NGO FORUM: A NODAL POINT FOR KNOWLEDGE SHARING AND NETWORKING IN BANGLADESH

Shirin Biswas¹

ABSTRACT: Natural Resource Centre Information plays a key role in environmental, research; flow and timeliness of intellectual resources are crucial. The development agencies in the community repeatedly stress the intricate relationship between information access and economic development. Resource Centres at national and regional levels can address all issue of archiving WatSan related activities through which information in this sector may be disseminated to all allied and related agencies. Resource Centres play a crucial role as collaborative information centers—a growing intellectual commons. Although information is often cited as a prime example of a public good, the artifacts of knowledge and information—the databases, books, articles, maps, videos, graphs, both in hard copy and soft form—can be commonly owned. Resource Centres play an active role in assisting clients to adopt information-based decision, establish access to collective memory bank and—to a knowledge base in a composite and challenging world. They can assist immensely in learning from experiences. Knowledge and information plays a vital role in the present day world. In the age of Internet and information super highway it is regarded as the most powerful tool in hand. An enriched database and archives of information is treated as a valuable possession. In fact resource centres are created to address such issues. They provide the scope and means to generate the foundation for the creation of such institutions. With these objectives the resource centres in WatSan sector are created as a center of excellence addressing all WatSan related issues. The water & sanitation sector in the South Asia such as Bangladesh is still languishing behind the western world. To interpret things in a more pragmatic way it may be stated that recurrent natural calamity renders this essential sector to a point of stagnation. Whatever strides are undertaken faces major setbacks, which requires of renewed information procurement and evaluating the necessities felt by the community. To this date numerous programme had been undertaken and implemented which were not properly documented. Major investment had to be taken up afresh in a renewed scale without evaluating the need for any rehabilitation or consolidation of earlier programmes. Under the circumstance a systematic approach for evaluating the requirements and consolidating the gains is felt necessary. The new millennium has ushered scopes to consolidate the gains through a knowledge base. The NGO Forum for Drinking Water Supply & Sanitation in Bangladesh has utilized this approach to evaluate and consolidate its initiatives in the sector through establishment of the National Resource Centre (NRC). In the last two decades it has executed numerous programmes in the WatSan sector. The necessity for filling in the knowledge gaps for a more sustainable approach in the sector NRC has been strengthened since its inception. In its quest to become a true

¹ NGO Forum for drinking water supply & sanitation, Tel.: 88 02 8119597, E-mail: shirin@ngof.org
knowledge based centre NRC started functioning as centre managing information to link communities, policy makers, stakeholders, researchers and donor agencies. NRC has taken sharp strategic focus in promoting various global knowledge initiatives.

INTRODUCTION

Information and knowledge plays a vital and crucial role in the world. This is particularly true against the backdrop of the Internet super highway, fast computers, sophisticated satellite-based remotely sensed data collection systems and trained and efficient manpower to operate these activities. The world in the present day practically runs on the interplay of information exchange through which vital decisions are executed. At the end of the 20th century, mechanization and automation has been coupled with these new innovations to blend them wonderfully into a perfectly matched system.

In the backdrop of this global revolution, the third world countries are also rapidly catching up in their decision-making processes, monitoring and evaluation practices as well as in the field of execution. Resource centres are principal mechanism by which the innovative techniques are being diffused to the third world countries enriching their knowledge base and capabilities. It is only a matter of time, when the entire world can function in unison, thinking alike at the same speed and utilizing their resources in a coordinated way. As the world advances, the gap between the developed and the developing world diminishes and Resource Centres plays a principle role in closing technology gaps and making strides so that the world can function as a global village.

BACKGROUND

Bangladesh is situated in South Asia, located in the northeast part of the Indian sub-continent. Its location is between the latitudes 20º 34’N and 26º 38’N and longitudes 88º 01’E and 92º 41’E. It has a population of approximately 129.25 million (census 2001) crammed in an area of 144,000 sq km. Considering the huge concentration of population, it is the poorest country in the world with a population density of more than 854 per sq km and annual growth rate estimated at 1.48%. Bangladesh has an agro-based economy with more than 85% people living in the rural areas. The per capita income is 387 dollars (2000-1). The rate of average annual GDP growth over the last 6 fiscal years was 5.3% (source: BSS). The population has an average literacy rate (7 years age and above) of only 48.7% (1998). Frequent floods, droughts, cyclones and storm surges torment this huge population that is situated on the largest delta in the world. During these extreme events, the water-sanitation (WatSan) situation deteriorates to the extreme. Illiteracy is a plague, which contributes to the population facing the world’s worst imaginable WatSan situation. Added to this are problems of poverty, hunger and famine that are recurrent with the national calamites.

WatSan situation in a nutshell is not a major concern to this huge population in comparison to other immediate necessities. Lack of effective and equitable information is another concern. In the past, people were hardly aware of basic water sanitation information and knowledge. Adding to the deteriorating situation, the arsenic scourge has been recently identified in over almost half
of the country and affects a third of the population. Under the circumstances, knowledge sharing has become an essential and NGOs have come forward to fill the gap. However, under the present situation, the NGOs are working separately and independently without collective focus or co-ordination. This leads to an immense loss in labour and investments that could be mitigated through equitable information and knowledge sharing.

**PRESENT STATE OF AFFAIRS**

Recurrent natural calamities combined with the world recession has driven the predominantly rural-based population to migrate to the urban areas in search of employment and survival. Population growth, shortage of cultivable lands, riverbank erosion, famine, floods and droughts are the main causes of migration to the cities. Deterioration of health facilities in the cities is one of the major problems as density of urban population increases every day. Of these, breakdown in the sewerage system, drainage of wastewater, health facilities etc. are the major ones. As a result of prevailing poor health and hygiene condition in the densely populated areas, diarrhoea, dysentery, skin diseases, and other diseases take a heavy toll on human lives. Hazardous living conditions, unsafe food and sanitation multiply the crises of health and environmental degradation. In settings where there are infectious diseases, serious health threats, often compounded by poverty, malnutrition, faulty sanitation and unsafe water and pollution make life miserable.

Women are the more disadvantaged group. Traditionally, socio-cultural norms have limited their access to education, skill, training, health care, and employment. The urban environment is especially sensitive for women because they are the principal managers of domestic water. The urban infrastructure related to basic needs to the delivery system, i.e., water supply, sanitation system, solid waste management, health services, etc., is poor. Access to safe water and sanitation is a basic health requirement. Lack of safe water results in water-borne diseases such as diarrhoea, typhoid, cholera, etc., accounting for 15% of deaths among under 5 year old children in Bangladesh, whilst in some communities it is 40% of overall morbidity.

Although Bangladesh had achieved a commendable water supply coverage of about 97% in rural area through exploitation of ground water by hand tube well (HTW), detection of arsenic above the maximum permissible limit (0.05ppm; Bangladesh standard) in a large number of hand pumps has annulled this success and created a new challenge of toxic contamination. This has exposed nearly 20 million people and has put another 70 million at potential risk. Information sharing on the contaminated HTWs affecting a potential area can immediately stop the population from drinking this poison. Of about 10 million HTWs installed, nearly 70% are privately owned serving mostly affluent households. Access to adequate sanitation is also limited to relatively affluent segments of society. Nearly 40% of the people have some sort of latrines, while the rest carry out open and random defecation, resulting in deposition of about 25,000 metric tons of fecal matter on public lands and in waters every day.

Studies undertaken by resource centres can focus the areas where assistance is felt most required and essential. Infant morbidity and mortality are among the highest in the world. It is estimated that 3.6 million DALYs (disability adjusted life year) are lost each year in Bangladesh due to
poor water quality and sanitation, mostly affecting the poor. Evaluation of losses due to water quality needs to be evaluated and total loses in the national exchequer due to poor sanitation focused accordingly.

**CHALLENGES FOR SAFE WATER SUPPLY**

Over the years, Bangladesh has achieved a considerable success in providing safe water supply in rural areas. Rural people presently have access to HTW within a continued stock taking on the state of affairs in various corner of the country. Initiatives taken are fruitful; within a distance of 150 meter with 1 HTW for 105 people. In the fifth five years plan (FFYP), 1997 – 2002, the government of Bangladesh (GoB) planned to increase the coverage of rural water supply, and decrease the number of persons per hand pump from 105 to 80. The government plan requires of back up by NGO activities and secondary initiatives of education to the rural mass to adjust with the technology introduced. In urban areas, although accurate data is not readily available, it is estimated that about 45% of the population has access to reasonably safe water; however remaining 55% depend on contaminated surface and ground water sources. The state of affair in the urban slum needs to be properly investigated and a sustainable option worked out. Only representative truly reflective data and information can assist for this purpose. Surface water in the country is severely polluted by fecal matter. Up to 80% of all illness in Bangladesh are related to water borne diseases. Water related health impacts such as sickness and death are valued at 2 – 4% of GDP.

Ground water constitutes the major source of drinking water in Bangladesh. Over 90% of the drinking water is derived from underground sources. Groundwater source became very popular and reliable, as it is safe from fecal contamination. It took more than 50 years to motivate rural people to use hand pumps instead of untreated surface water; presently people are quite habituated to drink hand pumped water. The ill of over exploitation of groundwater, bad ecological effects and mining actions also needs to be transmitted to the people. However, in recent years, arsenic problem has appeared in such a proportion that it has now threatened the entire water supply program in Bangladesh. The effect and randomness of arsenic has proven contrary to the earlier sustainable solution and this scourge needs to be disseminated to the people and prepare them for adapting to the choice found acceptable. The arsenic contamination has significantly reduced the access of safe water in 59 out of the 64 districts in the country.

Apart from the arsenic problem, high iron content, high salinity in the coastal areas, leachates from pit latrines as well as landfills are other potential sources of groundwater contamination. Dissolved iron in excess of 2 ppm is found in ground water in about 60% area of Bangladesh. Some 170 thanas with a population of 15 million fall in the high iron concentration category. People should be made aware about water quality and integrated water resource management, a task, which can be done by, the NGOs in WatSan sector through information support from resource centres. Ground water is generally saline in the coastal areas. In such areas consumer tolerance to salinity is high and it is considered a problem only when chloride concentration exceeds 1000 mg/l. Overall information is a very important issue in WatSan sector and resource centre can play an important role to keep people prepared for the worst cases.
CHALLENGES FOR SAFE SANITATION PRACTICES

Bangladesh is blessed with abundant freshwater resource in the form of surface and groundwater. But even this bountiful resource is not sufficient to meet the future demands. Domestic consumption is only about 2% of the total water use. However, domestic water must have physical, chemical and bacteriological quality that is safe for human consumption. Faced with the endemic water-borne diseases, the primary concern in Bangladesh was finding pathogen-free domestic water. Groundwater, naturally filtered and generally free of pathogens, is widely available in the country. This water can be easily abstracted by hand tube wells. The technology is easy, affordable and widely available. Over the last two decades, this has ensured a dramatic shift in people’s choice of domestic water – from surface to groundwater. Use of tube well as the source of drinking water is almost universal now. The practice, coupled with oral dehydration therapy, has reduced diarrhea mortality although it is still high in comparison to most developing countries. Morbidity due to water-borne diseases also remains high, as the fecal-oral transmission routes could not be effectively interrupted by mere use of tube well water for drinking. Surface water is widely used for bathing, utensil washing and other domestic purpose.

Impact of Poor Sanitation on Freshwater

Poor sanitation poses the most serious threat to freshwater quality in Bangladesh. Only 43% urban and 10% rural households use water seal latrines. Overall, the use of hygienic latrines, even if simple pit latrines are included as such, is limited to about 40% households. Moreover, there are pockets of areas where the situation in particularly alarming. For example, it is estimated that only 14% of slum household in the metropolitan cities have sanitary latrines. The Vast majority of the people of this country continue to use unsanitary latrines or practices open defecation. As a result, 20,000 metric tons of excreta (equivalent of 4,000 truck loads) is released in the environment everyday in Bangladesh much of this ends up in freshwater bodies, contaminating these sources with a high load of pathogen. The fecal coliform concentration in most surface water sources lies in the range of 500 to several thousand per 100 ml. The river and surface water sources around densely populated urban areas are four to ten times more polluted than the similar water sources in the countryside.

The impact of this population is frightening. Despite the high coverage of tube well in Bangladesh, with 97 percent rural household having access, diarrhea diseases remain endemic. It is estimated that 125,000 children under the age of five die every year due to diarrhea diseases. Moreover, the surviving children suffer 3-5 episodes of diarrhea each year. Adult also fall prey to water-borne diseases. As long as freshwater pollution due to poor sanitation continues unabated, the transmission of water borne diseases will remain, and its impact on the quality of life will continue to be severe. The presence of arsenic above permissible limit in groundwater in about one third of country further aggravates this situation, reversing the water miracle achieved by the people of Bangladesh through decades of sustained effort is an uphill task which is almost impossible. This further reinforces the need to protect the freshwater from pollution, as we may again have to revert back to these sources for drinking water.
The Cost of Poor Sanitation

The cost of poor sanitation is staggering. An estimated Tk. 500 crore (over US$ 80 million) per year, is spent on medicine, doctor’s free and travel expenses. The real cost should even be higher if the loss of productivity, time spent for patient care, and effect on child development are factored in. A large-scale shift from shallow aquifers to alternative source will add to the cost per capital in areas affected by arsenic. A rapid switching to surface sources with the current level of pathogen load will also add to the direct and indirect cost in terms of healthcare. Protection from pollution by human excreta is, therefore, a prerequisite to sustaining our freshwater resources and enhancing our quality of life.

Reduction of Bacteriological Contamination through Improved Sanitation

There have been many attempts to improve the sanitation coverage in Bangladesh. However, the progress is far from encouraging. There has been only about 1% increase per year in water seal and pit latrine coverage in rural Bangladesh between 1993 and 2000. At this rate it will take another 60 years before we can achieve nationwide total sanitation. In recent times, the international community has stressed the need for improvement in sanitation as a prime priority. In September 2000 the United Nations General Assembly endorsed eight millennium Development Goals. Two of these goals are directly linked with sanitation – reduction in child mortality and ensuring environmental sustainability. Targets for achieving these goals are:

- To reduce by two-thirds the under-five mortality rate within 2015,
- To improve the lives of at least 100 million slum dwellers by 2020 through access to better sanitation.

In September 2002, the world summit on sustainable Development (WSSD) voiced a stronger concern for promoting sanitation. In the implementation plan of WSSD, nations agreed to pursue a specific sanitation target: halving the figure of 2.4 billion people who do not have access to basic sanitation facilities by 2015. In line with the international commitment, the Government of Bangladesh and its development partners are considering ambitious plans to reach nationwide total sanitation by 2015. If this effort is to be successfully implemented, we must accelerate the rate of growth from the present 1% to 4%.

Total Environmental Sanitation:

It is heartening to note that several agencies in Bangladesh have already demonstrated that achieving total sanitation is possible. The new generation sanitation approach is people-centered. It is based on building safe-awareness rather than selling latrines. A recent assessment by the water and sanitation program (WSP) and its partners has shown that remarkable success can be achieved through this approach. Hundreds of villages have already eradicated open defecation. Each household in these villages has access to a hygienic latrine. The villagers have access to hygienic latrines. The villagers receive no external subsidy on latrine hardware. Full ownership by the communities is ensured as they build and maintain their latrines by themselves. Most of these examples of excellence are, however, of small-scale.
SCALING UP NATIONWIDE

While the successful pilots are proof that it is possible to attain total sanitation, the big challenge remains how to scale up the examples to national level. A national strategy is needed to transform the small-scale successes into national level achievements. The formulation of such strategy requires consensus and participation of all concerned agencies to ensure coordination and cooperation in implementing this huge task. No single agency can tackle this alone. A recent joint assessment conducted by sanitation stakeholders including the government, NGOs, Micro Finance Institutions, and Development Partners has confirmed that there are now over 300 villages with total environmental sanitation. Physical investigation during field visits indicates that these villages have eradicated open defecation. These villages are very clean. There is no foul smell from excreta or other waste. Signboards are many of these villages proclaim, “Nobody defecates in the open in this village”. Mothers and children describe with pride and honor that their village is sanitized. More importantly, the impact of total sanitation on maternal and child health is very clear.

ROLE OF RESOURCE CENTRE: ENSURING THE KNOWLEDGE BASE, A COLLECTIVE RESPONSIBILITY

Information plays a key role in environmental, research; flow and timeliness of intellectual resources are crucial. The development agencies in the community repeatedly stress the intricate relationship between information access and economic development. Resource Centres at national and regional levels can address all issue of archiving WatSan related activities through which information in this sector may be disseminated to all allied and related agencies. Resource Centres play a crucial role as collaborative information centres—a growing intellectual commons. Although information is often cited as a prime example of a public good, the artifacts of knowledge and information—the databases, books, articles, maps, videos, graphs, both in hard copy and soft form—can be commonly owned. Resource Centres play an active role in assisting clients to adopt information-based decision, establish access to collective memory bank and to a knowledge base in a composite and challenging world. They can assist immensely in learning from experiences.

The water and sanitation sector in areas of South Asia, such as Bangladesh, is still languishing behind the western world. In the complex domain of water, a narrow definition would describe the knowledge enabling countries and regions to produce a well-documented assessment of their water resources. However water affects every facet of life, from health to agriculture, to industry and ecosystem at large, the knowledge and skills required to improve stewardship of this finite resource stretch across and extremely broad spectrum encompassing education, health law, economics, communication and science & technology. To interpret things in a more pragmatic way it may be stated that recurrent natural calamity renders this essential sector to a point of stagnation. Whatever strides are undertaken faces major setbacks, which requires of renewed information procurement and evaluating the necessities felt by the community.
In the age of Internet and information super highway knowledge it is regarded as the most powerful tool in hand. An enriched database and archives of information is treated as a valuable possession. The media, both print and electronic, play a pivotal role in raising awareness of water’s value, promoting safe health practices and facilitating dialogue between stakeholders. Furthermore because water and climates know no national boundaries, initiatives in sharing knowledge requires high degree of international collaboration. The rise in information technology has made it easier to spread knowledge and pave new avenues, for learning. In fact resource centres are created to address such issues. They provide the scope and means to generate the foundation for the creation of such institutions. With these objectives the resource centres in WatSan sector are created as a centre of excellence addressing all WatSan related issues.

Considering the acute crises in information flow and development of database it maybe concluded that developing countries are more tuned in setting up resource center. This is in line with the concept that such centers should be operated on self-sustainable basis. The advanced countries should chalk out means to support and develop the centers but the center themselves should attain capability of running on a cost recovery basis. The community of the developing countries requires mobilization support. Their situation cannot be salvaged in the way the advanced countries may conceive of in reality. However their local knowledge can assist them more appropriately to address their own problems in their own way.

To this date numerous programme had been undertaken and implemented which were not properly documented. Major investment had to be taken up afresh in a renewed scale without evaluating the need for any rehabilitation or consolidation of earlier programmes. Under the circumstance a systematic approach for evaluating the requirements and consolidating the gains is felt necessary.

**FORMATION OF NGO FORUM AND ITS EXPANSION**

The NGO Forum for Drinking Water Supply & Sanitation is a national NGO established in 1982. It is the apex networking services delivery agency of NGOs, CBOs and private sector actors which implements water and sanitation (WatSan) programmes in unserved and underserved rural and urban communities. Different types of initiatives have been facilitated under the Forum's Software Services that have contributed in creating a solid demand for safe WatSan facilities in the working areas. The capacity building of partners in addressing WatSan issues have also been initiated and enhanced through different need-based trainings. With a view to ensuring a better understanding 6,833 partner NGO staff have been oriented on WatSan issues through training and orientation courses while 482 private sector actors have been oriented and mobilized through different advocacy and networking initiatives. All these initiatives have enabled the partners implementing demand-responsive WatSan programme and ensuring community ownership over the WatSan set-ups.
SOFTWARE SERVICES

The WatSan sector of Bangladesh is to emphasize on behavioural change among the grass root level people. The perfect fusion of empowerment and behavioural change among the grass root level people alongside hardware support can catalyze a sustainable WatSan development. This realization is the spur to the aspiration for the NGO Forum to excel in Software Services, which combine initiatives for community mobilization, institution building at the grassroots level, empowerment of the partner NGOs and the community people and hygiene promotion etc. Since hardware facilities are not sufficient to bring about the optimum change in the WatSan arena, the integration of hardware and software is adopted by NGO Forum. The Software Services of NGO Forum is a combination of different capacity building components, i.e. Advocacy & Information Services, Training, Development Communication, Promotional Activities, Arsenic Mitigation and the Resource Centre Services.

ADVOCACY SERVICES

NGO Forum experiences that diversified approaches like social mobilization, lobby, networking, media advocacy, etc. should be brought together and integrated in a planned way based on the issue and audience for enhancement of good governance and social justice. This realization has made the Forum to pursue various agencies and stakeholders implementing their programmes in line with the National WatSan Policy to ensure a faster promotion of the sector. Therefore, the Forum runs Advocacy Services with its main partners, with ad-hoc alliances like the local govt. bodies, different community groups, private producers, and formal network with sectoral and trans-sectoral agencies, media, legislative level and donor bodies. Through participatory approach advocacy issues are identified and messages are developed.

In order to catalyze the active involvement of different group of people like the teachers, religious leaders, local administration, local elected bodies and other opinion leaders into WatSan promotion, collaboration meetings are organized at every region. The partner NGOs have performed their responsibility to extend all sorts of cooperation to the local allies to aware and motivate the grass root level people towards WatSan and hygiene practices.

Meeting with Sectoral Stakeholders:

NGO Forum on a regular basis organizes collaboration and coordination meetings with the policy-making authority and other important stakeholders at national and local level for ensuring a uniform implementation of WatSan activities throughout the country. NGO Forum initiated some advocacy steps to include water, sanitation and hygiene issues as separate chapter in the secondary school curriculum and to review the implementation status of the national WatSan policy and chalk out strategic directions towards better implementation of the policy. These issues were shared with policy-makers and stakeholders organizing different forums and their potential opinions were consolidated.
Advocacy Meeting with WatSan Private Sector

NGO Forum considers the private sector, who are involved in producing, manufacturing, selling and care taking different WatSan materials, as the important partners in the WatSan sector. Hence, the forum initiates to mobilize the private sector actors sharing information on national WatSan situation among them and to contribute in meeting up their financial and technical needs through organizing Advocacy Meeting at regional level. The private sector actors are encouraged and motivated for maintaining quality production, and afterwards they guide the buyers on proper installation, using and maintenance of the WatSan technologies.

Collaboration with Mass Media:

Mass Media can play a vital and positive role towards motivating and sensitizing people on any development issue. This experience prompts NGO Forum to conduct regular sharing and discussion with the journalists of both electronic and print media at national and local level. The agenda includes national and local level. The agenda includes national WatSan situation, WatSan programme implementation strategy, coverage, success, problems and other striking WatSan issues of different geophysical areas. The Forum organizes field visits for the journalists, and in turn the media people uphold the importance of safe WatSan practices highlighting the implementation strategy, coverage, success etc. of the Forum’s partner organizations as well as people’s views and WatSan challenges of the respective areas in their media.

Open Discussion with Local Allies:

Open discussions and (in) formal meetings are organized at regional level as well as community level to motivate and guide different groups of people from all walks of life like the teachers, religious leaders, local administration, local elected bodies and other opinion leaders in the community. As a result, later, these groups of people play their catalytic role in facilitating WatSan and hygiene campaign in the community to mobilize and make the grass root level people aware towards WatSan and hygiene promotion.

WatSan Fair

WatSan Fair, an exceptional initiative of NGO Forum, is organized at regional level to motivate and create awareness among mass people, and to motivate them practicing safe water and hygienic facilities. NGO Forum observes that the Fair not only creates opportunity for recreation but also helps changing attitude of general people towards using safe water and hygienic sanitation. The respective NGOs and government agencies, opinion leaders, different folk cultural groups and the community people participate in the Fair. The events like display of various IEC & BCC materials, demonstration of WatSan hardware components, demonstration of alternative water and sanitation technologies, audio-visual show, folk song on safe WatSan and hygiene issues, etc. which are organized in the Fair in an enter-educate manner. The Fair creates a festival atmosphere and ultimately sensitizes the community people towards safe WatSan and hygiene habit.
INFORMATION SERVICES

NGO Forum maintains a dynamic and free flow of information services by collecting and processing relevant WatSan data on national perspective as well as on its organizational profile and programmes, disseminates necessary information among partners, policy-makers, sector specialists and other potential stakeholders. This initiative of the Forum ultimately upholds its apex role in the sector. Inter-personal, audio-visual and print-media are explored for implementation of information services.

Inter-personal Media

Through inter-personal media, initiatives like workshop, seminar, symposium, discussion forum etc. are undertaken which serve the purpose of upholding important WatSan issues, centering which NGO Forum can play its apex role creating a common platform for sharing and collaboration among the policy-makers and major stakeholders in the sector.

Audio-visual Media

The audio-visual media are considered, these days, as the most available and popular tools to motivate the grassroots people towards safe WatSan and hygiene practices. Based on this, NGO Forum has been producing and transmitting promotional film, WatSan slide, promotional audio cassette etc. based on important WatSan and hygiene messages and transmitting various WatSan spots and programmes through Radio Bangladesh and Bangladesh Television and other private channels. Under the audio-visual package 26 Radio Programmes have been developed and broadcasted while 2 Radio spots have been developed and broadcasted for 491 times through Radio Bangladesh. Two TV spots have been telecasted for 44 times through BTV. The audio-visual media of the Forum has successfully disseminated various information and messages on WatSan and hygiene issues in an entertaining way among the target audience all over the country.

Print Media

Under the provision of print media monthly Bangla newsletter Pani Probaho, monthly WatSan Bulletin, the quarterly English newsletter WatSan, WatSan Information Pocket Book, Annual Report in Bangla and English versions, booklet on success story are published and distributed among the sectoral and trans-sectoral organizations, local allies, policy-makers, donor bodies and other potential stakeholders. These publications have been prepared based on the relevant sectoral information and messages. The print media package has disseminated information to and helped sensitizing a wider number of stakeholders in WatSan promotion.

TRAINING

An efficient work force is a pre-requisite to the smooth and effective functioning of the WatSan programme. In this regard training is considered as one of the indispensable tools for building a skilled and competent work force as the best way of transferring skills, knowledge, ideas and
experiences. Hence, NGO Forum has been facilitating its training programme in order to developing and enhancing capacity of partner NGO staff members, community members and private entrepreneurs to ensure their active involvement in the WatSan programme implementation.

In order to impart the training services efficiently NGO Forum has ramified its training courses into two main clusters: a) Human Skill Development Training; and b) Technical Skill Development Training.

*Human Skill Development Training*

The Human Skill Development Training of NGO Forum is targeted to strengthening the human resource base of the partner NGOs and community members for the effective implementation of WatSan programmes. Planning, management, communication, supervision, evaluation, inculcation of leadership and training of trainers, etc. are the areas where in training recipients receive expertise.

Attending the courses the trainees acquires thorough knowledge and expertise in relation to WatSan and hygiene promotion issues. The significant areas under the conducted courses are importance of personal hygiene, communication and motivation technique, utilization of folk-culture for WatSan promotion, process of social mobilization, women’s role in WatSan promotion, monitoring technique, process of Village Development Committee formation and mobilization, process of marketing of WatSan technologies and so on.

*Technical Skill Development Training*

With a view to building technical skills regarding production, operation and maintenance of WatSan facilities, different technical skill development training courses are being facilitated covering the community people and the private sector WatSan service providers. Under a number of technical skill development courses, organized on installation, repairing and maintenance of different safe water supply technologies, production and installation of different latrine technologies, arsenic mitigation etc., the participants have also been imparted with details on the relevant subjects and basic idea about the overall water supply and sanitation and its importance in life. The nature and content of one course varies from the other. On completion of the courses the participants have become enriched with necessary skills and hands on experience on the relevant technical subjects, and performed well in installation, maintenance and repairing of the provided WatSan technologies.

*Post-Training Efforts*

In order to measure the effectiveness of the imparted training courses, NGO Forum has been initiating post-training activities like follow-up & monitoring, conduction and facilitation of the Regional Training Network, etc. Through the trained staff of partner NGOs, 3 Regional Training Networks have been maintained for rendering training services effectively to the target community. In this regard, Core Group of trainers has been formed with the participants of the Training of Trainers course under each Region. During the reporting period, a total of 4
Orientations of such Core Group Trainers have been organized with the participation of 82 trainers.

**DEVELOPMENT COMMUNICATION**

Development Communication’s role is catalytic in initiating behaviour change among the grass root level people. Especially in case of the illiterate people, self-explanatory pictorial or visual materials can play very effective role in changing the KAP (Knowledge, Attitude & Practice). Based on this realization the Development Communication services of NGO Forum is intended to support different activities like training, promotional activities, information dissemination, etc. With the aim to raise awareness and initiate safe WatSan promotion, NGO Forum has been developing a wide variety of Information, Education and Communication (IEC) and Behaviour Change Communication (BCC) materials under the banner of its Development Communication services. These materials have been used very effectively to support the facilitation of different other programmes of the Forum. The distribution mechanism of the developed materials followed in this process is very well organized, objective oriented and target specific.

**PROMOTIONAL ACTIVITIES**

To improve and sustain the WatSan coverage, it is essential to change people’s WatSan behaviour. Thus, the Forum’s promotional activities have been implemented as the key to motivate the community people towards safe WatSan and hygiene practices. Partner NGOs & CBOs and local allies based on the analysis of social and cultural structure of the community undertake the promotional activities. The objectives of the promotional activities are to bring in behavioural change in terms of WatSan practice by reaching and communicating with various groups of people considering their age, literacy, socio-economic status and so on. Not only promoting the behavioural change of the community people, the Forum’s promotional activities rather creates a sense of ownership of WatSan facilities and programme among the community so that they can help and participate in implementing WatSan activities effectively which subsequently contributes in sectoral development. The promotional activities are supported with various IEC and BCC materials, developed by the Forum in order to make those more effective.

Considering the target audiences and nature of the activity NGO Forum has been facilitating the promotional activities splitting those into the following 3 clusters:

1. Capacity Building of Partners
2. Capacity Building of Community Allies
3. Hygiene Promotion and Mass Awareness
CAPACITY BUILDING OF PARTNERS

In order to capacitate the partners playing catalytic role for better implementation of the WatSan programme, the following capacity building courses have been undertaken by NGO Forum.

Partner NGO Staff Orientation

NGO Forum implements its WatSan programme with the support of its partners all over the country and the staff of the partner NGOs are directly involved in implementing the WatSan programme at the field level. With a view to enabling the field level staff of the partner organization playing their responsibilities more dynamically to sustain the WatSan activities, NGO Forum organizes orientation courses for its partner NGO staff. As regards capacity building of the partners, during the year 2002, the Forum has imparted the orientation courses to a total of 4,962 partner NGO staffs of whom 64% were male and 36% female from 280 different organizations. The oriented staffs have been imparted knowledge on the basics of safe water, sanitation and hygiene behaviour relevant information and through this orientation their skills to address WatSan issues have been improving significantly, and they have been playing their role as the change agents in the field of WatSan.

VDC Formation and Orientation

NGO Forum follows the community-responsive and community-managed approach in its programme implementation in order to sustain the WatSan achievement. With a view to ensuring the participation from different groups of the community, through its partner NGOs, the Forum forms a Village Development Committee by conducting discussion forum at the community level. This year, a total of 340 VDCs have been formed with involvement of 5100 community people ensuring the participation of both male and female members of the community.

CAPACITY BUILDING OF COMMUNITY ALLIES

To enhance the capacity of the community allies in WatSan promotion and influence them to motivate people towards safe WatSan practices NGO Forum implements the following capacity building activities under its promotional activities

School WatSan Programme

Since the school children are the leaders of tomorrow and they can play a significant role to drive the society towards sustainable development, NGO Forum organizes school WatSan programme under its promotional activities in order to raise awareness on water, sanitation and hygiene practices among the school children and promote them to transmit the WatSan messages to the respective family members and thereafter the neighboring families.
**Orientation of Religious Leaders**

In the rural society of Bangladesh most of the religious leaders are popular and respectable persons in their respective communities. Considering their social influence in the society NGO Forum has oriented the religious leaders in terms of safe water, sanitation and hygiene practices mobilizing them to elicit their role for the development of the community through WatSan promotion. The orientation has reinforced the commitment of the religious leaders in delivering the hygiene related massages, and has also improved the quality of message delivery.

**HYGIENE PROMOTION AND MASS AWARENESS**

For creation of community awareness on the link between health and safe water, sanitation and personal hygiene, the following components of the promotional activities have been conducted

**Courtyard Meeting**

Courtyard Meeting has been conducted at the village level and women groups of the village participate in the meeting. The meetings are arranged usually once a month in the courtyard of a village household with participation of some 20-30-village women. It is facilitated by partner organization’s staff for raising awareness among the women groups of the village and motivating them to adopt hygiene practices with particular emphasis on use of safe water and sanitation.

**Community Meeting**

In the rural society of Bangladesh most of the families are male headed and basically the male persons are playing the key role in their own household as well as in the society. Therefore, they are the dominant persons through whom the ideas of safe WatSan and hygiene practices can be transmitted effectively to the family members and thereafter the community people for behavioral change. With this end Community Meetings have been organized at the public places where the male group of the village can access easily.

**Rally & Miking**

With a view to promoting the concept of safe water, hygienic latrine and hygiene practices among the community people NGO Forum has been implementing its campaign activities like Rally & Miking. As an effective motivational tool for raising people’s awareness on WatSan issues through dissemination of messages the Rally & Miking has been proved to be very successful.
Observance of National & International Days

As the apex networking body of WatSan sector NGO Forum is organizing and participating in different programmes in observance of the national and international markable days in terms of water, sanitation, health, hygiene & environmental issues in collaboration with partners and sectoral stakeholders.

ARSENIC MITIGATION PROGRAMME

The excessive arsenic invasion in groundwater has been a great threat to safe water supply in Bangladesh. A large number of tube wells in 59 out of 64 districts have been assessed to be contaminated while about 30 million people are being exposed to the risk of arsenic poison. Therefore, being the leading organization NGO Forum with the objective to mitigate arsenic contamination in groundwater has been implementing various activities under a number of projects. Although the whole country has been considered under the arsenic mitigation initiatives, yet those areas have been considered with intensive focus, which are highly contaminated with arsenic.

Screening of Tubewell

For detecting the presence of arsenic in groundwater NGO Forum has continued screening of tube wells through its Regional Offices. During the year 2002, with the help of field testing kits a total of 15,791 tube wells have been tested while 23.8% has been found contaminated. All the testing of samples was conducted in 463 villages of 165 upazilas under 57 districts. Out of those, 217 villages have been found with arsenic concentration beyond permissible level. The concentration of arsenic in tubewell water in these villages have been traced 0.10 mg/l and the depth of the tube wells of the affected villages varies from 26 feet to 350 feet.

Water Quality Testing Laboratory

With the objective to provide quality water supply to the community NGO Forum has been operating a Water Quality Testing Laboratory as a business venture. More than 25 parameters of water including Arsenic, Iron, Residual Chlorine, Chloride, Fluoride, Nitrite, Nitrate, Phosphate, Sulfate, Aluminum, pH, Total Dissolved Solids, Suspended Solid, Alkalinity, Total Hardness, Salinity, Conductivity, Turbidity, Sodium, Potassium, Calcium, COD, BOD, Dissolved Oxygen, Bacteriological Analysis, etc. are among the testing services of the laboratory. This year a total of 6,541 samples have been tested for NGO Forum itself and other organizations and individuals. Alongside, the testing results have been crosschecked in SOES, Jadavpur University, Kolkata, India and the correlation has been found to be 95%.

Information Dissemination & Awareness Raising

Relevant, striking and updated information on arsenic issue has been highlighted in NGO Forum’s different publications. Exclusively arsenic issue-based IEC materials are being published and disseminated while this issue has also been upheld with due importance in other
publications. The quarterly English newsletter WatSan, monthly WatSan Bulletin etc. have prioritized the striking arsenic-based information while the monthly Bangla newsletter has maintained a regular column named arsenic column, which has been furnished with arsenic related information and news. During the reporting period different IEC materials have been published and disseminated among different NGOs, CBOs, govt. offices, donors, mass media, community people and other important stakeholders upholding the arsenic issues.

Inter-agency & Trans-sectoral Collaboration

Through sharing of findings and experiences from field level interventions NGO Forum has maintained a regular collaboration with relevant government agencies, donors, universities, and UN-bodies as well as with other implementing NGOs. The Forum has extended necessary cooperation to its partners and stakeholders in terms of identifying arsenicosis patients and testing of water samples at field level.

Other Initiatives

As a means of mitigating arsenic contamination different alternate safe water supply sources have been promoted and people have been motivated to use those. Arsenicosis patients have been identified and supported to take necessary measures. The capacity of local governments has been strengthened for arsenic mitigation and committees have been formed at upazilla, union and ward level where the representation of the LGI along with the community allies has been carried out.

HARDWARE SUPPORT

NGO Forum implements a hardware-software integrated WatSan programme in order to achieve a sustainable development in the sector. The need is enormous in commencing the improvement of the public health situation of the country. Through Hardware Support NGO Forum provides physical WatSan facilities to ensure access to the grass root level people, prioritizing the unserved and underserved areas. The apparently high coverage in the safe water supply (97.5%) does not necessarily indicate the usage of safe water by all. Because the arsenic invasion in groundwater has lowered the coverage to 70% while other challenges persist such as declining groundwater table, saline intrusion, water-logging in the southern parts, rocky and hilly areas’ problems and, the existence of unserved and underserved pocket areas in terms of basic safe water facilities. Again, sanitation status is far too worse than that of the water supply. With the perturbing concern of high rate of open defecation, hanging latrines, unsanitary behaviour of people, poor personal hygiene maintenance and the poor sanitation coverage (43.4%), it is very much evident that there is still a long way to pursue towards the sanitation goal.

The overall WatSan situation of the country leaves a lot to do as regards providing physical facilities, i.e. hardware supports. NGO Forum’s Hardware Supports have been materialized through the partner NGOs and CBOs in form of different feasible water supply technologies, arsenic-detecting equipments, maintenance tools for the water-points, village sanitation centres (VSC) for production of variety low-cost hygienic latrines and mould-set and equipments for
VSCs. All these supports are demand-responsive and dedicated to bring in the optimized change in peoples’ access level to safe WatSan facilities.

Safe Water Supply

Until the recent years Bangladesh had been the proud proclaimer of success as regards access of people to safe water supply facilities. The access of 97.5% population to apparently safe water sources (TW/Tap/Ring-well) has positioned Bangladesh to lead the South Asian countries. But the established safety of shallow tubewell has come to a grave question after the invasion of arsenic in groundwater, poisoning the shallow tube wells.

Hygienic Sanitation

Although the hygienic sanitation has a direct linkage with public health, the sanitation coverage in Bangladesh is still far behind the desired situation. The low sanitation coverage is directly linked to affordable sanitation technology since it has financial involvement of the community people. In the recent days it is also seen that community has only a few options mainly water seal latrine, home-made pit latrine etc. In this regard NGO Forum has been providing information to the communities on low-cost latrine facilities. In order to increase sanitation coverage NGO Forum has been operating VSCs at the community level. These VSCs are promoting different latrine technologies, which are low-cost, affordable and appropriate as per different soil condition. These VSCs are being run by the partner NGOs of the Forum and by the private latrine producers.

Village Sanitation Centre

NGO Forum through its partner NGOs and private latrine producers has been running VSCs targeting the unserved and underserved areas, which are located at the remote unions. It is a very need-based practice of NGO Forum that after a long period of services when a considerable coverage is achieved by the Forum, or other VSCs have been set-up near any VSC, those are relocated to the most unserved and underserved places, which matches with NGO Forum-principle.

RESEARCH, MONITORING & EVALUATION

The Monitoring System of NGO Forum follows a participatory mechanism in operating the monitoring activities. Covering the accountability structure the Forum facilitates the regular monitoring in three levels adjusting the three levels of programme implementation. The levels are:

1. Monitoring of NGO Forum’s own activities
2. Monitoring of the WatSan performance of the partner organizations
3. Monitoring of the WatSan behaviour of the community people
The participatory monitoring package is materialized with the active involvement from three levels.

1. Monitoring by NGO Forum Regional Offices
2. Monitoring by Partner Organizations
3. Monitoring by Community Allies

The active participation of partners in monitoring builds a sense of ownership of the programme among the partners, encourage joint actions based on mutual understanding of issues and strengthen future planning and action. With a view to assessing the progress of its own programme in an effective manner the Forum facilitates a hardware-software balanced monitoring system, which has been implemented in an integrated approach. Four areas i.e. Sanitation; Water Supply; Training; and Information, Education & Communication (IEC) activities are assessed under the hardware-software mixed monitoring package. Under this package the qualitative and quantitative aspects of the hardware and software programmes have been monitored in order to assess their efficiency and to find mechanisms to keep those in the right track.

**Applied Research on Impediments towards Sanitary Latrine Coverage in the Rural Bangladesh**

Although the latrine coverage in rural Bangladesh has been improved in the last two decades but the use of sanitary latrines, hygienic behaviour and maintenance of latrines of the community people are still remaining in the dire situation. Therefore, with a view to assessing people’s perception on available latrine technologies in respect to social acceptability, affordability, convenience, privacy and health risk NGO Forum has conducted the Study. The specific objective of the Study was to identify relationship among the design of available latrine technologies and status of sanitary latrine coverage and latrine related behaviour of the people. The Study has been carried out in five upazilas of Manikganj, Satkhira, Habiganj, Sylhet and Sunamganj districts.

**Research on Development of a Low-cost Household Filter**

Against the reality of arsenic contamination in groundwater many alternatives have been considered throughout the country. Among many options, household filter can be a safe alternative which may create the opportunity to avoid arsenic contaminated tube well water and drink surface or high turbid water through filtration. In relation to supply of safe and purified drinking water, different types of filters are being used in urban areas. But the rural people cannot afford these since these are costly. In this regard, NGO Forum has carried out a research to design a low-cost household filter, evaluate filtration capacity of the filter and water qualities after filtration.
**Action Research on Rainwater Harvesting**

The Project is being carried out in 15 severely arsenic affected villages in the low water-table areas under Charghat and Bagha upazillas, Rajshahi district. The Project has also been carrying out a number of software activities to make the System popular among the community people. The Project is demonstrating the usefulness and effectiveness of the System in the reality as an alternative source of safe water, which has contributed to a great extent towards social acceptance of the Rain-water Harvesting Systems among the villagers. Under the Project, 6 types of the system based on the experiences and best practices have been adopted from neighbouring countries (Nepal, Thailand, Sri Lanka). A total of 72 RWHS have been designed and installed this year. These technologies have been serving 332 people of 72 families in the project areas.

**Action Research on Micro-credit Financing** for Water Supply and Sanitation

This Action Research has two components: Micro-credit and hygiene & sanitation promotion. The action research has been carried out primarily at three villages in three geophysical areas (hilly, coastal and plain land). Using the VDCs as instrument of hygiene promotion and peer pressure for loan repayment and by capacity building of VDCs and Village Groups this Project has been contributing to hygiene promotion and overriding objective of poverty alleviation by promoting IGA credits. A total of 3 Village Development Committees have been formed with 47 members. Participatory planning for hygiene and sanitation at Village Group and VDC levels have been carried out and implemented. A number of promotional activities have been carried out to motivate people. The Village Groups have been operating micro-credit for WatSan through Village Development Committee with credit line of local NGOs as an initiative to address the hard-core poor in the WatSan programme and an attempt to replace subsidies.

**ROLE OF NRC WITHIN NGO FORUM**

NGO Forum is the single largest WatSan agency functioning outside government of Bangladesh. It comprises of 600 NGOs and a total workforce comprising of 38,000 personnel. The key staff operational within the regular staffing is almost 300. The number of projects that NGO Forum undertakes itself is therefore voluminous. It is anticipated that to streamline such a vast and varied activities and streamline them so that they can function effectively requires of a planning unit. While the NRC’s strategic plan was being formulated it was observed that if NRC works to coordinate and monitor these projects it would be able to earn its self-sustainability to a great extent. This was subjected to the fact that NRC is given the scope and provided that it nourishes and nurtures such kind of efficient resources, effective logistics and equipments. The same way NGO Forum would benefit in optimizing its numerous projects and thereby reduce operational difficulties and at the same time increases its effectiveness in the WatSan sector. Thus, NRC and NGO Forum can function in a symbiotic way.

Moreover, it was also predicted that it would assist in carrying out activities based on collaboration studies, joint projects with various academic bodies, research institutions, government agencies, consulting houses etc. in a manner in which NGO Forum’s credibility would be boosted. It would function as an independent body reviewing all WatSan projects and
evaluating them with a third eyes view. In this manner international bodies, donor agencies, diplomatic offices would seek support and assistances from NRC to evaluate the WatSan sector and in this way NGO Forum would also be benefited and get rid off its mistakes and learn from such studies.

In fact NRC was seen as an independent offshoot of NGO Forum, which would function as an autonomous, body and which would provide support to the Forum by attracting external projects and supports. All study components, training, seminar, symposium, publications etc. would be either hosted or their quality controls ensured through NRC. In the process NRC was to be provided with a very advanced database, internet support and websites, expatriate supporting capabilities, various logistics and protocol services. In effect it would also function as a networking agency of NGO Forum, which can exploit it effectively for procuring projects and new programmes.

Under the circumstances NRC and NGO Forum was supposed to function symbiotically. In return NGO Forum with its long 20 years credibility would provide the grounds for NRC to generate/formulate new projects and programmes which may be sustainable for NRC as well as for supporting NGO Forum.

**GROWING ROLE OF NGO FORUM AS A RESOURCE CENTRE**

NGO Forum has been functioning as a Resource Centre ever since its inception in 1982. Quite unknowingly this has been noticed since the introduction of the Resource Centre concept. However the functions that NGO Forum has been dispensing was more as a source of channelling new technology and concept that was brought in by the donor agencies to boost up the WatSan activities in Bangladesh. The initiatives to identified was purely as had been conceived by the donors and not accordingly to the need of the society. The activities carried out were both in form of hardware and software and it immensely assisted in expanding the NGO Forum’s network at least. Gradually this picked up the momentum and some systematic scheme was adopted and methodologies adopted to devise the activities properly. However, no planning efforts were carried out to evaluate the need analysis nor any attempts were undertaken to consolidate the technology within the Forum. Only whatever aid came in were channelled to the society and too was as per what donors felt to be required.

NGO Forum gradually expanded its network and at least its establishment became stable in the last 20 years progression. Within this period it also gained credibility as the sole and apex body, bringing 600 PNGOs under one roof, working in unison. The curriculum was developed by the donors through external funding and awareness campaign, motivational drive and educational drive were devised to boost up the activities. Gradually water supply and sanitation became a major issue for the society as the population grew and environmental degradation process set in. under the circumstances various cells were set up to address the issue on a hand to mouth basis to address the issues. This grew quite indiscriminately and no proper institutional process was adopted to consolidate the issues.
With the advent of time and need, proper planning requirements were felt and question of sustainability and consolidation of technology gave rise to the Resource Centre concept, which was recently introduced. As an attempt to properly institutionalize the new technology adopts a knowledge base the Resource Centre (RC) concept revolutionized the NGO Forum’s role. All of a sudden it was identified that the Forum was functioning all the time as a RC in boosting up the knowledge base of the society in WatSan sector. This conception has revolutionized the Forum’s activities and overnight the corporate strategy was felt to be revised.

The growing role of NGO Forum as a RC is a need of the time. A number of issues gradually came up as information and knowledge became a major issue for uplifting the WatSan sector. Another major issue was the proper institutionalization and consolidation of efforts, which pushed for the RC concept to be popularized. Moreover, the growing need for sustainability and cost recovery of services became a major issue since the flow of aid from external source dwindled on other sectors. Under the circumstances it became evident that NGO Forum has to adopt the role of a RC in the long run. A quick means out from the present situation may by initiating that process through NRC. As a result the NRC as a pioneering venture was taken up as advocated by the donors. As a consequence NGO Forum is striving to adopt the strategy of functioning as a RC and NRC is a principle lead through where experience it can further consolidate its activities as a RC.

**WAY FORWARD**

The world presently is moving towards a globalization process wherein a concept of village community may be conceived for a country in the global village. Shortcomings of a particular village will definitely affect the global village and it is a shame why the developing world should suffer when the advanced countries can assist them. However assistance should not cripple the self-efforts of the third world and resource centre can be a very good means for supporting them in a radically new concept. The world today looks towards friends not masters and resource centre can assist o serve the purpose very well in a befitting manner.

Knowledge is power. The advanced countries possess this powerful tool. Efforts should be such that the developing world communities gain pace with the advanced countries. Resource centres can be a very well means to fulfil that parity and bring about compatibility within a short span of time. We all live in a global village and it is a sharing process by which we bear feeling towards one another to fulfil that dream. Resource centres can assist in fulfilling that dream into a reality.