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INTERNATIONAL REFERENCE CENTRE
FOR COMMUNITY WATER SUPPLY AND
SANITATION (IRC)

**EVALUATION STUDY
OF LOW COST SANITATION PROGRAMME**

MADHYA PRADESH

MAY, 1991

**URBAN INFRASTRUCTURE FINANCE WING
HOUSING AND URBAN DEVELOPMENT CORPORATION
AND
INDIAN HUMAN SETTLEMENT PROGRAMME
HUMAN SETTLEMENT MANAGEMENT INSTITUTE NEW DELHI**

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The evaluation study was done by Sulabh International for the Urban Infrastructure Finance Wing (UIFW), HUDCO.

The study was however summarised by Shri GR Viswanathan and Shri D Ravi Shankar of UIFW, HUDCO, New Delhi.

Foreword

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It is the aim of the Government of India to make the country totally free of manual scavenging by the end of 1994. In order to fulfil this aim, the subsidy component of the Ministry of Welfare and Ministry of Urban Development have been dovetailed to HUDCO's loan component, since 1989-90, to provide greater thrust to the implementation of the programme. The programme includes the conversion of dry latrines to water-seal pour-flush latrines and construction of new and community latrines, which will eradicate the inhuman practice of manual scavenging. Simultaneously, rehabilitation programmes will enable the scavengers to acquire new skills and find other professions. So far, 396 towns have been covered under this low cost sanitation (LCS) programme, liberating as many as 17,270 scavengers both public and private.

In order to enable HUDCO to help promote/formulate viable projects and to have feed back on the design, administrative arrangements and operational and maintenance costs of Low Cost Sanitation, it was decided to sponsor a series of evaluation studies in various towns selected from different states. This study was sponsored by the Urban Infrastructure Finance Wing (UIFW) of HUDCO. I hope that the results of this study will be useful to project agencies, academicians, administrators and financing agencies.

PSA Sunderam
Chairman & Managing Director
HUDCO

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Town Profile : Four towns namely Balaghat, Dewas, Durg and Sarni were selected in Madhya Pradesh. Population of these towns varies from 60,000 in Sarni to 1,66,790 in Durg.

1. LOW COST SANITATION IN MADHYA PRADESH

Madhya Pradesh is the largest State of India occupying about one sixth of the area of the country. Temperatures are generally 43 to 47.5 degrees celsius in summer (April-June) and 7 to 9 degrees in winter (December to February). Average rainfall ranges from 700 mm to 1,600 mm. As per 1981 census, 20% population was urban. About 4% of the state population comprises Scheduled Castes and about 23% Scheduled Tribes. The average population density is 118 persons per sq. km. Literacy level in MP is low; in 1981 it was 21.22% in rural and 54.02% in urban areas. As per the "Report of The Task Force" published by Planning Commission the number of dry latrines as per the 1981 census in MP is 1,00,380 and number of scavengers involved is about 74,000.

The Technology Advisory Group (India) of the World Bank prepared a Feasibility Study Report on Low Cost Sanitation in 15 towns of Madhya Pradesh in May 1984.

The feasibility study set the ball rolling for taking up the programme in the State for converting bucket or dry latrines to PF water seal units and construction of new toilets in houses where none exists, if feasible.

Under this feasibility study, about 100 demonstration units were put up in each study town; a few towns did not instal these units; one of such towns was Durg. Beneficiaries were given 50% loan and 50% grant to meet the full cost of PF latrine upto substructure level out of State Plan budget.

Low cost sanitation was one of the components in the World Bank assisted Madhya Pradesh Urban Development Project which covered 6 cities of the State (Bhilai, Dewas, Durg, Indore, Raipur and Ujjain), of which Dewas and Durg are included in the 4 towns selected for evaluation study. Under this project Rs. 203.50 lakhs were utilised on construction of 16,382 PF latrines in 6 towns and Rs. 3.40 lakhs on construction of one community latrine at Bhilai.

The average unit cost upto substructure level was Rs. 1,200. Each beneficiary was given Rs. 600 as grant and Rs. 600 as loan at 12% interest with 20 years repayment period. The World Bank had originally envisaged the giving of 100% loan but when the programme could not take off, the financing pattern was changed to 50% grant and 50% loan. For the construction of community latrine, the full cost was covered by 100% loan to the local authority.

Superstructure over the latrine was to be provided by the beneficiary himself. It has been reported that majority of the beneficiaries did not construct the superstructure for want of funds, hence the latrines could not be used.

The Secretary, Local Self Government, Govt. of MP is the administrative head for this programme. Madhya Pradesh Slum Clearance Board has been nominated by the State Government as the nodal agency for channelising the subsidy provided by the Govt. of India and HUDCO loan for the integrated scheme of low cost sanitation for liberation of scavengers. The local authorities are responsible for implementing the programme under the supervision and control of the Director of Municipal Administration, Govt. of MP. Almost all local authorities are getting the programme implemented through Sulabh International, a non-government organisation, after entering into agreement with it.

Sulabh International is the main implementing agency for eradication of scavenging in Madhya Pradesh. Till to date it has converted/constructed 1,82,021 PF latrines in 188 towns.

By and large community latrines are maintained by the local authorities. After observing that the local authorities are not in a position to maintain them properly, now almost all the new community latrines are being constructed, operated and maintained by Sulabh International. Most of them are 'pay and use' type where every user except women and children has to pay a fixed charge. The local authority does not have to pay anything to Sulabh to meet the operation and maintenance cost except the electricity and water charges. The other type is where the local authority charges the user ranging from Rs. 1 to 4 per family per month and fixed operation and maintenance charges are paid to Sulabh International. Third type is where the use is free and the local authority pays the operation and maintenance cost to Sulabh from its own budget. The payment made to Sulabh is Rs. 2,500 to 3,000 per month per community latrine. At present Sulabh is operating and maintaining 150 community latrines (Sulabh Complexes) in 37 towns in the State and many are under construction.

The number of scavengers relieved of scavenging in the State was not readily available. Since in most of the towns, the scavenging is done by the municipality employed scavengers, no problem of their rehabilitation has been faced. They are diverted by the local authority on other jobs like road and drain cleaning.

II HOUSEHOLD LATRINES

1. Balaghat

Balaghat is the district headquarter and has a railway station on metre-gauge line. As per 1981 census, the population of the town was 49,564 with 7,905 households. The present population is reported to be nearly 62,000 with about 11,000 households. The town has piped water supply and is electrified. The town has no underground sewerage system.

The municipality does not have reliable data on status of latrines in the households. However, it reported that 818 households have water flush toilets connected to septic tanks and 816 two pit PF latrines. 345 houses have bucket or dry latrines and the remaining houses do not have latrines of any type. The scavenging is done by the municipal scavengers. Human excreta after collection is transported to trenching ground by tankers for composting with solid waste. In many houses surveyed 5/6 user capacity standard pits were constructed irrespective of the number of users in the house. Combined rectangular pits were provided. The NGO did not give any guarantee period for removal of construction defects if observed later. The municipality has also not set up a complaint cell where the beneficiaries could register their complaints. It is also not providing pit cleaning service to the beneficiaries. However, on request, it desludges the pit and charges Rs. 75.

Loan is being recovered from the beneficiaries. In 1986-87, Rs. 10,258, in 1987-88 Rs. 50,013 and in 1988-89 Rs. 79,300 were recovered. But in 1989-90, recovery came down to Rs. 33,419. Out of 800 households who had taken loan, 93 are defaulters. For loan recovery and billings etc. no additional staff has been engaged.

2. Dewas

Dewas is the district headquarter and lies on Agra-Bombay national highway at a distance of 37 km from Indore.

The Municipal Corporation does not have records to indicate the status of latrines in the town but it was reported that the number of bucket privies was 3,630 before the scavenging free scheme was taken up.

Scheme for eradication of scavenging was taken up in the town in 1989 with the assistance from the Ministry of Welfare, Govt. of India. The project was prepared by the Municipal Corporation and envisages conversion of 3,630 bucket/latrines. The project was implemented by constructing out of the grant (Rs. 21.78 lakh - 50% of the project cost) provided by the Welfare Ministry. The loan portion has not yet been made available to the local authority, hence the work has been stopped after completing 50% work.

The motivation and sanitation education were done by Sulabh International in the scavenging free scheme. In other programmes where the construction was done by contractors, the municipal staff did it. The NGO has given 5 year guarantee to rectify construction defects. The contractors did not give any such guarantee.

Recovery of loans advanced under various schemes has not yet been started.

3. Durg

Durg is the district headquarter at a distance of nearly 40 km from Raipur.

Scavenging is done by the municipality employed scavengers.

Durg was included in 15 towns for which feasibility study on low cost sanitation was carried out by the Technology Advisory Group of the World Bank

Sulabh International implemented the above project and has converted till date 2,653 bucket latrines utilising the full funds released so far. It charged 20% implementation charge. PF latrines with combined rectangular pits of uniform size have been constructed, but in houses where number of users is large two latrines have been provided. Motivation and publicity were done through hand bills, newspapers and house to house contact. Sulabh educated the beneficiaries on use and maintenance of latrines and gave 5 years guarantee for removal of construction defects if noticed during this period.

At present no work is going on under this project due to want of funds.

A complaint cell has been set up in the municipal office under the control of the Health Officer, where the complaints are registered and attended to as early as possible. Pit desludging service is also provided to the latrine adopters at a fixed charge of Rs. 80 per pit.

The bills for loan recovery are not sent regularly. The local authority has not engaged additional staff for loan recovery. The existing revenue staff carries out this job also.

4. Sarni

Sarni town is located in district Betul at a distance of about 175 km from Bhopal and 60 km from Betul.

The municipality has not set up a complaint cell to attend to the complaints of beneficiaries. However it provides a pit or septic tank cleaning service. A contractor is appointed to carry out his job by inviting tenders. The present rate is Rs. 70 per pit or septic tank.

Out of 135 beneficiaries, only one household has paid the loan dues in full, where as 59 have made partial payments and 75 have not paid any dues. In 1988-89, only Rs. 500 were recovered.

III. COMMUNITY LATRINES

Balaghat

There are 8 community latrines with 8 to 23 seats in each in Balaghat. All of them are operated and maintained by the municipality. None of them is of 'pay and use' type. All the latrines are water flush connected to septic tanks, some of them have soak pits for the disposal of effluent from the septic tanks but in most of the cases the effluent is discharged in open surface drains. It was reported that one sweeper is deputed to each community latrine, and remains on duty from 5 am to 1 pm. None of the latrines is electrified. At some of them even water connection is not there. The sweeper is expected to fill the surface tanks from nearby public stand posts, hand pumps or wells.

Dewas

There are two 'pay and use' type community latrines in the town and one more is under construction. These were constructed by Sulabh International and the same organisation is operating and maintaining them. Users are charged 20 paise per use; the women, children and disabled persons are not charged. Use of urinals is free to all. All other community latrines are maintained by the Municipal Corporation. The users are not charged. All the latrines are waterflush connected to septic tanks.

Durg

There are 17 community latrines in the town; 13 of them are operated and maintained by the Municipal Corporation and the remaining 4 by Sulabh International.

Sulabh International operated the three complexes on 'pay and use' system, while one at Shopara Bajrang Nagar is 'non pay and use' type. The users are not charged at Shopara but the Municipal Corporation pays Rs. 2500 per month to Sulabh for operating and maintaining it.

Sarni

There are no community latrines in the town.

MAINTENANCE OF COMMUNITY LATRINES

Study was carried out in Dewas and Durg towns where both types of community latrines operated and maintained by the Municipal Corporation and NGO are in use.

Pay and Use Type

At Durg Tahsil the complex near the courts was surveyed. It has 10 latrines seats and 5 bathrooms for men and 5 seats and equal number of bathrooms for women. Urinals at both the places have been provided on the outer side of the complexes. Water supply is maintained for all the 24 hours. In order that water in adequate quantity is available to the users, one storage tank has been provided at ground level.

The complexes are electrified to facilitate their use in the night. For the disposal of human excreta, septic tanks with soak pits have been provided.

Non Pay and Use Type

The community latrine located at Sanjay Nagar, Dewas and the other at Millpara, Durg were selected for the study. The former latrine has 10 seats for men and an equal number for women and the latter has 5 seats for men and an equal number for women. The latrines do not provide bathing and urinal facilities.

COMMUNITY LATRINE - USERS SURVEY

Of the 25 persons interviewed who use the latrine facility, 56% also use bath and only 36% of them use the urinal facility provided in the community latrine

It was reported that old men, women and children do not use the community latrines. Reasons given for all members of the family not using the latrine are 'latrine is far away', 'prefer open air defecation', 'can not afford to pay' etc. In case of 'non pay & use' type, 26% of the respondents also reported that since the latrines are not kept clean, other members of the family do not like to use them.

In case of 'pay and use' type, all the respondents expressed their satisfaction about the upkeep and cleanliness of the community latrines, 76% termed it as excellent and 24% as good.

In case of community latrines maintained by the municipal corporations, 95.7% of the respondents reported that the upkeep and cleanliness is bad, while 4.3% termed it as satisfactory. Almost all the respondents were of the opinion that the latrines are not kept clean. All of them reported that no attendant remains at site.

The respondents using the community latrines where no charge is levied on its use were asked whether they would be willing to pay if the latrine is kept clean. 57% of them showed their willingness to pay and 30% said that they can not afford to pay.

In order to study why the people who do not have latrine in their houses do not use the community latrines, some non-users were interviewed.

The distance of the nearest community latrine from the residence of 90% respondents was reported to be less than 1 km. 'Prefer open air defecation' was given the reason by 57% of the respondents for not using the community latrine and the remaining 43% said that the latrine is not kept clean.

IV. ROLE OF NGO IN IMPLEMENTATION OF LOW COST SANITATION IN MADHYA PRADESH

It was learnt that only three NGOs were involved in the implementation of low cost sanitation. Suvidha, Bombay, Akhil Bhartiya Pariwar Kalyan Parishad, Delhi and Sulabh International, Patna.

Sulabh International earlier known as Sulabh Souchalaya Sansthan was founded by Padma Bhushan Dr. Bindeshwar Pathak, an action sociologist, social reformer and an internationally known expert on LCS and biogas. The organisation was registered in 1970 in Bihar under the Societies Registration Act 1860. It is a non profit earning voluntary social organisation having no capital resource of its own.

4. Sewerage should be given a 'Plan holiday' during the VII Plan except the ongoing schemes and extension and rehabilitation of existing systems where found absolutely essential. Funds proposed for sewerage should be diverted to LCS.
5.
 - a) Financial assistance to the beneficiaries should be based on their capacity and affordability. If scavenging is aimed to be abolished within a time frame, the financing pattern should not contain beneficiaries' contribution because it is not forthcoming readily and it retards the programme.
 - b) The rate of interest and repayment period of loan should be such that repayment instalment is within the affordable limit of the beneficiaries who mostly belong to economically weaker or low income groups.
6.
 - a) Since local authorities do not have competent staff to prepare detailed project reports on eradication of scavenging, these should be got prepared through an agency which has the competence and experience in the field of low cost sanitation.
 - b) The project should also include training and rehabilitation of scavengers who will be liberated after the conversion of dry or bucket latrines.
7. Methodology adopted for construction should be such that the house owner has ~~not~~ to run about but gets the latrine at his door-step. One agency takes the entire responsibility for pre-construction, construction and post-construction activities without bothering the house owner.
8. The superstructure over the latrine should be constructed simultaneously with the latrine to ensure its immediate use.
9. Guarantee for a few years (say 5 years) may be given to the beneficiary to remove any construction defects observed later, free of cost. It will go a long way in fostering confidence in the technology and the organisation implementing the programme.
10. Community latrines should be properly designed, constructed, operated and maintained. To ensure cleanliness, round the clock attendants' service should be provided. As far as possible, these should be operated on 'pay and use' system.
11. Training institutes at regional level should be set up exclusively for the liberated scavengers and their wards with full training aids and equipment. Hostel facilities should also be provided.
12. Appropriate monitoring and feed back systems should be set up at district and state level to identify the problems and bottlenecks hampering the progress and solve them quickly.

VI. TRAINING AND REHABILITATION OF LIBERATED SCAVENGERS AND THEIR WARDS

Once the bucket or dry latrines are converted to pourflush, the scavengers become unemployed.

There are two categories of scavengers-employees of the municipality and the other employed part time privately by householders. There is no problem of unemployment for those who are in employment of the municipality. The problem is of their wards as well as of privately employed scavengers and their dependents.

In none of the study towns were scavengers or their dependents trained in other vocations. Since the respondents were in the municipal service, none of them became unemployed after conversion of bucket or dry latrines; they were assigned some other work by the municipalities.

The Sulabh International has not accepted any grant either from Central Government, state governments or any national or international agencies. The only source of funding is the implementation charge which it charges for the design, survey, preparation of detailed project reports, motivation, sanitation education, construction, supervision and follow up. In Madhya Pradesh it is charging 20% of the estimated cost as implementation charges.

A team of highly qualified and eminent engineers and scientists having long and wide experience in research, environmental engineering, hydrogeology, sociology, health education, economics and administration is maintained to provide consultancy services to state governments and local authorities and to give technical guidance to Sulabh state branches in the field of low cost sanitation.

Methodology for Construction of Household Latrines

Project Preparation

At the request of the state government or the local authority, detailed project report to make the town scavenging free is prepared by the Sulabh International.

Motivation

As soon as the agreement is signed with the local authority and funds are made available to Sulabh International, suitable and trained staff is posted in the town as per need. House-to-House contact is made to motivate the people. Information is disseminated on the technology, financial assistance which would be available to them and procedure of construction to be followed is explained to them. As soon as the household shows interest in getting its bucket/dry latrine converted or a new PF unit constructed, application is obtained from the householder and submitted to the local municipal office for its approval.

Construction

From the householder's angle, the ideal procedure for getting a PF latrine constructed is where a single agency takes care of all steps from the time of application upto the completion of the unit including follow up after construction, which otherwise will have to be taken by him involving time, trouble, bother and expense. Sulabh International, when the work is entrusted to it, takes the entire responsibility.

The suitability and location of latrine are determined by taking into consideration the sub-soil-water level, soil characteristics, location of water sources, foundation and structural condition of the house.

The materials are collected and PF latrine is constructed. After construction, a certificate is obtained from the householder that he is fully satisfied with the latrine constructed in his house.

The household is given a 5 year guarantee; in case any construction defect is noticed within the guarantee period, the same is rectified free of cost by Sulabh.

Community Latrines

Community latrines constructed, operated and maintained by Sulabh International provides latrine, bathing, washing and urinal facilities. These latrines are popularly known as sulabh Complexes.

The design of the Sulabh Complex is prepared keeping in view the site conditions and expected number of users. Separate enclosures are provided for men and women. Sulabh is not a contractor; its main objective is that the community latrine is properly operated and maintained; hence it undertakes to take up the job on turn-key basis.

After the design and estimate are approved by the local authority, Sulabh enters into an agreement with the local authority. The Organisation undertakes to operate and maintain it for 30 years. Attendant's service is provided round the clock to keep the complex clean and soap powder is supplied to the latrine users free of charge for washing their hands.

Sulabh International advocates the operation of complexes on 'pay and use' system. Children and disabled persons are not charged. Use of urinal is free. Where it is possible to meet the operational and maintenance cost from the charges collected at the complex from the users, the local authority has not to incur any expenditure on its operation and maintenance except the electricity and water charges. However, the land required for the complex and the capital cost are provided by the local authority.

Where the local authority desires that the users should not be charged or where the local authority collects the charges itself on the basis of per family per month, the operation and maintenance cost is borne by the local authority and is paid to Sulabh at a fixed rate.

Terms of Payment

Since Sulabh International does not have funds of its own, the construction of complexes or implementation of eradication of scavenging programme is carried out after receiving 20% advance from the local authorities.

V SUGGESTIONS AND RECOMMENDATIONS :

1. An advisory committee comprising concerned departments may be set up at Govt. of India level to lay down policies and plan of action to eradicate scavenging and rehabilitate scavengers and their dependants. Similar committees may be formed at state level. In these committees representative of a reputed NGO and a representative of scavengers should also be made as members.
2. There should be one nodal department responsible for implementing the LCS programme in the State. In case there are more than one department implementing the LCS under different programmes, the nodal department should coordinate.
3. Eradication of scavenging scheme should be included in the 'Minimum Needs Programme' so that the State Governments may not be able to reduce or divert the allocation provided for LCS.