

**PNG AND SUSTAINABILITY: THE LESSON
LEARNED FROM RICH NATURAL
ENDOWMENT AND DEVELOPING
COUNTRIES.
(CASE STUDIES OF SELECTED
DEVELOPING COUNTRIES)**

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INTRODUCTION



- This study is basically the reflection of successes and failures in light of the resource booms in various developing countries, particularly the Petroleum and Energy Sectors of these economies.
- **The aim of the study** was to address the significance of the development of the Liquefied Natural Gas (LNG) in light of sustainable development. Therefore, various developing countries were selected among others depending on their relevance and applicability to Papua New Guinea's development of the LNG Project.
- **Key issues** addressed in this study include the case by case analysis stemming from the general economic performance, management of resource funds, impacts on education, health, infrastructure, foreign agencies and partners, the public and private sectors, NGO participation, wealth creation and business opportunities and other socio-economic impacts. The strategic duration of the analysis was taken from the current year (2014) and forecasting from five (5) to ten (10) years back.
- This study is by nature a highly analyzed and well structured but does not claim to have all the answers. It does, however, provide a framework for advance discussions with a wide range of stakeholders to help realize the challenges and opportunities for PNG and its future in the resource boom.

ALGERIA



- **Health:** Algeria with its positive financial position prioritized on the growth of education and health sectors. The population's medical needs are considerable. Hence, Algeria is a major importer of drugs.
- **Education:** Higher education has seen remarkable growth as illustrated by more than 1.9 million university graduates in 2012, compared with 63 in 1964. The education sector has 90 universities.
- **Infrastructure and Income Distribution:** The benefits of natural resources have allowed major structural projects to be completed. These public investments have helped in income redistribution and generated jobs, contributing to bringing down unemployment to its lowest level of 10% in 2011.
- **Business Climate:** Algeria's business climate is still facing a number of constraints, including administrative sluggishness in various areas such as starting a business, customs clearance and registering commercial activities, engendering delays in operations and significant transaction costs. The World Bank report *Doing Business 2013* ranks Algeria 152nd out of 185 countries, down from 150th out of 183 countries in the 2012 report.
- **The Role of Government:** The government has continued efforts to diversify the economy by attracting foreign and domestic investment outside the energy sector, but has had little success in reducing high unemployment and improving living standards.
- **The benefit sharing and the wealth creation initiatives:** Benefit sharing from this project culminates from certain programs and funding options, for example, the accruing of the world's 14th largest foreign reserves as well as a hydrocarbon stabilization fund reportedly worth tens of billions of dollars which it has used to fund domestic funding. However, it has struggled to fund its young better opportunities at home than can be found elsewhere, such as Western Europe.

ANGOLA



- **Health:** Angola developed education and health on priority basis. Access to both health and education services remains problematic, due to high costs and poor quality.
- **Education:** Technical and vocational education and training (TVET) is especially important in post-conflict Angola.
- **Infrastructure:** The construction sector continues to expand by 30 per cent in 2006 and 2007 and by 4.9% latter. The construction boom helped to establish cement factories.
- **Business Opportunities:** Economic growth of the country led to the establishment of cement factories, oil refineries, logistics and distribution businesses, retail outlets, municipal market places to sell local produce. Some of these businesses were building by firms from foreign countries like USA and Brazil.
- **The Role of Government:** Recent years have seen progress regarding the transparency of oil revenue management, although much remains to be done. In order to make better use of the oil windfall, in December 2006 Angola created the Angola Development Bank (Banco de Desenvolvimento de Angola – BDA) to administer its new Development Fund (FDA), to which 3 per cent of annual oil revenues and 2 per cent of diamond revenues will be channeled.
- **The benefit sharing and the wealth creation initiatives:** Angola's benefit sharing strategy stem from various initiatives including a 'development fund (FDA)' created to be administered by the Angola Development Bank (BDA) for the development of private sector (particularly in non-extractive sectors), poverty reduction and improvement in access to basic services.

NIGERIA

- **Health:** Industrial concentration in some cities led to air pollution, water pollution, sound pollution, oil spillage led to prevalence of certain diseases and ailments. No evidence is available to indicate that major steps were taken by the Government and private sector to combat the situation.
- **Education:** The government has been implementing education reforms since 2006 to improve access to education, especially with the introduction of Universal Basic Education.
- **Infrastructure:** The Nigerian LNG project development includes a Nigerian content plan. This includes a community relations component and an indigenous sub-contractor plan.
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- **Business Opportunities:** Nigeria's private sector, including its informal sector, employs more than 80% of the country's workforce and is its primary generator of exports.
- **The Role of Government:** Nigerian Government couldn't play any significant role in solving economic and social problems of the country though it is one of the largest oil producers.
- **Benefits Sharing:** The benefits sharing ranged from positive impacts on environment through the providence of drainages and waste management programmes by Nigeria LNG(NLNG).

QATAR



- **Health:** A variety of indicators confirm remarkable economic progress, particularly since 2000. These achievements have been accompanied by policy and institutional improvements in health and education.
- **Education:** Qatar has universal enrolment of boys and girls in primary and secondary education, and child mortality rates have dropped dramatically. In 2011, Qatar ranked 37th on the United Nations Human Development Index, out of 187 countries.
- **Infrastructure:** Sizeable government spending funded from hydrocarbon proceeds has also had knock-on effects on the wider non-oil and gas economy. A large infrastructure push and the expansion of public services to cater to the needs of a much larger resident population are two channels through which expansion of fiscal activity has reverberated across the wider economy.
- **Business Opportunities:** For a long time, support for Qatar's private sector was piecemeal and coordination was lacking. Enterprise Qatar (EQ), a one-stop development agency for local business, is now starting to fill that gap. Its business model works by stimulating delivery by private sector service providers and, in doing so, it aims to strengthen the overall "eco-system" within which SMEs and the private sector operate. In the future, Enterprise Qatar will also actively mobilize equity capital.
- **The Role of Government:** Qatargas had to work hard to attract and keep financially solvent and experienced partners on board. To achieve that, the state (Qatar Petroleum) agreed to defer its royalties for gas feed until the project met hurdle rates of return that partners saw as adequate. After years of a construction boom all over the Gulf region, steel prices are controlled by the government to protect local steel producers.
- **The benefit sharing and the wealth creation initiatives:** Benefit sharing and wealth creation largely concentrated on the macro-level. Large financial dividends have followed from Qatar's investments in oil and gas, and its macroeconomic achievements had been impressive.

YEMEN



- **Health:** Despite the significant progress Yemen has made to expand and improve its health care system over the past decade, the system remains severely underdeveloped. Total expenditures on health care in 2002 constituted 3.7 percent of GDP.
- **Education:** Training plays a crucial role in the promotion of local job opportunities and accordingly, Yemen LNG has established its own Technical Training Centers.
- **Infrastructure:** The construction of a multi-million-dollar breakwater, creation of artificial reefs; the provision of computer equipment and training to enable the accurate recording of catches and prices obtained for different fish species are some of the important infrastructure facilities that are provided to fishermen of Yemen by Yemen LNG. Over time, this has contributed to improve management of fish reserves along the coast line.
- **Business Opportunities:** Social Fund for Development (SFD) was the first organization in Yemen to help introduce micro-finance projects. Since its establishment, SWF has used internationally recognized best practices in the field of micro-finance.
- **The Role of Government:** Yemen's government is planning to advance Yemen's declined economy through the restoration of basic services such as electricity, fuel supply, water and infrastructure. Yemen's economy witnessed a sharp deterioration during the last year due to turmoil and lax security in the country.
- **The benefit sharing and the wealth creation initiatives:** Yemen's benefit and wealth creation initiatives were particularly sector wise and most common one was the marine sector. Capacity building programs were undertaken which empowered local fishermen in which fishermen were able to manage their fishing activities well.

CONCLUSION/SUMMARY



- The Strategic review on the following developing countries has drawn a very significant platform for the opportunities and challenges ahead in terms of the post, current and the future of related mineral resource developments, particularly in the LNG Project.
- The successes realized stem from the progress developments in light of Education, health, infrastructural developments, business opportunities, the success of private public partnership, the effective engagements of international Agencies and trading partners in light of development and in particular the social responsibilities and needs.
- The study was primarily involved in determining the impacts of related LNG Projects and their consequences directly or indirectly felt in these countries.
- If PNG can adopt the lessons learnt from the cases identified, a need for proper and continuous dialogue with the stakeholders involved in the project is very much the basis for success in the future of the project. A view that does not really answer the question of success, but an opportunity for achieving it.
- A comparative analysis in the exhibits outlines a clear picture of what transpired and what is to be expected if PNG follows the same trend as experienced by these countries.

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