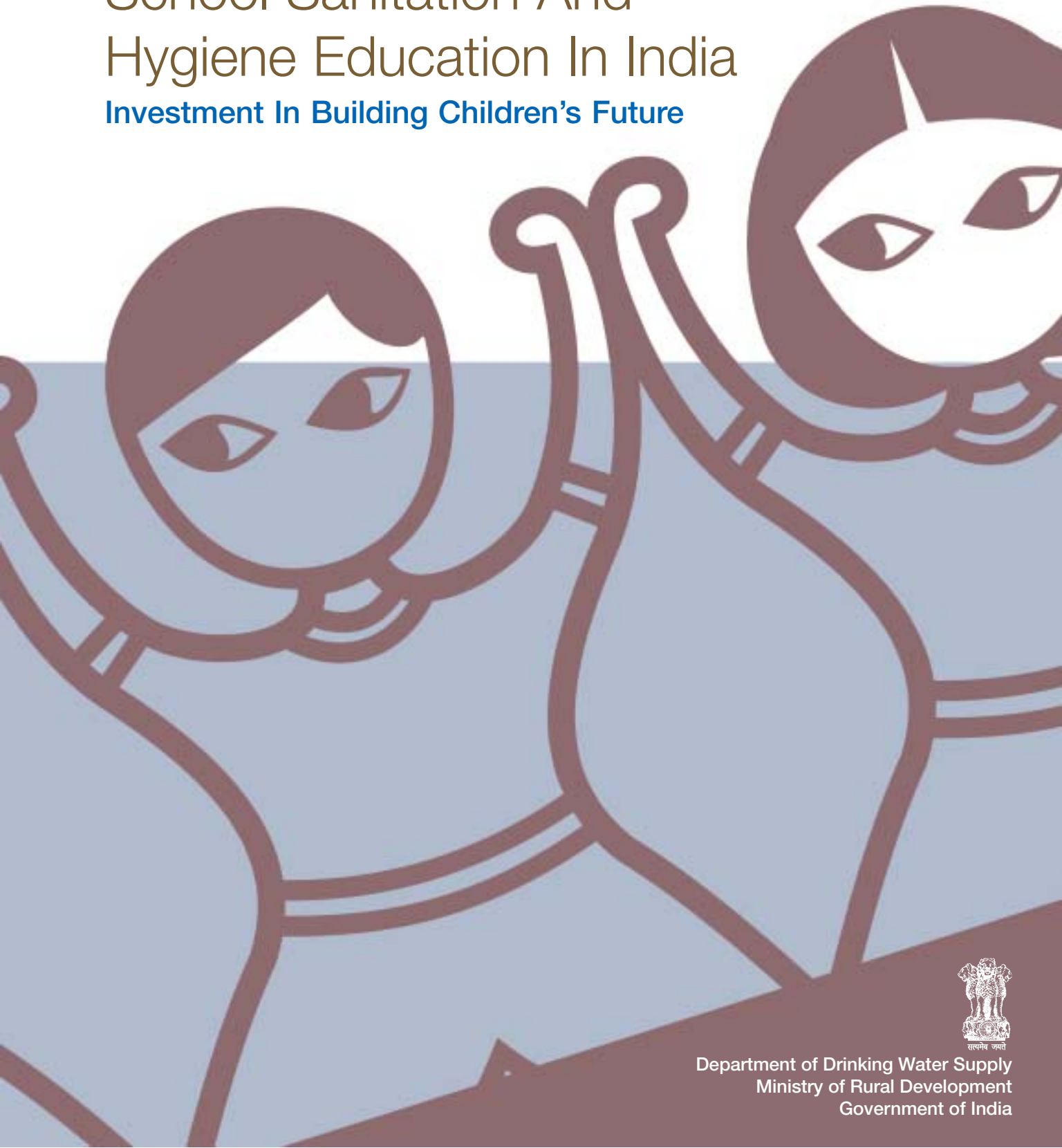


C O U N T R Y P A P E R S E R I E S

# School Sanitation And Hygiene Education In India

Investment In Building Children's Future



## Table of Contents

1. Introduction	5
2. Sanitation, Hygiene and India	6
3. Evolution of SSHE programmes in India	9
4. SSHE: Goals and Commitment	12
5. SSHE: Indian Approach	14
6. SSHE: Achievements	16
6.1 Policy	16
6.2 Physical and Financial	16
6.3 Capacity Building	20
6.4 Inter Sector Coordination	21
7. Partnerships with UNICEF and IRC	25
8. Challenges and Responses	27
8.1 Policy	27
8.2 Hygiene Education	27
8.3 Construction and Design Issues	28
8.4 Operation and Maintenance	28
8.5 Programme Implementation	29
8.6 Fund Resources	30
8.7 Monitoring	31
9. Strengths of SSHE – Beyond Construction	32
9.1 Focus on software	32
9.2 Poverty, Equity and Gender Issues	32
9.3 Integration	33
9.4 Convergence	34
9.5 Centre of Innovation	35
10. The Way Forward	36
References	37
Abbreviations and Acronyms	38



## Foreword

School is important not only as temple of learning but also as the place where children spend almost a third of their entire day and inculcate values which remain with them for most of their lives. Therefore, these should be places where children feel safe, secure and have the basic amenities and facilities that allow them to learn and play for their growth and development. However, around half a million schools in India lack adequate and well maintained drinking water sources and toilets to enable children maintain their personal hygiene and internalise relevant sanitation practices.

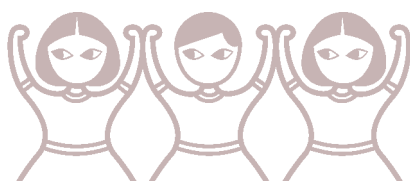
Covering all schools with basic sanitation and drinking water facilities is an important component of the reforms initiative launched by the Government of India in the rural water and sanitation sector. A demand-driven and community-led programme called Total Sanitation Campaign (TSC) is being implemented in India to accelerate rural sanitation coverage. School Sanitation and Hygiene Education (SSHE) has been given due importance in TSC. TSC is now actively focussing on school sanitation in the light of government's goal to cover all schools with toilet facilities by 2006-07 with emphasis on separate toilet blocks for girls in all co-educational schools. This is reinforced with training for teachers and students on hygiene education. Meeting these goals will be critical for improvement of health, education and all round development of children.

Starting from 1999, the reforms programmes have supported the spread and implementation of school sanitation. The learnings over the past five years have helped us understand various implications of what works and what does not. The country paper – *Investment in Building Children's Future*, is an attempt to capture the learnings from various parts of the country and experiences of partners. This has also helped to shape policy.

New Delhi  
January 20, 2005



**Rakesh Behari, IAS**  
Jt. Secretary & Mission Director  
Department of Drinking Water Supply  
Ministry of Rural Development  
Government of India



School Sanitation and Hygiene Education in India

# The Rural Scenario

## Investment in Building Children's Future

### 1. Introduction

India began its journey towards the goal of universal and free basic education fifty-five years ago, with adoption of Indian Constitution incorporating, inter-alia, the following Directive Principle. "The State shall endeavour to provide for, within a period of ten years from the commencement of this Constitution, free and compulsory education for all children until they complete the age of fourteen years". The magnitude of the challenge was immense – the overall literacy rate then was 18 percent, and female literacy rate, just nine percent. The gross enrolment ratio at primary stage was 43 percent, and for girls alone, a mere 25 percent.

School is important for cognitive, creative and social development of children. Schools, after the family, are the best demonstration centres to bring about positive behavioral changes on a sustained basis. Teacher-child-parent-community is a proven route to spread the message of good and accepted hygiene and sanitary practices. Children are perhaps the best change agents and can play an effective role in creating a healthy and clean environment in schools as well as homes. School Sanitation and Hygiene Education (SSHE) is a school-centric intervention to bring about attitudinal and behavioral changes towards the relevant sanitation practices in the society, while ensuring that children are enabled to relate better to their surroundings for their wholesome development. The SSHE programme is participatory in nature and an important component of the national reforms programme for rural water and sanitation sector. Many of the challenges, which the programme in India faces, are similar in those in other countries. Sharing these may serve as a starting point for cross-learning and further improvement of the programme.

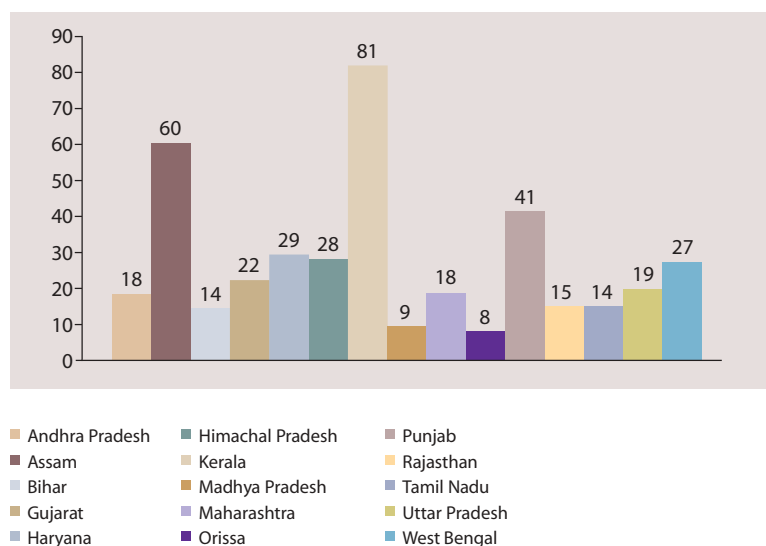


## 2. Sanitation, Hygiene in India

India is one of the largest countries of the world with diverse population both in geographical and cultural terms. The ideology of pluralism made India a vibrant civilization of the world. With a population of about 1.02 billion, India is the 2<sup>nd</sup> most populated country in the world after China. Having 28 States, seven Union Territories and 594 districts, India has about 240 thousand democratically elected local self-government institutions in rural areas that are involved in decentralized decision-making.

The Central and State Governments have made substantial investment to the tune of US \$ 10 billion since Independence (1947) in establishing one of the largest rural drinking water supply infrastructure in the world, consisting of approx. 3.7 million handpumps and 145 thousand piped water schemes. While significant achievement has been in terms of providing access to potable drinking water with 94.3% of the country's 1.4 million rural habitations fully covered, and another 5.3% partially covered as per the national norms, the sanitation coverage in rural areas continues to be a challenge. According to census 2001, only 36.4 percent of households in the country had individual sanitary toilets. In rural areas this was even lower, standing at around 22 percent. Also, only 34.2 percent households in rural areas had drainage facilities for wastewater disposal. Though, over the years<sup>1</sup> the rural sanitation coverage has improved (recent estimates<sup>2</sup> suggest about 30 percent rural sanitation coverage), there is still a long way to go.

Figure 1  
Interstate disparities in rural home toilet use



<sup>1</sup> Post Census 2001

<sup>2</sup> RGNDWM, GOI, 2004



Another important concern in rural sanitation coverage has been the scale of inter-state disparity in household toilet use. On the one hand, rural home toilet use in Kerala and Assam has been satisfactory i.e. 81 percent and 60 percent respectively, on the other, it has been as low as eight percent in Orissa. These inter-state variations can be easily seen in the figure 1.

Open defecation remains the predominant norm and poses one of the biggest threats to public health in India. Estimates suggest that nearly 65 percent of India's rural population still defecate in the open. This results in a faecal load of 200,000 metric tons per day, which finds its way into soil and water bodies, contaminating them with pathogens.<sup>3</sup> The practice of open defecation is reinforced by traditional behavior patterns and lack of awareness about the health threats posed by it. There is little awareness about the potential health and consequent economic benefits of sanitation facilities. This is a key causative factor behind the high prevalence of soil and water-borne diseases in rural India. The magnitude of the disease-burden is underscored by World Health Organisation (WHO) estimates of about 80 percent of all diseases such as diarrhoea, cholera, malaria, etc. due to lack of safe water and sanitation. It is estimated that there is an annual loss of 180 million person-days and Rs.12 billion to the economy (US\$280 million) owing to sanitation related diseases in the country.<sup>4</sup>

India has one of the largest numbers of school going children, especially in rural areas. The primary education system in India is one of the largest in the world with over six hundred thirty thousand (630,000) primary and upper rural primary schools, over 3 million teachers, and a student strength exceeding 100 million children (Sixth All Indian Education Survey, 1993-94). There are more than 700,000 Integrated Child Development Service Centres (ICDS) in India offering a package of health, nutrition and non-formal pre-school services to more than 18 million children aged 6 months to 5 years.

A key issue is lack of safe drinking water and sanitation facilities in schools, especially in rural areas. The earlier surveys indicated that out of 630,000 primary and upper primary rural schools, only 44 percent had water supply facilities, 19 percent urinals and just around eight percent had lavatory facilities. Moreover, only 19 percent had separate urinals for girls and just four percent separate lavatory facilities for girls. Recent estimates show that the number of schools as well as coverage of water and sanitation facilities has increased considerably. But current accurate data is still not available as the 7<sup>th</sup> All India Education Survey findings are yet to be released. Baseline surveys conducted by the Department of Drinking Water Supply, Government of India in 254 districts which are implementing the national sanitation programme known as Total Sanitation Campaign (TSC) suggest that now around 45 percent of schools have sanitation facilities and about 71 percent have water supply facilities. Overall, the coverage is still low requiring acceleration of the existing programme and far greater attention to the issue. The challenge lies in capacity to implement with quality and far less on resource availability.

<sup>3</sup> RGNDWM, GOI, 2002-03 and WSP-SA, India

<sup>4</sup> Central Bureau of Health Intelligence, MoHFW, 1998-1999

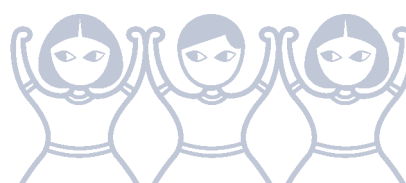
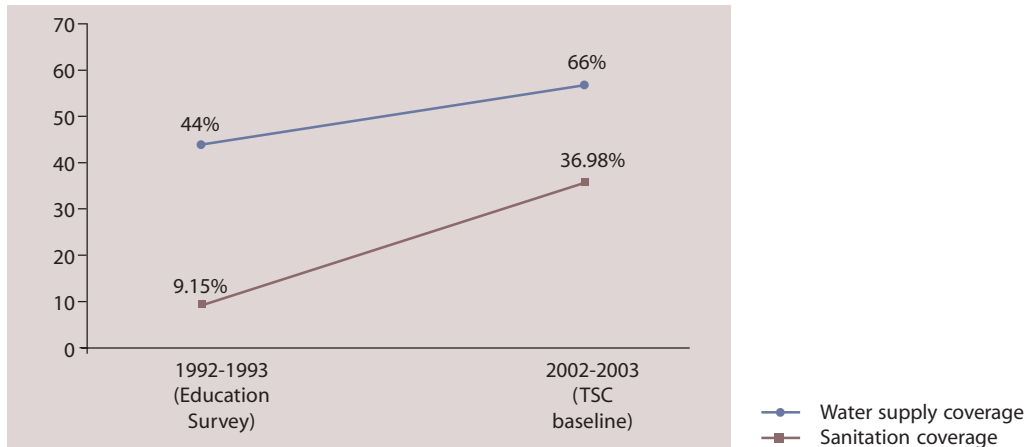


Figure 2  
Watsan coverage in rural schools – 1993 to 2003



The consequences of the given situation are not far to see. Diarrhoea takes a heavy toll. Typhoid, dysentery, gastroenteritis, hepatitis A, intestinal worms and malaria continue to kill, debilitate and contribute to high rates of morbidity among young children in the country. While acute malnutrition has diminished, 47 percent under-5 children are under-weight. The child mortality rate stands at a high of 95 in the under-5 age group. There is a high drop out rate, especially among girls. Only 42 percent girls and 48 percent boys reach class eight (*Indian Child*, Ministry of Human Resource Development, 2002). Therefore, a coordinated and regular schedule of activities are needed in all schools to make health and hygiene an every-day practice and health check ups and de-worming a part and parcel of the schools programme for better and healthy environment.

### Article 24 of the CRC:

“States Parties recognize the right of the child to the enjoyment of the highest attainable standards of health and to facilities for the treatment of illness and rehabilitation of health...”

Given the enormity of the challenge, any national programme for water supply, sanitation and hygiene education, needs resources, deep understanding and sustained commitment to improve conditions. SSHE programme in India is unique and extraordinary not only because of the inherited challenge but also the kind of interesting opportunity it creates from given socio-cultural milieu. It provides a base to impact the entire sanitation programme. Government of India has, therefore, given special focus on SSHE in the Total Sanitation Campaign which is being scaled-up across the country. School water, sanitation and hygiene education programme, which by nature is both popular and visible, can also serve, and is serving, as the trigger mechanism for improving sanitation and hygiene within the family and community.



### 3. Evolution of SSHE programmes In India

Promotion of sanitation was very close to the heart of Mahatma Gandhi, Father of Indian Nation. It formed a formidable plank of his social reform during the first half of the twentieth century. After India's independence in 1947, that momentum somehow got blunted. Although, both water supply and sanitation were a part of the national agenda since the very first five-year plan (1951-56), the accent remained on water supply whereas the pace of progress on sanitation, until recently, remained slow. During the International Drinking Water and Sanitation decade, the **Central Rural Sanitation Programme (CRSP)**, under the Ministry of Rural Development, was launched by the Government of India in 1986 in a supply-driven mode due to which sanitation coverage increased, though not at the expected pace. CRSP was restructured in 1999 as part of reform initiatives in water and sanitation sector as a demand-responsive and community-based programme. Earlier, SSHE was not a part of the CRSP but it was included in the restructured CRSP.

Box 1

#### Provisions of TSC

- **IEC for awareness and demand generation.**
- **Incentives for poor to construct individual household toilets.**
- **Sanitation facilities and hygiene education for all types of rural schools.**
- **Baby-friendly toilets facilities for Anganwadis.**
- **Community Sanitary complexes for poor and landless families.**
- **Supply chain encompassing alternate delivery mechanisms such as Rural Sanitary Marts & Production Centres.**

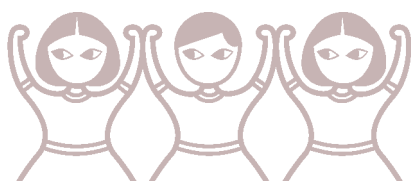
**Total Sanitation Campaign (TSC)** was launched as a demand-driven decentralized component of CRSP, which included school sanitation as a key intervention to universalize sanitation as a quality of life issue and increase its acceptance. TSC focuses on community-led and people-centered initiatives emphasizing on Information, Education and Communication (IEC) for demand generation, hygiene education, human resource development (HRD) and capacity building (CB) along with providing hardware sanitary facilities to household, community, schools and Anganwadis. Involvement of *Panchayati Raj* Institutions (PRI's), Parent-Teacher Associations (PTAs) and NGO's have also been envisaged in TSC implementation (See box 1). Overall, SSHE has been given prominence in TSC, which recognizes the role of children in absorbing and popularizing new ideas and concepts. This programme, therefore, intends to tap their potential as the most persuasive advocates of good sanitation practices in their homes and in schools. The SSHE under the umbrella of TSC is picking up momentum steadily and is being implemented across the country under the TSC programme.



In the evolution of SSHE in India, partnerships have also played a significant role, in particular, the partnership between the Government of India and **UNICEF**. The Department of Drinking Water Supply and UNICEF Child's Environment Programme, identified school sanitation as a key area of collaboration recognizing that improved hygiene practices and clean school environment are contributing factors in ensuring children enjoy an acceptable standard of health. The foundation of such collaboration was laid in Mysore district, Karnataka State in southern India in 1992 with the objective of covering a batch of 20 schools with sanitation and hygiene facilities. The modest beginning sought to demonstrate change using local initiative, homegrown technology and community resources; the small but significant steps have now grown into large strides. The School Sanitation and Hygiene Education (SSHE) project in Karnataka now covers over 1600 schools in eight districts. The SSHE efforts were complemented with the "Nalli Kalli"; meaning joyful teaching-learning method. This method introduced through a UNICEF assisted initiative focused on teaching techniques that did not depend on books only. Efforts to achieve clean school environment, cheerful and attractive classrooms and enthuse children with life skills blended well with the SSHE objectives. As a result of such intervention, attendance has gone up from 60 to 90 percent, according to some teachers.

Similarly, the reforms initiated in education sector have also contributed to the SSHE programme in its proper operationalization and successful implementation. Such educational reform, first introduced in the form of **District Primary Education Programme (DPEP)** by the Ministry of Human Resource Development, GoI in 1994, for the first time focussed on water and sanitation facilities especially in school in 176 districts of 15 states where such facilities did not exist. It has subsequently expanded through out the country and is now called the **Sarva Shiksha Abhiyan (SSA)**, a national programme that aims to universalize elementary education in the country by 2010 through district planning and an emphasis on decentralized management and capacity building. SSA has highly positive features that can facilitate SSHE implementation. It includes many reforming features that can be supportive of SSHE activities: the establishment of "block and cluster resource centers" that facilitate academic interaction among teachers; involvement of NGOs to strengthen community-based approaches and for monitoring, and support for training institutions.

Sanitation de-linked with water supply loses its very purpose. The programmes like **Accelerated Rural Water Supply Programme (ARWSP)** and **Swajaldhara** being implemented through Department of Drinking Water Supply (DDWS) have also strengthened the SHHE programme by making adequate provisions of water supply in schools. Though, these schemes have different programmatic form, the former is allocation based and the latter is implemented in a demand driven mode. **In addition, the nodal department is implementing a scheme of covering 100,000 schools with water supply as**



**announced by the former Prime Minister of India on the country's Independence Day in 2002. Till today around 30,000 schools have benefited from this programme.**

Thus, with such an inter-sectoral dimension of the SSHE programme, the task of integrating water supply, sanitation, health and hygiene education needed more concerted and coordinated efforts to effectively implement the SSHE programme. The TSC has been putting such efforts in leading and integrating inter-sectoral coordination to maximize the water, sanitation and hygiene education coverage in schools.

Such pilot efforts in SSHE have now spread to more than 500,000 schools and nearly 426 of India's 594 districts are under the Total Sanitation Campaign (TSC) implementation. The model has been mainstreamed with active collaboration between the concerned stakeholders – a key operational principle to optimize resources.



## 4. SSHE: Goals and Commitment

School Water Supply, Sanitation and Hygiene Education Programme (SSHE) is one of the prime concerns of the Government of India. This is reflected in the Government of India's goals set under the Millennium Development Declaration during the World Summit on Sustainable Development held in September 2002. The **MDG goals** include: eradication of extreme hunger and poverty, achievement of universal primary education, promotion of gender equality and empowerment of women, reduction in child mortality, improvement in maternal health and ensuring environmental sustainability. A target of halving by 2015 the proportion of people not having access to safe drinking water and basic sanitation facilities included in the above mentioned goals is clearly a priority for the nation. The Government of India is working towards achieving these goals earlier than 2015 and also committed to eradicate the hazards of open defecation by 2012.

Such resolve is even stronger in the case of School Sanitation as Government is committed to scale up SSHE programme by covering all the government rural schools with water, urinal/toilet facilities and promotes health and hygiene activities by the fiscal year 2006-07 with special focus on girl child. This finds ample prominence in TSC, which encourages construction of school toilets as well as hygiene education in all types of Government schools (See box 2). More than 426 of the country's 594 districts have already received funding for the TSC programme. More than 10 percent of TSC Project fund is

### Box 2 SSHE Goal

- To cover all rural schools by providing water, sanitation and hand washing along with hygiene education 2005-06.
- To cover all *Anganwadis* with toilet facilities 2005-06.
- Separate toilet facilities for girls in co-ed schools.

earmarked for School Sanitation. The Central Government, State Government and Parent-Teachers Associations (PTAs) are also involved in funding for School Sanitation programme in the ratio of 60 (Central):30 (State Government):10 (Parent-Teachers) for construction of toilets. In addition to creation of hardware in schools, it is essential that education is imparted to the children on all aspects of hygiene. For this purpose, at least one teacher in each school is trained in hygiene education, who in turn trains children through interesting activities and community projects that emphasize hygiene behavior. The expenditure for the purpose is met from the IEC fund earmarked for the project.



At present, SSHE programme is running in 426 districts with an objective to construct 385,526 school toilets with financial outlay of approximately US\$ 171.3 million. In addition, the TSC also aims to provide early childhood development centers for under-5 children in villages, known as *Anganwadis*, with toilet facilities to inculcate toilet use amongst children from very early stage in life. The objective is to use *Anganwadis* as a platform of behavior change of the children as well as mothers attending the *Anganwadis*. For this purpose, Anganwadi centres are provided with baby-friendly toilets.

In addition, the SSHE programme in India is implemented at a time when the country has adopted a major thrust towards decentralization and devolution of responsibility for planning and implementation of basic services (including education, water and sanitation) to the district, sub-district and village level democratically elected bodies of local governance. This has been embodied in the 73<sup>rd</sup> amendment to the Indian Constitution. The SSHE programme fits well within the spirit of this Constitutional mandate, with its focus on community management of schools and school sanitation facilities (see box 3).

Box 3

#### Priority Areas of SSHE under TSC

- To provide water and sanitation facilities in the schools so that the children can use the facilities and develop consistent habits of using such facilities from their early childhood.
- To promote the usage of toilets/urinals among school students, hand washing at right times (before and after eating and after using toilet), and sharing tasks i.e. collecting water and cleaning toilet by boys & girls equally.
- To promote behavioral change by health hygiene education & linking the same to home & community.
- To develop a system within the schools so that the facilities once created are maintained by the schools without any external support.
- To build the capacities of all stake holders especially teachers, PTA, PRI etc. ensuring sustainability.



## 5. SSHE: Indian Approach

SSHE Programme in India aims to promote sanitation and hygiene in and through schools to bring about behavioral change that will have a lasting impact in the community. It also seeks to enable children (both girls and boys) to realize their right to a healthy and safe learning environment. The strategies are developed in tune with local needs which are adaptable and acceptable among target groups. These are:

- Involvement of children as change agents to disseminate hygiene, sanitation and good health practices through the proven route of **Teacher - Children - Family - Community**
- Greater emphasis on attitude and behavioral change through hygiene education using life skill approach
- Child, especially girl child, and disabled friendly water and sanitation design options
- Focusing on health activities such as regular health check-ups and de-worming
- School as knowledge centers and teachers as facilitator/motivator
- Institution building in the form of School WATSAN/Health Committees among students
- Inter-sectoral coordination through alliance building with concerned Ministries and Departments (Elementary Education, Tribal Affairs, Health, ICDS, Social Justice and Empowerment, etc)
- School environmental improvement by promoting plantation, proper drainage of solid and liquid waste, ventilated and lighted classroom, etc.
- Involvement of community and PTA as equal partners
- Capacity enhancement of a large range of actors: teachers, education administrators, community members, village/ward water and sanitation committees, Public Health Engineering and Rural Development Departments, Engineers and Masons, District and Gram Panchayats, NGOs and CBOs, etc.
- Participation of students, teachers and parents' group in operation and maintenance of watsan facilities created in the schools
- Strengthening school-based monitoring system

These strategies have been operationalised through two components. These are **hardware component** that includes water, hand washing and sanitation services, and **software component** that includes IEC, O&M, health check ups, de-worming, health and hygiene education, for creating healthy school environment and developing safe hygiene behavior. SSHE is intrinsically linked to the overall implementation of TSC in campaign mode, taking districts as a unit. TSC project reports are prepared district wise indicating baseline data related to sanitation, the requirement of hardware, proposed IEC strategy, human resource development plan, and implementation plan. The projects are submitted by

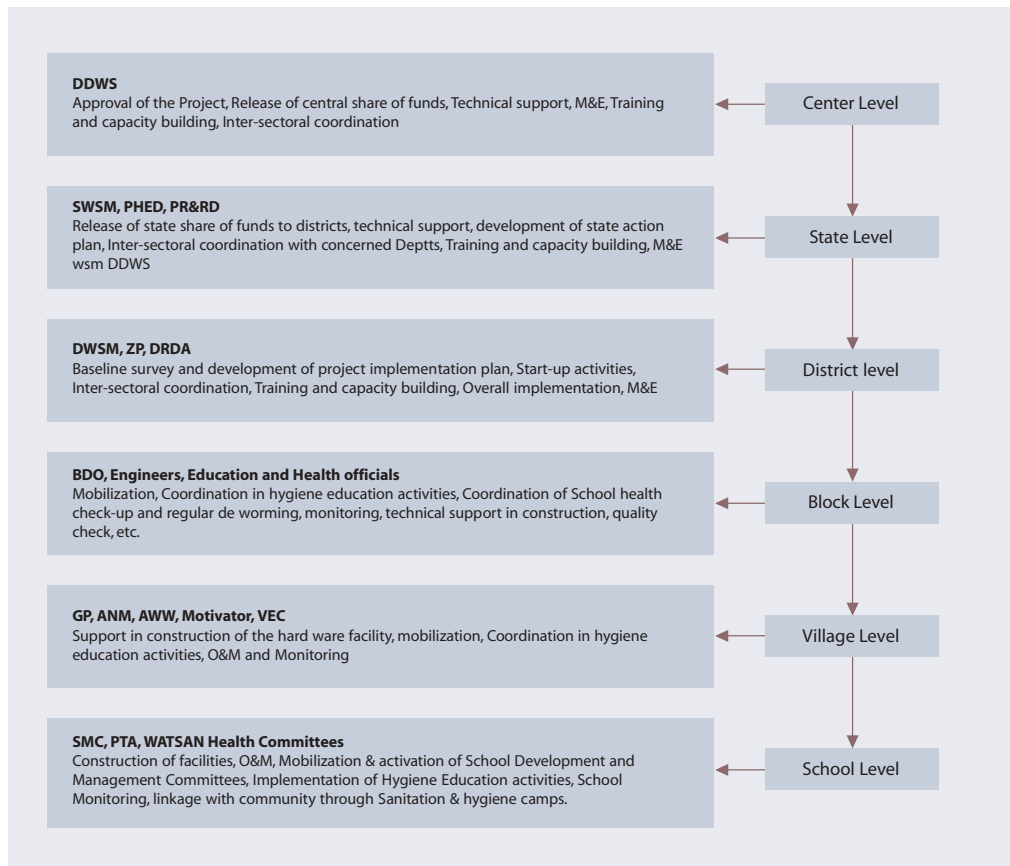


the State Government to the National Government and are scrutinized by the nodal department. Proposals found to be properly conceptualized and conforming to the TSC principles and guidelines are placed before the National Scheme Sanctioning Committee (NSSC) for approval and funding.

TSC Project implementation in a district is expected to take about 3-5 years. At the district level, *Zilla Panchayat* implements the project. In case *Zilla Panchayat* is not functional District Water and Sanitation Mission (DWSM) can implement the TSC. Similarly, at the block (sub-district) level, *Panchayat Samiti*, and at village level, *Gram Panchayat* are involved in implementation of the TSC. At School level, PTA, School Management Committee and Gram Panchayat take the responsibility of implementing SSHE. Box 4 shows how the delivery structure has evolved for SSHE under the TSC programme. Overall, the approach of SSHE in India has been to implement water and sanitation facilities in an integrated and participatory manner with emphasis on health and hygiene education.

Box 4

**SSHE in TSC Structure of Implementation with key activities**



## 6. SSHE: Achievements

School sanitation and hygiene education because of its in-built capacity to ensure generational change, has evolved tremendous response at all levels. Department of Drinking Water Supply has taken a lead role to implement this programme in an effective mode. Many initiatives have been taken which have resulted in better implementation and acceptance among community:

### 6.1 Policy

Education, water and sanitation are, according to the Constitution of India, subjects in which the states have primary responsibility. The Central Government sets general policy and provides part of the financial support for these sectors. At policy level, the achievement is visible from the fact that Government has accorded priority with funding support to cover all the rural schools with water and sanitation facilities by 2006-07. All 28 states have been asked to take up SSHE programme on a priority basis and develop a state action plan on SSHE ensuring coverage of all schools. The action plan needs to go beyond construction of water sources and toilets, to include training, social mobilisation activities (workshops and seminars), school health and hygiene activities, repair and maintenance plans. States like Chhattisgarh, Madhya Pradesh, Arunachal Pradesh, Andhra Pradesh, Tamil Nadu, Rajasthan, Jharkhand, West Bengal and Sikkim, have already developed State-wide action plans. Key features of the sample action plan of West Bengal is given in box no 5.

Water supply and sanitation are managed by different agencies in many states. To promote inter-sectoral coordination in each state, a State Water and Sanitation Mission (SWSM) has been constituted with representation of various departments such as Education, Health, Local Self Government, Rural Development, Public Health Engineering, Women and Child Development, etc. This is meant to function as a task force and help develop state level action plans. At the district level, there are district committees to coordinate and supervise the water and sanitation reforms. The composition of these committees is broad-based to include all stakeholders to ensure inter-sectoral coordination, including the key district departments and non-governmental organizations.

### 6.2 Physical and Financial<sup>5</sup>

Construction of sanitation facilities is one of the key activities of SSHE programme. Initially the progress on construction was slow, but has now gathered momentum in the last 2-3 years. SSHE programme is operational in all the 28 states, covering about 426 districts and expected to cover rest of them by 2005-06. The progress has been steadily increasing over the last few years, which has been depicted in the graph (See figure 3). **Between 1999 and 2002 about 14,000 toilets had been constructed which increased steeply to 85,000 toilets (cumulative) in the year 2003-04.** Active participation,

<sup>5</sup> MIS, DDWS, 2004



Box 5

## Action Plan for School Sanitation, West Bengal (Eastern India)

## KEY FEATURES:

As in all states, there is a state coordination committee for water and sanitation, but West Bengal also has an active Standing Task Force that manages the SSHE programme. The Task Force for School Sanitation is composed of senior civil servants, the secretaries/directors of Departments of School Education, Rural Development, UNICEF, Public Health Engineering, and the education reform programmes DPEP/SSA.

By 2003, the programme had enabled 35 percent schools to have sanitation facilities and 70 percent to have water facilities. The programme seeks to cover all 51,000 primary schools in West Bengal by the end of 2004. Total Number of Primary Schools are 51,022, (Source: Dept of School Sanitation).

The programme Delivery Mechanism is based on local government (*the Panchayat system*) in close collaboration with the *Ramakrishna Mission – Lok Shiksha Parishad*, one of a number of NGOs and the local Education Department. Special attention is given to networking of teachers, school committee, and Panchayat and village education committee. Training or orientation is given to District level officials, headmasters, teachers, village education committees, water committees, caretakers, masons and tube well drillers. In many cases, the water committees are formed by the programme.

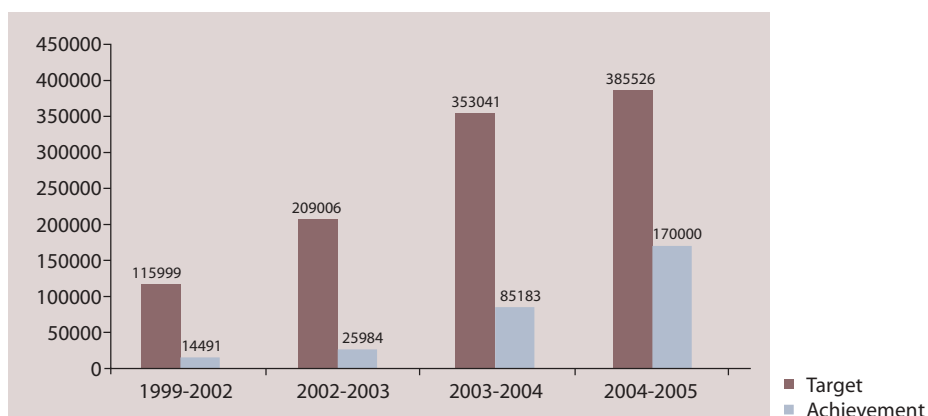
## TECHNICAL ASPECTS

- *Technical innovation* - Cost effective programme, local skills/ resources used for construction, graduated from 2 units to 3 units.
- *Basic unit*: 2 urinals, 1 latrine, 1 water storage tank, hand pump (Tara/IM III).
- and 1 washing platform.
- *Cost of the Unit*- Rs. 15,500 (US\$345).

*Additional Sanitary Accessories* are provided such as buckets, mugs, toilet brushes, brooms, etc.

Figure 3

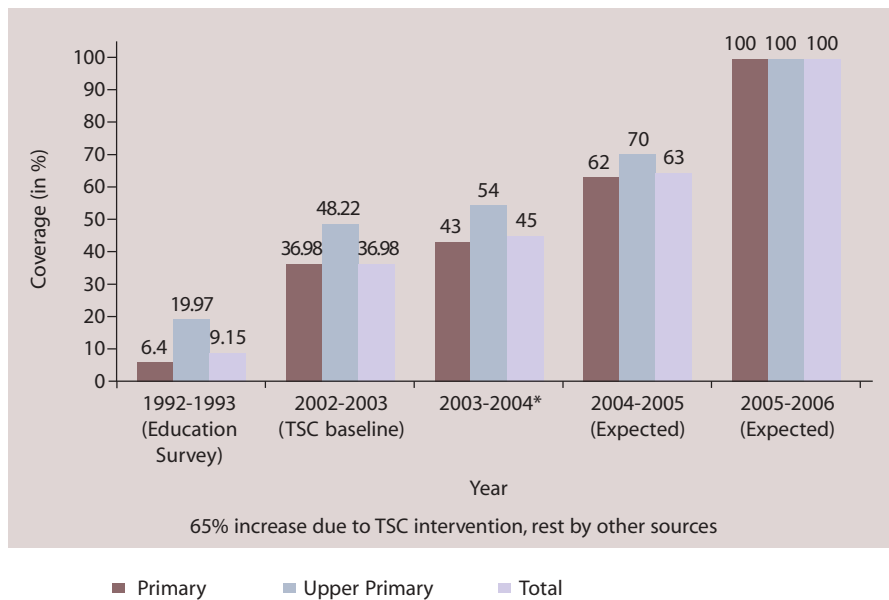
## School Toilets Approved under TSC



some dedicated staff and strategic planning with adequate funding support saw the construction of about 60,000 toilets in a single year in 2003-04. It is expected that another 80,000 would be constructed before the end of 2004-2005 financial year. Some states like Andhra Pradesh, Sikkim, Haryana have shown leading performances in achieving coverage of all schools with toilet facilities.

With sustained intervention through SSHE, the total coverage of sanitation facilities has increased over the years. It is estimated that 45 percent of the rural schools are now covered with sanitation facilities based on figures from TSC baseline survey findings from over 254 districts. It is expected that at current pace, all the schools will be covered with sanitation facilities by 2006. The year-wise progress of sanitation facilities have been depicted in figure 4.

Figure 4  
Sanitation in Schools (Coverage Status)



Similarly, significant achievements have been registered on water supply front. Till 2003-2004, 71 percent of the schools have been covered with water supply and only 29 percent schools are left to be covered which is expected to be covered before 2005-2006. The year-wise progress on water supply coverage has been shown in figure in 5.

Another achievement is that there has never been a shortfall of financial resources as far as SSHE is concerned. Government has always been making resources available for this programme. In fact, over the years, the allocation of school sanitation has steadily increased as shown in the graph (See figure 6). In 1999-2002, the central and state share was US\$60 and US\$22 million respectively which has increased

Figure 5  
Water Supply Coverage in School

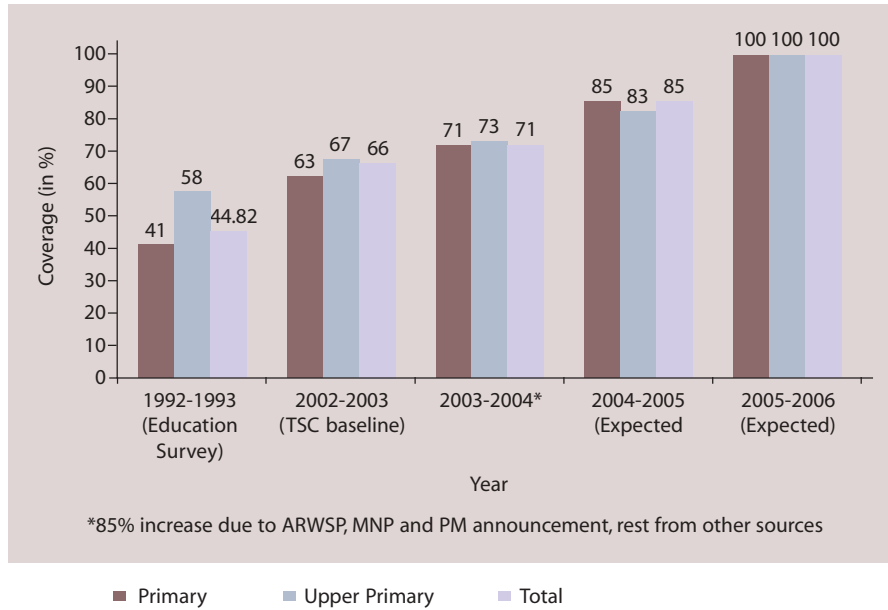
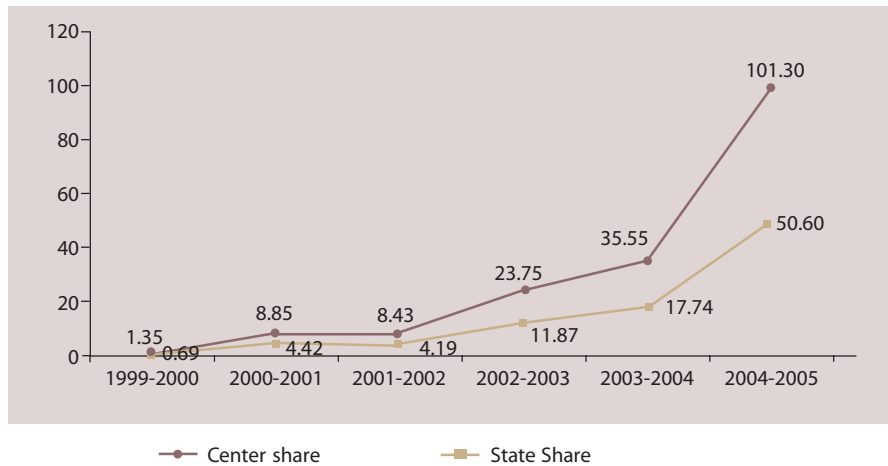


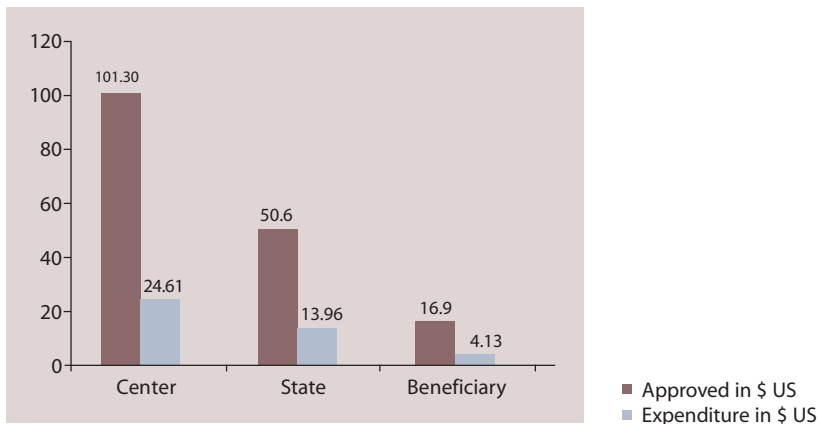
Figure 6  
Year Wise Approved Center and State share (in US\$) for School Toilets in TSC (1999-2005)



substantially to US \$101.30 million as central share and US\$ 50.60 million (cumulative) as state share in 2004-2005. Government has allocated more than 10 percent of the total TSC funds to the SSHE programme. Besides, government has also made a fund provision for hygiene education and manpower support for SSHE at various levels.



Figure 7  
Cumulative Approved Amount versus Expenditure with  
School toilets in TSC, 1999-2005



The expenditure against the allocated funds has been on rise. The Center has spent US \$24.61 million, while state has spent US \$13.96 million till the end of Dec 2004. It is noteworthy that the community (PTA, GP, SMC) has participated actively in SSHE programme. They have contributed significantly which stands up to US\$ 4.13 million. This is primarily because the approach and the principles (that is demand responsive, community owned and people centered) have played an effective role in the success of the programme in India. This effort has not only provided hardware facility but also ensured sustainability to the facilities created.

### 6.3 Capacity Building

Moving beyond a pure construction-oriented programme implies the need for capacity development at all levels, including the capacity for capacity development. The Central Government has identified four regional resource centres: *Safai Vidyalaya*, Ahmedabad (Gujarat), *Ramakrishna Mission-Lok Shiksha Parishad* (West Bengal), Gandhigram Rural University, Dindigul (Tamil Nadu) and the State Institute of Panchayat and Rural Development, Kalyani (West Bengal). These are meant to train the state level and district level resource institutions for the SSHE programme. The States are expected to identify their own State level resource centres to train district resource people, NGOs, PRIs and teachers. Similarly, the districts are also using the services of District Institute for Education and Training (DIET) for capacity building. States like Madhya Pradesh has identified the State Council for Educational Research and Training (SCERT) at state level and DIET at district level as their resource centers to impart training on hygiene education.

One important development has been the launching of a new component to support communication and capacity development on water and sanitation issues. Communication and Capacity Development



Units (CCDUs) are being set up in each state to develop IEC and HRD plans for the respective States and also assist Districts to develop and implement the same. CCDUs will take up capacity development activities through a network of Key Resource Centers identified at the state and regional level. Government of India will support CCDUs and Key Resource Centers for which a guidance notes have been circulated. Well-staffed and organized CCDUs will most certainly help in better capacity development of programme managers of SSHE .

Central Government has augmented technical support by publishing key documents on SSHE. One document is on School and Anganwadi toilet designs specially focussing on norms and options. The other one deals with the theoretical, conceptual and programmatic aspect of SSHE which has been translated in regional languages and circulated to all the project districts and programme implementators. In addition, **training modules** with brief note on various aspects of training, including SSHE, have been prepared and circulated to users. Similarly, a set of frequently asked questions has been developed and hosted on the website [www.ddws.nic.in](http://www.ddws.nic.in). Also, a dedicated page on SSHE has been developed and hosted on the website.

Each state is allowed to hire three or four professional consultants from TSC funds to form a core team to provide support and guidance. In districts, out of four professionals funded by TSC, one has to be dedicated to SSHE. There have also been several national seminars and workshops to develop the capacity of leaders at the state and district level and to provide platforms for sharing and transfer of experience

## 6.4 Inter Sector Coordination

SSHE is an integrated intervention involving various cross-cutting areas, such as community participation, construction-related issues, health check-ups, hygiene education, operation & maintenance, monitoring, funding and institution building. These issues are very diverse and complex in the context of involvement of various sectors such as Water Supply, Health and Family Welfare, *Panchayati Raj* and Rural Development, Public Health Engineering, Women & Child Development, Education etc. All these make inter-sectoral coordination very important and relevant to effectively implement the SSHE. It implies that the SSHE programme is given sufficient priority and the concerned departments demonstrate commitment by extending support for implementation of their respective components of SSHE. This may include provision for funds, technical assistance, infrastructure and institutional support, motivation and supervision of staff, etc. Secondly, coordination must ensure that both software and hardware component of the SSHE programme are well balanced and integrated for effective implementation.

The inter-sectoral coordination is essential at all levels—from state, district, block and village to school level—so as to improve the school environment and students' hygiene behavior. This requires the



concerned ministries and departments to join hands and avoid duplication of efforts. In this context, the Department of Drinking Water Supply has taken several initiatives to forge a strong coordination with the concerned departments such as Department of Elementary Education & Literacy, Department of Health, Department of Women and Child Development, Ministry of Tribal Affairs, Ministry of Social Justice and Empowerment to ensure priority to the SSHE programme and overall implementation of TSC.

For example, with the Department of Elementary Education and Literacy, a joint action plan for funding has been proposed on the coverage of water and sanitation facilities in schools still lacking in facilities. (See box 6). On technical support front, coordination has been forged on the training of teachers' on hygiene education, curriculum development etc. A joint monitoring mechanism is also planned for regular follow up for improvement and effectiveness of the programme.

Box 6

#### Estimate of Nationwide backlog of School Sanitation

345,000 primary and upper primary schools without drinking water facilities	
573,000 primary and upper primary schools without toilet facilities	
Plans for covering by the end of 10 <sup>th</sup> Plan (2007): Department of Drinking Water Supply, Ministry of Rural Development and Department of Elementary Education and Literacy	
THROUGH DEPARTMENT OF ELEMENTARY EDUCATION AND LITERACY (DEEL) :	
Drinking Water	: 120,000 schools
Toilets	: 220,000 schools
THROUGH DEPARTMENT OF DRINKING WATER SUPPLY:	
Drinking Water	: 225,000 schools
Toilets	: 353,000 schools

Source: RGNDWM notifications and circulars

Similarly, with the Department of Health, coordination covers advocacy for provision of health services such as regular health check ups and de-worming, Health Index Card for school children, etc. Although, the national water supply programme was launched during the First Five-Year Plan as part of government's health sector, the linkages were lost along the way. **Institutional interface between departments dealing with Water Supply & Sanitation and Health & Family Welfare services need close coordination that has been revisited in year 2004 again to extend effective SSHE services to schools.**



The new Health Policy 2002 recognizes that water supply and sanitation are interconnected and need to be addressed holistically and in coordination between various institutions. Such convergence action has started yielding results. **States like Madhya Pradesh, Sikkim and Tamil Nadu have taken exemplary initiatives in providing health check up services to rural schools by involving Health Deptts.**

In addition, resources are being mobilized in terms of funds for schools / hostels falling in tribal, scheduled caste, minority or backward class areas from the Ministry of Social Justice and Empowerment, and Ministry of Tribal Affairs. **Efforts are also on to link scheduled caste, minority or backward class area based schools and hostels with TSC's SSHE component. Such close coordination with these departments is critical for effective implementation of SSHE.**

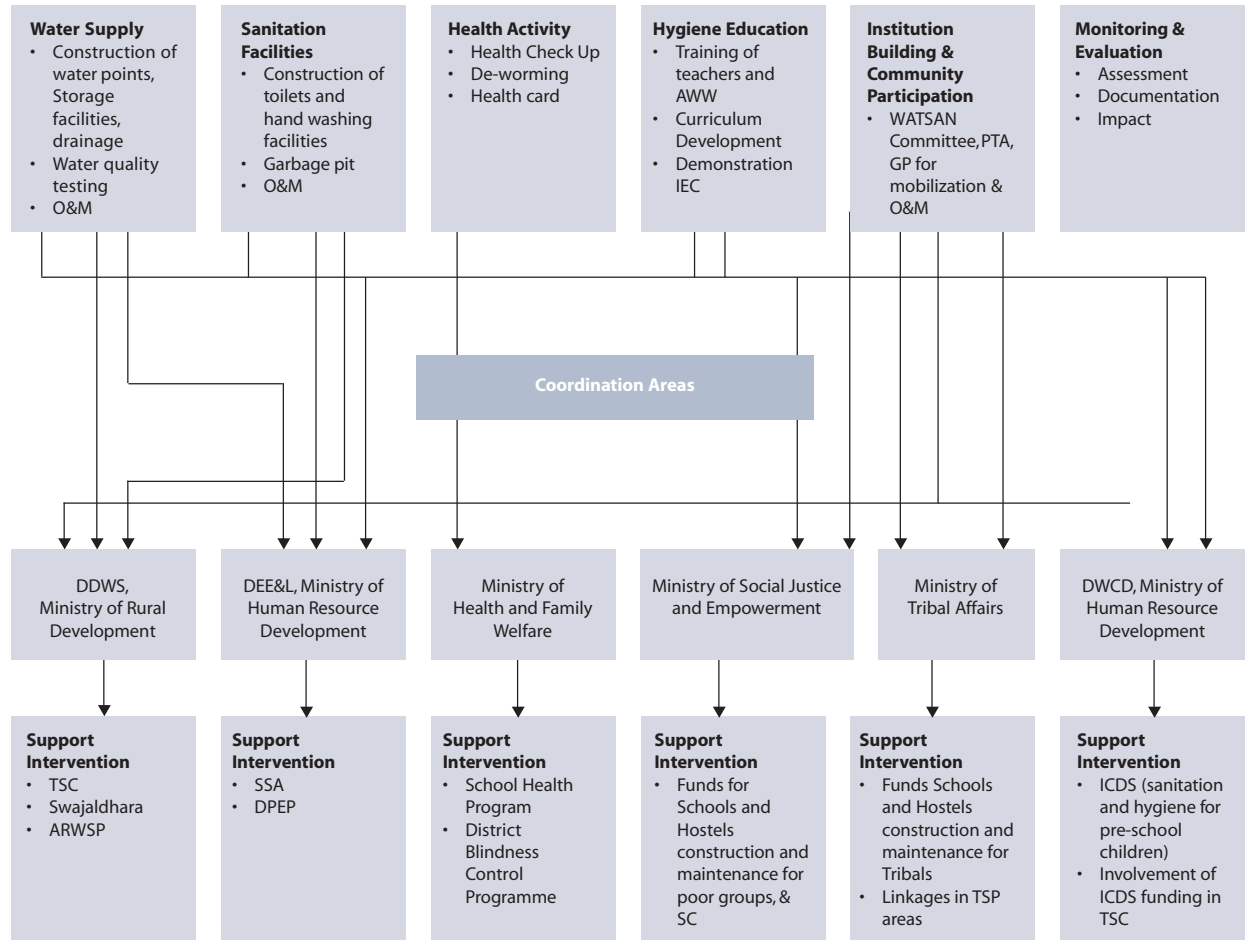
#### *Setting up of Central Coordination Panel*

To further strengthen the process of inter-sectoral coordination and effective implementation of SSHE, at national level, a Central Coordination Panel has been constituted under the Chairmanship of Secretary, DDWS. The other members of the panel are: Additional Secretary & Financial Advisor-DDWS, Joint Secretary-EE&L, Joint Secretary- Health & FW, Joint Secretary-TW, Joint Secretary-DWCD, and Joint Secretary-Social Justice & Empowerment. Joint Secretary, DWS, has been designated as Member Secretary of the panel. The Panel is mandated to meet periodically, to streamline the coverage of water supply, sanitation and more importantly hygiene education in the programmatic context in Schools and *Anganwadis* and assess progress towards successful implementation.



Box 7

**SSHE and Inter-sectoral Coordination Framework**



## 7. Partnerships with UNICEF and IRC

The current programmatic form of SSHE in India has had many innovations and contributions, which emerged from various collaborations and partnership especially with UNICEF and International Resource Center (IRC, the Netherlands). This began when, recognizing the enormity of the challenge and the dimension of the task, UNICEF and International Resource Centre (IRC) entered into a Project Cooperation Agreement (PCA) to provide strategic planning and technical support to the RGNDWM to implement SSHE. UNICEF and government noted that: *the absence of separate, safe and clean toilets deters parents from sending their daughters to school and denies many girls the right to basic education. The perceived duty of girls within the family to fetch water, and perform other household chores, is another factor contributing to the denial of education for girls.*

Such collaboration resulted in a small but widely appreciated project known as *SWASTHH*, an acronym for School Water and Sanitation Towards Hygiene and Health – representing inter-school collaboration amongst relevant departments of Government of India and Non-Governmental sector. The word *SWASTHH* also means “health” in Hindi language and symbolizes the scope of the programme, which is far more than a construction program. Its global objectives focus both on education and quality of life. *SWASTHH* was initiated to develop, test and successfully demonstrate replicable models for hygiene education, water supply and environmental sanitation in rural primary schools and Anganwadis. (As is noted below, the *SWASTHH* programme is also noted by other names in various states.)

The GOI, UNICEF and IRC are working closely, primarily to provide inputs into capacity development at strategic levels with focus on management of scaling-up, developing resource materials to support this effort, assessing a variety of programme designs in diverse and fragile environments- ranging from drought-prone to flood-prone areas, hilly terrain and coastal areas. Lessons learned and experiences documented are shared and fed into information and guidance notes for guidance of field functionaries. An agreement was reached between the International Resource Center (Netherlands), UNICEF and the Government of India to give technical support to *SWASTHH* programme. The IRC team has visited several districts and documented case studies. Several publications, including '*School Sanitation and Hygiene Education - India: Handbook for Teachers*', have been published. Other assignments are taken up to respond to specific demands from the system managers requiring support and user states. Focus is on strengthening capacities to accelerate implementation, in collaboration with resource institutes and international experts. Workshops have also been organized for exchanging ideas and sharing of experiences.



Current form of SSHE under TSC has incorporated many of the innovations and best practices from *SWASTHH* project especially in terms of health and hygiene activities using life-skill approach, operation and maintenance, school based monitoring, etc. Recognizing the potential of SSHE in contributing to girl's education especially in enrolment, attendance, retention through the availability of safe, clean facilities for sanitation and hygiene activities, USAID is collaborating with UNICEF in co-financing the **SWASTHH plus** project in two states of the country, with the objective of Putting The Lessons to Use (**PLUS**). The project aims to build on the lessons learnt and to infuse quality and sustainability in areas that impact on girls in particular.



## 8. Challenges and Responses

SSHE programme of this magnitude would face enormous challenges in terms of policy and financial support, implementation and sustenance. Recognition of the problem areas is a first simple step in seeking solutions for them. The GoI is aware of the immensity of these challenges and proactively involved in surmounting them:

### 8.1 Policy

Although the programme is gaining momentum, still its importance is not fully capitalized by several states. Sufficient priority has to be given by many states, which has not happened so far. This has led to skewed development of the SSHE programme across the country. To meet this challenge, Government of India has given sufficient priority, as we have discussed earlier, to cover all the rural government schools by 2006-07 with water, sanitation and hygiene education facilities. With consistent efforts, many states have accorded the priority to the SSHE programme and developed action plans to achieve the targets set by the government. Because of this, the programme has displayed a promising performance in states such as West Bengal, Gujarat, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, Madhya Pradesh, Maharashtra and Assam. At the same time, states like Orissa, Jharkhand, and Bihar lag behind. Govt. of India is extending financial, technical and administrative support to the States to give greater priority to the SSHE implementation. The thrust areas include inter-sectoral and inter-departmental coordination at all levels that is center, state and district. State and District water sanitation mission have been constituted to meet the SSHE goals. Many states like Madhya Pradesh and Chhattisgarh have constituted SSHE working groups within these missions to increase the pace of progress of the said programme.

### 8.2 Hygiene Education

Hygiene education, which is the key initiative to bring about attitudinal and behavioral changes in children towards relevant hygiene practices, is often not given prominent place in programme implementation by many states. It calls for development of the hygiene curriculum, capacity building of teachers to impart hygiene education and incorporation of hygiene in the curriculum of the school. To provide adequate focus on hygiene education many initiatives have been taken to make it a part of the curriculum. Coordination with Department of Elementary Education and Literacy (DEE&L), Department of Women and Child, Ministry of Human Resource Development has been initiated. DEE&L has agreed to incorporate hygiene education in the teachers' training programme conducted every year. NCERT has taken a pro-active role in developing the curriculum on hygiene education. DEE&L has also agreed to incorporate hygiene education in all the schools and necessary follow up activities are being taken. Above all, TSC has also earmarked separate funds for hygiene education under IEC component.



### 8.3 Construction and Design Issues

In many places, the technology and design used in construction of toilets are not child-friendly, often not adapted to the needs of children, especially girls. This is coupled with inadequate provision of urinal and lavatories, lack of ventilation and light, improper site selection as well as lack of water supply and hand washing facilities. In places where construction is poor or sub-standard, there are problems of water leakage and sewage disposal, which itself may generate more problems of contamination of ground water or breeding of mosquitoes. These issues have been the priority of TSC implementation. Government has given adequate focus on research and development of technological and design options of the toilets both for schools and Anganwadis. The findings have been incorporated in published form and have been circulated to all the project states and districts covering the areas of technological and design option, construction norms, operation and maintenance and gender and physically challenged children issue. This promotes child friendly and baby friendly design options ensuring better use with privacy and safety. On technological front, leach pit, preferably two-pit system with rural pan, are preferred in comparison to septic tanks as the former consumes less water for cleaning and maintaining purpose, ensuring longevity of the system. In water-scarce areas, pour flush latrines and VIP latrines are promoted, these include provision of water supply, lavatory, urinal, hand washing, and drainage and garbage pit facilities in schools. Training is also conducted for masons and engineers to adhere to norms of school and Anganwadi toilets.

### 8.4 Operation and Maintenance

Mere construction of toilet is not enough. The Operation and Maintenance (O&M) of such facilities is to be ensured. O&M of sanitation facilities often does not receive adequate attention of teachers, PTAs, programme managers, etc. Another problem regarding O&M is that in many schools, toilets are found under lock and key. If toilets are functional, the challenge is who will clean them? Hiring a help could be a costly proposition. In some states, the school children clean them by rotation. In many places, both teachers and parents are motivated and mobilized in O&M of sanitation facilities. These issues have been well incorporated in the programme of SSHE. The regular efforts to involve PRIs, PTAs, SMC and School WATSAN Health committees have been successful and in many places they are involved in taking up the activities of operation and maintenance which includes resource mobilization for consumables and repairs, cleaning of toilets, regular meetings on O&M issues etc. School and community based operation and maintenance has emerged as one of the key strengths of SSHE programme over the years. This has increased the level of participation and ownership.



## 8.5 Programme Implementation

In places where programme is in place, there are nagging difficulties. In many places proper planning of SSHE activities has not been done. This is primarily because of the absence of orientation and training on SSHE interventions. Also, institutions at schools (Parent-Teacher Association) and village level (Gram Panchayat) are not active in many places. Therefore, the support, programme could otherwise get from the community remains deficient. Adequate capacity building and training of manpower involved in the SSHE implementation is required which calls for improved training programmes for effective and focused implementation. These challenges have engaged attention of the government. For instance, to help states and districts to plan the implementation of SSHE programme, two templates (Project Implementation Plan at district level and State Action Plan) have been developed and shared with the implementing agencies. Further to help them prepare this plan, technical support has been provided through publications informing nature of the programme, technological and design issues, capacity building of stakeholders, health and hygiene activities, operation and maintenance, monitoring and evaluation, etc. Similarly, regional level resource centers, as mentioned earlier, have been identified to impart the necessary training on SSHE. In many states, state and district level resource centers have been identified and being developed to further support the capacity building. Adequate funding support has also been provided from TSC funds to take up the capacity building and training activities. Necessary technical support has also been extended through UNICEF and IRC in this direction. Also, sincere focus has been given on institution building or activating the existing institutions such as PTA, SMC, School WATSAN and Health committee etc. In many states, these institutions are very active and playing key role especially in hygiene education to the community, operation and maintenance and monitoring of SSHE.

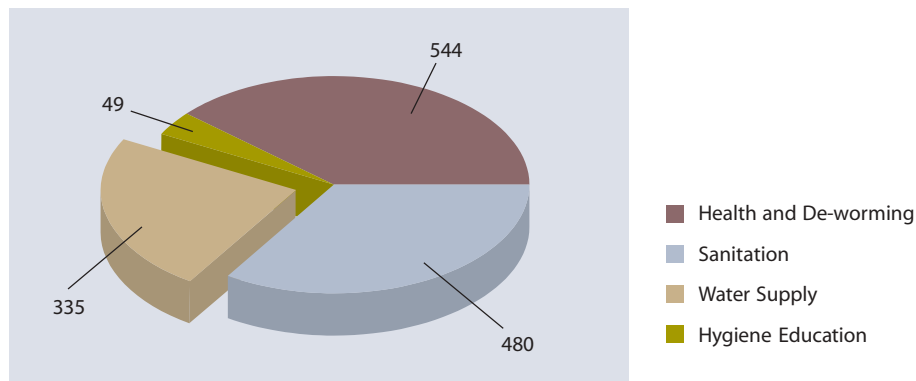
## 8.6 Fund Resources

SSHE is being scaled up throughout the country as a matter of policy. This would require commensurate funds to implement it effectively and meet the goal of providing water, sanitation, and health & hygiene education in all schools by 2005-2006. **An assessment has been done on the basis of baseline survey findings conducted in 159 TSC districts which estimate that US\$ 1408 million will be required.** The break up of the fund gap is presented in Chart 1. To mobilize the assessed fund requirements, RGNDWM, Govt of India has developed concept paper highlighting critical issues and fund requirements for sanitation, water supply, health check ups & de-worming, and hygiene education with an objective to mobilize fund resources from government allocation (Plan allocation, Concerned Ministries allocation,



Cess collected, State Resources, etc) and external funding agencies. It is planned to pool in funds and use one conduit / one agency to avoid duplication of efforts and for faster and effective implementation of SSHE.

Chart 1  
Fund Gap to Implement SSHE by 2005-2006  
(in US\$ million)



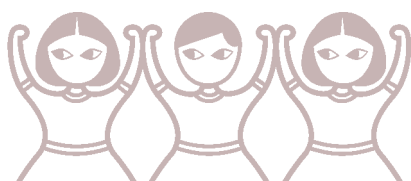
Box 8

Geographical Information System (GIS) for SSHE in Tamil Nadu (Southern India)

Geography matters, or so says the exponents of Geographical Information System (GIS) being applied innovatively in Tamil Nadu for improving the school sanitation programme. Under this, spatial data maps for the village *Panchayat* were generated for the first time. For the first time in India, with UNICEF assistance, GIS was used to create water and sanitation facility mapping for schools in Tamil Nadu focussing on five indicators: drinking water, toilet, water for toilet, washing and school sanitation and hygiene education training.

This triggered significant changes in planning for SSHE, especially the use of spatial data for SSHE planning. When the first GIS maps were displayed during a regional workshop, they shocked officials of the SSA and TSC as no district official had any idea about the coverage of water and sanitation facilities in schools. They were drawn towards the GIS maps and started comparing coverage levels between different districts and decided to take up joint planning and use pooled resources. The data has been used to prepare district action plans for SSHE, jointly owned by SSA and TSC. Higher officials too got sensitized to the ground level problems after looking at the GIS data.

Planners found it advantageous to be able to look at the spatial distribution of schools without a given facility so that priority could be identified; funds allocated and district level planning and monitoring undertaken.



## 8.7 Monitoring

SSHE programme is running in 426 districts of the country and it is very necessary to have monitoring of the programmes at all level that includes community based monitoring, district, state and central level. Monitoring such a huge programme is a herculean task, which demands a lot of dedicated manpower and effective MIS system. This is an area, which has a scope of improvement. Sufficient focus has been given to ensure better monitoring in SSHE programme. It now covers not only physical and financial coverage but also tracks down the process level indicators especially at school level. Online software has been developed for physical and financial progress for easy availability of data from everywhere. Government has also engaged external monitoring agencies on regular basis to monitor and report on the progress of TSC and *Swajaldhara* programme with special focus on school component.



## 9. Strengths of SSHE – Beyond Construction

The approach of SSHE has been widened by making this programme more demand-responsive and community-based for sustainable implementation. The programme is now more comprehensive and better integrated to promote children's right to a healthy and clean environment leading to effective learning, in particular girls. The key areas of strength are discussed below:

### 9.1 Focus on software

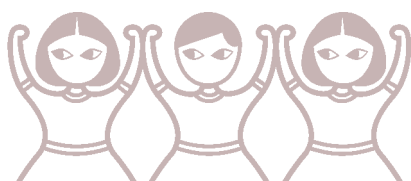
The Indian SSHE programme certainly moves beyond construction and focuses more on behavioral change. The strategy to focus on software interventions has become one of the strengths of Indian SSHE programme. This is the most important component of the SSHE effort that includes:

- Health and hygiene activities to promote conditions at school and healthy practices of school staff and children
- Active and trained school management group, and trained teachers
- Consistent use of facilities for hand washing, drinking water and toilet use
- Repair and maintenance of these facilities by the School Management / Parent Teacher Groups
- Cleaning the facilities through roster of responsibilities for children (irrespective of caste and class)
- Health checks ups and de-worming
- Education: life skills education, school themes, curriculum development, classroom teaching, exposure visits, child-to-child activities, etc
- Linking to homes, information activities in community
- Monitoring schools and community.

The priority given to software rests on the assumption that children are important agents of change for shaping attitude and mindset on sanitation and hygiene. In essence, the programme recognizes significance of children as an investment for lasting social change and looks upon them as entry points for initiating change for cleaner environment and their own protection (See box 9).

### 9.2 Poverty, Equity & Gender Issues

The SSHE is inculcating a new culture, a new consciousness that cleanliness whether in one's personal life, in one's immediate surroundings, either at home or outside, is every individual's business, not just of people from certain strata of society. In India, despite the principles of non-discrimination enshrined in the constitution, caste is a part and parcel of life. Under the SSHE, school students, irrespective of class, caste or gender are supposed to clean and maintain water and sanitation facilities created. While



Box 9

### An Integrated Approach to School Sanitation and Environmental Education Anandshala, Gujarat (Western India)

A study in Gujarat has shown that lack of proper sanitation facilities in schools keeps away girls from pursuing upper primary schools. The Anandshala project launched in March 2003 selected 10 schools in each of the three districts of Gujarat as demonstration schools. The physical components were water supply, toilets, landscaping, paving, fencing and establishment of Child Environment corners. The process of enabling includes training of teachers with study tours and exposure visits of teachers and children. Conduct of *Bal-Melas* (Children's Fairs) around water, sanitation, hygiene, individual school master plans and energization of the Village Education Committee (VEC). The Village Civil Works Committees (VCWC) is chaired by the *Sarpanch* (or the village head person) and includes the headmaster as the member secretary. Other members are the village artisans and members of the Parent-Teacher's Association (PTA).

In Anandshala project, which covers more than 10,000 students in 30 schools spread over three districts, 100% enrolment and retention were observed during 2003. Water and sanitation facilities were built, contributed to, owned and maintained by the schools. All the schools have Eco-Clubs and Village Education Committees who maintain the facilities.

household chores such as cleaning and fetching water are traditionally the domain of women, SSHE makes no such distinction. Boys and girls both participate in all the activities. What better avenue to make a dent on this well entrenched caste and gender discussions than schools of today!

At the same time, under SSHE, special emphasis is given to constructing separate toilets for girls as their absence is considered to be one of the reasons for high drop out rates, especially the adolescents from schools. A singular focus of this endeavour is to create an environment sensitive to the special needs of girls. Preliminary data from states such as Rajasthan (as mentioned in success story) suggests that this is bearing fruit and an increasing number of girl students spend more time in schools. With absenteeism going down, there are indications that performance has improved.

### 9.3 Integration

SSHE programme in India is not being implemented in isolation. It has been linked with broader sanitation drive especially in relation to household and community based sanitation. This has given SSHE a leading role to reach the sanitation message to a wider group. In fact, SSHE has become an entry point in many places to mobilize support and demand for household and community sanitary facilities.



## 9.4 Convergence

Convergence action with other concerned departments like Education, Health, Tribal, Social Justice and Empowerment has given a new thrust to the entire SSHE programme. The approachability and reach of this programme has increased tremendously. This has also strengthened the implementation process of SSHE. The convergence efforts have proved critical in curriculum development and incorporating the same in the curriculum. The support of Department of Elementary Education and Literacy is exemplary. The coordination with Health Department has been quite meaningful in extending health services in the schools.

Box 10

### Use of incinerator for school toilet waste

Both biodegradable and non-biodegradable waste can prove hazardous for health, if proper and complete disposal is not done. Sanitary waste especially the solid, semi-solid waste is more dangerous as it infects rapidly. In rural areas, with increasing coverage of sanitation facilities especially in institutions like school, *Anganwadi*, community sanitary complex, primary health centers etc., disposal of waste is becoming a serious problem. In schools especially, disposal of sanitary napkins in girls' toilets is big problem from the health aspects. There is, thus, a growing need to address the waste disposal effectively especially in terms of simple and cost effective technology. In Tamil Nadu, low cost incinerators for waste disposal have been put to use in many rural schools especially in girl's toilets. The cost of this technology is not very high which is around Rs.1200-1500/- only (US\$ 27-33). The incinerator comprises of primary, secondary chamber and emission control systems with exit doors for ash removal one in each chamber. In each incinerator, there is a spout in the wall for disposal of soiled napkins and the wire gauze chambers on the other side of the toilet wall which is used for the collection of the soiled napkins. On weekly basis, these dropped napkins and other waste are disposed by firing from the outside box which is attached to outer wall of the toilet with firing outlet and smoke vent. Needless to mention that the use of incinerator has removed the inhibitions from the girl child and has made them comfortable attending the school during the special days. Not only this, incinerators have made disposal system effective towards handling of sanitary waste to check health hazards and subsequently ensure clean and healthy environment to children especially girls.



## 9.5 Center of Innovation

SSHE programme has also emerged wherever implemented as a center of innovation. For instance many schools have installed rainwater-harvesting system to meet the water supply needs. Schools are also taking up school-based water quality surveillance to track down the level of chemical and biological contamination. Many schools have a new thrust to the IEC activity specially in establishing linkages with community. Students and schools are playing major role as motivator to propagate the message of hygiene practice.



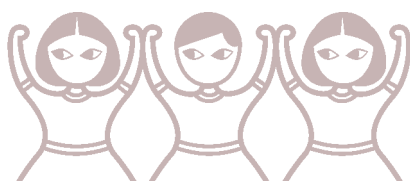
## 10. The Way Forward

Clearly, India has good ground to cover to achieve its ambitious target of providing water and sanitation facilities for its millions of school going children by 2006-07. To translate this dream into reality, a key step will be to constantly assess the situation, document key lessons and constantly update the steps to be taken. Sustained advocacy to make sure that the state governments and the beneficiary community remain mobilized, contribute their resources while the center gives its inputs.

A beginning has already been made in bringing into focus all the nodal ministries and departments together to tackle the goal of providing sanitation facilities in all the rural schools by 2006-07. This process needs to be accelerated. A strong political will and commitment is needed to successfully achieve the objective.

Elimination of open defecation remains a formidable goal. If this could be tackled, enormous burden of morbidity and mortality would get taken care of on its own. The government is confident that with an accelerated programme, it will be able to tackle all the problems in its stride.

In addition, more concerted and coordinated effort is required for effective and eventual success of SSHE. It needs orientation of all stakeholders to accept some of the interventions being made in SSHE especially in relation to demand- and community-based approach. Operation and Maintenance is one such area, which needs to be debated and implemented at school level. Similarly scaling up of the programme to cover the entire country of more than 1 billion, and still growing, population will inevitably throw up new formidable challenges. All this will have to be accomplished while maintaining and improving quality and momentum of the programme.



## References

- A Manual on School Sanitation and Hygiene, Guideline Series, UNICEF, NY, 1998
- Action Plan Template: school drinking water supply, sanitation and hygiene education, Department of Drinking School Water supply, Ministry of Rural Development, GoI (2003)
- Mquadi Nomfundo, Integrated School Sanitation Programming, 25<sup>th</sup> WEDC Conference, 1999
- Quality with diversity: Scaling up SSHE/SWASTHH- report of a national workshop. IRC (2003)
- Report on National Workshop on School water and Sanitation Towards Health and Hygiene, UNICEF, India Country Office, 2001
- School Sanitation and Hygiene Education–India, IRC Technical Paper Series, 39, Delft, The Netherlands, 2002
- School Sanitation and Hygiene Education: The way forward, Workshop Report, IRC, Delft, The Netherlands, 2003
- School and Anganwadi Toilet Designs-norms and options, Technical Note Series, Department of Drinking Water Supply, Ministry of Rural Development, GOI (2004)
- Swajaldhara Guideline, 2003
- Towards Total Sanitation and Hygiene: A Challenge for India, Country Paper Series, New Delhi 2003
- The Indian Child, MoHRD, 2002
- Total Sanitation Campaign Guideline, 2004
- Water and Sanitation, India Assessment Report, Planning Commission, GOI, 2002
- Water Supply, Sanitation & Hygiene Education: India, Technical Note Series, Department of Drinking Water Supply, Ministry of Rural Development, GOI (2003)



## Abbreviations and Acronyms

ANM	Auxiliary Nurse Midwife
AWW	Anganwadi worker
BDO	Block Development Officer
CRSP	Centrally Sponsored Rural Sanitation Programme
DDWS	Department of Drinking Water Supply
DEE&L	Department of Elementary Education and Literacy
DPEP	District Primary Education Programme
DWCD	Department of Women and Child Development
Gol	Government of India
GP	Gram Panchayat
HRD	Human Resource Development
IEC	Information, Education and Communication
IMR	Infant Mortality Rate
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Ratio
NCAER	National Council for Applied Economic Research
NCERT	National Council for Education Research and Training
NDC	National Development Council
NFHS	National Family Health Survey
NGO	Non-governmental Organisation
NSS	National Sample Survey
PC	Production Centre
PLA	Participatory Learning Appraisal
PRI	Panchayati Raj Institutions
PTA	Parent Teachers Association
RGNDWM	Rajiv Gandhi National Drinking Water Mission
RSM	Rural Sanitary Mart
SHG	Self-Help Group
SMC	School Management Committee
SRP	Sector Reform Project
SSA	Sarva Siksha Abhiyan
SWSM	State Water Sanitation Mission
TSC	Total Sanitation Campaign
TSP	Tribal Sub-Plan
UN	United Nations
UNICEF	United Nations Children's Fund
VEC	Village Education Committee
ZP	Zilla Parishad





