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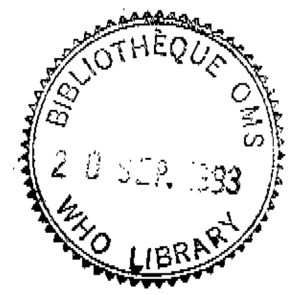
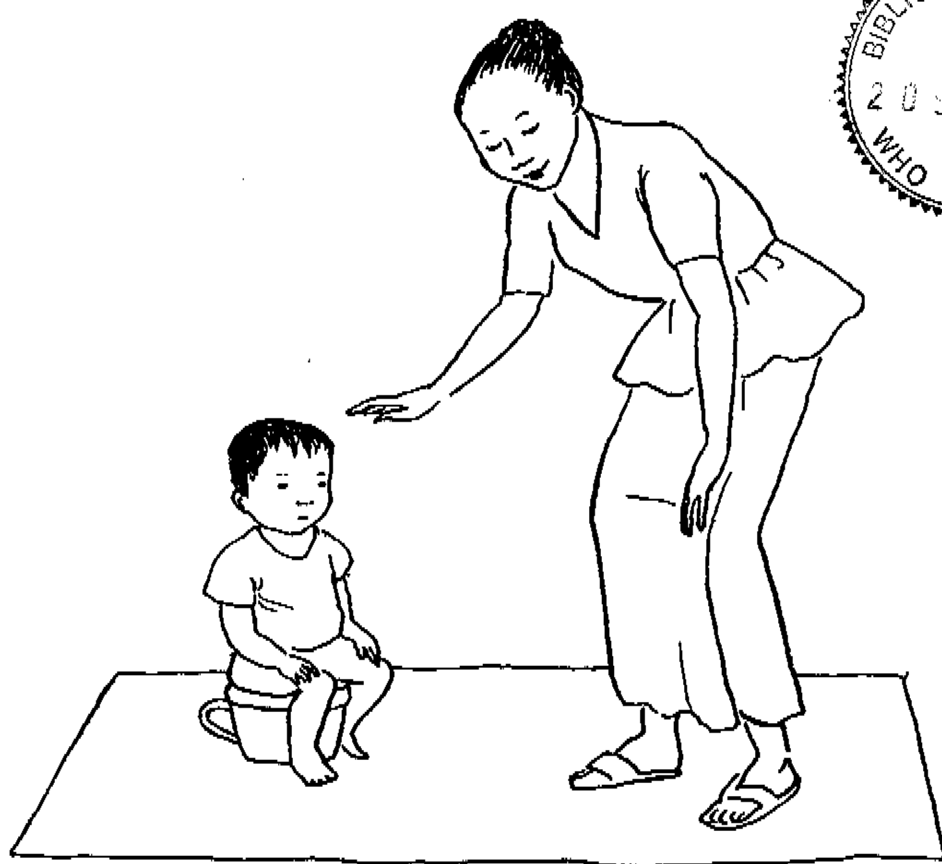
NEW DIRECTIONS FOR HYGIENE AND SANITATION PROMOTION

THE FINDINGS OF A REGIONAL INFORMAL CONSULTATION
New Delhi, 19-21 May 1993





WORLD HEALTH ORGANIZATION
Regional Office for South-East Asia, New Delhi, September 1993

Summary

The majority of the estimated 1300 million people in the South-East Asia Region are without sanitation. Projections suggest that by the year 2030, 3400 million people will be without sanitation. The majority will be in South-East Asia. Given this serious situation, a consultation on hygiene and sanitation promotion was held in the WHO Regional Office for South-East Asia to review the situation, identify key issues for attention and to formulate new approaches to sanitation and hygiene promotion.

The overall conclusion of the consultation was that better personal health can be attained and sustained by gradual improvements in hygiene behaviours and related facilities. Priority for full latrine coverage should be reserved for high risk populations. Simpler, less expensive technologies, that the poorest of the poor can afford, should be promoted. Communities should be assisted to improve their existing systems, rather than encouraged to adopt technologies that they cannot afford. Countries need to improve their promotional methods, moving toward social marketing and participatory techniques in the promotion of hygiene and sanitation. The consultation found that countries need to develop new strategies for hygiene and sanitation promotion. Details of many of these changes are documented in this report.

The informal consultation was hosted by WHO's Regional Office for South-East Asia (SEARO) in New Delhi, India and was financed with funds provided by the Swedish International Development Agency (SIDA) to the Community Water Supply and Sanitation Unit of WHO, Geneva.

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1. THE PURPOSE OF THIS CONSULTATION

Sanitation in the South-East Asia Region

The South-East Asia Region (SEAR) consists of eleven countries with a total population of about 1,340 million. The vast majority, an estimated 1,000 million people, are without sanitation. 59% of the world's population without sanitation live within the SEAR. If the current rate of provision of facilities is maintained the unserved population in SEAR might double over the next 30-40 years.

The problem weighs heaviest in Bangladesh, India and Nepal, where the rural coverage in 1990 was under 10% and urban coverage less than 50%. This contrasts with Thailand, where sanitation coverage is reported to be close to 100%. Sri Lanka has a coverage of just over 50%, and Indonesia about 33%.

According to World Bank estimates the population without adequate sanitation in the world might grow from 1,700 million in 1990 to 3,400 million in 2030[1] (Figure 1).

This consultation

Given this serious situation, a consultation on Hygiene and Sanitation Promotion was held in the Regional Office for South-East Asia (SEARO), of the World Health Organization, New Delhi, India, from 19 to 21 May 1993.

The consultation had three specific objectives:

- To review the current situation of hygiene education and sanitation promotion in SEAR, and evaluate the approaches used by national sector agencies
- To identify problems and issues in current approaches to hygiene and sanitation promotion, and potential assistance by external support agencies, in the region.
- To formulate new approaches to hygiene and sanitation promotion

The consultation was attended by 16 participants representing four countries of the Region, five external support agencies (ESAs) and one NGO. A list of participants is included inside the back cover of this report.

The regional consultation considered country studies from Bangladesh, Indonesia, Nepal and Sri Lanka, a paper on rural sanitation in India, two working papers and five background documents. The titles and authors are listed under References.

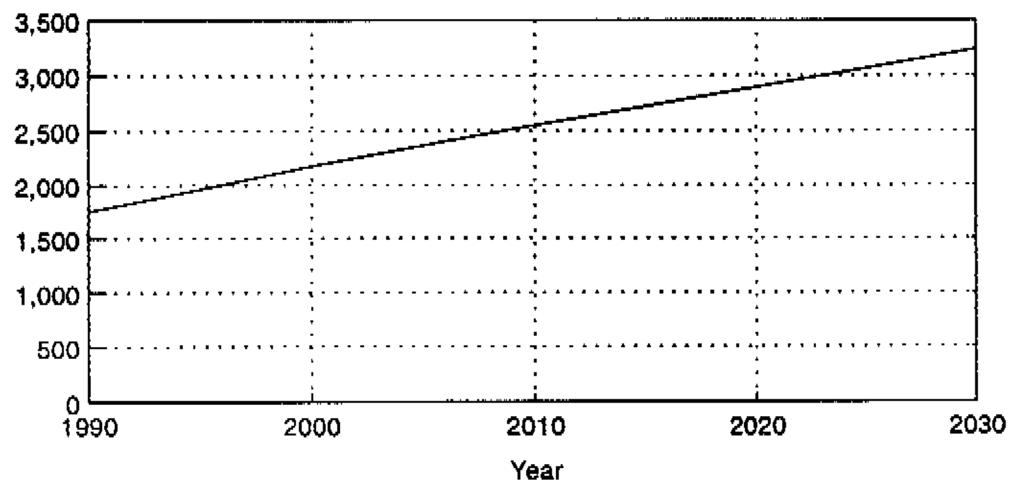

Figure 1. Population without adequate sanitation in millions

Source: World Development Report, 1992

2. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The overall conclusion of the consultation was that better personal health can be attained and sustained by gradual improvements in hygiene behaviours and related facilities. Current policies and priorities will result in a rapid increase in the number of people without access to latrines and improved hygiene. For these reasons, it is essential that we redirect our priorities and aim at

hygiene promotion for all and full latrine coverage for high risk populations.

Once this reorientation is accepted and adopted, certain specific conclusions follow. These are:

- Political commitment and policies for community empowerment are pre-requisites for a new sustainable programme of hygiene promotion

- Hygiene promotion should employ social marketing and community based participatory methods to generate a need for improved hygienic practices and facilities.

- Human excreta disposal, as well as improvements in hygiene behaviours, must begin with the improvement of local practices and continue with the adoption of a range of improved, simple and locally affordable options.

- At the country level, one national body might be responsible for coordinating hygiene and sanitation promotion, but at the community level activities should be lead by local institutions, including NGOs.

- The new priorities require appropriate staffing. This in turn means retraining, more interdisciplinary teamwork and new ways to measure progress.

- Government and ESA funds currently available for latrine construction should be directed towards hygiene promotion and community action, with a view towards phasing out subsidies to latrine construction.

Recommendations

The overall recommendation of the consultation is that countries need to develop new strategies and frameworks for hygiene and sanitation promotion.

Section 4 of this report provides detailed recommendations for a new framework including a new objective for sanitation promotion, elements of a strategy and the actions required to implement it.

3. CURRENT SANITATION PROMOTION IN SOUTH-EAST ASIAN COUNTRIES

3.1 Regional overview

Taken collectively, the country studies prepared for this consultation provide a reasonably good overview of the situation of sanitation promotion in SEAR countries. National policies in all SEAR countries are based on WHO's concept of "Health for All by the Year 2000", with primary health care as the key approach. In the early 1980s most countries prepared a plan for the 1981-1990 International Water Supply and Sanitation Decade. Current coverage and targets for sanitation are listed in Table 1.

Table 1. Sanitation coverage 1990 and targets for 2000

Country	% Coverage 1990		% Target 2000	
	Urban	*Rural*	*Urban*	*Rural*
Bangladesh	39	6	60	80
Butan	50	60	60	100
India	50	3	78	7
Indonesia	42	30	90	75
Maldives	83	2	100	40
Mongolia	100	-	100	100
Myanmar	39	34	100	96
Nepal	33	3	100	30
Sri Lanka	81	70	100	100
Thailand	96	71	100	100

Source: **WHO/SEARO** *IDWSS Assessment and Perspective for the 1990s*, New Delhi, 1993

Responsibility for sanitation programmes is shared between a number of ministries and departments. As a result, water supply, sanitation and health education projects are often implemented by different sectors working independently, without coordination. This can result in waste and duplication of resources.

The main approach of sanitation promotion during and since the Decade has been direct intervention by the government, but all country studies claim that there is now a tendency towards increased community participation and greater involvement of women in decision-making processes.

In every country hygiene promotion was the weakest component of the Decade plan. Health educators were often brought in after the construction phase of projects to teach people how to maintain the facilities. *Little or no effect on behaviour or health status has been demonstrated.*

In every country the technology of choice has been the single- or double-pit pour-flush latrine and/or the VIP latrine. As these technologies are unaffordable for most households, they are usually subsidized. The simplest latrines that are readily affordable have not been adopted.

The majority of SEAR countries have adopted similar approaches to hygiene and sanitation promotion. In most countries these approaches will not meet the targets of satisfactory sanitation for all by the year 2000. The number of people without access to sanitation is likely to increase in the coming decades.

3.2 Key sanitation issues in South-East Asian countries

A considerable number of issues were raised in the country studies. Most of them have been thoroughly discussed at national and international meetings in recent years. They include: problem identification; community participation; and the involvement of women in sanitation planning and management.

This consultation, therefore, decided to concentrate on a limited number of crucial, and possibly controversial, issues:

- Coverage
- Priorities
- Affordability
- Hygiene and sanitation promotion

Coverage

In the SEAR countries, the gap between population growth and provision of sanitation is widening (Figure 2). The often stated target of sanitation for all by the year 2000 would require latrine construction at seven times the rate of the Decade (11 times the rate in rural areas and two times in urban areas). This cannot be achieved through a mere streamlining of current approaches. Some countries in the region may reach or come close to the target, but for most countries it is unachievable. Extending the target date by a few decades is also unlikely to solve the problem, because of high rates of population growth. Full latrine coverage remains an elusive goal. It is necessary to reformulate the targets and establish a new set of priorities.

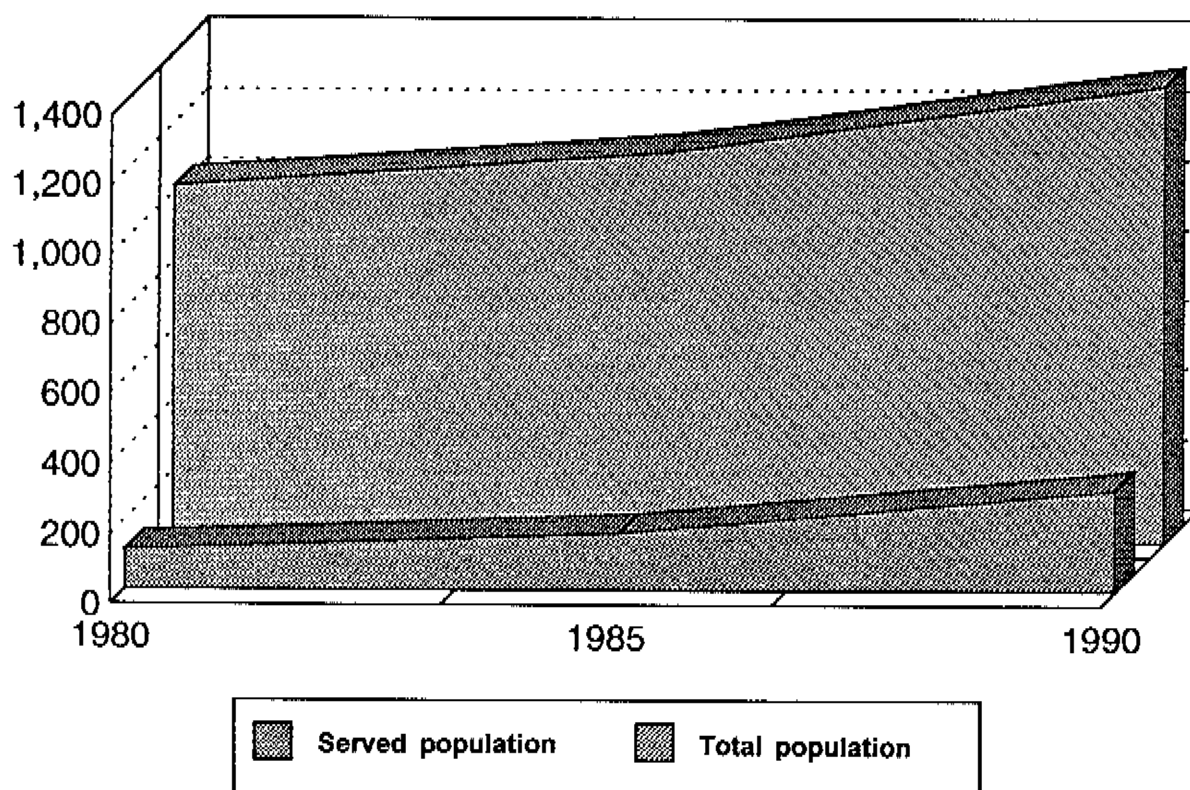

Figure 2. Sanitation coverage in SEAR, 1980-1990
in millions

Source: WHO

Priorities

In an ideal situation all human faeces are deposited in hygienic latrines. The figures presented in Table 1 reveal that this situation is far from current realities, and that we continue to fall behind in our progress towards this goal. Are we even moving in the right direction?

Sanitation approaches have so far been based on the assumption that a hygienic latrine, a latrine which effectively isolates human faeces from the environment, is a prerequisite to improved health. In some cases this is indeed the case, but, as is shown below in Figure 3, a latrine alone cannot improve health.

Most latrine types, even some of those conventionally regarded as unhygienic, will break the "food", "fluids" and "fields" transmission routes. Some of the more sophisticated latrine types will also break the "flies" route. *But no type of latrine can prevent the contamination of fingers and hands.* Here the only possible barrier is provided by appropriate hygiene behaviours, including effective hand cleansing.

Epidemiological evidence shows that even in the absence of latrines, diarrhoeal morbidity can be reduced with the adoption of improved hygiene behaviours. [2]

So if the objective of sanitation promotion is to improve human health, the priority should be hygiene promotion. However, full latrine coverage should remain the goal for high-risk areas, where there is high population density and a high risk to health. The new priority could be summarized as:
hygiene promotion for all and full latrine coverage for high risk populations.

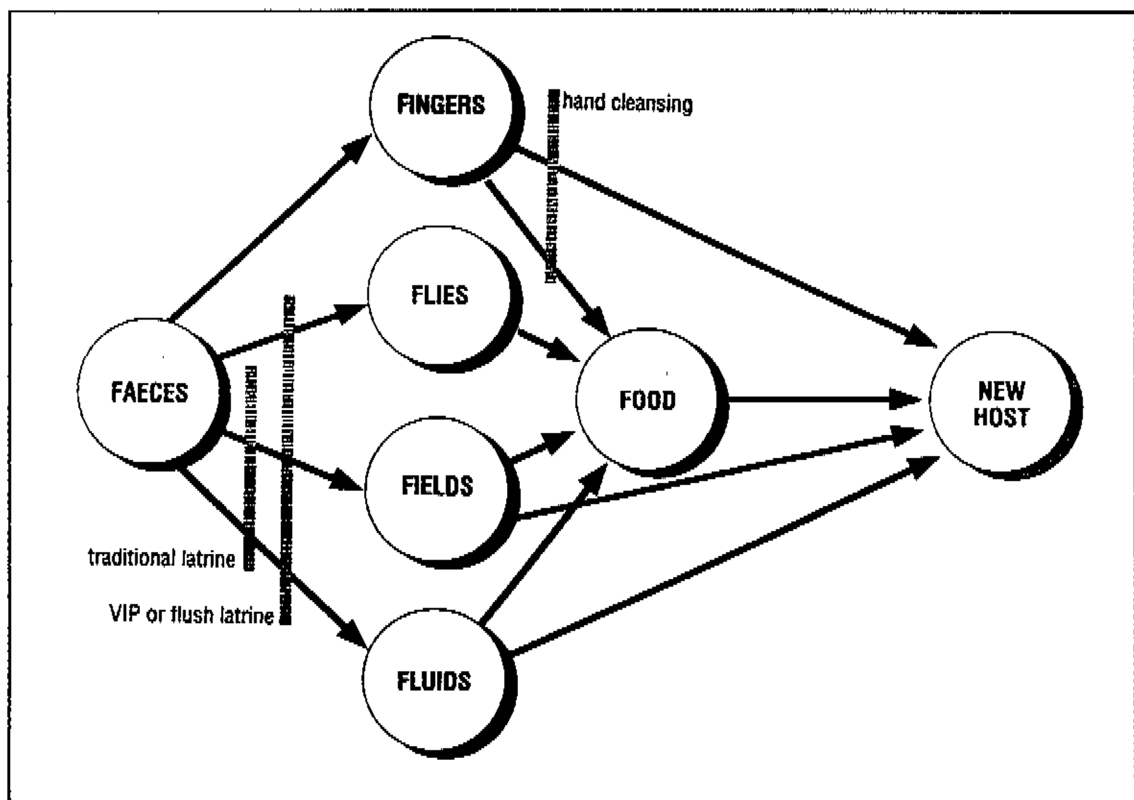

Figure 3. Potential barriers to transmission of disease from excreta: a modified version of the F-Diagram

*Source: **Wagner and Lanoix** 1958, modified by **Winblad**, 1993 (unpublished)*

Affordability

The sanitation-related technologies promoted by national governments and external support agencies, (primarily VIP latrines and pour-flush toilets), are often referred to as low cost. These technologies may be low cost in relation to the cost of conventional sewerage systems or for high income families. However, they are neither low cost nor affordable for a majority of the 1,000 million people without adequate latrines in SEAR.

Latrine subsidies in SEAR usually amount to 50-100% of the total cost of a latrine. Such policies cannot be sustained. Any realistic policy must, therefore, be based on affordable sanitation alternatives.

A new approach would envisage a sanitation upgrading sequence, improving local systems and practices. As resources become available, local systems can gradually be improved with the active participation of communities and households. Simple improvements should not be disregarded because they fall short of the ideal.

Further up the sequence of sanitation upgrading are traditional pit latrines such as the do-it-yourself latrine currently promoted in Bangladesh. For those who can afford to purchase some cement, the next step might be a squatting slab made of concrete or ferro-cement. At the top end of the sequence come the VIP latrine, the composting latrine and the pour flush toilet.

Figure 4 presents a flexible view of this gradual upgrading sequence, beginning wherever people are on the scale and helping them to acheive a more hygenic level of excreta disposal. A similar upgrading sequence could be envisaged for improved hand cleansing practices.

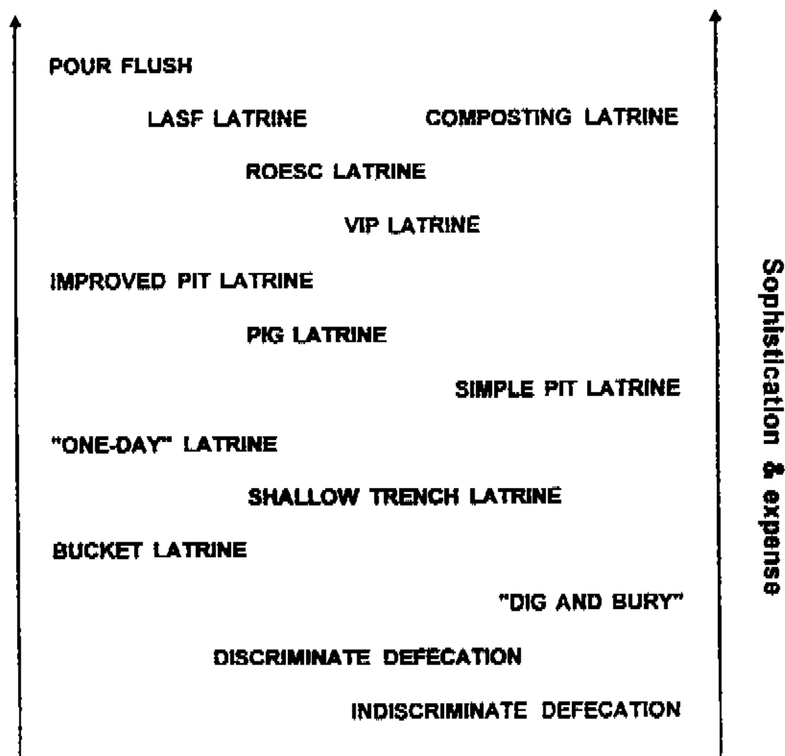

Figure 4. Sanitation upgrading approach

Helping households and communities to move up the sanitation ladder: any move upward is an improvement

*Source: **Winblad**, 1993 (unpublished)*

Promotion

Country studies indicate that a variety of interventions are used to promote hygiene and sanitation. These are usually based on the provision of latrines, combined with some form of health education.

A common intervention is to promote sanitation through demonstration. So-called "demonstration latrines" are built, sometimes at health centres and schools, sometimes at one or two houses in a village. It is hoped that households will follow the example and build their own latrines.

This may be combined with the production centre approach, with a government agency producing and selling latrine slabs and other components at cost price or with a subsidy.

Also common is the delivery approach, when a government institution or a NGO provides heavily subsidized latrines to a selected number of households.

In the so called integrated approach, the delivery of latrines is tied to the introduction of a new water supply system.

In an attempt to promote affordable sanitation, the Government of Bangladesh and UNICEF have recently introduced the do-it-yourself approach, based on building materials available at home. This is the first step in a sanitation upgrading approach.

These technical interventions are usually combined with health education, traditionally in the form of awareness campaigns with posters, meetings, radio/TV messages and films. Most observers agree that conventional health education has demonstrated little or no impact on behaviours or health status.

A way out of the impasse created by unaffordable sanitation, ineffective health education and unattainable targets, could be the approach advocated by the WHO informal consultation on Improving Water and Sanitation Hygiene Behaviours for the Reduction of Diarrhoeal Disease (Geneva, May 1992)[3] and the Communication and Social Mobilization Strategy recently adopted by the Government of Bangladesh.

The 1992 WHO Consultation suggested that:

- Hygiene interventions should have as their primary objective the minimization the risks for the ingestion of faecal pathogens.

- Such interventions might precede water supply and sanitation improvements and should not be delayed for lack of resources to provide high quality water supply and sanitation installations[4].

- Hygiene and sanitation interventions should be community based and designed for maximum participation during all stages.

- Interventions begin with the identification of what are the prevalent behaviours, followed by analysis aimed at understanding their meaning and an examination of the benefits of these behaviours.

The objectives of the new strategy in Bangladesh are:

- To generate a high level national commitment to safe sanitary and personal hygienic practices
- To create a high demand for hygienic latrines
- To obtain wide-scale, sustained adoption of improved personal hygiene.

The strategies of the programme are:

- Advocacy for sustained acceptance by political and social leaders
- Social mobilization
- Programme communication.

4. A NEW FRAMEWORK FOR HYGIENE AND SANITATION PROMOTION

The participants agreed that given the difficulties the sector is facing as discussed in the above issues, the sector needs a new framework for hygiene and sanitation promotion. Working groups deliberated on what an ideal framework should include.

This is presented below under "A new objective" and "Elements of a new strategy". An action plan was also formulated for disseminating the consultation findings of and in particular the new framework for country sanitation programmes, which is presented under "Actions required."

4.1 A new objective

The overall objective for hygiene and sanitation promotion is to improve human health. The specific new objective is to improve, step-by-step, hygiene behaviours and related facilities which can lead to improvements in health.

The new objectives recognize that in view of current and predicted future rates of population growth, full latrine coverage cannot be achieved over the next few decades, even if efforts are considerably accelerated.

When these factors are taken into consideration a new, pragmatic objective emerges which can be summed up as:

"hygiene promotion for all and full latrine coverage for high risk populations."

A key element of the new objective is to begin with local practices and build improvements upon them, through the active participation of the community and household. When supportive technologies are needed to improve hygiene, such as simple latrines, "tippy-taps", or redesigned vessels for carrying water, they should be affordable by the community and the household. No subsidy should be required.

A second key element of the new objective is the recognition that it is the interaction between people and technology that results in better or worse health. Community workers who seek to reduce diarrhoeal and other excreta-related diseases must not focus only on technology, but on how people can interact with technology to prevent the spread of pathogens.

4.2 Elements of a new strategy

A strategy to reach these new objectives would be composed, at the very least, of the following elements:

- Political commitment
- Institutional mobilization
- Community involvement
- Hygiene promotion techniques
- Human resource development
- Technology options
- Resource mobilization and reallocation
- Monitoring, assessment and evaluation
- Designation of priority areas for latrine coverage

Political commitment

Sanitation should become a national priority. Governments need to have national strategies for sanitation promotion. Commitment from the highest government officials is required, as well as adequate funds to reach goals which are set. Until now, far more emphasis has been given to water supply than to sanitation and consequently more achievements have been made in the provision and improvement of water supply. However, poor personal hygiene behaviours and inadequate sanitation are responsible for much disease, with diarrhoeal disease alone responsible for the loss of 3 million lives each year.

Government institutions should promote and facilitate the adoption of the principles of improved personal hygiene and the construction of latrines for high risk areas. These should be the two explicit goals of new sanitation programmes.

Governments should review legislation that may be outdated and could impede the implementation of a new sanitation programme. The creation of new, supportive legislation should be considered.

Institutional mobilization

Government agencies whose mandate is sanitation promotion should decentralize their management in order to facilitate the empowerment of communities, local governments and local institutions, such as non-governmental voluntary organizations, to lead sanitation efforts. They should forge a partnership with NGOs and the private sector and seek to minimize operational differences between different bodies.

Government institutions should develop work plans with goals such as: harmonization of direction and effort among all agencies; mobilization of local institutions; development of methods to monitor progress toward these goals.

Community involvement

A new sanitation programme should recognize that people are more important than technologies, and that programmes must be "people-centred". The objective is no longer to achieve a target coverage by means of a technology, but to achieve behaviour change, which might come about in many different ways. Techniques should be employed that allow people to achieve understanding of how pathogens are spread, and how they can stop their spread.[5]

Many participatory methods are available; they should be used for planning, communications, implementation, monitoring and evaluation.

Whilst it is important for women, men and children to be equally involved in improvements in hygiene and sanitation, traditional values in certain parts of the world tend to exclude women from decision-making and meaningful participation. Techniques developed for the water supply and sanitation sector, such as the SARAR methodology, and other participatory methods should be employed to ensure women's full participation[67].

Hygiene promotion techniques

Hygiene promotion requires far more than demonstration and message giving. Some techniques that can helpfully be employed are listed below.

Hygiene promotion should begin with studies that reveal current beliefs, perceptions and practices. Such studies include "knowledge, attitude and practice" studies and self-assessment by communities[8].

Messages based upon people's beliefs, perceptions, current practices and needs should be developed. For use within the community only, messages should be developed by community members. For wider use outside the community, messages should be developed using social marketing techniques where both communications experts and users are involved.

Culturally appropriate channels of communication need to be identified. Within communities, suitable methods may be face-to-face communication, local dramas or puppet shows. For wider dissemination, new ideas could be channelled through schools, either through changes in the formal curriculum or through comics, games, puzzles and community out-reach activities. Mass media can be used, developed through sound social marketing techniques.

A key requirement is that messages and channels of communication not be decided by central authorities alone, but be developed through dialogue with communities, local institutions and non-governmental institutions who know communities well. Two-way communication between educators and communities should always be fostered.

Human resource development

The reorientation of sanitation policy, (to encompass the promotion of personal hygiene, gradual improvements in excreta disposal practices and latrines for high risk areas), implies changes in skills of personnel in sector institutions.

First and foremost, the reorientation requires a change in staff attitudes toward a "people-centred" approach. Staff commitment to the policy shift will need to be developed at every level.

The reorientation requires a new set of skills among staff. Certain staff may need to be trained in the participatory techniques to be employed at community level. Others may need to learn how to undertake knowledge, attitude and practice studies and employ social marketing techniques. Communications and facilitation will become the keynotes of the sector and all staff will need to become better communicators and facilitators.

Traditional emphasis upon engineering will be shifted to emphasis upon an ability to understand what communities are doing now and to help them do it better. Workers need to participate with communities in problem-solving, rather than only acting as providers of hardware.

New or revised job descriptions, retraining and a new set of incentives and rewards for employees may be required, as well as guidelines or standards for promotion. In some cases it may be necessary to employ new kinds of people with skills in sociological research, social marketing and participatory techniques. Career paths for such staff would have to be developed.

Technology options

A new sanitation programme would require planners to accept a much larger range of technologies for the disposal of human excreta than is currently accepted. Some options may not appear to be technologies at all, such as moving from indiscriminate to discriminate defecation or from open defecation to digging a hole and burying faeces. Other products, such as the "tippy-tap" for hand washing and vessels designed to minimize contamination from hands and dippers, need to be recognized as important sanitation technologies.

First, programme directors need to collect and disseminate information on the range of technology options available for hygiene and sanitation improvements. Second, they need to sponsor research to develop very low cost options, especially technologies that are so inexpensive that they can be afforded by the poorest of the poor.

Most importantly, no technology should be chosen for a community by outsiders. Outsiders should first study what communities are currently doing and then seek to build upon existing practices, making improvements that are affordable at each step. Individual households should be able to choose from a variety of options, including no cost, very low cost and high cost alternatives, according to their resources and preferences.

Resource mobilization and reallocation

Resource mobilization and reallocation must be viewed at two levels, that of the government and that of the community/individual household.

At the national government level, funds should be reallocated towards hygiene promotion through community participation and communications. In urban high risk areas, where rich and poor live side-by-side and where latrine coverage may be required to achieve a safe level of hygiene, investigations should be made into achieving cross subsidies.

At the community level, government should adopt the "user pays" concept. There are several ways to assist individual households to afford better hygiene facilities. These include revolving funds, loans and traditional credit schemes.

Monitoring, assessment and evaluation

A new programme on hygiene and sanitation promotion requires good monitoring and evaluation. Both the process of working with communities, and their achievements, should be monitored and evaluated in order to feed back information to improve the programme. Communities can monitor and evaluate their own accomplishments through participatory appraisals.

Priority areas for latrine coverage

National government sector agencies will need to identify urban and rural high risk areas for total latrine coverage. Some suggested criteria for identifying them are the following:

- The use of surface water for drinking
- High population densities combined with poor excreta disposal facilities
- High incidence of excreta-related diseases.

4.3 Actions required

Listed below are the short-term actions required to establish a new strategy for hygiene and sanitation promotion:

- National consultation
- Execution of pilot projects
- Review of existing policies
- Development of an action plan
- Seeking of support from ESAs

National consultation
Lead agencies for sanitation promotion need to hold a national consultation to share the results of the WHO Informal Consultation on Hygiene and Sanitation Promotion. The lead agency should inform other agencies and leading NGOs and ESAs working in the sector that a policy shift is under consideration.

Execution of pilot projects
Lead agencies should sponsor one or more pilot projects to test the new approaches. ESAs should be requested to support such projects.

Review of existing policies
The results of the pilot projects need to be shared in a national meeting where review and revision of existing policy can take place in light of findings.

Development of an action plan
The development of a new action plan to guide the implementation of the new policies is required.

Seeking of support from ESAs
The action plan should be used to establish a common, coordinated, flexible approach to hygiene and sanitation promotion.

ESA support should focus on the following areas:

- Transfer of technology and dissemination of information
- Research and development
- Human resources development
- Support to NGOs

Among the ESAs, a series of special roles has been identified for WHO:

- To take a lead in promotion of the new strategy
- To act as a catalyst in joint activities between UN agencies
- To develop a regional strategy framework
- To support governments in the formulation of policies in line with the new strategy.

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Notes

1. Based on assumptions of growth of population, per capita income, "unchanged practices" etc. See **World Bank**, *World Development Report*, 1992, pp 112-113.

2. **WHO**, *Improving Water and Sanitation Hygiene Behaviour for the Reduction of Diarrhoeal Disease. The Report of an Informal Consultation.* Community Water Supply and Sanitation Unit and Programme for the Control of Diarrhoeal Diseases, Geneva, May 1992. There is a considerable need for applied research on systems for the lower end of the upgrading sequence, particularly for low income urban and rural areas, and also on how the use of unhygienic latrines can be compensated for by better personal hygiene.

3. **WHO.** *Improving Water and Sanitation Hygiene Behaviours For the Reduction of Diarrhoeal Disease. The Report of an Informal Consultation.* Community Water Supply and Sanitation Unit and Programme for the Control of Diarrhoeal Diseases, Geneva, May 1992.

4. This is also in line with the key statement of the Global Consultation on Safe Water and Sanitation for the 1990s, New Delhi, 1991: "Some for all, rather than more for some". It is possible, however, to improve human health through emphasis on improved personal hygiene, especially hand cleansing if full latrine coverage is ensured for high risk populations.

5. One such method, using an antihelmintic drug to expel Ascaris worms, is described in **Cairncross S**, *Sanitation and Water Supply: Practical lessons from the Decade.* UNDP/World Bank Water and Sanitation Programme, Washington D.C. 1992, pp 44-45.

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