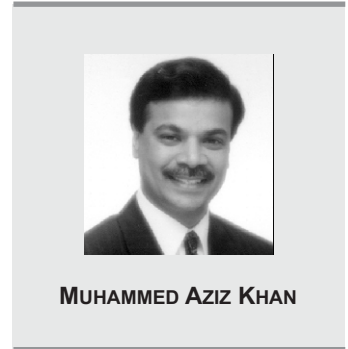


# Natural gas: The way forward



MUHAMMED AZIZ KHAN

BAKING has never come across an opportunity as profound for its economic development as finding substantial natural gas in Bangladesh. Thus it is vital to know how such natural resource is utilized and the composition of its policy framework. In the recent past the Government of Bangladesh (GOB) has brought out two national committee reports, namely "Committee Report on Utilization of Natural Gas in Bangladesh" and "Report of the Committee for Gas Demand Projections and Determination of Recoverable Reserve & Gas Resource Potential in Bangladesh". A study of these reports and other prevailing facts and past global experiences may show us the way forward.

We have seen that investment by multinational companies in energy sector of a developing country like Bangladesh, has typically resulted in loss to the nation, both monetarily and in morally. We have seen Nigeria fall into the abyss of poverty and corruption. The key for a successful investment is the development of 'local capacity'.

The "Committee Report on Utilization of Natural Gas in Bangladesh, August 2002", seen as present facts, expresses the above experiences. The Production Sharing Contracts (PSCs) are a national shame, because we as a nation did not have the capacity to understand the PSC before their signing or were corrupt and kept a blind eye.

**Facts**  
1. Through these PSCs we are required to buy gas at Approx. US\$2.70 per thousand cubic feet (MCF) when the per capita income of our country is less than US\$400 and citizens can ill afford to buy gas at the local rate of even US\$1.40 per MCF.

2. When our state company, although full of inefficiency, requires Tk 8 to produce one MCF of gas, the so-called efficient multinational companies require Tk 35 to Tk 56 to produce one MCF of gas and we pay for this cost in the purchase price US\$2.70 per MCF.

3. The fact is even with such exorbitant cost, the multinational companies are profiting 31.41 per cent, whereas Petrobangla is losing money. The indigenous private sector is not a party to this profit and the business is kept apart from them. Moreover, 80 per cent of Bangladesh receives no commercial energy.

4. The fact is, to supply the unmet demand of gas up to the year 2020 the required purchase

sector is the most important tool for fostering economic activities and economic development. However, the private sector of Bangladesh has not been able to play a significant role in the gas sector or its utilization. The developed countries realize this. One may recall when President Bill Clinton came to Dhaka he spoke for Unocal, a private sector enterprise of the USA. When Prime Minister Tony Blair came to Dhaka he spoke for

take an active part in the distribution either by taking over existing distribution companies or part of their network. The GOB should develop appropriate regulation and provide local private sector with legal support to ensure and foster collection of bills.

iv. Even in the electricity sector small power projects of up to 50MW can easily be implemented by local private sector. In fact small power plants are the best option for

extraordinary return to IOCs, 31.41 per cent margin of profit according to national committee report.

c. The IOCs should renegotiate these contracts for their own interest: (i) to decrease price of gas, (ii) to increase their sales from 100MMCFD of gas to 400MMCFD and to act as responsible corporate citizens of Bangladesh.

d. Decision on export of gas should be primarily based on commercial terms and should be transparent and the process and procedures involved in export should benefit the people of Bangladesh.

Contracts are not written in stone and the above reasons can enable Bangladesh to renegotiate the PSCs for benefits of all parties involved.

vi. The way forward is to decrease our petroleum, petrol, and diesel etc. import bill of about US\$655 million. This can be done by assuring availability of CNG, providing incentive for import of CNG run commercial vehicles. Our railway system can be converted to use electricity, decreasing import bill and supporting clean environment. Probably 200MW power plant can support the whole railway system.

It is impossible to believe that Bangladesh cannot solve her energy crisis when we have for certainty 12TCF to 60 TCF of gas. A small country of 55,000 square miles, almost square in shape with 130 million energy hungry customers, desperate to improve their lives and lot. And only a relatively small amount of US\$2-3 billion investment in next 10-15 years, at a time when the dollar interest rate is 1.35 per cent, and Bangladesh claiming to have very good macro economic conditions. These are not problems. These are solutions.

v. As for the Production Sharing Contracts (PSCs), an objective look will show failures of the IOCs beyond reason.

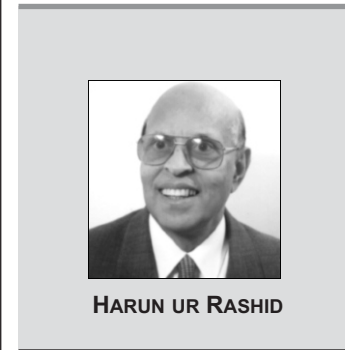
a. Starting from the failure at Magurchhara, where a blow out has cost Bangladesh more than \$600 million (damages have been claimed by Petrobangla to Unocal), it can be attributed to exorbitant costing, failing to invest according to contracts. Change of circumstances has also taken place. Some of the foreign energy companies working in Bangladesh have their stocks and bonds relegated to junk status in the recent past.

b. Secondly, to put the matter into perspective, let us see two provision of the PSC (i) The average profit gas ratio of 37.5 per cent is too high in the back drop that the contract was negotiated keeping in view that in every 7 exploration wells one becomes successful. But in fact in Bangladesh every 2.2 wells resulted in one success. Therefore lesser investment was necessary than expected at the time of contract. (ii) The price indexation, 75 per cent of Singapore Furnace Oil Price with lower benchmark at \$70 per ton and upper benchmark of \$120 Per ton has persistently remained on the upper bench mark providing

The objective should be to provide domestic and commercial energy to the people of Bangladesh. Let us hope the country will provide the rightful opportunities to her business people and we shall in turn empower Bangladesh.

Muhammed Aziz Khan is chairman of Summit Group of Companies and Khulna Power Co Ltd.

# Visit of Iran's President to Pakistan Its wider implications



HARUN UR RASHID

IRAN'S President Mohammad Khatami paid a visit for the first time to Pakistan and met Pakistan's President General Pervez Musharraf on 23 December in an atmosphere of friendship and cordiality. The Pakistan President ceremoniously awarded the highest civilian award "Nishan-e-Pakistan" to President Khatami for his policy of peace and reconciliation. During the visit three agreements were reportedly concluded in areas of science and technical cooperation and related fields to deepen and widen their bilateral cooperation. The visit took place in the context of a new favourable political environment between the two countries. In the past Pakistan and Iran did not see eye to eye in the affairs of Taliban-ruled Afghanistan. In fact they were in opposite camps. Iran supported the Northern Alliance led by late Ahmad Shah Masud to fight against the Taliban and Pakistan lent its support to the Taliban regime led by Mullah Omar. Pakistan was one of the three countries which accorded recognition to the Taliban regime while Iran perceived the Taliban regime a deviant from Islamic precepts.

With the collapse of the Taliban regime at the end of 2001 caused partly by Pakistan's support to the US led attack on Afghanistan, Iran and Pakistan are now politically on the same wave length with respect to Afghanistan affairs. Both support Karzai regime in Kabul and have pledged not to interfere in internal matters of Afghanistan. President Karzai visited both countries to keep a delicate balance with its key neighbours.

Iran is Pakistan's neighbour and its western province of Baluchistan shares borders with Iran. Both countries have large populations, about 76 million in Iran and about 143 million in Pakistan. Both are Islamic countries and members of the Organisation of Islamic Conference (OIC) and members of D-8 regional institution consisting of eight Muslim countries of Asia and Africa. Both in the past (1955) were members of US led Military Baghdad Pact, later called Central Treaty Organisation (CENTO) to contain communism in the Middle East.

At present Iran, according to the Bush administration, is a part of "axis of evil" while Pakistan is a close ally with the US in its fight against global terrorism. Both countries have geopolitical importance to

## BOTTOM LINE

The fact that Iran and India are cooperating in the gas pipeline project through Pakistan testifies Iran's diplomatic success in the region. In Islamabad Iran's President indicated that its cordial relations with both India and Pakistan would be a stabilising factor in Indo-Pakistan relations.

the US and strategic value. Furthermore Iran is the third largest oil producer in the Organisation of Petroleum Exporting Countries (OPEC) with about 15 per cent of world's gas reserves.

In the regional perspectives the visit augurs well and is to be stoutly welcomed. However, it appears the visit may have raised some concerns in the US and there could be several reasons.

The US is concerned about the horizontal spread of nuclear technology in developing countries. In the tense atmosphere of North Korea's declared resumption of nuclear plants, the US may perceive that Pakistan might sell nuclear know how to Iran. Two factors have worried the US. First Russia has been engaged in building nuclear plants in Iran and second, Pakistan allegedly assisted North Korea in passing on nuclear technology to make nuclear bombs. In fact according to the US media North Korea may have three nuclear bombs in its possession. In the light of this background the meeting of minds between Tehran and Islamabad is not all that comforting to the US.

Pakistan has agreed and concluded an agreement with Iran to lay a pipeline through its territory to export Iran's gas to India. Iran will receive about 3.5 billion dollars from this project. In this connection it is noted that the US had been successful in ensuring that Caspian Sea oil or gas does not pass through Iran. Azerbaijan would export Caspian oil through pipelines via Georgia and Turkey to a Mediterranean port, bypassing Iran and Russia. The US under law threatens retaliation against companies which invest more than US\$ 40 million in Iranian petroleum projects. In the light of this policy the US appears to be unhappy to see billion of dollars go to Iran out of a gas project.

The US has another matter to worry about. That is many Taliban or Al Qaeda supporters have fled either to Iran or Pakistan. The recent skirmishes between the Taliban supporters and the US forces in Afghanistan demonstrate that all is not well in that country. It seems that the Taliban supporters are regrouping themselves in the East of Afghanistan (Paktia province) to relaunch attacks to harass the US armed personnel. The Taliban supporters who took refuge in Iran might be a danger to the Western

part of Afghanistan (Herat region). Iran reportedly denies their presence on the soil of Iran. Furthermore, the US alleges that Iran provides support to the Islamic militants in the Middle East and opposes the Israeli regime.

Iran has emerged as a regional power in the Middle East and key European Union countries and Russia have open policy to undertake trade and commercial ventures in Iran. Furthermore, Iran has been able to patch up differences with Arab countries. Tehran hosted the Islamic Summit in December, 1997 where all Arab leaders participated including the King of Saudi Arabia. In economic terms, Iran has maintained a respectable growth rate (over 5% per cent) of Gross Domestic Product for several years. Its economic and military strength as well as its diplomatic interaction with Europe and Russia is being used to consolidate its power and influence in the region.

In the event of war with Iraq, Iran's view has been clear. Although Iran does not approve Saddam Hossain's regime with which Iran fought an eight-year war (1980-88), Iran is critical of US's aggressive policy towards Iraq. Iran perceives US policy as a part of hegemony over the Middle East including its oil.

The US will be able to control the supply and price of oil in the global market if a new regime is installed in Baghdad, thereby curbing the influence of OPEC. Furthermore Iran's small islands in the Persian Gulf area could have significant implications to the proposed invasion of Iraq from the sea.

Iran maintains good and friendly relations with India. The fact that Iran and India are cooperating in the gas pipeline project through Pakistan testifies Iran's diplomatic success in the region. In Islamabad Iran's President indicated that its cordial relations with both India and Pakistan would be a stabilising factor in Indo-Pakistan relations. Iran's growing influence in India may not appear to be a pleasing development for the US.

In view of the above factors the visit of Iran's President to Pakistan assumes a wider significance and not simply confined to bilateral relations between Pakistan and Iran.

Barrister Harun ur Rashid is a former Bangladesh Ambassador to the UN, Geneva.

The way forward is primarily with the indigenous private sector, with support from the civil society and the GOB. The importance of the private sector participation cannot be overemphasized... In a free market economy local private sector is the most important tool for fostering economic activities and economic development... The indigenous private sector may be allowed to get involved in the energy sector... Given a level playing field, the private sector can participate in so many fields. The way forward is to have personnel with adequate commercial savvy at the helms of reforming the energy sector... The challenge that we have is a mental one... to start thinking about a local solution, to believe in people, to evolve solutions based on local private sector resources.

cost from Petrobangla's gas field will be US\$941.5 million versus US\$2942.36 million from International Oil Companies (IOCs) gas, a difference of three times, which is more than US\$2 billion.

5. Until 1997, Petrobangla was a profitable company. But burdened with the PSCs gas, Petrobangla has lost Tk 1860 crore.

6. IOCs neither pay any taxes on gas production, nor pay any income tax to the GOB. Therefore the GOB or the people have no earning from IOCs gas.

**The way forward**

Now for the way forward. An investment of US\$300-600 million can augment Petrobangla's gas supply by 650 MMCFD providing pay back in a little over a year's time. Is this amount too much for Bangladesh? Hasn't the local private sector invested more than US\$8 billion in textiles and garment industry? Is there not excess liquidity of Tk 72.36 billion in commercial banks? Does not the GOB have over US\$2 billion in current account? Unfortunately, the 'Committee Reports' did not do justice to the local private sector. It never considered them as a solution, as a tool of developing the energy sector. It is unfortunate that the writers of the two reports did not comprehend the potential of the country's private sector.

The way forward is primarily with the indigenous private sector, with support from the civil society and the GOB. The importance of the private sector participation cannot be overemphasized as the future of the country depends on the capacity of this sector. In a free market economy local private

Shell. Unfortunately, none of our governments have supported the local private sector, nor the civil society argued effectively for the private sector.

The indigenous private sector may kindly be allowed to get involved in the energy sector -- the most vibrant economic sector of Bangladesh and to continue to remain so in the foreseeable future. Given a level playing field, the private sector may participate, among others, in the following activities:

i. Integrate the local private sector as partners of BAPEX for funding and management. In such a case either we require few private companies to work together, on an exploration block (like Tullow, Cairn and Shell do it together) or divide a block into 3-4 wells, allowing investment of say up to US\$30 million. This will bring in private sector efficiency and funds to BAPEX's technical know-how.

ii. In transmission of gas, local private sector can implement pipeline projects under build, own and operate (BOO) basis. Bangladesh is a small country in land size, almost covered with alluvial soil. Transmission lines need to go through only 100-150 km of soft soil, which is easy to do and inexpensive to lay. For example, Summit in association with a Chinese company, has laid a 54 km of 30" pipeline from Rashidpur to Ashuganj for only US\$23 million. Local companies will be quite willing to set up such transmission lines under BOO.

iii. The local private sector may

Bangladesh given its electricity demand curve, excessive cost of electricity transmission due to extensive civil construction requirements (which is not necessary in small plants) and the ability to invest by the local people. The efficiency of small engines is also comparable to large power plants.

v. As for the Production Sharing Contracts (PSCs), an objective look will show failures of the IOCs beyond reason.

a. Starting from the failure at Magurchhara, where a blow out has cost Bangladesh more than \$600 million (damages have been claimed by Petrobangla to Unocal), it can be attributed to exorbitant costing, failing to invest according to contracts. Change of circumstances has also taken place. Some of the foreign energy companies working in Bangladesh have their stocks and bonds relegated to junk status in the recent past.

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# Mainstreaming pre-lingually deaf children: Early intervention is the key

KANON K ROY

AN individual having hearing impairment faces tremendous social barrier in everyday life that results in social isolation and ultimately decreased quality of life. This issue becomes more important and complicated when a pre-lingually deaf child is concerned.

Approximately one in a 1,000 children is born deaf and many more are born with less severe degrees of hearing impairment, while some others develop hearing impairment during childhood. Hearing impairment during infancy and early childhood directly and adversely affects (retards) the development of speech and verbal language skills. Significantly reduced auditory inputs also has got harmful effects on social, emotional, cognitive and academic development and even on vocational and economic potential of a person. The development of speech and language as a means of most effective communication in the life span of an individual is supposed to be one of the most complicated and mysterious events that happen apparently automatically. But in fact, meaningful speech is not something that develops out of the blue. Many skills have to be acquired before intelligible words can appear. A variety of vocalization and repetitive babbling pattern precede speech in normally hearing babies.

The first three years of life of a child is considered to be the most important period for language and speech development. Sound being the acoustic signal is finally transmitted to the brain as electric impulses processed through different parts of ear and lastly through the auditory nerve. These electric impulses are finally interpreted and perceived as sound by the concerned brain tissue. But this needs lot of natural training and many hours of auditory input. To produce a meaningful word a normal hearing child needs around 4000 hours of auditory exposure. The most important and alarming issue is that the tuning method of learning to interpret the sound signal (as electric impulses) becomes inactive gradually after a certain age (generally after six years) and without having any auditory input during these initial years the elasticity of learning

to interpret sound signal by the brain tissue gets lost, which means without hearing sounds for this initial period the brain loses the capacity of understanding the meaning of sound. A hearing impaired child if unidentified and/or not attended with any habilitation measure for this period the child gets no or little auditory input and ultimately he/she misses this very important period of learning to interpret and understand sound signals. As a result he or she fails to develop speech and spoken language. The degree of hearing impairment impacts on a child's development and other factors can further embitter the consequences of hearing impairment. For example, some children have additional sensory disabilities and/or associated neurological disorders that further interfere with perceiving and processing information. Environmental factors, such as the quality of language input provided by parents and care givers can either facilitate or impede communication skills. Early identification and intervention can address these factors and can minimize their effects. There is general agreement among the experts working in this field that the hearing impairment should be identified as early as possible after birth so that the habilitation programme can take full advantage of the plasticity of the developing sensory systems and thus the child can enjoy normal social development.

Early intervention is directly related to early identification of hearing impairment and early intervention is very uncommon in our country. Almost every deaf child loses the first valuable three years of life, important for speech and language development, by the time his or her hearing impairment becomes detected properly and minimum remedial measures take place. Now the most important question is what are the consequences of late identification of hearing impairment? The answer is -- delayed speech and language development and most likely the loss of capability of developing the same. We have to believe and keep it in mind that early identification of pre-lingual deafness leading to a proper habilitation programme can facilitate the child's speech and language development. It is possible to utilize the residual hearing of

this group of children by amplification of acoustic sound using hearing aids, and through the habilitation programme they can develop spoken language and ultimately can be mainstreamed. In case of profound or total deafness where the conventional amplification of sounds through hearing aid is not effective the bio-electronic device 'Cochlear Implant' can provide significant benefit with improved perception of sounds.

Before discussing the useful and efficient habilitation measures the questions that bear most significance are -- 1) which children should be screened for hearing impairment and when, and 2) what are the preferred tests for hearing

newborn undergoes hearing screening in first few months of life in a country like Bangladesh, where minimum health care services are not available to most of its citizens. It can be stated without hesitation that hearing care is the most neglected part among the health services available even in the major cities. This is also amazing that none of the public and private hospitals and diagnostic laboratories has any hearing screening facilities. Considering the socio-economic and medical facilities available in Bangladesh realistic approach towards management of pre-lingually deaf children should initiate as soon as possible. Along with government health sectors

dates selected by the field workers and all the doubtful and complicated cases should be screened here with appropriate tools and expertise. In these laboratories there must be a group of audiologists who will accordingly evaluate the degrees of hearing loss along with the confirmation of the hearing impairment of the positive candidates. There must be the facility of having consultancy of neurologists at least on visiting basis, so that any additional neurological problems can be identified before the child is placed in any intervention programme. The audiologists must assess the referred children with all the modern diagnostic tools, select and suggest the appropriate assistive devices

through ABR is desirable. Those who pass the EAOE screen should be discharged but who fail should face ABR. Babies passing the second screen i.e. ABR can be discharged but should be flagged for rescreening at 3-6 months and babies who fail ABR should be referred for diagnostic evaluation to determine the type and severity of hearing impairment and to initiate the remedial programme for the child and the family. Auditory neuropathy -- another complicated hearing disorder -- could be identified as the babies undergo screening through this twofold programme.

Intervention to the hearing impairment actually addresses the

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screening and follow up?

The answer to the first question as per recommendation of National Institute of Health Consensus Development Conference, 1993, USA is that every new born should be screened for hearing within the first three months of life. It is clear that the earliest possible identification of hearing impaired infants is optimal for effective intervention to improve communication skills, language development and behavioral adjustment. The cost of appropriate screening (universal screening) however has been prohibitive. In the USA attempts had been made to limit costs by focusing neonatal testing on those at highest risk, although this approach missed 50 per cent of children who were eventually diagnosed with severe to profound hearing impairment. Researchers have shown that infants admitted to the neonatal intensive care unit (NICU) have an increased risk of significant bilateral sensorineural hearing loss (1-3%). Infants with camiofacial anomalies, family history of hearing loss and diagnosis of intrauterine infection comprise a special high-risk category. So at least these high-risk babies should be mandatorily screened for hearing loss preferably before releasing from NICU.

We cannot expect that every

NGOs working in the field of health care might play an important and significant role in this regard. Programme may be developed comprising groups of health workers trained specially to identify the symptoms of hearing loss by behaviour observation and to analyze the apparent medial condition, examine findings and statements of the parents that reveal any doubt about the hearing status of the child. They will have to work in deep rural areas and in their regular visits they can keep record of every new born along with family history, specially related to hearing loss, can record any incidence of bacterial meningitis, any incidence of head trauma with persistent symptoms referable to hearing or balance, etc. Those who will be working in the field should have to be equipped with formal language assessment tools and their approach should include ongoing evaluation of speech and language development at their routine child hearing health supervisory visit. Failure to attain appropriate language milestones specially during the first 18 months of life should result in prompt referral for higher hearing evaluation.

In the second and final stage there should be a number of hearing laboratories where there must be the standard hearing screening facilities and the positive candi-

best fit for any particular child. Accordingly the child should be placed immediately in the intervention or habilitation programme, which should have a strong collaboration with these hearing laboratories.

Answer to the second question is a bit technical and the persons having some knowledge in the fields of audiology are supposed to understand better. Pre-lingually deaf children mostly suffer from different degrees of sensorineural deafness or nerve deafness. In order to detect those children born with moderate, severe and profound hearing impairment universal newborn screening is recommended. The programme consisting of two techniques EAOE (Evoked Oto Acoustic Emission) and ABR (Auditory Brainstem Response) has shown maximal promise as universal screening tools for the newborn, although each technique has its unique advantages and disadvantages. EAOE shows best promise as a rapid, cost-effective means of quickly identifying babies with normal auditory system. However, in keeping with its high sensitivity the EAOE lacks adequate specificity and fails in case of a number of babies whose hearing is normal. In order to prevent these false alarms second and confirmatory screening

habilitation measures targeting the development of speech and spoken language. Habilitation is a teaching/learning process in which the experts guide the parent to facilitate development in the child. Spoken language develops as a result of listening, and listening develops as a result of search for meaning. As early as six months a hearing infant comes to realize which acoustic cues are important for meaning. Language emerges to meet the complex and developing needs of the child to make choices, reject offerings and share experiences with those around him or her. The most important matter in case of a hearing impaired child is to determine whether an amplified (through hearing aid) or processed signal (through cochlear implant) is necessary and sufficient for this process to occur.

Early identification of hearing impairment becomes meaningless unless there is an early habilitation programme for successful intervention. The role of expert or clinician in a habilitation programme is to facilitate acquisition of listening, speech and language in normal developmental order. Regarding habilitation of a pre-lingually deaf child we will not discuss here the sign language of the deaf. Because sign language is a signing system

and has no spoken syntactic equivalent. With sign language and without spoken language you cannot habilitate a deaf child in the mainstream. There are several approaches of habilitation and choosing the method depends on the parents when all the approaches are available in habilitation centers. The most important thing at the beginning of the habilitation programme is to assess the degree of hearing loss and make a proper evaluation of his/her residual hearing and to select the appropriate assistive device according to the need. In cases of mild to severe degree of hearing loss and in some cases of profound hearing loss hearing aids are useful, but selecting and fitting the same appropriately bear huge importance and depend on the experience and expertise of the audiologist concerned. Cochlear Implant is a bio-electronic device that is surgically implanted in the inner ear (cochlea) of the patient and has been proved worthy in case of severe to profoundly deaf adult and children who get little or no benefit from hearing aids. The motto of the habilitation programme should be the adequate development of linguistic elements of language, such as pragmatic skills, semantic concepts, vocabulary and syntactic morphological and phonological systems to allow social conversational interaction to take place.

The different habilitation approaches are -- Total Communication, Cued Speech, Oral/Aural and Auditory/Verbal. Total Communication aims to utilize gestural, lip reading and auditory component of speech by combining sign language. Cued Speech was developed in the 1960 in the situation when hearing aids at that time could not provide enough information for some profoundly deaf children to adequately discriminate speech and learn oral language efficiently. In this method hand cues were used to visually inform the presence of inaudible information to the child. The method actually served as an aid to lip-reading. The Oral/Aural habilitation approach makes use of embellishments to normal interaction, which includes sitting close to the child, using an interesting voice and increasing the frequency and consistency of interactions. Auditory/Verbal therapy is new method

and has been proved to be very effective. With limited access to speech range sounds many children are not able to interpret the speech signal adequately and thus emerged the concept of helping children to "Learn to Listen". The method directly discourages the lip reading in order to make the child fully dependent on his/her hearing. Once the child gets used to the method he/she is most unlikely to look for visual cues. In this method training is carried out in such a way that the child gradually moves from making very broad discrimination to progressively finer discrimination of sounds and is expected to gradually learn to process longer and more complex strings of linguistic information.

In Bangladesh there is no such strong intervention programme in true sense. There are 10 schools in different areas of the country (one in Dhaka) named HICARE school managed by HICARE Society, an NGO; two pre-school programmes conducted by SAHIC at Mohakhali and few other pre-school programs conducted by some other NGOs. These are almost insignificant in the context of the need of the large population having a large number of deaf children. The method followed in these schools closely matches with Oral/Aural approach. However, the recent development and concepts and most importantly a very well co-ordinated intervention programme and efficient speech evaluation system are yet to be introduced in these schools due to different factors -- the most important of which is financial insolvency. However, though very insufficient these schools specially the HICARE schools are a few candles in the dark -- serving this distressed group of children of our country for about last 20 years. These schools can get enriched with the introduction of new techniques and ideas by educating the teachers and care giving staff accordingly. The government may consider to allocate adequate fund and to provide other necessary support for the development of the existing programmes of these schools as per international standard.

Kanon K Roy is Joint Commissioner of Taxes and member, EC, HICARE School, Dhaka.