

## Energy Security Beyond 2020

DR K B SAJJADUR RASHEED

**P**Ower demand in Bangladesh is said to be rising at the rate of 10% or more per year. Indeed, this is a happy omen, since it is one of the indicators that say that the economy is not stagnating. The Master Plan prepared for the power sector forecasts that power demand will exceed 10,000 MW by 2015, from its current range of 4,000-4,500 MW. However, the euphoria soon evaporates when we try to take stock of our energy resources.

Bangladesh is an energy-starved country, which needs to formulate its power development policy in a very delicate manner in order to satisfy the demands of about 180 million people (projected) by the year 2020. This date is significant because around that time, or soon after that, the country's proven gas reserves might be exhausted, and there is no scope for falling back on local coal reserves or hydroelectric potential.

Natural gas is the only significant non-renewable energy resource of the country, and is the principal source of commercial energy. It is used for the generation of 90 percent of the country's electricity, while the entire fertilizer production is dependent on gas as feedstock. There has been much confusion regarding the proven and probable reserves of gas in the country – often due to differences in perceptions on exploration and conflict of views of various interest groups.

Official statistics, frequently quoted by the media, state that the country's proven gas reserves are around 13 to 14 trillion cubic feet (TCF). One recent government report (February 2007) gave an even more conservative estimate of the country's proven gas reserves – around 8.4 TCF. Bangladesh is comprised of the largest fluvio-deltaic-slope fan complex in the world, known as the Bengal Fan.

With an area of some 207,000 sq km (including offshore areas), and a

total over 70 exploration wells, Bangladesh ranks as one of the most under-evaluated hydrocarbon provinces in the world. The historical success rate in exploration is 33.8 percent, which is very high by world standards.

All these facts should make us very hopeful of discovering large gas reserves within our borders, as well as in our territorial waters. However, the reality is that no significant discovery of any large reserve has been made in the recent past, and exploration activities have also been stymied, either due to lack of negotiating (with profit-motivated foreign oil companies) skills or due to opposition by myopic ultra-environmentalists (local).

At the time of independence, the country's daily natural gas consumption was about 50 million cubic feet (MMCF). The major thrust in gas exploration, including expansion of network programs, came after 1981, with the assistance of donor agencies. By 2000, total gas consumption had risen to 900 MMCF per day, while the current consumption is believed to be around 1,500 MMCF, or about 550 billion cubic feet (BCF), per year.

Assuming a steady increase in demand for gas, at an annual rate of eight to ten percent (primarily for the generation of electricity), the total known gas reserves are expected to be exhausted by around 2020 – unless large reserves are discovered in the coming years.

Looking for alternatives to natural gas, the potential of the coal sector is not bright either. The existence of the largest coal deposit – at Jamalgarh in greater Bogra – with an estimated reserve of about 1,000 million tons – has been known to us for several decades; but it is not economically feasible to explore it due to its great depth of over 700 meters.

The other recently discovered coal deposits of bituminous variety

in the northwestern greater districts of Dinajpur and Rangpur are available at shallower depths, but have very modest reserves. The estimated reserves of the three coal fields in the northwest viz., Barapukuria, Phulbari and Khalashpir are 390, 570 and 600 million tons, respectively. In contrast, across the border, the Indian coalfields of West Bengal, Bihar and Jharkhand have reserves of more than 40,000 million tons.

In Bangladesh, there is strong opposition to open-pit mining of coal. In open-pit mining, 90 percent of the coal deposits can be extracted, while only about 20-25 percent of the deposits can be extracted by underground shaft mining method.

Arguments against open-pit mining in Bangladesh include loss of agricultural land and the need to relocate settlements – which is, however, not unique for Bangladesh. The beginning of exploration activity at Phulbari coalfield was cancelled largely on account of opposition on these issues.

On the other hand, underground mining is vulnerable to various types of accidents, like subsidence of the land, gas explosion, flooding of shafts, and emission and trapping of toxic gases. News of such accidents in coal mines in China are not uncommon, and given the track record of mine management in our country, underground mining will continue to be a very hazardous proposition.

In Barapukuria, where underground mining has started to supply coal to generate electricity in the mine-mouth power plant, incidents of gasification, flooding and ground subsidence have already been reported. Excluding the non-exploratory Bogra coalfield from any calculation of estimates, the three deposits in Dinajpur and Rangpur amount to around 1,600 million tons – which will be equivalent to about 38 TCF of natural gas.

Since open-pit mining will not be considered in Bangladesh, and if only 25 percent of those deposits of 1,600 million tons of coal are extracted through underground mining, the total recoverable coal will be less than 400 million tons – equivalent to some 9.5 TCF of natural gas.

Investing for the extraction of such a small amount of coal (through underground mining), especially in the context of scientifically proven and universally accepted global warming evidence related to coal combustion, will not be a wise proposition.

The scenario of soon-to-be-exhausted gas reserves, and not-so-abundant coal deposits, require Bangladesh to explore the potential for renewable energy sources for the longer term. Hydropower is a renewable and environment-friendly source, but its potential in Bangladesh is extremely limited.

The country's lone hydroelectric plant is located at Kaptai, with an installed capacity of 230 MW. There

are no other potential sites in the country for hydropower development, except two in the Sangu and Matamuhuri rivers (150 MW and 75 MW respectively), which are not considered for development because the socio-environmental costs far outweigh the benefits to be gained from them.

Hydropower is a clean fuel, and can be transmitted over long distances through an integrated power grid. North of Bangladesh are located the two Himalayan countries of Bhutan and Nepal, with huge potential for hydropower generation.

Bhutan has a hydropower potential of around 30,000 MW, while Nepal's potential is even much larger – about 83,000 MW, of which 43,000 MW are technically feasible for development.

In fact, the eastern Himalayan rivers of the Ganges-Brahmaputra-Meghna (GBM) region are one of the richest

sources of hydropower in the world, although a very small proportion of that potential has been exploited so far.

The harnessed proportion of the potential in the case of Bhutan is less than two percent, while for Nepal it is less than one percent. It indicates the enormous scope for Bangladesh to import clean hydroelectricity from the two Himalayan countries.

Since Bangladesh is separated from Nepal and Bhutan by Indian territory (30 km and 55 km respectively), the cross-border power trade will have to be coordinated with India through a tri-lateral arrangement. It will not only promote sub-regional cooperation, but is also in conformity with the declared intentions expressed in almost all Saarc summits (including the most recent one held in New Delhi) in favour of tri-or multi-lateral development efforts within the Saarc ambit.

Extensive power trade exists between Bhutan and India, while Nepal and India have limited power trade arrangements. Bhutan has been a major power exporter to India since its Chukha hydroelectric plant (336 MW) on the Wangchu river was commissioned in 1988. (Electricity from Chukha is used in the eastern and northeastern states of India).

In fact, the hydroelectric power sector is the single biggest revenue earner of Bhutan, and the country is determined to develop its hydropower potential and gain positive impact on the economy through power export. In 2003, the former King of Bhutan had declared that: "Water is to us what oil is to the Arabs."

Bhutan, in its endeavor to develop hydropower potential, has entered into joint investment projects with India. Bhutan's largest hydroelectric project – Tala project (installed capacity: 1,020 MW) – located downstream from the Chukha project, started supplying



electricity from the first of its five units to the northern states of India since August 2006.

In addition, Bhutan already has about a dozen proposed power projects at planning or feasibility study stages, and Bangladesh could start getting involved in their development under negotiated cost-sharing or investment formats, with a medium to long term view of importing electricity for the country.

Nepal too, is another neighbouring country from where Bangladesh could plan to import electricity in the longer term. In this regard, the prospect lies in future power trade, when the proposed Saptap Kosi multipurpose high dam (installed capacity: 3,000-3,500 MW) is implemented in eastern Nepal.

This project has been under consideration for over half of a century, and several feasibility studies have also been completed. The project's geographic proximity to Bangladesh could start immediately. Import of power from Bhutan and Nepal in the medium and long terms should remain a crucially important goal for Bangladesh, in order to meet the country's power demand after 15 or

20 years. Since the gestation period for negotiation and establishing infrastructure for such cross border trade is usually long (often three to six years), it is essential that efforts to this end are initiated without any delay.

Non-governmental researchers had been advocating in favour of integrated power trade in the GBM region for over 15 years, but the successive governments did not take any initiatives toward that end. It is encouraging to note that the current caretaker government has officially expressed the interest of Bangladesh in seeking and exploring possibilities of entering into power trade agreements with our Himalayan neighbours, and has included it in the agenda for sub-regional cooperation in the Saarc forum.

Dr Rasheed is Professor of Geography and Environment, University of Dhaka (currently on LPR).

## Practice of democracy and our political parties

KHANDAKAR QUDRAT-I ELAHI



**O**UR politicians do not practice democracy within their parties. This is one of the main reasons why three free and fair general elections held by the caretaker governments over the past 15 years have failed to institutionalize democracy in the country.

A key aim of the on-going process of electoral reforms is to force politicians to practice democracy in their parties, to make our political system acceptably democratic. However, a closer look reveals that neither the election commission (EC) nor our civil societies have proposed anything substantial which will help achieve this goal.

For example, the EC's press briefing, on April 05, on draft electoral reforms proposes that the constitutions of all registered political parties must have provisions for the formation of national and local level committees, and elections must be held for appointing members of those committees.

It is perhaps common knowledge that all our political parties have this provision in their constitutions, although they have not followed it faithfully and regularly. And making them obey their constitutions is a necessary condition for practicing democracy within parties, but certainly not sufficient.

This paper will illustrate the

required conditions for practicing democracy within political parties, and hopes that, if included in the forthcoming electoral rules, will go a long way in solving many critical problems that are making our political system ineffective.

The key word, which we must focus our attention on democracy in public administration or governance, the most crucial point centers on the question: To whom does the sovereign authority of the state belong?

In democracy, this authority

belongs to voters or people in general, and is vested in the institution of government. However, since the people cannot collectively exercise this power, they elect some their fellow citizens to run the government machinery on their behalf.

Second, they must nominate their party candidates for the national as well as local elections. When ordinary members are allowed to perform these two functions adequately, only then can a political party be said to be practicing democracy in the party.

How these democratic principles can be practiced in our country can be shown by describing Canada's example.

All major political parties in Canada have two parallel wings – political and parliamentary – and their structures and principles are very similar. However, since I am a member of Liberal Party of Canada (LPC), and have actively participated in many of its activities, I will describe the organizational structure and principles of this party.

The political wing of LPC is the base organization, and has countrywide set-ups. At the national level, the executive committee of LPC is composed of a president and a number of chairs for different departments.

They are all directly elected in national conventions for a period of

two years. These conventions are held every two years and delegates, nominated from the grassroots level set-ups and ex-officio both, vote in these elections.

The grassroots level structure of LPC, to which all ordinary members belong, is called a riding (constituency in our terminology) association. The riding association has a president and several directors directly elected in an annual meeting.

The parliamentary wing, or parliamentary party, on the other hand, is headed by a leader who is elected in the same way, in a special convention. This special meeting is called Leadership Convention, and the vote in this convention is called leadership vote. The leader of LPC is its head, and rightful spokesperson. All party members elected to Parliament become members of the parliamentary party or caucus.

The leader has no fixed term. However, his/her popularity is reviewed in every biennial convention of the party through votes taken in the riding association. It is also conventional in Canada that the leader of the party running a government resigns if the party loses in general elections.

The major advantage of this division is that the leader, and its parliamentary team, is primarily concerned with national and international policy issues. In our popular jargon, they are absolutely

absorbed in issues of good governance.

The political wing, on the other hand, is concerned with organizational issues including collecting membership, organizing meetings, selecting delegates for national and regional conventions, nominating party candidates for general elections, fund raising etc.

Although the two wings are separate, with two different kinds of executive, they are intimately integrated, as all the members of parliamentary team are involved with the appropriate level of the political party.

The second important function in which general members directly participate is the fielding of party candidates for general elections. Perhaps the point can be better explained by my experience here in Guelph.

The last general elections in Canada were held in January last year, in which LPC, which was running the government, lost. Immediately after the declaration of the results, the then leader of LPC, and prime minister of Canada, Paul Martin congratulated the leader of the Conservative Party, Stephen Harper, whose party formed the minority government.

He announced his resignation from party leadership at the same time. This opened the race for leadership. A new leader was elected in a special convention last September

(?). It is also important to note that most of the top leaders of Martin's team removed themselves from leadership activities. The new leader, Stephane Dion, a former political science professor, formed his new team with mostly new faces.

In Guelph, Brenda Chamberlain of LPC, who won three consecutive elections, opened the door for a new nominee by announcing her decision not to seek re-nomination for the next general elections. This she did in July last year.

After this, we saw two veteran Liberals mobilizing their campaigns to take Mrs. Chamberlain's place. They met their Liberal friends, collected new members and funds.

In March this year, the LPC leader Stephane Dion advised all riding associations to complete their nominations. Accordingly, on 12th instant, a nomination meeting was held by the Guelph riding association.

First, all nominators were given three minutes to introduce their candidates (there were four). Then each candidate was given eight minutes to describe his or her qualifications and future policies. After this introduction meeting, actual voting was held. Members of riding association, were allowed to vote.

After the voting was over, we again assembled in meeting hall and the winner, Frank Valorato, a lawyer, was declared. All the other contestants congratulated him, and promised him their support. From now on, the Guelph riding of LPC will be working united to win the upcoming general election.

This is, in short, how democracy is practiced in major political parties in Canada. This is perhaps common in all developed democracies. If this practice is absent in any country, then it must be understood that political parties in that country are using democracy to capture power for their own personal and group interests. Unfortunately, this has been the case with us.

Now, if we are serious about bringing reforms in our political parties and institutionalizing democracy in the country, then the above two steps must be made mandatory for organizing a political party.

In other words, the constitutions of all political parties must have provisions for these two principles: (i) two parallel wings – political and parliamentary – and (ii) party nominations awarded directly by ordinary members.

The advantages of these reforms ought to be crystal clear. They will have tremendous effect on money and muscle power in politics. It will make the MPs accountable to their constituents, and make people politically more conscious.

The author, who taught at Bangladesh Agricultural University and Brac University, currently lives in Guelph, Canada.

## Somalia in perpetual quagmire?

DR. IMRAN KHALID

**T**HE increasing incidence of clashes and violence in different neighborhoods (including the worst-ever episode in 15 years that engulfed over 1,080 lives at the end of last month) and an unprecedented, rapid exodus of inhabitants (over 300,000 since February) from Mogadishu have effectively erased any possibility of peace and stability in Somalia for the foreseeable future.

In December last year, when the Ethiopian troops dislodged the forces of the Union of Islamic Courts from the war-torn Mogadishu, political analysts started loudly talking about the possibility of some sort of settlement, but during the last four months such optimism has been swiftly evaporated into a gloominess and despondency.

External and internal stakeholders have been pulling this impecunious country from all sides. There is a long, unending list of such desperate stakeholders who have

been frantically wrestling and scuffling with each other to safeguard their own interests there.

Warlords and clan leaders, who hold immense influence over the divided society of Somalia, have pushed their country to this macabre point just because of their personal and economic reasons. Perhaps one of the main hindrance to peace in Somalia is the economic and business interests of the warlords, who have organized big business cartels to win the contracts from the UN and other aid agencies and earn tens of millions of dollars from these dealings.

These business cartels have their own regulations and, instead of paying taxes to the central government, they pay fees to each other for various business transactions. Last year, in a medium-size town run by a warlord, \$4 million were generated from the checkpoints.

The web of economic vested

interests to forcibly impose Islamic laws – are facing stiff resistance not only from the secular warlords but also from the general public. Now they have just been cornered to the southern part of the country after their retreat in December.

The third major player in the existing power struggle is Mogadishu's dominant Hawiye clan, which is now trying hard to push the Ethiopian troops to take charge of the capital and thus ensure a big share in the pie. The credit of the ongoing sporadic fighting in the strife-torn capital is traced to the Hawiye clan's intent to establish its authority in the major neighbourhoods.

The Hawiye clan, which has generally controlled Mogadishu since 1991, befriended the Islamic Courts against the Ethiopians and the Somali government, which is dominated by the rival Darod clan of Siad Barre.

Abdirin Darman, the leader of

Hawiye clan and self-declared president of Somalia, is a shrewd

politician who, on the one hand, has motivated his followers to keep up the fight in the streets of Mogadishu, and at the same time, has been working through behind-the-door contacts to generate enough political thrust to create a key position for himself in the future political set-up.

Against this backdrop the exist-