26th WEDC Conference

WATER, SANITATION AND HYGIENE: CHALLENGES OF THE MILLENNIUM

Universal Sanitation – Thailand Experiences

T.V. Luong, Ongart Chanacharnmongkol and Thira Thatsanatheb, Thailand

".. Sanitation is to maintain and control exits and entrances from and to the human body. Do not let them be the sources of diseases and the transmission routes ..."

.. Several millions of Baht* were spent annually for the treatment of people suffering from gastro- intestinal diseases. With this amount of expenditure, human excreta can be systematically controlled. When excreta is safely disposed, sickness from these communicable diseases could eventually be halved ..."

His Royal Highness Prince Mahidol of Songkhla, a Harvard graduate medical doctor, Father of the Present King, Thailand, 1924

* Baht - Thai currency

THAILAND HAS ACHIEVED a remarkable success on the coverage of safe drinking water and sanitary means of excreta disposal in the rural areas. By 1999, 91.94 % rural population has access to safe drinking water supply and 98.11% rural families have built and use sanitary latrines after more than five decades' endeavour with support from WHO, UNICEF, UNDP and USAID in the early years.

The success in providing safe drinking water and improved environmental sanitation is greatly attributed to the farsightedness and determination of the Thai Government for sustainable development of rural areas and the protection of environment. Strong political will and commitment of government functionaries at all levels to implement the rural water supply and environmental sanitation programmes strengthened with intensive health education for behaviour change added momentum in achieving the universal sanitation before the dawn of the 21st century. This paper presents the strategy and lessons learnt in Thailand for Universal Sanitation and Health for All.

The Evolution of Sanitation Promotion in Thailand

Promotion of sanitation in Thailand can be dated back to about a century ago. The promulgation of Bangkok's first sanitation law in 1897 aimed to curb the communicable diseases due to poor environmental sanitation. The campaigns were then targeted at garbage collection and building public latrines. Hookworm eradication project initiated in 1918 emphasis on using pit latrine. In 1926 the Ministry of Interior issued regulations banning defecation in rivers and canals. All ramshackle latrines along the banks of rivers/canals were destroyed, while a bid was launched for educating the public on improving sanitation and hygiene.

The establishment of the Ministry of Public Health in 1942 led to the integration of Environmental Sanitation into the overall health development in the country. The Village Health and Sanitation Project initiated in 1960 to combat the prevalent water/filth-borne diseases gave impetus to expand the sanitation programme nation-wide. Rural Environmental Sanitation (RES) programme as a component of the National Health Development Plan was incorporated into the successive Government 5-year National Economic and Social Development Plans starting from the First 5-year plan in 1961 until the current Eighth 5-year plan, 1997-2001. (Department of Health & UNICEF, 1985)

From Project Approach to National Strategy

The Village Health and Sanitation Project laid the foundation for the subsequent Rural Environmental Sanitation (RES) Programme and the eventual achievement of Universal Sanitation in the country today. The project then focused on construction of sanitary latrine adopting the concept of recognizing local people's roles for creativity and self-reliant in improving their livelihood so as not to relying solely on government's help. Many project approaches described below have been gradually adopted as the national strategy on improved sanitation.

Strong political support and cooperation of concerned government agencies — Two successive Prime Ministers chaired the National Health and Sanitation Development Conferences held in 1962 and 1963, with the political commitment of local provincial governments. The approval of manpower recruitment and budget for RES by the National Economic and Social Development Board, the Bureau of Budget and the Department of Technical and Economic Cooperation enabled effective programme implementation.

- Intensive training project personnel and technical staff of central and local governments at all levels including village leaders and village volunteers.
- Social mobilization and health education in communities through mobile units and the village volunteers.
 Villagers selected their own volunteers at one volunteer per 10 families.
- Promotion of water-seal latrine This latrine technology was found to suit the Thai culture and people's habits. The gooseneck water-seal latrine was firstly developed by Mr. Sawadi Mahagayi, Governor of Sukhothai province in 1924 and is now widely used in Thailand and other countries.
- Provision of Supplies, Equipment and Transportation –
 Government supplied adequate latrine pans/slabs and
 moulds for latrine construction, as well as films and
 slide projectors for health education. Appropriate transportation for project implementation and follow-up
 actions were adequately provided.
- Government allocated demonstration budget as revolving fund for latrine construction In the early year, water-seal latrines were given free of charge to families through the government demonstration budget, but it was found that most of them were not used and not properly maintained. To encourage ownership and people involvement, village committees were encouraged to use the government allocated demonstration budget to set up the revolving fund in each village. The fund was initially managed by the health officers and subsequently transferred to the Village Committees chaired by the village headman. The demonstration budget as revolving fund expedites the speed of meeting people's demand and at the same time generated financial resources from the communities for improved sanitation.
- Systematic Qualitative and Quantitative Monitoring of Progress – The Government assigned adequate qualified officers to support all 75 provincial officials, exclusive Bangkok Municipality, up and down the country for regular monitoring of project achievement. In addition, periodical conference was held at national and provincial levels among sanitarians and health officials to review progress, identify constraints and suggest solutions for improvement.
- Award Scheme "Golden Ring for 100% sanitation province" initiated in 1987 succeeded in bringing in competition among provinces, and momentum was gained for the acceleration of universal sanitation coverage.
- The Ministry of Interior issued letters to all provinces in 1989 requesting the cooperation of all local administrations to advise families to build sanitary latrine prior to the application of house number as residency in the locality.
- Research and Development Support provided to R & D in strengthening technology development and techniques/skills of health education/communication and social mobilization.

Legacy of the Village Health and Sanitation Project

The responsibility for implementation of the Village Health and Sanitation Project was transferred, in 1966, to the then Sanitation Division, Department of Health, Ministry of Public Health. The project was renamed to Environmental Sanitation Programme and received an annual budget allocation from the government's regular resources. Later on Sanitation Division was merged with the Environmental Health Division to form the Environmental Health Bureau, Department of Health, Ministry of Public Health.

The project, since its inception provided the opportunity in building up the capacity of some academic Institutions. One such institution is the Faculty of Public Health, Mahidol University. Over the years, Mahidol University has educated large numbers of Public Health personnel to meet the development needs of the government. The project also changed the attitudes of medical institutions and public health officers towards promoting latrine to improve environmental sanitation and rural health. Support to the project given by the medical doctors from the Siriraj Hospital (one of the best teaching hospitals in Thailand) has accelerated the improvement of rural people's health nation-wide. Furthermore, the project has energized the government in a bid for intensive health education and community participation through the involvement of regional and provincial health officers, research centres, village volunteers that led to its adaptation as one of the strategies of Primary Health Care being implemented until today.

Rural Environmental Sanitation Programme

The Rural Environmental Sanitation (RES) programme which is part of the National Rural Development Programme, promotes seven components as a package: water supply, human excreta disposal, solid waste/garbage disposal, food sanitation, housing sanitation, vector control, and waste water disposal. Government technical personnel and village masons were trained for construction of water seal latrines and making large cement water storage jars/tanks aiming at transferring low-cost technologies to grassroots and building up the capacity of the private producers in the communities. For programme implementation, part of the funds is allocated by the central government. Local governments contribute a certain amount of budget and some financial resource is generated within the communities and private sector.

For planning the annual RES programme activities, each village is surveyed as per the Government Basic Minimum Need Criteria. An implementation plan is developed at each village based on the outcomes of survey. These village plans are then incorporated as part of the Provincial Rural Development Plan. The plan consists of the following components: (1) demonstration of activities, (2) training of

village leaders and officials concerned, (3) Government allocated demonstration budget for latrine construction. The strategy adopted by the Department of Health was to encourage all village committees to use the budget to set up the revolving fund with the balance being raised by villagers, (4) intensive health education, and (5) research and development. (Sanitation Division, Department of Health, Ministry of Public Health, 1995).

Lessons Learnt

The lessons learnt from the Thai government and the Thai people in achieving universal sanitation after more than five decades continuous efforts could be summarised as follows:

- Strong political commitment and good leadership in government at all levels and at the grassroots
- Effective training component to build up the capacities of government functionaries at all levels and community leaders
- Intensive and effective health education reaching most families/communities for behaviour change
- Establishment of revolving fund at grassroots to shift financial investment from "government" to "people" resulted in meeting people demand swiftly on sanitary latrine and generating local employment.
- Stimulating active people participation and behaviour change through the Primary Health Care system and the efforts of village volunteers.
- Active NGOs and Private sector involvement
- Effective inter-Ministry collaboration and inter-sectoral coordination
- Mobilisation of resources from Government agencies, NGOs and private sector.
- Transferring technology, skill and knowledge to all levels and to the grassroots
- Application of research and development (R&D) to develop innovative implementing models and to im-

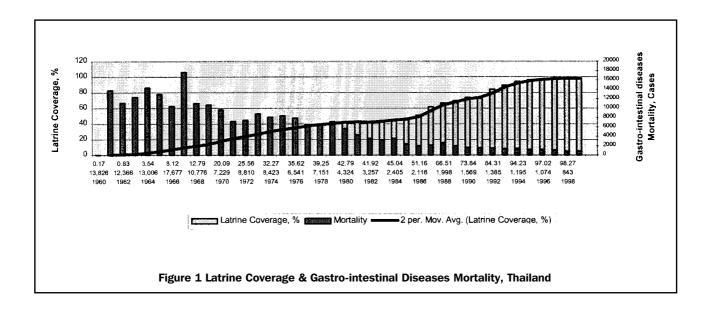
prove existing technologies and education/mobilization methodology.

From Rural Environmental Sanitation to Clean Environment for Healthy Living

Thailand has now achieved almost universal coverage of safe drinking water and sanitation in rural areas except for a few very remote villages in the highlands and some households near the river banks where support for building sanitary latrines is to continue. For further improvement of water supply, the Thai Government is taking action to improve the water quality of all piped water supply including those in all rural areas to the extend that all piped water in the country is safe to drink directly from the tap. As most people in Thailand are enjoying adequate basic needs of clean water and safe sanitation, the Government is now investing in promotion of Clean Environment, Better Health and Hygiene. The Clean Environment programme, which started few years ago, is focusing on Healthy Living/ Healthy City/Healthy School. The programme promotes Food Hygiene, Healthy Workplace and Happiness/Cleanliness in Households and village environment. The Government is also linking tourism industry and Clean/Healthy Environment, and has adapted the strategy of promoting clean environment to attract domestic and international tourists and the promotion of tourism to simulate local economic growth without the exploitation of local environment. (Ministry of Public Health 1997)

Health for All

Thailand's efforts in achieving universal sanitation coupled with the provision of safe water supply has led to the remarkable health benefits of substantial reduction in mortality due to gastro-intestinal diseases. As illustrated in Figure 1, more than sixteen-fold reduction in gastro-intestinal diseases mortality was effected from 1960 to 1999



while the sanitary latrine coverage was increased from 0.17 to 98.11 percent over the same period. (Ministry of Public Health, 1999).

Thailand has shown us the way!

References

Department of Health, Ministry of Public Health and UNICEF, 1985, Four Decades of Latrine Development, Bangkok, Thailand.

Ministry of Public Health, 1997, The Eight Five-year National Health Development Plan, 1997-2001), Government printer, Bangkok, Thailand.

Sanitation Division, 1995, Sanitation Programme for Rural Area, Thailand, Sanitation Division, Department of Health, Ministry of Public Health, Bangkok, Thailand. Ministry of Public Health, 1999, Public Health Statistics, 1990-1999, Division of Health Statistics, Bureau of

Health Policy and Plan, Office of the Permanent Secretary, Bangkok, Thailand.

T.V. LUONG, MSc, Ph.D. Consultant, Water, Environment and Sanitation Programme, UNICEF, East Asia & pacific Regional Office, 19 Phra Atit Road, Bangkok, Thailand and former Senior Advisor, Water, Environment and Sanitation Section, Programme Division, UNICEF New York HO.

ONGART CHANACHARNMONGKOL, Director of the Environmental Technology Division, Environmental Health Bureau, Department of Health, Ministry of Public Health, Nonthaburi, Thailand.

THIRA THATSANATHEB, Senior Technical Advisor, Environmental Health Bureau, Department of Health, Ministry of Public Health, Nonthaburi, Thailand.