

Should Bangladesh Export Its Natural Gas?

by Dr. Badrul Imam

Energy experts have opined recently that as coal was the fuel of 19th century, oil in the 20th century, so will the natural gas be the fuel of 21st century. The take off point for solar energy and other renewables as a means of large scale energy source will be delayed and will not start to happen before 2050.

THE question whether Bangladesh should export its natural gas has been in focus in the news media, among the experts and economists and of course with the government officials for some time now. Opinions on the above belong to two distinct groups. One of the group namely the foreign oil companies, and a lobby supporting their view argues that Bangladesh should export its natural gas to help its economy get long demanding foreign earnings. The other group that include national experts and leaders expressed concern over the fact that the country may be plunged into serious trouble if the present modest gas reserve is exhausted by allowing pipeline export without ensuring alternative energy resource for the near future or for the next generation.

The view expressed by the government has changed course over recent past. Only a year ago, high officials were expressing opinion in favour of gas export and influential minister was quoted to have told that foreign companies should not be involved in exploration in this country, if Bangladesh does not allow gas export. The statement by the Prime Minister in April 1999 that Bangladesh's natural gas is not for export was a reversal of the government's position on this issue, although many observers consider this to be more of a political maneuvering rather than genuine expression. However, the fact remains that the government is actively moving forward with approval of foreign company's programme offered on the table that appears destined ultimately to the execution of pipeline export of natural gas from this country. This gave rise to the question whether the government understand the implication of the project it is approving, whether the government is under external pressure and whether it is confident enough to enjoy full control of its natural gas resources in the face of foreign company monopoly on gas business in the years ahead.

There are possibly two aspects fundamental to the topic, should one wishes to enter into a reasonable argument or perhaps to justify one or the other view. These are: 1) Whether Bangladesh has enough gas reserve to adopt a gas export policy considering its own future energy scenario and 2) Is natural gas going to lose its importance as prime fuel and thus its value in future? A further point of paramount importance is 3) How vulnerable the government is to the external pressure favouring foreign company's interest in this country, in protecting national interest and in framing its gas policy for that matter.

Natural Gas Reserve Modest at Present Estimate

How much natural gas reserve Bangladesh has is the prime question to consider in a discussion regarding the viability of gas export. Put it simply, if the country has a very large reserve compared to what it needs and will be needing in a long term future, the export will be viable; on the other hand if the country has a modest gas reserve, export option would not certainly be rational considering the fact that Bangladesh is heavily dependent on its natural gas as a source of primary energy with about 80% electricity being generated with gas based power plant, and that there is little or no change for the country having an alternative energy source like nuclear energy, solar energy etc to replace its natural gas source in near future.

Although geological impractical, Bangladesh has been 'floated' on a pool of natural gas by people whose position and power bring this matter to a level of much debate in recent past. One can not really be sure why would a very high up government official publicly put a gas reserve value between 60 to 100 trillion cubic feet, when the experts of the petroleum organization under his control made a data based estimate of gas reserve of about 10 to 12 trillion cubic feet for the country. The idea of an enormously large gas reserve has been put forward by foreign oil companies without actually pointing

offering an explanation based on existing data. The government was criticized as irresponsible by group of national petroleum experts for apparently selling the foreign companies view of an enormously huge gas deposit without a proven data base.

What are the scientific basis of suggestion of a huge reserve of natural gas in Bangladesh? Some of the views hold by the group of people suggesting enormous gas reserves are as follows.

1) Most of the big producing gas fields of Bangladesh (Titas, Habiganj for example) discovered in early sixties are still immature and are undergoing primary development. The data available to make estimates for these gas fields are somewhat limited. These gas fields may prove to hold more gas than the presently estimated reserves, should reevaluation be launched with latest technologies.

2) From the experiences of the some newly discovered gas fields over last couple of years, it has been noticed that the criteria for identifying the predicated zones of natural gas in the subsurface had possibly been undermined by explorer and developers in the past. Therefore many potential zones may have been omitted from production. A consider amount of gas may thus have been left in the underground.

3) Bangladesh petroleum basin is characterized by very thick sedimentary rocks of deltaic origin. An underground zone of high pressure exists at a considerable depth throughout the basin area. This is similar to what have been observed in the Gulf coast, USA and the Nigeria prolific basins. The high pressure zone have been seen to host huge gas reserves in some areas in the world. The high pressure zone beneath Bangladesh is almost unexplored. The high pressure zone has the potential of holding huge gas deposits.

4) Bangladesh may have high gas potential in the very deep reservoirs. None of the

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Bangladesh should certainly wait...

very deep reservoirs has ever been tested before for its gas content. This remained an unknown frontier that may have significant implication on gas reserve scenario.

The geological arguments put forward as above are not founded and these may raise the optimism of a practicing petroleum explorer. However, all the above are merely scientific suggestions which are not yet been tested. More important is the fact that the exploration results can go either way and petroleum exploration is a gamble by text book definition. Nevertheless one can rate the above suggestions as follows:

1) The big producing gas fields like Titas, Habiganj etc have been reappraised for their gas reserves in recent past by Canadian reserve consultants under the financial sponsorship of CIDA. The study did not change the reserves very significantly for these gas fields. The much talked about suggestion that Bakhraband field has a very big gas reserve in particular, has not been supported by this study.

2) Previous gas wells may have omitted some gas producible zones and modern newly acquired well logs may be able to add these to the existing reserve. But how much difference this can make to the total reserve is a matter only to be known by reexamining the old wells.

3) The high pressure zone in the deep underground was tested for its gas reserve for the first time in Bangladesh in the Haldal-1 well in Chittagong by Cairn Energy plc. Unfortunately there was no report of gas finds in the high pressure zone and Haldal well appeared to be a dry hole.

Exploring and drilling through the high pressure zone need very sophisticated tech-

nology and are very costly as well as risky. How much of this very costly and risky venture the foreign oil companies are prepared to take in the context of a previous result is a matter to be seen.

4) the very deep potential reservoirs in Bangladesh have never been tested. Drilling to such depths is very costly and needs very high technology. How much of the risk and cost the oil companies would be prepared to take to drill the very deep potentials is also a matter yet to be seen.

From the above discussion, it is apparent that the oil companies have optimistic ideas about very large gas reserves in Bangladesh, but these ideas are still considered theories and not yet been tested to any level of confidence. The data based estimate of the proved gas reserve of Bangladesh is in the range of 12 trillion cubic feet. This is considered a modest gas reserve by all standard.

Prime Energy Resource in Twenty-first Century

A second point in the discussion of the export viability of gas is what is the future of the gas as a fuel in the context of global industry. If natural gas is going to lose its value and be replaced in near future by alternative cheaper energy source, there is not much point in keeping it underground for future.

Energy experts have opined recently that as coal was the fuel of 19th century, oil in the 20th century, so will the natural gas be the fuel of 21st century. The take off point for solar energy and other renewables as a means of large scale energy source will be delayed and will not start to happen before 2050.

Nuclear power and renewable energy resources including solar energy will double their present contribution to global energy use by 2050 from about 100 GtOE to about 215 GtOE but their share will still be more than about 18% of the total global energy use.

In a recently completed report of the International Atomic Energy Association (IAEA), renowned energy expert Professor Peter Odell has hinted the way the different en-

ergy resources will play in fuelling the world in the 21st century. It has been pointed out that oil will retain its role as the single most important energy source until about 2040 after which natural gas will be the next universal fuel. He forecasted that conventional natural gas use will peak around 2050 following which the use of natural gas will exceed that of oil and coal together. However the battle between gas and renewable energy will begin in earnest about 2060 and after 2070, the battle will swing in favour of the renewable energy including solar energy because of the cost reductions which will be achieved by then in the supply of the renewable energy resources.

Another analysis undertaken by Shell and published only recently provides interesting illustration of how the significance of natural gas in the world's energy supply may grow in the longer term. The analysis showed that the world natural gas use is foreseen to expand from about 1.4 trillion cubic meter (about 50 trillion cubic feet) in 1984 to around 3.5 trillion cubic meter (123 trillion cubic feet) by 2020 and thereafter to sustain this level for the following 40 years to 2060.

It is thus apparent that the role of natural gas as a prime energy source in the world is not going to fade any time soon; rather, the energy experts are forecasting that the long term future belongs to natural gas.

Control on Natural Gas Resource and Policy

No policy will serve the national interest fully, if it is to act under the influences of external pressure. The policy maker should make it exclusively clear what is best for the nation. How much control the government has over the whole aspect of petroleum activities may be a matter which will determine future petroleum scenario of the country.

The unsolicited negotiation with a foreign company Unocal for a controversial project

named Western Regional Integrated Project (WRIP) is perhaps a case to be referred to. The project proposes to develop Shahbazpur gas field and lay a pipeline 150 km long from the gas field to southern Khulna to feed power plants. Shahbazpur gas field is one of the small gas field in Bangladesh standard with a recoverable reserve of only 0.35 TCF of gas. The petroleum observers have questioned the justification of building as big an infrastructure as proposed with such a small gas reserve. It may be mentioned that the Shahbazpur gas field at Bhola was discovered by the national petroleum exploration company BAPEX in 1996. After the discovery BAPEX proposed to develop the gas field for a power plant to be fed from the produced gas. This proposal was not approved by the government. The energy observers have questioned what really is the purpose of building such big pipe line to the western edge of the country near the Indian border.

In a recent move the oil giant Shell has signed an agreement with Unocal seeking cooperation in areas of mutual interest in block 10 including Shahbazpur gas field and the WRIP project.

With most of the gas blocks, onshore and offshore along the southern coastal region of Bangladesh under the active exploration venture of Shell and Unocal, the two companies will certainly have plans of mutual interest with the gas that will be extracted from the discovered gas field. No wonder the long gas pipeline to western Bangladesh near to the Indian border to be built under the WRIP plan. Both the companies are vigorous proponents of Bangladeshi policy allowing gas export to India. There have been Indian news media reports that both Shell and Unocal have been negotiating with the Indian government regarding possible gas export from Bangladesh.

Petrobangla initially opposed the controversial WRIP project on the basis of its own expert opinion that the project has several significant loopholes and will not serve best of national interest. Then in a sudden move it reversed its stand and started to work for the upcoming negotiation. It is not known why Petrobangla makes this turn, but it is understood that it was acting under instruction from above. Energy observers wondered why such instructions from above apparently coincides with the visit in this country of highly placed foreign dignitaries from the west.

Conclusions

Bangladesh has a proven modest recoverable gas reserve of about 12 TCF. Bangladesh is a prospective gas province in which substantial gas reserve may be expected to be discovered further. However, the gas reserves quoted by some quarters as being 60 to 100 TCF are without a data base and is unrealistic. Foreign companies assume very large gas reserve based on optimistic geological criteria. These are not yet proved or tested and the suggestion of a very high gas reserve may be considered theoretical.

According to the forecast of energy experts natural gas is going to be the prime energy source of the 21st century and its demand and use will peak at around 2050. It is unlikely to be replaced as a main energy source by renewable energy like solar energy etc. before 2070.

Present dealing by the government with certain oil company which many believe is a pretext for the implementation of gas export in near future to the neighbouring country has raised controversy. Energy experts are pointedly asking questions as to whether such controversial deal is being considered for the best of national interest or under the influence of foreign power favouring foreign oil companies' business in this country.

The national policy makers should not frame a gas policy on the basis of foreign companies' theoretical suggestion for a very large gas reserve. The government must take the presently proved gas reserve estimate into considerable while this is to be delayed and will not start to happen before 2050. The government should certainly not contemplate exporting gas to a foreign country with the presently modest gas reserve in hand.

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Liberation and Beyond

by J N Dixit

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1972: Efforts at National Consolidation

Part VII



THE year 1972 also saw Sheikh Mujibur Rahman grappling with some profound contradictions in Bangladeshi politics — contradictions which were inherited from the liberation war and intensified its struggle for autonomy which ultimately transformed itself into a liberation struggle, the party mobilised the rural masses and working class to support its struggle. In the post-liberation period, the rural masses and working class naturally expected a greater share in the power structure and greater economic benefit. This could not be ensured unless Mujib was to secure these at the cost to vested interests of the middle class. There was a contradiction between the aspirations of the traditional middle class support base of the Awami League and the expectations of the rural masses and working class. Given the political and economic constraints Sheikh Mujibur Rahman's government could not undertake any fundamental structural changes in domestic economic policies to confer greater land ownership on the rural masses or give ownership of factories, of which there were very few in East Pakistan in any case, to the working class. All that Mujib could do to meet the hopes of the working class and the rural masses was to remit the land revenue of farmers owning less than 20 to 25 bighas of land. The working class was offered shares in a number of industrial and manufacturing units and financial institutions which were going to be nationalised. Some agricultural inputs like fertilizers were subsidised and some initiatives were taken to expand food, health and educational services.

Simultaneously, the Mujib Government without disturbing the basic ownership of factories and manufacturing units, tried to create an impression that the aspirant middle classes' acquisition motives would be kept under control. The steps taken to substantiate these impressions were the nationalisation of larger industrial enterprises, insurance companies and banks. These steps were made easy because about 50 per cent of the assets of modern industry in former East Pakistan were owned by West Pakistanis who had abandoned them and migrated to West Pakistan.

By March-April, 1972 Mujib had vested between 92 and 95 per cent of the assets of industrial segments of the Bangladeshi economy in the public sector. By December 1972 he



The signing of the first Indo-Bangladesh consular and visa agreement

had also introduced ceilings on assets that private enterprises could possess. The working class and the comparatively prosperous rural elite were to be given shares in the newly nationalised industries and enterprises. Eventually these steps did not succeed because Mujib added prices and distribution control schemes to ensure distributive justice and to retain the support of the masses for the Awami League. The newly created public sector itself did not possess the managerial and fiscal skills to make it a dynamic factor in Bangladesh's economy.

Bangladesh suffered from inflationary pressures and negative patterns of power brokers, middlemen and an emerging licence permit raj.

Neither the middle class nor the working class and rural masses were happy about the economic management of the Mujib Government. If this disappointment had found articulation through the safety valve of opposition forces or parties demanding accountability from the Mujib Rahman government, it would have been a redeeming feature in Bangladesh's politics and of independence the Bangladesh Parliament consisted only of Awami League Members who were elected to the provincial and national assembly during the 1971 elections. There was no opposition at all and parliament literally became a rubber stamp of the Mujib Government.

So Parliament, while fulfilling the criteria of a democratically elected assembly in cosmetic terms, did not function as a check on the government. Parliament became marginalised because of its single-party character and the charismatic leadership of Sheikh Mujib Rahman. Even within the Cabinet, Mujib tended to resent disagreement or independent advice. Cabinet Ministers who had a mind of their own like former Prime Minister Tajuddin Ahmed and former Home Minister Kamarruzzaman were marginalised. There was a streak of political authoritarianism in Mujib as he settled down to his Prime Ministership.

This affected even the Awami League and its youth wing. The more radical and idealistic elements of the Awami League broke away from the main party at the end of 1972. The youth wing of

the party, the Chhatra league, also broke up. A new political party, Jatiya Samajtantrik Dal, was formed and as it did not have any seats in Parliament, it proceeded to function as a militant extralegal opposition to the Mujib Government. The radical wing of the Communist Party of Bangladesh (Marxist-Leninist) led by Abdul Haq went into violent opposition in the second half of 1972. There was also the radical Sharabha Party (the party off the thoroughly deprived) led by Siraj Shikdar which took to arms against the Mujib Government. They were using the same weapons which members of these groups fighting for liberation had not surrendered. These militant groups had begun resorting to brigandage and assassination of the ruling party members by the end of 1972. Instead of attempting reconciliation with the breakaway groups from his party and its youth wing Mujib accused them of anti-national activities. He simultaneously declared the Communist Party, the Jatiya Samajtantrik Dal and other such parties 'non-grata'. He made no attempt to initiate a dialogue with any of these opposition groups nor did he allow them representation in the political, civil or military institutions of the government. His approach was to Deploy his police and the Jatiya Rakhi Bahini, considered a sort of para-military private army against his political opponents. By the end of 1972, economic problems as well as negative ramifications of an embryonic autocracy affected the political situation in the country.

There were messages from the former Members of the Mujib Government like Syed Nazrul Islam and Tajuddin Ahmed to High Commissioner Subimal Dutt as well as to DP Dhar that some advice should be given to Mujib Rahman to adhere to democratic norms and to follow a policy of reconciliation and reasonableness. Though DP Dhar was inclined to respond to this request, High Commissioner Dutt, PN Haksar and Mrs. Gandhi felt that any advice even informal on the management of Bangladesh's domestic politics to Sheikh Mujib Rahman would be offending his sensitivities and could be interpreted by him as interference in the internal affairs of Bangladesh. So there was no response to the messages requesting constructive advice to Sheikh Mujib Rahman.

Sheikh Mujib Rahman also made an important change in his cabinet in the second half of 1972. He replaced Foreign minister Abdus Samad Azad nominating Dr. Kamal Hussain in his place. Kamal Hussain, an Oxford graduate and a barrister from England, was an expert in constitutional law and international affairs. He was also incarcerated in Pakistan throughout 1971 when Sheikh Mujib Rahman was there in jail. A liberal intellectual and a person deeply committed to the cause of Bangladesh, he brought knowledge and experience beyond the normal requirements of politics to the Government of Bangladesh. It was to him that Sheikh Mujib Rahman entrusted the task of collecting foolproof evidence for conducting the war crime trials of Pakistani military personnel. He managed to assemble incontrovertible evidence against 118 officers of the Pakistani army. However, larger political considerations made Mujib drop the idea which abns mentioned earlier. It must also be mentioned that Mujib's appointments to senior commands in the armed forces generated some resentment among a section of officers of the Bangladesh army at that point of time. Col. Osmani, the seniormost officer who had served in the Pakistani army, was promoted to full rank of General and made Commander-in-Chief of the land forces. Air Commodore AK Khondaker was nominated Chief of the Air Force. As far as I recall, Commodore Nurul Huq was appointed Chief of the fledgling Bangladeshi Navy. Mujib did not give significant appointments to officers like Major Ziaur Rahman (who later became President of Bangladesh) and to Major Abul Manzoor (allegedly involved years later in the assassination of President Ziaur Rahman in 1981 in Chittagong). These officers had participated in the freedom struggle and expected to be given command and responsibilities commensurate with the contributions they had made. I still remember those days when Ziaur Rahman would come to my home for private conversations once in a while, and would vent his bitterness about Mujib not giving due recognition to officers who had participated in the Liberation War. There was reason for this bitterness because, leaving aside Mujib's pre-crackdown declarations Zia was the first army officer to issue a call for the freedom of Bangladesh in radio broadcast from Chittagong. There was also resentment about Mujib's inducting Bangladeshi officers opposed to liberation back into the new Bangladeshi army.

By the end of 1972, Bangladeshi politics had become fractious. The armed forces were subject to tension. There was antagonism between the regular forces and the police on the one hand, and former freedom fighters who constituted the Rakhi Bahini on the other. Some of the freedom fighters with radical political affiliations had retained their arms, resorting to violence for political ends. Fiascopic tendencies were emerging in the ruling party itself. To compound all this severe political lead, a like Maulana Bhashani had started openly criticising Mujib's political attitudes and methods of governance.

Sheikh Mujib Rahman was losing touch with the genuine feelings of his party members and general public opinion. He was heading an administration and a military establishment which now had no connections with the liberation struggle nad, what is more, had nostalgic pro-Pakistani memories. There was simmering but intensifying in Bangladeshi politics. Though Bangladesh had gained recognition from many countries by the end of 1972, Pakistan was still holding out which was a source of frustration for Sheikh Mujib Rahman. He also felt that asserting himself against India on various issues was necessary to raise his credibility both in domestic politics and in the international community, especially with United States and China. His views about India were also influenced by the revival of activities by the Bangladesh Muslim League and the Bangladesh Jamaat-e-Islami. At the end of 1972 he was about to initiate political processes which would isolate him from his party, create distances between him and India and culminate in the tragedy of his assassination in August 1975.

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