

Challenges in the Energy Sector: What Should We Do?

by Nuruddin Mahmud Kamal

** While our recent energy policy has taken into account emerging patterns of the developing world's scenarios and its reflection on the geo-politics of the globe, we must also determine how much we can depend on foreign private investment in future or, for that matter, what kind of dependency syndrome is developing in the power sector in particular.*

THE Government of Bangladesh faced formidable challenges in the energy sector harnessing its energy resources for sustained, long term socio-economic development and the more immediate challenge of overcoming gas and power shortages. That was the beginning of private sector power generation in Bangladesh.

However, in order to define the policy objectives and the strategies required to realize them, a number of questions would need to be answered. These questions may be: Does Bangladesh have sufficient proven natural gas to meet long-term domestic gas demand and also consider likely benefit from potential export possibilities of the country? If yes, what strategies would be most beneficial for the country? If no, why not? These dilemmas must be overcome at the earliest. In the electricity sub-sector what logical sequence of events under the reform process be most appropriate from the country's point of view? Whether the present public sector monopoly in generation be replaced overnight by private sector or a combination of public-private development would be more profitable for the country? In this context three most common approaches for achieving private sector participation in the electric power sector include, privatization of existing assets through the transfer of ownership; long-

term lease of public electric power for operation and maintenance by the private sector; and development, ownership, and operation of new electric power generation facilities by the private sector. To date, in Bangladesh, private sector participation has remained in the third category.

There were two intricate issues involved under this perception: one, a dynamic vision was needed to address the fast growing primary energy (gas) rich sector, and the other was to address the realities of power sector and improve management forthwith. The task of securing adequate investment for meeting the growing demand was very difficult. These challenges implied firming up maximum commercial and economic value for gas, however without jeopardizing the interest of the country. The National Energy Policy 1995, acknowledged that the shortages of capital had prevented systematic development of energy resources throughout the country and that necessary attention had not been given to policies that could bring forth needed in-

vestment from the private sector. In October, 1996 the Government approved, as a follow-up of Energy Policy 1995, Private Sector Power Generation Policy of Bangladesh to promote private participation. That was the beginning of private sector power generation in Bangladesh.

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MW from the public sector. This by no means is a small achievement for any government in Bangladesh, at least from the point of view of challenge faced today.

While through transparent and competitive bidding, the negotiation with the IPPs were conducted as per procedure, one donor observed about the progress, "at risk due to delays forced by institutional problems and inter-agency feuds." These are perplexing and unwarranted observations, which did give rise to an impression that the private sector operators must be given out anything and everything without any scrutiny and at their asking terms. Unfortunately, because of undue patronage, at least one IPP managed to hedge vital details of their offers right from the beginning which almost jeopardised the negotiations. Apparently, the company still have some unbusinesslike plans up their sleeves. The government and the authorities concerned must be on guard

during the period of implementation to protect the national interest. Such examples do make the host country very suspicious about the private sector deals.

Indeed, the Government is aware about positive international attention that Bangladesh has achieved through those competitive and transparent bids. GOB has already taken some steps in the private power investment and is now initiating measures to address other critical issues relating to overcoming infrastructure bottlenecks and institutional constraints in expanding the opportunities for use of commercial energy. But nothing seems to matter regarding the dilemma in energy consumption, particularly the non-conventional or non-commercial energy fuels development and their distribution in the rural areas. The government apparently is indifferent about any institutional support to augment the current unhealthy situation.

The Government however is

committed to identifying and overcoming constraints that limit the efficient transmission and distribution of gas and power. The high priority placed on these aspects came into sharp focus after the Hon'ble Prime Minister Sheikh Hasina took charge of the Ministry of Energy and Mineral Resources (MEMR). GOB's willingness and determination to allow private participation in gas and power has since been reinforced. Issues relating to deregulation is being looked into to address some deep-rooted problems in the under performing public sector organizations.

Reportedly, actions are underway to commercialize as much as practically feasible state owned companies and create more opportunities for increased investment. The Government is clearly looking towards the private sector for much of the investment requirement. Although many conditions do not appear conducive but the timing appear to be appropriate for implementing a credible reform pro-

gramme for the electricity and gas sectors, perhaps with the themes of decentralization, demobilization and commercialization.

Amongst others, a number of critical issues lingered the development of energy sector in the past which include, but not limited to, donor assistance and shortages of fund. In fact, financing of energy projects largely remained in the quantitative areas rather than the extent and quality of energy services. Moreover, due to non-systematic exploration and exploitation of hydrocarbon, lack of attention to institution building and institutional support for new and renewable resources of energy, hardly any balanced development of energy resources commenced. Though delayed, some attention has now been given to encourage private sector participation to supplement and complement the public sector efforts to fill in the gap of shortages of fund in the government coffer. Indeed, other development programmes like industrial development etc. have been constrained due to shortage and unreliable supply of natural gas and electricity. The fact of the matter is that organizations dealing with commercial energy have not been operated and managed efficiently. Worse still is that proper and adequate attention was not given to meet

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Will the Genetically Engineered Crops Do More Harm than Good?

by Professor A. S. Islam

In view of the existence of two diametrically opposite views, one in favour and the other against GMOs, the developing countries like Bangladesh, where biotechnology is in its infancy, are confronted with a very difficult situation — which to follow.

means of which a plant or an animal can be genetically modified through insertion of hereditary material called genes from a completely unrelated organism, say a gene from a bacterium to a plant or from a human to a bacterium. Such modified organisms are called transgenics. GM, GE and transgenics are synonymous. Say, for instance, there are American cotton transgenics containing a gene from a bacterium (*Bacillus thuringiensis*); the plants of this variety produce an insect-toxic protein which kills cotton bollworm. The latter is an arch enemy of American cotton wherever it is grown. There are American cotton varieties which, in addition to containing genes for resistance against insect pests, also contain a gene which imparts to it resistance against a popular herbicide called Round-up. The last-mentioned varieties of cotton can be grown with reduced tillage and minimum of insecticides, thus saving top soil on the one hand and ground water and air from pollution on the other.

How do we account for diametrically opposing views between USA and Europe in regard to the GMOs? According to an article of Roger N. Beachy published in the 16th July issue of the presti-

gious journal, "Science", of the United States, the field trial with GMOs started in 1986. It took several years for the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) to evaluate the GMOs under field conditions before they recommended release of such genetically transformed crops. In the assessment of performances of GMOs, all concerned quarters: scientists, consumers, breeders, FDA, EPA and actual users were involved. FDA and EPA cleared the GE crops because they found them superior in their performance over conventional varieties.

Within the last three years GE crops became so popular that currently 40 per cent of corn, 50 per cent of cotton and 45 per cent of soybean varieties grown in the United States during the current year are transgenics.

Reasons for non-acceptance of GMOs in Europe: According to Beachy, non-acceptance of GMOs by Europe is due to a growing number of editorials in

the dailies in a grossly exaggerated language about the dangers of GMOs and secondly European decision makers in recommending GMOs did not seriously take into consideration farmers' opinion and those of others concerned in such an important matter. As a result in Europe, including England, the public opinion is growing very fast against the use of GMO crops. The opinions expressed by NGOs influenced public's decision to keep away from the GE crops. In fact, European countries except Great Britain have imposed a ban on the import of GMO crops.

Some NGOs in Great Britain e.g. Greenpeace are so much against GMOs that whenever they get a chance, they destroy the field where such crops are grown. On the 25th July edition of some leading British newspapers, photographs appeared on the front page showing the destruction of such crops by the Greenpeace members.

Voice against use of GMOs is gradually building up in the USA: Recently in the United

States also voice is being raised against GMOs. This group is discouraging the cultivation of GE (Bt) maize arguing that as against bumper crop in certain regions such as Prairie, yield of GE maize in some areas is below average and that already in certain areas the crop is under severe attack of corn borer.

Prince Charles is also against GMOs. The campaign against such genetically tailored crops is supported by no less a person than the Britain's future king Prince Charles. He challenged those who advocate that the increased productivity of GMOs will not only feed the hungry mouths of developing countries where food shortage is chronic but the built-in-resistance of GMOs will greatly reduce the use of insecticides saving the environment from further pollution. Prince Charles said that more in-depth research is necessary to establish the fact that GE crops are safe for human and animal consumption before they are released to the market. He said that if multinational compa-

nies diverted a part of the huge amount of money, being spent now by them in developing GMOs, to research for improvement of existing crops, there would be comparable varieties to bridge the food gap. Such improved varieties would ensure, on the one hand a safeguard against genetic erosion, and on the other allow the small and marginal farmers planting their own crops to feed themselves.

What should countries like Bangladesh do in the face of such conflicting views about GE crops? In view of the existence of two diametrically opposite views, one group in favour and the other against GMOs, the developing countries like Bangladesh, where biotechnology is in its infancy, are confronted with a very difficult situation — which to follow.

Within the last time this petition came up for hearing was on 10/3/99, but it was adjourned for want of time. The application and petition are still pending and will come up again for hearing.

The present legal position is as far as the five acres of the 30 acres is concerned R2 claims it to be in his possession. The Society disputes the possession. The court has restrained R2 from raising any construction thereon. As to the remaining 25 acres, they are in the possession of the Society and the court has directed that this possession will not be interfered with. This order is still operative. The order of the Sindh Government dated 4/5/91 remains suspended.

Now to a quotation which I have used many a time before, an excerpt from a letter written to The Times (London) in February 1987: "Those who fear that fields will lose to bricks and those who might hope to gain from such an exchange would do well to remember the age-old anecdote within my garden, what would be the cost?" asked Queen Anne. "A monarchy, replied Robert Walpole. "Each successive time, this has fallen on ignorant, deaf, and deafener ears.

Why do we need to confine ourselves presently to non-food

crops? Based on scientific proofs, those against GMOs argue that production of resistant varieties containing genes such as Bt is not a permanent solution. Over a period of only a few years, such transgenics lose their resistance against the particular pest the variety is bred for. Secondly, the pollen of GMOs by cross-fertilizing with their relatives may create superweeds which would defeat any attempt to eradicate them from arable land even by the strongest weed killer/herbicide. Thirdly, humans may not show any symptoms of harmful side effects immediately after the consumption of such food but the group thinks that the bad effects of foreign genes may surface subsequently during the life time of individuals using GMOs or in their progeny.

Would transgenic jute or cotton pose such a problem? Jute crop suffers a great loss from the attack of hairy caterpillars. Obviously, varieties containing Bt gene will be resistant to such a pest. Of the two species (*Cörchorus capsularis* and *C. olitorius*) of jute which yield "White" and "Tossa" brand of jute fibres respectively, NBI may initially confine itself to "White" (*C. capsularis*) varieties only, because first it's self-pollinated and as such it would not cross-fertilize with non-GMOs; and secondly *C. capsularis* has no wild relatives and it does not cross with either the cultivars or wild races of *C. olitorius*. As such it's extremely unlikely that it would produce superweeds infesting jute fields.

However, people should be warned against using jute leaves as one of the items in their diet.

What about the GMO varieties of jute retaining its power

of resistance? Techniques have been standardized to slow down the development of Bt-gene resistant caterpillars. It has been demonstrated that if the planting is done with GMO's and non-GMO's in the ratio of 4:1, toxin-resistant insects do not develop or develop very slowly, if at all. Recently a super Bt gene, which is reported to kill the newly developed resistant strains of caterpillar, has been discovered in Egypt. If necessary such genes may be used to breed new varieties of jute capable of warding off the future enemies of jute. As regards growing GMO American cotton with Bt gene, the risk is not very high because in the first place American cotton is not an indigenous crop and so chances of development of superweeds are extremely rare. American cotton does not cross with the Asiatic cotton, the ceerneus variety grown in Bangladesh; so development of weeds from the crosses of American cotton X Asiatic cotton is very unlikely.

Genetically Engineered Aspen varieties with 40 per cent less lignin. Early this month a genetically engineered Aspen tree fit is a kind of poplar tree with 40 per cent less lignin has been reported by Professor Vincent Chiang of Michigan State University. This variety of Aspen will be extremely useful to the paper industry; first it will save millions of dollars now used to bleach excess lignin; secondly, freedom from use of chemicals will keep the environment clean.

The second area of research should be to produce transgenic jute varieties with less lignin similar to transgenic aspen tree reported recently in a joint venture between a university and a private company.

Slow Poisoning

by Abul M Ahmad

MILLIONS of people in Bangladesh are subject to some form of slow poisoning from one cause or another. Slow arsenic poisoning (through drinking water) in the rural areas have drawn global media attention.

In politics, acute bipartisanship has seemingly caused to use a mixed metaphor, gastritis in the minds of millions of adults; the freedom of thinking is full of hiccups, causing jolting democracy to be full of pot-holes. This polarisation is due to the self-denial absence of the politicians in the governance of the new state for long 16 years, with the infiltration of other autocratic coteries grabbing power to rule the country in a regimented manner.

In 1999, after two successive democratic general elections since the beginning of the decade, the two main political parties (holding 71 per cent or more than two-thirds of the votes) are still engaged in bitter but un-enhanced tug of war which is not pushing the country forward; as most of the energies are spent on each other, leaving little for national consensus.

The latter is a paradox, where the rivers on the map look like roots of a tree in this deltaic region; but all fall into the Bay of Bengal. However the mighty political leaders cannot find the Bay of Political Consensus. There is no place to fall or discharge except upon each other!

Corruption and nepotism combined is slowly choking the moral arteries of the nation due

to formation of political choleritis within the system. This causes social hypertension of the negative culture; sprouting several types of byproducts. God is invisible, so are the mortal godfathers of Bangladesh; whose hobby is puppet-dancing, through manipulation of the strings from behind. Terrorism and rent-collecting have firmly established themselves in the society; where even the police cannot defend themselves, not to speak of defending the citizens.

In desperation, the authorities have started bulldozing the slum areas (vote banks earlier), suddenly evicting thousands of poor families on to the streets. "Go back home" (in the rural areas) is the official admonition; citing thousands of empty bottles of narcotic drugs, arms and ammunition, found during the raids from the dens of the criminal and unsocial elements. The drug addicts and traffickers hide in these poor slum pickets using it as camouflage — the fingers point again to the political and millionaire godfathers. The foreign donor agencies are mostly perturbed at this sudden blitz. One policeman sacrificed his life and created a startling administrative secret.

The India bogey is increasing the communication gap and provides handles to activists to take sides. The grafted brother is indiscipline. The alibi are the parties opposing the regime. Noted political analyst Gaffar Chowdhury has termed sick politics is also taking its toll in the country of tolls.

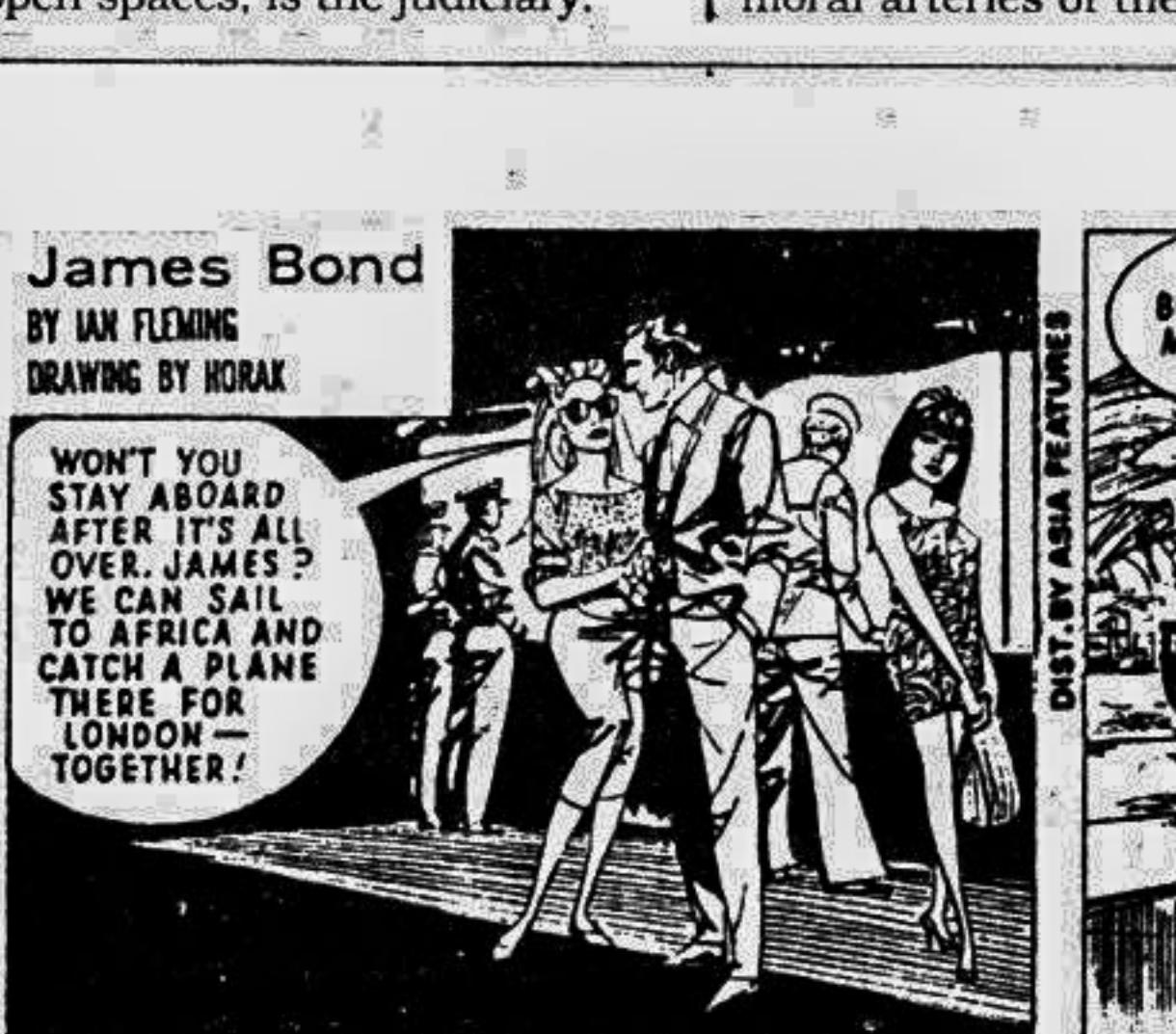
One party has the anti-liberation monomaniac, while the other is out to create anti-Indian doubts in the citizens. Partisan patriotism is at a premium in the political market place, and many types of discounts are offered, but there are few takers. Both the parties are spending more energy on each other, hardly leaving any energy for the national problems.

But it appears that the present hoary and fossilised politicians cannot bring about deliverance; we have high expectations from the young generation.

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