

In Bangladesh, water and sanitation programmes have existed for some time. If one considers the large population of the country, population density, low life expectancy, high infant mortality and extreme poverty, it is not difficult to conceptualize the importance of the water and sanitation sector for the people of Bangladesh, one of the least developed countries.

The diarrhoea prone areas of Bangladesh perhaps present one of the most difficult tasks to any professional in this field anywhere in the world. The year 1989-90 documented the first thrust of the top level policy makers in the country when the targets for various related projects under DPHE (Department of Public Health Engineering) were abruptly raised and unnecessary bureaucratic process-delay were eliminated.

The current importance of sanitation is made obvious by the fact that the sanitation project alone has been allocated 43% of resources in the recently signed UNICEF/DPHE programme containing six projects in water and sanitation sector.

The planning of this thrust on sanitation started somewhat earlier. Information seeking efforts in all kinds of delivery channels for sanitation were being looked into with greater detail. It was becoming obvious that the public sector delivery channel alone shall not be able to cope with the gigantic task that the rural sanitation coverage required.



## SAFE WATER AND SANITATION Pre-requisites for Health & Development

For a long time, the Government of Denmark and Switzerland have been cooperating to help Bangladesh in rural water supply and sanitation. SDC and DANIDA have been actively taking part both in promotional activities as well as contributing to the latrine delivery programme in Bangladesh which aims at expanding the latrine coverage to the desired level. SDC has initiated a study on the involvement of private latrine producers and has also sponsored an international seminar on the topic.

### A Miracle that has Taken Place

Supplying clean drinking water to the masses is one miracle that has already taken place in Bangladesh. Over 80% of the rural population have access to tubewells within 150 metres. No other country in South Asia has had similar success in providing safe drinking water to the majority of the

rural population. The supply of safe drinking water had started more than half-a-century ago. The tubewell hand pump programmes date back to 1935. Until 1948, just after partition of British India, 50,000 tubewells had been installed by the District Boards. From 1948, the Department of Public Health Engineering (DPHE) assumed the responsibility of sinking tubewells in rural areas, and by 1972 approximately 200,000 tubewells had been sunk. By the end of June 1985, the total number of tubewells in the country stood at 630,000 excluding the private tubewells. The figure upto end June 1990 is approximately 784,000.

### Rural Sanitation Programmes

In contrast to the laudable achievements of the programmes for safe water supply, rural sanitation programmes trail far behind.

Rural sanitation activities were initiated in Bangladesh in the early 1950's. The first project in this regard was undertaken in 1954 with WHO assistance primarily in the field of

applied research and demonstration of appropriate technology.

Another project was undertaken in 1962 with UNICEF collaboration in 10 Thanas (upazilas) and 160,000 slabs with pans were distributed free of cost. No pit lining was provided. A survey in 1972-73 indicated that only about 30% of the slabs were being actually used as latrines, mostly with broken seal.

In 1975, a pilot scheme under the Village Sanitation Programme first listed people's willingness to pay in only 4 districts of Bangladesh. Price of the sets were set at Tk 100. Although sales were slow, 60% of the latrines sold were used against 30% in case of earlier supply of free latrines. This led to the construction of production centres in all the 460 upazilas. By June 1991, all the upazilas are expected to have at least 2 production centres each.

The Government of Bangladesh (GOB) has made substantial progress during the past 10-15 years in promoting and implementing low-cost sanitation in rural areas. It is supported in this efforts by UNICEF and by NGOs. UNICEF is reportedly assisting GOB since independence (1972). Between 1975 and 1990, single-pit water-seal latrines in the order of 900,000 were installed under the programme executed by GOB's Department of Public Health Engineering (DPHE) and the sub-district (upazila) DPHE authorities. This is impressive.

Through the years rural sanitation activities show a marked shift in subsidy level for each set of sanitary latrine. During 1982-85 the sales price of a water-seal latrine set (one slab with 5 rings) was fixed at a subsidized cost of Tk 150 per set. At present the sale price of 1 slab and 5 rings has been fixed at Tk 250. There is also provision for sale

of one slab and one ring set at Tk 70 per set.

### SDC in Sanitation

SDC included a bilateral agreement on development cooperation with Bangladesh in 1972. Since then, it has always been an active partner in the health and sanitation sector.

SDC is supporting research on diarrhoeal diseases through substantial contributions to International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) for many years. SDC also supported the dissemination of the "Oral Rehydration Therapy, ORT" in a countrywide campaign executed by Bangladesh Rural Advancement Committee (BRAC).

Besides, SDC is actively participating in the UNICEF/DPHE programme for Rural Water Supply and Sanitation since 1975, contributing Sfr 25 million (Tk 62.5 cr) until now, and — past in regular appraisal and evaluation missions of the Rural Water Supply and Sanitation Programme. All these missions were most concerned with improved sanitation coverage. In the 1987, evaluation mission emphasized the need for a new strategy towards sanitation, recommended investigation into the possibilities of reducing the cost and improving the quality of latrine components and suggested giving proper emphasis on the private producers of the sector.

In the context of GOB's decision to give the Rural Water Supply and Sanitation Programme a high national priority, the Swiss-Cabinet has approved, in 1991, an additional contribution of Sfr 8 million (Tk 20 cr) towards this programme which is part of a comprehensive long term plan to improve rural water supply and sanitation. It is executed by DPHE, monitored by UNICEF and funded by the Governments of Denmark and Switzerland. The ultimate goal of the programme is an improved impact on health and a reduction of diarrhoeal diseases. It already includes sanitation and health education, as it was shown that the provision of clean water alone does not lead to improve health automatically.

SDC intends to further enhance its cooperation in the sanitation sector by an action research on the 'Promotion of Sanitation by Private Sector participation'.

## All the Climates of Europe

SWITZERLAND belongs to the four climatic regions of Europe: Oceanic, North European, Mediterranean and Continental. From the west, the winds often bring humid masses of sea air. From the north and east, there are masses of continental air, warm in the summer and cold in the winter. And warm air is brought by southerly winds from the Mediterranean and North Africa. The Alps are an obstacle to the free circulation of these masses of air and thus form a dividing line of climates and meteorological conditions. Like the Jura and the Plateau, the northern Alps are part of the Central European climatic zone: the most humid season is the summer. The centre of the Alps, especially Valais, is relatively dry; rainfall is spread throughout the year. But south of the Alps, there is a Mediterranean climate, with spring and fall being the most humid seasons.

The great differences of altitude create many climatic variations, especially where temperature is concerned. Ticino, the most southern of the Confederation's member-states, is south of the Alps. Between Ticino and the great mountain glaciers, the difference is like that between the Mediterranean and the North Pole. Yet the distance separating the shores of Lake Maggiore from glaciers more than 4,000 metres above sea level is not great. Every level of altitude in each of the country's regions has its own climate, characterised by the duration of the period of vegetation. The main climatic feature of the higher mountain areas is of course the snow. Above 3,000 or 3,500 metres, there is snow cover throughout the year. Yet the country's coldest region, sometimes referred to as the "Siberia of Switzerland", is in the Jura. To be precise, in the Brevine Valley, which is only 1,000 metres above sea level. Trapped by the shape of the valley, cold air accumulates and during the six winter months the temperature there has been known to drop to minus 40 degrees Celsius.

### The Unpopular Foehn

The frequency of rainfall is also very varied. On average, Switzerland has more rain than most other European countries, but its distribution is uneven. At the Col Monte-Moro in Valais, where the mountains act as a barrier against rain clouds, the average rainfall is as high as about four metres. Some 40 kilometres

away, at Stalden — also in Valais — the dry climate brings the average down to 52 centimetres. This low rainfall is normally found in the steppes.

The foehn is a rather unwelcome climatic phenomenon. A warm wind from the south, it blows through the valleys north of the Alps and to many people it causes headaches and circulatory problems. This dry air makes the atmosphere very clear, giving the illusion that the mountains are much closer to the plain than is the case. The foehn is caused by a combination of low pressure in the north and high pressure south of the Alps. As the air masses coming from the south meet the mountains, they rise, and cooling, turn into rain, but quickly warm up again as they cross to the northern side of the Alps, absorbing the humidity there. In this way, the foehn brings summer temperatures to narrow alpine valleys as early as March and as late as November. Also, the foehn is sometimes accompanied by storms which melt the snow on the ski-slopes.

### Death of Forests: A Threat to the Alpine Valleys

The vegetation in a microcosm of what can be found throughout Europe: palm trees in southern Switzerland, but nordic flora in the mountains. Petals from the alpine flora are grown in harsh conditions right up to the glaciers, at altitudes of more than 4,000 metres. However most of the flora is typical for Central Europe. On the Plateau, the trees are a mixture of the deciduous (broad-leaved) and conifer trees. Between the altitudes of 800 and 1,500 metres, the conifers gradually take over from the deciduous trees. Between 1,800 and 2,000 metres, the tall trees give way to bushes and scrubs (forest pines, rhododendrons etc), then come the alpine meadows which rise up to the first layers of permanent snow.

A world-wide phenomenon, the withering away of the forests by air pollution and acid rain, is now even a threat in the alpine regions. In some places, the alpine forests are a matter of serious concern for Switzerland. They play a protective role against avalanches and landslides for villages and roads. If this ecosystem is allowed to die out on a wide scale, there is no doubt that life will become very difficult in the upper valleys.

## SDC'S PROGRAMME IN BANGLADESH

### A) Food Security and Agriculture

#### BASWAP — BANGLADESH-SWISS AGRICULTURAL PROJECT

General Objectives: To improve the situation of small farmers and sharecroppers by allowing them to store their grain after harvest and to receive a credit against the stored products from the involved banks.

Responsible Institutions: Ministry of Agriculture; SDC.  
Location: Dinajpur, Rangpur, Manikganj, Nilphamari, Panchagarh Districts.

Duration: 1978 to 1991 (in transition).  
Financement: GOB Tk 0.54 mio, SDC Tk 13.3 mio, Credit Revolving Fund Tk 0.2 mio.

Achieved Results/Outlook: With 20 constructed godowns per year 6,000 farmers benefited; the model inspired a more extensive successor project, SHOGORIP.

#### SHOGORIP — SHOSH-GODO- WN-RIN-PROKOLPO

General Objectives: Replicate the developed model and spread it to different parts of the country; based on storage cum credit scheme it intends to serve the small and medium farmers.

Responsible Institutions: Ministry of Agriculture; SDC.  
Location: Dinajpur, Rangpur, Manikganj, Panchagarh, Gaibandha, Barisal, Jhalokati, Pirojpur Districts.

Duration: 1990 to 1995 (in 2 phases).  
Financement: GOB n.a., SDC Sfr. 10 mio (reserved), Endowment Fund n.a.

Achieved Results/Outlook: Signing of Agreement pending.

#### FAO-FOOD SECURITY ASSIS- TANCE SCHEME

General Objectives: Strengthening of the Operational Efficiency of the Directorate General of Food to improve the national food security.

Responsible Institutions: Ministry of Food; FAO, SDC.  
Location: Dhaka.

Duration: 1985 to 1992 (on-going).  
Financement: GOB n.a., SDC US \$2.4 mio.

Achieved Results/Outlook: After 1992, SDC will finance the project directly rather than being involved in a co-financing base with FAO.

#### VILLAGE AND FARM FORESTRY PROGRAMME (VFFP)

General Objectives: To improve the living conditions of rural households and communities through Village Forestry and Cropland-Agroforestry.

Responsible Institutions: NGOs, BAU, SDC.  
Location: Dinajpur, Bogra, Natore, Rajshahi, Kushtia, Pirojpur, Mymensingh, Comilla and Chittagong.

Duration: 1985 to 1994.  
Financement: SDC Sfr. 2.263 mio.

Achieved Results/Outlook: The Homestead (Village Forestry) component is ready for large scale replication and Cropland-Agroforestry needs some more action-research before large scale replication.

#### CARE LIFT (LOCAL INITIATIVE FOR FARMERS TRAINING)

General Objectives: To increase the income and improve the nutritional status of 2500 marginal and landless farm families, (training on regenerative agricultural techniques for intensive gardening of vegetable and fruit; promotion of appropriate technology manual irrigation and income-generation).

Responsible Institutions: CARE-Bangladesh, Dhaka.  
Location: Gaibandha.  
Duration: 1987 to 1990.  
Financement: SDC Sfr. 650,000.  
Achieved Results/Outlook: New project in preparation.

#### B) Small Scale and Cottage Industry

IDE-INTERNATIONAL DEVELOP-  
MENT ENTERPRISE

General Objectives: To support the development of business networks which supply appropriate technologies, primarily the treadle pump, to small and marginal farmers, with the goal to increase these farmers' income.

Responsible Institutions: SDC/IDE.  
Location: Natore, Bogra, Brahmanbaria.  
Duration: 1990 to 1993 (on-going).  
Financement: SDC Sfr. 1.75 mio.

Achieved Results/Outlook: In 1991 alone 65,000 manual irrigation pumps sold (since 1984 a total of 400,000 pumps sold); privatization scheme to act as front organisation for the marketing of IDE technology and philosophy developed.

#### MAWTS — MIRPUR AGRICUL- TURAL WORKSHOP & TRAINING SCHOOL

General Objectives: Research, development and production of appropriate agricultural tools and equipment (pumps, sprayers, threshers, food grinders, seeders, weeder, and others); training of rural youths.

Responsible Institutions: Ministry of Agriculture, CARITAS, SDC.  
Location: Mirpur, Dhaka.  
Duration: 1973 to 1989 (new proposal pending).

Financement: GOB Tk n.a., CARITAS n.a., SDC Sfr. 1.3 mio (1986-89).

Achieved Results/Outlook: A proposal for phase V (1990-94) has been submitted to CARITAS Switzerland, emphasizing the training component and MAWTS's self reliance by reducing the foreign assistance and developing its commercial capacity. Foreign assistance will focus on Training and Research & Development.

#### SECTOR STUDY BUILDING MATERIALS

General Objectives: To identify opportunities for involvement of SDC in the promotion of alternative and/or improved building materials.

Responsible Institutions: SDC.  
Location: Bangladesh.  
Duration: 1990 to 1991 (on-going).  
Financement: SDC Sfr. 420,000.

Achieved Results/Outlook: The study recommends giving priority to the following industries: brick making, bamboo construction education, bamboo preservation, timber preservation, and lime production. A proposal for implementation is in preparation (including institutional set-up, cooperation with other donors, etc.)

#### IFAD/SDC MICRO ENTERPRISE DEVELOPMENT PROGRAMME

General Objectives: Development of entrepreneurial attitudes amongst the urban and semi-urban informal sector and the access to credit institutions.

Responsible Institutions: SDC/IFAD.  
Location: Country-wide.  
Duration: In preparation.  
Financement: SDC.

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### SLOW BUT STEADY AWARENESS

In the last few years a lot of progress has been made:

- \* Awareness has risen remarkably.
- \* Everybody knows sanitation is one of the main development themes.
- \* People do not feel embarrassed any more when one talks about latrines.
- \* Most people are living within negotiable distances from the latrine production centres.
- \* It is already emerging to be a status symbol to own a good sanitary latrine.

Warmest felicitations to the Government  
and the friendly people of Switzerland  
on the occasion of the  
"Swiss Confederation Day"

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Grain sacks with numbers stacked in a SHOGORIP godown

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