

Proceedings of the seminar on “Harnessing the Gains from Natural Gas: Opportunities and Challenges for Tanzania”

1. Introduction

The seminar was jointly organized by the International Growth center (IGC), President’s Office, Planning Commission, Bank of Tanzania and the Ministry of Energy and Minerals. The broad object of the seminar was to bring together policymakers and stakeholders in the natural gas sub-sector to discuss the opportunities and challenges posed by recent natural gas discoveries in Tanzania, identify existing knowledge gaps and propose way forward that would ensure sufficient preparedness before natural gas extraction begins. The event consisted of an “open” session of about 100 participants from Government institutions, private sector players, civil society and donor agencies; and a “closed” session of about 30 high-level policy-makers and key stakeholders from the public sector. The open session was held in Hyatt Regency hotel (the Kilimanjaro) on **Wednesday 12 December 2012** and the closed-door was held at the Bank of Tanzania offices in Zanzibar on **Friday 14 December 2012**.

2. Opening Ceremony

The seminar was officiated by the Minister for Energy and Minerals Hon. **Prof. Sospeter Muhongo**. In his opening speech, the minister thanked the organizers of the seminar for conceiving the idea of holding such important and timely gathering and he expressed his sincere hope that deliberations from the seminar would contribute significantly to the on-going policy debate on the best ways of harnessing the gains from natural gas. To this effect, the minister requested the organizers to present to him the recommendations from the seminar in the shortest possible time, so that such deliberations can be used as an input into the preparations of four important documents which are underway; namely the ***Natural Gas Policy***, the ***Natural Gas Utilization Master Plan***, the ***Petroleum Exploration Policy*** and the ***Petroleum Act of 1980*** which is currently under review.

The minister emphasized that the Government of Tanzania understands that the discovery of natural gas presents huge opportunity to transform lives of Tanzanians and those of future generations. He noted that Tanzania's potential offshore gas reserves are sufficient for domestic power needs, with plenty left for export to the rapidly-growing Asian markets. Also gas discoveries will potentially lead to very substantial increase in Government revenues, which can be used to build and enhance the country's infrastructure, physical capital and human capital as well as providing the financial buffers to help protect the economy from the effects of global volatility.

The Minister further noted that the Government also understands that harnessing the gains from the natural gas may pose some challenges such as managing the public's growing expectations and steering the economy until the revenues from gas production begins to flow into the treasury and setting policies to mitigate the effects of the so called 'Dutch Disease'. He assured the participants that his ministry is determined to maintain high degree of transparency, accountability and zero tolerance on corruption practices in order to avoid the so called natural resource curse. He also noted that his ministry is determined to study the experiences of other resource rich countries in greater detail and draw lessons about natural resource management in order to avoid mistakes that have seen some of these countries confronted by the so-called 'resource curse'. To this effect, he commended the participation of international experts to this seminar and hoped that they would help in distilling some of the key insights from experiences of other countries around the world.

Prof. John Page, the Country Director of the International Growth Center (IGC), made introductory remarks, in which he briefly introduced the IGC to the participants noting that the IGC is basically a knowledge partner seeking to bring cutting edge academics to think about real world policy problems that confront policy makers in the developing world. He underscored the fact that the IGC is independent of any political or ideological influences and that it is anchored on the quality of its ideas. He further noted that the IGC Tanzania has previously engaged in a number of projects with the Ministry of Agriculture, the Bank of Tanzania and the

Ministry of Industry and Trade, and now the IGC is keen to engage in the area of natural resources for a number of reasons. First, the discovery of natural resources is increasingly becoming the story of East African countries including Uganda, Kenya and Tanzania. At the same time based on the experience of many countries, management of the natural resources has not always been an easy task. He noted that the difference between success and failure (the 'blessing' versus the 'curse') in terms of natural resource management is fundamentally to do with choices. However, choices of Governments that have been successful may not be the same. The IGC as a knowledge partner is uniquely positioned to share the global perspective of success stories in order to help policy makers make informed choices as they think about the best way of harnessing the gains from natural gas. He expressed his hope that discussions from the seminar would provide valuable input to the various documents that will be needed to manage this important discovery.

3. Presentations by principal investigators

Prof. Tony Venables, Oxford center for the Analysis of Resource Rich Economies

Prof. Venables presented a paper on "*Tanzania's Resource Challenge*" which aimed at shedding some light on the choices to be made in the exploitation, management and governance of the natural resources - based on the experience of resource rich countries around the world. He observed that the economic task of natural resource exploitation is basically a transformation of assets from underground into productive assets on the surface that will generate flow of income and flow of jobs for society in future years. He further noted that this transformation is challenging because of what he called "weakest link problem" (i.e. there are several separate stages that are involved in the exploitation of natural resource, and one need to get all the stages right for overall success). These stages include:

- **Attraction of exploration and development**

- ❖ The first stage will be to encourage investors to explore and develop the resources underneath the soil.
- **Design and implement fiscal regime to capture revenue**
 - ❖ Need to get the contracts right and fiscal regime in place so that the Government and society can capture some of the revenues.
- **Transfer revenue to Finance Ministry**
 - ❖ Need to put in place legal system that works in practice to ensure that the revenue is actually transferred to the treasury and does not disappear off somewhere on the way.
- **Save/Invest a high proportion of the revenue**
 - ❖ Government has to think about what to do with the money -- decision of saving, investing, current expenditure, capital expenditure etc.
- **Avoid 'boom and bust'**
 - ❖ Revenue from natural resources are typically very volatile. It is essential, therefore, to put in place macroeconomic management policies to avoid cycles of boom and bust.
- **Spend and invest efficiently**
 - ❖ One has to avoid building white elephants
- **Avoid Dutch Disease and promote private sector growth**
 - ❖ One need to create the environment that encourage private sector growth

For each of these stages, Prof. Venables cited examples of countries that have done very well and those that have not done well (success and failure stories) around the world.

On the revenue management, Prof. Venables recommended that because there is a current shortage of capital, both physical and human, the authorities should think of investing high and rising share of the revenues in the domestic economy – not in off-shore “future generation fund”. In this regard, priority should be on efficient investment programs (invest in investing).

On domestic energy cost and comparative advantage, he noted that oil electricity generation costs four times gas generation, which implies that replacing even 50 percent of the oil imports

by gas, would generate efficiency gains equal to approximately 3 percent of GDP. Lowering the cost of energy production would also potentially generate new comparative advantage in products that use energy. He stressed that cheap energy should come from improved cost efficiency and not from subsidies as this would cause market distortions.

On the balance between the quantity that should be used domestically versus exports, he recommended that investors should be offered sufficient export quantities to justify development, noting that the scale of gas discoveries is large enough to allow for domestic use and substantial exports.

Prof. Christopher Allsopp, Oxford Institute for Energy Studies

Prof. Christopher presented a paper on ***International Gas markets: Recent Developments and Prospects***. He noted that international gas markets are changing rapidly: Currently, there are massive differences in gas prices between big regions of the world economy – USA, Asia and Europe. He observed that:

- ❖ The shale gas revolution in the USA has seen demand for imported gas drop sharply
- ❖ In contrast, gas imports in Asia has risen sharply due to Chinese demand growth and the impact of the Fukushima earthquake and tsunami
- ❖ As a result of demand-supply imbalances a significant price gap has opened up – providing an arbitrage opportunity

Major players:

- Asian players have acquired significant gas assets across the US and Canada from which gas could be sourced for liquefaction
- Japanese and Chinese companies are most prevalent, but Korean and Indian companies are also taking upstream interests

Political decision on US gas exports is expected in 2013, with the impact on domestic prices and industry being the key uncertainty.

Gas from the US would be competitive in both Asia and Europe but would not cause huge price shift.

Prof. Allsopp further observed that East Africa is a new gas field which has a lot of potential, and the prospective market is in the developing Asian economies.

Issues that need to be considered

(i) Technical challenges

The gas that has been discovered in Tanzania is deep water, so its production requires cutting edge technology

(ii) Scale of investment

Scale of capital required to develop the necessary infrastructure is huge

Prof. John Page, Brookings Institute and IGC

In his paper titled “Thinking about Diversification”, Prof. Page observed that Tanzania will require significant structural transformation in order to acquire middle income status by the 2025 as stipulated in the national development vision. He noted that the recent natural gas discoveries can be used to accelerate the required economic transformation by creating investment opportunities in non-gas activities. He cautioned that gas in itself is not likely to transform the Tanzanian economy into a resource dependent country. In order to promote shared growth, Tanzania will require a diversified economy – an economy with some natural resources, some industries and an increasingly productive agricultural sector. To attain this, one has to start thinking about building a broader array of activities (agricultural, industrial and services) that are capable of generating high value added per worker and therefore good jobs. He recommended two broad areas that require government intervention:

(a) Investment climate reforms

Reforms are fundamentally needed in creating a conducive environment for investors, not only in the natural gas sector but also other sectors of the economy. Reforms should aim to raise overall competitiveness and returns to private sector, addressing issues such as regulation, infrastructure and skills, which constrain the ability of firms to compete.

(b) A strategy for diversification

Investment climate reforms are necessary but not sufficient condition for building a diversified economy. One will require a diversification strategy built on three main components: (i) investment in agriculture, (ii) transforming manufacturing and (iii) building industries 'without smokestacks' including tradable services such as information technology, transport and transit services.

4. Panel discussion

In the panel discussion four panelists were asked to identify one or two priority policy issues that should be shaping the discourse over the coming years and that might shape policy research agenda in Tanzania.

Prof. Paul Collier (University of Oxford) reiterated one of the core messages from the day's discussion. There are three ways in which the natural gas could be used to effectively promote growth. The challenge will be to define the efficient blend between the three:

- (i) Natural gas can be exported to earn foreign exchange revenue. Whether exporting the gas is a good idea, will depend on way the money is used. Gas revenue could be used as catalyst for broader economic growth – this will require government to improve the quality of public investment as well as the quality of recurrent expenditure. It will also require very high level of transparency and accountability;

- (ii) It can be used to generate energy (electricity) in the domestic economy: - abundant, reliable and cheap energy would offer comparative advantage to those industries that use energy;
- (iii) It can be used to generate fertilizer to be used in the agricultural sector: - increasing productivity in agricultural sector is important for economic diversification and inclusive growth.

Ms. Sara Menker, (Gro Energy Ltd.), observed that as we move from exploration to actual production, there are three priority areas that will need careful attention:

- (i) A need to define the role government should play in the energy sector;
- (ii) Infrastructure financing – pro-active thinking about new forms of financing infrastructure;
- (iii) Thinking about policies that encourage development of the growth of gas sector through the growth of non-gas sector (educational/technical education policies, services that will be required by the producers, logistics that need to be put in place etc.).

Mr. Marshall Elliott, (Head of DFID in Tanzania) made three observations:

- (i) Use of the public funds going forward: - good use of public funds will be important, otherwise it will be difficult to attract foreign financing;
- (ii) Transparency, communication and accountability: - he emphasized the need to engage all citizens in taking forward the natural gas agenda;
- (iii) Natural gas potentials: - he noted that there is tremendous further potential for discoveries of gas, and therefore it is important to encourage further exploration activities. It is worthwhile for the government and the development partners to help with surveying, mapping and setting the scene for the development of those additional resources.

Dr. Philip Mpango (Executive Secretary, President's Office – Planning Commission) underscored a need to:

- (i) Forge a national consensus on short term and long term priorities for the development of natural gas sub-sector;
- (ii) Redefine the role of Development Partners in the country's development agenda. He noted that support from development partners could be directed more to investment and trade as well as helping to deal with capacity challenges;
- (iii) Finally, Dr. Mpango underscored the importance of discipline in the management of natural gas and the expected revenues, noting that it may be necessary to include it in the on-going constitutional review process.