Purpose

Safe water and sanitation are essential for the development of public health. The Government's goal is to ensure that all people have access to safe water and sanitation services at an affordable cost. To achieve this goal and to ensure that development in the water supply and sanitation sector is equitable and sustainable, formulation of National Policy for Safe Water Supply and Sanitation is essential.

Background

The Government started its initial intervention in the water supply and sanitation sector with the objective of gradually building an effective service delivery mechanism about 62 years ago. After independence, the Government laid emphasis on rehabilitation of damaged water supply and sanitation services and installation of new facilities in rural and urban areas through the Department of Public Health Engineering (DPHE). Services were provided mostly free of charge. The role of the users in decision-making, cost sharing and operations and maintenance was negligible. However, subsequently user participation increased significantly. Rural communities are now responsible for operation and maintenance of hand-pump tube-wells and receive training for the purpose. The responsibility for installation, operation and maintenance of urban water supply (excepting Dhaka, Narayangong and Chittagong) was initially with DPHE only but now it is shared with the Paurasabhas. Recent project-based activities in the Paurasabhas and their involvement in planning, implementation and management have had a positive impact on improvement of Paurasabha capacity. Most of the Paurasabhas and the Union Parishads now have Water Supply and Sanitation Committees (WATSAN) comprising the user communities for supervising water and sanitation related activities. In addition to DPHE, the Local Government Engineering Department (LGED) is also involved in planning and implementation of water and sanitation services in certain Paurasabhas and growth centers identified by the Planning Commission under selected projects. In 1983 Water Supply and Sewerage Authorities (WASA) were established in Dhaka and Chittagong cities. The responsibility of water supply, sewerage and drainage in Dhaka city and water supply in Chittagong city now rests with the respective WASAs. In the year 1990 Narayanganj town was brought under the jurisdiction of Dhaka WASA. In Dhaka city water supply coverage is only 65% and sanitation coverage is around 72%, of which 30% may be assigned to water borne sewerage. But the average coverage conceals the intra- and inter-regional disparities. The ratio of tube-well to persons is around 70 in the
shallow water table area; and 200 and 300 in the coastal and low water table areas respectively. Pollution of surface water is increasing because of imperfect water management and environmental pollution. The recent detection of arsenic in ground water is an issue of grave concern. To preserve environmental quality and to mitigate arsenic contamination research and field surveys are being carried out.

The government is encouraging and supporting the involvement of other partners, such as non-governmental organizations (NGOs) market oriented business organizations and similar private organizations in water and sanitation development. This combined promotional campaign for better health and hygiene has increased the demand for tube-wells and sanitary latrines. Due to increase of private sector its capacity for production, installation and maintenance of tube-wells and sanitary latrines has also increased. Materials for installing tube-wells and spares for maintenance are produced by private manufacturers and are available in the market in abundance. The materials which were imported before are now mostly manufactured in the country. A number of NGOs have devised and implemented innovative and effective approaches for service delivery.

2. Overview

The gradual success made by Bangladesh in the provision of basic water supply services to its rural population has earned plaudits. In terms of a service level defined as percentage of population living within 150 meters of a tube-well, the present rural water supply coverage is over 90% and the rural sanitation coverage is 16%, though it increases to 42% when ‘home-made’ latrines are considered. The urban water supply and sanitation coverages are both around 50%.

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1 Rural and urban sanitation coverage is presently defined as on sanitary latrine per household.
2 Home-made latrines are defined as pit latrines without water seal pans and without pit linings.
3 Urban water supply coverage is presently defined as one house connection per household or one street hydrant per 100 people.
Although the achievement is significant in the context of South Asia, it is recognized that the goal of total improvement in general health and well being has only been partially achieved. Incidences of morbidity and mortality from water-borne diseases are still high and achievement in behavioral changes in sanitation leaves much to be desired. Inequities in access to water and sanitation services persist. Urban areas are better served compared to the rural areas and in the rural areas the poor enjoy fewer facilities compared to the rich. On the other hand, the facilities provided are not used optimally and service sustainability remains to be improved. Consequently, development activities are hampered and efforts to improve public health have had limited effect. However, many development projects have attempted to redress these inadequacies but these adopt divergent approaches and the benefits are limited only within project boundaries.

It is globally recognized that physical provision of services alone is not a sufficient pre-condition for sustainability or improvement of health and well being of the people. Greater attention needs to be focused on elements of behavioral changes of users and sustainability through user participation in planning, implementation, management and cost sharing. The need for change within the conventional programs are recognized by the government and all the stakeholders in the sector. The aim to bring about the changes calls for transition from traditional service delivery arrangement. Institutionalization of strategic partnership process between the central and local government in coordination with other organizations within the civil society is one way of bringing about this change. This will result in the introduction of a service delivery process whose focal point will be the user communities. The change will necessitate the adoption of new institutional and financial arrangements. The knowledge and idea acquired from this new approach and experience could be reflected in a comprehensive policy. The government recognizes the urgent need of a comprehensive national water and sanitation policy which would reflect its commitment to pursuing a sustainable strategy and incorporate the initiatives based on recent experiences. The national policy shall provide a long term framework for adoption and implementation of action plans of the government.

In the policy, awareness of the longer-term perspective is also important. In this perspective, it will be easier to take appropriate actions within the regular programme under normal circumstances. At the same time, it will be helpful in facing emergency situations. The National Policy will
encompass a vision for the future in the light of which programmes can be undertaken in a systematic manner.

Considering the above the National Drinking Water Supply and Sanitation Policy has been formulated with the objective of making water and sanitation services accessible to all within the shortest possible time at a price affordable to all. Past experiences were reviewed to emphasize the positive aspects while formulating the policy.

3. Objectives:

The objectives of the 'National Policy for Safe Water Supply and Sanitation' are to improve the standard of public health and to ensure improved environment. For achieving these objectives, steps will be taken for:

a) facilitating access of all citizens to basic level of services in water supply and sanitation;

b) bringing about behavioral changes regarding use of water and sanitation;

c) reducing incidence of water borne diseases;

d) building capacity in local governments and communities to be effectively with problems relating to water supply and sanitation;

e) promoting sustainable water and sanitation services;

f) ensuring proper storage, management and use of surface water and preventing its contamination;

g) taking necessary measures for storage and use of rain water;

h) ensuring storm-water drainage in urban areas.

Within the overall objectives the following targeted for achievement in phases in the near future:

i. Increasing the present coverage of safe drinking water in rural areas by lowering the average number of users per tube-well from the present 105 to 50 in the near future.

ii. Ensuring the installation of one sanitary latrine in each household in the rural areas and improving public health standard through inculcating the habit of proper use of sanitary latrines.

iii. Making safe drinking water available to each household in the urban areas.

iv. Ensuring sanitary latrine within easy access of every urban household through technology options ranging from pit latrines to water borne sewerage.
v. Installing public latrines in schools, bus stations and important public places and community latrines in densely populated poor communities without sufficient space for individual household latrines.

vi. Ensuring supply of quality water through observance of accepted quality standards.

vii. Removal of arsenic from drinking water and supply of arsenic free water from alternate sources in arsenic affected areas.

viii. Taking measures in urban areas for removal of solid and liquid waste and their use in various purposes. Ensuring the use of waste for the production of organic fertilizer (compost) in the rural areas.

4. Strategy

The strategy of the National Drinking Water Policy will be developed on the following principles:

a) All sector development activities shall be planned, coordinated and monitored on the basis of a sector development framework which will be prepared after the formulation of the Policy;

b) Participation of users in planning, development, operation and maintenance through local government and community based organizations of the stakeholders;

c) Development of water supply and sanitation sector through local bodies, public-private sector, NGOs, CBOs and women groups involving local women particularly elected members (of the local bodies in the sector development activities);

d) Gradual community cost-sharing and introduction of economic pricing for services;

e) Assigning priority to under-served and un-served areas;

f) Adoption of water supply and sanitation technology options appropriate to specific regions, geological situations and social groups;

g) Local Government institutions/Paurashavas to bear increasing share of capital cost;

h) Improvement of the existing technologies and conduct of continuous research and development activities to develop new technologies;

i) Close linkages between research organizations and extension agents/implementing agencies;

j) Social mobilization through publicity campaign and motivational activities using mass media among other means to ensure behavioral development and change in sanitation and hygiene;

k) Capacity building at the local/community level to deal effectively with local water and sanitation problems;
l) Mobilization of resources from users, GOB and development partners for implementation of activities of the sector in a coordinated manner based on targeted plan of action;

m) Providing credit facilities of an sanitation service;

n) Regular qualitative and quantitative monitoring and evaluation to review progress of activities and revision of the strategy based on experiences;

o) Wherever feasible safe water from surface water sources shall be given precedence over other sources; and

p) With a view to controlling and preventing contamination of drinking water, regular and coordinated water quality surveillance by Department of Public Health Engineering (DPHE), National Institute for Preventive & Social Medicine (NIPSOM), Atomic Energy Commission and Department of Environment (DOE) and random testing of quality of drinking water (including bottled water) by DPHE, Bangladesh Standard Testing Institute (BSTI) and DOE to determine the level of contamination;

q) Adoption of necessary measures in urban areas to prevent contamination of ground and surface water by solid and liquid wastes.

5. Definition

i. Safe water supply means withdrawal or abstraction of either ground or surface water as well as harvesting of rain-water; its subsequent treatment, storage, transmission and distribution for domestic use.

ii. Sanitation means human excreta and sludge disposal, drainage and solid waste management.

iii. Sector means the safe water supply and sanitation sector.

6. Scope

This policy shall cover the geographical area comprising Bangladesh.

7. Policy Principles

Based on local and international experiences, the following principles have been adopted as the basis for policy formulation:

**Basic needs** - It is necessary to expand and improve the water supply and sanitation services in order to satisfy the basic needs of the people. The need to expand these facilities is greater in the case of under privileged groups and regions.
The value of water - Water has an organic, social and concurrently an economic value. To ensure that service provision is viable, the price of water should reflect its economic value, with the eventual objective of covering the cost of supply. However, the transition from the current level of subscription to new rate of payment should be gradual and there should be a safety net for hard-core poor communities.

Participation of users - Users are at the center of all development activities. Effective use of resources and the provision of appropriate service level is facilitated by user participation at various stages of planning, implementation, operation and maintenance.

Role of Women - Since women play a crucial role in water management and hygiene education at the household level, recognition of women's role will contribute to the overall development of the sector.

Technology Options - Promotion of various technology options will be sustainable for both water supply and sanitation keeping the needs of specific areas and socio-economic groups of people.

Investment - Investment in the sector should focus on facilitating water and sanitation services, leading to improvement of public health, well being of the people and economic development. It is important to address the weaknesses on a priority basis with emphasis on maintaining the operation of existing services. At the same time further coverage, specially to the under-privileged sections of the community, is necessary. Investment projects in this sector will be successful if these take into consideration the above-mentioned issue. The formulation and revision of the project will also be easier if the project incorporates the lessons learned and uses the feedback from the field.

Integrated development - Isolated initiatives for development of water and sanitation services generally lead to waste of resources. To ensure best use of limited resources for effective development, coordination is necessary among all tiers of the government, local government bodies, NGOs and other related parties including private sector.

Capacity building - The capacity of the sector should be expanded in order to improve and broaden the reach of services it provides. This will require actions related to human resource development, implementation of appropriate institutional arrangements, active involvement of user groups, and new roles for the government, local government bodies, NGOs and private organizations. Decentralization of decision making, training at the local level and local initiatives for resource planning are essential for success.

Private sector - Many functions of the water supply and sanitation sector can be undertaken by private organizations. This will promote increased service coverage and thereby lessen the burden on the government. It is necessary to
strengthen an administratively and financially enabling environment for the private sector to participate and contribute to sector development. Involvement of the private sector is essential to establish a closer relationship between the quality of services of the sector and its financial viability.

**Environmental integrity** - It is desirable that all development activities related to water supply and sanitation are considered within broader environmental considerations.

**Emergency responses** - All government and non-government bodies should be prepared to take necessary measures for immediate response before and after natural disaster. Involvement of all other stakeholders is also necessary.

**Holistic approach** - Drinking water supply and sanitation is a sub-sector and as such should be coordinated into the overall National Health Policy, National Water Policy, National Education Policy and National Environment Policy.

8. **Policies**

In general, the urban and rural water supply and sanitation issues appear similar, but they do differ in institutional aspects, and in content and magnitude. As such, policies for rural and urban areas are presented separately.

8.1 **Rural Water Supply**

8.1.1. Communities shall be the focus for all water supply activities; all other stakeholders including the private sector and NGOs shall provide coordinated inputs into the development of the sector with DPHE as the lead agency.

8.1.2. Local government bodies in village, union and thana level shall have a direct role in planning, implementation and maintenance of rural water supply and the activities of public and private sector agencies will be coordinated accordingly.

8.1.3. As water is increasingly considered to be an economic good as well as a social good, water supply services shall be provided based on user demand and cost-sharing. In the near future concerned communities shall share at least the following portions of costs: (a) 50% for hand tube wells in shallow water table areas, (b) 25% for hand tube wells in low water table areas, (c) 20% for deep hand tube wells and other technologies for difficult areas.

8.1.4. User communities shall be responsible for operation and maintenance of water supply facilities and shall bear its total costs.
8.1.5 Women shall be encouraged and supported to actively participate in decision making during planning, operations and maintenance.

8.1.6 The rural water supply program shall support and promote a range of technology options. Technological packages and specifications for hardware and service levels shall be formulated on the basis of experience, needs and results of research and development. The experiences gained in this regard by DPHE, Private Sector, NGOs, CBOs will be shared for appropriate programme development.

8.1.7 During natural disaster, necessary measures shall be taken on an emergency basis so that people have access to safe water and do not have to drink contaminated water. Necessary measures shall also be taken to prevent contamination and damage of tube wells during natural disaster. DPHE shall store enough materials and spares to take immediate action for repairing or installing tube wells in collaboration with local bodies, NGOs and CBOs. While the tube wells installed immediately after natural disaster will be free of cost, a part of rehabilitation of tube wells will be charged according to the age of the tube well damaged or destroyed.

8.1.8 The capacity for qualitative and quantitative monitoring, analysis of information and policy implementation of the Local Government Division will be improved.

8.1.9 Alongside the program for distribution of hardware, emphasis will be given on publicity campaign and social mobilization through training of volunteers at village level for use of safe water for all purposes and water conservation.

8.1.10 Priority will be assigned to water supply in difficult and under-served areas.

8.1.11 In each and every village of Bangladesh at least one pond will be excavated/re-excavated and preserved for drinking water. Necessary security measures will be undertaken to prevent water of the pond from contamination.

8.2 Rural Sanitation

8.2.1 Local government and communities shall be the focus of all activities relating to sanitation. All other stakeholders including the private sector and NGOs shall provide inputs into the development of the sector within the purview of overall government policy with DPHE ensuring coordination.

8.2.2 The users shall be responsible for operation sanitation facilities and will bear its total cost.
8.2.3. Measures will be taken so that users can bear increased cost of sanitation services. However, in case of hard core poor communities, educational institutions, mosques and other places of worship, the costs may be subsidized partially or fully. In public toilets separate provision shall be made for women users.

8.2.4. Behavioral development and changes in user communities shall be brought about through social mobilization and hygiene education in coordination with the Ministries of Health, Education, Social Welfare, Information, Women & Children Affairs and DPHE, NGOs, CBOs, local government bodies and other related agencies.

8.2.5. Women shall be encouraged and supported to actively participate in decision making during planning, implementation, operation and maintenance.

8.2.6. The rural sanitation programme shall support and promote a range of technology options for water and environmental sanitation. Technological packages and specifications for hardware and service levels shall be formulated. The experiences gained in this regard by DPHE, NGOs, CBOs will be shared for sustainable program development.

8.2.7. Use of organic waste material for compost and bio-gas will be promoted and contamination of water by various waste materials will be discouraged.

8.2.8. Within a specified period legislation will be enacted making use of sanitary latrine compulsory.

8.3 Urban Water Supply

8.3.1. In order to make the water supply system sustainable water would be supplied at cost. However, educational and religious institutions will be provided with water as per existing government rules.

8.3.2. In the near future water tariff shall be determined on the basis of the cost of water production, operation and maintenance, administration and depreciation.

8.3.3. Water Supply, Sewerage Authorities (WASAs) shall be responsible for sustainable water supply in the metropolitan areas where WASAs exist. Whereas in other urban areas the Paurasabhas with the help of DPHE shall be responsible for the service.

8.3.4. WASAs and the Paurasabhas shall be empowered to set tariffs, bylaws, appointment of staffs, etc. according to their needs and in accordance with the guideline laid down by the government.
8.3.5. WASAs and the Paurasabhas shall improve their operational efficiency including financial management. In the near future billing and collection targets will be 90% and 80% respectively. Paurasabhas and WASAs will take actions to present the wastage of water. In addition they will take necessary steps to increase public awareness to prevent misuse of water. Paurasabhas will take appropriate measures to reduce unaccounted for water from 50% to 30%. Dhaka WASA and Chittagong WASA will also lower their unaccounted for water from the present level.

8.3.6. In order to promote operational efficiencies the government's development grant to the Paurasabhas shall take into account the following:

a) water supply coverage in terms of area and population;
b) amount of un-accounted for water;
c) increase in revenue income.

8.3.7 The role of women in planning, decision making and management shall be promoted through ensuring increased representation in management committees/boards (Paurasabha/WASA).

8.3.8 Private sector participation will be promoted through BOO/BOT and other arrangements. For this purpose opportunities will be created for involving the private sector in billing and collection. A guideline on private sector participation in the sector will be prepared by the government.

8.3.9 During natural disaster WASAs and relevant agencies shall take appropriate measures for providing safe drinking water. This will include repairing and cleaning of pipelines, production well and other installations, emergency supply through water trucks and other necessary measures. The government will reimburse the cost of water supplied free of charge by the Paurasabhas, WASAs and other related agencies during emergency situations.

8.3.10 Monitoring of water quality for the purpose of ensuring an acceptable standard will be the responsibility of DPHE, DOE, BSTI, Atomic Energy Commission (AEC) and CBOs and they will send their report to the water quality control committee in the Local Government Division.

8.3.11 WASAs and relevant agencies shall support and promote any collective initiative in slums and squatters in accessing water supply services on payment.

8.3.12 WASAs, DPHE, BUET and AEC shall conduct research and development activities for the development of appropriate
technologies and other developments with special emphasis on difficult and under-served areas. They shall share the results of research and development and provide technical support to the private sector.

8.3.13 Efforts shall be made to upgrade the capacity of the Paurasavas and WASAs for planning, designing, implementation, management and human resource development and the DPHE shall have appropriate institutional linkages for this purpose. For future planning and strategy formulation regarding development projects Local Government Division's Monitoring, Evaluation & Inspection Wing shall monitor the activities of the sector.

8.3.14 In consultation with relevant government and non-government organizations DPHE, WASA and BUET will formulate an appropriate training program and impart the same in a decentralized manner.

8.3.15 The capacity of the Monitoring, Evaluation and Inspection Wing of Local Government Division for qualitative and quantitative monitoring, analysis of information, policy implementation, evaluation and revision shall be increased.

8.3.16 NGOs will play appropriate role in undertaking motivational activities.

8.4 Urban Sanitation

8.4.1. The sanitation system shall have to be self-sufficient and self-sustaining. Sanitary latrine in every household will be promoted. Along with individual sanitation, public and community latrines will be set-up by City Corporation/Paurasabha and leased out to private sector for maintenance.

8.4.2. The City Corporations or Paurasabhas shall be responsible for solid waste collection, disposal and their management. These organizations may transfer, where feasible, the responsibility of collection, removal and management of solid waste to the private sector. Where WASAs exists, they shall be responsible for sewerage and storm water drainage systems.

8.4.3. The City Corporations and Paurasabhas shall be empowered to set tariffs, by-laws, appointment of staffs, etc. according to their needs and in accordance with the guidelines laid down by the government.

8.4.4. The role of women in the process of planning, decision making and management shall be promoted through their increased representation in management committees/boards (Paurasabha/WASA).
8.4.5. Drainage system in the cities and municipalities will be integrated with the overall drainage system with the coordination of Ministry of Water Resources.

8.4.6. Private sector and NGO participation in sanitation will be encouraged. 8.4.7. Behavioral development and changes in user communities shall be brought about through social mobilization and hygiene education in alliance with the Ministries of Health, Education, Social Welfare, Information, Women & Children Affairs, DPHE, NGOs, CBOs, local government bodies and other related agencies.

8.4.7. In consultation with relevant government and non-government organizations DPHE, WASA and BUET will formulate an appropriate training program and impart the same in a decentralized manner.

8.4.8. Department of Environment will be consulted on solid waste management.

8.4.9. Measures will be taken to recycle, as much as possible, waste materials and to prevent contamination of ground water by sewerage and drainage.

9. Institutional arrangement

As regards water supply and sanitation sub-sector the Local Government Division will be responsible for overall planning, identification of investment projects and coordination of activities of agencies under it (viz. DPHE, LGED, WASAs) and local government bodies, private sector, NGOs and CBOs (community Based Organizations). But each of the relevant organizations/institutions will be responsible for its own activities. To coordinate, monitor and evaluate the activities of the sector and to determine future work programme Local Government Division will constitute a forum with representatives from relevant organizations.

Except Dhaka and Chittagong city areas DPHE will be responsible for the water supply and sanitation of the whole country. In other urban areas the Department of Public Health Engineering will solely or jointly with the Paurasabha be responsible for such services. In urban areas DPHE will be responsible for assisting the Paurasabhas and City Corporations (except in the cities of Dhaka and Chittagong) through infrastructures development and technical assistance as may be necessary. Besides, both in rural and urban areas, DPHE will increasingly collaborate with private sector, NGOs and CBOs.
In particular foreign aided projects where it is specifically required as a component of overall infrastructure package, LGED may undertake water supply and sanitation related activities. In such project-based cases LGED shall assist the concerned Paurasabha in the implementation and provide technical assistance.

Relevant WASAs will be responsible for water supply and sanitation in Dhaka and Chittagong city areas. Involvement of the private sector in these activities will be explored and examined.

Local Government bodies like Zilla Parishad, Upazila Parishad, Union Parishad and Gram Parishad will be gradually provided with more scope to contribute in the activities of this sub sector.

Congenial atmosphere will be created and necessary support provided to facilitate increased participation of the private sector, NGOs and CBOs in the activities of the sector both in rural and urban areas.

Private sector and NGO investment will be encouraged in manufacturing, sale and distribution of different types of tube wells, sanitary latrines etc. They will also be encouraged to participate in the installation of piped water supply system where feasible.

All relevant organizations will give emphasis on the reduction of dependence on ground water and increased use of surface water. They will ensure storage, management and use of surface water.

10. Policy implementation

Drinking water supply and sanitation is a sub sector within the broader sector of health, environment and water and as such the National Policy in this sub sector shall be made consistent with the national policy for health, environment and water.

Future investment projects in the public sector shall be made within the framework of this policy as far as practicable. Endeavours will be made to coordinate the activities of private sector and NGOs through the Policy. Projects or activities undertaken at the level of the individual, community or organization will be coordinated by the Local Government Division within the framework of the Policy.
Strategies will be formulated in the light of the Policy at various levels in consultation with the Ministry of Planning. WARPO under Ministry of Water Research will also have a role in formulating and implementing strategy. A comprehensive strategic plan of operations shall be prepared and investment projects identified. The process shall be participatory and may involve dialogue with all stakeholders including development partners. To enhance available knowledge and to fill information gaps focused studies shall be undertaken with a view to improving decision making. The policy planning, coordination and monitoring of the sector activities will be the responsibility of Local Government Division. The Local Government Division will have interaction with the Physical Infrastructures Division of the Planning Commission for the purpose of:

- Reviewing on-going activities;
- Planning programmes in the water supply and sanitation sector for the ongoing Five Year Plan (1997-2002) and the next Five Year Plan period;
- Formulating guideline for allocation of specific activities for the implementing agencies within the public and private sector (City Corporations, Paurasabhas, DPHE, WASAs, LGED, NGOs, etc.) with cost estimation.

Specific activities like monitoring progress of on-going activities, strategic planning and program formulation, etc. and their allocation among different agencies (public sector, private sector, NGOs, CBOs, etc.) will be as initially discussed in paragraph 9 above.

The Local Government Division will liaise and negotiate with donors (bilateral, multilateral, etc.) through ERD for commitment of resources for the Sectoral Program. Local government institutions and private organizations will also mobilize resources at the local level through motivational activities. The Local Government Division will prepare Half Yearly Report on the activities of the sector and submit to the concerned authorities.