

Harnessing Natural Resource Wealth for Development: The case of Ghana

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Abstract

Ghana's economy depends largely on foreign aid and has performed well in recent years in terms of GDP growth after the launch of the economic recovery programme in 1983. In spite of this there has been minimal impact on poverty reduction with rural folks bearing the major brunt of poverty. Ghana on the other hand is endowed with rich natural resources that can prudently be managed to ensure sustainable economic growth, high standards of living and a prosperous new Ghana. The scary thing however, about windfall wealth is that they can be a blessing creating economic prosperity or a curse spawning war, corruption and deindustrialization. The recent discovery of oil and current discussion by government on the concept to adopt in managing oil revenues have also added to the hopes of many Ghanaians for a better life as they wait patiently on 'Petro-dollars' to help improve the performance of the economy. Irrespective of which strategy government adopts, engineering a new Ghanaian economy demands policies that uses natural resource revenues to diversify and produce a robust self reliant economy capable of sustaining itself against external shock necessary to avoid the resource curse or Dutch-Disease.

Keywords: National Resources, Diversification, Value Addition, Development, Ghana

1. Introduction

The vision of any nation is the enhancement of the economic prosperity of its people using scarce national resources and consequently various policies and strategies are adopted to fulfill such dreams. The presence of natural resource is an indication of economic wealth of a nation and it has the potential of accelerating national developments: most often this does not translate into economic prosperity in developing nations like Ghana (Atkinson & Hamilton, 2003; Christian Aid, 2003).

Ghana's economy is driven by the agricultural sector (ISSER, 2010) and though as an agrarian economy most farmers still operate on the level of subsistence farming and this accordingly has not propelled the Ghanaian economy as expected by all standards to achieve the necessary economic growth. In addition to many years of cocoa and timber farming as well as mineral resources exploitation there has been nothing good to write home about in terms of economic prosperity. The fear is that the recent oil find will also do little to help if a new course is not charted in a quest to accelerate the pace of socioeconomic prosperity.

Ghana like most African states is endowed with abundant natural resources and the effective exploitation and harnessing of these proven resource reserves in the forms of minerals, petroleum, timber, clay and metal has the potential of increasing the revenue generating stream of the nation. This, when prudently managed can reflect in the living standards of the people. On the other hand, mismanagement leads to societal burden as currently experienced in natural resource rich nations like Nigeria, Angola, Congo and Sierra Leone. Nigeria for instance has mismanaged hundreds of billions of dollars in oil revenues over the past decades due to corrupt government officials (Gary & Karl, 2003; De Soysa, 2000; Christian Aid, 2003).

To be able to afford reasonable standards of social and environmental services, nations build economic prosperity but the many components of good quality health, education and social service and manufacturing technologies require monetary capital to purchase. Hence effective management of revenues from available natural resources exploitation will create important new fiscal space and potentially bring Ghana close to middle-income status. Though the revenue stream of Ghana is about diverse with greater proportions coming from donor funds, it can further be broadened across different sectors of the economy to insulate it against external shocks that usually come with over reliance on commodities ("The State of the Ghanaian Economy," 2010).

For progressive social-economic development, policies need to be formulated to accelerate the pace of industrialization in Ghana with the available natural and human resources to attain better standards of living, create opportunities of gainful employment, enhance income rates, increase in manufacturing using higher level technologies and technical know-how. In light of these possible eventualities new ideas are required in the way government can effectively harness the nation's natural resource base to increase revenue generation necessary to diversify the economy for development.

Another major goal of economic diversification is to strengthen the linkages of industrial sectors (Obstfeld, 1994). This can be achieved according to experts by developing the agro and natural resource based industries as well as creating domestic capacity to manufacture capital engineering goods and intermediary products required by other sectors (Auty, 1990, 1998).

In this viewpoint we describe the natural resource base of Ghana, the benefits the country can derive by diversifying the economy with revenue generation from the available natural resource wealth and also highlight the negative impact that mismanagement due to bad policies can cause a rich natural resource nation like Ghana.

2. Overview of Ghana's Natural Resources Wealth

Ghana is endowed with abundant rich natural resources more specifically non-renewables such as minerals and hydrocarbons. The mineral industry currently contributes to about 6% of overall GDP according to the ministry of finance and economic planning data release for 2009 and it is the major foreign exchange earner for the country (ISSER, 2010).

The principal contributors to the mineral resource base are gold, diamond, manganese, limestone, bauxite, iron ores as well as various clays and granite deposits. Data from the minerals commission research division published in the state of Ghana economy indicates that gold production dominate the sector and the industry has seen gold production increase from a modest 541,147 ounces in 1990 to about 2, 600,000 in 2009 and it accounts for over 90% of Ghana's total mineral exports (Ghana Minerals Commission Research Division and Ghana Chamber of Mines, 2009)

Recent discovery of hydrocarbons in commercial quantities with estimated oil reserves of about 2million barrels at the Cape Three Point Jubilee Field and an anticipated revenue return of about 1billion dollars a year when full scale production starts, has the potential of increasing the foreign exchange earnings needed to boosts economic prosperity (Allum, 2009).

In addition to the minerals and petroleum deposits extensive forest reserves abound and it is acclaimed to be one of the best managed in West Africa. Ghana is the third largest exporter of timber and the second largest exporter of wood and wood products in Africa (www.imf.org; ISSER, 2010).

There are also marine fishing sources, beautiful beaches, solar energy, exotic wild life and national parks and games reserves. Above all Ghanaians have a rich culture and tradition and a world acclaimed warmth and hospitality.

3. Value Addition to Ghana's Natural Resources

The conventional wisdom is that mineral resource developments can add value to the economy of a natural resource-rich country. The principal effects of such developments are that they provide revenue to the host government through taxation and royalty payments, and they generate income and wealth for individuals and companies through the many businesses and financial transactions involved in the development process (Auty, 1998).

Minerals are basic and essential raw materials used in: construction, manufacturing, transportation and electricity generation as well as in agricultural production (Ciullo, 1996).

Ghanaians complain about the lack of job opportunities, yet most policies for natural resource development aimed at adding value to proven natural resource wealth are always lacking. Value addition is the catch phrase for expanding natural resource exploitation capacity and it is a long term aim to make more out of valuable natural wealth.

A local aluminum industry that will be linked with the manganese industry considering the abundance of these mineral deposits in Ghana can be envisaged. Manganese and Aluminum alloys play an important role in the economic development of all nations. Aluminum-manganese alloys and aluminum-manganese-magnesium alloys, which have been sold under different trade names, have found applications in such diversified areas as kitchenware, roofing, car radiators and transportation. Another application of these alloys is in the manufacture of beverage cans, of which some 100 billion units are produced each year.

Iron ore deposit which is located at Sheni in the Northern Region of Ghana holds huge potential. Iron ore is usually smelted to produce pig iron (metallic iron), which is used to make steel. Varieties are wrought iron (low in carbon) and cast iron (pig iron), and corrugated iron structural sheeting, a recognizable material in the buildings. Iron can be alloyed with a variety of elements to produce stronger and harder products which are useful in the construction industry and in the manufacture of motor vehicles, ships, trucks, pipelines, trains and railway tracks. Iron is the most used metal accounting for about 95% of the total metal tonnages produced world wide. Pure iron metal is strongly magnetic, melts at 1528^oC. Magnetite ore is used to remove impurities in coal washing, and its magnetic qualities enable recovery and reuse.

Ghana lost a historic opportunity for not building refineries for the mineral resource sector and stands to lose again if steps are not taken to add more value its crude oil find before selling or exporting. The chemical structure of petroleum is heterogeneous, composed of hydrocarbon chains of different lengths. Due to this, petroleum may be refined and the hydrocarbon chemical separated by distillation and other chemical processes for different uses. Products to result from these include gasoline, diesel, and feed stocks for pharmaceuticals, lubricants, plastics, xylene, insecticides etc. Each of these industries provides a huge opportunity for Ghanaian engineers and business.

These analysis reinforces the fact that the Ghanaian economy stands to benefit when the available proven mineral deposit are well harnessed.

4. Managing Natural Resource Revenues: Stabilization Funds and the Norway Model

Consultants including international donor agencies like the World Bank and IMF are strongly advising the Ghanaian government against putting all natural resources revenues especially revenues from hydrocarbon industries into the consolidated fund of Ghana but rather set up investment funds to yield profits. Some of these new ideas include the formation of a Quasi-Government Investment Company to invest the revenue in high yielding projects like tolled roads to recoup the investment (Heizel-Ferguson, 2009) or use the Norwegian model (Skjæveland, 2008).

According to the Quasi-government policy, the quasi-government company can invest in petrochemical industries through foreign investment partnership. Small and medium scale industries are bound to-spin-off in this regard: typical example is fertilizer production. Apart from creating jobs and generating taxes, this will result in cheap fertilizer on the market to boost the agric sector for instance. The investment company according to economist can also partner foreign investors to harness other resources like clay and limestone in the western region, salt production along the coastal lines of western and central region and also kaolin, bauxite and gold deposits.

Norwegians have proven that natural resource exploitation doesn't have to be an obstacle to stability and long term economic growth and as such have viewed oil revenues as a temporary, collectively owned windfall that instead of spurring consumption today can be used to insulate the country from the storms of the global economy and provide a thick goose-down cushion for the distant day when the oil reserves are depleted (Skjæveland, 2008).

In 1990, the Norwegian government set up the petroleum Fund of Norway to function as a fiscal shock absorber just like the Alaska Fund where petroleum dollars from oil and gas activities are channeled into the fund and later converted into stocks and bonds. The Norwegian economy heavily depends on oil but the profitable nature of the fund estimated presently at about 370 billion dollars enables it to stay sustainable and prosperous. Instead of paying divided, its uses revenues and appreciation to ensure equitable distribution of wealth across generators. The fund then hires external managers to invest, generally using low cost indexing strategies as documented. When government runs deficit, it is allowed to transfer cash out to ensure sound economic health (Skjæveland, 2008)

Other successful example worthy of mentioning is the setting up of three funds by Botswana's government for its natural resource industries in an effort to anticipate problems and opportunities. These Funds are established to provide for stabilization reserves, public debt service, and local development opportunities (Botswana Excellence).

An important strategic policy point to note is that all these special funds are viewed by experts as budget surplus funds and they are invested to generate more financial resources or building financial assets. Whichever approach Ghanaian policy makers opt for in managing our national resources wealth most especially that of the hydrocarbons, it is advised that Ghana's geological luck will be depleted with time. Economic diversification is

therefore the key to shield domestic economies from uncontrollable risk factors related to global demand and supply shocks of commodities. This observation is underpinned by the aggressive development strategies being undertaken by oil rich countries like United Arab Emirates (UAE Strategic and Economic Outlook, 2007).

A resource boom when well managed can provide the much needed foreign exchange, attract investors, and also provide raw materials that could be used for industrial development. In this respect it is laudable that Ghanaian policy-makers are keen at avoiding the paradox of plenty and considering different policies that can ensure accelerated economic growth as the country taps its oil reserves.

5. Economic Diversification for Sustainable Development

Economic diversification is the situation where a country or nation has a broad base of income sources that are not directly related to each other, (mixed income base with contributions from several industries such as agriculture, minerals, oil, manufacturing, trade etc., UNECA, 2007).

A good example of a poorly diversified economy is that of Saudi Arabia where very large proportion of its incomes comes from the production and sale of oil to other countries. This causes standards of living to fluctuate wildly in correlation with the price of oil. United States of America for instance gets its income from many different types of economic activity including oil production, manufacturing, agriculture, and financial services and it is an example of a well-diversified economy (Obstfeld, 1994).

Engineering a new Ghana, calls for a strong sustainable economy that enhances standards of living, creates wealth and jobs, encourages the development of new knowledge and technologies and helps ensure a stable political climate. Experts across the major political divide in Ghana agree that increase diversification over a wide range of profitable industrial sectors will reduce Ghana's economic volatility and increase its real activity performances.

Having natural resources wealth does not automatically lead to economic prosperity it is only through sustained robust policies focused on economic diversification that can make positive difference in economic progression (McMahon, 1997). Hence, engineering a new Ghana demands attention to issues on economic diversification necessary to bring progressive economic prosperity.

There are several schools of thought on how government should proceed on its effort of developing a new and better Ghana agenda to reduce a possible tendency of relying on monetary receipt from natural resources exploitation. Some economic policy experts have called for industrialization and diversification through import substitution, export led growth, building infrastructure to open up the economy, promoting local and small-scale enterprise, attracting outside investment for large scale manufacturing, maximizing resources development and their spin-off benefits as well as investing in education and training to take advantage of new economic opportunities (UNECA, 2007). Other diversification incentive programmes suggested by experts include duty-free import of equipment and raw materials, income tax holidays, accelerated depreciation allowances, unlimited carry-over of losses and repatriation of capital and profits (Auty, 1990, 1998; UNECA, 2007).

6. Rural Industrialization

In Ghana, where the majority of the population live in rural areas (about 58%-2000 Census), and more than 50% of the population lives below the poverty line, rural industrialization can be an important source of employment.

Engineering a new Ghana through economic diversification will not be complete if the rural folks do not feel the pinch of the envisioned prosperity. Rural industrialization can play a critical role in raising the incomes of the rural folks, check rural to urban migration, enhance the performance of agric development contribution to social sector development (health and education) and therefore transform the socio-economic environment of the countryside (Davis et al., 2002).

Ghana's agricultural sector has been observed to be insufficient for sustaining rural development. Agro-economic commentators suggest that industrialization in rural areas where farming is the main occupation should not be about setting up large industries or having big agriculture plans but rather agriculture should become agribusiness and should have nexus with industry (Beierlein et al., 1995). Thus every part of the agricultural plant must be a raw material for industries. Besides a diversified agriculture, employment through rural industrialization should be sustainable and it can be an alternative solution to the eradication of poverty (Basil et al., 2008).

Typical example according to Jagadeesh (2006), head of Energy and Sustainable Resources at RMK Engineering College in India is the setting up of several production plant around paddy plant. Straw may be used for making card boards, wrapping paper, roof thatch. Paddy husk may be used as fuel and the resultant ash for producing sodium silicate, solar grade silica, silica gel, ceramic raw materials, refractories and cement like products. Other examples can be cited in terms of rice, kernel and coconut farming production.

Evidence from other countries like china, India and New Zealand, show that a well planned and implemented small scale agro-development programme can be an effective strategy for successful economic development and growth (Kariala, 2000). Hence a plan of action for the future is needed with funding from national resource revenues to revitalize other unorganized sectors of the rural regions in an effort to Engineer a New Ghana.

7. Can Ghana Avoid the Paradox of Plenty or Natural Resource Curse?

The resource curse or the paradox of plenty as defined; refers to countries though endowed with rich natural resources like minerals, oil and gas have less economic growth and poor standards of living (Atkinson, 2003; Gary & Karl, 2003).

This scenario has been attributed by economist to decline in competitiveness of other sectors arising as a result of appreciation in real exchange rate as resource revenues are injected into such economies (the Dutch Disease), volatility of commodity prices on global markets, mismanagement on the part of government, corrupt and weak institutions providing enabling environment for natural resource revenue diversion for personal gains (Addision et al., 2003; McMahan, 1997).

Other negative attributes of the resource curse involves arms conflicts, excessive borrowing by government due to high expectation of more income, lack of economic diversification and associated effects of mismanagement and misguided public projects. In this way other sectors can be deprived of best talents as a result of salary differentials (Manzano & Rigobon, 2001).

The manner in which natural resource revenues is combined with macroeconomic and public expenditure policies will be key if Ghana can really avoid the Resource Curse. This is because there is evidence that Governments which have used natural resource wealth to finance investment perform better in terms of growth and development than those who use it to fund current consumption.

8. Conclusions

Ghana is endowed with abundant natural resources and as it prepares to start oil production, an investment fund model for managing oil revenues has become inevitable if a self-reliant economy that brings prosperity and employment opportunities to its people is envisaged.

The economic prosperity of a natural resource rich country like Ghana can be enhanced through diversification by reinvesting resource revenues for the benefit of human development, economic innovations and infrastructure since such investments open opportunities for future generations, providing an intergenerational transfer rather than creating a legacy of unmanaged public expenditures, heavy reliance on a dominant sector, and potential conflicts. Beyond the need for building a solid economic base that would endure after depletion of natural resource reverses, economic diversification is important in shielding domestic economies from uncontrollable risk factors related to the global market place.

Rural Ghana is the most impoverish with the largest population and therefore engineering a new Ghana also calls for a strategic plan for rural industrialization beyond improvement in agriculture development that focuses on maximum utilization of locally available human and material resources, demarcation of spheres of production in large and small sectors. In this regard emphasis should be placed on production by the masses in turn, means adoption of small technology wherever possible, proliferation of employment opportunities, taking industry to the people and ensuring that agriculture and industry are complimentary to each other succinctly, in managing natural resources revenue in the above ways, potentials across the country can be identified and developed to ensure economic prosperity and sustainable development devoid of deindustrialization, poverty and poor standards of living, conflict, corruption and mismanagement that usually come with a Resource-Curse.

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