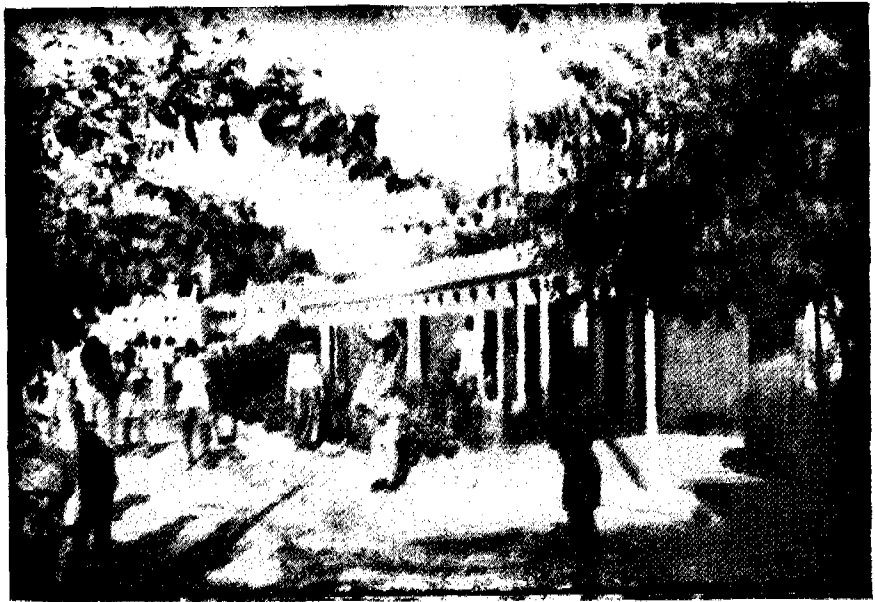


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Shalabh Shauchalay

(Hand flush water seal Latrine)

A SIMPLE IDEA THAT WORKED



Bindeshwar Pathak

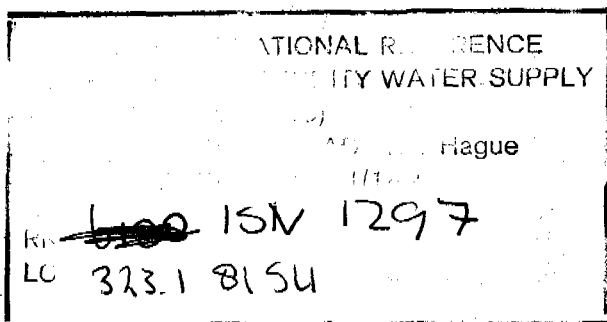


Born in 1943 in Vaishali district of Bihar, India, where the first democratic republic of the world blossomed, Mr. Pathak graduated in Sociology from the Patna University in the year 1964. Though a brilliant student, due to some unknown reasons he could not prosecute his studies further. He tried his luck in so many professions. But none could give him job satisfaction. Call it accident or God's will, Mr. Pathak joined the Bihar Gandhi Centenary Committee in the year 1967. In 1969 he was entrusted the job of Bhangi-Mukti (liberation of scavengers). With tireless efforts he could be able to evolve a design for the sanitary disposal of night-soil which is popularly known as Sulabh Shauchalaya.

Sulabh Shauchalaya

(Hand flush water seal Latrine)

A SIMPLE IDEA THAT WORKED



Bindeshwar Pathak
Chairman, SULABH INTERNATIONAL

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PREFACE

I have known Sri Bindeshwar Pathak and his organisation for years. While the problem of appropriate design criteria to suit the conditions of our country continues to baffle the researchers and technologists, Sri Pathak, in his own inimitable style, came forward with an approach to solve one of our basic problems.

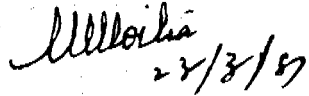
Service privies continue to be one of the major health problems. Besides they are also the source of a big social problem, where a group of people are relegated to a position of perpetual indignity. The technology to substitute the bucket privies has been known for years. Yet the solution to the problem was not forthcoming, because the accepted technology was beyond the reach of the common people. It is here that the approach adopted by Sri Pathak seems to have won universal acceptability. The designs are simple and hence easily replaceable to suit different needs. The popularity of the organisation in its crusade against this system probably arises from this simplicity of approach.

It is, however, one thing to resolve the question of an appropriate design; but when it comes to the propagation of the idea and the follow-up measures after going through myriads of formalities of obtaining the permission of municipal authorities, it is quite a different story. It requires a vast extension machinery working with the singleness of purpose which can only be found through dedication to the cause. Sri Pathak and his organisation have been able to achieve a break-through in this respect also. The management of such a programme, with thousands of contact points, is not a mean achievement. It requires a highly developed organisational skill responsive to the needs of the users and proper follow-up action to ensure continuity and proper up-keep and maintenance. Thus it is not merely a one-shot affair where task

objectives and compliance would have been comparatively simpler. Apart from the complications arising out of numbers the complexity of the management is due to the emphasis given to the follow-up action to ensure proper up-keep and maintenance. Yet the entire programme is going on smoothly where the extension machinery is being able to address itself to environmental improvement by attending to one of the worst evils of our society today.

The Sansthan today has grown into a vast organisation and its contribution in the field of public sanitation is unique. It is now working in different cities of India. We are happy that in Calcutta Metropolitan District this Sansthan has been engaged by the CMDA and the municipal authorities to carry on the conversion programme so that we can reach our much cherished aim of total conversion.

I deem it a great privilege to write the preface.

Handwritten signature of M.K. Moitra in cursive script, with the date 28/3/57 written below it.

(M.K. MOITRA)

Commissioner,

The Corporation of Calcutta.

FOREWORD

While working in the Bihar State Gandhi Centenary Committee in 1969 I was assigned the work of Bhangi Mukti, i.e. liberation of scavengers from the ignominious practice of carrying night-soil on head. For achieving this, the Government of India had directed all States to get converted all the existing service latrines into flush latrines and to connect them with sewers in sewerred areas and with leaching pits in non-sewerred areas. While searching for a proper design of the flush latrine which may fulfil all the conditions of a sanitary latrine, I came across a book "Excreta Disposal for Rural Areas" written by Wagner and Lanoix of W.H.O. In this book they had discussed the merits and demerits of several designs for the proper disposal of night-soil. They had also concluded "*Out of the heterogeneous mass of latrine designs produced all over the world the pit privy is the most useful and applicable*". This sentence left a deep impression in my mind and, with the help of Shri Rajendra Lal Das, I could be able to evolve a design which is popularly known as Sulabh Shauchalaya.

But, I thought that mere availability of the appropriate technology will not solve the problem. For its wider application one would have to go to the people to educate them about the technology, persuade them for its adoption and then keep a watch whether they are being properly used or not.

Further, I thought that voluntary organisations should not be kept confined to the work of propagation and demonstration only, rather they should get themselves involved in practical work. Secondly, voluntary organisations should not remain dependent on Government grants or public donations, rather they should run it on a no-profit-no-loss basis so as to be fully self-reliant.

This simple idea which came to my mind in 1970 clicked. We are doing the conversion of service latrines (latrines cleaned by scavengers) into Sulabh Shauchalayas (hand flush waterseal sanitary latrines) in six States of India viz. Andhra Pradesh, Bihar, Madhya Pradesh, Orissa, Uttar Pradesh and West Bengal. Other States are also sounding us to start the work. We have so far converted about 40,000 service latrines into Sulabh Shauchalayas and about 700 scavengers have so far been relieved from the sub-human occupation of carrying night-soil.

Our designs with certain modifications have been adopted by the U.N.D.P., World Bank.

In course of the work, another idea has cropped up, i.e. to maintain the public conveniences out of the proceeds taken from the users, which too has worked successfully even in the metropolitan city of Calcutta.

In my opinion these two concepts of the conversion of dry latrines into Sulabh Shauchalayas and the pay and use the public convenience system will go a long way to improve personal hygiene, community health, social uplift and economic well-being. In addition to this, the above programmes will give employment to about 5 lakh people at once in India alone and to keep them in continuous service the public exchequer will not have to bear any burden.

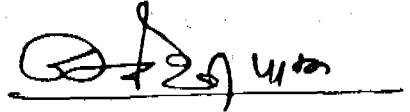
At present about 1,000 people are working in this organisation without any burden on the Government.

The book briefly outlines the problem of disposal of human excreta and the various methods tried for its solution. It also defines the role of the Sulabh Shauchalaya Sansthan (now 'Sulabh International') in tackling this chronic problem. The inception of this organisation and the modified technology evolved by it have been briefly dwelt upon.

I have included a short review of the past activities of my organisation. The present commitment of the Sulabh International and its future prospects have been touched upon in passing.

The present publication only endeavours to present the salient features of the vital problem of disposal of human excreta. The subject will be given a fuller treatment in my forthcoming book.

Administrators, planners, engineers and scientists of the world are requested to come and see for themselves the adoption and application of our technology and suggest improvements, if any.

A handwritten signature in black ink, appearing to read 'Bindeshwar Pathak', is written above a horizontal line.

Calcutta,
April 19, 1981

(Bindeshwar Pathak)

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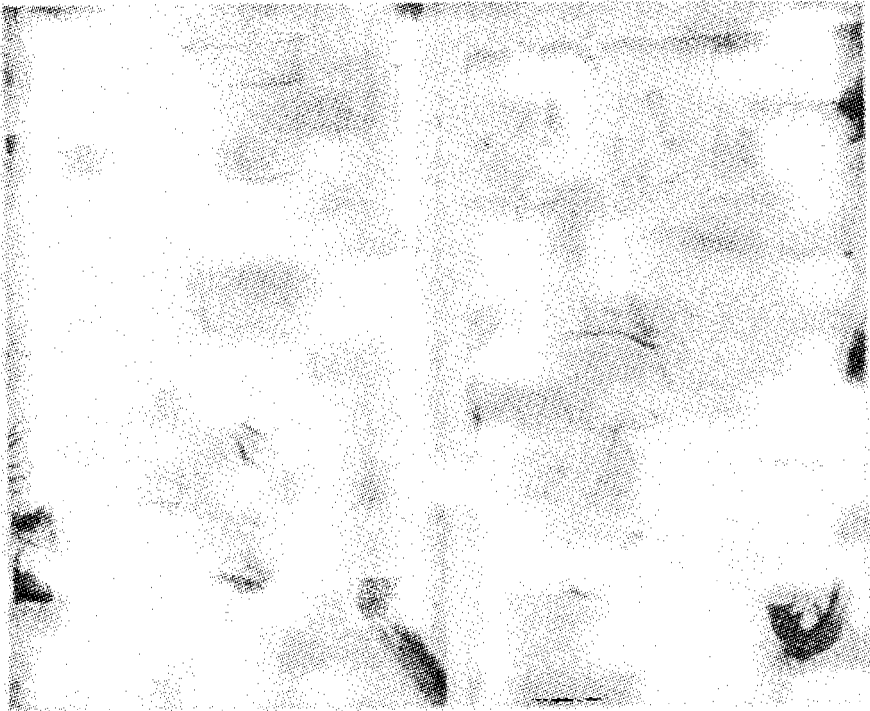


A woman is seen cleaning the service latrine.

THE PROBLEM

The system of bucket privies for the disposal of night-soil in urban areas is nasty and hazardous to health. Due to bucket privies, the environment remains stinking and the constant contact of flies with night-soil gives birth to diseases like diarrhoea, dysentery, cholera, hook-worm, ring-worm etc.

Moreover, the system of bucket privies keeps engaged a section of the people, regarded as the lowest in the society, called scavengers, to clean them manually daily. Some arrangements had been made in the past to minimise their insurmountable difficulties and to keep them away from direct touch of the night-soil by providing hand gloves, gum boots, trollies, etc.; but somehow or other these arrangements could not work. Due to bad condition of the roads, they find it easier to carry night-soil on the head rather than push the trolley. After three or four months, hand gloves, gum boots, etc., wear out and they continue to clean the night-soil manually.



The demeaning system of carrying night soil.

The containers of bucket privies also develop holes, so the night-soil gets scattered all around the dwelling houses and creates a problem both for the dwellers and cleaners.

The continuance of the system of carrying night-soil on head by a separate caste, Bhangi (scavengers) is sub-human, unhygienic and also a blot on human civilization. The following extract from the U.N.D.P. Global Project will clarify the point. In India, only about 217 out of 3,119 towns have sewerage system, most of them with partial coverage, although 2,092 towns have been provided with piped water supply.

“As per National Sample Survey, only 20% of urban households in the country use toilets connected with the sewerage system, out of which only 7% have exclusive use of toilets and the rest either share

with other households or make use of public toilets. 14% of the households have water-borne latrines connected with septic tanks. Nearly one-third of the urban population is served by bucket privies. Households having no toilets account for the remaining one-third."

A similar situation with some variations is existing in almost all under-developed and developing countries.

This hazardous system of the disposal of night-soil and the hated practice of carrying night-soil on head must be done away with at the earliest.

SOLUTIONS

Although more than 19 designs like sewerage system, septic tank, hand flush water-seal pit privy, aqua privy, chemical toilet, nimhoff tank, borehole, dug well, trench latrine, VIP latrine etc., are prevalent all over the world for the disposal of night-soil; only three systems have been found technically fit for adoption on mass scale, viz.,

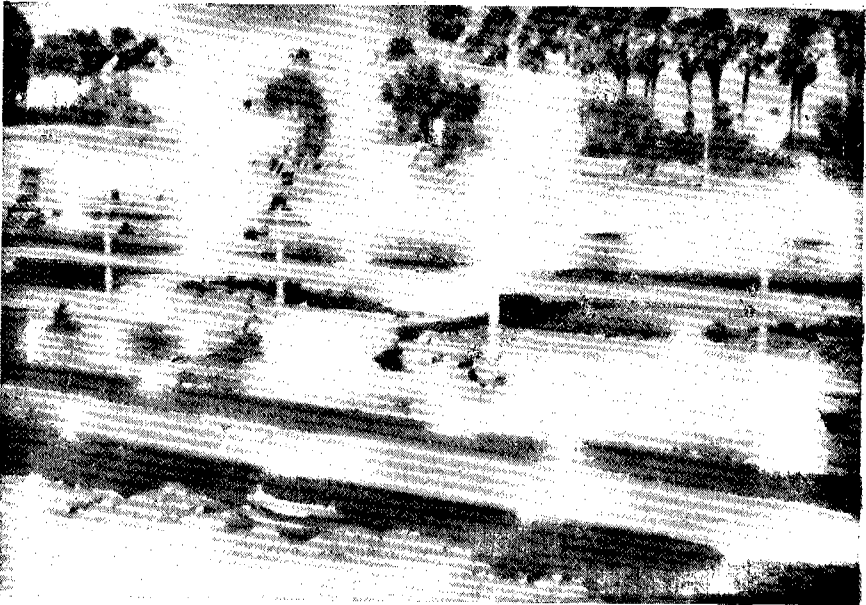
Sewerage system

Septic tank

Sulabh Shauchalaya (hand flush waterseal pit privy)

(1) Sewerage system

The sewerage system was first used by the Romans, the Cloaca Maxima, in the sixth century B.C. Although Parisians could boast of sewerage system by 1400 A.D. still only one Paris house in 20 was linked to it by 1800 A.D.



A view of the sewage treatment plant at Rajendra Nagar, Patna. Built in 1939 it is not yet functioning properly.

It is universally accepted that perhaps the best way for the disposal of human excreta is the underground sewer system. But looking into the cost of construction and maintenance, it almost sounds utopian for a poor and densely populated country like India. It is estimated that at the present rate of taxation, if the entire revenue of the Central and State Governments for the next 60 years was exclusively utilised for provision of underground sewers still only half the population of the country would be covered. Moreover, it has been generally noticed that even where underground sewers exist, not many people take full advantage of the same. Thus, on the one hand, the huge amount invested by local bodies will remain under-utilised, on the other, the dry latrines will continue to be an eyesore and a hazard to health.

In the State of Bihar, for example, the sewerage system was introduced in 1939 at Patna, but it could cover only a very small portion of the population. And even where there is sewer, the service latrines continue to function. There were about 10,000 such latrines, out of which we have converted about 3,500; but 6,500 still remain to be converted into the flush system.

Jamshedpur, where there is sewer system, has another problem. The city lacks adequate water supply, and so the sewer cannot function properly. Moreover, 1,500 houses there still lack sewer connection and it will cost about Rs. 1 crore to give them connection. Hence, the TISCO authorities have now decided to adopt our system of flush latrines for these houses, which is economical and scientific, the cost coming to only Rs. 22.5 lakhs. The construction work is in progress. The Lucknow Corporation had to spend Rs. 1 crore a year before last for the cleaning of sewer lines only.

(2) Septic Tank

The essential convenience of modern living, the water closet, was probably invented about 1460.

The septic tank system too is rather a costly affair. Moreover, it involves some kind of specialised skill in its construction. Then it requires more space which is often not available in the urban areas. Even after about 600 years of research and propagation, it has not been acceptable to more than 14 per cent of the population in India.

The septic tank system requires five times more water for flushing than is required in Sulabh Shauchalayas.

The gas pipe in a septic latrine emits foul odour and chances of air pollution cannot be ruled out.



Gas pipes of septic tanks are a permanent source of air pollution. The picture above shows a cluster of gas pipes in a colony at Rajendra Nagar, Patna.

The need for scavengers continues in septic latrines as clearance of tanks at regular intervals has to be done manually. It was against this background that we designed a latrine which is now popularly known as Sulabh Shauchalaya.

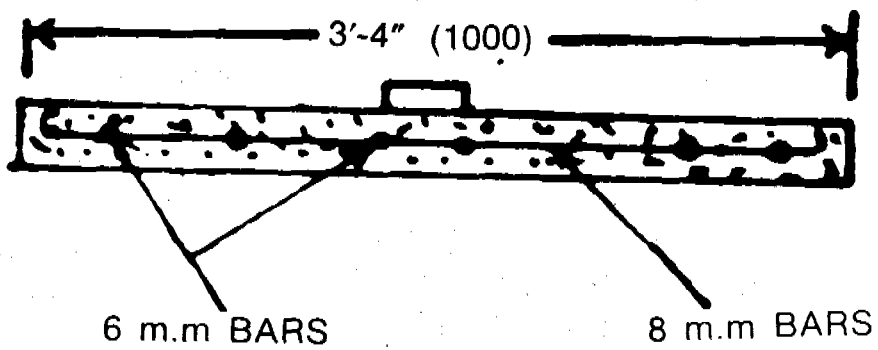
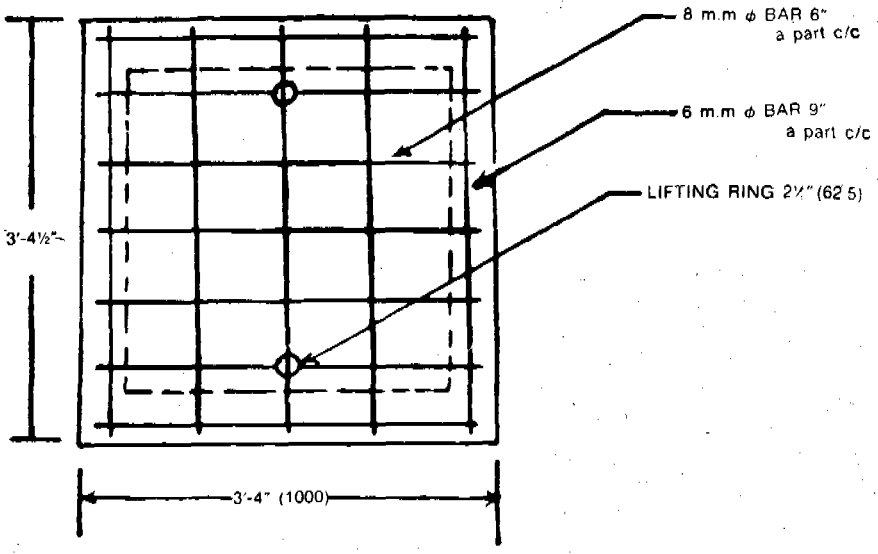
(3) Sulabh Shauchalaya (Hand Flush Waterseal Pit Privy)

The Sulabh Shauchalaya seems to be the only workable solution to the problem at present in India and other developing countries. There have been small variations in the designs of pit privy latrines in many countries depending largely on the habits of the people of the area.

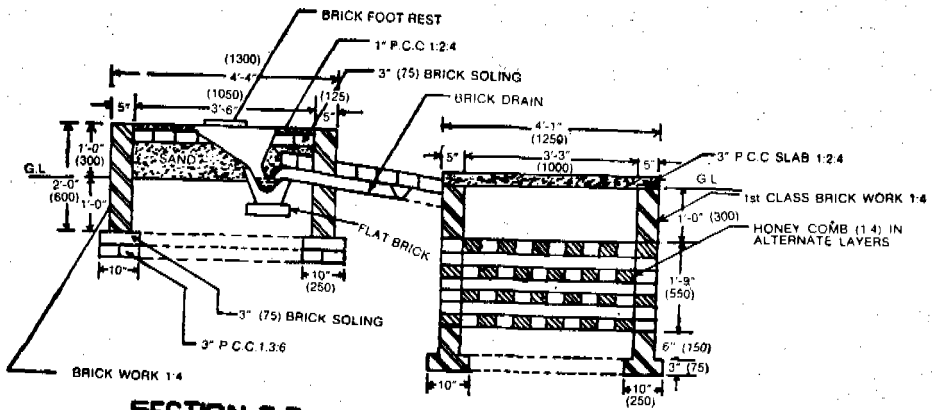
Our organisation does not claim the credit of invention, but we have made some useful innovations.



Sulabh Shauchalaya with rectangular tanks. The tanks and drains remain covered.

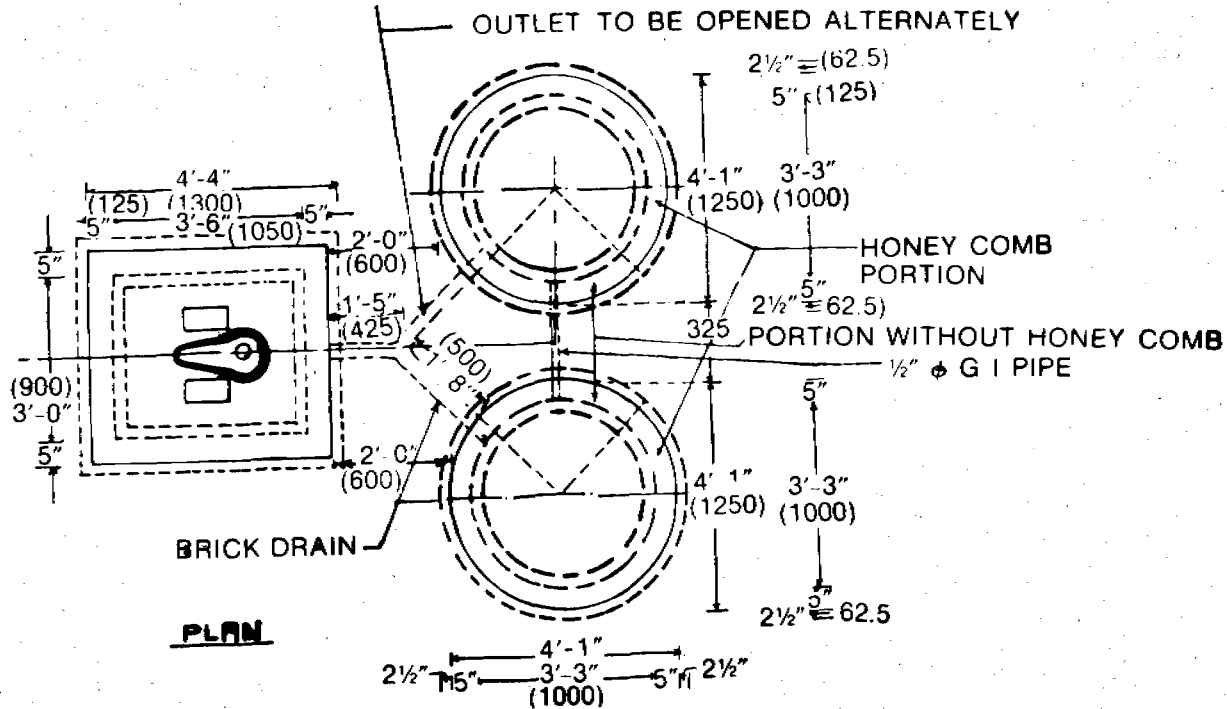


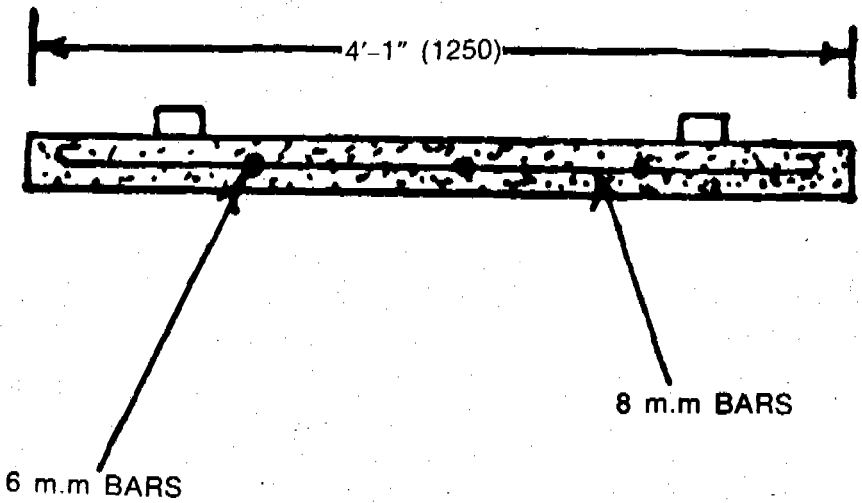
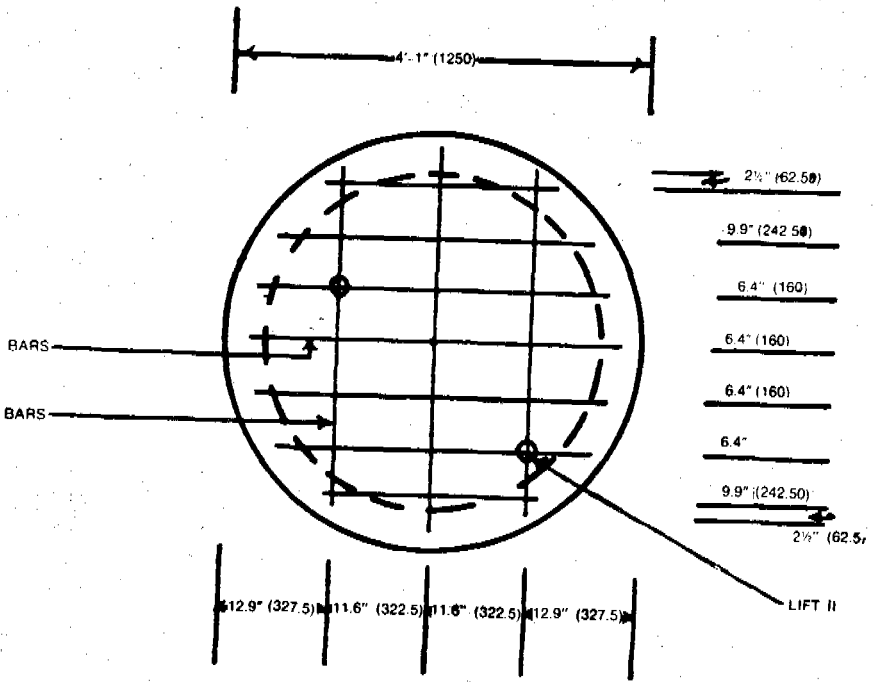
Designs of rectangular Sulabh Shauchalaya

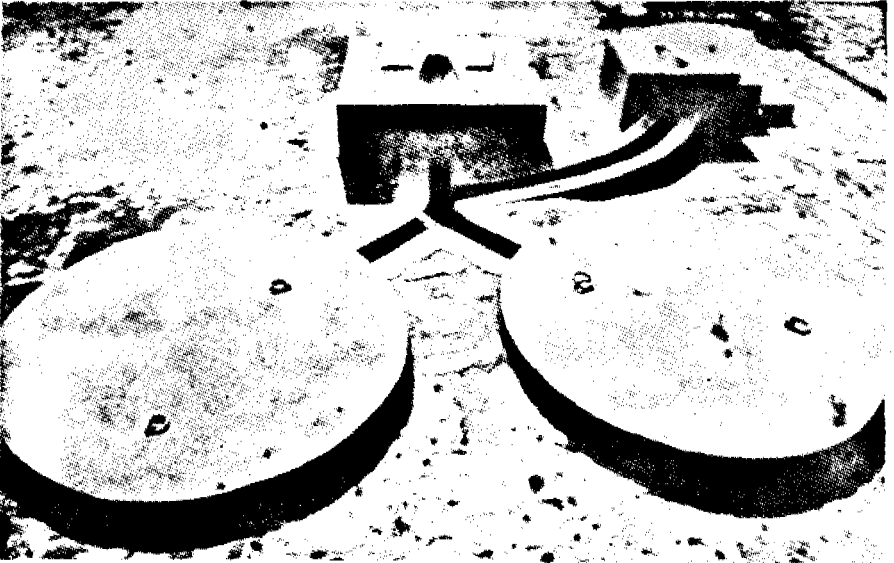


SECTION A-A

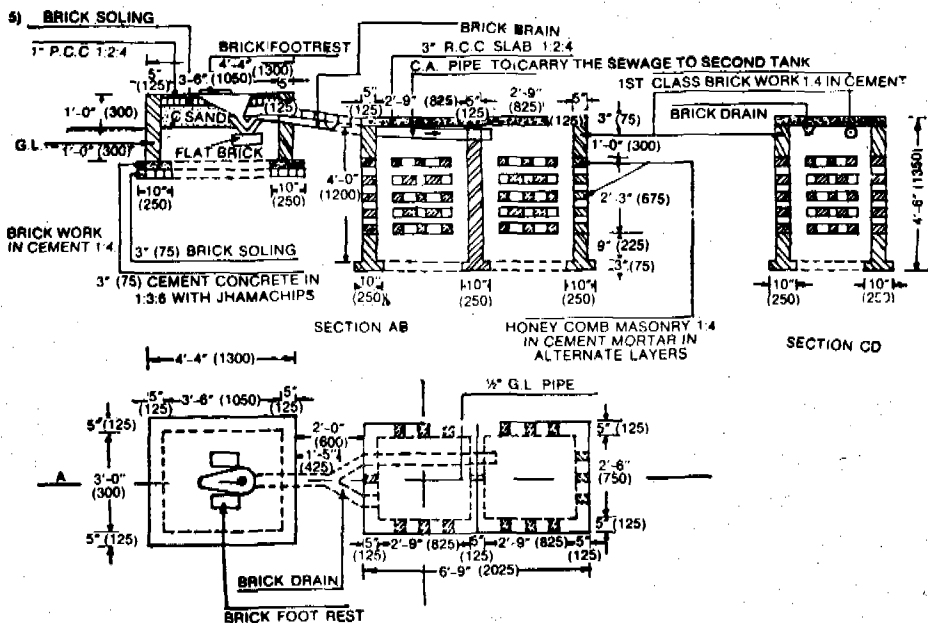
9'-9"
(3000)







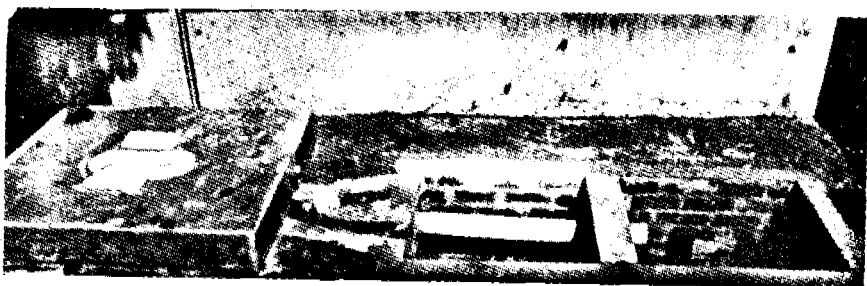
Sulabh Shauchalaya with circular tanks. The drains remain covered.



PLAN

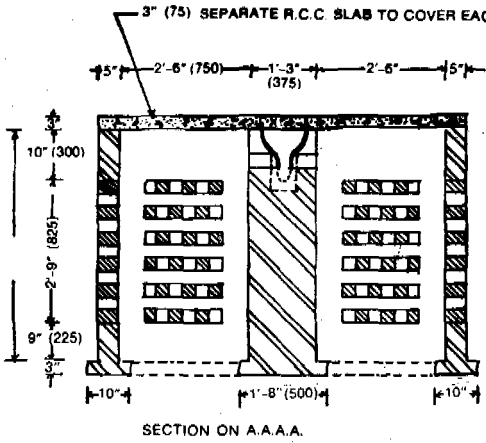
**DESIGN OF SULABH SHAUCHALAYA
WITH RECTANGULAR TANKS
(WHERE SPACE AVAILABLE IS MORE IN
LENGTH THAN WIDTH)
SCALE 1:20 ALL DIMENSIONS IN M.M. AND
ALSO IN FEET INCHES.
ISSUED BY SULABH INTERNATIONAL
PATNA (BIHAR) INDIA
SECRETARY**

SULABH INTERNATIONAL, PATNA.

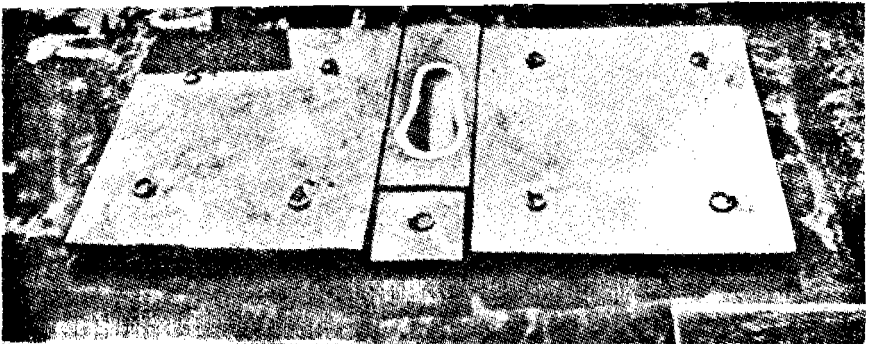
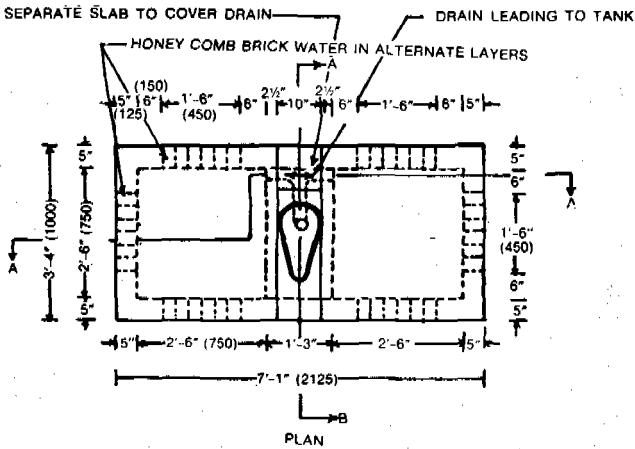
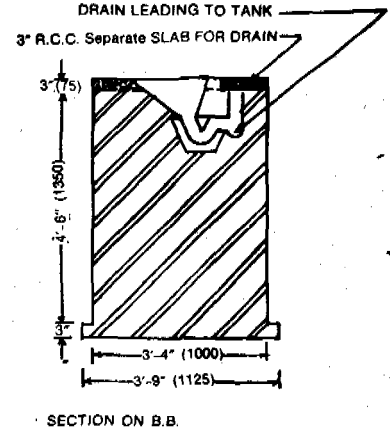


Sulabh Shauchalaya in a narrow patch of land. The tanks and drains remain covered.

DESIGN OF SULABH SHAUCHALAYA IN LIMITED SPACE

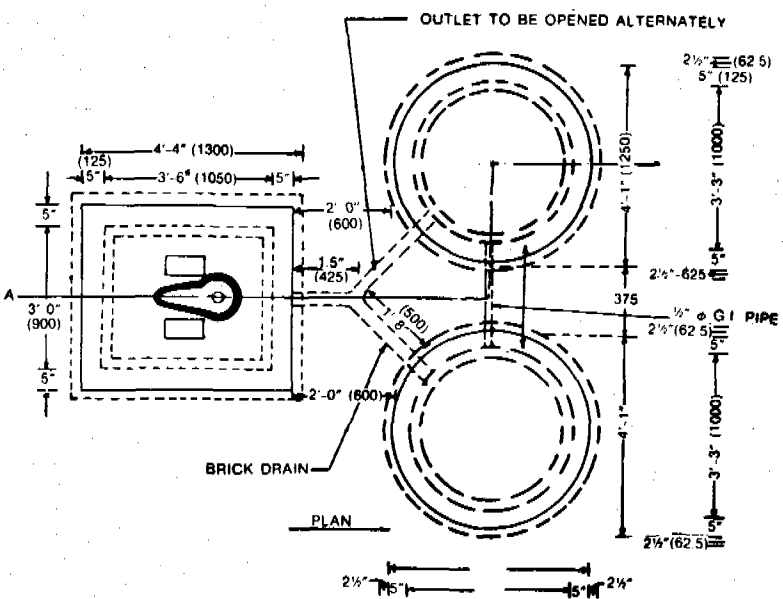
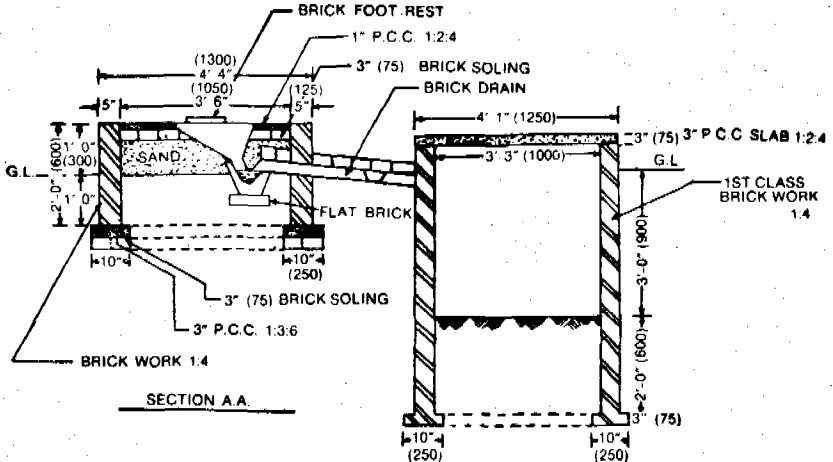


SCALE-1:20

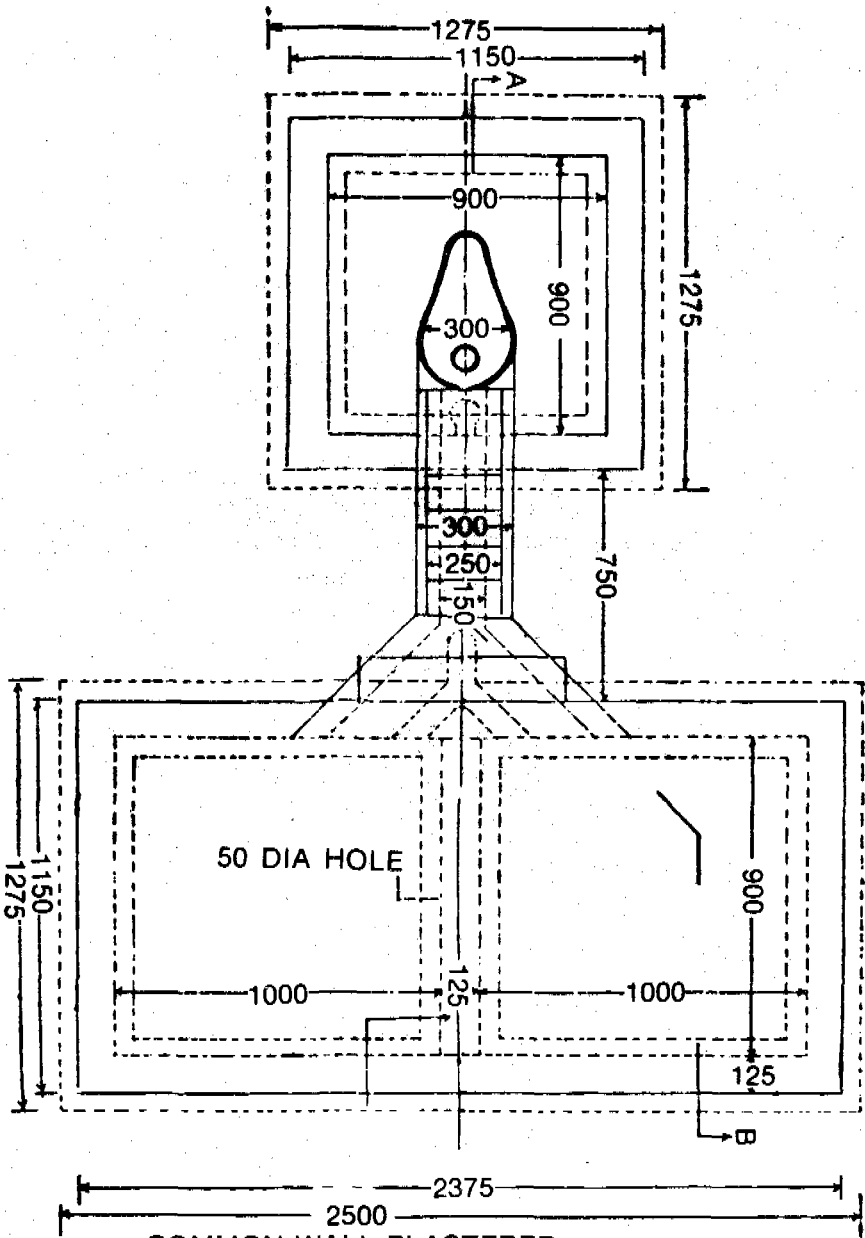


Sulabh Shauchalaya in the smallest piece of land. The pan is fitted on the dividing wall of the tanks.

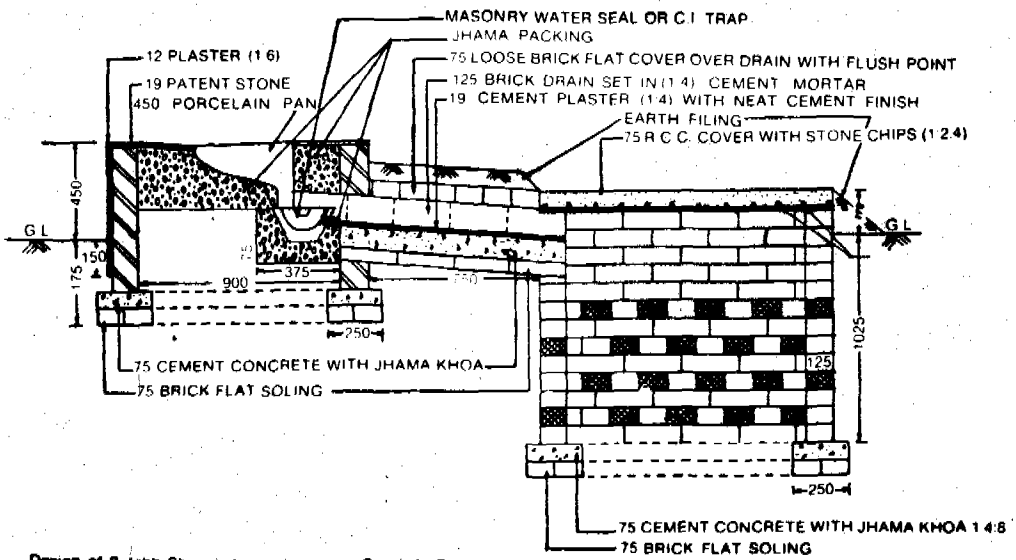
SULABH SHAUCHALAYA
(SUITABLE NEAR WELLS, TUBE WELLS OR PONDS)



Design of Sulabh Shauchalaya near a water source

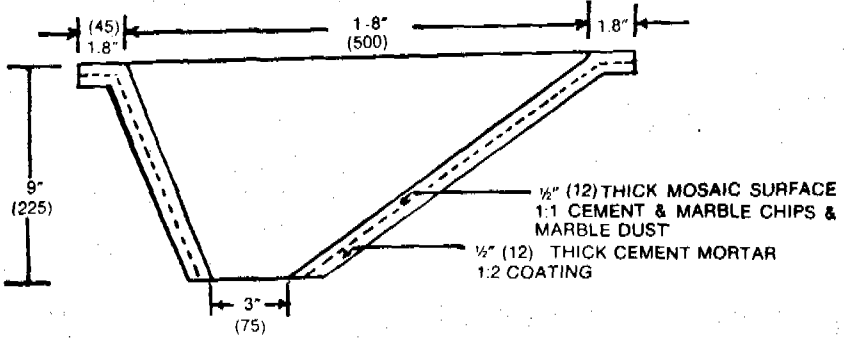


COMMON WALL PLASTERED
 WITH CEMENT MORTAR (1:4)
 WITH NEAT CEMENT FINISH



Design of Sulabh Shauchalya adopted by C.M.D.A., Calcutta

SCALE 20 c.m. TO A METER



Sulabh Pan

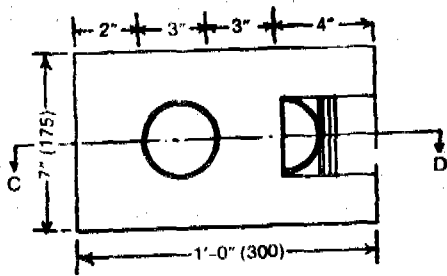
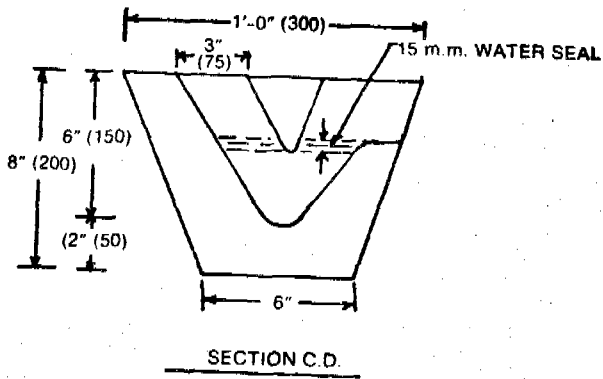
Technique of Construction

PAN

The standard length of the pan being moulded is 500 mm, but these are also moulded in different lengths varying from 400 mm to 600 mm. The front and rear portions of the pan are circular having a radius of 50 mm and 125 mm respectively. The maximum depth of the pan is 225 mm. The depth in front is only 12.5 mm and slopes at an angle of 33° up to the point of opening at the bottom which is 75 mm in diameter. It is made of white cement, marble chips and marble dust in the proportion of 1:1:1 and ordinary grey cement and sand in the proportion of 1:2. The mould in the proper shape, size and form is made of clay and husk on levelled ground or a brick platform made for the purpose and left for a day or two to harden and dry up. A coat of cowdung wash is applied on the mould and left for drying before the casting is done. An admixture of cement, marble chips and marble dust is first laid 12 mm ($\frac{1}{2}$ ") thick evenly on the mould to give it a mosaic finish and then the second layer of 12 mm ($\frac{1}{2}$ ") thick cement and sand mortar in the proportion of 1:2 is laid over it. This is nicely trowelled to have a good finish. Yet a third layer of ordinary cement and sand is given to make the pan stronger. It is left on the mould to set for a day and then taken out and put in water for proper curing. After a couple of days, it is taken out of water and the mosaic surface is rubbed with different types of carborandum stones to make it even and smooth and then polished to give it a glazy finish. One mould may be used several times after petty repairs, if any.

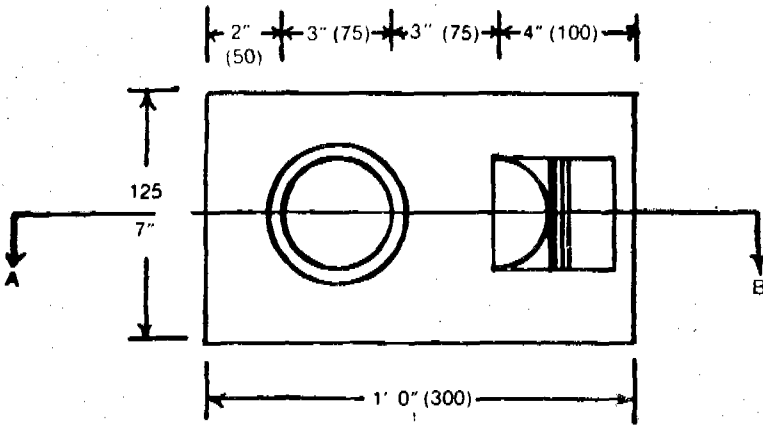
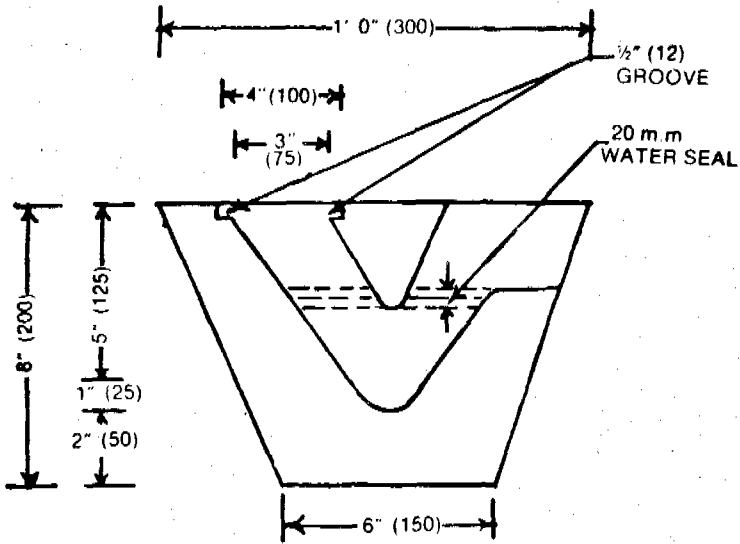
The mosaic pan has several advantages. Firstly, it is cheaper and stronger than the China-clay pan. Secondly, water does not splash. Thirdly, it can be repaired easily. Fourthly, it can be moulded on a large scale anywhere. Our long experience has convinced us that in public latrines these mosaic pans are more suitable. It has minus points too. It does not look as nice as the China-clay pan which is more brittle and costly and there is also a chance of reaction of urine in the long run. We find that the mosaic pans are working well and satisfactorily. Our organisation is constantly making experiments with various types of pans with an eye on suitability, utility and durability.

WATER-SEAL OR TRAP
SULABH WATER SEAL (WITHOUT GROOVE)

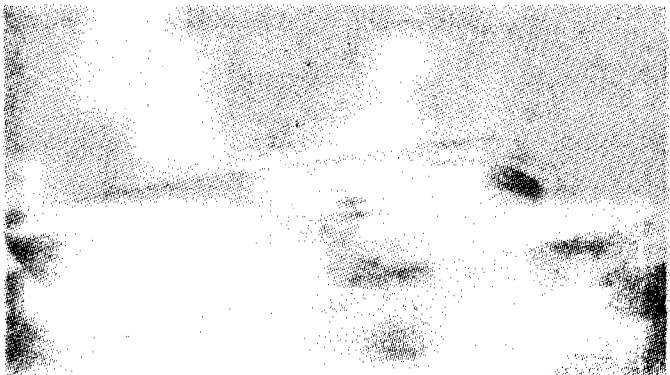


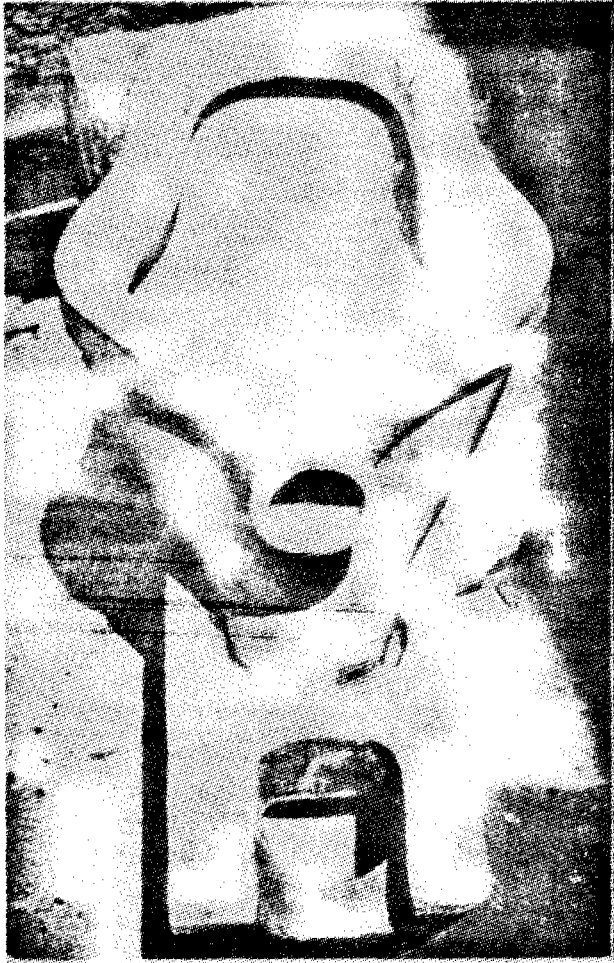
15 mm Sulabh
Water Seal

SULABH WATER SEAL (WITH GROOVE)
SCALE - 1:5

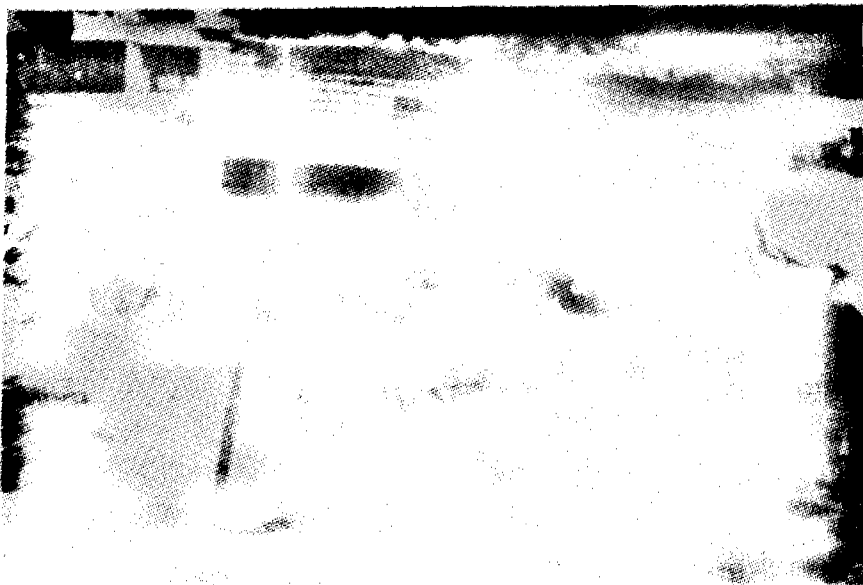


20 mm Sulabh
water-seal





China clay pan mounted on a 20mm water-seal with groove



Sulabh water-seal being mass-produced

The construction of water-seal is very important and has been so designed that a minimum quantity of water, say one litre or two, is required to flush out the excreta to the tank. It prevents bad odour and gases from leaking back. It has been designed to be put just below the pan which has an opening of 75 mm diameter in a block of cement concrete 1:2:4. For fixing a China-clay pan, a circular groove is made at the top. The water-seal has been constructed in such a way that its passage is circular tapering at the bottom from both sides thereby forming a V shape and the bottom is 150 mm and the middle point 75 mm horizontally away from the centre of the outlet of the pan. The jib which forms part of the water-seal is protruding below and its lower end, 15 mm to 20 mm, is always dipped in water and is slightly rounded for easy flow of the excreta. The entire inner surface of this water-seal is punned with neat cement and is connected with the covered drain leading to the tank. Experience has shown that this type of water-seal is quite operative and durable. The 24-seat Public Sulabh Shau-chalayas at Patna Junction having such type of water-seals have been used by 87 lakhs of people during the last six years and still they are functioning very well.

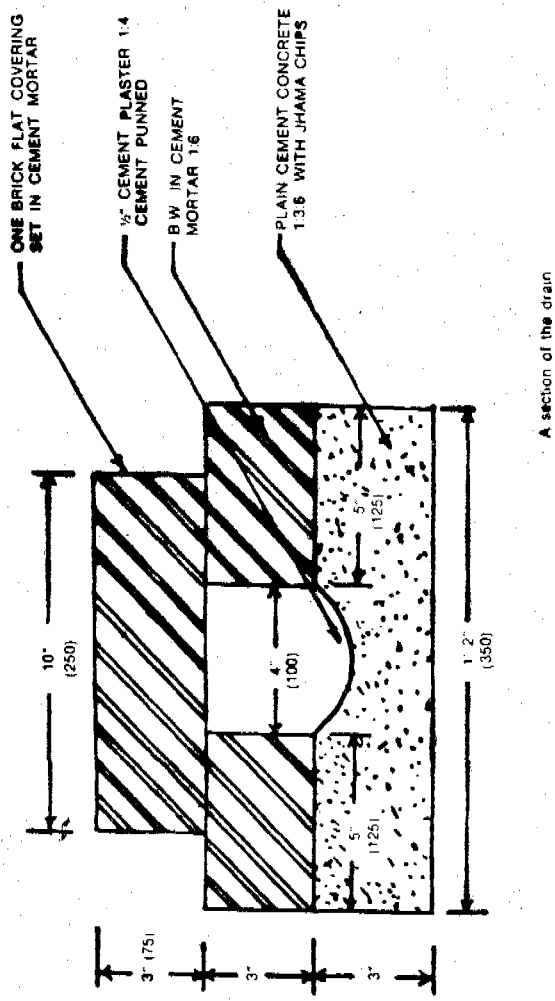
TANK (PIT)

Two circular tanks, 1000 mm in diameter and 1000 mm deep each, are constructed 375 mm apart. The walls are 125 mm thick with first class brick work in cement mortar 1:4 on a 250 mm wide footing and are slightly higher than the adjacent ground level, so that rain water may not enter into the tank. 550 mm height of brick work, leaving 300 mm at the top and 150 mm at the bottom, is honeycombed on three quadrants of the tanks. The remaining one quadrant of the tanks adjacent to each other is made solid to prevent seepage of effluent. The brick work at the top and bottom of the tank is made solid to withstand the load of the R.C.C. cover and also to prevent surface water from percolating during the rains. Two separate circular R.C.C. covers with lifting arrangements are provided on the tanks and all gaps are nicely filled up to prevent leakage of gas or bad odour.

The two tanks at the top are connected by 12 mm ($\frac{1}{2}$ " dia G.I. pipe for the gases to pass from one tank to another.

The bottom of the tank is always earth-based, so that all the water leaches out and helps easy decomposition and transformation of the excreta into organic manure by soil bacteria which are found in abundance in the ground soil.

Scientific experiments have shown that excreta, as soon as it comes into contact with earth, starts decomposing and gets smaller and smaller in volume as active anaerobic bacteria in millions are developed. This breaks the solid portion of the excreta which ultimately transforms into organic manure. Each tank will serve a family of 5 for a period of five years. Two years after the closure of the first pit the manure can be taken out preferably in summer season for reuse of the pit. In this way, the pits can remain in use by turn for a period of 100 years. If sufficient space is not available for the construction of circular tanks (pits) rectangular tanks (pits) of the same capacity with a dividing wall can be constructed.



PLATFORM AND FOOT REST

The platform is made 1300 mm long, 1150 mm wide and 300 mm high with the pan located in the middle 225 mm from the back wall, 325 mm from side walls and 325 mm from the front wall. The foot rest is placed at about 250 mm from the rear end of the pan on both sides conveniently apart. The foot rests need not be more than 50 mm high from the platform. The platform is plastered in cement mortar 1:3 well punned with neat cement to give a smooth finish and sloped towards the pan, so that any splash of water may find its way through

the pan. The foot rests are made of bricks cut down so as to make them sloping and are plastered and embedded partially into the platform, the rear end of which is slightly raised. The pan can be fixed on the platform in any direction as desired.

If there is lack of space, the platform can be built over the pit (tank) itself. In this case, the central wall is made 375 mm thick. On this central wall the pan with water-seal and the outlet drain is installed to carry the excreta to the tank. The drain in this case too is bifurcated for easy flow of the excreta to the tank. The portion of the bifurcated drain upto the outfall is given a separate cover with necessary lifting arrangements. The two covers of the pit are so constructed that when put in position these circumvent the pan and separate the cover of the drain in level with the top of the pan, so that this slab serves partly the purpose of platform and the base of foot rests as well.

PIT SLAB

The pit slabs are made separately for the two pits in one piece of R.C.C. slab 75 mm (3") thick or more as a permanent cover with necessary lifting arrangements. The walls on which the slabs are placed are above ground level, to avoid seepage of rain water etc., to the tank through the joints of these covers or water-logging. The R.C.C. slabs, 75 mm thick, are used to cover the pits. 8 mm and 6 mm rods should be used for casting the slab. The M.S. rods of necessary sizes are cut and tied with annealed wire according to the size of the slab and kept ready in advance. The frame or template to cast the slab is built on a brick platform. This is either made of bricks and mud mortar or wooden planks securely fixed to the requisite size of the slab.

The admixture of cement concrete for the R.C.C. slab is 1:2:4 (one cement, two sand and four coarse aggregate). The coarse aggregate is made of granite, quartz or picked jhama bricks. Five to six gallons of water is used per bag of cement consumed.

The coarse aggregate, sand and cement is measured by volume in the above proportion separately on the brick platform. The cement and sand is first mixed thoroughly and then mixed with the coarse

aggregate already spread on the platform. This is first mixed dry and spread evenly on the platform. Then water is added in proper quantity and overturned twice or thrice to make a good mix. The concrete thus mixed is laid in the frame already made in a layer 12 mm to 20 mm thick. The reinforcement already made to sizes and tied together is placed over it. The lifting arrangement made either of M.S. rods or iron rings is tied to the rods. The balance of the thickness of the concrete viz. 55 mm, is laid over it and well tamped to make a homogeneous and compact slab. The top is nicely finished with a trowel or plastered with cement mortar 1:4. After 24 hours the frames are removed and the slab cured for atleast 15 days by sprinkling water over it or dipping it into water or covering it with wet sacks.

When perfectly cured, the slabs are placed at the top of the pit with mud mortar on all sides and are made quite air-tight and water-tight by a mixture of cement and sand mortar in the ratio of 1:10 so as to avoid erosion and leakage and can be easily removed at the time of taking out the manure from the pit. The pit covers can be used for household purposes also, like sitting, cooking, washing or taking food.

ADVANTAGES, SPECIALITIES

Among the many advantages and specialities of the Sulabh Shau-chalaya, a few are given below:

1. It is a permanent installation which is economical and durable. It can be adopted by both the rich and the poor. In Bihar, its minimum cost is Rs. 700/- with mosaic pan and Rs. 762/- with China clay pan, and in West Bengal, it is Rs. 1,075/- (Annexures I & II). The Sulabh Shau-chalaya of Mrs. Jaglal Choudhary was constructed in 1968 and even after a lapse of 12 years it is functioning very well. And the tank has been cleaned only once so far.
2. It is absolutely odourless and there is no air pollution, as the water-seal prevents gases from leaking out of the pit, through the pan and, therefore, no gas pipe is provided or needed. All gases produced in the tank are absorbed by the soil.
3. Only a small quantity of water, say about two litres, is enough to flush out the night-soil from the pan to the tank.
4. It can be constructed within a small space, 7 ft. long and 4 ft. wide, with all amenities, including provision of a platform and two pits with the water-seal device in the middle of the partition wall. It can be constructed even on the corridor, verandah or in the bedroom of the building.
5. It can be constructed in any soil—sandy, rocky or homogeneous. The maintenance cost of an individual latrine is virtually nil.
6. Organic manure of the best quality becomes available to the householders for use in the field or the garden. The manure taken out from this pit was examined by the Compost Wing of the Government of Bihar. The result of the analysis is indicated in Annexure III. It does not require the services of a scavenger to clean the pit. The house owner himself or any labourer can clean it because the excreta gets converted into

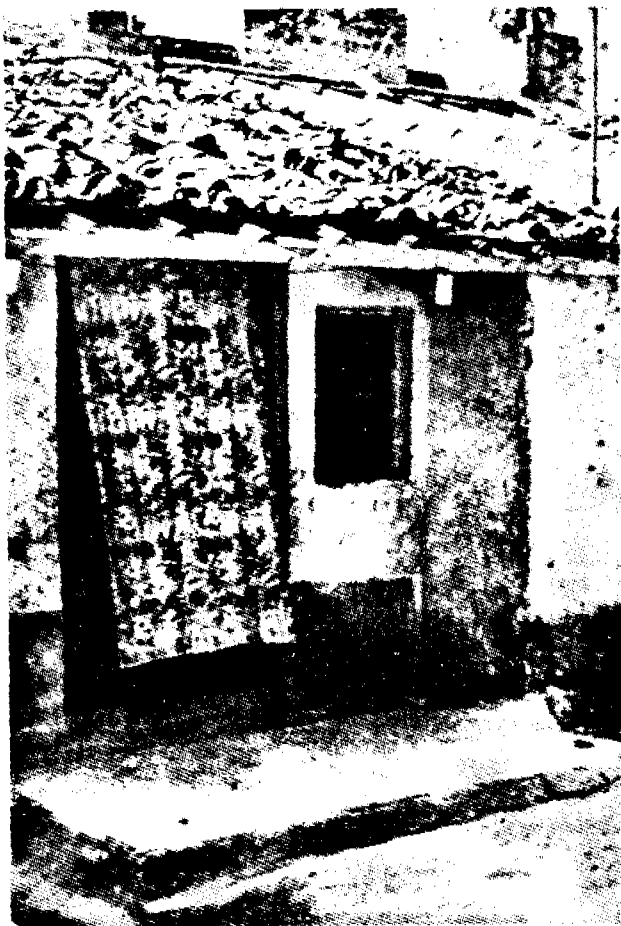
manure. The pit should be cleaned after two years from the date of its closing when it is free from pathogens.

7. The technique of construction of the Sulabh Shauchalaya is simple enough to enable an ordinary mason to put it up under the supervision of a trained worker.
8. It is not irksome to the eye as the excreta is always covered underground, not accessible to flies and insects due to its air-tight and water-tight covers.
9. As the tanks are covered with air-tight and water-tight R.C.C. slabs, the place can be utilised for other purposes too.
10. This can be constructed even in those places where sub-soil water level is high.
11. It can be constructed on the upper floor also.
12. It is free from all health hazards, and it never contaminates or pollutes surface water or surface soil, or ground water or ground soil, or tubewell water or well water in any way whatsoever. "In homogeneous soil the chance of ground water pollution is virtually nil, if the bottom of the pit is more than 5 ft. above the ground water table" (vide "Excreta Disposal for Rural Areas" by Wagner and Lanoix, Page-32).

Although the distance between the water source and Sulabh Shauchalaya largely depends on the condition of the soil, the safest distance between the source of water and the Sulabh Shauchalaya in homogeneous soil, black cotton soil and sandy soil should be at least 20 ft.

The following extract from the special report filed by Dr. T.R. Bhaskaran and Sampathkumaran published by the Indian Council of Medical Research will clarify the point :

"If the soil at the bottom of the pit is composed of clay or sand with effective size 2 mm. or less, and the velocity of flow of ground water is



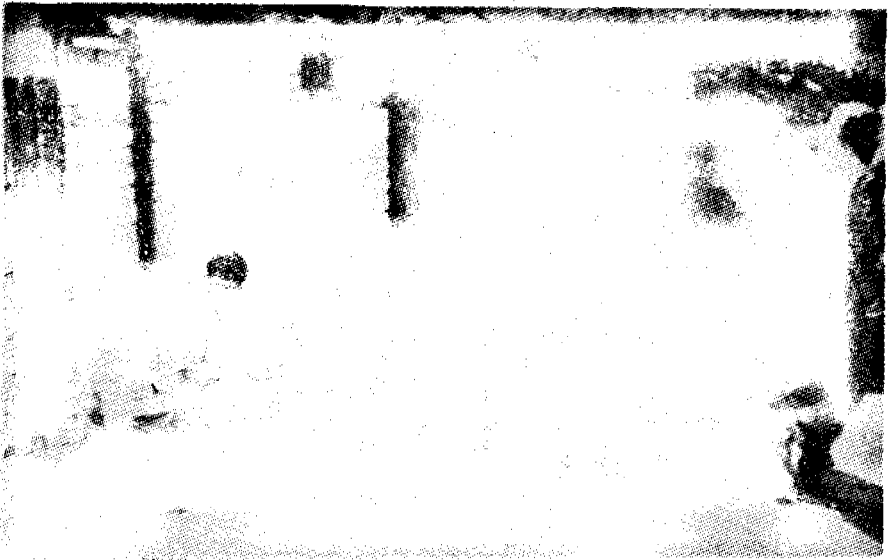
Sulabh Shauchalaya pit just at the door step.



Sulabh Shauchalaya tanks in the verandah of a house.



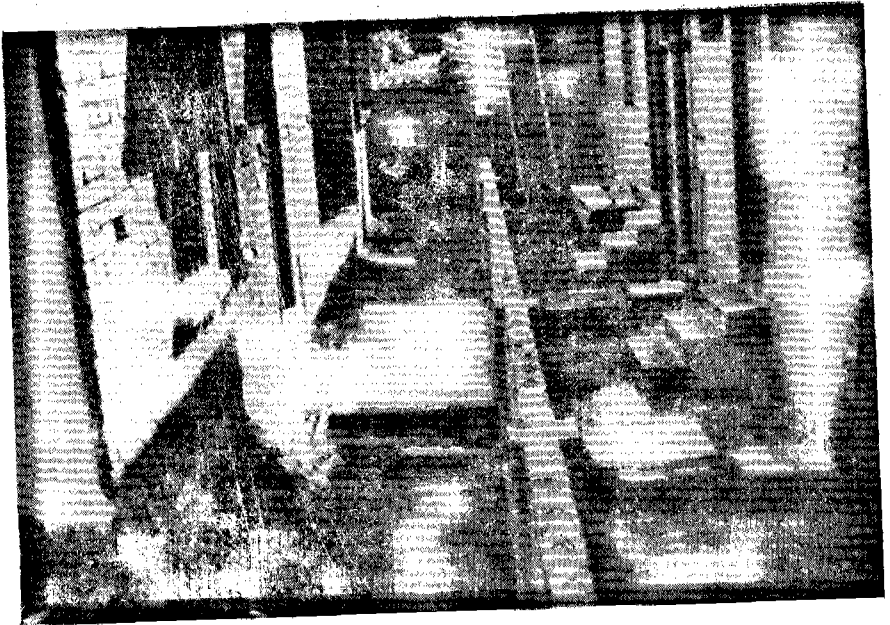
Sulabh Shauchalaya in a kitchen.



A woman and her grandson sitting on a cot on the cover of the pit.



Sulabh Shauchalaya in a Jhuggi



Sulabh Shauchalaya in clayey soil.



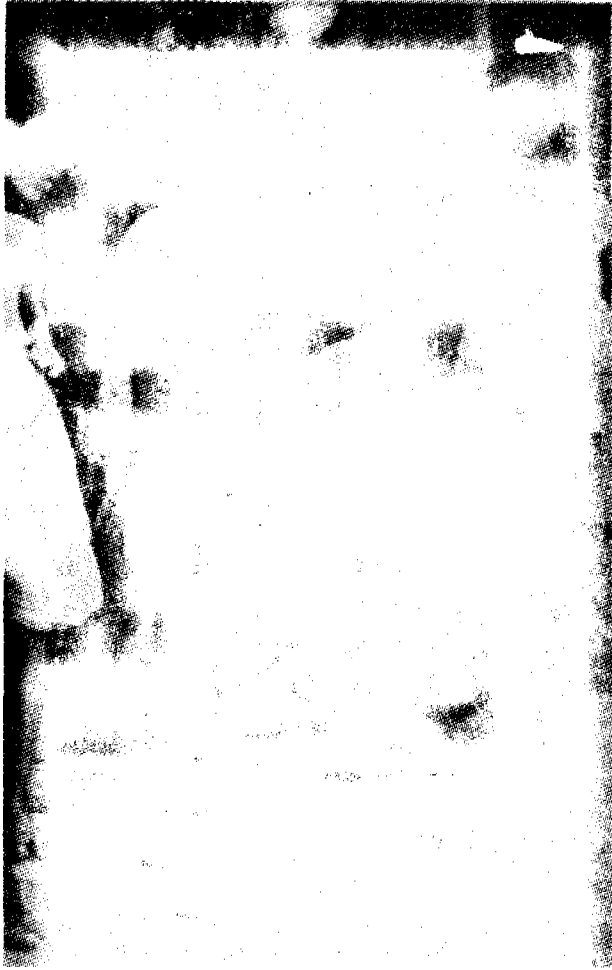
Mr. G. H. Read of the U.N.D.P., World Bank, taking out manure from a Sulabh Shauchalaya pit in Patna.



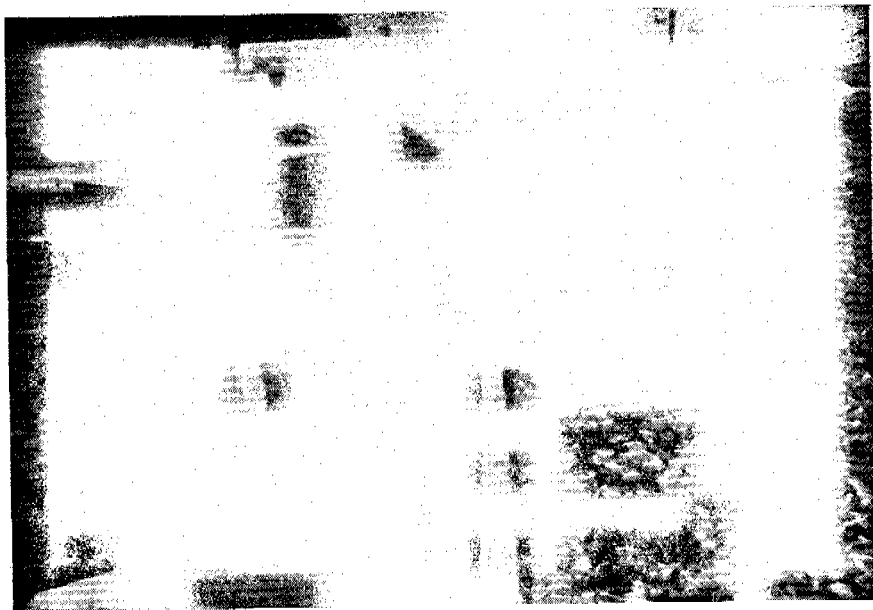
A woman seen cleaning fish on the cover of the tank.



A woman cooking food on the tank cover.



A woman feeding her child on the slab of the tank.



Sulabh Shauchalaya in an area where water level is high and which is covered with water hyacinth.



Sulabh Shauchalaya on the first floor of a building.



A row of pits in the Punjabi Colony of Patna

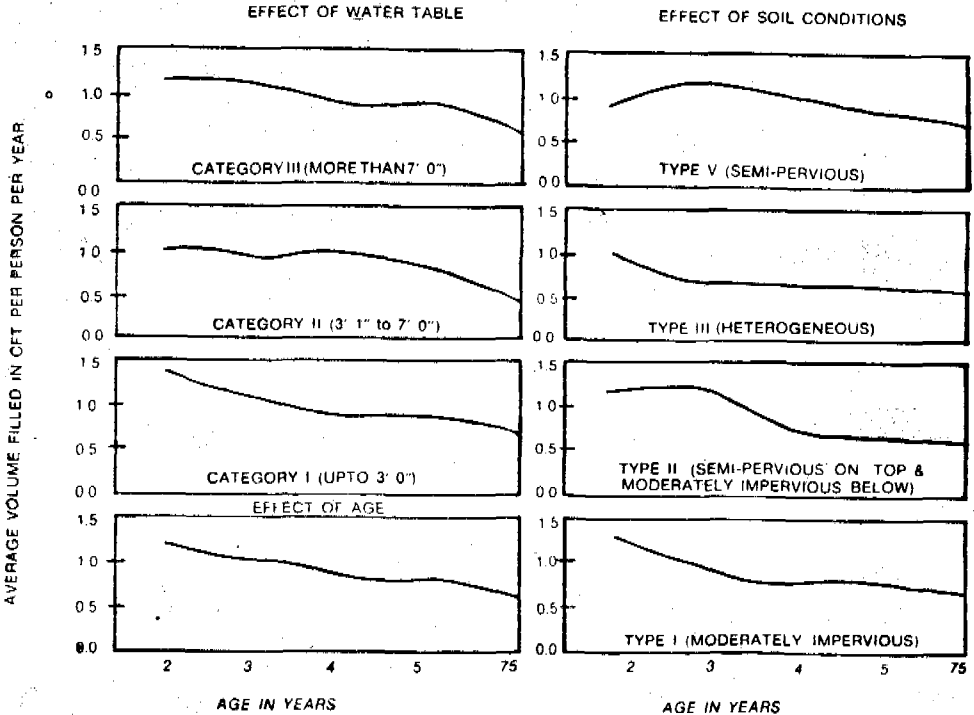
up to 3 feet per day, the latrine can be placed even as close as 20 feet from the well. If the soil is coarser than 0.2 mm. effective size but less than 0.3 mm. effective size, the latrine should be placed 50 feet away from the well. In areas where the soil composition is coarser than 0.3 mm. effective size, and the sub-soil velocity greater than 3 feet per day, a careful study of the conditions must be made in deciding the distance between the latrine and the well. In such extreme cases, 1 to 2 feet envelop of fine sand of effective size 0.2 mm. can be placed all round the latrine pit and at the bottom to protect the ground water from pollution flow from the latrine."

Where drinking water is supplied through pipe lines, the question of contamination of water would not arise at all. In my opinion, faulty construction is more responsible for the contamination of water supply. I would recall the story of contamination of water supply in Janakpuri in Delhi. In Janakpuri, the water pipe lines have crossed the sewer lines and the water got contaminated, the people began to suffer from jaundice and the whole water reservoir had to be cleaned mechanically and chlorinated. In the same way, some parts of south Patna suffered from the disease in 1967. It was then detected that the pipe lines of water supply and sewer system were going side by side. Hence we come to the conclusion that if Sulabh Shauchalaya is constructed with the precaution noted above, there cannot be any chance of water pollution.

FILLING OF PITS

In view of the vast programme ahead, we have started a critical review of Sulabh Shauchalayas already constructed by the "Sulabh International" at various places. The present study on the filling of pits is one of the important aspects which will help further development of the activities of this organisation in different areas. A reconnaissance survey has been conducted in 11 selected towns of Bihar to find out the depth upto which the leaching pits have been filled up in different soil conditions and under varying depths of sub-soil water table.

VARIATIONS IN THE RATE OF FILLING OF PITS IN SULABH SHAUCHALAYA



Some of the main findings of the study at this stage are noted below and shown in the enclosed diagram :

- (1) The rate of filling of pits decreases per year with their age. The average rate was 1.214 cft. which decreased to 1.03 cft. after using the pits for 3 years. The rate further decreased to 0.854 cft. after 4 years and 0.829 cft. after 5 years and finally it came down to 0.644 cft. for pits which have been functioning efficiently for more than 5 years.
- (2) On an average, one pit has been found to be used by 4 to 9 persons of the family. It is interesting to find that with increase in the number of users, the rate of filling has a tendency to decrease.
- (3) The type of soil has a significant effect on the rate of filling. In clayey soils which are of semi-impervious nature, the percolation of water through the walls and bottom of pits provided with Sulabh Shauchalayas is restricted resulting in accumulation of sludge in the pit at the initial stages. The volume filled per person per year, therefore, shows higher values in such areas. But with passage of time the soil gets saturated with water and due to its structural improvements on account of grannulation in the presence of organic or decaying matter the percolation is facilitated and improved which is depicted by reduction in the rate of filling with passage of time. The behaviour of filling is different in sandy soils having higher infiltration capacity. The depth of filling in the initial stages is low with a tendency to increase after a year or so. After constant use, the sandy soil gets stabilised with deposition of organic matter found in the night-soil resulting in reduction of rate of filling per person per year.
- (4) It appears that the high water-table has got practically no significant effect on the rate of filling considering the overall position in all the 11 centres taken together. However, at some individual places, in high water-table conditions, the rate of filling has been found to be slightly higher than those situated in low water-table zones irrespective of their age and the soil characteristics of the surrounding area. But in these cases as well there is a general trend of fall in the average rate of filling with increase in the age of pit privies.

THE BEGINNING

I have not the slightest hesitation in confessing that I am neither a research scholar nor an expert in environmental sanitation. I am also not a social preacher dedicated to the task of uplift of human society, nor do I claim to be a professional or an inventor. But the conversion of dry latrines into water flush latrines, and freeing human beings from the indignity of carrying night-soil as headload has been a matter of faith for me. I have only tried to give a practical shape to all the researches made so far by experts on the subject. In doing so, I have been able to point out certain practical difficulties which are sometimes inevitable while translating theory into practice. It is for the experts to reconsider their findings and recommendations and suitably amend or improve them in the light of the experience gained by me and scores of other workers associated with our institution.

Perhaps, it would not be out of place to relate how I was put on the hazardous path of a long journey. After getting my Honours Degree in Sociology, I was, like any other frustrated unemployed youth, trying my luck for a job. But the post of a teacher or office assistant did not provide me job satisfaction. Call it an accident or "God's will", I joined the Gandhi Centenary Celebration Committee as a "Pracharak" in 1967.

I took up this job simply because I was assured of a sustenance allowance. My work as a "Pracharak" required extensive trips to remote villages all over Bihar, and I was supposed to propagate the teachings of Mahatma Gandhi. But whenever I organised some meetings, there was lurking contempt on the faces of the people. They had a high regard for all that Mahatma Gandhi preached, but they demanded concrete result-oriented action and not mere sermons. I was soon transferred to the Bhangi-Mukti Cell of the Gandhi Centenary Celebration Committee. And it was here that I was tempted to do some spade work and study various aspects of the sanitation problem and its possible solutions.

During the Gandhi Centenary period (1967-1970) at the instance of India Government (Annexure IV), the Government of Bihar, through

its Local Self Government Department, directed all the local bodies to get all the existing bucket privies converted into hand flush latrines and to connect them either with sewer lines or leaching pits, as a tribute to Mahatma Gandhi. To encourage mass adoption of this programme, the Government of Bihar started giving Rs. 200/- (now Rs. 700/-), 50% subsidy and 50% loan, to the house owners, through the local bodies. The task of propagation, demonstration, training to engineers, overseers, sanitary inspectors, V.L.W.s, masons, etc. and extension of this programme was entrusted to the Bihar State Gandhi Centenary Committee (a very august body whose general body's president was the ex-officio Governor and the Chairman of the Executive Committee was the ex-officio Chief Minister).

The Government of Bihar used to give grants to the Bihar State Gandhi Centenary Committee every year for making the scheme a success, and the Bihar Gandhi Centenary Committee somehow kept the programme going; but there was no visible impact on the people and the Government.

I had learnt the hard way that the people wanted result-oriented work and not preaching. I suggested to the Bhangi-Mukti Cell to undertake actual conversions. This was, however, opposed on the ground that taking up of actual conversions would be beyond the scope of the cell. But I felt strongly about the desirability of taking up practical work to some extent. Such opposite views brought about parting of ways. I resigned from the Bhangi-Mukti Cell. In due course, I designed a latrine which is now popularly known as Sulabh Shauchalaya. This functions as a flush latrine with or without being connected to the sewerage system.

In 1970, the then Minister of Local Self-Government, Mr. Shatrughan Sharan Singh, advised me to form a voluntary social organisation for the execution of the scheme as it was not possible for a Government agency to accomplish it.

A few like-minded friends joined me in setting up a voluntary organisation called the Sulabh Shauchalaya Sansthan (now Sulabh International). It was registered under the Societies Registration Act (Act

XXI of 1860) as a voluntary social organisation in 1970.

As founder-Secretary of this institution, I moved from municipality to municipality and from one Government department to another in Bihar in search of officials who might appreciate the aims and objects of the society. But political instability and apathetic attitude frustrated all my efforts.

In 1972, I met Mr. R. Nath, I.A.S., the then Secretary of the Local Self Government Department of Bihar. He lent a responsive ear to my scheme and remarked. "I will just now pass orders for government grants for the next 20 years". But he hastened to ask, "What will happen in the 21st year"? His advice was to make the scheme economically viable, so that it could be carried on without dependence upon government grants. This advice changed our thinking. The chase for government grants ended and the Sansthan decided to undertake the task voluntarily on a no-profit-no-loss basis.

The Bihar Gandhi Centenary Committee was wound up in the year 1970 and there was no voluntary agency to implement the scheme. But the Government of Bihar continued to give financial assistance to the local bodies from 1967 to 1974. The implementation of the scheme was left to the municipalities. From 1967 to 1974 a sum of about Rs. 34 lakhs was allotted to the local bodies, but the results were not visible. Almost all the money was diverted or misused.

GROWTH

In September 1973, Mr. R.K. Mishra, the then Municipal Officer of Arrah, showed some interest in our design. The Sansthan put up two model latrines in the compound of the municipal office. Some people started visiting the municipal office. The first person who agreed to get his dry latrine converted into Sulabh Shauchalaya was an advocate, Mr. Suresh Singh, who was also a Municipal Councillor. This modest beginning created an awareness among the people about the need for such conversions.

The Government of Bihar went on allotting the amount to the local bodies for the conversion of service latrines, but there was no visible progress. Being disgusted with this state of affairs the then Congress M.L.A., Mr. Bhagdeo Singh 'Yogi', wrote a letter to the Prime Minister, Mrs. Indira Gandhi, and requested her to pay her personal attention to this matter, so that the funds could be utilised properly and the sub-human system of carrying night-soil on head could be done away with.

Within 10 days Mrs. Gandhi replied to the letter of Mr. Bhagdeo Singh "Yogi" and directed the then Chief Minister of Bihar, Mr. Kedar Pandey, to take personal interest in this matter. Mr. Kedar Pandey immediately directed the then Minister of Urban Development, Dr. Ram Raj Singh, to find out some ways for the proper utilisation of the funds and to achieve the target of 'Bhanghi Mukti' (liberation of scavengers) who, in turn, directed the department to take concrete steps for the implementation of the scheme with the assistance of the Sulabh Shauchalaya Sansthan.

The Urban Development Department was in a fix how to utilise the services of the Sansthan and remained undecided for a year. But after a year, Mr. Bishram Prasad, I.A.S., the then Special Secretary, Urban Development, and Mr. Shrimohan Mishra 'Madhup', Sectional Officer, came to the rescue of this scheme. They formulated the methodology for the implementation of this scheme with the help of the Sulabh Shauchalaya Sansthan which was dittoed by the then Secretary of Urban Development, Mr. I.C. Kumar, I.A.S. and the Minister in-



PRIME MINISTER

No. 234-PMO/73.

New Delhi,
April 5, 1973.

Dear Shri Singh,

I have your letter of the 17th March and am concerned to read that the State Government have not been able to utilise the Fourth Plan provision for Schemes designed to eliminate the odious practice of carrying night-soil on the head.

I am writing to the Chief Minister and asking him to give personal attention to this matter. I entirely agree with you that our Party should be active in this important social programme.

Yours sincerely,

Indira Gandhi
(Indira Gandhi)

Shri Bhagdeo Singh 'Yogi',
Member, Legislative Assembly,
21, Orthodox Chamber,
R Block, Patna-1.

Charge, Dr. Ram Raj Singh. The methodology became so successful that this scheme of conversion of service latrines into Sulabh Shauchalayas received a boost. This methodology has been thrice scanned by the same department, but finally it has agreed to keep up this methodology.

In 1974, the Government of Bihar recognised the Sulabh Shauchalaya Sansthan as a catalytic agency between the Government, local bodies and the house owners for the conversion of bucket privies into Sulabh Shauchalayas (Annexure V). Luckily, Mr. Rajdeo Narayan Singh, I.A.S., who had deep conviction about the utility of the scheme, joined as Administrator of Patna Municipal Corporation and gave all help to this programme.

Dr. Jagannath Mishra, Chief Minister of Bihar, ordered conversion of all the existing service latrines into Sulabh Shauchalayas and make Bihar 'Bhangi Mukti'. He said paucity of funds would not stand in the way. During his first tenure as Chief Minister the scheme gathered momentum and it made a great impact on the people of the State.

When Mr. Karpoori Thakur became the Chief Minister, Mr. Kailashpati Mishra, Finance Minister and Mrs. Sumitra Devi, Urban Development Minister, they decided to make Bihar 'Bhangi Mukti' within three years.

Ranchi has the unique distinction of being the first town to do away with service latrines and become 'Bhangi Mukti' due to the sincere efforts of Mr. G.D. Pandey, the then Special Officer of the Ranchi Municipality.

The present Chief Minister of Bihar, Dr. Jagannath Mishra, the Minister for Urban Development and Public Health Engineering, Mr. Ramesh Jha and Mr. C.M. Jha, I.A.S., Commissioner, Urban Development and P.H.E.D., are of the opinion that this sub-human system of carrying night-soil on head should be done away with within two years. The Government is perhaps going to take the decision in this regard shortly.

ORDINANCE

The Bihar Government passed an ordinance in 1970 amending the Bihar and Orissa Municipal Act, whereby a blanket ban was imposed on construction of new dry latrines.

The new law also made continuance of dry latrines a cognizable offence punishable with both fine and imprisonment, vide new Section 220A (Annexure VI). After this a sense of urgency was generated among the people to get their dry latrines converted into water flush latrines. Local bodies also geared up their machinery to meet the new situation. Some municipalities also put a blanket ban on new house constructions unless a provision for water flush latrines was made.

IMPLEMENTATION METHODOLOGY

Under the procedure followed by the Sansthan in Bihar, the local bodies give a grant of Rs. 350/- and a loan of Rs. 350/- to any house holder who intends to get his dry latrines converted into Sulabh Shauchalayas (Annexure VII). The earlier procedure for obtaining the loan was rather lengthy. Our Sansthan intervened between the house holders and the municipalities and took charge of processing each loan application. Our volunteers go from door to door persuading people to get their dry latrines converted. The house holder fills up a set of forms, including applications, for both grant and loan and he authorises the Sansthan to receive the amount on his behalf (Annexure VIII). The Sansthan deposits the filled up forms in the respective municipal offices and, after proper scrutiny, the amount is sanctioned by the local bodies (Annexure IX and IX A) to the Sansthan on behalf of the house owners for carrying out the conversion work.

The Sansthan gives a notice to the house owner before construction work starts (Annexure X). The house owner is required to keep a watch on the construction materials used by the workers and after the work is finished, he is required to fill a form confirming both the date of completion of the work and stating whether he is satisfied with the work or not (Annexure XI).

After completion of the work the Sansthan issues a guarantee card

(Annexure XII) to every house-holder. This ensures free repairs, if any required, during the next five years, and the Sansthan thereby ensures trouble-free functioning of the Sulabh Shauchalaya. A sample checking of completed projects is undertaken periodically by senior workers of the Sansthan as a follow-up action. A separate cell functions under my direct supervision for this purpose and also for looking into suggestions and complaints by house-holders. When a house owner files a complaint, we issue a receipt to him immediately stating that the defects will be rectified within seven days. If this is not done, he should forthwith contact the Sansthan (Annexure XIII). After a lapse of five years door to door survey is done and a notice (Annexure XIV) is given to the house owner to report on its functioning. The defects, if found, are rectified free of cost.

The Sansthan also provides free service for cleaning of pits for the first time. Further cleanings can be done by house owners themselves, or if they require our services, they are to pay Rs. 25/- as cleaning charge. This amount can be recovered by selling the fertilizer.

The Sansthan undertakes the work on behalf of house-holders at a margin of 10 per cent. This amount is utilised in paying the honorarium of staff and for research and developmental activities of the Sansthan.

DEVELOPMENT

Till March 1980, we have converted 28,378 bucket privies into Sulabh Shauchalayas in various parts of Bihar with different soil conditions (Annexure XV). 10,000 more are likely to be converted before the close of the financial year 1980-81. Our work has succeeded in places like Patna and Bhojpur in the Gangetic plain, where the under-ground water level is close to the surface. Sulabh Shauchalayas are also working successfully in the rocky and semi-hilly areas of Ranchi, Hazaribagh and Dhanbad, as also in the Terai areas of Nepal and in the Kosi belt, where the soil is sandy.

In Patna and Ranchi about 700 scavengers have been relieved from this bestial occupation. Those freed have been engaged in sweeping roads and cleaning drains, etc. A massive training programme is going to be launched to give training and employment to the sons and daughters of the relieved scavengers.



Female scavengers of Ranchi emancipated from the hated practice of carrying night-soil on head.

WEST BENGAL

Calcutta is a metropolitan city with a total population of about nine millions. This city has a long and legendary history of growth and development. Although the city has expanded in all directions and is still in that process and the agencies connected with civic affairs have tried, in their own ways, for its development, yet it lacks proper public conveniences. Moreover, even after 33 years of independence and changes in the character of the city, the sub-human and unhygienic system of carrying night-soil on head still continues in some parts of the city. There are about 1,60,000 service privies in the Calcutta Metropolitan District which require replacement with sanitary latrines.

To provide facilities for proper defecation, bath etc., to the common man and to do away with the sub-human and unhygienic system of carrying night-soil on head, two programmes have been launched within the Calcutta Metropolitan District jointly by the Calcutta Metropolitan Development Authority (CMDA) and the Sulabh International. Though the programmes are being taken up now, the Statesman, a national daily, had drawn the attention of the concerned authorities as far back as 1976 in its issue of 23rd May.

The paper wrote: "About 1,40,500 people have been prosecuted on the charge of committing nuisance in public since the beginning of the campaign by the Calcutta Police in February 1974 to stop this practice. The Police Commissioner, Mr. Sunil Chaudhury, said on Friday that the problem could not be solved by prosecution alone. He reiterated his appeal to the Calcutta Corporation to construct more public toilets and to keep the existing ones clean. He felt that people would stop committing nuisance in the open if adequate number of public toilets were maintained in the city."

Firstly, it has been decided to put up public conveniences, i.e., toilets, baths and urinals in different parts of the city. Although in the past also public conveniences were made available to the public they did not serve the desired purpose due to lack of proper upkeep and maintenance. But now these conveniences will be maintained by the Sulabh International on Patna pattern. Neither the CMDA nor the Government will have to bear the cost of maintenance.

For the implementation of these two schemes in the Calcutta city the credit goes to Mr. Prasanta Sur, Minister for Local Government and Urban Development Department, Government of West Bengal, who sent Mr. M.K. Moitra, I.A.S., Secretary, Mr. M.S. Moitra, Director General (Operation), Mr. S.C. Basu, Director, Public Relations, Mr. S. Samajdar, Director in-Charge and Mr. D.K. Roy, Deputy Director, Bustee Improvement and Municipal Anchal Development, to Patna to make an on the spot study and see the viability of its implementation in CMDA areas including the Calcutta Corporation. They made an in-depth study of the scheme and found it to be a welfare and viable scheme with certain modifications in the original design which has proved a boon for our guidance also. The report of the officials was accepted by the CMDA and the above two programmes are under execution.

For the adoption of the scheme of conversion of service latrines into Sulabh Shauchalayas, initially the officials of the Calcutta Corporation were a bit hesitant on two points, viz. the functioning of Sulabh Shauchalayas in low lying areas where the sub-soil water is close to the surface and about the contamination of water supply.

A team of engineers and Health officials comprising of Dr. G.C. Das, Health Officer, Group Captain A.K. Chakraborty, Chief Engineer (Motor Vehicles), Mr P.K. Banerjee Choudhury, Director of Conservancy, all from Calcutta Corporation and Messrs A.K. Motilal, P.R.L.O., D.K. Banerjee and S. Bhattacharjee, Executive Engineers, K.R. Bhattacharjee and N.C. Ghosh, Assistant Engineers of CMDA came to Patna and saw with their own eyes the Sulabh Shauchalayas functioning very well in low lying areas where sub-soil water is very high. They also analysed the reports available with us and discussed the issue threadbare with me and finally came to the conclusion that if latrines are constructed at a safe distance from the water source, there will not be any chance of contamination of water supply. We are now converting service latrines into Sulabh Shauchalayas within the jurisdiction of the Calcutta Corporation.

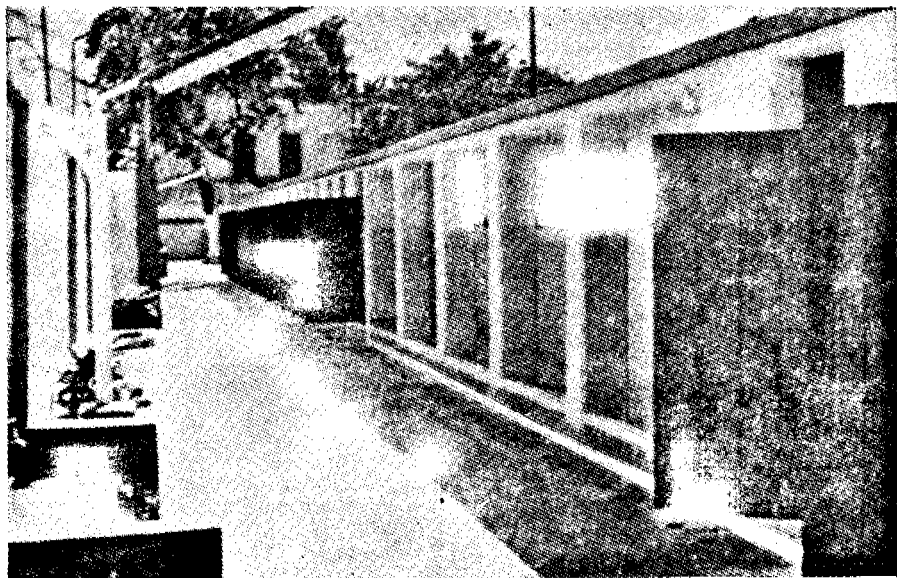
A third team from CMDA led by Mr. J.P. Sengupta, Additional Director, Finance, came to Patna to study the operational and finan-

cial aspects of the scheme. Messrs B.K. Sengupta, Deputy Director (Co-ord), T.K. Choudhury, Deputy Director, M.I.C. and S. Pal, M.I.C. also were in the team. After an inspection of private and community Sulabh Shauchalayas they came to the conclusion that these two programmes were within the reach of the CMDA and could go a long way in solving the sanitation problems within the jurisdiction of the Calcutta Metropolitan District including the Calcutta Corporation.

It has now been decided to put up these conveniences at several places in Calcutta, out of which at one place near Shyam Bazar (Ladies Desh Bandhu Park) a 60-seat public latrine and bath complex is in use. It was inaugurated by Mr. Prasanta Sur, Minister for Local Government and Urban Development, on 6th November '80 and within a short period about 1,000 people are using this convenience daily and at two sites near Rabindra Sarobar the work is nearing completion. The programme will be extended to other parts of the city and also to 34 municipalities under the CMDA. For the implementation of this project, finance has been provided by the CMDA and land by the Calcutta Corporation, Calcutta Improvement Trust, Howrah Improvement Trust etc. For the construction of public conveniences



A view of public urinals at Shyam Bazar in Calcutta.



A view of public conveniences constructed near Shyam Bazar in Calcutta.



A view of the Sulabh Shauchalaya complex near Rabindra Sarobar in Calcutta

the Sulabh International takes 80% of the estimated cost as advance and 20% after completion of the work (Annexure XVI). For the up-keep and maintenance of the above public conveniences the CMDA and the Sulabh International have entered into an agreement for thirty years (Annexure XVII).

Moreover, it has been decided to convert all the service privies into sanitary latrines within five years. There are about 1.60 lakh service privies under the jurisdiction of the CMDA including the Calcutta Corporation. For the speedy implementation of the scheme the CMDA has recognised the Sulabh International as a catalytic agency between the CMDA, municipalities and the house owners (Annexure XVIII & XIX) and the conversion of service latrines into Sulabh Shauchalayas has been started in CMDA's jurisdiction.

Women have also been given employment in the Sulabh International. They have been trained in house-to-house survey, conversion work and the collection of money at public conveniences.



Workers of Sulabh International under training in Calcutta

Mr. P.K. Das Gupta, Deputy Secretary and Mr. A.K. Bhunia, Executive Engineer, L.G. and Urban Development, Government of West Bengal, came to Patna to make an on the spot study and to see whether this could be applicable to other municipalities. The L.G. and Urban Development Department, Government of West Bengal, is actively considering adoption of the conversion programme in 105 municipalities which are under the jurisdiction of the Government.

OTHER STATES

Mr. B.N. Aiyer, I.A.S., Housing Department, Government of Andhra Pradesh, Dr. H.W. Butt, Director, Indo-Dutch Project, Hyderabad, Mr. E.N. Ketkar, Resident Programme Officer, Mr. Daniel J. Dell, Assistant Programme Officer, Dr. Surya Rao, Consultant and Mr. Naidu from UNICEF, Hyderabad, had visited and seen the functioning of Sulabh Shauchalayas in Patna. With the financial assistance of the UNICEF and the Indo-Dutch Project, community latrines in two schools in rural areas near Hyderabad city have been constructed and are functioning very well.

The engineers and Health officials of Vijayawada Municipality visited Patna to see the scheme of conversion and construction of private and public Sulabh Shauchalayas. The Vijayawada Municipality is taking a keen interest in this programme of conversion. So far 250 service latrines have been converted into Sulabh Shauchalayas and the work is in progress..

The programme of conversion of service latrines into Sulabh Shauchalayas and construction of community latrines have been taken up in a big way in Vishakhapatnam. About 7,000 service latrines will be converted into Sulabh Shauchalayas and a chain of public latrines will be constructed and maintained on the Patna pattern. 200 Sulabh Shauchalayas have been constructed in the houses of weaker sections.

HARYANA

The first man to come to Patna from outside Bihar to see the working of Sulabh Shauchalayas was Mr. N.R. Agarwal, Administrator, Bhiwani Municipality, Haryana. He and his engineers were so much impressed that they immediately entrusted us with construction of community latrines in Bhiwani. Mr. R.S. Verma, I.A.S., the then Deputy Commissioner of Bhiwani, helped us by immediately ordering the municipality to give us 80% advance to complete the work at the earliest.

MADHYA PRADESH

The ex-Mayor of Jabbalpur Corporation and President of Madhya Pradesh Congress (I), Mr. Sharma and Mr. V.K. Banerjee, Commissioner, Jabbalpur Corporation, took pains to go to Calcutta when they did not find me in Patna. They themselves saw the scheme in operation and now construction of community latrines, baths and urinals has been started in a big way at Jabbalpur. The present Mayor is also extending all help to get the scheme implemented.

ORISSA

The scheme of conversion of service latrines into Sulabh Shauchalayas and construction of community latrines, baths etc., have been started in Orissa. At present, work has been taken up in 4 municipalities, viz. Cuttack, Bhubaneshwar, Sambalpur and Puri. The Cuttack Municipality has taken the lead and the work is going on in full swing there. Credit goes to Mr. P.K. Hota, I.A.S., Collector and Chairman of the Cuttack Municipality and Mr. Daniel J. O'Dell of UNICEF, Hyderabad, who have spared no pains to get all the hurdles in the way of its implementation removed and also in obtaining grants from the Government. Mr. S. Mishra, I.A.S., Secretary, Urban Development, Government of Orissa, visited community latrines and baths constructed in Calcutta near Shyam Bazar. He was very much impressed to see the construction and maintenance. He quipped "Will you construct and maintain public latrines and baths in Orissa in the same way as in Calcutta?"

A team of engineers and Health officials from Cuttack Municipality who came to Patna made a spot study of the scheme.

UTTAR PRADESH

We have started construction of Sulabh Shauchalayas in rural areas of Uttar Pradesh. We have constructed Sulabh Shauchalayas in about 15 schools of Mal Block and also in some private houses. The programme is on. Now the Government has decided to get constructed Sulabh Shauchalayas, baths and urinals in all the KAWAL

towns. Service latrines will also be converted into Sulabh Shau-
chalayas.

Fuller reports from different States are yet to come.

SRI LANKA

An 11-member team from Sri Lanka visited Patna and Ranchi and made an in-depth study of the scheme during 1979. Sri Lanka has since started the conversion of bucket privies into Sulabh Shauchalayas. In Colombo Municipality, 800 service latrines have already been converted into Sulabh Shauchalayas. Similar work has also been started by the Candy Municipal Council. Again a team of 8 members from Sri Lanka visited Patna in November 1980 and was highly impressed with the functioning of Sulabh Shauchalayas in private houses and public places.

U.N.D.P. & W.H.O.

The designs of Sulabh Shauchalayas with certain modifications have been adopted by the United Nations Development Programme (whose executing agency is the World Bank) for 19 countries of Asia, Africa and Latin America including India. The credit goes to Mr. A.K. Roy, Resident Manager, TAG, U.N.D.P., South Asia, for putting this programme on the map of the world.

Experts from the WHO have made an *in-depth* study of our scheme and its methodology during 1978-79. Some of them had suggested that the cost of construction of Sulabh Shauchalayas could be slightly reduced if one pit instead of two was provided. We, however, insist on provision of two tanks right at the beginning for avoiding inconvenience to the users when the first pit gets filled up. The two-pit system has been found to be readily acceptable to the people for this reason.

SEMINARS

Seeing the success of the Sulabh Shauchalaya programme and also our maintenance of community latrines, baths and urinals in Bihar, a seminar was organised under the joint auspices of the WHO, the UNICEF and the Ministry of Works & Housing, Government of India, in Patna in May, 1978. The representatives of the Planning Commission, World Bank, WHO, UNICEF, All India Institute of Health & Hygiene, Calcutta, Environmental Engineering Research Institute, Nagpur, Directorate General of Health Services (Intelligence), Government of India and all State Governments participated (Annexure XX). The seminar recommended that the water-seal latrines and community latrines as set up in Patna could be adopted anywhere, with minor variations wherever required. The cost of the latrines and the infrastructure of the agency to be engaged in the actual implementation should be determined according to local conditions.

A national workshop on low cost sanitary latrine was also organised by the Sri Lanka Government in January 1980. I attended the seminar

as a resource person at the invitation of the Government of Sri Lanka and the UNICEF.

For considering this subject, an international seminar was organised in February 1980 in Calcutta by the Institution of Engineers (India), with the assistance of the UNICEF and the UNDP. Representatives from more than 21 countries participated in this seminar. I had the privilege to attend this seminar as a special invitee. The consensus at the seminar was that the low cost water-seal sanitary latrine alone could replace service privies, specially in the under-developed and developing countries. About 100 participants, both Indian and foreign, came to Patna on a field visit to see the functioning of Sulabh Shauchalayas in private houses and public places (Annexure XXI).

PUBLIC CONVENIENCES

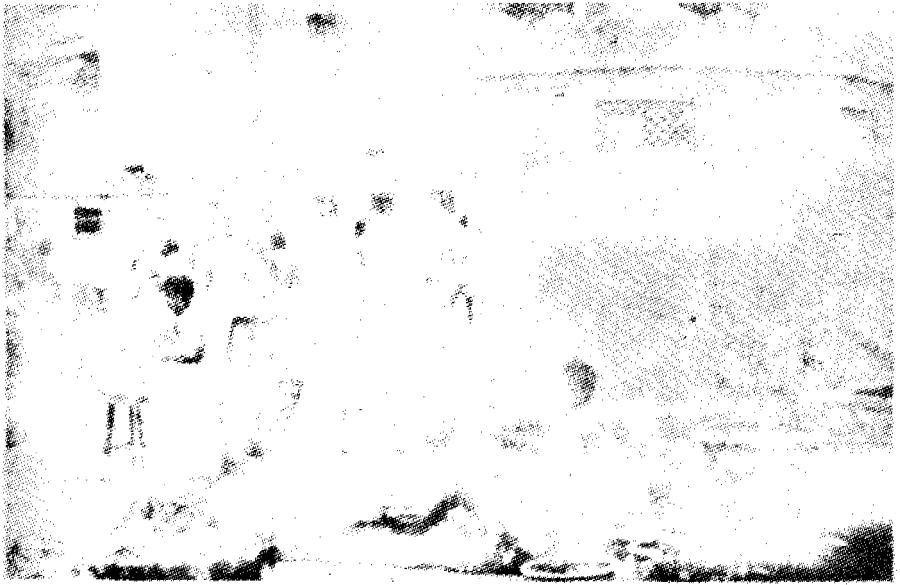
The history of public baths is about 5000 years old. At Mohenjo-Daro in the Indus River Valley of Pakistan, archaeologists have discovered remnants of a public bath nearly 1000 sq. feet (93 sq. m) in area

Public baths reached their acme of development under the Romans, from about the Second Century BC onwards. As with the Greeks, the baths became meeting places for the society. Till the later Middle Ages, baths in general were little known, although there were some public baths in Spain during this time. But it was only after an outbreak of cholera in London in 1832 that the British authorities began a campaign for building public baths and wash houses. In India, after 1940, public latrines were constructed sparsely in different towns and all became useless due to lack of maintenance.

1974 was a landmark in the history of public conveniences in India when public baths and urinals were constructed in Patna and Ranchi (Bihar). The land and finances were made available by these two local bodies. These conveniences were constructed and are being maintained by the Sulabh Shauchalaya Sansthan (now Sulabh International). The scheme has since been extended to eight other big towns of Bihar.

The Sansthan constructs and maintains public latrines, baths and urinals on behalf of local bodies of other States also. The necessity for proper maintenance of public latrines can hardly be emphasised. It is often noticed that even where such public conveniences are available, people do not make use of them because they are not properly maintained. The Police Commissioner of Calcutta prosecuted 1,40,000 persons in one year for committing nuisance in public places. But this did not touch even the fringe of the problem. The answer to the problem lies in providing adequate facilities for easing.

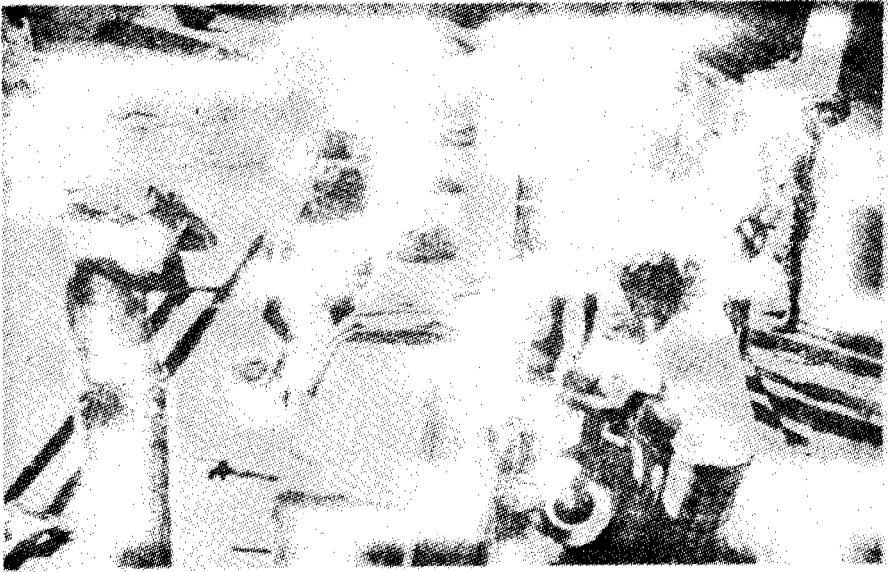
A 24-seat public latrine was first constructed in Patna near the Reserve Bank, south of Gandhi Maidan, at the initiative of the Reserve Bank officials and the then Chief Secretary of Bihar, Mr. Sharan



Sulabh Shauchalaya complex at Rajendra Nagar, Patna.



Sulabh Shauchalayas at the Bus Stand near Patna Junction.



Bathing scene at a Sulabh International bath complex.



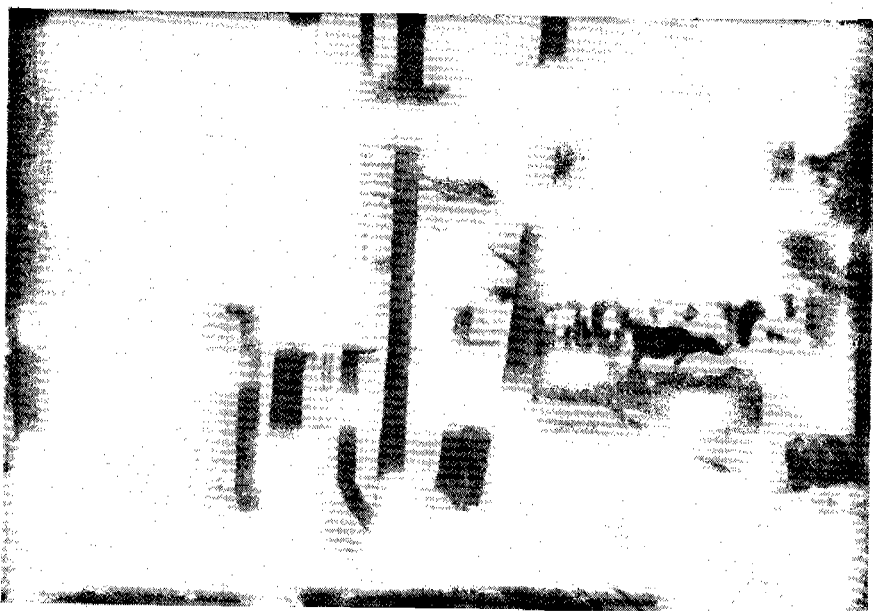
View of a Sulabh Shauchalaya complex during rush hours.



Equal facilities for women too. In the picture above, a group of women along with a child are going to avail of the toilet facilities.



Sulabh Shauchalaya complex in the Patna Medical College Hospital compound.



Sulabh Shauchalaya complex in a slum area of Patna.



Sulabh Shauchalayas in an area where water is supplied through hand pumps.



Sulabh Shauchalayas in the compound of Patna Railway Junction.

Singh, I.A.S. This was previously perhaps the dirtiest place in the town, as hundreds of people used it as an open lavatory. At present, there is a 48-seat public lavatory at this place, maintained by the Sulabh International, whose head office is also located in the same campus, because the surrounding is maintained very neat and clean. This is unique in the sense that you could have seen latrines in offices. But perhaps you would not have seen office in a latrine complex. Such public latrines are now maintained by us in Patna at 35 places with a total number of 551 seats. In addition, there are 52 urinals and 313 baths (Annexure XXII). The conveniences are located near railway stations, bus stops, markets, hospitals, offices and other busy places frequented by the floating population. For the residents of the city, pavement dwellers, rickshaw pullers and the weaker sections of society and commuters, these public latrines and baths are a real boon. These public conveniences provide 24-hour service. Caretakers are posted to ensure all-round cleanliness and also to provide soap powder to the users of toilets. Users are required to pay 10 paise for maintenance expenditure. We do not allow earth to be used for cleaning hands.



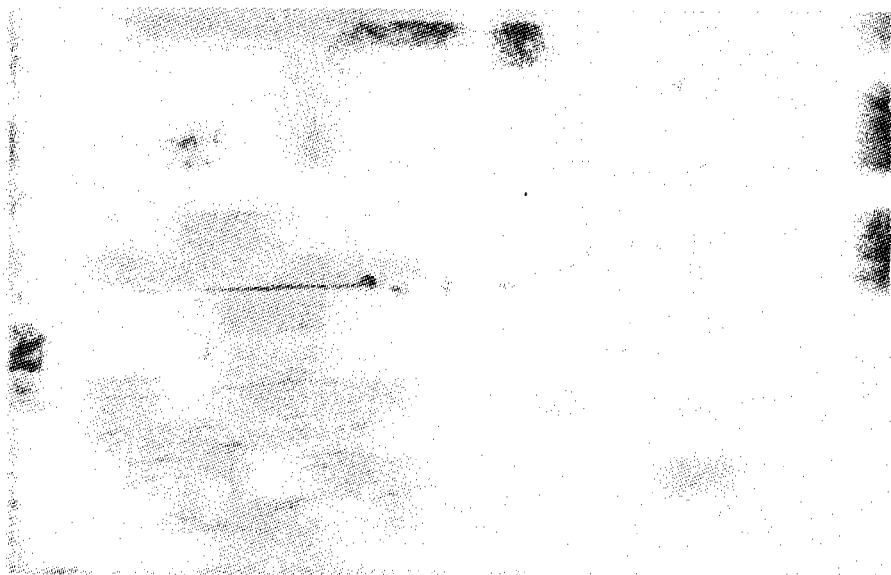
Public conveniences also generate additional employment. At every public convenience one or more persons are found selling tooth cleaners.

About 50,000 persons daily use these sets of public latrines and baths in Patna. Such public latrines are equally popular at other places too. Children and beggars are exempted from payment.

The amount received from such collections is spent on maintenance of structures, meeting the cost of bleaching powder, phenyle, soap powder, cans, brooms, other sundry items and for payment of honorarium to the workers. The local body has not to spend any amount on repairs or maintenance of these latrines.

Recently we have put up community latrines, baths and urinals at two places in the compound of Patna junction, each consisting of 10 seats of latrines and six seats of baths, with the collaboration of the Eastern Railway. These latrines were opened by Mr. Ramesh Jha, Minister, Urban Development and P.H.E.D. These conveniences are now being used by more than 3,000 persons daily.

The Central Public Health Environmental Engineering Organisation, Ministry of Works & Housing, Government of India, has taken up this scheme in a big way. It has directed all the States to convert the existing dry latrines into water-seal latrines, specially in medium and small towns. Adequate provision of funds has been made in the Sixth Plan for this purpose.



Some of the public conveniences were flooded during the 1975 flood. But no damage was done to these public conveniences. After the water receded they started functioning as nicely as before.

UNICEF & I.S.S.

Credit goes to Dr. William J. Cousins, Urban Adviser, UNICEF, India, for month-to-month campaigning for the adoption of Sulabh Shauchalaya. The UNICEF is evincing keen interest in the programme of conversion of dry latrines into Sulabh Shauchalayas in Andhra Pradesh, Orissa and Uttar Pradesh as also in neighbouring countries.

Recently, the Institute of Social Studies, New Delhi, led by Dr. (Mrs.) Devaki Jain has taken up this scheme in rural areas. In a report

she has emphasized that both in the urban and rural areas about five lakh people can be given employment at once. Her emphasis is also on involving more and more women in the programme. Mrs. P.P. Trivedi, I.A.S., Adviser (S.P.), Planning Commission, Government of India, is also looking for what best can be done in this regard.

Mr. Bhisma Narayan Singh, Minister for Works, Housing and Parliamentary Affairs, Government of India, is trying hard to achieve the target of water supply and sanitation during the U.N. decade of 1981-1990 throughout the country.

ROLE OF SOCIAL AGENCIES

We are convinced that without the active participation of a social service agency, the scheme of conversion of latrines cannot be executed speedily and successfully. One view is that such a body should confine itself to propaganda and education of people, but the other view is that such an agency should actively participate in the conversion programme. We are convinced that the role of such an agency should be that of an active participant. Mere provision of the appropriate technology will not benefit the class of people we have in mind. We will have to motivate and persuade them to adopt this scheme, but, thereafter, it will also have to be seen that there is follow-up action. And if there are some difficulties, they will have to be removed. These tasks can be performed best by a well-run social voluntary organisation. The voluntary agency should also be economically independent, so that it may devote itself to its work and not run after government grants or depend on other assistance.

LETTERS



Delhi, June 24th

Dear Shri Patrak,

Before leaving India, I wanted to write and thank you for your hospitality and for an extremely interesting and enterprising glimpse of the work of your organization. I wish my visit to Bihar had been longer so that we could also have seen some of your operations in towns outside Patna. However, as the UNDP project develops, I hope I will be able to make another visit and verify my impression in the meantime. I look forward to being closely associated with the evaluation of your work and wish to express my hope to extend these principles to other States.

With my best wishes for the continued success of your valuable service.

Yours sincerely

Richard Middleton

Dr. Zakir Hussain Marg, New Delhi-110003

Cable: INHOTELCOR or OBHOTEL Telex: 2372 and 3829 Tel: 699571

Mr. R. N. Middleton is the Project Manager, U.N.D.P., G.L.O./78/006, World Bank, Washington D.C. who visited Patna on June 24, 1979.

University of Technology

LOUGHBOROUGH LEICESTERSHIRE LE11 3TU Tel: 0509 63171 Telex 14319 Telegrams Technology Loughborough

DEPARTMENT OF CIVIL ENGINEERING

JAP/RMS

WEDC

Water and waste Engineering
for Developing Countries

24 April 1980

Mr Bindeshwar Pathak
Secretary
Sulabh Sauchalaya Sansathan
Patna
Bihar
India

Dear Mr Pathak,

For several years I have been taking a special interest in pit latrines in Asia and Africa. I have seen a great variety of pits and pit-construction programmes, and have heard about others. Of all these the SSS programme in Patna seems to me to be the most successful.

I was in India in the latter part of 1978 and visited Patna. Unfortunately my stay was very short and although I saw (and admired) your public latrines, I was unable to either contact you or see any of your dry latrine conversions. Some time earlier, while I was in Pakistan I saw one of your published papers, but unfortunately have been unable to obtain a copy.

I therefore wonder whether you will kindly send me copies of any papers you have produced dealing with any aspect of your dry latrine conversion and public latrine building programmes. I am interested in construction details, and also in your organization and the remarkable way in which you have obtained the willing cooperation of so many people. As well as knowing about your many successful achievements, I would also be glad to have details of any special difficulties and any 'failures' which you have experienced.

I enclose copies of two of my recent papers dealing with pit latrines, which were presented at Conferences in Nigeria and London. I very much look forward to hearing from you.

With kind regards.

Yours sincerely,



John Pickford
WEDC Group Leader

SIKANDER BAKHT

मंत्री
निर्माण, आवास, पूर्ति और पुनर्वास तथा श्रम
भारत

Minister of
Works, Housing, Supply and
Rehabilitation & Wakfs
India

November 1, 1978.

My dear *Pankaj Kumar*

I write to express my appreciation for the job undertaken by your organization in regard to latrines and baths at Patna and Ranchi. It is really a commendable job which is being done by your voluntary organization. If such projects could be undertaken in other States as well, this will go a long way in keeping the cities clean and hygienic. As mentioned to you at Patna, I shall be grateful if you could forward to me the scheme of Sulabh Shauchalayas (Toilet) Baths, so that this could be extended to other cities also.

With kind regards,

Yours sincerely,

(Signature)
(SIKANDER BAKHT)

Shri .B.Pathak, ~~Secretary~~
Sulabh Shauchalaya (Toilet) Bath,
(Sangathan),
Patna.



**EXPERTS'
OPINION**

**CENTRAL BOARD FOR THE PREVENTION & CONTROL OF
WATER POLLUTION**

E-AFO Mess. Dr. Rajendra Prasad Road,
New Delhi-110001

March 31, 1979

In the backdrop of the fact that almost 57 per cent of the population living in the 142 Class I cities is without any sewerage facilities, only 59 per cent of the total waste-water generated in these Class I cities is collected through sewers, and only 37 per cent of the waste-water generated in these Class I cities receive some form of treatment. The attempt of Sulabh Shauchalaya Sansthan to provide pit privies by converting dry latrines into water seal latrines is laudable.

It is my firm belief that a good many of the Class I cities, let alone the other medium and small towns, will have to mix between sewerage systems and pit privies for many more years to come for the very simple reason that most part of our large cities which is the core of the city is crowded having narrow lanes where sewerage cannot be the solution.



(Nilay Chaudhuri)
Chairman

P.K. CHATTERJEE, B.E.C.E., M.E.(PH)
Adviser (PHEE) M.I.E (India),
M.I.P.H.E. (India)

Tel. No. 385732 (Office)
651256 (Residence)

All communications should be addressed to the Secretary to the Government of India, Ministry of Works & Housing by title, NOT by name. Telegrams: "WORKS"

GOVERNMENT OF INDIA
MINISTRY OF WORKS & HOUSING

No. Adv./PHEE/10/80

Dated New Delhi-1, the 25th Oct., 1980

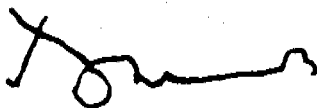
The U.N. Water Conference (1977) declared 1981-90 as International Drinking Water Supply and Sanitation Decade. The objective was to provide safe water supply and adequate sanitation facilities to every human being in the world.

The National Water Supply and Sanitation Decade (NWSSD) programme will be launched from 1st April, 1981. The State Governments/U.T. Administrations have already been requested to take appropriate steps to achieve the target set forth in respect of Water Supply and Sanitation Sector. In respect of Urban Sanitation, it is envisaged to cover all the Class I cities with complete sewerage and sewage treatment facilities and the balance of the 80% urban population with low cost sanitation measures by providing on site excreta disposal arrangements.

Based on the data collected by UNDP as a part of the Global Project GLO/78/006 INDIA it is estimated that to provide low cost water-seal latrines in all the 788 Class II & Class III towns covering a population of about 5 crores by 1980, a sum of nearly Rs. 650 crores will be needed. In the above backdrop and low coverage in urban sanitation and considering the severe economic strain of the developing countries including India, I feel that low cost sanitation measures with appropriate technology is the only solution in formulating the stupendous task. I had the opportunity of visiting Sulabh Shaucha-

laya Sansthan and also study its activities in Patna and other parts of Bihar. I have been greatly impressed by the improvement in environmental sanitation in the areas where the Sulabh Shauchalaya Sansthan has provided low cost sanitation measures by providing on site excreta disposal arrangements. The attempt of the Sansthan in this regard and its impact on a sizeable population of Bihar State is laudable. I hope similar activity is also undertaken in other States.

I wish all success to this dedicated voluntary organisation.



(P. K. Chatterjee)

GRAM: Works
PHONE: 673993 (R)
375731 (O)

**GOVERNMENT OF INDIA
MINISTRY OF WORKS & HOUSING**

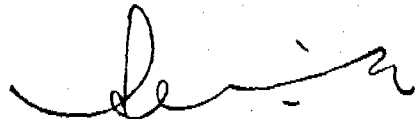
Dated New Delhi-1, May 26, 1979.

**S.T. KHARE, M.E. (PH), M.I. Struct, E., F.I.E.
ADVISER (PHEE)
GOVERNMENT OF INDIA
MINISTRY OF WORKS & HOUSING
NIRMAN BHAVAN
NEW DELHI**

**AND
PRESIDENT
INDIAN ASSOCIATION FOR WATER POLLUTION CONTROL**

Conversion of dry latrines into sanitary ones in our country is an urgent necessity not only from the health point of view but also as a social reform. An attempt by the Sulabh Shauchalaya in this regard and its impact over a sizeable population of Bihar State is laudable and I hope similar activity is vigorously undertaken in other States also.

I wish all the success to this dedicated voluntary organisation of Bihar State.



(S.T. Khare)

B.B. RAU

Sanitary Engineer,
U.N.D.P., World Bank

Conversion of dry latrines into water-seal flush latrines is an immediate necessity to improve the sanitation in any area necessitated due to both health and sociological reasons. The Sulabh Shauchalaya Sansthan, Patna has changed the face of Patna by its work during the couple of years. By repeating this marvellous and dedicated work all over the country, it should be possible to achieve substantial freedom from disease and insanitation during the current Plan period.


B.B. Rau

(B.B. Rau)

DR. T.R. BHASKARAN,
Consultant,
U.N.D.P., World Bank

I have had an opportunity to visit Sulabh Shauchalaya Sansthan and also study its activities in Patna and other parts of Bihar. I have been greatly impressed with the improvement in environmental sanitation in the areas where the Sulabh Shauchalaya Sansthan has been actively associated in converting bucket privies into water seal latrines with adequate arrangements for the ultimate disposal of the nightsoil either through pits or septic tanks. The SSS is well acquainted with the engineering aspects of the conversion programme as well as the safety measures required for preventing pollution of sub-soil water in the region. The group of latrines installed by them are well constructed, properly maintained and free from flies and nuisance in the area.

Although the water seal latrines along with safe disposal of the excreta through pits have been known for many years, it is only after social scientists like Shri Pathak demonstrated its practicability in the field that this programme is being accepted as a satisfactory solution of the collection and disposal of the human excreta in rural and semi-urban areas where it is not possible to go in for the sewerage system. I wish the Sulabh Shauchalaya Sansthan all success in its future programmes.



(T.R. Bhaskaran)

S-385 Greater Kailash
Part 2
New Delhi-48 India
Phone: New Delhi 667804

S. RAJAGOPALAN

Consultant Public Health Engineer

Neglect of basic sanitary measures is a chronic feature in the civil development of most of our towns. It is most pronounced in respect of human excreta disposal. The addiction to conventional sewerage as the only proper solution for it has atrophied action and stifled progress. It has perpetuated the conservancy bucket latrine in the urban households. The urban poor are left without latrines. Open defecation has become an unenviable aspect of urban insanitation. Scavenging is now a service held to obloquy both by those who serve and those who are served.

It is open knowledge that human excreta is the reservoir of causative agents for enteric diseases. A sanitary water seal latrine is the most effective insurance against the spread of these diseases. It is short-sighted to postpone action under any misguided belief that a sewer system is necessary as a condition precedent. It will expose the urban communities to avoidable environmental perils.

The problem is afflicted by inertia born of its socio-economic complexities and engineering misconceptions. It needs dedication and a pioneering approach to break this vicious circle, and stage a breakthrough by providing water seal latrines to individual households, in unsewered urban areas. The attempt carries the seeds of success, because of the potential benefits it confers on the entire community for a comparatively modest investment.

The importance of the subject is highlighted by the National Seminar convened by the Government of India in collaboration with WHO and UNICEF in Patna in May, 1978, which dealt comprehensively with all facets of the problem.

It is gratifying that the Sulabh Shauchalaya Sansthan in Bihar has, after humble beginnings, established a Statewide dynamic latrine conversion programme which is bound to gather further momentum. It is a field where any contribution is a reward in itself.

New Delhi
25th May, 1979.

S. RAJAGOPALAN

UNICEF

UNITED NATIONS CHILDREN'S FUND

South Central Asia Region

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I came to Bihar to observe the programme of urban and rural sanitation. As a Sanitary Engineer of W.H.O. and adviser of the UNICEF I am interested to study rural and urban sanitation programme in India and other countries in South East Asia.

I am impressed by the programme of conversion of service latrines into water seal latrines which have come to be known as Sulabh Shau-chalaya in Bihar.

There are many rural sanitation programmes being carried on in various States in this country. But what has been achieved in Bihar in a short period of about two years seems to be unique.

I have examined latrine conversion programmes, visited a number of sanitary latrines and seen the functioning of community latrines and baths in Patna and Ranchi. I am told that this type of work is being carried on in 43 towns of Bihar.

I am of the opinion that if such a programme is extended to rural areas with suitable modifications to suit local requirements it would go a long way to improve sanitation in general and public health in particular.

Sulabh Shauchalaya Sansthan seems to have done quite an impressive task in the conversion of dry latrines into water seal latrines and there is ample scope for similar organizations in other regions to learn from its experience.

I am of the opinion that this type of method for disposal of human excreta is quite helpful in bringing about desired sanitary conditions and should be encouraged elsewhere.



(A. Besa)

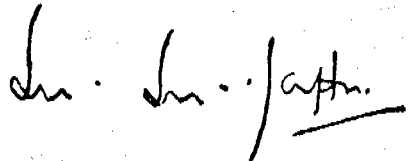
W.H.O. Sanitary Engineer,
UNICEF, NEW DELHI

Dec. 2, 1977.

M.M. Datta
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Dedicated efforts with bull dog tenacity, of the voluntary organisation like the Sulabh Shauchalaya Sansthan for conversion of dry latrines into sanitary latrines in a city like Patna and its impact over a large population in Bihar State, not only improved the sanitation of the city but also helped in achieving a part of the long cherished goal of the Father of the Nation, Mahatma Gandhi, to abolish manual handling of night soil as head load. The marvellous work of the Sansthan has demonstrated a cheaper method for safe disposal of spent water and human wastes in lieu of complete underground sewerage system and treatment. Similar activity is urgently needed in other States also.

I wish all the success to the Sulabh Shauchalaya Sansthan.



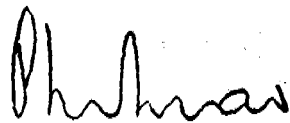
(M.M. DATTA)

YOJANA BHAVAN, SANSAD MARG, NEW DELHI

An inexpensive water-closet is an amenity basic to dignified and healthy living. The need for this amenity is actually felt, the lack of it is however widespread. It is a matter of national shame that a large population has to relieve itself in the open. It is an even greater shame that a section of the population is reduced to earning its livelihood through manual disposal of human waste. We are a long way away from being able to afford the flush latrine and the sewerage.

Mahatma Gandhi saw the need for a low cost solution and took practical steps to find one. In the cities, however, there is considerable ignorance and even a lack of conviction in the efficacy of this solution.

It is, therefore, important that there is organised dissemination of information about the success achieved by voluntary organisations like Sulabh Shauchalaya Sansthan in Bihar. The scale on which the Sulabh Shauchalaya has implemented this programme and its visible impact over a large State like Bihar, must get known all over the country. It is, therefore, fitting that a brochure like this is brought out. It will deepen our conviction in favour of this inexpensive intermediate solution. It will also develop in us a confidence that voluntary agencies can produce results with minimum government assistance.



(P.H. Vaishnav)

Joint Secretary (State Plans)
Planning Commission

April 18, 1979

VIEWS OF THE PRESS

Hundreds of newspapers and periodicals throughout India have published news, views and features about the Sulabh Shauchalaya programme. It is not possible to accommodate all of them in this small book. However, I am publishing the views of only four prominent dailies of the country and one of America. I am grateful to all those papers and periodicals which have enlightened the general public about our programme.

The New York Times

FRIDAY, NOVEMBER 28, 1980

Less Demeaning Work And Gains in Sanitation

Special to The New York Times

PATNA, India—Out of a virtually dormant crusade to free night-soil scavengers from their demeaning labour has come a successful voluntary enterprise that is installing flush latrines in India, cleaning up and deodorizing city streets and providing employment and training for hundreds and potentially thousands.

The organization, called the Easy Toilet Society, was founded 10 years ago by Bindeshwar Pathak, then a 28-year-old sociology student who had grown disenchanted with the inactivity of governmental agencies and fellow members of Gandhian associations.

He gathered a group of designers and engineers and gained the organizing skills of R.L. Das, a 78-year-old reformer who had spent most of his life as a propagator of Gandhian ideas, much of it in the so-called Liberation of Scavengers Movement. In this drive Mohandas K. Gandhi sought to abolish the practice in which members of a hereditary undercaste of untouchable sweepers cleaned the toilets of their urban customers and dumped the waste in fields and canals.

For centuries it was such scavengers who provided the basic sanitation for the more prosperous, and even now, despite the commitment of the Central Government to phase out the scavengers, they are indispensable in virtually every Indian city and they remain a shunned and stigmatized group.

SMALL BUT DRAMATIC CHANGES

In the last decade Mr. Pathak's society has been responsible for some relatively small but dramatic changes. It has designed and pro-

duced low-cost, flush latrines with shallow, odour-free subterranean tanks. Here in the State of Bihar it has installed 30,000 units and converted 10,000 more from old dry-pit latrines.

The State Government is subsidizing half the cost of installation, which is less than \$100. The society has worked out similar arrangements with half a dozen other Indian States, and it has just been hired by the municipal government of Calcutta to construct thousands of public toilets.

In Patna, where the society has built public facilities in several parts of the town, a survey showed that they were used daily by 25,000 people who formerly fouled the streets and parks.

Mr. Pathak has become an articulate advocate of the role of voluntary agencies in development, and his organization has won the enthusiastic endorsement of international experts. He frequently travels abroad to carry word that groups like his, if they maintain independence from politics and government, can goad national agencies into living up to their commitments.

MUNICIPALLY DONATED LAND

His group is financed by charging 10 per cent of the construction costs of its projects. The public toilets have been built on land donated by municipal governments. The maintenance costs are covered by collecting a halfpenny charge from those who can afford it; soap costs an additional halfpenny. The poor and women are admitted free.

Mr. Das, who guided visitors around a bank of toilets and showers that the society built next to Patna's new luxury hotel, said the major reason for the success has been Mr. Pathak's "sociological and psychological genius—he knows how to translate ideas into action and get people to act."

The old man, now deputy secretary of the society, proudly showed the demonstration models sunk in concrete in front of the organization's main office which adjoins and is dwarfed by the public toilets. "All over the world there are offices that have toilets, but this must be the first time you have seen a toilet that has an office," he said with a smile.



THE TIMES OF INDIA

NO. 24, VOL. CXXXIII CITY

NEW DELHI MONDAY, OCTOBER 11, 1976

35 PAISE

GANDHIAN WAY TO MAKE PATNA CLEAN

By P. C. GANDHI

Patna, October 10

Patna, which has the melancholy distinction of being the dirtiest State capital in the country, may soon be the cleanest city because a movement led by an ardent Gandhian worker for doing away with service latrines has been gathering momentum. Within a year, the city may be the first State capital without a single service latrine.

Slowly but surely the city is undergoing a sea-change in its sanitation. It is hoped that by the end of next year, Patna may not have a single sweeper carrying nightsoil as headload or even in a wheel-barrow. Already one-third of the city has been rid of service latrines and 325 of the 1,400 odd sweepers employed by the municipal corporation have been relieved of the humiliation of carrying nightsoil. All this has happened in about a year.

On October 2 last, the "bhangi mukti andolan" entered the take-off stage without any fanfare of publicity. The moving spirit behind this silent revolution, which is now catching on in other towns of Bihar as well as in important towns of U.P. and Haryana is 34-year-old Mr Bindeshwar Pathak, a graduate in sociology of Patna University.

Mr. Pathak was like any other unemployed youth after he had resigned his clerical job in the Bihar State Electricity Board in late 1968. Frustrated, Mr. Pathak joined the Gandhi Centenary Celebration Committee in 1969 as a "pracharak" (a propagator). The year 1969 was the Gandhi Centenary Celebration year and several programmes were organised to propagate the teachings of the father of the nation.

Mr. Pathak moved from town to town and village to village on his mission propagating Gandhiji's teachings. He soon realised that gone were the days when mere propaganda could achieve the desired results. People coldshouldered him and were in no mood to oblige him by attending his meetings. They demanded concrete result-oriented action and not sermons.

Mr. Pathak moved on to the 'bhangi liberation' cell of the Centenary Celebration Committee where he did some spade work and research. In a few months, the committee wound up its activities. Mr. Pathak was again a jobless youth. But he stuck to the ideas he had developed during his short-lived association with the sponsors of the Gandhi Centenary Celebration Committee, persuaded a few like-minded people to set up a voluntary organisation known as "Sulabh Sauchalaya Sansthan" and got it registered.

As the secretary of this institution, Mr. Pathak moved from municipality to municipality and from one government department to another in search of officials who might appreciate his ideas.

He designed a latrine which could function as a flush-latrine without being connected to a sewerage system. None was willing to try his innovation. But municipal officials of Arrah, a small district headquarters about 50 km from Patna with a population of about 60,000, showed some interest in Mr. Pathak's experiment. He converted about 400 service latrines at Arrah into "sulabh sauchalayas." But by the end of the 1973-74 financial year, the municipality had run short of funds.

He again tried to persuade state government officials and ministers to give government grants to his mission. Political instability and frequent changes of Cabinet ministers made matters worse for him.

The Patna Municipal Corporation was faced with the serious problem of laying underground sewers in the new state capital. It was estimated that at least Rs. 100 crores would be required to lay a sewer network.

Apart from enormous financial resources for the project, various technical difficulties cropped up. The city is surrounded on three sides by three major rivers—the Ganga, the Sone and the Poonpoon. The level of the river beds is higher than that of the city. Long embankments protect the town.

MAIN PROBLEM

The main problem was how and where to drain out the city's sewage. One proposal was to carry the sewage near the Ganga, lift it with power driven pumps and flush it into the river. The state government feared a hostile reaction to the proposal which would involve pollution of the holy river.

At this stage, Mr. Pathak met a senior official who was then the local self-government secretary to the Bihar government.

This official lent his ear to Mr. Pathak and found there was sense in what he was talking about. "I will just now pass orders for government grants for the next 20 years." But he hastened to add: "What will happen in the 21st year?"

This sentence made Mr. Pathak sit up. He sought the advice of the official concerned how to give a concrete shape to his ideas. The official remarked: "My dear boy, make your scheme commercially viable so that it can become a success without government aid."

This set Mr. Pathak thinking and changed his outlook. The chase for government grants ended and the Sansthan decided to undertake the task voluntarily on a no-profit-no-loss basis.

On October 2, 1974—the birth anniversary of Mahatma Gandhi—the soft-spoken Mr. Pathak vowed to convert all the 40,000-odd service latrines in the city into flush latrines. He pledged to relieve about 1,400 sweepers of the indignity of carrying nightsoil as headload.

He was dubbed a "crank" when he said that he would accomplish the target in about three years. But hostility did not dampen his en-

thusiasm. The Sansthan wrote to the Prime Minister, Mrs Indira Gandhi, who, in turn, wrote to the then Chief Minister to give his personal attention to the Sansthan's scheme. Things started moving fast. The state government issued an ordinance banning service latrines throughout Bihar.

Municipalities in Bihar spent about Rs 43 lakhs on abolition of service latrines during the 1961-1976 period, but the results were not even noticeable.

Meanwhile, Mr. Raj Dev Narain Singh took over as Administrator of the superseded Patna Municipal Corporation. His task was to give a facelift to the city.

At that time, the biggest eyesore in Patna was a filthy stinking stretch of land near Gandhi Maidan, used by thousands of people as an open air lavatory with the backdrop of the imposing new building of the Reserve Bank. The stench was unbearable.

As Mr. Raj Dev Narain Singh was in search of a solution to the problem, Mr. Pathak came across this official, perhaps at the most appropriate moment.

The first set of 24 "sulabh shauchalayas" was set up there after removing the encroachments. The work progressed at a remarkable speed and within a week or so the filthy spot had been turned into a painted set of public baths and conveniences.

A BOON

The declaration of emergency and the announcement of the 20-point programme was a boon to Mr. Pathak and another set of 24 latrines and 12 bath sets were added at the spot.

The Municipal Corporation paid for the construction of the structure at the rate of Rs. 400 a latrine. The work was extended by the Sansthan with a margin of 10 per cent profit for supervision. The "sulabh shauchalaya" has caught the imagination of the people of the town.

Early this year, two more ordinances were issued by the State Government making it a penal offence to have service latrine in any house. At present this voluntary organisation is busy converting service latrines into "sulabh shauchalayas" in 35 of the 115 towns with civic bodies. The civic body has entrusted the maintenance of public latrines to the Sansthan.

Now about 6,000 persons use this set of latrines daily. Except women, children and "very poor people", everyone has to pay 5 paise for using a latrine and to have a bath. Those who desire soap have to pay 5 paise more.

In Patna, about 14,000 service latrines have been converted into "sulabh shauchalayas". About 10,000 labourers, skilled and unskilled, and about 300 educated unemployed youth have been provided with jobs.

Simple and unassuming, Mr. Pathak beams with the conscience of fulfilment when he says that 325 sweepers have been relieved of carrying nightsoil on their heads.

The process of constructing "sulabh shauchalaya" is so simple that no engineering skill is required. Even an ordinary village mason can do the job. The structure is expected to last about 60 years.

EASY INSTALMENTS

The Municipal Corporation provides a grant of Rs. 200 to any householder who wants to get his service latrine converted into a "sulabh shauchalaya". The balance of Rs. 200 is given as loan to be repaid in easy instalments in five years.

The Municipal Corporation is now negotiating with some nationalised banks to provide about Rs. 1 crore to rid the entire Patna city of service latrines. Mr. Pathak has left for Bhiwani in Haryana where a "sulabh shauchalaya" project is to be taken up in a big way. The Haryana government wants to provide every family in the state with such a latrine in the next five years.

For every such latrine built by the Sansthan, there is a proper follow-up action. There is a 10-year guarantee for repair, change of material or removal of any defect. This guarantee is included in the cost of construction.

The Sansthan has discovered that nightsoil accumulated in the covered chamber turns into quality fertiliser after a year. It is planning to produce about one lakh tonnes of fertiliser after 10 years in Patna city alone. It has also made some innovative research in converting nightsoil into an odourless piped cooking gas.

Patna city is now cleaner and odourless. The warning notice against urinating and casing on sidewalls of office buildings and markets have given way to new hoardings asking people to use toilets and urinals almost at every turn of the road.

INDIAN EXPRESS

Largest combined net sales among all daily newspapers in India

Published from New Delhi, Chandigarh, Bombay, Madras, Madurai, Vijayawada, Hyderabad, Bangalore, Ahmedabad and Cochin
Vol. XLVIII No. 281 New Delhi: Wednesday, September 24, 1958 88 p

I

CONTINUING DISGRACE

The primitive methods of removing human excreta still being used in India are a disgrace to the country. In the circumstances, Mr. Jagjivan Ram's plea to abolish scavenging will be widely endorsed. But no laws on the subject can be effective unless alternative methods are available.

A recent survey revealed that only 217 out of the 3,119 towns in India have sewerage systems—most of them with partial coverage. Only 20 per cent of the urban households have toilets connected to sewerage systems. Water-borne latrines connected to septic tanks serve another 14 per cent of all urban households. Nearly a third of the urban population uses bucket privies that have to be cleaned by scavengers. The remaining one-third of the urban people do not have any toilet facilities whatsoever, hence they make do with any available open space with all attendant hazards to health.

In view of the tardy progress of sewage disposal systems, it can at best be considered a long-term solution. Similarly the expenditure and space required for a septic-tank facility rule it out for most people. A feasible alternative is the water-seal pit privy which costs about Rs. 150 to 200. A Patna-based social service organisation has already converted some 30,000 dry latrines into this type of flushable toilets. The same organisation is now engaged in converting 160,000 service latrines into water-seal toilets in Calcutta. This needs to be emulated by municipalities everywhere. Even this modification in toilets will take some time. Meanwhile, hand-carts, protective overalls, masks, elbow gloves and gumboots must be provided to scavengers.

II

HUMAN WASTES CAUSING HIGH SOIL POLLUTION

March 9, 1981 (UNI):

Indiscriminate defecation and unscientific disposal of human excreta have been mainly responsible for the rapid increase of soil pollution in India, according to Dr. V. Ramalingaswamy, director-general, Indian Council of Medical Research (ICMR).

Dr. Ramalingaswamy told UNI that soil pollution due to bacterial agents occur as the disposal of human excreta had not been satisfactory and had posed a major problem.

With rapid urbanisation and over-population in the cities, land area for disposing wastes was decreasing. The presence of a large number of service-type latrines in the cities and towns resulted in heavy soil pollution. These latrines were also breeding places for house flies which transmit many diseases.

Of the numerous diseases that emanated from soil pollution, diarrhoeal diseases were the commonest, Dr. Ramalingaswamy felt. Diarrhoeal diseases in India mainly comprised hookworm, roundworm and dysentery.

Asked whether 1.4 million children died of diarrhoeal diseases in India every year, the ICMR chief said the figure was "quite close".

Dr. Ramalingaswamy said the high incidence of the hookworm disease in rural areas was the result of the dearth of environmental sanitation. He said parasitic eggs in human excreta hatched immediately and rural people, who mostly moved about bare-foot were infected by them through cuts or wounds on their bodies because of indiscriminate defecation. "Hookworm is a chronic debilitating disease that leads to anaemia and reduces working capacity", Dr. Ramalingaswamy said.

Another source that transmitted diarrhoeal diseases was contaminated water, he said. Also, soil and crops grown on polluted lands could become contaminated with various bacterial agents.

Asked how soil pollution and the diseases resulting from it could be prevented the ICMR chief said the foremost need was the provision of safe excreta disposal systems for both urban and rural areas. For the latter, non-sewered or water-seal latrines would be the answer. He cited the example of social organisations like the "Sulabh Shauchalaya Sansthan" in Bihar where such latrines had proved a great success.

Although the latrine was the best proposal for human excreta disposal in unsewered areas, the doctor said, what was needed in these areas was the appropriate control of irrigation practices and protection of health of the workers so that it did not create any health hazards.

THE HINDUSTAN TIMES

A CONVENIENCE TO SOLVE HUMAN WASTE PROBLEM

Hindustan Times Correspondent

Mr. Bindeshwar Pathak of Bihar may well become a household name in West Bengal.

The Calcutta Metropolitan Development Authority (CMDA) has entered into a 20-year contract with the Sulabh Shauchalaya Sansthan, an organisation founded and led by Mr. Pathak, for supplying sanitary water seal latrines for Calcutta and various municipal areas.

Mr. Pathak's job in West Bengal is to convert service latrines into "sulabh shauchalayas" (sanitary water seal latrines). This latrine developed by Mr. Pathak from a pre-second world war design and lying forgotten with the Indian Institute of Public Health and Hygiene, Calcutta, costs at present Rs. 400. It is constructed in a simple way. It is an ordinary latrine with a special type of water seal. The water seal is connected with two equal size pits. Only one functions at a time, while the other one is kept closed. When the first is filled up, the second one is opened for use. While the second one is being used, manure is available from the first pit. Human excreta is stored in the pit which is kutcha at the ground level. The construction is such that it allows bacteria to be consumed by earth and prevents bad smell and insanitary conditions. No scavenger is required to clean the pit. The pan can be flushed by one mug of water and in one year human excreta turns into earth, which can be taken out of the pit.

Mr. Pathak's "sulabh shauchalaya" has brought about a mini-revolution in Bihar where municipalities are now extensively using this

latrine, replacing service latrines. As in Bihar, so in West Bengal, Mr. Pathak's non-profit organisation has undertaken the task of constructing the latrines.

A CMDA team which visited Bihar to see how they are working was highly impressed by Mr. Pathak's innovation and his method of popularising them. It is now learnt that Mr. Pathak's fame has spread abroad and the United Nations Development Programme (UNDP) has recommended the "sulabh shauchalaya" for developing countries.

The first "sulabh shauchalayas" in Calcutta have come up in Deshbandhu Park. Within two weeks of their introduction, the latrines are being used by an average of 600 people who pay 10 paise for using the latrines. The money collected meets the maintenance needs. The CMDA has decided to introduce this latrine all over the city and in a large number of municipalities.

THE SUNDAY STATESMAN

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SUNDAY STATESMAN

CALCUTTA SUNDAY NOVEMBER 20 1988

58 Paise

PATNA FIRM TO TACKLE A CALCUTTA PROBLEM

By a Staff Reporter

One of Greater Calcutta's most serious environmental hygiene problems—proper management and disposal of human wastes and provision and maintenance of public toilets is now being tackled by a private organization with the financial backing of the CMDA and municipal bodies.

Sulabh International, a Patna-based organization having the expertise in the construction of inexpensive and modern sanitation facilities, has been allowed to take up the conversion of 1,500 service privies into modern lavatories in 15 municipalities of the Calcutta Metropolitan Development area.

There are about 150,000 service privies in the unsewered parts of the CMDA area. The CMDA, which is financing the conversion scheme plans to complete the job through this agency in stages.

The agency has also been asked to maintain eight public conveniences, which have either been constructed or are in the process of being built in Calcutta and Howrah. They will cover 200,000 pavement dwellers, besides a part of the bustee population and pedestrians.

The toilets being built by the CMDA on land given free by municipal bodies will provide both toilet and bathing facilities for which the users will have to pay 10 paise each.

One such toilet is in use at Deshbandhu Park. Although the notice board at the entrance says that those who are unable to pay the fee may

use it free of cost the daily collection has gone up from Rs. 25 to about Rs. 100. Soap is provided free there.

The most encouraging feature is the inclination even among the poor to pay and use the toilet. It is the young educated who at times create problems over payment. About 1,000 people use this facility daily.

The decision to appoint this agency was taken because of the failure of the West Bengal Public Works Department and the municipal bodies to maintain even the few toilets built by them in and around Calcutta. The Patna-based agency has done a good work in building toilets in most of the major towns in Bihar.

The agency has developed an inexpensive type of modern lavatory, which will cost Rs. 1,100. The type being built by the CMDA costs Rs. 1,500.

The lavatory being built by the agency has a new feature. The trap of the pan through which the wastes pass has been designed in such a way that very little water is required for flushing.

One of the main reasons for the failure of the toilet modernization scheme of the CMDA has been lack of adequate water to flush down wastes. In the bustees especially, water is scarce.

The Rs. 3.51-crore Howrah sewage treatment plant, which has been idle since its construction three years ago because of absence of sewerage connexions, will begin operations next year. The Howrah Improvement Trust has been asked to convert 15,000 household privies to enable the plant to secure sewage.

However such a small number of conversions will not be able to fully utilize the plant's capacity, which can treat 10 million gallons of sewage a day. The plant requires 100,000 sewerage connexions.

depth news india

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CHEAP TOILETS FOR BETTER HYGIENE

By Patricia Gough

SULABH Shauchalaya or waterseal latrines have relieved scavengers of the unpleasant task of carrying night soil on their heads for disposal. And not only scavengers but people all over the country are discovering that Sulabh Shauchalaya is the cheapest and fastest way of getting rid of night soil.

According to the National Sample Survey, only 20% of urban households in the country use toilets connected with the sewerage system, out of which only 7% have exclusive use of toilets and the rest either share with other households or make use of public toilets. 14 per cent of the households have water-borne latrines connected with septic tanks. Nearly one-third of the urban population is served by bucket privies. Households having no toilets account for the remaining one-third.

Although more than 19 designs like sewerage, septic tank, hand flush waterseal pit privy, acqua privy, chemical toilet, borehole, dug well, trench latrine, etc., are prevalent all over the world for the disposal of night soil, only three systems have been found technically fit for adoption on a mass scale in India. These are Sewerage System; Septic Tank and Sulabh Shauchalaya.

Sulabh Shauchalaya requires little water to flush and can function where no water is available. It is free from air pollution, provides man-

ure on the spot, can be cleaned by the house-owners themselves and alternately the two pits can work for 100 years.

ORIGIN

The system first started in Patna, then spread to other districts in Bihar and now to Haryana, West Bengal, Orissa, Uttar Pradesh and Andhra Pradesh. It all started in 1967-1970 during the Gandhi Centenary Period, as a tribute to him. At the instance of the Government of India, the Government of Bihar, through its Local Self Government Department, directed local bodies to get all the existing bucket privies converted into hand flush latrines and to connect them either with sewer lines or leaching pits.

The Government of Bihar gave grants to the Bihar State Gandhi Centenary Committee and the programme kept going, but had no real impact. People wanted result-oriented work and not just preaching.

Mr Bindeshwar Pathak, then a 'Pracharak' devised a latrine known as Sulabh Shauchalaya which functions as a flush latrine with or without being connected to sewerage system. The movement received a shot in the arm when the Bihar Government promulgated an ordinance in 1970 amending the Bihar and Orissa Municipal Act whereby a blanket ban was imposed on construction of new dry latrines. The new law made continuance of dry latrines a cognizable offence.

To help people convert their latrines into Sulabh Shauchalayas, the local bodies aided by the State Government gave grants of Rs. 350/- each and a loan of the same amount to those interested. A similar procedure was adopted in West Bengal also.

The Sulabh Shauchalaya Sansthan intervened between householders and municipalities to process each loan application. Volunteers went from door to door, persuaded people, had forms filled up and processed and after the grant was sanctioned, conversion work started.

INEXPENSIVE

These latrines can be constructed within a small space of seven feet

long and four feet wide and two litres of water is enough to flush out excreta from the pan to the tank. The water seal prevents gases from leaking out of the pit and all the gases produced in the tank are absorbed by the soil. It can be constructed in a corridor or on the upper floor of a building or in a bedroom.

It is a permanent installation which is economical and durable. It can be adopted by both the rich and poor. In Bihar its minimum cost is Rs. 700/- with a mosaic pan and Rs. 742/- with a China clay pan. In West Bengal it is Rs. 1,075.

Perhaps the biggest advantage is that night soil is always underground, inaccessible to flies and insects. As tanks are covered with airtight and water-tight RCC slabs the place can be utilised for other purposes too. All it requires is an ordinary mason working under the supervision of a trained worker.

28,378 bucket privies have been converted till March 1980. 10,000 more are likely to be converted by the end of this year.

Another plus point is that Sulabh Shauchalaya can work in any soil condition whether it be rocky or sandy. Although the distance between the water source and Sulabh Shauchalaya largely depends on the soil, the safe distance between the source of water and the Sulabh Shauchalaya in homogenous soil, black cotton soil and sandy soil should be 20 feet.

The metropolitan city of Calcutta with a population of nine millions has poor sanitation and the sub-human and unhygienic system of carrying night-soil on the head continues in some parts of the city.

To provide proper facilities for defecation two programmes have been launched within the Calcutta Metropolitan District by the Calcutta Metropolitan Development Authority and the Sulabh International. (Sulabh Shauchalaya turned international last year.)

It was decided to put up public conveniences like toilets, baths and urinals in different parts of the city. But as usual, this system ran into trouble as the public did not care for its cleanliness and upkeep.

PATNA PATTERN

Thankfully, these conveniences are maintained by the Sulabh International on the Patna pattern. According to this pattern residents of the city, pavement dwellers, rickshaw pullers, the weaker sections of society and commuters use these conveniences round the clock.

Caretakers are posted to ensure all-round cleanliness and also provide soap powder to the users of toilets. They are required to pay 10 paise as maintenance expenditure. Children and beggars are exempted. The Sulabh International does not allow the use of earth for cleaning purposes.

The system of public conveniences by Sulabh Shauchalaya started in India in 1974 when public baths and urinals were constructed in Patna and Ranchi. The land and finances were made available by these two local bodies. They are now being maintained in a big way by the Sulabh Shauchalaya Sansihan and the scheme has since been extended to eight other big towns of Bihar.

A 24-seat public latrine was first constructed in Patna near the Gandhi Maidan which was the filthiest part of the town. At present there is a 48-seat public lavatory at this place maintained by the Sulabh International whose head office is also in the same campus. This is unique because the surroundings are clean and well-maintained.

Such public latrines are now maintained by the Sulabh International in Patna at 35 places with a total number of 551 seats. There are 52 urinals and 313 baths. The conveniences are located near railway stations, bus stops, markets, hospitals, offices and other busy areas.

Scavengers relieved from their daily chores have been given jobs as sweepers and there are programmes to give their sons and daughters employment.

A critical review of Sulabh Shauchalayas already constructed by the Sulabh International has started. The present study on the filling of pits is one of the important aspects which will help further development of the activities in different areas.

The idea has spread to Sri Lanka too. An 11-member team made an in-depth study in Patna and Ranchi and 800 service latrines have already been converted into Sulabh Shauchalayas.

The designs of Sulabh Shauchalayas with certain modifications have been adopted by the United Nations Development Programme for 19 countries of Asia, Africa and Latin America including India.

Experts from international organisations like WHO and UNICEF made a study of this scheme in 1978-79 and suggested that the cost of construction of Sulabh Shauchalaya could be slightly reduced by providing just one pit. But the two-pit system has been readily acceptable for the convenience of the people.

In May 1978, a seminar was organised in Patna under the joint auspices of the WHO, the UNICEF and the Ministry of Works and Housing, Government of India. The representatives of the Planning Commission, World Bank, WHO, UNICEF, All India Institute of Hygiene & Public Health, Calcutta, Environmental Engineering Research Institute, Nagpur, Directorate General of Health Services (Intelligence), Government of India and all State Governments participated.

The seminar recommended that the water-seal latrines and community latrines as set up in Patna could be adopted anywhere, with minor variations wherever required. The cost of the latrines and the infrastructure of the agency to be engaged in the actual implementation should be determined according to local conditions.

The Sulabh International is convinced that voluntary social service organisations are necessary to motivate and persuade people to adopt this scheme as mere provision of technology will not benefit the people.

The Central Public Health Environmental Engineering Organisation, Ministry of Works and Housing, Government of India, has taken up this scheme in a big way. It has directed all the States to convert the existing dry latrines into water seal latrines, specially in medium and small towns. Adequate financial provision has been made in the Sixth Plan for this purpose.

ANNEXURES

ANNEXURE I

CONSTRUCTION OF ONE-SEATED SULABH SHAUCHALAYA UPTO PLINTH LEVEL WITH TWO TANKS OF 3'-3" DIA, 3'-3" DEEP FOR DOMESTIC PURPOSE

Abstract of Cost

1. Cost of construction of Shauchalaya	..	Rs. 375-00
2. Cost of construction of Tank	..	Rs. 387-00
		<hr/>
		Rs. 762-00
		<hr/>

(Rupees seven hundred & sixty-two only)

Approved by:
Sd/- Illegible
Chief Engineer,
Public Health Engineering Department,
Bihar, Patna.

S.S. with mosaic pan	..	..	..	..	Rs. 700-00
S.S. with China pan	..	..	..	..	Rs. 762-00

**ESTIMATE OF COST FOR CONSTRUCTION OF ONE-SEATED
SULABH SHAUCHALAYA UPTO PLINTH LEVEL WITH TWO
TANKS OF 3'-3" DIA 3'-3" DEEP FOR DOMESTIC PURPOSE**

Circular Type

1. Levelling and cleaning site including sullage, etc:

1 Item L.S. .. Rs. 18-00

2. Earth work in excavation in foundation trenches in ordinary soil (vide classification of soil item (A) and disposal of excavated earth so obtained to a distance of upto 50 M and average lift of 1.5 M including levelling, ramming the foundation trenches, removing roots of trees, shrubs, etc., all complete including all cost of labour and direction of Engineer Incharge:

$$\begin{array}{r} \text{Wall : } 2 \times 4'-9'' = 9'-6'' \\ \quad \quad 2 \times 2'-7'' = 5'-2'' \end{array} \left. \vphantom{\begin{array}{l} 2 \times 4'-9'' \\ 2 \times 2'-7'' \end{array}} \right\} 14'-8''$$

$$14'-8'' \times 0'-10'' \times 1'-6'' = 18 \text{ Cft.}$$

In the chamber L.S. = 4 Cft.

22 Cft.

@Rs. 83/- per thousand Cft. .. Rs. 2-00

3. Providing 1st class brick flat soling joints filled with local sand as per specification and direction of Engineer Incharge including the cost of all labour and materials, royalty, watering, etc., complete job:

$$\begin{array}{r} 1 \times 14'-8'' \times 0'-10'' = 12 \text{ Sft.} \\ 3'-6'' \times 3'-0'' = 11 \text{ Sft.} \\ \hline 23 \text{ Sft.} \\ \text{Deduct for pan (-)} = 1 \text{ Sft.} \\ \hline 22 \text{ Sft.} \end{array}$$

@ Rs. 89/- % Sft. ... Rs. 20-00

- 4 Providing plain cement concrete (1:3:6) with approved quality of jhama chips $\frac{1}{4}$ " size and coarse granular sand of approved quality in foundation including the cost of curing, screening, royalty, all taxes with cost of all labour and materials as per specification & direction of Engineer Incharge:

$$1 \times 14'-8" \times 0'-10" \times 0'-3" = 3 \text{ Cft.}$$

@Rs. 785/-% Cft.

... Rs. 24-00

5. Providing 1st class brick work in cement mortar (1:4) in foundation and plinth with clean coarse sand of approved quality including the cost of all labour and materials, curing, raking out joints to $\frac{1}{2}$ " depth, cost of scaffolding, including the cost of all taxes, royalty, screening, carriage of materials upto 3 metres and removing scaffolding all complete job as per direction of Engineer Incharge and specification:

$$\left. \begin{array}{l} 2 \times 4'-4" = 8'-8" \\ 2 \times 3'-0" = 6'-0" \end{array} \right\} 14'-8"$$

$$14'-8" \times 0'-5" \times 2'-0" = 13 \text{ Cft.}$$

@Rs. 553/-% Cft.

... Rs. 72-00

6. Sand filling in plinth with watering, ramming, etc., complete:

L.S.

... Rs. 7-00

7. Providing 1" P.C.C. 1:2:4 on floor with jhama chips $\frac{1}{4}$ and down with cement punning etc. all complete:

$$3'-6" \times 3'-0" = 10.5 \text{ Sft.}$$

$$\text{Deduct for pan (-)} = 1.00 \text{ Sft.}$$

$$\underline{\hspace{1cm}} \\ 9.5 \text{ Sft.}$$

@Rs. 120/-% Sft.

... Rs. 11-00

8. Providing $\frac{1}{2}$ " thick cement plaster (1:6) with cement punning 1:3 with approved quality of sand

free from dust and deleterious materials including carriage, curing, screening, cost of scaffolding etc., all complete as per specification and direction of Engineer Incharge including the cost of taxes and royalty complete job:

(Outside) wall: $2(4'-4" + 3'-10") \times 1'-3" = 20.5$

Top: $2(4'-4" + 3'-10") \times 0'5" = 6.8$

27 Sft.

@ Rs. 50/- % Sft.

.. Rs. 14-00

9. Supplying fitting and fixing 20" I.W.C. (China Clay) of standard quality and water-seal complete with foot rest:

1 Set L.S.

.. Rs. 120-00

10. Providing 6" wide brick work, covered drain in cement mortar (1:6) or av 6" clear depth of 5" apron, one brick cover including cutting of earth based 3" cement concrete with $\frac{1}{2}$ " cement plaster (1/3) with cement punning in proper grade as per specification and direction of Engineer-in-Charge:

6 Rft. @ Rs. 8/- per Rft.

.. Rs. 48-00

11. Earth filling in layers in the side walls of floor:

1 Item L.S.

.. Rs. 5-00

Rs. 341-00

Add 10% for supervision charge

.. Rs. 34-00

Rs. 375-00

ESTIMATE FOR CIRCULAR TANK

1. Earth work in excavation in foundation trenches in ordinary soil (vide classification of soil item) (a) and disposal of excavated earth so obtained to a distance of 1.5 M including levelling, ramming the foundation trenches, removing roots of trees, shrubs, etc., all complete including all cost of labour and materials as per plan specification and direction of Engineer-in-Charge:

$$2 \times \frac{22 \times 4' - 6''}{7} \times \frac{4' - 6''}{4} \times 3' - 6'' = 110 \text{ Cft.}$$

@ Rs. 83/- % Cft.

.. Rs. 9-00

2. Providing 1st class brick work in cement mortar 1:4 in foundation and plinth with clean coarse sand of approved quality including the cost of all labour and materials, curing, raking out joints to $\frac{1}{3}$ depth, cost of scaffolding, cost of all taxes, royalty, screening, carriage of materials upto 3 miles and removing scaffolding all complete job as per direction of Engineer-in-Charge and specification :

$$2 \times \frac{22 \times 3' - 8''}{7} \times 0' - 10'' \times 0' - 3'' = 5 \text{ Cft.}$$

$$2 \times \frac{22 \times 3' - 8''}{7} \times 0' - 5'' \times 3' - 3'' = \frac{31 \text{ Cft.}}{36 \text{ Cft.}}$$

Deduct : Honey comb masonry :

$$2 \times \frac{22 \times 3' - 8''}{7} \times 0' - 5'' \times 1' - 9'' = \frac{8 \text{ Cft.}}{28 \text{ Cft.}}$$

@ Rs. 553/- % Cft.

.. Rs. 155-00

3. Providing honey comb brick work in cement mortar 1:4. As per deduction above 8 Cft.

@ Rs. 500/- % Cft.

.. Rs. 40 00

4. Providing $\frac{1}{2}$ " thick cement plaster (1:4) with approved quality of sand free from dust and deleterious materials, including carriage, curing, screening, cost of scaffolding, etc., all complete as per specification and direction of Engineer-in-Charge including the cost of all taxes and royalty complete job:

$$2 \times \frac{22 \times 3'-8'' \times 0'-5''}{7} = 10 \text{ Sft.}$$

@ Rs. 56% Sft. .. Rs. 6-00

Rs. 210-00

5. Providing R.C.C. 1:2:4 precast slab with jhama chips $\frac{3}{4}$ " to $\frac{1}{4}$ " including cost of reinforcement, centering, side shuttering, curing, etc., all complete job :

$$2 \times \frac{22 \times 4'-1'' \times 4'-1'' \times 0'-3''}{7 \times 4} = 6.5 \text{ Cft.}$$

@ Rs. 1828/- % Cft. .. Rs. 119-00

6. Providing iron rings for lifting the slab:

$$2 \times 2 = 4 \text{ Nos.}$$

Say 4 Nos. @ Rs. 2/- each. .. Rs. 8-00

7. Earth filling in foundation trenches and dressing the sides around:

1 Item L.S. .. Rs. 15-00

Rs. 352-00

Add 10% for supervision charge .. Rs. 35-00

Rs. 387-00

ANNEXURE II

ESTIMATE FOR PIT PRIVY FOR DRAWING NO. LAT/PP-3 (a) Latrine Seat (excluding super-structure)

<i>Sl. No.</i>	<i>Description of Item</i>	<i>Qty.</i>	<i>Rate</i>	<i>Amount</i>
1.	Single brick flat soling $4 \times 1.025 \times 0.25 + 0.90 \times 0.90 = 1.025 + 0.81$	$= 1.835 \text{ M}^2$	@ 11/-/M ²	.. Rs. 20-19
2.	75mm cement concrete (6:3:1) $4 \times 1.025 \times 0.25 \times 0.075$	$= 0.077 \text{ M}^3$	@ 250/-	.. Rs. 19-25
3.	Cement brick work (4:1) 125mm thick $4 \times 1.025 \times 0.6$	$= 2.46 \text{ M}^2$	@ 28.50/M ²	.. Rs. 70-11
4.	Earth filling $0.9 \times 0.9 \times 0.30$	$= 0.24 \text{ M}^3$	@ 2.45/M ³	.. Rs. 0-61
5.	Khoa filling $1.33 \times 75\% (0.9 \times 0.9 \times 0.225)$	$= 0.182 \text{ M}^3$	@ 40/-/M ³	.. Rs. 7-28
6.	Shallow water closet (Porcelain 450mm long)	= ..	..	.. Rs. 107-00
7.	Cement Water seal trap (Sulabh Shauchalaya type)	= ..	..	.. Rs. 20-00
8.	150mm \times 100mm surface drain made of 125mm thick brick-work (6:1) with single B.F. soling and 75mm thick C.C. below if including cement plaster (4:1) with neat cement finish			

top covered with single flat brick in cement mortar (6:1)	= 2.0 M ² @ 22/-	..	Rs. 44-00
9. Earth work in excavation—1.150×1.150×0.6=	0.8 M ³ @ 3/- M ³	..	Rs. 2-40
10. 20mm thick (4:2:1) IPS with neat cement finish 1.150×1.150	= 1.32 M ² @ 11/-M ²	..	Rs. 14-52
11. Foot rest for water closet with Artificial Stone (4:2:1)	One pair @ 5/- pair	..	Rs. 5-00
			<hr/>
			Rs. 310-36
<i>Add 20% for price variation</i>		..	Rs. 62-07
			<hr/>
			Rs. 372-43
<i>Add 10% for supervision</i>		..	Rs. 37-24
			<hr/>
	Total	..	Rs. 409-67
Say Rs. 410/-			<hr/>

(B) PIT (Twin)

<i>Sl. No.</i>	<i>Description of Item</i>	<i>Qty.</i>	<i>Rate</i>	<i>Amount</i>
1.	Single brick flat soling ($2 \times 2.375 + 3 \times 0.9$) $\times 0.25 = (4.75 + 2.7)$ $\times 0.25$	$= 1.87 \text{ M}^2$	@ 11/-	1 M ² .. Rs. 20-57
2.	75 mm cement concrete (8:4:1) Soling area, i.e., 1.87×0.075	$= 0.140 \text{ M}^3$	@ 225/-	.. Rs. 31-50
3.	Brick work (4:1) 125 mm thick (considering solid brick work as extra labour for honey combing will be compensated by the bricks required for honey-combed portion) ($2 \times 2.375 + 3$ $\times 0.9) \times 1.2 \text{ m}$	$= 8.94$	@ 28.50	.. Rs. 254-79
4.	R.C.C. cover slab $2.375 \times 1.150 \times 0.075$	$= 0.205$	@ 360/-	.. Rs. 73-80
5.	Reinforcement @ 1% i.e., .00205 M ³ $= .00205 \times 7846$	$= 16\text{Kg.}$	@ 3.00	.. Rs. 48-00
6.	Handling & placing R.C. slab 2.375×1.150	$= 2.73 \text{ M}^3$	@ 5.00	.. Rs. 13-66
7.	Earth work in excavation $2.375 \times 1.150 \times 0.9$	$= 2.46 \text{ M}^3$	@ 3.00 M ³	.. Rs. 7-38
8.	Dismantling existing structure, cleaning, preparation of site including earth filling at sides of the pit after completion	L.S.		.. Rs. 35-00

9.	12 mm thick plastering with cement punning (1:4) of the common wall	$2 \times 0.9 \times 1.2$	$= 2.16 \text{ M}^3$	@ 7.50	..	Rs. 16-20
10.	20 mm dia G.I. pipe		$= 0.225 \text{ M}$	@ 12.25 M	..	Rs. 2-76
						<hr/> Rs. 503-66
	<i>Add</i>	20% for price variation			..	Rs. 100-73
						<hr/> Rs. 604-39
	<i>Add</i>	10% supervision charge			..	Rs. 60-44
						<hr/> Rs. 664-83

Say Rs. 665/-

Total Cost (a + b) = Rs. 410/- + 665/- = Rs. 1,075/-

ANNEXURE III

For increasing the earth's fertility human excreta and urine are considered best compared to animal dung and urine. In China and Japan human excreta and urine are considered a valuable manure and special care is taken for its collection and storage. In these countries the reason for land fertility is the use of human excreta and urine for centuries.

In India these days attempts are being made to make use of human excreta and urine as manure. Several methods are being applied to convert human excreta into manure. The main aim of these methods is disposal of human excreta for cleanliness and health. To save large-scale waste of nutritious properties available from human excreta the Patna Municipal Corporation has taken up the commendable work of construction of Sulabh Shauchalayas on a large scale.

Chemical analysis of the manure from human excreta obtained by the Sulabh Shauchalaya Sansthan has given encouraging results. This manure contains 1.6% to 1.8% nitrogen, 1.6% phosphorus and 1% potash. The nutrition content in the manure obtained from Sulabh Shauchalaya is higher as compared to other manures. It is also free from foreign elements. Its utility increases when used with other fertilisers.

Its use gives more produce and increases the fertility of the land. To get more effective manure the Sulabh Shauchalaya is a good source. Construction of Sulabh Shauchalayas in villages would remove dirt and filth besides providing good manure.

KAMTA PRASAD

Compost Development Officer

ANNEXURE IV

No. F.5-7/UCD
GOVERNMENT OF INDIA
MINISTRY OF HEALTH, F.P. & URBAN DEVELOPMENT
(Department of Health & U.D.)
NIRMAN BHAWAN

New Delhi, the 10th June 1968.

To

The Chairman/President
Municipal Council/Board

To All (with population above 20,000)

Subject: Special campaign for conversion of dry latrines into hand flush latrines.

Sir,

1. One of the most difficult problems that the urban local bodies have to face is the question of providing facilities for scavenging and removal and disposal of night-soil. This question has been considered at various levels from time to time, but has defied a complete solution. A special Committee, popularly known as Malkani Committee, studied the matter in detail and made a number of recommendations covering all aspects of amelioration of service and living conditions of scavengers. A number of recommendations of this Committee have received attention and several steps have been taken to improve the working conditions of scavengers over the past few years. It is nevertheless a fact that the degraded practice of manual handling of the rubbish and night-soil still persists in all the cities and towns. The only effective solution to this problem lies in the conversion of dry type latrines into water borne ones. It has been seen that even where sewers are laid, the house connections are not taken with the result

that, on the one hand, the unclean practice of handling of night-soil continues and, on the other, we fail to make full use of the heavy investment in the sewerage schemes. This unhappy situation calls for immediate attention of and resolute action by the authorities concerned with a view to ensure maximum utilisation of the facilities available. In the case of non-sewered areas, however, different steps require to be taken, as indicated later in this letter.

2. This matter has assumed great importance in view of the fact that the country will be celebrating the Birth Centenary of Mahatma Gandhi on October 2, 1969. There can be no better and befitting tribute to his memory than to launch a concrete programme to achieve notable progress by way of getting the existing dry type latrines converted into water borne ones in as large numbers as possible in all the urban areas by that date. Your Municipality can take immediate action as suggested below to achieve maximum success:—

- a. No new building should be allowed to be constructed without provision of hand flush latrines. It may be pointed out that the provision of hand flush latrines in a house does not involve heavy expenditure.
- b. In areas where sewers have been laid, strict enforcement of law for compulsory connections of latrines in the existing houses to sewers should be launched.
- c. Where sewers are not laid, a special drive should be launched for conversion of dry latrines into hand flush latrines in selected areas by connecting them to local septic tank or leaching pits. For the guidance of the local bodies, a small brochure indicating the designs and techniques for cheap hand flush latrines has been printed and a copy of the same is enclosed. The National Committee for Gandhi Centenary has also published some literature and circulated it to various towns through the Harijan Sevak Sangh.

3. In this connection a copy of letter No. F.7-1/67-PHE dated 19.7.1967 indicating the pattern of assistance available for both se-

wered as well as non-sewered areas is enclosed. Your Municipality can immediately prepare schemes under the Urban Water Supply and Sanitation Programme and submit the same to the State Governments for sanction. The State Governments have powers to sanction such schemes upto a certain limit without reference to the Government of India.

4. It is hoped that you will take personal interest in this important matter and initiate action immediately. This Ministry will be ready to render any assistance possible.

Please acknowledge receipt of this letter and let this Ministry know the action taken or proposed to be taken as early as possible.

Yours faithfully,
Sd/- DEVA RAJ
Officer on Special Duty

No. F.5-7/UCD

Copy to the Secretary to the Government of all States & U.Ts.
L.S.G. Deptt. _____ in continuation of this Ministry's
letter No. F-6/68-PHE dated 18 May 1968.

Sd/-
Officer on Special Duty

ANNEXURE V

Letter No. 2472 UDD
GOVERNMENT OF INDIA
Urban Development Department

From

Shri R.G. Roy,
Deputy Secretary to Government,
Urban Development Department.

To

All District Officers.

Patna, dated 30th April, 1974.

Subject: Implementation of the scheme of conversion of service latrines into Sulabh Shauchalayas—Assistance to the urban local bodies in the matter by the Sulabh Shauchalaya Sansthan (now Sulabh International), Patna-1.

Sir,

With reference to the above subject the following important questions came before the Government for consideration:

(a) Proper utilisation of the grant and loan sanctioned under this scheme to the urban local bodies in the last 5-6 years.

(b) In addition, money to be spent by the urban local bodies out of their own fund.

(c) Enforcement of power as a result of amendments in the Act and functioning of this scheme in a proper way.

(d) Ways to energise concerned house-owners to be progressive and to adopt procedures prescribed by Government for sanction of the grant and loan for construction/conversion of Sulabh Shauchalayas so that more and more house owners can convert their service

latrines into Sulabh Shauchalayas, funds sanctioned for it are not mis-utilised and ensure realisation of loan granted to the rate-payers properly.

2. Considering all the pros and cons with a view to successfully implement this scheme, the Government have arrived at this conclusion that :

(a) When grant and loan are sanctioned for the construction of Sulabh Shauchalaya, the loan should not be sanctioned by Government direct to the Sulabh Shauchalaya Sansthan.

(b) Construction of Sulabh Shauchalaya will be done in the house of a rate-payer. Therefore, the Sansthan cannot execute any agreement of its own with the rate-payers keeping in view the easy recovery of loans granted. But the house-owner has to execute an agreement with the concerned Municipality. To give effect to this scheme the Sansthan will work as a catalytic agent between the Municipality and the rate-payers.

(c) The Sansthan will search for such persons with the co-operation of the concerned urban local bodies who are willing to get their service latrines converted into Sulabh Shauchalayas with the financial assistance made available to them by the Municipality. The urban local bodies will fix two days in a week when the Sansthan will produce the agreement with those rate-payers or their representatives having obtained their due signatures and fulfilling the requisite formalities together with the necessary receipt in respect of grant and loan and with an endorsement that the amount should be paid by the Municipality to the Sansthan which will carry out the work of construction or conversion of service latrines into Sulabh Shauchalayas in his name.

(d) You may give necessary direction to the Chairman, Executive Officer, and other officers of the concerned Local Bodies that grant and loan sanctioned by Government for this purpose are utilised over the construction of Sulabh Shauchalaya expeditiously and not diverted to any other purposes and also to exercise powers and duties imposed upon them by the amendments in the Act effectively for getting this

scheme executed in a proper way.

(e) The Urban Local Bodies may also be directed to arrange sparing some fund towards this scheme out of their own resources.

3. There are no two opinions that without the desired interest and co-operation of the officers and executives of the Urban Local Bodies this scheme cannot be implemented. Therefore, Government expects co-operation to the Sansthan of the officers of all categories of the Urban Local Bodies. It is requested to draw the attention of all Urban Local Bodies towards this important point.

4. Sulabh Shauchalaya Sansthan, Patna-1 will be made available by the Urban Local Bodies under you, the amount to the extent to which the Sansthan will produce agreements of the rate-payers together with the necessary receipts of loan granted and endorsement of the rate-payers to make available to the Sansthan. By doing so, the responsibility of refunding the amount of loan will rest with the concerned rate-payers.

5. In the light of above text, I am directed to say that the Urban Local Bodies under control be instructed to get the work of conversion of service latrines into Sulabh Shauchalayas on the aforesaid guidelines executed by the Sulabh Shauchalaya Sansthan from the grant and loan sanctioned by State Government in the past few years (which are lying unspent with the Urban Local Bodies) at the earliest. They may also be directed to send to Government a monthly progress report of this scheme along with utilisation certificate of the total amount sanctioned. On no account, funds sanctioned for this scheme be diverted to and spent on other items. They may also be informed that Government is aware of lack of interest of the Urban Local Bodies towards implementation of this scheme, utilising the fund for this scheme over other items and allowing the fund to remain unspent. In such cases, Government will be constrained to direct return of the amount involved. The Urban Local Bodies may also be deprived of the expected allotment for this scheme. Copies of this circular are being forwarded to all the Urban Local Bodies direct for their information.

It is requested to take necessary action at an early date and to let Government know of the action taken in this matter.

Yours faithfully,
Sd/- R.G. ROY,
Dy. Secretary to Government.

Memo No. 2472 UDD Patna, dated 30th April, 1974.

Copy forwarded to all Urban Local Bodies for information and immediate implementation of the scheme. Monthly report must be sent to the Government of the action taken in the matter.

Sd/- R.G. ROY,
Dy. Secretary to Government

ANNEXURE V(a)

**Letter No. 6028 UDD
GOVERNMENT OF BIHAR
Urban Development Department**

From

Shri Ram Gopal Roy,
Deputy Secretary to Government,
Urban Development Department.

To

Administrator, Patna Municipal Corporation, Patna/
Chairman/Executive Officer / Administrator / Special
Officer / All Municipalities/Notified Area Committee.
Patna, dated 3rd August, 1976.

Subject :

Removal of probable obstacle in the progress of imple-
mentation of the scheme of conversion of service lat-
rines into Sulabh Shauchalayas under the Bhangi
Mukti Abhiyan.

Sir,

I am directed to draw your attention towards Government Letter No. 2472 UDD dated 30.4.74 (copy enclosed for ready reference) on the above subject and to say that on the basis of information received so far, it is clear that the performance of the Sulabh Shauchalaya Sansthan, now Sulabh International, Patna-1, in the matter of conversion of service latrines into Sulabh Shauchalayas is commendable. The Sansthan's achievement in the management of sanitation is notable. The Government desires that the procedure connected with the conversion of service latrines into Sulabh Shauchalayas be completed expeditiously. So far, only the Sulabh Shauchalaya Sansthan, Patna-1, has the requisite recognition for implementing the scheme. To avoid any obstruction in the way of implementation of this scheme, it is necessary that unknown and fictitious agencies are not utilised in its execution. Ratepayers are impressed with the effort to convert their service latrines into Sulabh Shauchalayas early. The Sansthan will

render necessary assistance to them in this work. As a result, this scheme started under the "Bhangi Mukti Abhiyan", will be implemented and the inhuman practice of carrying night-soil on head by the Bhangis will be abolished soon. The Government may be informed at the earliest of the action taken in this regard.

Yours faithfully,
Sd/- R.G. ROY,

Dy. Secretary to Government.

Memo No. 6028 Patna, 3.8.1976.

Copy forwarded to All District Officers/All Commissioners of Divisions/All Sub-divisional Officers/Secretary, Sulabh Shauchalaya Sansthan, Patna-1 for information.

Sd/- R.G. ROY,

Dy. Secretary to Government.

ANNEXURE V(b)

No. 923 UD & HD
GOVERNMENT OF BIHAR
Urban Development & Housing Department

From Smt. P.K. Shushma,
Deputy Secretary to Government.

To All Divisional Commissioners/All Divisional Officers.

Subject: Implementation of the scheme of conversion of service latrines into Sulabh Shauchalayas—Extension of the scheme through Sulabh Shauchalaya Sansthan, now Sulabh International, Patna.

Sir

I am directed to invite a reference to Government Letter No. 5130 LSG dated 5.8.68, 7823 LSG dated 10.12.71, 2472 UDD dated 30.4.74, 640 UDD dated 21.10.74 and 6028 UDD dated 3.8.76 on the subject noted above and to say that in the aforesaid circulars the procedure for conversion of service latrines into Sulabh Shauchalayas have been discussed in detail so that the conversion scheme be executed expeditiously and there is no hinderance whatsoever in its implementation.

2. The practice of carrying night-soil as head-load by Bhangis still exists which is a serious crime. The implementation of the programme to wipe out the black spot as early as possible is necessary. This is possible only by converting the 4 lakh service latrines into Sulabh Shauchalayas. The Government is serious about it and is trying to obtain the required amount.

3. To convert all the service latrines within the State is a major project. This scheme has also to be implemented in a planned manner, systematically and on a uniform basis, otherwise it would not be possible to keep uniformity in the work.

4. The execution of the scheme of conversion of service latrines into Sulabh Shauchalayas is being done by the Sulabh Shauchalaya Sansthan in a praiseworthy way.

5. This is a well constituted organisation and is doing the work of conversion of service latrines into Sulabh Shauchalayas in a nice way and with speed in different urban areas of the State. Any positive ideas which have cropped up in the matter are being well attended to by the Sansthan.

It is clear that the organisation is executing the work of conversion of latrines in a uniform way and expeditiously. Keeping in view these aspects of the scheme, the Government had given due recognition only to the Sulabh Shauchalaya Sansthan for execution of this scheme in the past. It will not be proper and wise to entrust the execution of the scheme of conversion of service latrines to unknown and bogus agencies. Keeping in view all the pros and cons of the matter, the Government has decided to continue the existing procedure of the conversion scheme and work be extended only through the Sulabh Shauchalaya Sansthan, Patna.

Yours faithfully,

Sd/- P.K. SHUSHMA

19.2.79

Dy. Secretary to Government

Memo No. 923 UD & HDL. Patna-15, dated 19th Feb. 1979.

Copy forwarded to Chief Executive Officer, PMC, Patna/Special Officer/Administrator/Executive Officer/Chairman/Vice-Chairman, all Local Bodies/Secretary, Sulabh Shauchalaya Sansthan, Patna, for information and necessary action.

Sd/- P.K. SHUSHMA

19.2.79

Dy. Secretary to Government

ANNEXURE VI

Section 220A: Conversion of service latrines into water flush latrines. (1) Notwithstanding anything contained in this Act and the rules or by-laws framed thereunder the commissioners shall, subject to such rules as the State Government may make in this behalf, require by notice, the owner of any service latrine, within a period to be specified in the notice, to demolish or close such service latrine and convert it into water flush latrine and, on the failure of the owner to do so within the specified time, the commissioners shall themselves cause the same to be demolished or closed and converted into water flush latrines, and shall recover the costs thereof in the same manner as arrear of taxes.

(2) Contravention of the provisions of this section and the rules or by-laws framed thereunder shall be an offence punishable with fine not exceeding one hundred rupees or with simple imprisonment not exceeding one month or with both and, in the case of a continuing offence after the first offence, to a further fine not exceeding ten rupees for each day during which the offence continues.

rity slip to the concerned urban local body under intimation to Government.

5. The Divisional Commissioner and concerned urban local bodies are also being informed.

ENCLOSED LIST

<i>Sl. No.</i>	<i>Name of the local body</i>	<i>Amount sanctioned</i>
1.	Deoghar Municipality	Rs. 2,61,250-00
2.	Dumraon Municipality	Rs. 50,000-00
	Total ..	Rs. 3,11,250-00

Yours faithfully,
Sd/- Anil Banerjee,
Under Secretary to Government.

Memo No. 5514

UD & HD, Patna-15

Dated 25th October, 1980

Copy to Area Development Officer, Audrey House, Ranchi/Finance Department (Budget Section) and Section-9/Local Auditor, Bihar, Ranchi/Planning Department/Commissioner, Bhagalpur Division/Patna Division/District Magistrate, Bhojpur (Arrah)/Deputy Commissioner, S.P. (Dumka)/Director, Local Bodies, Bihar, Patna/Executive Officer, Deoghar Municipality/Dumraon Municipality/Treasury Officer, Arrah Treasury/Dumka Treasury/Assistant, Account Planning Section/Chairman, Sulabh Shauchalaya Sansthan, Gandhi Maidan, Patna, for information and necessary action.

2. The District Magistrate, Bhojpur/Deputy Commissioner, Dumka are requested to keep watch over the work and the amount of grant.

3. The concerned Executive Officer is requested to see that the sanctioned amount is used properly for which it is meant and keep the

Government informed of the progress of the work. If the amount has not been made available to the rate-payers so far, necessary action should be taken and Government must be informed accordingly.

4. Please immediately send the utilisation certificate of the amount sanctioned for this work. The utilisation certificate of the amount sanctioned in 1980-81 for this work be also sent to the Government by the end of the financial year.

Sd/- Anil Banerjee,
Under Secretary to Government

GOVERNMENT OF BIHAR
Urban Development & Housing Department

From

Shri Anil Banerjee,
Under Secretary to Government,
Urban Developer Department.

To

The Accountant-General,
Bihar, Hinoo, Ranchi.

Patna, dated the 25th October 1980

Subject: Sanction of loan to Municipalities and Notified Area Committees for conversion/construction of service latrines into Sulabh Shauchalayas.

Sir,

In continuation of G.O. No. 5513/UDD dated 25th October, 1980, I am directed to say that the State Government have been pleased to sanction during the year 1980-81 to the Municipality/N.A.C. indicated in the enclosed list an interest bearing advance of Rs. 3,11,250/- (Rupees three lakhs eleven thousand two hundred & fifty) only as shown against their names for execution of the above scheme. The amount will be spent over sanctioning of advances to the rate-payers for conversion of service latrines into Sulabh Shauchalayas within its areas for which it has been sanctioned. It is the responsibility of the Urban Local Bodies to ensure that the amount is spent by the rate-payers over the construction/conversion of service latrines and in no case will be diverted to and spent over other purposes.

2. Advance of Rs. 3,11,250/- (Rupees three lakhs eleven thousand two hundred & fifty) only will be drawn from their respective treasuries

within the current financial year up to 31.3.81 by the Special Officer/ Executive Officer/Chairman of the concerned local bodies. Government will be informed of its drawal along with T.N. No. and date of drawal. This amount will be spent over the purpose for which it has been sanctioned and in no case will be spent over other purposes.

3. The amount will fetch an interest of 13% per annum and recovery will start after one year of drawal of advance with interest in 15 equal annual instalments.

4. After the drawal of the amount the Urban Local Bodies will send loan application in duplicate for conversion of this advance into loan. The expenditure will be met from the provision under the head "682-PH—Loans for Sanitation and Water Supply—Plan—Drainage Scheme—Other Regional Schemes—Loans to Urban Local Bodies for Conversion of Latrines" for which provision exists in the current year's budget of 1980-81.

5. According to the Cabinet Secretariat resolution No. 4761F dated 28.10.71 and 62 P.S. dated 9.9.74, as the financial powers have been delegated to the Government departments, this order is issued with the concurrence of the Internal Financial Advisor as communicated to you in F.D.'s letter No. 3064F dated 8.3.72 and 1973 dated 17.3.73 directly. Now its communication through F.D. is not necessary.

6. According to F.D.'s Memo No. A3-104/73-4072B dated 7.5.74 and Memo No. 11817B dated 11.11.74 no authority from A.G., Bihar, is required for an amount not exceeding Rs. 50,000 (Rupees fifty thousand) only.

7. The Indian Audit and Accounts Department will have exclusive powers to check the accounts and registers of the concerned Municipality/N.A.C.

8. The concerned Divisional Commissioners and the Urban Local Bodies are also being informed.

ENCLOSED LIST

<i>Sl. No.</i>	<i>Name of the local body</i>	<i>Amount sanctioned</i>
1.	Deoghar Municipality	Rs. 2,61,250-00
2.	Dumraon Municipality	Rs. 50,000-00
		Total .. Rs. 3,11,250-00

Yours faithfully,
Sd/- Anil Banerjee,
Under Secretary to Government

Memo No. 5513

UD & HD, Patna-15
Dated 25th October, 1980

Copy to Area Development Officer, Audrey House, Ranchi/ Finance Department (Budget Section) and Section-9/Local Auditor, Bihar, Ranchi/Planning Department/Commissioner, Bhagalpur Division/Patna Division/District Magistrate, Bhojpur (Arrah)/Deputy Commissioner, S.P. (Dumka)/District, Local Bodies, Bihar, Patna/ Executive Officer, Arrah Treasury/Dumka Treasury/Assistant Accountant, Planning Section/Chairman, Sulabh Shauchalaya Sansthan, Gandhi Maidan, Patna, for information and necessary action.

2. The District Magistrate, Bhojpur/Deputy Commissioner, Dumka, are requested to keep watch over the work and the amount of grant.

3. The concerned Executive Officer is requested to see that the sanctioned amount is used properly for which it is meant and to keep the Government informed of the progress of the work. If the amount has not been made available to the rate-payers so far, necessary action should be taken and Government must be informed accordingly.

4. Please immediately send the utilisation certificate of the amount sanctioned for this work. The utilisation certificate of the amount sanctioned in 1980-81 for this work be also sent to the Government by the end of the financial year.

Sd/- Anil Banerjee,
Under Secretary to Government

ANNEXURE VIII
APPLICATION FORM

To

Chairman/Vice-Chairman/Administrator/Chief Executive Officer/
Special Officer/Executive Officer.....Municipal
Corporation/Municipal Committee/Notified Area Committee.

Subject: Grant and Loan for the conversion/construction of service latrines into Sulabh Shauchalayas.

Sir,

I beg to draw your kind attention to the above-noted subject. I have a service latrine in my house. I want to convert/construct this service latrine into Sulabh Shauchalaya.

This conversion/construction of service latrine into Sulabh Shauchalaya will be done by the Sulabh International, Patna.

Hence it is requested that Rs.....should be released for the conversion/construction of the above-mentioned service latrine into Sulabh Shauchalaya.

I will abide by all the terms and conditions of the.....
Municipal Corporation/Municipal Committee/Notified Area Committee.

Yours faithfully,

Report of Tax Inspector

Holding No..... Ward No.....
Circle No..... Locality.....
Police Station.....

ANNEXURE VIII(2)

FORM OF AGREEMENT FOR LOAN

This agreement is made this day of.....
between.....
Age S/O, W/O..... of Mohalla.....
..... Residing in..... Ward No.....
Holding No..... Circle No..... of.....
Municipal Corporation/Municipality/Notified Area Committee of the
one part and the Chairman/Vice-Chairman/Administrator/Chief Executive
Officer/Special Officer/Executive Officer of the other part.

I.....the above named of the one part, am in urgent
need of money to convert/construct my service type latrine into
Sulabh Shauchalaya in Holding No..... Circle No.....
Ward No..... in Mohalla..... P.S.....
District..... which will cost Rs.....(.....
.....) for which I have received Rs.....(.....)
from the Chairman/Vice-Chairman/Administrator/Chief Executive
Officer/Special Officer/Executive Officer.....Municipal
Corporation/Municipality/Notified Area Committee out of which
Rs.....(.....) is by way of subsidy and Rs.....
(.....) is by way of loan on the condition that I shall my-
self spend the balance, if any required, over the aforesaid conversion/
construction. The loan advanced shall bear interest at the rate of
13% per annum and the principal amount, along with interest, is re-
payable in fifteen consecutive equal quarterly instalments after one
year of the date of advancement of the loan.

I agree that any payment made by me to the.....
Municipal Corporation/Municipality/Notified Area Committee shall
first be adjusted towards the interest due on this loan, then towards
the principal repayable and thereafter towards the payment of Muni-
cipal/Corporation taxes.

I further agree that in the event of my not converting the service
latrine or constructing the Sulabh Shauchalayas within a period of
two months from the date of receipt of the aforesaid amount the en-
tire loan and subsidy together with interest thereon shall be recover-
able at once in the manner prescribed in the following paragraph.

I also agree that in the event of my failure to observe any of the conditions of the agreement or in the event of the instalments of the entire amount together with interest being not paid in the manner and within the period specified in this agreement, the Administrator/Special Officer/Executive Officer/Chairman/Vice-Chairman Municipal Corporation/Municipality/Notified Area Committee shall have full power and authority to realise the entire loan with interest from me and my heirs/my representatives by distress warrant as well as certificate proceedings under the Public Recovery Act or by Civil Process, with all expenses and charges incurred thereon along with the compensation, if any fixed by the Chairman/Vice-Chairman/Administrator/Chief Executive Officer/Special Officer/Executive Officer.

I have duly and deliberately entered into this agreement and put my signature hereto after fully understanding the meaning, purpose and intent of this agreement.

Signed this day, the.....of.....beforewho have also signed in my presence as witnesses.

Signature of Witnesses

Signature of the Applicant

- 1.
- 2.

Certified that Sri/ Smt.....S/O, W/O..... has signed in my presence.

Signature of Attestor

Received payment. I hereby authorise Secretary, Sulabh International, Patna, to receive Rs.....(.....) on my behalf from the Administrator/Special Officer/Executive Officer/Chairman/Vice-Chairman..... Municipal Corporation/Municipality/Notified Area Committee for the conversion of my service latrine into Sulabh Shauchalaya/Construction of Sulabh Shau-chalaya in my premises.

Signature of the Witnesses

- 1.
- 2.

Signature of Applicant

ANNEXURE VIII (3)

GUARANTOR FORM

I.....Aged.....
S/O, W/O..... owner of Holding No.....
Circle No..... Ward No..... Mohalla....
.....of theP.S.District....
..... do hereby become the Guarantor of the above applicant
Sri/Smt..... S/O, W/O
.....and hereby agree that in the event of the failure of the
said..... (name) to make payment in
terms of the above agreement entered into by him/her in favour of
the Administrator/Special Officer/Executive Officer/Chairman/Vice-
Chairman. I shall be bound to the same extent and in the same man-
ner as he is, to pay the said dues of the..... Municipal Corpora-
tion/Municipality/Notified Area Committee in his place and on his
behalf and the Chairman/Vice-Chairman/Administrator/Special Offi-
cer/Executive Officer.....Municipal Corporation/Municipality/
Notified Area Committee shall be entitled to use any or all the means
for the realisation of the same from or as are available to him against
the said (name).....

I have understood fully the contents of the agreement entered
into by me.....(name) and the undertaking furnished above
by me and with full knowledge, intent and due deliberation put my
signature hereto

Signed this day of 19 ..
.....before who have also signed in my
presence as Witnesses.

Signature of the Witnesses

Signature of the Guarantor

1.

2.

N.B. Delete the words not applicable.

ANNEXURE VIII (4)

Phone: 23493

SULABH INTERNATIONAL
South Gandhi Maidan, Patna

(Form of owners preference)

Name of the House Owner.....
Ward No.....Holding No.....Circle No..
.....Mohalla.....District.....

I want to construct.....Type.....Design No..
..... Sulabh Shauchalaya. I agree to pay Rs.....the
additional cost, other than subsidy and loan advanced by the Govern-
ment before the completion of the work.

Signature of the House Owner

ANNEXURE VIII (5)

SULABH INTERNATIONAL

(For Office use only)

Name of the House Owner.....
S/O, W/O.....
Holding No..... Ward No..... Circle No.....
Mohalla..... District

This house has a service latrine.....
Name of the form filler.....
Date of form filling.....
Signature of the Supervisor.....
Report of the Centre In-charge and signature in full.....
Date of Submission..... Signature.....

Signature of the Sender

ANNEXURE IX

.....**MUNICIPAL CORPORATION**
.....**MUNICIPALITY**
.....**NOTIFIED AREA COMMITTEE**

Subject: Loan and grant to rate-payers for conversion of service latrine into Sulabh Shauchalaya through the Secretary, Sulabh International, Patna.

Petition of Sri/Smt.....
S/O, W/O.....Holding No.....
Circle No.....Ward No.....
Name of Circle.....

**Chairman/Vice-Chairman/Chief Executive Officer/Administrator/
Special Officer/Executive Officer.**

o Sri/Smt.....S/O, W/O.....
has applied for loan and grant of Rs. 700/- (Seven hundred) only from Corporation/Municipality/Notified Area Committee.....and the application has been submitted through the Sulabh International, Patna-1.

.....has reported that the holding in question stands in the name of Sri/Smt.....

S.I., Ward No.....has reported that the holding in question has one/two-seated service latrine.

The amount of loan and grant as prayed for may be sanctioned.

Signature

ANNEXURE IX A

PATNA MUNICIPAL CORPORATION

Office Notice No. 1461/AC

Rate-payers whose names appear in the attached list are being granted Rs. 400/- each, Rs. 200/- as grant and Rs. 200/- as loan, totalling Rs. 1,40,000 (one lakh and forty thousands) for conversion of 350 service latrines into Sulabh Shauchalayas. This amount, according to the G.O. No. 2472 dated 30.4.74 and 6401 dated 12.10.74 will be given to Mr. Bindeshwar Pathak, Secretary, Sulabh Shauchalaya Sansthan, Patna-1, through whom the conversion work will be executed. The agreement forms for loan and grant along with receipts of payment on behalf of the house owners have been deposited by the Sansthan which have been examined by the Assistant Administrator and the Assistant Health Officer of the Bankipur Circle. The loan amount, with interest, will be realised in instalments, as noted in the agreement, along with other taxes.

2. The above amount will be disbursed from the income-expenditure account (I) ordinary and loan (I) (E) for conversion of service latrines of rate-payers into Sulabh Shauchalayas with loans and grants.

Sd/- R.N. Singh,
Administrator,
Patna Municipal Corporation.

Memo No. 2170

Patna, dated 9.4.77

Copy to Mr. Bindeshwar Pathak, Secretary, Sulabh Shauchalaya Sansthan, South Gandhi Maidan, (near the Reserve Bank) Patna-1 for information and necessary action. It is requested that work be started expeditiously and weekly progress report be sent to the circle office and the head office.

Memo No. 2170/AC

Patna, dated 9.4.77

Copy sent to the Assistant Administrator, Bankipur Circle, for necessary action. The copies of the agreements for loan and grant signed by the house owners are being enclosed herewith. The loan will be realised along with taxes at intervals of three months and sent to the Accounts Department. A separate column should be opened in the cash book about realisation of loans for the construction of Sulabh Shauchalayas. In the Circle Office a separate file for it should be opened.

Sd/- *Chief Accounts Officer,*
Patna Municipal Corporation.

Memo No. 2170/AC

Patna, dated 9.4.77

Copy to:-

- (1) Chief Accounts Officer, Patna Municipal Corporation.
- (2) Health Officer, Patna Municipal Corporation.
- (3) Under Secretary to Government, U.D.D., Bihar, Patna.
- (4) Personal Assistant to Administrator, Patna Municipal Corporation.
- (5) Assistant Engineer, Bankipur Circle.
- (6) Assistant Health Officer, Bankipur Circle.
- (7) To all concerned house owners for information and necessary action.

Sd/- *Chief Accounts Officer,*
Patna Municipal Corporation.

ANNEXURE X

To

Mr./Mrs.....
Father's/Husband's Name.....
Mohalla.....
Holding No.....Ward No..... Circle No.....
Name of the local body.....

Dear Sir,

For the conversion of your service latrine, a representative of the Sulabh International is being sent. He will do his best to execute the work satisfactorily and ensure that there is no defect. Still it is necessary for you to kindly supervise the construction of the latrine.

Please give your special attention to the following :

1. First class brick is used and it is completely water soaked.
2. The composition of mortar for brick laying should be one part cement and four parts sand.
3. For slab the composition should be 2 parts sand, 4 parts stone chips and 1 part cement. The chips should be dried first and mixed well with other materials.
4. After construction of the latrine all brick work, plaster and slabs should be kept wet for 15 days.
5. Fill all the four sides of the tank with earth higher than the tank. If the earth sinks fill it again to prevent water-logging during the rainy season.
6. Ensure before commissioning the new latrine that only the connecting drain is open and the other is closed. It becomes difficult to remove a complaint after the construction. Due to negligence, sometimes both the drains are left open and both the tanks are filled at a time creating trouble in cleaning.

7. If you find any defect or any deviation from the above instructions, kindly inform the centre in-charge or the head office so that your complaint is removed.
8. After completion of the work submit the completion certificate and procure the guarantee card to ensure free repair for five years without payment.

Kindly give your co-operation so that your latrine is constructed without any flaw or defect.

Yours
Secretary
Sulabh International

ANNEXURE XI

Utilisation Certificate

Phone: 23493

OFFICE OF THE SULABH INTERNATIONAL, PATNA (Near Reserve Bank)

- | | |
|-------------------------------------|--|
| 1. Date of commencement of work | 1. Signature of the Supervisor |
| (a) Name | |
| (b) Father/Husband | |
| (c) Holding No. | |
| (d) Circle No. | |
| (e) Ward | |
| 2. Date of completion of work | 2. Signature of the house owner/
member |
| 3. Whether work done satisfactorily | 3. Signature of the Centre In-charge |
| 4. If any complaint, give details | |
| 5. I have got the guarantee card | |

Signature of the house-owner

1. Signature of the Supervisor
2. Signature of the house-owner/member
3. Signature of the Centre In-charge

Signature of the Secretary

ANNEXURE XII

SULABH INTERNATIONAL GUARANTEE CARD

Card No.

Secretary, Sulabh International, offers this guarantee to Mr./Mrs.
..... Mohalla..... Ward No.....
Circle No..... Holding No..... Local Body
..... that in case of any defect within five years
of the construction, except due to natural calamities, misuse or personal
negligence, the Sulabh International would repair it free of cost
on receipt of a written complaint.

PATNA

Dated.....198

Secretary,
Sulabh International, Patna-800001
INDIA

Branches:

Andhra, Madras, Orissa, U.P., West Bengal

NOTE: Please see that this card is not lost or destroyed. To carry
out repairs, this card must be presented to the officer of the International
on demand.

ANNEXURE XIII

Phone: 23493

SULABH INTERNATIONAL, PATNA

To

Shri/Smt.....

Father's/Husband's name.....

Holding No..... Circle No..... Ward No.....

Mohalla.....

Dear Sir,

Your complaint no.....dated.....has been received in the office of the Sulabh International. Arrangements are being made to remove the defect in a week. If within this period the complaint is not removed, kindly inform the International Office.

Yours sincerely,

In-charge of Complaints

ANNEXURE XIV

No.

From :

SULABH INTERNATIONAL
South Gandhi Maidan, Patna

Branch_____

Sri_____

The International has constructed a Sulabh Shauchalaya in your house. You are requested to give direct information to the International Office in case of any difficulty so that we could remove the defect in time.

Incharge

ANNEXURE XV

Progress report upto 1980

Sl. No.	Name of Municipality	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	
1	2	3	4	5	6	7	8	9	10
1.	Siwan Municipality	—	72	131	134	—	24	25	386
2.	Arrah Municipality	86	151	—	—	—	1639	286	2162
3.	Buxar Municipality	38	47	—	—	—	250	300	635
4.	Hajipur Municipality	—	19	—	—	—	—	—	19
5.	Patna Municipal Corporation	—	495	1269	4771	2809	892	—	10236
6.	Bhagalpur Municipality	—	—	64	—	—	256	260	580
7.	Barh Municipality	—	19	—	—	—	—	—	19
8.	Biharsharif Municipality	—	81	—	—	—	248	100	429
9.	Ranchi Municipal Corporation	—	28	163	835	2475	1108	400	5009
10.	Hazaribagh Municipality	—	25	12	88	—	250	100	475
11.	Lakhisarai Municipality	—	25	—	—	—	—	100	125
12.	Jugasalai Municipality	—	100	36	—	—	250	50	436
13.	Begusarai Municipality	—	33	46	—	—	92	50	221
14.	Samastipur Municipality	—	12	38	12	—	140	—	202
		124	1107	1759	5840	5284	5149	1671	20934

1	2	3	4	5	6	7	8	9	10
		124	1107	1759	5840	5284	5149	1671	20934
15.	Motihari Municipality	—	30	35	16	—	—	—	81
16.	Sahebganj Municipality	—	41	—	—	—	—	40	81
17.	Doranda Municipality	—	25	228	—	—	—	—	253
18.	Chakradharpur Municipality	—	15	17	—	—	500	225	757
19.	Darbhanga Municipality	—	72	650	627	191	628	198	2366
20.	Mokameh Municipality	—	19	—	—	—	—	25	44
21.	Katihar Municipality	—	21	—	—	—	—	—	21
22.	Mahnar Municipality	—	15	—	—	—	—	—	15
23.	Sasaram Municipality	—	—	19	22	—	495	—	516
24.	Giridih Municipality	—	—	43	—	—	—	—	43
25.	Dhanbad Municipality	—	—	81	164	—	88	52	385
26.	Jharia N.A.C.	—	—	42	15	—	—	—	57
27.	Deoghar Municipality	—	—	92	14	—	72	114	292
28.	Sindri N.A.C.	—	—	28	—	—	—	—	28
29.	Gopalganj Municipality	—	—	26	—	—	—	—	26
30.	Bettiah Municipality	—	—	110	15	—	238	12	375
		124	1345	3130	6713	5475	7150	2337	26274
31.	Banka Municipality	—	—	15	—	—	—	25	40
32.	Sultanganj N.A.C.	—	—	12	—	—	114	11	137
33.	Lohardagga Municipality	—	—	20	216	—	62	—	298
34.	Raxaul Municipality	—	—	—	7	11	—	—	18
35.	Jhumaritilaia Municipality	—	—	—	24	—	—	20	44
36.	Pakur Municipality	—	—	—	12	7	—	—	19
37.	Bagaha Municipality	—	—	—	11	—	—	—	11
38.	Mairwa Municipality	—	—	—	6	—	—	—	6
39.	Chapra Municipality	—	—	—	—	—	151	100	251
40.	Gaya Municipality	—	—	—	—	—	201	24	225
41.	Danapur Nazamat	—	—	—	—	—	90	—	90
42.	Muzaffarpur Municipality	—	—	—	—	—	234	100	334
43.	Jahanabad Municipality	—	—	—	—	—	—	125	125
44.	Purnea Municipality	—	—	—	—	—	—	115	115
45.	Dumraon Municipality	—	—	—	—	—	—	30	30
46.	Koath N.A.C.	—	—	—	—	—	—	22	22
47.	Sheikhpura Municipality	—	—	—	—	9	—	—	9
48.	Jamshedpur Municipality	—	—	—	—	—	—	200	200
49.	Barahia Municipality	—	—	—	—	—	—	50	50
50.	Sr. S.P. Patna	—	—	—	—	45	35	—	80
		124	1345	3177	6989	5547	8037	3159	28378

ANNEXURE XVI

**CALCUTTA METROPOLITAN
DEVELOPMENT AUTHORITY**
225C, Acharya J.C. Bose Road, Calcutta-20

Memo No 1417(2)/C3S-3/80 dated: 18 4.80

From: **Shri S. Samajdar,**
Director-in-charge, BI & MAD Sector, C.M.D.A.,
To : *Dy. Director, North/South*
BI & MAD Sector, C.M.D.A.

Subject: Construction of public conveniences in Calcutta by Sulabh
Shauchalaya Sansthan (now Sulabh International).

It has been decided that Sulabh Shauchalaya Sansthan will be constructing a number of public conveniences in Calcutta. Different sites have been selected for the purpose and out of them land for the following three locations have been obtained and hence the construction work is in a position to start.

- (1) Construction of public conveniences in north eastern corner of the Deshbandhu Ladies Park in Shyam Bazar.
- (2) Two sites in Rabindra Sarobar.
- (3) In the north eastern corner of Park Circus Maidan.

Out of the above three, drawings and estimates were submitted to the Tender Committee for Sl. 1 to 2 and it was decided by the Tender Committee that the work may be distributed to "Sulabh Shauchalaya Sansthan" at a rate 20% above the estimate which has been framed on the basis of PCS 1979-80. Moreover, an additional 10% supervision charge has been allowed by the Tender Committee. A copy of the agenda note for the Central Tender Committee along with the proceedings of the Central Tender Committee and the schedule of rates and quality and layout plan for the work are being sent herewith.

You are requested to kindly enter into a contract with the Sulabh Shauchalaya Sansthan in form no. 2911 and other relevant forms like special terms and conditions etc. After acceptance of the contract, work order may be issued to the party and bills for 80% advance payment may be forwarded to the Director-in-charge, BI & MAD Sector for necessary action from this end. No Security Deposit will be necessary for execution of the contract. It is considered that work in item (1) may be executed by Executive Engineer, Construction Division and (2) by Executive Engineer, Central Calcutta Zone. Materials to be issued to the contractor on cash payment.

As the work is urgent it will be appreciated if work order is given within a week of receipt of this letter.

Sd/- Illegible
Director-in-charge,
BI & MAD/CMDA

Memo No. 1417(1)/1/C3S-3/80 Dated 18.4.80

Copy to :

- (1) Additional Director (East) for favour of information.
- (2) Copy to Sulabh Shauchalaya Sansthan for information.

Sd/- Illegible
Director-in-charge
BI & MAD/CMDA

ANNEXURE XVII

THIS AGREEMENT MADE ON THIS the day of 28th July 1980 between Calcutta Metropolitan Development Authority, through its Secretary of the one part, (hereinafter called the "First Party") and Sulabh Shauchalaya Sansthan (now Sulabh International) having its office at 30/2 Broad Street, Calcutta-19, through its Chairman, Shri Bindeshwar Pathak of the other part, (Hereinafter called the "Second Party"). The terms and expressions, the "First Party" and the "Second Party," wherever used and occurring in these presents, shall always, unless either expressly, or by necessary implication, excluded by or contrary to, the subject and context, mean and include their respective successors-in-office.

WHEREAS, the First Party proposed to get constructed through the Second Party, public latrines, urinals and bath-rooms at several public places as mentioned hereinbelow for the use of the members of the public.

AND

WHEREAS, it is necessary and desirable to provide for regular cleaning and maintenance of the said public latrines, urinals and bathrooms in order to ensure its continuous serviceability and the Second Party has been, at the instance of the First Party, looking after the cleaning and maintenance of the said public latrines, urinals and bathrooms with leave and license of the First Party.

AND

WHEREAS, the Second Party has requested the First Party for an agreement incorporating the terms and conditions of the said works for a stated and specified period.

AND

WHEREAS, the First Party having considered the said request of the Second Party has obtained the approval of the Chairman, Vice-Chairman and Chief Executive Officer of Calcutta Metropolitan Development Authority in respect thereof and considers the execution of an agreement expedient in public interest.

NOW THEREFORE THIS AGREEMENT

Witnesseth as follows :-

1. That the Second Party shall, for a term of 30 (thirty) years, regularly cleanse, maintain and repair, if necessary, the said public latrines, urinals and bath-rooms at its own cost and through its own establishment.

2. That the Second Party shall be entitled to impose and charge such reasonable sum as may be necessary from the users of the said public latrines, urinals and bath-rooms after obtaining the prior written approval of the First Party for meeting the expenses and establishment cost of the Second Party. It has been agreed that the Second Party will charge 10 paise per user for using latrine and bath for the present. Other facilities will be free to the user.

3. That the First Party shall be entitled to get the repair and maintenance work done by the Second Party at the cost of the Second Party regularly inspected by the Engineering Staff of the First Party, who shall further be entitled to issue at his sole discretion such orders and directions to the Second Party as may be considered necessary and the Second Party shall be bound to carry out the same.

4. That any neglect or lapse on the part of the Second Party to cleanse, maintain and repair regularly the said public latrines, urinals and bath-rooms shall entitle the First Party to terminate the agreement after giving reasonable opportunity to the satisfaction of the First Party. In this regard the decision of the First Party shall be final and binding on the Second Party.

This will be applicable to public facilities to be constructed by the Second Party as and when entrusted to them by the First Party for the purpose in writing.

The present assignment covers the following locations:

The assignment is as per plan which may vary due to site conditions and other factors.

1. i) Public latrines (60 seats), urinals (18 [outside] seats) and bath-rooms 31 in two locations at—i) South of Rabindra Sarobar, Calcutta, near Railway Crossing, and
ii) South East Corner of Rabindra Sarobar, Calcutta.
(The land on which the aforesaid public conveniences are to be constructed belongs to Calcutta Improvement Trust which organisation has authorised building of the abovenoted public utility services in writing to the first party under its Memo No. C/MISC-714/731, dated 4.6.80).
2. Public latrines (42 seats), urinals (13 seats) and bath-rooms 14 at Deshbandu (Ladies Park), Shyambazar, Calcutta. (The land on which the aforesaid Public Conveniences are to be constructed belongs to Corporation of Calcutta which organisation has authorised building of the abovenoted public utility services in writing to the first party under its memo No. Con/Com/1/80-81, dated 1.4.80).
3. Public latrines (40 seats), urinals (6 seats) and bath-rooms (8 seats) at North East Corner of Park Circus Maidan, Calcutta.
4. During the tenure of this agreement if eventuality arises in the interest of public service which may lead to the termination of this agreement in respect of any of the locations mentioned herein, the Second Party will be provided with a new location with similar public utility services in lieu of, under the same terms and conditions.
5. Any other matter not covered in this agreement shall be mutually settled by both parties.
6. Installation of public conveniences in other locations as ap-

proved by the Authority (First Party) in future, under the same terms and conditions.

In witness whereof the parties hereto have set and subscribed their hands to this Agreement on this the day of 28th July, 1980 in presence of witnesses.

Sd/- M.K. MOITRA,
Secretary,
CMDA

Signature of the witnesses:

(1) **Sd/- N. DAS SARMA**
Assistant Administrative Officer
CMDA Secretariat

Signature of the First Party

Sd/- B. PATHAK
For Sulabh International
Chairman

Signature of Second Party

(2) ...
(3) **Sd/- D.M. BARARI**
Resident Programme Officer
Sulabh International
West Bengal Branch

ANNEXURE XVIII

CALCUTTA METROPOLITAN DEVELOPMENT AUTHORITY

No. 1465(2)/C3S-3/80 Dated 22.4.80

From: Mr. M.K. Moitra, I.A.S.,
Secretary, CMDA
Calcutta

To: The Chairman/Executive Engineer

Sub: Conversion of service latrines into sanitary ones by pit privies (Sulabh Shauchalaya Type) in the Municipal areas of CMDA by Sulabh Shauchalaya Sansthan (now Sulabh International).

Sir,

In continuation of letter no. 719(33)/C3S-80 dated 06.03.80 regarding the conversion of service latrines into sanitary ones in the Municipal areas of CMDA, this is to inform you that "Sulabh Shauchalaya Sansthan" having its Branch in 30/2, Broad Street, Calcutta-1, (West Bengal) has been recognised by CMDA as a Catalytic Agency to co-ordinate among the house-owners, municipalities and Calcutta Metropolitan Development Authority for promotion and speedy implementation of the scheme of conversion of service latrines by two chambered pit privies (Sulabh Shauchalaya Type).

The Representatives of the Sansthan will contact the Chairman/Executive Officer of the concerned municipality and under their direction the Representatives of the Sansthan will move from door to door to canvass, convince and persuade the house-owners to get their service latrines converted into two chambered pit privies (Sulabh Shauchalaya Type). If the respective house-owner agrees to get his or her service latrine/latrines converted, he will fill up a form which will be prepared by the Sansthan in consultation with the Municipality and

will hand it over to the concerned representative of the "Sulabh Shauchalaya Sansthan" or will submit the form duly filled up directly to the municipality. On receipt of application forms from the house-owners, the concerned municipality, after proper scrutiny, will send proposal to CMDA in prescribed form as per CMDA's letter no. 719(33)/C3S-3/80 dated 06.03.80. If municipality decides to get the conversion work implemented by CMDA, the proposal has to be sent in form as per Annexure No. 3 of the said letter.

Sulabh Shauchalaya Sansthan at present has been selected by CMDA for execution of such works. They will also be responsible for maintenance of the works for 5 (five) years from the date of completion of the work and will also do the first cleaning of the pit.

On completion of the construction work the "Sulabh Shauchalaya Sansthan" will obtain a completion certificate from the concerned house-owner. The Municipality will direct its technical representative as it may think fit, to inspect the work and on being satisfied to give a completion certificate stating therein that the work has been carried out as per drawing and specification and the old service latrine has been dismantled. Such certificates will, as early as possible, be forwarded to the CMDA for the adjustment of the amount advanced by CMDA towards the execution of work to the "Sulabh Shauchalaya Sansthan".

In the light of the procedures enumerated above all the Municipalities are requested to give as much assistance and co-operation as possible, to the representatives of the "Sulabh Shauchalaya Sansthan" so that this scheme of conversion of service latrines may be executed expeditiously and successfully.

Yours faithfully,

Sd/- M.K. MOITRA
Secretary
CMDA

Memo No. 1465 (2)/C3S-3/80 Dated 22.4.80

Copy to :

- (1) Director-in-charge, BI & MAD Sector/CMDA
- (2) Sulabh Shauchalaya Sansthan (Sulabh International)
for information and necessary action.

ANNEXURE XIX

This agreement is made on this day of the 28th July, 1980.

BETWEEN the Calcutta Metropolitan Development Authority, through its Secretary, (hereinafter called the First Party) of the one part and the "Sulabh Shauchalaya Sansthan", a registered voluntary Social Organisation, No. 73/70-71, Patna, Branch 30/2 Broad Street, Calcutta-700019, West Bengal, through the Chairman, Shri Bindeshwar Pathak (hereinafter called the Second Party) of the other part.

WHEREAS the First Party has approached the Second Party to undertake the work of conversion of service latrines into pit latrines (Sulabh Shauchalaya type) under the jurisdiction of Calcutta Metropolitan Development Authority.

AND WHEREAS the Second Party has agreed to undertake the work of conversion of service latrines into pit latrines (Sulabh Shauchalaya type) under the jurisdiction of Calcutta Metropolitan Development Authority.

In pursuance of the aforesaid agreement the First Party covenants with the Second Party as follows :-

1. That the First Party will send letters to all the municipalities within the Calcutta Metropolitan District requesting them to take the assistance of "Sulabh Shauchalaya Sansthan", if required, for its work of conversion of service latrines into pit latrines.
2. That the Second Party will approach, motivate and persuade the house owners for conversion of their service latrines into pit latrines. The functions connected with motivation and persuasion will be carried out by the "Sulabh Shauchalaya Sansthan" at its own cost. The Sansthan will maintain an office in Calcutta Metropolitan District area for the work.
3. That the Chairman/Executive Officers of the Municipality concerned will send all the application forms received by them to Calcutta Metropolitan Development Authority after proper scrutiny and with necessary recommendations in forms prescribed from time to time by CMDA.

4. That the CMDA will give 90% of the amount towards cost of the work allotted to "Sulabh Shauchalaya Sansthan" as advance.
5. After receiving the required amount of advance the "Sulabh Shauchalaya Sansthan" will start the work and will complete it within six months of the receipt of advance. The unutilized amount, if any, after expiry of the six months time limit, will be refunded to the CMDA. Each order will be considered separately for this purpose.
6. For the conversion of service latrines into pit latrines of Sulabh Shauchalaya Type, cement and M.S. rods will be supplied by the CMDA to the Sulabh Shauchalaya Sansthan from any CMDA or CMDA controlled godown on cash payment by the "Sulabh Shauchalaya Sansthan". The quantity and cost of the materials to be supplied by CMDA to the Sansthan will be determined by Presidency Circle Schedule of rates for Building and Roads, 1979-80 of Public Works Department, Government of West Bengal.
7. After the completion of execution of the allotted work the "Sulabh Shauchalaya Sansthan" will submit required completion certificate in forms prescribed by CMDA through the concerned municipality. In case of Gram Panchayat and Calcutta Corporation, the completion certificate has to be submitted through the Executive Engineer, CMDA. After obtaining the completion certificate duly accepted by the municipal authorities/Ex. Engineers, CMDA, the CMDA will adjust the amount advanced to the "Sulabh Shauchalaya Sansthan" and the CMDA will release the balance 10% cost on the basis of the completion certificate. In case of dispute between municipality and/or Anchal Panchayat and Sulabh Shauchalaya Sansthan, the decision of CMDA will be final and binding.
8. That work should be carried out as per specification mentioned in Presidency Circle Schedules, 1979-80 for Roads, Buildings and Sanitary and Plumbing works of Public Works Department, Government of West Bengal.

9. That the Sansthan will be responsible for proper storage and utilisation of the materials purchased from CMDA and account for consumption in the work has to be submitted by the Sansthan to CMDA. For materials which cannot be accounted for by the Sansthan to the satisfaction of CMDA, penalty of an amount equal to the cost charged by CMDA for issuing the materials to the Sansthan has to be paid to CMDA by the Sansthan in addition to the cost already paid.
10. That the Sulabh Shauchalaya Sansthan will set right any defect found subsequently in the work executed by them free of charges for five years from the date of completion of the work and they will also be responsible for the first cleaning of the pit without any extra cost.
11. That the Sansthan will construct the pit latrines as per drawing, estimate and specification at the rate shown in annexure which may be revised on revision of Presidency Circle Schedule of rates for Building, Road, Sanitary and Plumbing with mutual consent, but not earlier than one year from the date from which this agreement is effective.
12. That any matter not covered by the terms of this agreement will be mutually settled by both the parties.
13. That any dispute arising between the First Party and the Second Party will be settled by an arbitrator appointed by Secretary, CMDA and agreed to by the Second Party.

IN WITNESS WHEREOF the parties have signed this deed on the date, month and year first above written in presence of witnesses.

Witnesses

- | | |
|--|--|
| <p>1) <i>Sd/- N. Das Sarma</i>
<i>Assistant Administrative Officer</i>
CMDA Secretariat</p> | <p><i>Sd/- M.K. MOITRA</i>
Signature of the First Party
<i>Secretary</i>
CMDA</p> |
| <p>2)</p> <p>3) <i>Sd/- D.M. Barari</i>
<i>Resident Programme Officer,</i>
Sulabh Shauchalaya Sansthan
West Bengal Branch.</p> | <p><i>Sd/- Bindeshwar Pathak</i>
Signature of the Second Party
For SULABH SHAUCHALAYA
SANSTHAN
<i>Chairman</i></p> |

ANNEXURE XX

List of participants of National Seminar on Conversion of Bucket Privies into Water Seal Latrines jointly sponsored by WHO, UNICEF and Government of India in Patna in 1978.

Ministry of Works and Housing

1. Dr. Nilay Chaudhuri,
Chairman,
Water Pollution Board and Acting Adviser (PHEE), CPHEEO,
Ministry of Works and Housing,
Nirman Bhavan,
New Delhi.
2. Mr. K. Biswas,
Director (Urban Development),
Ministry of Works and Housing,
Nirman Bhavan,
New Delhi.
3. Mr. B.B. Rau,
Deputy Adviser (PHEE), CPHEEO,
Ministry of Works and Housing,
Nirman Bhavan,
New Delhi.
4. Mr. M.M. Dutta,
Assistant Adviser (PHEE), CPHEEO,
Ministry of Works and Housing,
Nirman Bhavan,
New Delhi.
5. Mr. M.R. Parthasarathy,
Assistant Adviser (PHEE), CPHEEO,
Ministry of Works and Housing,
Nirman Bhavan,
New Delhi.

6. Dr. S.K. Sengupta,
Director,
Central Bureau of Health Intelligence,
Directorate General of Health Services,
Nirman Bhavan,
New Delhi.

STATE GOVERNMENTS

Andhra Pradesh

7. Mr. D. Lakshmana Rao,
Superintending Engineer,
Hyderabad Municipal Corporation,
Hyderabad, Andhra Pradesh.

Assam

8. Mr. M.C. Deka, ACS,
Director of Municipal Administration,
Lamba Road,
Gauhati, Assam.

Bihar

9. Mr. S.K. Sinha,
Principal Secretary,
Urban Development Department,
Patna, Bihar.
10. Mr. A. K. Sarkar,
Secretary,
Urban Development Department,
Patna, Bihar.
11. Mr. P.K. Lahiri,
Chief Engineer,
Public Health Engineering Department,
Patna, Bihar.

12. **Mrs. P.K. Shusma,**
Director,
Local Bodies, Bihar,
Patna, Bihar.
13. **Mr. Bindeshwar Pathak,**
Secretary,
Sulabh Shauchalaya Sansthan,
Patna, Bihar.

Gujarat

14. **Mr. R.C. Mody,**
Chief Engineer and Joint Secretary,
Panchayat and Health Department,
Ahmedabad, Gujarat.
15. **Mr. K.V. Bhanujan,**
Director,
Municipalities, Gujarat,
Ahmedabad, Gujarat.
16. **Mr. Ishwaribhai J. Patel,**
Safai Vidyalaya,
Gandhi Ashram,
Ahmedabad, Gujarat.
17. **Mr. D.N. Kataria,**
Assistant Director,
Social Welfare Department,
Ahmedabad, Gujarat.

Haryana

18. **Mr. H.V. Goswami,**
Commissioner and Secretary to the Government,
Local Government Department, Haryana,
Chandigarh.

19. Mr. A.N. Mahandale,
Chief Engineer,
Urban Development Authority,
Faridabad, Haryana.

Kerala

20. Mr. N. Gopala Krishnan Nair,
Special Secretary to Government,
Local Administration and Social Welfare Department,
Trivandrum, Kerala.
21. Mr. D. Appukuttan Nair,
Chief Engineer and Ex-Officio Additional Secretary,
Local Administration and Social Welfare Department,
Trivandrum, Kerala.

Madhya Pradesh

22. Mr. K.G. Manke,
Deputy Director,
Local Bodies,
Directorate of Local Bodies,
37, Bhadbhada Road,
Bhopal, Madhya Pradesh.

Maharashtra

23. Mr. S.T. Khare,
Chief Engineer (ENE) and Jt. Secretary to Government of
Maharashtra, Urban Development and Public Health Department,
Bombay, Maharashtra.

Orissa

24. Mr. D.N. Singh Deo,
Chief Engineer (PH),
Public Health Engineering Department,
Bhubaneswar, Orissa.

Punjab

25. Mr. M.S. Sandhu,
Superintending Engineer,
Punjab Water Supply and Sewerage Circle,
Jullunder, Punjab.

Rajasthan

26. Mr. Shiv Charan Sharma,
Director, Local Bodies, Rajasthan,
Jaipur, Rajasthan.

Tamil Nadu

27. Mr. T.G. Srinivasan,
Chief Engineer,
TWAD Board,
160, Anna Salai,
Madras 600 002,
Tamil Nadu.

Uttar Pradesh

28. Mr. K.N. Gupta,
Additional Chief Engineer (West),
Uttar Pradesh Jal Nigam,
6, Rana Pratap Marg,
Lucknow, Uttar Pradesh.
29. Mr. Saran Prashad,
Joint Secretary, Local Self Government,
Civil Secretariat,
Lucknow, Uttar Pradesh.

West Bengal

30. Mr. A.K. Poddar,
Chief Engineer,
P.H.E. Directorate,
New Secretariat Building,
1, K.S. Roy Road,
Calcutta-1, West Bengal.

Others

31. Professor S. Subha Rao (A.I.I.H.P.H., Calcutta),
C/o Mr. S. Srinivasa Rao,
309, 10th Main Road,
III Block,
Jayanagar Extension,
Bangalore-500 011, Karnataka.
32. Dr. S.K. Handa,
C/o. Director,
National Environmental Engineering Research Institute,
Nehru Marg,
Nagpur.

Secretariat Staff

WHO

1. Mr. S. Rajagopalan,
WHO Temporary Adviser.
2. Professor Deva Raj,
WHO Temporary Adviser.
3. Dr. T.R. Bhaskaran,
WHO Temporary Adviser.
4. Mr. M.A. Acheson,
Regional Adviser, Environmental Health,
WHO Regional Office for South-East Asia.
5. Mr. A.K. Roy,
WHO Sanitary Engineer,
WHO Regional Office for South-East Asia.
6. Mr. G. Heyland,
WHO Financial Analyst,
WHO Regional Office for South-East Asia.

UNICEF

1. Dr. W.J. Cousins,
Programme Adviser,
UNICEF Regional Office for South Central Asia,
New Delhi.

ANNEXURE XXI

Foreign and Indian delegates who participated in the International Seminar on "Low Cost Techniques for Disposal of Human Waste in Urban Communities" held in Calcutta, who visited Patna.

Foreign Delegates

1. Mr. G.M. Kalbermatten : World Bank, Washington DC 20433, U.S.A.
2. Mr. M.J. Lowwen : World Bank, Washington DC 20433, U.S.A.
3. Mr. G.H. Read : World Bank/UNDP, Ross Institute, Keppel Street, London, W.C.I., England.
4. Mr. Charles G. Gunnerson : NOAA/ERL, Boulder, Colorado 80303, U.S.A.
5. Mr. R. Schertenleib : IRC for Waste Disposal, Uberland Str. 8600, DUBENDORF/ Switzerland.
6. Mr. Teofilo I. Asuncion : Project Manager, Metro Manila Sewerage and Sanitation System, P.O. Box 383, Manila, Philippines.
7. Mr. Mosiu Oa' Mota : Senior Engineer, V.W.S., Minru-dev Maseru, Box 686, MS Lesotho.
8. Mr. E.K. Simbeye : Senior Health Officer, Ministry of Health, P.O. Box 9082, Dar-es-Salaam, Tanzania.
9. Mr. Zahid Alavi : UNICEF, 30, Chartered Bank Building, Chundrigar Road, Karachi, Pakistan.
10. Mr. Nasit Lotia : C/o. M/S Saify Brothers, G-6, AZ-Zainal Court, Campbell Street, Karachi, Pakistan.
11. Mr. A S Azad : Water and Environmental Sanitation Section, UNICEF, Dacca, Bangladesh.

12. Mr. J. Kabir : Water and Environmental Sanitation Section, UNICEF, Dacca, Bangladesh.
13. Mr. M.M. Hossain : Additional Chief Engineer, Department of Public Health Engineering, Dacca, Bangladesh.
14. Mr. Narul Hoque : Executive Engineer, Department of Public Health Engineering, Dacca, Bangladesh.
15. Dr. Albert Wright : Ghana.
16. Mr. R. Sekarajsekaran : Malaysia.
17. Mr. B.K. Temane : Botswana.
18. Miss Jenny Cook : Institute of Geological Science, Wallingford, Berkshire, England.

INDIAN DELEGATES

ASSAM

1. Dr. M.C. Datta : Medical Officer, Gauhati Municipal Corporation, Gauhati.
2. Mr. Jyotirmoy Roy Choudhuri : Senior Research Officer, Municipal Administration Department, Gauhati.
3. Mr. Binoy Kumar Das : Executive Engineer, Town Planning Organisation, Gauhati.
4. Mr. Tarini Charan Sarma : Chairman, Sibsagar Municipal Board, Amolapatty, Assam.
5. Mr. Kandarpa Kumar Das : Chairman, Barpeta Municipal Board, Amolapatty, Assam.
6. Mr. Alam Syed Eska : Vice-Chairman, Tezpur Municipal Board, Assam.
7. Mr. Satish Barbara : Chairman, Jorhat Municipal Board, Assam.
8. Mr. Sidheswar Gogoi : Chairman, Municipal Board, North Lakhimpur, Assam.
9. Mr. Jnanada Borah : Municipal Overseer, Municipal Office, Nowgong, Assam.
10. Mr. Nava Kumar Chetia : Administrator, Nowgong Municipal Board, Nowgong, Assam.
11. Mrs. Binapani Chakrabarty : Office Assistant, Silchar, Cachhar, Assam.
12. Mr. M.N. Bhattacharjee : Municipal Inspector, Silchar Municipality Silchar, Assam.
13. Mr. Bijon Behari Choudhury : Tax Daroga, Municipal Office, Silchar, Cachhar, Assam.
14. Mr. Bhusan Chakrabarty : Vice-Chairman, Silchar Municipal Office, Assam.
15. Mr. H.C. Deka : Chairman, Mangaldoi Municipal Board, Mangaldoi, Assam.
16. Mr. Dilip Chakraborty : Assistant Engineer, Silchar Municipal Board, Silchar, Cachhar, Assam.

BIHAR

17. Mr. Ram Rasik Ram : Executive Officer, Dhanbad Municipality, Dhanbad.
18. Mr. Punya Nand Jha : Executive Officer, Hajipur Municipality, Hajipur.
19. Mr. Madan Lal Sharma : Executive Officer, Katihar Municipality, Katihar, Bihar.

GUJARAT

20. Mr. Shantilal Nanalal Patel : President, Godhra Municipality, Godhra, Gujarat.
21. Mr. Harilal Sukhlal Trivedi : Chief Officer, Dhoraji Municipality, Dhoraji, Gujarat.
22. Mr. Suryakant S Dhinoja : President, Dhoraji Municipality, Dhoraji, Gujarat.
23. Mr. Shantilal M. Chouhan : Secretary, Prantij Nagar Panchayat, Gujarat.
24. Mr. M.J. Patel : President, Nagar Panchayat, Harij, Mehsana, Gujarat.
25. Mr. H.R. Pandya : Chief Officer, Municipality Broach, Gujarat.
26. Mr. Hargovind Dalpatram Thakker : Executive Head, Harij, Mehsana, Gujarat.
27. Mr. R.H. Pandya : Chief Officer, Godhra Municipality, Godhra, Gujarat.
28. Mr. Prabhushanker Harilal Dave : Secretary, Deesa Nagar Panchayat, Gujarat
29. Mr. S.L. Thakkar : Secretary, Nagar Panchayat, Rudhanpur, Gujarat.

MADRAS

30. Mr. Jayanthi Sekaran : Research Analyst, Institute of Public Health, Poonamallee, Madras.

31. Mr. R. Santhana Gopala : Public Health Sanitary Engineer,
Krishnan Institute of Public Health. Poona-
mallee, Madras.

MAHARASHTRA

32. Mr. Ram Belavadi : Additional Collector, Ratnagiri,
Maharashtra.
33. Mr. Govindrao Nagorao : Chief Officer, Udgir, District
Deshpande Usmanabad, Maharashtra.
34. Mr. N.M. Shrawankar : Chief Officer, M.C. Yavatmal
Vaidhya Arni Road, Yavatmal,
Maharashtra.
35. Mr. M.M. Mankar : Chief Executive Officer, Municipal
Council, Shegam, District
Buldhava, Maharashtra.
36. Mr. D.R. Rathod : Chief Officer, Municipal Council,
Chikhli, Dist. Buldhava, Maha-
rashtra.
37. Mr. R.C. Rode : Executive Officer, M.C. Umrer,
District Nagpur, Maharashtra.
38. Mr. B.A. Patil : Chief Officer, Gadhinglaj Muni-
cipal Corporation, Kolhapur,
Maharashtra.
39. Mr. R.M. Vatsaraj : Asstt. Director of Mun. Adminis-
tration, Bombay, Opp. Sachivalaya
Bombay-32.
40. Mr. M.V. Gabhane : Chief Officer, Municipal Council,
Rantek, District Nagpur, Maha-
rashtra.
41. Mr. R.V. Bhadane : Chief Officer, Chiplub Municipal
Council, Ratnagiri, Maharashtra.
42. Mr. M.H. Joshi : Head Clerk, Director of Muni-
cipal Corporation, Bombay.
43. Mr. S.K. Holkar : Under Secretary to Government
of Maharashtra.

RAJASTHAN

44. Mr. J.S. Tannar : Director of Local Bodies Department, Jaipur, Rajasthan.
45. Mr. Atmaram Khatri : Executive Officer, Municipal Board, Sirohi, Rajasthan.
46. Mr. Ravidutta Sharma : Executive Officer, Municipal Board, Chonnou, Rajasthan.
47. Mr. Manmohan Jain : Executive Officer, Chittorgarh Municipality, Rajasthan.
48. Mr. Shanker Singh Solanki : Commissioner, Municipal Council, Bhilwara, Rajasthan.
49. Mr. Nandlal Vyas : Executive Officer, Municipal Board, Pokharan, Jaisalmer, Rajasthan.
50. Mr. Govind Narain : Chairman, Rajasthan Institute of Local Self Government, Tonk Road, Jaipur (Rajasthan).

TAMILNADU

51. Mr. K. Marimuthu : Municipal Commissioner, Panruti (P.O.) S.H. (Dt.).
52. Mr. K. Myleri : Municipal Commissioner, Gobichettipalayam, Tamilnadu.
53. Mr. A. Victor Thangaraja : Municipal Commissioner, Chengalpathi, Tamilnadu.
54. Mr. S. Amamllu Khan : Municipal Commissioner, Oathi Kotthi, Tanjaru, Tamilnadu.
55. Mr. R.J.B. Frederick : Municipal Commissioner, Manargudi (Thanjavur), Tamilnadu.
56. Mr. T.M. Sivagurunathan : Municipal Commissioner, Pollachi, Tamilnadu.
57. Mr. C.V. Sanjeevi : Executive Officer, Kodaikanal Township, Madurai, Tamilnadu.
58. Mr. S.N. Palaniswamy : Municipal Commissioner, Coonoor Municipality, Coonoor, The Nilgiris, Tamilnadu.

59. Mr. Venkalia Chalam M. : Municipal Commissioner, Sukali, Tamilnadu.
60. Mr. A. Vairavan : Municipal Commissioner, Tankasi, Tamilnadu.
61. Mr. K. Panbananthan : Commissioner, Attur Municipality, Salem, Tamilnadu.
62. Mr. S. Narayanasamy : Special Officer, Themi-Allinagaram Municipality, Themi, Tamilnadu.
63. Mr. R. Selvarajan : Special Officer, Municipal Office, Thuraiyur, Tamil Nadu.
64. Mr. M. Rajakumar : Special Officer, Aranthangi Municipality, Pudukhotta, Tamilnadu.
65. Mr. Alagiriswamy Rengaswamy : Municipal Commissioner, Thanjavur, Tamilnadu.

U.P.

66. Dr. Goyal Bishan Chand : Executive Officer, Municipal Board, Baraut, Meerut, U.P.
67. Mr. Rameshli Chand Jain : Director, Local Bodies, Dali Bagh, Lucknow, U.P.
68. Mr. S.H.I. Nagai : Executive Officer, Najibabad, Bijnor, U.P.
69. Mr. D.S. Sharma : Executive Officer, Municipal Board, Kalpi, Jalone, U.P.
70. Mr. Gyan Sagar : Superintending Engineer, (R&D) U.P. Jal Nigam, Lucknow, U.P.
71. Mr. H.S. Awasthi : Executive Officer, Nagarpalika Lakhanpur, U.P.
72. Mr. K.N. Painuly : Executive Officer, Municipal Board, Srinagar, Garhwal, U.P.
73. Mr. Kailash Nath Rai : Executive Officer, Nagarpalika Ghazipur, U.P.
74. Mr. Chandra Shekhar Pandey : Executive Officer, Municipal Board, Sikandra Rao, Aligarh, U.P.

75. Mr. Laxmi Narain : Executive Officer, Nagarpalika, Budaun, U.P.
76. Mr. Anoop Kumar Shukla : Executive Officer, Municipal Board, Khevatd, Sitapur, U.P.
77. Mr. Prahlad Singh Rawat : Executive Officer, Municipal Board, Paurigarhwal, U.P.
78. Mr. Anand Kumar Raturi : Executive Officer, Municipal Board, Narendra Nagar, U.P.

ANNEXURE XXII

LIST OF PUBLIC LATRINES, URINALS & BATHS MAINTAINED BY SULABH INTERNATIONAL, PATNA, AS ON 31.7.1980

Sl. No.	Name of Place	No. of Latrines	No. of Urinals	No. of Baths	Collection per day
1.	Mahendru Ghat	6	3	6	Rs. 45-00
2.	Anta Ghat	10	—	7	Rs. 37-00
3.	B.N. College	12	2	5	Rs. 27-00
4.	Collectorate	6	2	6	Rs. 17-00
5.	Bus Depot	9	3	8	Rs. 92-00
6.	Gandhi Maidan	48	—	22	Rs. 128-00
7.	China Kothi	20	—	9	Rs. 115-00
8.	North Mandiri	6	—	6	Rs. 19-75
9.	South Mandiri	20	—	6	Rs. 20-00
10.	Adalat Ganj	48	—	24	Rs. 103-00
11.	Hardinge Park	24	—	9	Rs. 20-00
12.	High Court	4	—	4	Rs. 4-50
13.	M.L.A. Flat	10	2	5	Rs. 11-50
14.	R. Block	16	—	12	Rs. 67-50
15.	New Secretariat	24	—	12	Rs. 30-00
16.	Chitkohara Bazar	24	—	12	Rs. 17-00
17.	Mithapur	8	2	7	Rs. 27-00
18.	Karbigahia	6	—	5	Rs. 7-50
19.	Chiraiyantand	16	—	6	Rs. 70-00
20.	Patna Junction	24	4	20	Rs. 306-00
21.	Pirbahor Thana	8	1	7	Rs. 59-00
22.	Patna Market	9	5	8	Rs. 35-00
23.	Children Ward (P.M.C.H.)	12	1	14	Rs. 57-00
24.	Patna College	8	2	8	Rs. 47-50
25.	Science College	10	2	9	Rs. 61-50
26.	Rani Ghat	6	—	3	Rs. 10-00
27.	Musallahpur Bhati	24	—	10	Rs. 39-00
28.	Musallahpur Dargah	16	4	5	Rs. 8-00

29. Saidpur	11	2	10	Rs.	46-00
30. Rajendranagar Hospital	16	—	10	Rs.	26-00
31. Rajendranagar Golamber	36	2	9	Rs.	60-00
32. Nala Road	6	2	6	Rs.	43-00
33. Sahitya Sammelan	20	1	10	Rs.	126-00
34. Dariapur	18	4	12	Rs.	88-00
35. Patna Jn. (opened on 20.7.80)	10	8	8	Rs.	66-50
	<u>551</u>	<u>52</u>	<u>313</u>	Rs.	<u>1,937-75</u>

BRANCH—CALCUTTA

<i>Sl. No.</i>	<i>Name of Place</i>	<i>No. of Latrines</i>	<i>No. of Urinals</i>	<i>No. of Baths</i>	<i>Collection per day</i>
1.	Ladies Deshbandhu Park (Shyambazar)	42	14	16	Rs. 75-00

(N.B.) Two complexes are also nearing completion.

BRANCH—RANCHI

1.	Ratu Road Bus Stand	20	10	6	Rs. 60-00
2.	Rajendra Medical College	20	4	6	Rs. 20-00
3.	Sadar Hospital (Male)	20	—	6	Rs. 32-00
4.	Sadar Hospital (Female)	10	—	6	—
5.	Chutia, Station Road	10	—	6	Rs. 20-00
6.	Bus Depot	20	4	6	Rs. 33-00
7.	Bada Talab	20	—	6	Rs. 22-00
8.	Kachahari	20	4	Water Tank	Rs. 33-00
		140	22	42	Rs. 220-00

BRANCH—GAYA

1.	Station, Gaya	8	2	4	Rs. 65-00
2.	Bus Stand, Gaya	10	—	6	Rs. 32-00
3.	Kachahari, Gaya	8	2	4	Rs. 30-00
		26	4	14	Rs. 127-00

BRANCH—DARBHANGA

<i>Sl. No.</i>	<i>Name of Place</i>	<i>No. of Latrines</i>	<i>No. of Urinals</i>	<i>No. of Baths</i>	<i>Collection per day</i>
1.	Medical College	13	—	6	Rs. 45-00
2.	Bus Stand	10	2	6	Rs. 35-00
		<u>23</u>	<u>2</u>	<u>12</u>	<u>Rs. 80-00</u>

BRANCH—ARRAH

1.	Hospital Compound	5	—	4	Rs. 10-00
2.	Mirganj	5	—	4	Rs. 20-00
3.	Station (Newly started)	8	2	4+2	Rs. 11-00
		<u>18</u>	<u>2</u>	<u>12+2</u>	<u>Rs. 41-00</u>

BRANCH—SAMASTIPUR

1.	S.D.O. Court	20	—	6	Rs. 30-00
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BRANCH—KATI HAR

1.	Sadar Hospital	10	—	Two hand-pumps	Rs. 6-00
2.	Registry Compound	10	3	6 with two water tanks	Rs. 6-00
		<u>20</u>	<u>3</u>	<u>6</u>	<u>Rs. 12-00</u>

Directorate, Health Services, Bihar

Memo No. 10/M1-1018/76 H. Patna dated—

To

Accountant-General, Bihar
P.O. Hinoo, Ranchi.

Subject: Construction of Double Seated septic latrines like Sulabh Shauchalaya in marginally noted 26 Primary Health Centres.

Orders :

1. Bihta (Patna)
 2. Marhawra (Saran)
 3. Mahrajganj (Siwan)
 4. Noorsarai (Nalanda)
 5. Balia-Lakhminia (Begusarai)
 6. Barun (Aurangabad)
 7. Deo (" ")
 8. Piro (Bhojpur)
 9. Kataiya (Gopalganj)
 10. Saraiya (Muzaffarpur)
 11. Rahui (Nalanda)
 12. Dhamdaha (Purnea)
 13. Dawash Suryapura (Rohtas)
 14. Hasanpur-Kadari Gajpatti (Samastipur)
 15. Mohiuddin Nagar (Samastipur)
 16. Waris Nagar (Samastipur)
 17. Bathnaha (Sitamarhi)
 18. Pupri (Sitamarhi)
 19. Bairgania (Sitamarhi)
 20. Riga (Sitamarhi)
 21. Pipra (Saharsa)
 22. Raghopur (Saharsa)
- It is ordered to modify para-4 of all order nos. 169(10) to 194(10) dated 2.2.77 on the above subject that Executive Engineer, Engineering Cell, Family Planning Bureau, Bihar, will be its drawing and disbursing Officer who will be empowered to advance 80% to the M/S. Sulabh Shauchalaya Sansthan under rule (Viii) (C) of rule 277 of the Bihar Treasury Code. Government approval has been obtained for this purpose.

Sd/- S. TIRKY

**Director, Health Services,
Bihar, Patna**

Memo No. 376/10 H. Patna dt. 2.3.77

Copy forwarded to the Secretary, Sulabh Shauchalaya Sansthan, Patna-1, Executive

23. Simiri Bakhtiarpur (Saharsa) Engineer, Engineering Cell, Family Planning Bureau, Srikrishnapuri, Patna, for information and necessary action.
24. Barhait (Santhal Parganas)
25. Shahkund (Bhagalpur)
26. Rafiganj (Aurangabad)

Sd/- S. TIRKY,
Director, Health Services,
Bihar, Patna

Directorate of Health Services, Bihar

Memo No. 10/M 1

/H Patna, dated

To

Accountant-General, Bihar,
P.O. Hinoo, Ranchi.

Sub: Construction of double-seated septic latrines Sulabh Shau-
chalaya type in Primary Health Centres/Government Hos-
pitals at Rafiganj under Aurangabad District.

Orders: Administrative approval accorded to the above work at a
cost of Rs. 2,000/- (Two thousand).

- 2— Expenditure to be debited under head “220 Medical—K—
Allopathy—Health Assistance—Village Hospitals: Minor
Construction Work” and will be met out of the existing pro-
vision of the non-Plan Budget.
- 3— Work will be carried out by M/s Sulabh Shauchalaya Sans-
than, South Gandhi Maidan, Patna through whom such
latrines of Patna Municipal Corporation are being const-
ructed. Specification of the latrines will be the same as ap-
proved by the Patna Municipal Corporation.
- 4— Executive Engineer, Engineering Cell, Family Planning
Bureau, Bihar will be the drawing and disbursing officer who
will be able to sanction 80% advance to M/s Sulabh Shau-
chalaya Sansthan as per rule 411(A) of the Bihar Treasury
Code and rule 277 of the Bihar Financial Rules.

Sd/- S. Tirky,
Director, Health Services,
Bihar, Patna.

Memo No. 194/10

H Patna, dated 21/2/77

Copy to Secretary, Sulabh Shauchalaya Sansthan, South Gandhi Maidan, Patna/Executive Engineer, Engineering Cell, Family Planning Bureau, Srikrishnapuri, Patna/Civil Surgeon-cum-Chief Medical Officer, Aurangabad/I/C, Medical Officers of all Primary Health Centres for information and necessary action. The work of construction of Sulabh Shauchalaya should be completed within this financial year.

Sd/- S. Tirky,
Director, Health Services,
Bihar, Patna.

Memo No.

H Patna, dated—

Copy to Budget Officer/Section VII for information. Total amount may be allotted to the Executive Engineer, Engineering Cell, State Family Planning Bureau at once.

Sd/- S. Tirky,
Director, Health Services,
Bihar, Patna.

From

Dr. (Miss) S. Tirky,
Director,
Health Services, Bihar, Patna.

To

The Executive Engineer,
(Engineering Cell), Family Planning Bureau, Bihar, Patna.

Sub:- Memo Nos. 169(10) to 194(10) dated 2/2/77 sanctioning construction of Sulabh Shauchalayas in 26 Primary Health Centres.

Sir,

In the aforesaid orders construction of Sulabh Shauchalaya in Bihta, Marhowrah, Maharajganj and other 26 Primary Health Centres, you have been declared to be its drawing and disbursing officer. According to this order you are required to pay 80% to the Secretary, Sulabh Shauchalaya. As reported by Secretary, Sulabh Shauchalaya Sansthan in his letter, you are expressing difficulty in giving advance. Perhaps, you need specific orders. Therefore, you are hereby again directed to advance 80% amount to the Secretary, Sulabh Shauchalaya Sansthan as per earlier orders so that the work can be completed in 1976-77.

Perhaps, you also require a letter of Certificate from the Overseer of Block in respect of this construction work for making final payment. Because it is not possible to make the services of Block Overseer available to you immediately you are requested to make final payment after obtaining a certificate from the concerned In-charge Block Medical Officer that the work has been done according to the plan. According to the approved plan Rs. 1,250/- for building and Rs. 750/- for septic tank, i.e., total Rs. 2,000/- is sanctioned.

Yours faithfully,

Sd/- S. Tirky,
Director of Health Services,
Bihar, Patna.

Copy to Sri B. Pathak, Secretary, Sulabh Shauchalaya Sansthan with reference to his letter no. 931/77 dated 14/2/77 for information and necessary action.

Copy to In-charge Medical Officer, Primary Health Centre (as per attached list) for information and necessary action.

Sd/- S. Tirky,
*Director, Health Services,
Bihar, Patna.*

No. 5533/UDD

GOVERNMENT OF BIHAR
Urban Development Department

From

Smt. P.K. Shushma,
Deputy Secretary to Government,

To

The Administrator,
Patna Municipal Corporation, Patna.

Subject: Maintenance of Public Sulabh Shauchalaya of the capital

Sir,

I am directed to refer to your letter no. 2157/C dated 3.8.77 on the subject noted above and to confirm that on 2.8.77, the question of maintenance of Public Sulabh Shauchalaya within the Patna Municipal Corporation areas was discussed by Minister, Urban Development Department, Principal Secretary, Urban Development Department and the Administrator, Patna Municipal Corporation and after due deliberation, it was decided that the Administrator, Patna Municipal Corporation will request the Sulabh Shauchalaya Sansthan, Patna-1, to continue to maintain the Public Sulabh Shauchalayas of Patna in the public interest as before so that the Corporation may not have to bear the requisite financial burden in future. Government may be informed early of the action taken in the matter.

Yours faithfully,

Sd/- P.K. Shushma,
Deputy Secretary to Government

Memo No. _____/Sc.

Dated 31.8.77

Copy forwarded to the Secretary, Sulabh Shauchalaya Sansthan, Patna-1, for necessary action.

Sd/- Administrator.
31.8.77

No. 1857/UDD 21.3.75

GOVERNMENT OF BIHAR
Urban Development Department

From

Sri R.G. Roy,
Deputy Secretary to Government,

To

The Administrator,
Patna Municipal Corporation, Patna.

Subject: Implementation of the Scheme of conversion/construction of service latrines into Sulabh Shauchalayas.

Sir,

With reference to your letter no. 1481 dated 9.3.75 on the above subject, I am directed to say that Government agree with the position stated in your above letter that when the scheme of conversion/construction of service latrines into Sulabh Shauchalayas is started there may be some cases where (a) Corporation dues have not been paid up-to-date and (b) mutation of title has not been done. If Government assistance being given for execution of this scheme is not extended to such cases the work of conversion/construction of service latrines into Sulabh Shauchalayas of such holdings would not be taken up. As a result of this the programme of execution of Sulabh Shauchalayas of such areas will remain incomplete and there will be no relief to the Corporation in respect of maintenance of sanitation as well as financial liabilities thereof.

Therefore, taking into account all the aspects of the matter it is necessary to extend this financial assistance to the owners of holdings falling under both the categories mentioned in your letter in the inte-

rest of implementation of the scheme in question. Government are also agreeable with your views that financial assistance need not be given in such complicated cases in which you are sure that there are lots of legal hindrances and also in the cases where mutation of title may not regularly be finalised without strain.

Yours faithfully,

Sd/- R.G. Roy,

Deputy Secretary to Government.

AGREEMENT FORM

This indenture is made this day, the 24th July, 1980, between Shri G.D. Pandey, Administrator, Doranda Municipality, Doranda, Raachi, on the one part and Shri Bindeshwar Pathak, Chairman, Sulabh Shauchalaya Sansthan (now Sulabh International, Patna), on the other, hereinafter to be called the First and the Second Party respectively.

AND WHEREAS the First Party has approached the Second Party to construct public latrines, urinals, baths, boundary wall etc., under the jurisdiction of Doranda Municipality and to maintain them out of the proceeds realised from the users.

AND WHEREAS the Second Party has agreed to construct the above-mentioned public latrines, baths, urinals, boundary wall etc. on the condition :-

That the First Party will make available 80% advance of the total estimated cost and the rest 20% after the completion of the work to the Second Party. The First Party has also agreed to give 10% as supervision charge over and above the estimated cost to the Second Party as per Government approved estimate. The rate will be based on the present schedule of the P.W.D. of the Government of Bihar.

That, the First Party does hereby covenant with the Second Party as follows :-

1. That, the First Party will make available the required land for the construction of public latrines, urinals, baths and boundary wall.
2. That, the First Party will make available the requisite amount as per the estimate based on the present P.W.D. schedule of rates of the Government of Bihar to the Second Party.
3. That, the First Party will give 10% as supervision charge to the Second Party over and above the estimated cost.

4. That, the First Party will give 80% as advance of the estimated cost to the Second Party and the rest 20% after the completion of the work.
5. That, electricity and water will be made available on the site free of cost to the Second Party.
6. That, the Second Party will construct the public latrines, baths, urinals, boundary wall etc. as per specifications and design within six months from the date of the advancement of the money failing which the First Party will have right to recover the entire or part of the amount together with interest under the Public Demand Recovery Act.
7. That, the Second Party will maintain the said public latrines, urinals, baths and boundary wall etc. out of the proceeds collected from the users.
8. That, in case work could not be completed due to natural calamity, litigation or any other cause beyond the control of the Second Party the First Party and the Second Party will settle the matter with mutual consultations. Any other matter not covered under this agreement will be mutually settled by both the parties.

IN WITNESS WHEREOF, the parties have signed this deed on the date, month and year in presence of witnesses who have also signed in our presence as witnesses.

Witnesses

Signature of the First Party

Signature of the Second Party

**PROCEEDINGS OF THE DIRECTOR OF SOCIAL WELFARE
A.P. HY.**

*Present : SRI S. RAY, I.A.S.,
DIRECTOR*

Proc. Rc. No: 1766/79-04

Dated 14.9.79

Subject : SWD—certain repairs and new constructions in three Government Social Welfare Hostel Buildings in Hyderabad district—sanction orders—issued.

Read : 1. Lr. No : EE/Dr/DB/79/1080 dt. 12.9.79 from the Chief Engineer, M.C.H (Drainage Division) Hyd.

ORDER :

While sending estimates for carrying out certain repairs and also for construction of certain new works in the following three Government Social Welfare Hostel buildings in Hyderabad district for the amounts noted against them, the Chief Engineer, Municipal Corporation of Hyderabad (Drainage Division), Hyderabad in his letter read above has suggested that these works may be entrusted to Sri J. Chandra, Liaison Officer, S.S.S., Patna, for execution on an advance payment of 80% of the estimated cost of these works as per the decision taken by the Principal Secretary to Government, Social Welfare Department, in the meeting held in the chambers of the Secretary on 28.8.79

<i>Sl. No. Name of the Hostel building and location</i>	<i>Estimated cost of repairs and new construction as per the estimates sent by the C.E. (MCH) (Drainage Division)</i>
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1. S.W. College/School Hostel Building, Amberpet	Rs. 1,29,500.00
2. S.W. College Girls Hostel Building, Bholakpur	52,150.00
3. S.W. College Boys Hostel Building, Mazam Jahi Market	32,200.00
	<hr/> 2,12,850.00

As the suggestion made by the Chief Engineer, Municipal Corporation of Hyderabad (Drainage Division) in his letter read above, was agreed to by the Principal Secretary to Government, Social Welfare Department during the discussions with Chief Engineer, Municipal Corporation of Hyderabad and other Municipal Engineers in the meeting held in the chambers of the Secretary on 28.8.79 sanction is hereby accorded for advance payment of 80% of the total cost of the three estimates mentioned in para one above which comes to Rs. 1,70,280/- (Rs. one lakh seventy thousand two hundred and eighty only) to Sri J. Chandra, Liaison Officer, Sulabh Shauchalaya Sansthan, Patna and he is requested to get the works completed as per the estimates under reference at the earliest.

The Chief Engineer, Municipal Corporation of Hyderabad (Drainage Division), Hyderabad is requested to see that the works are executed under his supervision and completed at an early date.

The Chief Engineer, Municipal Corporation of Hyderabad is also requested to get the bills scrutinized to ensure that these claims made are correct before the final payment is made.

The Managing Director, A.P.S.C. Coop. Finance Corporation Ltd., Hyderabad is requested to release an amount of Rs. 1,70,280/- (Rs. one lakh seventy thousand two hundred and eighty only) to M/s Sulabh Shauchalaya Sansthan through Sri J. Chandra, Liaison Officer, S.S.S. Patna under intimation to this office.

Sd/- S. Ray,
DIRECTOR OF SOCIAL WELFARE

Sd/- Illegible
for **DIRECTOR OF SOCIAL WELFARE**

To

**M/s. Sulabh Shauchalaya Sansthan,
South of Gandhi Maidan, Patna.**

**The Managing Director, A.P.S.C. Coop. Finance Corporation,
Hyderabad.**

**Copy to the Chief Engineer, Municipal Corporation of Hyderabad
(Drainage Division), Hyderabad.**

**Copy to the District Social Welfare Officer (G1), Hyderabad
Urban-1.**

Copy to S.P. C4.

THE TATA IRON AND STEEL COMPANY, LIMITED



TEL. "IRONCO"

JAMSHEDPUR-831001

DATE OF ENQUIRY

NUMBER BELOW MUST BE QUOTED ON ALL CORRESPONDENCE

ORDER DATE

QUOTATION:

▲TP/PR/P-26/188006/S-745

25.2.81

DUE ON:

~~M/s. S.~~ Sulabh International,
Gandhi Maidan,
Patna-800 001.

WORK ORDER

YOUR QUOTATION AGAINST OUR ABOVE NUMBERED ENQUIRY HAS BEEN ACCEPTED AS PER DETAILS GIVEN BELOW. KINDLY ARRANGE TO SEE THE OFFICER MENTIONED BELOW WITHIN 24 HOURS OF RECEIPT OF THIS, UNLESS ALREADY DONE, FOR ANY INSTRUCTIONS WHICH MAY BE NECESSARY TO START THE WORK AT ONCE.

COMPLETION PERIOD REQUIRED Within 6 months.

	RATE
<p>Construction of Sulabh Shauchalayas, Urinals, Bathing enclosures and compound walls at Bistapur Market on item rate basis as per enclosed Estimate No.130/81-82 at a total cost of Rs. 67,268.58 (Rs. Sixtyseven thousand two hundred sixtyeight and Fiftyeight paise only.)</p> <p>Sales Tax will in no case be borne by the Steel Co.</p> <p>Price will remain firm till satisfactory completion of the job.</p> <p>If the job will not be done as per our instructions and specn., the same will be got done by some other agency at your cost.</p> <p><u>Payment:</u> 80% of Rs. 67,268.58P. in advance along with order and balance within 30 days of completion of the job duly certified by our C.A & T.F. or his representative.</p> <p>This is a repeat order to our previous order No.▲TP/PR/P/196/088083/S.745 of 27.12.80</p> <p style="text-align: right;">For DPD: Shauchalaya Constn.</p> <p>Encls: As above.</p>	

FOR DPD

2 COPIES TO: C.A. & T.P. and Sd. cc. to C.A. with a copy of the above estimate.

CH. A/C. TGR/3369/050

FOR THE TATA IRON AND STEEL CO., LTD.

REQUN.

SANCTION AO/GM (TMH) /1394 of 11.2.81

APP. VALUE Rs. 74,000/-

OBT.

(R.K. Relan.)

ST. CODE 01

DY. MANAGER
PURCHASESDy. MANAGER
PURCHASESCONTROLLER OF PURCHASE
AND STORES

KNS/D/23.2K

12/23/2181

THE TATA IRON AND STEEL COMPANY LIMITED



TEL. "IRONCO"

JAMSHEDPUR-831001

DATE OF ENQUIRY	NUMBER BELOW MUST BE QUOTED ON ALL CORRESPONDENCE	ORDER DATE
QUOTATION		
DUE ON:	B/TE/RHP/302/087235/3.745	13.8.80.

M/s. Sulabh Sauchalaya Sansthan,

WORK
ORDERPATNA

YOUR QUOTATION AGAINST OUR ABOVE NUMBERED ENQUIRY HAS BEEN ACCEPTED AS PER DETAILS GIVEN BELOW. KINDLY ARRANGE TO SEE THE OFFICER MENTIONED BELOW WITHIN 24 HOURS OF RECEIPT OF THIS, UNLESS ALREADY DONE FOR ANY INSTRUCTIONS WHICH MAY BE NECESSARY TO START THE WORK AT ONCE.

Chief Town Engineer.

COMPLETION PERIOD REQUIRED: ~~Within~~ As desired by Deptt

	RATE
	Total value.
100 Nos. Constructing latrines in single room quarters in Kadma South I as per enclosed estimate.	Rs. 1,50,000/- (Rs. One lakh fifty thousand).
Prices will remain firm till satisfactory completion of the job.	
If the job is not done as per instructions and specification the same will be got done by the same some other agency at your cost.	
Sales Tax will in no case be borne by the Steel Co.	
Payment: 80% advance with this order and balance 20% within 30 days of satisfactory completion of job duly certified by our Chief Town Engineer.	
Encl:	

FOR DPO Latrines Construction.	COPIES TO CTE, CTA, DTR(M) S.O. (T) Sd. c.c. to: C.A. (Town Budget Sec.) with a copy of the above estimate.
CH. NO. 73.09.659	FOR THE TATA IRON AND STEEL CO., LTD.
REQN. 24.7.80	
SANCTION 40/GM/7821/80 of 9.7.80.	
APP. VALUE Rs. 1,72,500/-	40/GM/8828 (P.N.Sankaran)
DEPT. Town Engrg.	of 4.8.80.
ST. CODE 01	BY: MANAGER PURCHASES
	MANAGER PURCHASES
	CONTROLLER OF PURCHASES AND STORES

CKS: ap.

Mr. Pathak resigned from the Bihar Gandhi Centenary Committee due to differences in the methodology for the implementation of the programme of Bhangi-Mukti and founded the Sulabh International (formerly known as Sulabh Shauchalaya Sansthan) in the year 1970. The Government of Bihar took four years to understand the methodology of this programme and finally in 1974, it entrusted to him the task of Bhangi-Mukti in Bihar. The programme became so successful that besides Bihar it is now working in five States of this country, i.e., Andhra Pradesh, Madhya Pradesh, Orissa, Uttar Pradesh and West Bengal.

The U.N.D.P., World Bank, has also taken up this design with certain modifications for its implementation in 19 countries of Asia, Africa and Latin America.

The Sri Lanka Government has also adopted this programme.

It is the conviction of Mr. Pathak that today or tomorrow all the under-developed and developing countries will have to adopt the Sulabh Shauchalaya system for sanitary disposal of human excreta. Sewerage and septic systems are not the answer.

NEW YORK TIMES

"Crusade against age-old social injustice, gains in sanitation and more jobs for the needy".

TIMES OF INDIA

"Patna undergoing sea-change in sanitation. Pathak is the moving spirit behind this silent revolution".

INDIAN EXPRESS

1. "Water-seal pit privy is the only feasible alternative to the primitive system of excreta disposal in India".

2. The ICMR chief said in reply to a question, the foremost need was the provision of safe excreta disposal systems for both urban and rural area. For the latter, non-sewered or water-seal latrines would be the answer. He cited the example of social organisations like the "Sulabh Shauchalaya Sansthan" in Bihar where such latrines had proved a great success.

HINDUSTAN TIMES

"Mr. Pathak's "Sulabh Shauchalaya" has brought about a mini-revolution in Bihar where municipalities are now extensively using this latrine, replacing service latrines. As in Bihar, so in West Bengal, Mr. Pathak's non-profit organisation has undertaken the task of constructing the latrines".

SUNDAY STATESMAN

"One of Greater Calcutta's most serious environmental hygiene problems—proper management and disposal of human wastes and provision and maintenance of public toilets is now being tackled by a private organization with the financial, backing of the CMDA and municipal bodies. Sulabh International, a Patna-based organization having the expertise in the construction of inexpensive and modern sanitation facilities, has been allowed to take up the conversion of 1,500 service privies into modern lavatories in 15 municipalities of the Calcutta Metropolitan Development area".