

Overcoming sloth in water sector Water and women Inseparable relationship

MD.SAEEDUR RAHMAN

WATER, essential for life on this planet, is also the engine for the economic growth. Its use has been dynamic. Increased use of water and less availability on per capita basis is a result, among others, of increase in world population. And again 95 percent of the annual increase in world population is being contributed by the developing countries. Compared to increase in global population the water withdrawals has been doubled during the twentieth century. The global water stress thus can be assessed by singling out the per capita water availability trend. Only recently in 1989, globally there was some 9000 cubic meters of freshwater per capita available for human use. By 2000 this had dropped to 7800 cubic meters and is projected to further plummet to 5100 cubic meters per capita by 2025. The global consumption of water is now doubling every year, and is estimated that in 2025, if present rates of water consumption are maintained, five billion out of eight billion people will be living in areas where it will be even impossible to meet the basic requirements. This is only the water stress scenario. Honestly, unsustainable water use is common and at the same time its consequence is manifold and severe. World water professionals have so far been nimble in addressing the water related issues and aspects regionally and globally.

The international community over the last decades has transformed water-awareness into commitments. The Earth Summit in Rio de Janeiro, Brazil agreed on a broad framework known as Agenda-21, for achieving sustainable development. Chapter-18 of Agenda-21 on the protection of the quality and supply of freshwater resources set out the general objective to ensure that adequate supplies of good quality water are maintained for the entire population of the planet. The World Summit for Sustainable Development in Johannesburg, South Africa adopted the Plan of implementation with commitments relevant to water that include: to halve, by 2015, the proportion of people who are unable to reach safe drinking water and who do not have access to basic sanitation, to develop Integrated Water Resources Management and water efficiency plans by 2005, and to establish by 2004 a regular process for global monitoring of the marine environment. In line with global vision Bangladesh has embarked on bringing changes in legislative and institutional framework compatible to more effective and efficient planning and managing water resources. The relevant policies and plans have been in place. The reforms in organisational structure and institutional settings have been on board and more underway. But actions in nation's water sector remained grilled in that very age old practices of flood control, drainage and irrigation centered infrastructure development concept and even more painfully lacked the required vision and dynamism resulting in

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sub-optimal utilisation of the water resources, pushing the future generation not-unlikely in an inflexible situation.

The nation's total useable static surface water resources estimate is 11,784 million cubic meters. Being very close to the world's wettest place at Cherapunji, where the average annual rainfall is 10,800 mm, Bangladesh receives 2300 mm rainfall on an average per year. The highest recorded rainfall at Cherapunji in 2004 was even 14,710 mm, for instance. The groundwater resources estimate is not yet in full agreement by the national water experts. Each day on the average, approximately 3000

rural population in particular. Dry season irrigation is frequented by failures due to excessive draw down.

The rapid melting of the Himalayan glaciers at an average rate of 10 to 15 meters per year feeding partially into the Ganges and Brahmaputra will first increase the volume of water in rivers causing devastating floods and thereafter, the dwindling flows will result in water shortage adversely impacting the nation's water-hinged economic endeavours. Besides, the possible disappearance of this deltaic country by submergence due to sea level rise and climate change impacts are still to be taken in belief



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million cubic meters are discharged into the Bay, although dry season flows are much lower. The per capita water availability in Bangladesh is above the world average but access to it is limited and impaired by the large ratio of its variation (greater than 1:10) in flows at dry to wet season. With abundance of water, Bangladesh is frequented by natural perils that among others include floods, droughts, cyclones, tidal surges, salinity intrusions, water-logging, coastal and estuarine erosions, groundwater contamination, soil and water quality degradation, pollution, and many more water related environmental hazards. Surface water availability is becoming increasingly uncertain with increasing upstream withdrawals and degrading water quality. Groundwater resources are fast depleting due to their heavy uses in the dry season. The urban water supply authorities are scouring further deep into aquifer for domestic consumption risking itself at unknown zone. The national daily Prothom Alo in its editorial on 11 March, 2005 pin-pointed the dearth of relevance between planning and actions for management of water over a time base in the capital prefecture. Arsenic contamination of the shallow aquifer has already set back past successes in bringing safe drinking water supply to the

and is considered as a far distant event not of that importance. The tsunami fears to nation's coast seem to be of "nothing-to-do" option. Mounted upon it, India's gigantic river linking project that proposes diversion upstream with eventual dehydration downstream is a stone in the shoe.

Rural population in Bangladesh are among the poorest and food insecure, whereas the national food production is close behind self-sufficiency. With a large population of 140 million expected to rise to 181 million by 2025 and to 224 million by 2050, the country faces many challenges ahead in an era of continuing globalisations the first being food. Seventy-five percent of the population is directly or indirectly dependent on the agriculture that shares sixty percent of national water use. Agriculture is still contributing about 60 percent employment opportunities for rural population. The country's agriculture minister, in an international seminar on "Food Policy in Bangladesh: Issues and Perspectives" held in the city on 13 March 2005, identified the drastic reduction in public investment in the field of agriculture as one of the reasons for wide-spread rural poverty. This is evidenced by halving the allocation over the last decade to water, a sub-sector to agriculture. The Prime Minister of

Bangladesh, while addressing the Conference of Agricultural Workers 2005, earlier on 5 March had very rightly emphasised upon creating a 'new awakening' and 'silent revolution' with united efforts of government, farmers and agriculturists in achieving UN Millennium Development Goals by cutting the poverty.

Lessons learned at hand are also that the rise in hi-tech, developments in industries and, above all even the near-2 digit economic growth in shining neighbour failed to win for the rural poor. Indeed, the national economy is agriculture based with water ambience. The National Water Management Plan estimates of irrigation expansion forecast a virtual saturation by 2025. Large portion of this country seemingly to continue to remain in poverty, if, as such, the agriculture sector does not get the critical source of nourishment or not prevented from being hit by recurrent cataclysms. Since national development efforts are aimed at alleviating poverty, the reduction strategy need be pivotal to the development and management of water resources of the country.

Water Resources Planning Organisation (WARPO) is the apex national body responsible for macro-level planning and Bangladesh Water Development Board (BWDB) is the principal agency (the other being LGED) for implementing water related programmes and projects. WARPO has been practically a name-game with stop-gap international supports while BWDB by its organisational culture, remained construction oriented with little or no changes in its perception and attitudinal behaviour except in areas and to the extent driven by the donors. The other appurtenant public and private sector organisations provide logistic supports. Bangladesh water sector has on the head-end been focused too much on water philosophy and down the tail-end biased on year-to-year survival programmes and, because of the disconnect making it undesirably slothful. Bridging the gap between the head and tail ends for bringing dynamisms in the water sector, requires national water leaders to move on ways to foster activities that promote integrated management strategies involving various sectors, such as the agriculture, environment, fisheries, tourism, mining and energy and in simultaneous support implementation at the local level. Given the cognisance, it is the time for the government to begin realising that water resources sector should preferably take the position of first amongst equals in the nation's development efforts. The water resources initiatives may therefore be mainstreamed and integrated to address issues relating to water scarcity, water-related disasters, climate change, loss of biodiversity, and other regional issues. It is the government now to take the proactive, and international agencies the supportive, roles petering out action for all and all in action to build a secure water future.

Md Saeedur Rahman, is a retired chief engineer of BWDB

SANTOSH C SARKER

"GIVE me a glass of water. I am very thirsty". This is an usual type of request or capricious insistence commonly made by a man to a woman in our society. Because, in most cases, it is women who serve food and water at home. Regarding any waste of drinking water, often the women warn that the reserve might be exhausted if all are not careful. The fear is that it is only the women on whom the prime responsibility of collecting water, often from distant places, is imposed and it is they who are used to this in our social culture. Let us look at the names of some rivers in this part of the world. Most of them are feminine. The Ichhamati, the Mahananda, the Punarbhova, the Gudabari, the Kaberi, the Padma, the Ganges the Narmada etc. are few examples. Different literatures including the myths reveal that women play key roles also in protecting and saving water from contamination. Therefore, women are naturally linked with the source, supply and use of clean water.

Showing concerns for irrigation water requirements in the rice fields, besides homestead needs, is also a usual phenomenon with the rural women, specially the women sharecroppers. As I was actively involved in doing agriculture in my early life, I got the opportunity to explicitly observe how the rural women including my mother dealt with irrigation water in their daily life. To a woman, water is needed for her family members and domestic animals to drink, her cooking, washing, cleaning, bathing and, as said, irrigation in the crop fields. To a man, the concerns about water may be important but not as critical as a woman feels. With limited quantity of water, a woman is more capable than a man to complete all of the activities mentioned above. Evidences validate that a woman gives more value to water than a man does.

Clean water is the most essential item in our daily life. One can live without food for a few weeks but none can live without pure water even for a few days. At least two litres of water per day is required for human body to survive. Crops get wilted permanently if the soil regime where they grow remain consistently dry for consecutive days. Women play a key role in harvesting water for both the places. At home, drinking water is stored in the kitchen where usually women stay for a long time to cook and do other domestic works. Therefore, they first feel the shortage of water, if any, at home. What happens about the collection of water? Keeping few exceptions aside, have you ever generally seen a man carrying drinking water from its source to his home? The answer is generally no. Women in flocks walk long distances to harness clean water and these scenarios are very common in Gujrat, Rajasthan and Madhya Pradesh of India, and Rajshahi district of Bangladesh. This scenario is also common in all 16 Upazilas in the southern-western coastal regions of Bangladesh. Water Partners International organisation reveals that the poor women in Africa and Asia walk an

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average of six kilometers a day to collect water. The poor women in the developing countries spend eight hours a day for collecting and carrying up to 20 litres of water on their heads in each trip. The world statistics reveal that women and female children carry water by walking over undulating horizontal distances in the plain land and climbing vertical distances in hilly areas in buckets/pitchers regardless of their physical difficulties and illness including pregnancy. To find safe and dependable water sources it is women who take initiatives.

Water means prosperity — its

areas of Ahmedabad and Bhavnagar they showed exemplary courage and fortitude. As the heads (of course men) of the villages were extremely critical of women being the part of decision-making process, the women fought and played a stellar role in the *pani samities* and contributed their 80 percent labour to the construction of the water-harvesting structures.

The lessons that I had learned from the Uttahan drinking water harvesting project are: if women are given a chance and enough room, they are efficient managers of basic resources like water: the involvement of women not only changes



Clean water collection by Adibasi women in Rajshahi

scarcity means poverty, regardless of material wealth. Human rights advocate that when a woman lives in an unsafe and unhealthy environment or lacks access to clean water, she is not enjoying her fundamental human rights to a life of dignity and to an adequate standard of living. Keeping these truths in mind, the poor women-folk have intensified their further involvement in the water harvesting activities beyond their domestic world.

I must express my gratitude to a Delhi-based organisation, the Centre for Science and Environment (CSE), founded by Anil Agarwala, an eminent environment-activist for organising my trip Pani Yatra — a water pilgrimage. As part of that visit, Ms. Nafisa Barot, an eminent water-activist of Ahmedabad district, showed us the catastrophe of the extreme poverty of people due to prolonged shortage of water in Uttahan and other adjacent areas. She said that in the face of traditional resentment against women taking active part in community initiatives in the rural

the texture of development but brings about empowerment as well; and decentralised drinking water system becomes more sustainable if women are involved because they are the basic users. The lessons that I also learned are that ignoring the concerns about health and education for being poor, only shortage of water can make people "poorer" and vulnerable. It has been observed how poor people remove dikes (stops path-ways to water flow) and connects liniments (allows path-way to water flow) in the underground to allow water to be accumulated in the artificial wells in Rajkot where women were in the lead. Despite all odds, often against their own men folk, women came out and led the movement against water scarcity.

Women as water managers and irrigation water sellers are also not too uncommon nowadays in Bangladesh. Every year, rural women run more than hundred new irrigation schemes, for instance, under Proshika supervision. With a few exceptions, the women drive

their own water yielding machines after receiving training and they also act as decision makers. They bargain with landowners for water sharing/pricing and irrigation scheduling. Poor rural women have shown their capability in doing water accounting and log-sheet preparation for irrigation water distribution. This has been continuing and greatly minimising gender discrimination, top and tail endear problems for water distribution and misuse of irrigation water in the rice fields. The women group members in Proshika earn an amount in each irrigation season that is greatly influencing their counterparts to bargain with them regarding resource distribution among the family members. Manual participation in irrigating water by using treadle pumps and bailing buckets in the crop fields by women is a common feature in rural Bangladesh as well. Here is the role of women as water managers and irrigation water sellers.

Water is both friend and foe of women. Combating tidal surge and flood water has become somewhat part of the livelihood of women in Bangladesh. Sudden floodwater intrusion at night first touches the poor women as they usually sleep on the floor with children. Consequently, the women account for huge losses of material wealth and their family healthcare. As the prevalence of dealing with water at home and outside is much higher among women than among men, therefore, the women are more prone to be attacked with water-borne diseases. Moreover, there is prevalence of badly affected men and women by arsenicosis. But the arsenic victim unmarried females are doubly vulnerable in case of their marriage. Because, in some arsenic prone areas the unmarried female victims are assumed to be doomed for any wrong doing in their life or for any wrong doing of their forefathers and they are assumed sinful there. Here, the relationship of women with water is natural, inseparable, and susceptible.

In this article I have tried to depict the natural disposition of women with water though the involvement of men with water cannot be ignored. At the advent of the national and international concerns about building global water partnership, the women are in the driving seats in most of the water-related fora, projects and water activism. However, efforts are being made to establish integrated water resource management where men and women, poor and non-poor people have the stakes for making water "everybody's business" or providing "water for all" in the greater interest of protection and conservation of clean water across the world.

Santosh C Sarker is a water professional and Deputy Director of Proshika.

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