as low as possible, which ultimately makes the tariff affordable for the end user. The Ministry of Energy will be able to recoup the investment that we have made in the future, although there is a lot of additional investment needed. The Ministry of Energy is also working with private financiers who are willing to invest into facilities.

The biggest challenge that the Ministry of Energy will face is within the distribution sector because of the lack of technology in the equipment. The distribution system in Ghana needs to be re-designed and old transformers need upgrading to enable them to meet current demand. As the service and manufacturing sectors in Ghana continue to grow and use energy productively, investors will see that projects in Ghana can provide a return on investment. If Ghana plans and executes the Chinese gas project successfully, it will receive \$15 billion of revenue over the next five years, which will ensure that the country improves in terms of education and health,

which will benefit local people.

How can the Ministry of Energy work with other key stakeholders to empower local Ghanaians to participate in Ghana's oil and power development?

Ghana has been successful within the power sector. There are three different local companies that manufacture cables and conductors and the government has taken an \$80 million local facility to produce all of the required conductors for 2012. International contractors use their own experienced supervisors to ensure that projects meet specific requirements, although local construction contractors are used to complete projects.

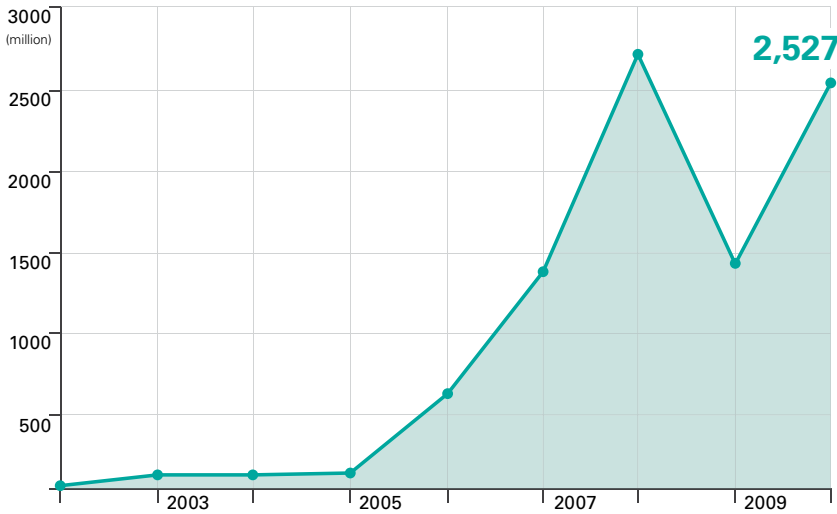
Ghana was not prepared in advance for the discovery of oil, so the country is still trying to develop its resources to meet the demand. Legal framework is being established and the Ministry is working with the private sector to train local Ghanaians, although it will be difficult for Ghana to maximize the local content benefits of the Jubilee Fields. Twenty-four students were accepted into the Tullow scholarship program in 2011, which increased to 50 students in 2012. The students were given the opportunity to complete their Masters Degree in different areas and these students will return to Ghana to work in the industry. The Ministry of Energy has finished the Local Content Policy and the Implementation Structure and Guidelines and we are working with the Norwegian government to develop legal framework for accidental work with local people.

Do you have a final message for our readers about Ghana's future development in the energy and petroleum sectors?

The Government of Ghana is committed to working with investors to establish agreements that benefit both parties. The Ministry of Energy can assure all investors that Ghana will uphold its integrity and it is our mission to banish the conception that Africa is a corrupt continent. Ghana welcomes all investors into our country, providing that they respect our laws and our people. It is vital to create employment for the growth of Ghana's economy and it is important for investors coming into Ghana to use the same environmental standards and regulations as they would in their own countries. Ghana is prepared to set the pace for the whole of Africa. •

Foreign Direct Investment, Balance of Payments (current US dollars)

Source: World Bank



GDP (purchasing power parity) 2011

75.9
billion dollars

Country comparison to the world

81

Source: CIA World Factbook

Budget Revenues 2011

8.76
billion dollars

Source: CIA World Factbook

Budget Expenditures 2011

10.38
billion dollars

Source: CIA World Factbook

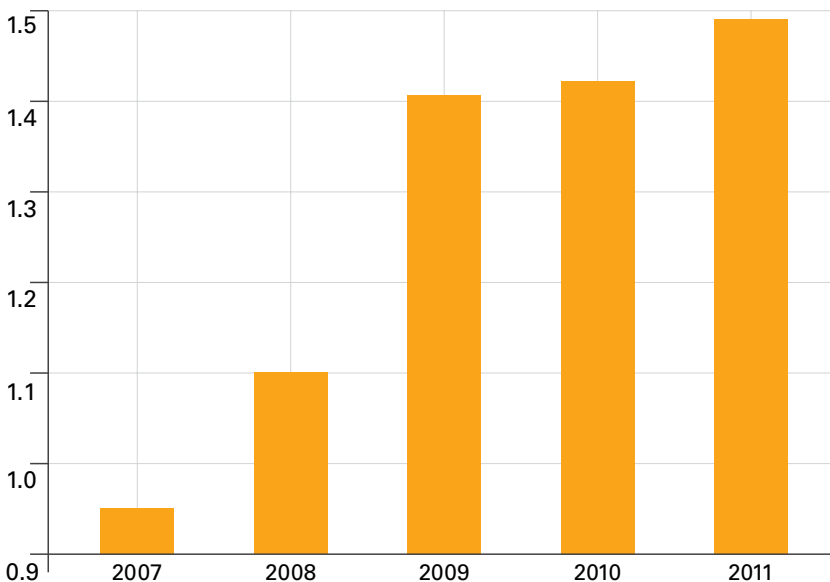
GDP (per capita) 2011

3,100
dollars

Source: CIA World Factbook

Exchange rates cedis (GHC) per USD dollar

Source: CIA World Factbook



Budget Deficit 2011

-4.3%
of GDP

Source: CIA World Factbook

Investment (gross fixed) 2011

19.9%
of GDP

Source: CIA World Factbook





The Danger of Dutch Disease

Why Responsibility is Important When Developing Ghana's Industry

Ghanaian Support for Foreign Investors

George Aboagye, CEO,
Ghana Investment
Promotion Centre
(GIPC)



The primary focus of the GIPC is to promote, encourage and facilitate investment in Ghana for both foreign and local investors. Incentives have been created under the GIPC Act to encourage companies to register with the Registrar General and then with the GIPC as a solely Ghanaian company, foreign company or joint venture.

The success of the GIPC can be measured by the length of time that it takes to register a company that is fully compliant with registration requirements. It is the role of the GIPC to enable companies to establish projects and to provide them with the necessary support and services to facilitate production.

The number of jobs that are created, the value of projects and volume of established companies are indicators of our success at the macro-level. The GIPC promotes different districts and regions by working with District Assemblies and Municipalities to secure land for investors in addition to the GIPC Land Bank, which has the same focus.

Some of the major successes of the GIPC have been our ability to aid the development of projects to achieve value and create jobs. It is important for the GIPC to grow sustainably and to encourage the investment of international banks into Ghana; this has been successful as there is interest from American and Chinese banks.

With regards the oil and gas industry, the 1994 GIPC Act does not facilitate investment into the mining and petroleum sectors. However, the Act was reviewed and the GIPC has now set limited constraints for the exploration and extraction of mining and oil and gas. The GIPC participates in the registration of oil and gas service companies that provide recruitment, training, transport and equipment to oil and gas rigs. While the GNPC is the primary player involved in upstream activity, the GIPC is expected to promote investment into downstream activities.

One example of this is the power sector. Ghana currently produces 1,000 MW, although the government has a target for 5,000 MW of power supply to be generated in Ghana. The GIPC is looking to attract independent power producers to

ensure that Ghana will be able to export cheaper gas power as a commodity to neighboring countries like Nigeria that will have an increased demand for power in the near future. The West African Pipeline currently imports gas from Nigeria to Ghana, although we believe that this will reverse and Ghana will be the net exporter of power to Nigeria by 2020.

Since the Jubilee Fields discoveries in 2007, the number of companies that have registered with the GIPC has increased; currently 534 companies have registered with the GIPC, which is a clear indication that the international investor community has become increasingly interested in Ghana as an investment destination.

The value of investment by registered companies in Ghana almost doubled from \$300 million in 2008 to \$550 million in 2009 and increased to \$2.18 billion in 2011. Registration does not guarantee that a company will perform, although the response from investors to Ghana's economic performance has been positive.

This success is not solely due to the presence of oil and gas in the country. There has been a stable political environment in Ghana for over 20 years and political dispensation has been improved, which are factors that the international business community has recognized. Ghana has maintained low inflation levels and is looking at initiatives to decrease interest and lending rates in order to encourage further investment.

Ghana has the resources to immobilize four-month reserves for import cover and the GDP of the country has shown the true nature of the economy. In addition, the profit margin in Ghana is 30%, so investors are able to make money. However, local investors who borrow within Ghana have high interest rates of 22%, which is a challenge for smaller companies.

Ghana has demonstrated that it is an attractive investment destination through continued political stability and the country's commitment to improve macro-economic conditions. The institutions that aid the development and promotion of investment in Ghana are maintaining and continuing to develop a high level of service to the investment community. •