

Chapter 5

Child's environment

Sanitation, hygiene and water supply

GOI-UNICEF Master Plan of Operations, 1999-2002

5.1. Programme Summary

With considerable national achievements in provision of drinking water, the GOI-UNICEF programme makes a strategic shift to focus more intensively on environmental sanitation and hygiene. Ambitious goals for increasing sanitation coverage will be supported with major efforts in social mobilization and behavioural change, using schools as important centres for creating new norms of hygiene in the community. The maturing of the water well drilling sector allows UNICEF to phase out support in this area, allowing attention to shift to water quality, sustainability and the management of fresh water resources. The emerging urban environmental crisis mandates special attention. Resource mobilization, private sector involvement and Government-civil society partnership will be important programme elements. Within this overall framework, UNICEF resources will focus on states/regions with the poorest indicators of children's wellbeing.

5.2. Problem Statement

- 5.2.1. Unhygienic practices and contaminated water cause diarrhoea and ill-health which account for nearly 400,000 child deaths annually. The lack of sanitation is a significant contributory factor in malnutrition, which impairs the growth of more than 58 million children. Over 70 % of the health problems faced by children in primary schools are caused by inadequate hygiene. These factors directly undermine and prejudice the child's right to survival and development. Moreover, a heavy burden of drudgery is imposed on women and young girls having to walk long distances to obtain safe water for household use. Low awareness about the importance of hygienic practices actively contributes to nullifying the advantages of access to safe water. If a water storage container is not clean, or family members do not wash their hands after defecation, then even safe water brought to the home is compromised. The failure to assure safe water and a clean environment also affects the fulfilment of other rights. For instance, 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.
- 5.2.2. A child's right to a secure environment begins with assured access to safe water and clean surroundings, both vital for healthy growth of the child. The assurance of such a right depends critically upon public provisioning by the state, the behavioural patterns of parents in the family and outside the home, and upon how well-informed communities are about the benefits of hygiene and environmental sanitation. However, social discrimination and exclusion tend to deny communities the right to use public water sources.
- 5.2.3. India has made significant progress during the last three decades in provisioning of rural water supply. The Government has adopted a coverage norm of one safe source supplying 40 litres

per capita per day, for a population of 250, within a distance of 1,600 metres in the plains or 100 metres elevation in the hills. In 1996, about 86 per cent - 85% urban and 86% rural - of the population had access to safe drinking water. This has effectively reduced the time and energy spent, particularly by women and young girls in obtaining water for the household. The country is also on the threshold of eradicating guineaworm disease. No case of guineaworm was reported in 1997 and 1998, two successive years of zero incidence.

- 5.2.4. The 14% of the population that remains without access to safe water represents in numerical terms a substantial population, many of whom reside in tribal or remote geographical areas. Statistical coverage does not always guarantee effective access to all social groups, especially those living in India's many hamlets, often composed of scheduled castes and scheduled tribes.
- 5.2.5. Starting from a low base, progress in household toilet coverage has accelerated over the last five years. In 1996, about 26% of households had access to proper sanitation – up from 23% in 1991. Slow progress reflects not so much the absence of appropriate technologies or financing mechanisms, but more a state of mind. At policy level, the heavy dependence on subsidies, together with a narrow focus on the choice of technology, have slowed progress. Added to this is a general lack of demand for toilets, and indifference on the part of families and communities for a safe environment for their children and for themselves.
- 5.2.6. Fulfilment of the right to safe drinking water and a clean environment has been uneven. Whereas 70% of urban households has access to proper sanitation, it is only 25% among rural households. The urban figure, however, disguises the fact that millions of families in the poorest urban settlements, many of which are unauthorized, face insanitary conditions that are life threatening to children. Communities belonging to scheduled castes and scheduled tribes stand out as the most disadvantaged groups in terms of enjoying equal access to safe drinking water and environmental sanitation.
- 5.2.7. The country faces several challenges concurrently.
- Problems of water quality are becoming increasingly acute. Borewells, long promoted as safe sources of water, are found to be faecally polluted as a result of poor well construction and insanitary well surroundings. At least 10% of the population has excess levels of fluoride, arsenic, iron or salinity in their sources of drinking water.
 - Sustainability of the very technologies used to rapidly and cost effectively provide access to safe water to millions of households is under threat from falling water tables, caused by over-exploitation of groundwater for irrigation and industry. The fresh water situation is increasingly threatened by indiscriminate pollution of surface as well as ground water.
 - The continued neglect of the environment in urban slums poses one of the greatest threats to progress on reducing infant and child mortality and improving nutritional status of children living in such disadvantaged areas. Almost a third of households in urban slums does not have access to any kind of toilet. Drainage and garbage disposal systems are often overwhelmed or absent. Public latrines, poorly designed and maintained, become themselves major centres of infection, and often deter use by women and children.
 - Public water supplies are often irregular or out of order for long periods. A recent Government study revealed, for instance, that 23% of handpumps, 14% of mini-piped schemes and 44% of larger piped water supply schemes were not functioning due to breakdown and poor maintenance.
 - Several factors constrain the fulfilment of the child's right to safe drinking water and a clean environment. Some of them are within the control of the household and the community,

others beyond their control. A major factor however has been attitudinal and behavioural change that has been slow to come about. A child's most immediate environment is the family and the home, where hygiene practices, such as hand washing, toilet use and the safe handling of drinking water are critical. Behavioural changes become fundamental to alter such practices. Outside the home, the child's environment widens to include the community, where safe water sources, waste management and drainage are crucial. In the desire for expanding physical coverage, critical issues of water quality have been neglected. Beyond the habitation, the management of land, forest and water has a direct bearing on the living conditions of the communities depending on these resources. Very little public action has been mobilized for preventing environmental deterioration and its impact on water table replenishment and sustainability.

5.3. Past cooperation and lessons learned

5.3.1. GOI-UNICEF collaboration in the sector dates from the 1960s. In more recent years, it has included support to the Central and State Governments as part of the national effort to :

- expand physical coverage of water supply and sanitation;
- address water quality problems;
- continue research and innovation in the development of handpumps that are more suitable for community maintenance and repair;
- develop alternative delivery systems for sanitation;
- eradicate guineaworm disease;
- demonstrate approaches that link safe drinking water and sanitation with hygiene awareness and proper case management of diarrhoea (CDD-WATSAN);
- build capacity; and
- implement IEC and MIS systems.

5.3.2. Several issues need urgent attention:

- efforts to promote awareness and bring about behavioural changes within communities have been inadequate in scale and priority. Yet there is evidence that a strong communication strategy backed up with an effective delivery mechanism can accelerate attitudinal change and adoption of new practices.
- offering a range of technology options can contribute to a more rapid diffusion and adoption of affordable sanitation. It is also found that a zero subsidy approach need not exclude low-income families.
- community participation in the planning and execution of water supply improvements is generally low, with the possible exception of a few projects where a special effort has been made to solicit such participation. This has resulted in poor utilization and community indifference towards the operation and maintenance of completed facilities.
- women's participation in decision making relating to water provisioning remains confined to a few regions despite the fact that women remain the group most affected by such decisions.
- it was long assumed that groundwater was safe and therefore inadequate attention was paid to development of water quality monitoring. After fluorosis and arsenic-related health problems became evident, this has acquired new urgency. Residual pesticides and fertilizers also contribute to fresh water contamination.
- over-exploitation of groundwater for irrigation (also a result of heavily subsidized agricultural inputs) calls for a new regulatory framework.
- the alarming and visible deterioration of the quality of the urban environment, particularly in slums, is a matter of concern. Air pollution, especially lead and solid particulate matter,

as well as extremely poor sanitation, pose significant risks to the health of millions of children in urban areas.

5.4. National priorities

- 5.4.1. The National Water Policy (1987) gives the highest priority to water for drinking purposes, while the Environment (Protection) Act (1986) seeks to protect and improve the environment. There is growing realization of the importance of decentralization, community participation and cost sharing. Many states have moved away from reliance on subsidies for household toilet construction for those above the poverty line, and are increasingly focusing on hygiene education and promotion of environmental sanitation. Government is also committed to ensure that all primary schools have at least one safe source of drinking water and access to proper sanitation. In areas where near-universal access has been assured using current norms, states are being encouraged to revise the norm upward to one source for 150 people within a distance of 500 metres, supplying 55 litres per person per day.
- 5.4.2. The Government and UNICEF are aware of the deepening crisis faced by the deteriorating environment of the urban poor. In 1991, more than a quarter of the population, close to 217 million people, was living in cities. Some 40% of the urban population lives in slums or as squatters. Projections to the year 2020 suggest close to half of the population, some 600 million people, will be in urban areas. The problems of overcrowding, poor housing, and grossly inadequate basic services will be magnified unless intensive efforts are made to improve environmental sanitation conditions among the urban poor.
- 5.4.3. The Ninth Plan aims to provide *access to* safe water to all households by the year 2002 and emphasizes the importance of prudently using fresh water. The Government's goal for rural sanitation by 2002 is an ambitious 50 % (though more modest and realistic for India than the Summit goal of full coverage).

5.5. Programme objectives

- 5.5.1. In working towards the goal of assuring every child the right to safe water and a clean environment, the Government and UNICEF will collaborate to:
- increase awareness of families and communities on hygienic practices and the importance of safeguarding their immediate environment;
 - promote sanitation and hygiene in and through schools to bring about behavioural change and to enable young girls to realize their right to basic education;
 - increase access to sanitary means of excreta disposal and a safer environment for children;
 - strengthen community participation and promote the active involvement of women in the national water supply and sanitation programmes;
 - ensure access to safe drinking water for the remaining 14 % of the population; and
 - create a sustainable water environment in the country.

5.6. Programme strategy

In extending support to the country's efforts to assure every child the right to safe water and a clean environment, the GOI-UNICEF programme will:

- 5.6.1. **Promote education for behavioural change:** Assuring the right to safe water and a clean environment depends critically upon the practices adopted by households. Simple practices such as hand-washing after defecation and before eating go a long way towards curbing the

transmission of diseases. To bring about changes in behaviour is critical, but not easy. UNICEF will therefore focus its attention on intensive IEC that will generate awareness and knowledge of the importance of hygiene, increase demand for environmental sanitation at home, and advocate for hygienic practices. Educating and motivating mothers on personal, domestic and environmental hygiene will continue to be an integral part of the strategy.

- 5.6.2. **Improve quality and sustainability:** Urgent efforts are needed to identify regions where water quality is threatened and to prevent rapid depletion of safe ground water. UNICEF will support the development of appropriate, simple technologies that will enable communities to test the quality of water, and take appropriate action when sources are found to be unsafe. Advocacy and demonstration will be used to support measures for the regeneration of water sources in areas where over-exploitation of groundwater has led to a decline in water tables. Special efforts will be made to identify causes, protect and prevent pollution of water sources.
- 5.6.3. **Enhance community participation:** Support will entail a shift in strategy from a supply-driven welfare approach to a demand-driven strategy, calling for a greater degree of community participation. This will require working closely with a number of groups including *gram panchayat* WATSAN committees, urban neighbourhood committees (NHCs), community development societies (CDS) and similar community-based organizations. Along with the other sectors, contributions will be made to convergent community action in selected districts and cities. The IEC strategy developed by the Technology Mission envisages institutional structures at *panchayat* levels. If properly strategised, the *panchayat* network can be an effective channel for maintaining water sources, creating demand for home toilets, promoting village hygiene, and developing the micro watershed. The large number of women members of the *gram panchayats* and *nagar palikas* make it possible to involve women more closely in decision-making processes related to water and sanitation facilities. An effective system of community level monitoring to track progress towards goals will also be put in place.
- 5.6.4. **Encourage innovation:** Completing the unfinished agenda of ensuring universal access to safe drinking water remains a top priority for the Government and UNICEF. Groups that are left out, accounting for 14% of the country's population, dwell mostly in regions that are difficult to reach -- in hilly areas, deserts and underserved areas inhabited by socially backward communities. Innovative approaches will be supported to reach such communities, and ensure sustainability of investments. Experimentation will include community-household management and the application of alternative, appropriate technologies. Ways of scaling up experiences in community action to district and state levels will be sought.
- 5.6.5. **Promote inter-sectoral convergence:** Improved hygiene is essential for improved nutrition and health. Schools and *anganwadis* can be effective channels for promoting hygiene among children. Health sub-centres are also potential channels for the promotion of hygienic practices. Providing toilets and water facilities in schools encourages adoption of hygienic practices and also reduces school drop-out rates of girls in particular. Ensuring that every *anganwadi* is close to a safe water supply becomes a supporting objective. Principles of convergent community action (CCA) outlined in Chapters 1 and 2 will be followed. Working closely with other departments and programmes, inter-sectoral convergence will be pursued to bring water and sanitation service providers into a closer and more responsive working relationship with an informed community and other government functionaries. Inter-sectoral convergence should be most visible at the *gram panchayat* level.

5.7. Projects

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- 5.7.1. Annual government investments related to water supply and sanitation exceed US\$ 500 million. These investments focus largely on service delivery, repairs and capacity building. In terms of investment, UNICEF's contribution to the national programme is modest. However, over the years UNICEF has established its 'niche' in the national water supply and sanitation programmes as a key partner in initiating innovative approaches, strategies and technologies for eventual inclusion in national policy.
- 5.7.2. In the programme of cooperation for the period 1999-2002, UNICEF will continue to play its catalytic role in the sector, focusing more on environmental sanitation and hygiene, as well as sustainability. The emerging urban environmental crisis will receive special attention. The maturing of the water well drilling sector allows UNICEF to phase out support in this area. In water supply, attention will shift to water quality, rejuvenation of drilled wells, decentralized systems for maintenance and repair and the management of fresh water resources. Resource mobilization, private sector involvement and government-civil society partnership will need support.
- 5.7.3. Within this overall framework, 45% of UNICEF resources will flow to six focus States -- Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh - home to more than 47 % of the nation's children, which have the poorest indicators and record of child survival and development rights. Another 30% of resources will be devoted to seven other large states (Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Tamil Nadu and West Bengal), and 25% of UNICEF resources will be for the remaining states and national level activities. Demonstration projects will be taken up in such districts, blocks and cities where there is maximum potential for reaching the poorest and most disadvantaged communities, also keeping in mind the potential for future replication and scaling up of the demonstrated strategies, approaches and technologies.

Project 1: Environmental sanitation and hygiene

5.7.4. The principal objectives of this project will be to:

- promote the seven components of sanitation, backed by appropriate technology and financing systems, through government and NGO channels in the 13 selected States;
- scale up alternate delivery and credit mechanisms to cover at least 20% of blocks;
- develop a suitable communication and social mobilization strategy, for promoting improved hygiene behaviour, at national level and in all states;
- improve hygiene practices (personal, domestic and environmental) among children, families and communities through interventions in 25% of primary schools; and
- expand the scope of the CDD-WATSAN strategy to include nutrition for a better synergistic effect in at least 3 districts each, in six States which are reporting a high degree of malnutrition.

5.7.5. Principal activities under this project will include:

- communication and social mobilization to promote key sanitation and hygiene practices and generate demand for household toilets, through communication research and material development and all possible channels such as mass media, schools, anganwadis, NGOs, women's organizations and *panchayats*.
- advocacy and strategy development for increased priority and resource allocation to this sector by promoting innovative ideas, developing demonstration projects and consultations in different fora, both at national and state levels.
- scaling up alternative delivery and credit mechanisms by forging alliances with NGOs, cooperative and self-help groups and linking with employment schemes.

- promoting sanitation upgradation (simple pit latrine to lined pit latrine to double pit latrine, etc.), through demonstration and social mobilization and establishing demonstration units in the ICDS anganwadi centres and primary schools.



- curriculum development, technical and managerial training at the national, state and district levels through agencies such as the Technical Teachers Training Institutes (TTTIs), polytechnics, Academies of Administration, State Institutes of Rural Development (SIRD), District Institutes of Education and Training (DIETs), Community Development Training Institutes and Anganwadi Training Centres.
- development and implementation of convergent projects such as CDD-WATSAN-Nutrition and WATSAN-Education.
- research and development related to designing of new technologies and modification of existing technologies, pollution and solid waste management.
- monitoring and evaluation of the rural sanitation programme.

5.7.6. The project will have the following key outputs:

- revised Centrally-sponsored Rural Sanitation Programme (CRSP) guidelines, reflecting the strategy for Ninth Plan;
- curricula for engineering schools and polytechnics, including low-cost sanitation and hygiene;
- training of selected non-technical grassroots functionaries, such as teachers, anganwadi workers and *panchayat* members, institutionalized in the six focus States;
- IEC and sanitation cells strengthened in 13 States;
- training of trainers for masons at district level in 13 States and at block level in the 6 focus States;
- alternative delivery mechanism spread to over 1,000 blocks; and
- about 150,000 primary schools and anganwadi centres covered with safe water and adequate sanitation, and actively promoting sanitation and hygiene.

Project 2: Rural water supply

5.7.7. The principal objectives of the project will be to:

- develop sustainable technologies and community-based approaches for the most difficult to reach communities, through the government service delivery system, in six focus states;
- develop operational systems for community-based water quality surveillance and home/community water treatment in at least 3 districts where water quality problems are severe, in each of the 13 selected States;
- establish decentralized systems for operation, maintenance and repair of water supply systems in at least 3 districts, in each of the 13 selected States;
- develop approaches for improved management of fresh water resources in six focus States.

5.7.8. Principal activities under this project will include:

- research, development and demonstration of alternative technologies to serve those who cannot be reached with conventional technologies, focusing on protected wells, rooftop rainwater harvesting, HRF/SSFs, spring protection, household water treatment and specialized drilling;
- conduct community participatory surveys to identify the under-served and unreached and advocate for priority attention to their water supply needs;
- supply of spares for UNICEF-supplied rigs and well rejuvenation equipment less than 10 years old, which are not available in India;
- build capacity and create awareness, through HRD cells, NGOs and training institutions at national and State levels;
- develop water quality monitoring and surveillance systems, focusing on activities linked specifically to *panchayats*;
- develop decentralized systems for maintenance and repair of water supply systems, focusing on activities linked specifically to *panchayats*, and the refinement of easy-to-maintain and durable deepwell handpumps;
- promote well rejuvenation technologies;
- develop and demonstrate community management of the micro watershed through action research, with priority for water and ecologically stressed areas, focusing on activities linked specifically to the protection of public drinking water sources;
- engage national and state governments, politicians, *Panchayati Raj* institutions, non-governmental organizations and communities in a policy dialogue which encourages the adoption of a new paradigm on the management of, and rights over, the water resources of the country; and
- extend the scope and coverage of local level studies to watersheds and districts, including the consideration of institutional, financing and social equity issues.

5.7.9. The main outputs of the project will include:

- alternative technologies demonstrated in the six focus States, targeting the most difficult to reach communities;
- state-level strategy for community-based water quality surveillance systems and domestic and community water treatment technologies demonstrated in 13 States;
- state-level strategy for decentralized systems for operation and maintenance of water supply systems demonstrated, covering several districts each in 13 States;
- in one drought-prone district in each of the six focus States, demonstrate one project on community action for the environmental protection of drinking water sources;
- in each of the six focus States, at least one study of the fresh water situation covering one watershed in one district; and
- for the six focus States, state-specific maps delineating the geographical areas of water problems and water resource management.

Project 3: Urban Environment

5.7.10. The principal objectives of this project will be to:

- advocate for policy change towards a better environment for the urban poor;
- establish strong slum networking in selected cities to enhance community-based management of the urban environment;
- identify and develop community-based demonstration projects for home sanitation and solid waste management in slums of six major cities;
- establish linkages with Urban CCA and provide technical inputs related to sanitation and hygiene.

5.7.11. Principal activities under this project will include:

- develop and implement pilot projects in selected urban-poor communities on home sanitation, solid waste management, water conservation, water quality monitoring and waste water disposal;
- in cooperation with other sectors, develop child-friendly city plans of action related to water supply and sanitation, to benefit the poorest children and women in selected cities;
- disseminate best practices on community management, water quality monitoring and surveillance and water conservation;
- strengthen the database on the status of sanitation, water supply and air pollution related to the urban poor, at national and state levels;
- demonstrate the application of participatory learning with communities on the importance of a clean environment; and
- promote city-community-NGO partnerships for improving the living conditions of the urban poor.

5.7.12. The main outputs of the project will include:

- documentation of the existing pilot projects;
- existing strategy replicated in new areas;
- improved database on urban water supply and sanitation, with focus on the poorest slums; and
- active city-community-NGO alliances.

Project 4: MIS and surveillance

5.7.13. The objectives of this project will be to:

- establish an effective system for community-based monitoring of water use and environmental sanitation in at least 3 districts in each of the six States;
- provide timely reporting on the implementation of the programme at district and state levels; and
- monitor guineaworm cases until guineaworm-free certification is achieved.

5.7.14. Principal activities under this project will include:

- support demonstration projects on community-based monitoring of key WATSAN indicators in selected blocks in each of the five focus States;
- develop systems which feed community data into the state-specific MIS systems, wherever such systems are operational;

- monitor UNICEF-supplied rigs, well rejuvenation equipment, and rig/HFU spares;
- collect and analyze sector and programme data, for reporting and for further development of the situation analysis;
- organize evaluations of critical components of the programme; and
- support intensive guineaworm case surveillance.

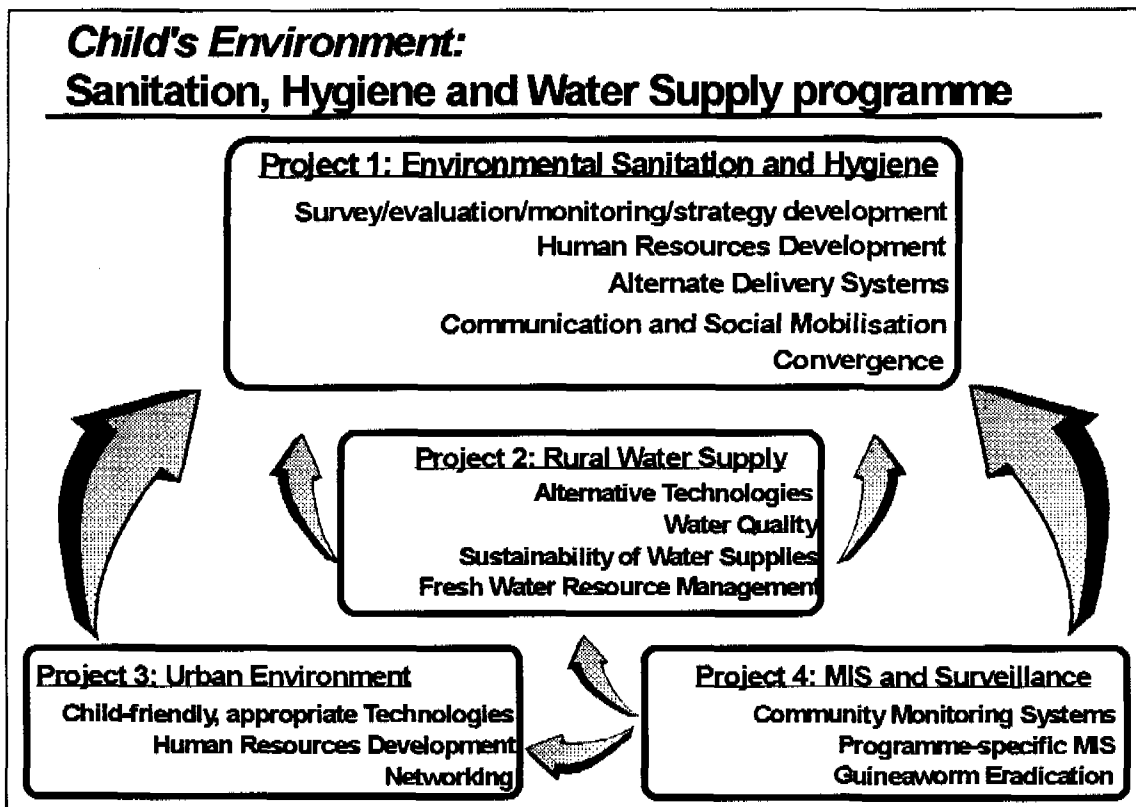
5.7.15. The main outputs of the project will include:

- a state-level strategy for community monitoring adopted in five major States;
- an up-to-date information base on UNICEF-assisted sectoral programmes, as well as the sector in general;
- timely monitoring reports on UNICEF supplied rigs /HFUs/TMC/spares; and
- report to the global guineaworm monitoring system.

5.8. Programme linkages

5.8.1. Inadequate water supply and sanitation are among the core causes of poor health and malnutrition. Water supply and sanitation will therefore be closely linked to health and nutrition programmes to address the underlying problem of diarrhoea. Water supply and sanitation improvements for primary schools and ICDS anganwadi centres will complement and reinforce UNICEF support through the education and ICDS programmes. School sanitation will be closely associated with a strengthened school health programme.

5.8.2. Effective community processes are crucial for improving the child's environment and, as such, close linkages will be established with CCA approaches and community workers in both rural and urban areas. Cooperation with local governing bodies will also be necessary. The responsibilities of the *Panchayati Raj* institutions include water supply and sanitation. It is at the level of the *gram panchayat* and *nagar palika* that the potential to effectively link water supply and sanitation with health care, nutrition and education is greatest.



5.8.3. As shown in the figure, the four projects that make up this programme are also closely interlinked. Project 1 will form the core of the programmes, focusing on the promotion of the multifaceted sanitation package, both in communities and in primary schools. Projects 2, 3 and 4 will bring specialized expertise and as support to Project 1, while also contributing to other crucial components of the water supply and sanitation sector.

5.8.4. The development of human resources is a key component of each of these projects. The table below shows the core activities of the Child's Environment programme and the linkages of these activities to the major impact goals of the Plan of Operations.

Child's Environment Programme: Core Activities	Major Impact Goals
<ul style="list-style-type: none"> • Promote sanitation and hygiene through primary schools • Facilitate implementation of the national IEC strategy in selected districts, in all States. • Establish alternative delivery and credit mechanisms to enhance sanitation coverage. • Support the development of decentralized maintenance of water supplies, with community participation. • Support the development of community-based water quality surveillance. • Pursue convergence with health, nutrition and education. • Pilot projects to improve the environment of the urban poor. • Develop community monitoring of the child's environment. 	<ul style="list-style-type: none"> • Sanitation package promoted in all primary schools in 25 per cent of districts, in all States. • Ensure compulsory primary education. • Empower all newly elected leaders in village <i>panchayats</i> and <i>nagar palikas</i> on action for child development, through intensive IEC. • Train teams of AWWs, ANMs, TBAs, school teachers and other local workers in half of all village and urban poor communities to reduce child mortality and morbidity, through WATSAN interventions. • Inform and empower one-third of all communities to monitor key indicators of progress for children.

5.9. Milestones and indicators

The programme has adopted the following milestones and indicators, which will allow ready review of progress as implementation progresses:

Milestones:	1999	2000	2001	2002
Access to sanitation (% pop'n)	30	40	45	50
Access to safe water (% pop'n)	93	96	98	100
Alternative delivery and Credit Mechanism (% of blocks)	7	10	15	20
Sanitation and hygiene in schools (% of schools)	5	10	20	25

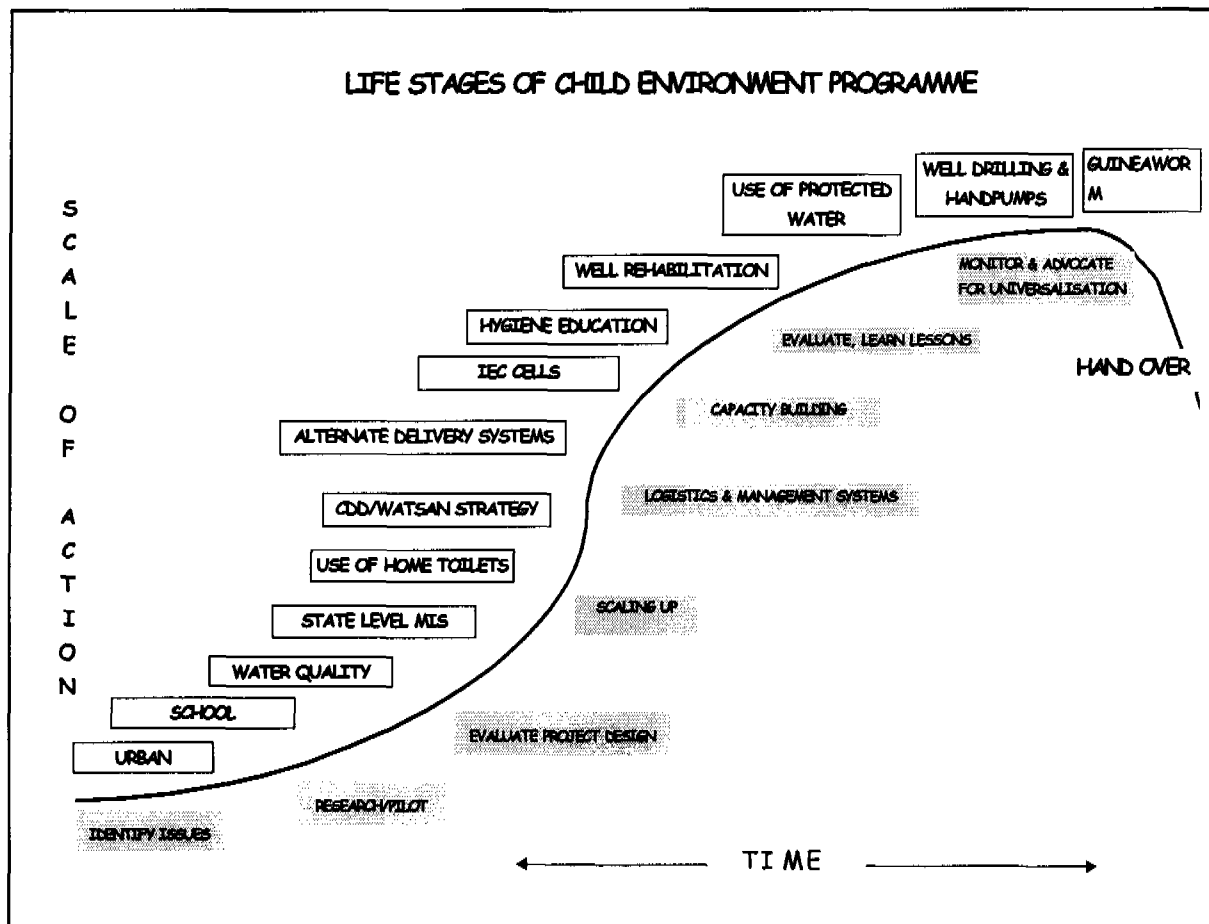
Zero guineaworm cases reported 1999 2000

Indicators (process, by 2002):

- All States to have a functioning Sanitation and IEC Cell;
- Every village *panchayat* to have at least one mason trained on home toilet construction;
- 20% of blocks covered with alternative delivery system and credit mechanism;
- 25% of primary schools actively practicing and promoting sanitation and hygiene;
- Alternative water supply technologies demonstrated in six states;
- Thirteen states to have accepted community-based water quality surveillance systems and domestic and community water treatment;
- Thirteen states to have decentralized systems for operation, maintenance and repair of water supply schemes;
- Six states to practice environmental protection of drinking water sources through community action, in drought-prone districts;
- At least one study of the fresh water situation covering one watershed in one district, each in six states completed;
- Fresh-water status maps produced for six states, covering quantitative and qualitative aspects; and
- India certified guineaworm-free by the year 2000.

5.10. Programme management

5.10.1. The figure below shows how UNICEF's level of effort and nature of support evolves as programme interventions are conceived, their efficacy demonstrated, and their application scaled up for absorption into national Government programmes. The time scale on the graph typically covers ten to fifteen years, highlighting the importance of consistent programme planning over several MPO periods.



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- 5.10.2. The Rajiv Gandhi National Drinking Water Technology Mission of the Central Government's Ministry of Rural Development will continue to function as the main agency for programme implementation, working through the State Governments. The Mission is responsible for formulating sector policies, procedures and approaches and ensuring coordination with the Department of Education, for school sanitation. The programme components dealing with the urban environment and the fresh water situation require cooperation with the Ministries of Urban Development, the Ministry of Environment and Forests and the Ministry of Water Resources. In the States, State Water Supply Agencies, the Rural Development Departments, the *Panchayati Raj* Departments and various urban governmental agencies will implement different components of the programme. In selected programme components, implementation will involve appropriate NGOs. The extent and nature of NGO involvement will vary from component to component and from state to state.
- 5.10.3. UNICEF State Offices cover 13 major states, home to more than 90% of the population. Each state office has one or two full-time water supply and sanitation professionals working on the programme. In addition, each State Office has an inter-disciplinary team of professionals and support staff, with expertise in health, nutrition, education, community development and social communication. This inter-disciplinary group facilitates convergence of water supply and sanitation with other programmes. UNICEF country office supports the State Offices with a team of experts covering various specialization.
- 5.10.4. In all 13 states, a state-level sanitation and IEC cell has been set up. Although not all are equally effective, these high-level cells serve to emphasize the importance of sanitation, information, education and communication.

5.11. Partnerships

- 5.11.1. Alliances will be formed or strengthened with NGOs and other partners in civil society. The focus will be on national level organizations with an all-India field network, while local NGOs will be partners on a selective basis. Some of the partner agencies include NDDDB, Cooperative Unions, All India Women's Conference, Bharat Scouts and Guides, Mahila Samakhya, Nehru Yuva Kendra Sangathan (NYKS) and NSS. The vast network of polytechnics can be associated with HRD and operational research at the micro level, with higher level institutions of learning, such as the IITs and TTTIs providing support at the macro level.
- 5.11.2. Within the context of UN reform, UNICEF will work closely with other UN agencies supporting the WATSAN sector, in particular UNDP, UNDP/World Bank Regional Water and Sanitation Group, World Bank and WHO. The World Wide Fund for Nature (WWF) will be another important partner. The already established inter-agency working group for water supply, environment and sanitation will be a platform to address common policy issues and make collaborative efforts. Coordination with other donor agencies in the sector including Dutch Government, DFID, SIDA, Danida, WaterAid, USAID, etc. will be further strengthened.

5.12. Risks

- 5.12.1. With poor sanitation and hygiene being largely the result of traditional attitudes and behaviour, communication will need to have a substantial impact on mindsets before any improvements can be expected. There is a risk that these mindsets are so entrenched that change will take more time than expected.

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- 5.12.2. External factors, outside the scope of the programme, will have a bearing on overall success. These include factors such as lowering water tables and poor water resource management.
- 5.12.3. The programme encompasses a wide range of components relating to the child's environment. There is a risk that this diversity will result in inadequate resources to effectively develop each of the programme components, potentially reducing the long-term impact of UNICEF support.
- 5.12.4. In many States, the delegation of power to the *Panchayati Raj* system will be a slow process, which will affect the strategy for decentralized management of water supply and sanitation interventions.
- 5.12.5. A goal of 50% sanitation coverage is very ambitious given current trends and implies a major increase in current levels of investment in sanitation. The risk is that the pressure to deliver on the targets will lead to a top down vertical programme that does not give attention to community processes.

5.13. Monitoring and evaluation

- 5.13.1. The programme will contribute to the efforts to monitor sector progress, particularly with regard to CRC goals related to safe water and the safe disposal of excreta. A variety of tools are in use for this purpose including (1) the decadal national census due in 2001; (2) National Sample Surveys; (3) Multi-indicator Cluster Surveys. The programme will assist these nationwide surveys in defining proper criteria and definitions of "safe water", "safe excreta disposal" and 'key hygiene practices'; so as to measure as accurately as possible progress made in achieving the goals.
- 5.13.2. The programme will also conduct surveys to assess changes in behavioural practices and attitudes, and assess the nature and effectiveness of community involvement. The programme will support the development of appropriate systems to enable both rural and urban communities to monitor key indicators of programme progress. UNICEF and RGNDWM will further strengthen routine monitoring systems to collect and analyze data on the operational status of water supplies, on the utilization of drilling rigs and well-rejuvenation equipment, besides the use of UNICEF spare parts.

5.14. Budget

- 5.14.1. Subject to availability of funds, UNICEF will allocate about US\$ 5 million per year in General Resources and US\$ 7 million in Supplementary Funds to the Child's Environment programme. The supplementary funds will be solicited from donors jointly with Government of India.
- 5.14.2. UNICEF funds will be primarily used for:
- social mobilization, information, communication, health education;
 - capacity building;
 - alternate delivery systems and credit mechanisms;
 - development and documentation of sector policies and approaches;
 - production of IEC materials;
 - commissioning of studies and surveys;

- operational research;
- monitoring and evaluation;
- technical assistance; and
- selected hardware inputs.

UNICEF assistance will comprise about 40% hardware and 60% software.

CHILD'S ENVIRONMENT SANITATION, HYGIENE & WATER SUPPLY	1999	2000	2001	2002	TOTAL (US\$ IN MILLIONS)
General Resources	5.20	5.00	4.90	4.90	20.00
Supplementary Funds	6.00	6.00	8.00	8.00	28.00