

02

India:
Water Supply, Sanitation and Hygiene
Moving towards the 21st Century

The Environment of the Child
in
Assam

Water Supply and Sanitation Programmes
and
UNICEF's role and contributions

UNICEF - Calcutta
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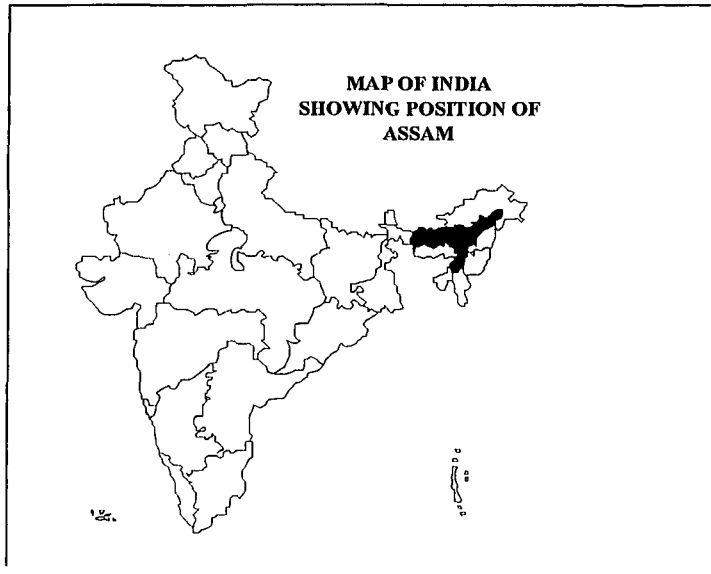
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A S S A M

1. Demographic details, socio-economic and health indicators

SI No	Indicators	Status	Source
1.	Population	22 million	1991 census
2.	Percentage of India total population	8%	- do -
3.	No. of rural districts	23	- do -
4.	No. of development blocks	226	- do -
5.	No. of household rural Urban	3,329,445 472,175	- do -
6.	Sex ratio (per 1000 male)	923	- do -
7.	Literacy	42.46	- do -
8.	Rural population on percentage of total population	88.9%	- do -
9.	Schedule caste population	7.4 %	- do -
10.	Schedule tribe population	12.8%	- do -
11.	Area	78,438 sq km	- do -
12.	IMR (per 1000 live birth)	74	SRS 96
13.	Under five mortality rate (per 1000)	30%	NIPCID 95
14.	Malnutrition among children under 4 years of age	50%	NFHS 93
15.	Children fully immunized by 1 year	76%	DHS 97
16.	Population covered under safe drinking water (rural)	75%	PHED
17.	Population having access to household latrine Urban Rural	86.03% 30.53%	Census 91

The State of Assam is located in the extreme North-East region of India. It covers an area of 74,438 sq.km having a comparatively lower density of population (286 per sq.km). This is the most populous and important state among all the seven north eastern states of India. It is the gateway to the north-east and is a vital link between this region and the rest of the country. It shares boundaries with each of the other six north eastern states. Further Bhutan lies to its north and it shares its border with Bangladesh in the south. It comprises multi-ethnic and multi-lingual society with tribes both from hills and plains living in a complex but unified socio cultural context. The majority of the people are engaged in agriculture and allied activities. Half of the state's economy comes



from agriculture and the rest from tea gardens, natural oil resources and refineries and forest products.

Assam is endowed with rich natural resources but suffers from under-development of agricultural productivity, industrial backwardness, low rate of chemical formation and unemployment. Its geographical remoteness

from the rest of the country, fragile communication networks, constant depletion of physical resource due to recurrent floods have all contributed to the economic backwardness.

Since the 73rd and 74th Constitutional amendments, there have been elections only to the local urban bodies. For the rural areas, the elections are overdue and planned to be held in 1998-99. This has resulted in non-availability of the services of the local government, particularly in rural areas in implementation of various programmes. Communities (especially women and children) which remain unreached due to inadequate infrastructure, inaccessible communication links are also socially disadvantaged due to poverty, low literacy levels and poor coverage of basic services in rural areas.

2. STATUS OF WES PROGRAMMES

Access to, and use of safe drinking water

The state has made great strides in provision of potable drinking water. From 21,715 villages identified in 1971 as problem villages, only 357 villages remained as partially covered in 1994. However, as of 1 April 1998, 5,485 hamlets have been identified as without safe water supply. There are about 142,000 spot sources in the state (suction pumps - 110,000, India Mark II/III - 12,000 and Tara 5,000 and 15,000 open dug wells). The suction pumps need frequent repairs and replacement. The state has 3030 piped water supply schemes. Some of them are operated by diesel engines while the rest are by electrically operated pumps. This status of functioning of the piped water supply schemes is not at all satisfactory. Lack of availability of fund, coupled with lack of community involvement leads to non-functioning of many of the schemes at any given time. Similar situation exists also in the matter of spot sources like handpumps. There are some areas, which are partially covered under safe

drinking water supply particularly, in difficult terrain bordering Bhutan. Water quality surveillance of drinking water is also almost non-existent. There are some high risk tea gardens where the status of drinking water supply is alarming.

Necessary fund for water supply programme is available from two heads, one - government of India under accelerated rural water supply programme (ARWSP) and the other - from state exchequer under minimum needs programme (MNP).

Access to and use of home toilets

As per 1991 census, the state had comparatively higher coverage of both rural and urban population so far as household latrines are concerned in comparison to that of national coverage. As per 1991 census 30.53% of rural and 88.06% of urban population had access to household latrines. However, based on a study during 1997, it was revealed that 51.5% of the rural population had access to household latrines though 64.4% of those latrines were not sanitary. The status of sanitation facilities in the schools is also not satisfactory. Approximately 5% of the primary schools in the state have sanitation facilities in their premises and these are also very poorly maintained.

KAP related to WES

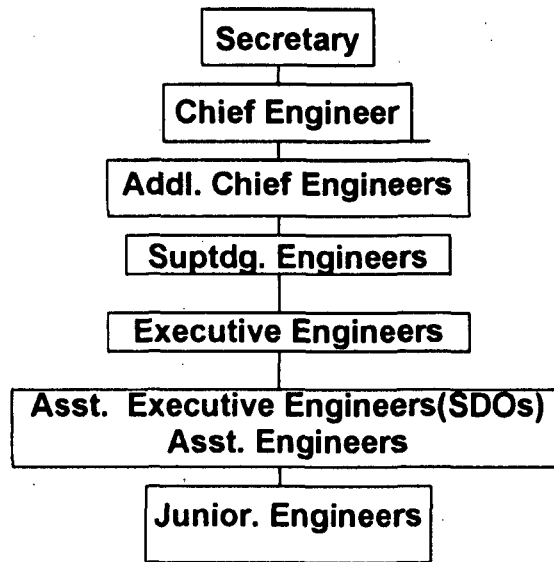
Awareness regarding transmission of diseases because of poor hygiene is generally low. The requirement of latrine for health reasons is very much understood though privacy and convenience were found to be also effective selling points for potential users of latrines.

INSTITUTIONAL STRUCTURE

Public Health Engineering Department (PHED) is responsible for both rural water supply and sanitation programme in the state. All constructional work as well as maintenance of the piped water supply schemes including spot sources like handpumps are also maintained by the PHED. PHED has a well spread organisational network in all the districts headed by Divisional Engineers (executive engineers). The Executive Engineers are being coordinated by the Superintendent Engineers while the supdt. engineers are controlled by Additional Chief Engineers. The Chief Engineer is the head of the department who is in charge of controlling the additional chief engineers.

The state has one communication and sanitation cell headed by one Additional Chief Engineer. He is responsible for all activities related to sanitation in the state.

ORGANISATIONAL STRUCTURE OF PUBLIC HEALTH ENGINEERING DEPARTMENT IN ASSAM



KEY ISSUES:

Water Quality Surveillance

The state has initiated water quality surveillance under rural water supply programme in collaboration with UNICEF. Portable water test kits are provided to the village workers to ascertain quality of water (both chemical and bacteriological). The programme was first initiated in Kamrup district under CDD-Watsan strategy. It is expected that the programme would be expanded further in other areas of the state.

Operation and Maintenance

The PHED is responsible for maintenance of all water supply schemes whether these are piped water supply schemes or spot sources. However, due to lack of funds and community participation, the status of maintenance is not satisfactory. It is noticed that due to lack of funds even diesel cannot be purchased to run the diesel run pumps. Same situation also prevails in case of electrically operated pumps. There are some cases where due to non-payment of electrical bills, the service connections to the pump houses were disconnected. Under CDD-Watsan strategy, however, in Kamrup district community based handpump maintenance system has been initiated. Watsan committees are formed before installation of pumps which bodies play the role of taking care of the pumps once these are installed. Female caretakers are identified out of the users who are trained and equipped with fast moving spare parts to repair and maintain the pumps as and when the pumps need repairing. The state has now taken action

to expand such type of community based handpump system after installation of user friendly handpumps like direct action Tara and India Mark II handpumps.

RURAL SANITATION PROGRAMME

Till 1992 the state was implementing rural sanitation programme providing huge subsidy. Costly model of latrines was installed in the premises of the villagers though there were no demands. This resulted in non-usage of such latrines constructed for the purpose these were constructed. In 1992-93, the state initiated an innovative self-sustained sanitation programme in Kamrup district with UNICEF support. Under this programme, sanitation was promoted as a package and demand for different types of sanitary facilities were first created. Once the demand was created, the sanitary facilities were provided in their premises with the help of trained masons. There is no provision of subsidy and the villagers are to bear the actual cost of the sanitary facilities. The programme has, by this time, achieved considerable success and it has been possible to spread the programme in practically all the areas of the district. Based on the successful implementation of ISP, Kamrup, the state has taken action to spread similar type of self-help sanitation programme in other districts after establishment of sanitary marts. These sanitary marts which are established by non-government organisations, are promoting social marketing of different kinds of sanitary facilities. One mart is responsible for sanitation programme in a particular block. Till now, action has been taken to establish nine such sanitary marts in six districts of the state. The performance of the sanitary marts so far established was found to be quite satisfactory.

School Sanitation Programme

The status of coverage of schools under sanitation facilities is not at all satisfactory. An attempt has been initiated in Kamrup district to provide sanitation facilities in all the primary schools of the five blocks. This programme is being implemented under CDD-Watsan strategy with UNICEF support. The objective of the programme is not only to provide sanitation facilities in the schools but also to develop an inbuilt system within the school so that the facilities once provided are well maintained by the school children without any external support. Another main objective of this programme is to promote sanitation to the community using the schools as a platform. Booklets have been produced in local language to orient/train all involved persons in the school sanitation programme including the school headmasters, teachers and school committee members. It is planned that after satisfactory implementation of the programme and experience gained in Kamrup district, the programme would be further extended in other districts.

Human Resources Development

To implement self-sustained sanitation programme a huge number of government and NGO functionaries are being trained. The communication and sanitation cell established within PHED is taking care of such training. Masons to construct different types of low cost latrines, village motivators to interact personally with the villagers and NGO functionaries to run sanitary marts, etc. are being trained. Besides this, the state government has also established one HRD Cell within PHED headed by one Additional Chief Engineer (designated as Executive Director, HRD). The Cell is responsible to impart necessary training to the different functionaries involved in water and sanitation.

URBAN WATER SUPPLY AND SANITATION

The responsibility for urban water supply and sanitation in urban bodies lies with the local government i.e. with the municipal bodies. The status of water supply and sanitation in urban areas is comparatively better than that of rural areas. The access to household latrines in urban areas was found to be 86.06% (as per 1991 census). However, in certain areas particularly in slums of Guwahati City, the capital of the state the status of water supply and sanitation is extremely unsatisfactory.

KEY PROBLEMS FACING THE RURAL WES SECTOR AND RISK ANALYSIS

At present there is no problem village in the state. However, the norm of 40 lpcd for rural population is yet to be achieved. The piped water supply schemes are not maintained properly. The state is suffering from adequate funds to maintain those schemes. No attempt has been made till now to involve the community in maintaining the piped water supply schemes. Similarly, though there are sufficient number of spot sources in the state, 5,485 hamlets out of total 70,650 are yet to be covered and 26,605 are partially covered under drinking water supply. There are around 15,000 open dug wells which are used by the people for drinking purpose. The quality of water in most of the cases is not safe. Again, the ground water contains a lot of iron. The state has constructed about 5,000 iron removal plants attached to handpumps. 95% of these plants, however, are not functioning for lack of proper maintenance. There are some tea gardens in the states where the water supply system is not at all satisfactory. The garden workers are compelled to drink unsafe water from the streams, which is flowing from the hills.

Involvement of community in managing the water sources is yet to be achieved in Assam. This has resulted in a good proportion of handpumps remaining out of action at any given moment of time. Absence of local self-government at village level and NGOs are the main reason for such conditions.

Though the existing coverage of population under household latrines in Assam is higher than that of the national coverage, most of the latrines are not sanitary.

The self-help sanitation programme which has been initiated by the government, is to be spread in all the blocks. The government of Assam has taken positive step to lower the quantum of subsidy from the existing norm of Rs.2000/- per family to Rs.500/- for the people lying below the poverty line to encourage the concept of self-help. However, to spread these activities and to promote the concept of social marketing, the effective collaboration of local NGOs is of utmost necessity. There are few capable NGOs in Assam and the capacities as well as infrastructure of the existing NGOs are also required to be enhanced.

Existing poor law and order situation in the state and long monsoon coupled with periodic flash floods every year are also affecting smooth implementation of the programme.

The state is suffering from extreme financial crisis. It is often noticed that even if fund is received from the Government of India, it is not available for the purpose it is meant for.

Linkages

Due to non-availability of three tier panchayat system in the state, the proper linkages of various organisations involved in development activities in most of the cases are not achieved. However, CDD-Watsan strategy is being implemented in Kamrup district where concerned departments like PHED, Health, Education, Social Welfare, etc. are being converged together. The lesson learnt in this respect will be effectively used in other areas while implementing similar activities.

UNICEF-WES SUPPORTED PROGRAMMES

CDD-Watsan strategy in Kamrup district of the state with UNICEF support where various interventions related to water, health and sanitation are being implemented. Besides, self-sustained sanitation programme, community based handpump maintenance system after installation of user friendly Tara/India Mark III handpumps, community based water quality surveillance and social marketing of ORS packets after establishment of ORS depots are also being promoted under the strategy.

Based on Kamrup experience, similar type of self-sustained sanitation programme is being promoted in other areas after establishment of sanitary marts. One mart is responsible for all activities related to sanitation in a particular block where it is established. Till now nine such sanitary marts have been established in six districts, namely, North Lakhimpur, Dhemaji, Sonitpur, Nalbari, Darrang and Dhubri with UNICEF support. UNICEF is also supporting various activities related to awareness generation and human resource

development including helping the NGOs in enhancing their capacities and infrastructures in implementing this type of self-help sanitation programme.

UNICEF is supporting the communication and sanitation cell established within PHED. This cell is responsible to coordinate and monitor all activities related to sanitation in the state.