

Possible water sources for supplementing Dhaka city supply

DR MH KHAN

ABOUT 210 crore liters of water are required daily for more than one crore people of Dhaka city. Dhaka WASA currently supplies 145 crore liters per day (CLD), of which 125 crore liters come from underground source and 20 crore liters from Sayedabad water treatment plant (as in February, 2005). Present deficit of 65 CLD in supply causes frequent sufferings to the city dwellers. City water supply needs to be augmented in order to fill in the current deficit, as well as to meet the increased demand in the future.

Possible sources for augmenting supply

Rainwater: In many countries of the world rainwater is effectively harvested from roof catchments to supplement water supply. In Bangladesh, where huge amount of rain pours during the monsoon months, roof water harvest may partially meet the city water requirement in the rainy season. An investigation, carried out in Bangladesh Agricultural University, Mymensingh, showed that about 160 thousand liters of water might be available from a roof area of 100 sqm, in an average year in Dhaka city. This is equivalent to the amount of water required by an 8-person family for about 130 days. Rainwater harvest may also play an important role in reducing city flood, caused by local rainfall. In a roof water harvest system, roof top runoff contributing to city flood will be stored in domestic water tanks and thus reduce the extent of flooding.

While the potential of rainwater harvest deserves exploration, availability of such water is seasonal. So, other substantial sources need to be explored to ensure adequate water supply round the year.

Surface water sources: Waters of the rivers around the city are heavily polluted and are not in general suitable for treatment. On the face of groundwater shortage, the government initiated a surface water treatment project at Sayedabad for treatment of the Sitalakkha river water to augment the city supply. The project was supposed to be implemented in three phases. The first phase was commissioned in 2002 at a cost of Taka 580 crore. The treatment capacity was 22 crore liters of water per day. In 2004, the project was reported to be facing problems due to increased pollution load of the Sitalakkha river water. The report also added that the authority was considering to move the water intake point upstream at a cost of Taka 430 crore to reduce the pollution level of the intake water. Some people believed that shifting of intake point would give only temporary results. They added, in a situation of continued increase of pollution level, all parts of the river would become heavily polluted in the near future (Prothom Alo, 20 March, 2004).

The Sitalakkha serves as one of the main drainage systems that remove the waste pollutant of the city. For many reasons, the pollution level of the river is on an increase

The basic policy for water resources utilisation in Bangladesh should be: Use clean groundwater for urban supply and unclean river water (and/or groundwater where convenient) for irrigation, on the contrary to using clean groundwater for irrigation and expensively treating unclean river water for urban supply. In selecting projects for augmentation of water supply for Dhaka city, GW resources in the neighbouring areas should be given due consideration.

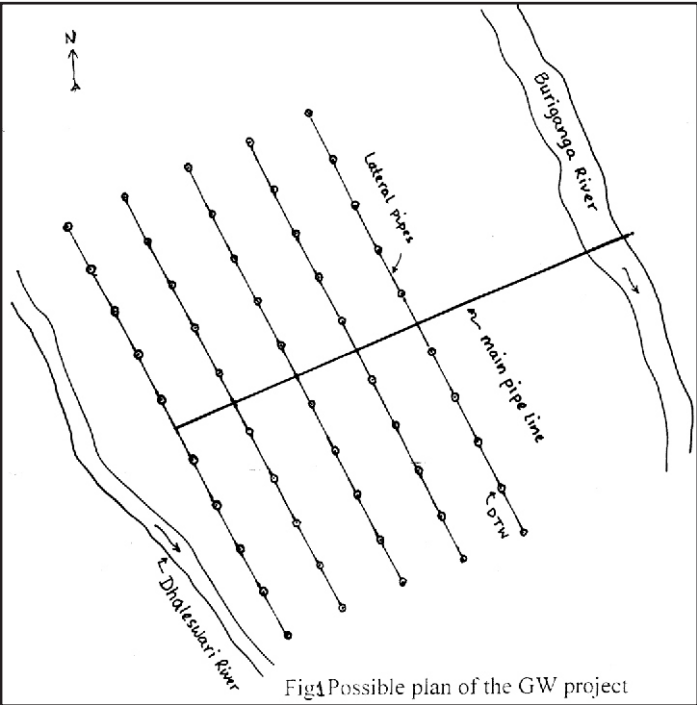


Fig1 Possible plan of the GW project



Waiting for water: More demand, less supply

and the flow rate reduced. In the last dry season, there were reports of mass deaths of fish and problems in navigation in the river (The Ittefaq, 6 Dec 2004). Any diversion of water from this river for treatment would further deteriorate its navigability, and reduce its capacity to transport pollutant load, resulting in an aggravated aquatic environment. So, any step towards further expansion of the Sayedabad project should be taken with utmost care in consideration of cost, sustainability and environmental impact.

Water import: In a situation where withdrawal of groundwater cannot be enhanced and surface water in the local rivers so polluted, water import from neighbouring areas could be a justifiable alternative. Particularly, when plenty of water is available in the areas around the city.

Surface water import: Some people suggest that water from the Padma river at Maoa may be treated instead of the Sitalakkha river water. It was reported that, a plan was under consideration to use the

Padma river water for treatment at Pagla. But that plan did not proceed any further (Prothom Alo, 20 Mar 2004). However, if implemented, such a project would be sustainable, environment friendly but unduly expensive due to requirement of water treatment.

Ground water import: An alternative to importing SW for treatment may be to import underground water from the neighbouring areas. It should be noted that, the problem of arsenic contamination of groundwater (GW), as reported in many areas of the country, may not be a matter of concern in this case. Such contamination is reported, so far, to be limited to shallow depths (within 100 ft or so from the ground surface). GW pumped from deeper aquifers, as is practiced in Dhaka city, is generally of goods quality.

Groundwater projects for Dhaka city supply should not be undertaken to the north of the city (viz Gazipur areas). Considering the natural flow of groundwater from the north to the south, any project in the

north will intercept groundwater flowing towards the city, and thus reduce its subsurface water availability.

Proposition of a GW project

A viable GW project for this purpose may be considered in the areas between the Buriganga and Dhaleswari rivers to the south-west of the city (greater Keraniganj area). The project area may even be extended to the other side of the Dhaleswari river. A supply rate 22 CLD, the same as being currently received from the Sayedabad project, may be obtained from about 50 standard capacity (2 cusec) deep tubewells from the area. Possible layout of such a project is shown in Fig. 1. The technology, required in a GW project, is simple and familiar to local experts. The project may be implemented in phases, if needed, to obtain phased outputs. So, the entire capital investment may not be required at a time.

The proposed GW project will also be sustainable, but may interfere other water users, particularly irrigators, due to possible lowering of the water table in the future. A complementary SW irrigation project may be undertaken in the area using the Dhaleswari river water. The combined project would make the whole system environment friendly. The cost of the GW project (including a SW irrigation component) will be significantly less than that of a SW treatment project.

Although both of the SW treatment and GW projects (having equal capacity, says 22 CLD) for importing water for the city would be sustainable and environment friendly, the latter would have the advantages of low cost, simple technology and possibilities of phased investments.

From these considerations, a GW project appears to be a better choice. SW treatment is an expensive method for urban water supply, and is used in many countries where good quality groundwater is scarce. For a country like Bangladesh, where groundwater is so abundant, SW treatment plants for urban supply are inappropriate.

Conclusion

The basic policy for water resources utilisation in Bangladesh should be: Use clean groundwater for urban supply and unclean river water (and/or groundwater where convenient) for irrigation, on the contrary to using clean groundwater for irrigation and expensively treating unclean river water for urban supply. In selecting projects for augmentation of water supply for Dhaka city, GW resources in the neighbouring areas should be given due consideration.

Before getting more involved in SW treatment type of projects, the feasibility of a GW project in the Keraniganj area should be studied as an alternative case for comparison. Failing to do so may exclude a more viable project from consideration.

Necessary steps should also be taken to start utilising rainwater in the city, at least on an experimental basis. Secondary benefits of rainwater harvest in the form of flood reduction should not be overlooked.

Dr MH Khan is Professor, Dept. of Irrigation and Water Management, BAU, Mymensingh.

Musharraf for second term?

Another hiccup for democracy in Pakistan

A M M SHAHABUDDIN

ANOTHER signal of continuation of the present one-man Army rule beyond 2007 is looming large on the horizon of Pakistan. However, Pakistan has become accustomed to a great extent to live with army rule, being under such dictatorship, whether soft or hard, for the greater part of its existence. It is, therefore, hard to predict when and how Pakistan would emerge as a fully democratic country.

All indications were giving the wrong signals about President Musharraf's future programme. It is now clear that instead of stepping down at the end of his current term in 2007, as was expected, he is now set for a new plan to run for the second term from 2007 for another five years. The Army General who captured power through a so-called bloodless coup in October 1999 by throwing out the democratically elected government of Nawaz Sharif who had two-third majority in the National Assembly (Parliament), promised to stay in power for three years to put the house in order, but later legalised his stay for another five years ending in 2007 through a referendum. Now comes the vision of another term beyond 2007. The old adage says "who rides a tiger is afraid to dismount." But here Musharraf is not 'afraid' at all to 'dismount' but bold enough to run the tiger as he has all the moral and material support both at home (?) and abroad.

It is an open secret that US President George Bush, the new champion and guardian of democracy and a great well-wisher of Musharraf, as his key-ally in his 'war on terror', needs strong pillars at strategic points, particularly in the Asia-Pacific region, to spread his network. And, undoubtedly, Gen. Musharraf is one of such dependable and strong pillars, as he has already shown his merit and mettle in Afghanistan and Iraq and has already been crowned with decorations like, "a leader of courage", and a "man of vision". So when the Pakistan Information Minister recently announced that Gen Musharraf had decided for another term beyond 2007, the picture becomes more clear about the inevitability of events and shape of things to come, as judged in the context of US strategy.

People's resentment

But while flowers and kudos are being showered on Gen. Musharraf for his bold leadership in supporting US policy in the Mid-East and elsewhere, he must be feeling the growing heat of people's resentment against his pro-US policy. He had already escaped three assassination attempts. Mere repetition of sermons of economic emancipation and development, won't help much to heal the wounds, gradually getting more painful. Many think that it is the lack of political consciousness of the people of Pakistan that had prompted army rule from time to time as a 'saviour' of the country. Even a retired Major of Pakistan Army in his popular column had recently said, while reviewing a recent publication by a former Air Chief-turned politician on "Pakistan : Politics and Military Power", that the people of Pakistan 'remain deaf and dumb' (DS May 30, '05).

But everything has its limit. There is an inevitable end to hibernation. Even constant pricking and lashing of the dumb-driven cattle make them scream. Then why not the 'deaf and dumb' people of Pakistan, even if the leaders are "blind and deaf", or pretend to be so, to serve their selfish interests at the cost of national interests. Gen. Musharraf should realise how far he should

The success or otherwise of Gen. Musharraf's latest move to push for another term of five years beyond 2007 largely depends on how far he can win the hearts of the people of Pakistan by solving problems to their satisfaction, rather than showing too much 'extra-territorial loyalty' to please distant friends to stabilise power.



stretch himself to please those whom his countrymen had began to consider as their 'enemies'.

The gathering storm that is now brewing with growing anti-US sentiment, gives enough signal to Gen. Musharraf to count his steps before he hits any hidden-landmine, laid by his opponents. Of course, Gen. Musharraf has weathered many storms in the past and had come out successful with flying colours. But one shouldn't forget that "one swallow does not make a summer". More to come. However, so long as the distant, but powerful, 'Light House' shows him the right path he should tread. He would continue to thrive under America's protective umbrella, at least as long as he is considered by them as very useful personality.

Definition of democracy However, the most surprising thing is that America, which, as a self-styled champion of democracy, preaches it day in and day out and teaches governments, particularly in the Mid-East, for its adoption for the welfare of their peoples, had been shamelessly protecting despotic rulers in countries that serve its selfish and vested interests. Similarly, in Pakistan, whenever an Army General had come to power, it had never hesitated to extend its overt or covert support to the Army ruler, even if he intrudes by ousting a democratic government in power there. Perhaps America has its own home-grown definition of democracy which is applied to different cases, with different prescriptions to suit the 'ground reality' faced by America.

Gen. Musharraf faces several obstacles before he crosses the bridge to reach his destination of 'peace and security' in the region for which he is working hard in cooperation with his 'friends, philosophers and guides'. Of these, three are most outstanding and sensitive, namely, his controversial nuclear policy, dubious Kashmir policy and hesitant tribal policy. These three are vitally linked with the national interests of Pakistan about which the people would not like the government to play hide and

seek, or create a smokescreen.

U-turn on nuclear policy?

Some indications regarding Pakistan's much-vaunted nuclear policy are already there to show how things are moving. Musharraf seems to be playing a big political gamble. After putting Dr. AQ Khan, father of Pakistan's nuclear bomb, under house-arrest, for his alleged involvement in illegal transfer of nuclear technology to Iran and some other Muslim countries, Pakistan government declared for home consumption that Dr. Khan would never be handed over to any third country for interrogation nor any part of his nuclear centrifuge to be handed over to the Geneva-based atomic energy agency, IAEA but IAEA experts would be allowed to visit Pakistan to examine such things. Whereas, recently, in a major U-turn, totally forgetting its earlier commitments, the Pakistan government sent to IAEA in Geneva some parts of an old centrifuge to help the Agency to establish whether Iran, against which America is hell-bent to follow punitive action, is secretly developing nuclear weapons with the help received from Pakistan nuclear scientist Dr. Khan. It will undoubtedly throw a long dark shadow with ominous signs on Musharraf's path, because Dr. Khan was not the lone-ranger in the management of Pakistan's nuclear programme. Army Generals were reportedly involved in it with a widespread programme of combining Iran, Pakistan and perhaps Afghanistan, under a nuclear shield to face some Asian nuclear power, like India.

Kashmir on back-burner?

The second is the Kashmir problem which has been haunting the Pakistanis for the last six decades. Frankly speaking, there has been no serious approach on the part of the two warring governments to amicably settle the issue. However, since Gen. Musharraf's coming into power, both the BJP government led by Vajpayee and the present Congress government led by Manmohan Singh seem to have

come much closer than expected to the other under rather indirect felicitations of America which is eager to bring peace between the two Asian nuclear powers to serve as a strong bed-rock for America to bolster India as a powerful Asian giant to counter another rising Asian power China. America has already been successful to buckle down Pakistan to stop "cross-border terrorism" which has been the consistent demand from India. Under US pressure, Pakistan had to withdraw its jawans and militants from Kargil in Indian side of Kashmir. And the process of 'composite dialogue' is continuing on the 'road map' set by America. How far Musharraf will be able to convince the people that Pakistan has nothing to lose in Kashmir, only time will show.

Tribal upsurge: Tip of iceberg?

And, thirdly, the simmering condition prevailing in some of the minority provinces, particularly in Balochistan, of which the recent flare-up in Sui (Waziristan) where Pakistan's main natural gas field is located, showed just the tip of the iceberg. These are much deeper things brewing for Gen. Musharraf to tackle. The tribal areas, which had been enjoying a sort of 'freehand' in managing their socio-political affairs since British rule, want now to exert further under their feudal leaders. Such is the case with Nawab or Sardar Akbar of Bugti who claims that Sui, which produces gas, belongs to him and hence demands a regular 'rent' from the Pakistan Petroleum Ltd (PPL) which runs the gas field and is responsible for production and distribution of gas throughout Pakistan. According to a report, Nawab Bugti receives from the PPL some 120 million rupees a year as 'rent', besides pocketing several extra millions of rupees per month for providing security to PPL pipelines and their operations etc. And the recent clashes between the Pakistan Army and Nawab's private army which is also well-equipped with smuggled arms and ammunitions, centering the raping of a lady doctor at Sui by some miscreants, unmasked Nawab's muscle power. It would be a difficult job for Musharraf's government to disarm tribal Sardars like Akbar Bagti. There is a possibility of spreading fire in the other tribal areas.

President Musharraf has recently boldly announced that as part of its war on terror, Pakistan army had arrested some seven hundred Al-Qaeda militants, mostly from the tribal areas, and had deported them, in which at least 250 Pakistani jawans had been killed. Every action has its reaction and nobody knows what lies ahead. The General should learn from history.

Therefore the success or otherwise of Gen. Musharraf's latest move to push for another term of five years beyond 2007 largely depends on how far he can win the hearts of the people of Pakistan by solving, particularly, the three issues mentioned above, to their satisfaction, rather than showing his too much 'extra-territorial loyalty' to please distant friends to stabilise his power. As he has said recently that Pakistan needs his leadership to continue to complete the socio-economic projects launched by him, his 'mentors' also need his leadership to continue to complete their mission -- the war on terror and spread of democracy.

But the big question is: How far the 'twin' will be able to meet?

AMM Shahabuddin is a retired UN official.

Human rights violations diminish US' moral authority

MOHAMMAD AMJAD HOSSAIN

A MIDST sliding down popularity of President Bush in handling the state of affairs at home during his second term in office, the annual report by Amnesty International on the widescale violations of human rights by the Bush administration has caused furor in the government. Starting from the Defence Secretary Donald Rumsfeld and Gen Meyers, Chairman of the Joint Chiefs of Staff to Vice-President Dick Cheney and President George W Bush have accused Amnesty International of irresponsible criticism.

The London based human rights watchdog in its 308-page report castigated the US prison camp in Guantanamo Bay in Cuba and compared the situation with that of Gulag prison of the Soviet Union where political prisoners were detained and tortured during Joseph Stalin's rule.

Amnesty International accused governments around the world of abandoning human rights protection. It said "Sudan did not protect its own people from one of the world's worst humanitarian crisis and that Haiti rather protected human rights abusers. One of the biggest disappointments in the human rights area was the United States, after evidence came to light that US administration had sanctioned interroga-

tion techniques that violated the UN convention against torture. Guantanamo Bay has become the Gulag of our time: This comment was made when Irene Zubaida Khan, the first woman, the first Asian and the first Muslim, Secretary General (seventh) of Amnesty International, presented its annual report at Foreign Press Association in London on May 25.

Bangladesh native Irene Khan said that the United States government and its allies, who lead the war on terror continue to persist with politically convenient but ineffective strategies, which undermine human rights. She said that the government of Sudan betrayed the people of Darfur by unleashing a campaign of killing, rape, displacement and destruction. But UN also betrayed them by doing too little too late. The people of Darfur were held hostage to China's oil interests, Russia's arms trade and the United States' aversion of the International Criminal Court, Irene Khan added. Having obtained Law degree from Manchester University and Harvard Law School Irene worked with United Nations High Commissioner for refugees from 1980 in different capacities at headquarters and in the fields.

Meanwhile, William F Schulz, Executive Director of Amnesty international USA defended its methods and said, in part Donald

No less a person than Nobel laureate former President Jimmy Carter of the United States criticised the US policies as a kind of retrogression, which has damaged the principle of democracy. Secretary General of Amnesty International said: "By lowering the human rights standards, the United States has weakened its own moral authority to speak out on human rights."

Rumsfeld and the Bush administration ignored or dismissed Amnesty International's reports on the abuses of detainees for years, and senior officials continue to ignore the very real plight of men detained without charge or trial. In an interview with WETA organisation, Schulz said that Bush administration, particularly Donald Rumsfeld, quoted Amnesty International report about violations of human rights by Saddam Hussein several times during the war in Iraq, but now started criticising Amnesty International when it pointed out the violations of human rights brazenly by themselves. Schulz issued a statement calling "Defence Secretary Donald Rumsfeld and other top administration officials architects of torture and suggested that other countries could file war-crimes charges against the top officials and arrest them."

It is typical of Bush administration to implicate immediately the person with vilification campaign who criticised Bush administration like one they did recently against Kofi Annan, Secretary General of

the United Nations. Similarly, Bush administration try to implicate William Schulz as saying that he contributed to Senator Kerry's election campaign during presidential election in 2004. Schulz told the Washington Times (June 02) that "we strive to do everything humanly possible to see that the personal political perspectives of our leadership have no bearing whatsoever upon the nature of our findings and the conduct of our work."

When stories of ill-treatment, inhuman torture in Abu Ghraib prison came to light in the news media, the Amnesty International in its report focused on the violations of human rights and said, "terrorism and attempts by governments to support it have combined to produce the most sustained attack on human rights and international humanitarian law in 50 years with the United States of America a principled culprit." That time there was not much hue and cry from Bush administration, but this time, because of Amnesty's comparison of a US detention camp to a Gulag of the Soviet Union, it has caused



Scene of torture: Inside Abu Ghraib prison

furor.

Amnesty International is not the lone organisation to criticise US administration's sustained violations of Human Rights. International Red Cross (ICRC) also holds Bush administration responsible for violation of human rights. ICRC

said, sarcastically, that "the United States has made the whole world see what the hell a democratic, law ruled nation is." The ICRC was of the opinion that abuse of detained Iraqi in the notorious Abu Ghraib prison in Baghdad was not a single case. It was systematic behaviour.

Reported desecration of holy Quran at Guantanamo Bay by US military guards also caused widespread protests against US government in many parts of Muslim countries.

It is interesting to note that Information office of China's State Council, instead of replying to the allegations of human rights violations in China made by the State Department of the United States, brought out human rights records of the United States of America in 2004. In its preamble, which is first such report, it is said that "in 2004 the atrocity of US troops abusing Iraqi POWs exposed the dark side of human rights performance of the United States. The scandal shocked the humanity and was condemned by the international community. It is quite ironic that on February 28, 2005, the State Department of the United States once again posed the world human rights police and released its country reports on human rights practice for 2004."

No less a person than Nobel laureate former President Jimmy Carter of the United States criticised the US policies as a kind of retrogression, which has damaged the principle of democracy -- the rule of law -- and lacked respect for fundamental human rights.

Not only international human rights organisations like Amnesty or ICRC, but also Americans themselves in an appeal in the New York

Times on January 23, San Francisco Chronicle February 3 and Los Angeles Times February 15, 2005 said, "In our name, the Bush administration holds in contempt international law and world opinion. It carries out torture and detentions without trial around the world and proposes new assaults on our rights of privacy, speech and assembly at home." The appeal was signed by fifteen thousand people.

The United States also is voted out of the human rights commission of the United Nations, which has caused concern to Bush administration. They have now clamouring to bring about reforms in all branches of the United Nations. Echoing the opinion of Amnesty International, leading US Senator Joseph Biden, Democrat, on June 04 called upon the administration to shut down Guantanamo Bay prison camp immediately to protect America, which reflects the level of concern in the United States. The image of the United States in the comity of nations is at its lowest ebb, which is reflected in the comments of Secretary General of Amnesty International: "By lowering the human rights standards, the United States has weakened its own moral authority to speak out on human rights."

Mohammad Amjad Hossain, a former Bangladesh diplomat, now resides in Virginia, USA.