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Shabb Shauchalaya

A study of
Directed Change



Indeshwar Pathak

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The present work is a pioneer in the field of sociology of urban sanitation. It studies the diffusion of Sulabh Shauchalaya (hand-flush waterseal toilet) in an urban setting. Included within the parameters of analysis it has tried to analyse the socio-economic profile of adopters of the scheme and evolve a typology to classify them. Innovativeness that constitutes an index of modernisation is the next important focus of the book. The role of personal, impersonal, local and cosmopolite channels of communication in facilitating the acceptance of this directed contact change has also been studied. The manifest consequences of the execution of the scheme and its appraisal by the people provide the much needed feedback to the professional system from the client system. As such, engineers, social scientists, planners, administrators and all those who are feverishly in search of ways for the spread of sanitation improvement will find in the book important clues to the effective solution of an urgent problem of universal importance.



Bindeshwar Pathak (39), Chairman of the Sulabh International, Patna, is a distinguished expert in the field of urban sanitation. Sulabh Shauchalaya, an innovation of radical magnitude, has been developed and made popular by him within the country and abroad. His scheme is intended to lead to the eclipse of the bucket privy system. It is also likely to lead to redemption of the scavengers from the fetters of the demeaning job of disposal of human excreta.

A native of village Rampur Pohiyar, Vaishali, Bihar, Mr. Pathak has done his M.A. in Sociology from Patna University. As in his mission, so in education he has distinguished himself by securing the first position in the first class bagging the record percentage of marks. His book "Sulabh Shauchalaya — A Simple Idea that Worked" has been widely acclaimed. Mr. Pathak has a number of published articles to his credit. He has participated in many seminars held in India and abroad.

Mr. Pathak is associated with a number of organisations and high power bodies. Rehabilitation of liberated scavengers and use of human excreta as bio-gas are some of his immediate concerns. His new book 'Experiences through Encounters' is likely to be published shortly.

SULABH SHAUCHALAYA

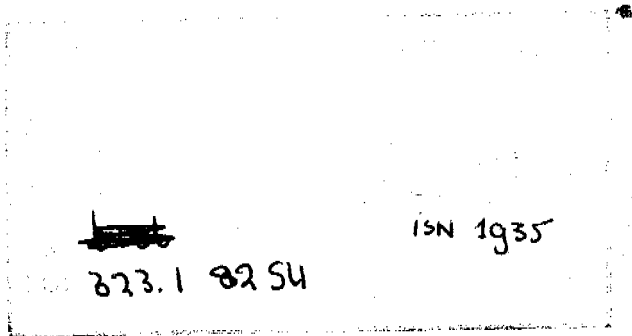
A Study of Directed Change

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SULABH SHAUCHALAYA

A Study of Directed Change

Bindeshwar Pathak



**AMOLA PRESS AND PUBLICATIONS
PATNA**

**AMOLA PRESS AND PUBLICATIONS,
MOHINI MARKET,
EXHIBITION ROAD,
PATNA-800001
BIHAR, INDIA**

© *Amola Press and Publications*

Price : Rs. 75.00

PRINTED IN INDIA

At Model Press Pvt. Ltd., 6-E Rani Jhansi Road, New Delhi-110055.

DEDICATED TO

SHRI DHRUB NARAYAN SINGH
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SHRI SHATRUGHAN SHARAN SINGH
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SHRI G.D. PANDEY

the record of progress and development in the country remains at a low ebb. Unimproved and deteriorating maintenance of obsolescent systems reflects the incapacity to leave the old and accept the new.

In order to provide a lasting solution to the problems of urban growth, planners, administrators, national and international agencies, activists as well as citizens have to be equally concerned. Only concerted efforts and dedication can ensure the desired improvement. It is with this end in view that a scheme of fairly radical magnitude was launched by me a few years back. Inspired by the successful experiment in Bihar the scheme has found acceptance throughout the length and breadth of the country. The message of improved sanitation through the scheme of Sulabh Shauchalaya has crossed the territorial limits of the country. It is a magic wand to remove the hazards of urban living without costing much. A number of countries of the world as well as international agencies for urban development have evinced considerable interest in propagating wider acceptance of the scheme.

It is satisfying to note that the State of Andhra Pradesh, Assam, Bihar, Kerala, Maharashtra, Rajasthan, Tamil Nadu and Tripura have come forward and have proposed pilot projects during 1981-82 to replace the age-old practice with a low-cost sanitation system on 'whole town approach', which are being assisted on a matching basis by the Ministry of Home Affairs, Government of India. Special attention has been given for total rehabilitation of municipal and private scavengers who are liberated under the programme. Among other important guidelines of the Government of India are amendments in the Municipal and other relevant Acts for doing away with the system of dry latrines and creation of revolving funds for the scheme etc.


The Government of Bihar is a pioneer in this respect, which, in collaboration with the Sulabh International (a voluntary social organisation) has liberated 862 scavengers, provided alternative jobs to them in the towns of Deoghar, Saharsa and Ranchi during 1981 out of state resources; and in another similar scheme in the town of Bihar-sharif and Purnea, 207 scavengers have been liberated during 1981-82 under a centrally sponsored scheme. All the scavengers so liberated were provided with alternative employments without any economic dislocation or interruption.

The scheme is designed to provide conversion of service latrines

into Sulabh Shauchalayas (water-seal latrines) to do away with the inhuman and unhygienic system of carrying night soil on head and to remove an important hazard to community health and urban sanitation. In this process the programme not only provides improved civic amenities to the urban dwellers; it also emancipates the lowest among the lowly Harijans from the shackles of the traditional dehumanizing profession of carrying human excreta. The scheme, therefore, is of paramount importance to the society. It is of pervasive influence in improving personal hygiene, community health, social uplift and economic well-being.

The present work is an attempt to obtain a first-hand appraisal of its implementation in an urban milieu. The diffusion of innovation to ensure directed contact change constitutes the basic theme of the present study. Efforts have been made to identify the adopters and obtain the correlates of adoption and innovativeness. In order to get feedback for an effective strategy to ensure greater adoption of the scheme an attempt has been made to assess the linkages and the performance of the change agents in their role as mediators between the client and the professional systems. The analysis of the extent and magnitude of changes constitutes the other dimensions covered in the study. The insights obtained through the study are likely to provide a valuable clue in developing more effective strategies for the execution of the scheme of urban sanitation.

I must record my deep sense of gratitude to Dr. Z. Ahmed, Prof. & Head of the Department of Sociology, Patna University, for his scholarly guidance and encouragement at all stages of my work. It is my sacred duty to record my sense of gratitude to all those informants of Lohanipur area who obliged me by providing valuable information for this study. In the end, I express my gratefulness to all those who have extended their helping hand in my research work.



PATNA

27, October 1982.

(Bindeshwar Pathak)

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CHAPTER I

INTRODUCTION

Introduction

Ever since the evolution of human life on the earth the problem of disposal of excreta was there. But during the days of nomadism this was not a serious or difficult problem at all. Human beings lived in small communities roaming about in search of subsistence and there was plenty of open space for the disposal of night-soil without the least danger of environmental pollution. But once they crossed the nomadic style of life, started living as a settled community with large aggregates and depended upon agriculture for their livelihood, they had to be somewhat careful about the disposal of human excreta. Though to a certain extent open fields were still used, yet gradually with the development of civilization and crystallization of norms and social values, they felt the need of some exclusive space within their households for the disposal of night-soil. No doubt, health and sanitary considerations influenced considerably the methods of disposal. It was only after the emergence of towns, big cities and industrial areas that this problem assumed serious dimensions and people had to think of developing some safe and sanitary method for the disposal of human wastes. Before the emergence of urbanisation and industrialisation the problem of disposal of night-soil was not taken seriously, primarily due to two reasons: firstly, because open space was available for easing and, secondly, due to the old habits to ease in an open space. In Hindu mythology there is no definite mention about it. However, in the Code of Conduct chapter of 'Daivi Bhagwat Puran', it has been specifically mentioned how and when to ease in an open space. It has been prescribed that one must ease away from dwelling houses before sunrise by digging a hole in the earth and filling up the same with some dry leaves, grass and soil etc. before and after defecation. This sub-soil treatment of night-soil might have been

considered the most hygienic method for the disposal of human excreta.

“The history of baths and bathing is at least 5000 years old. At Mohenjo-Daro in the Indus River Valley of Pakistan, archaeologists uncovered a public bath nearly 1000 sq ft (93 sq m) in area, dating from about 3000 BC. Even the private houses there had their own bathrooms, fitted with terracotta pipes encased in brickwork....”

“...Sewerage system, drains and water supply were all highly developed thousands of years ago among the ancient Cretans, Egyptians and Incas. It was the ancient Greeks who first divorced disease from the magic that had surrounded it among primitive peoples and ascribed it to natural causes—an imbalance between Man and his environment. They recognized hygiene as an aid to healthy living and organized public health services accordingly.

But it was left to the Romans, who inherited the Greek ideas on health and disease, to establish the best possible defence against filth and pollution. Apart from their many public baths and the water supply system they constructed, the Romans built a gigantic sewer, the Cloaca Maxima, in the sixth century BC, to drain the site of the Forum. It still functions as part of Rome's drainage system. In the AD 300s, there were 150 public lavatories in Rome. Pure drinking water was carefully separated from water intended for washing purposes.

London had a complex main drainage system built by the 1200s, but nobody was allowed to let ‘offensive waste’ pass through it until 1815. Although Parisians could boast of a sewerage system by the 14,00s, still only one Paris house in 20 was linked to it by the late 18,00s.

One of the great problems exercising the minds of the authorities who governed the medieval towns, was their very impregnability. They were virtually walled fortresses and, in making it difficult for unwanted people and material to get in, the town planners of the day made it equally difficult for things—including effluents of all kinds—to get out.

Townfolk and animals shared the precious land enclosed by the walls and towers, and littered the unpaved roads with filth and garbage.

The cleanest places in those crowded communities were almost always the monasteries and the markets. The monks built their settle-

ments to well thought-out plans, with efficient latrines, ventilation and water supplies. As for the markets, the medieval health authorities had a horror of rotting food, regarding it as a much likelier source of disease than the piles of effluent which littered the streets. Any waste food and scraps that might decompose were hastily swept from the market area.

The essential convenience of modern living, the water closet, was probably invented about 1460, but the first person to do anything really practical with the idea seems to have been an Elizabethan courtier, Sir John Harrington. Banished from court for a while by his outraged monarch for translating and circulating among her ladies a racy story by the Italian poet Ariosto, Harrington retired to his home near Bath.

There, besides translating some more Ariosto, he worked on a design for a flush WC and duly installed the contrivance in his own home. Having won his way back into Elizabeth's good books, Harrington fitted a royal flush WC into the queen's palace at Richmond, Surrey. Unfortunately he wrote a book about his device, called *The Metamorphosis of Ajax*—the title is a pun on the old name 'a jakes' for a privy. The book appeared in 1596, and its earthy humour led the incensed Elizabeth to banish Harrington from court once more.

An improved model of Harrington's WC, incorporating a stink trap, was patented by a London watchmaker, Alexander Cumming, in 1775. Further improvements were made by a London cabinet-maker and inventor, Joseph Bramah, in 1778. These early WCs were connected straight to cesspits and, even after the invention of stink traps, the smell from them must have been pretty powerful. Not until the invention of a modern sewer system in Hamburg in the 1840s, with arrangements for flushing the pipes regularly with river water was the general health of people sensibly improved. The finest of the 19th century sanitary engineers was Sir Joseph Bazalgette who, in the 1850s, equipped London with an efficient system of sewers for which he invented automatic flood doors and new pipe sections which allowed a speedier flow of effluent.

The chamber pot, from humble beginnings, offered scope for improvement. In Victorian times it became a veritable objet d'art, and even in the 1900s appeared to inventors as a vessel that might be elaborated. In 1929, for instance, an American electrician, Elbert Stall-

worth, patented the first electric chamber pot for use on chilly nights. In a rubber and asbestos seat which ran round the upper edge were embedded metal bands enclosing resistance wires between the mica strips.

As late as 1966, many inventors were still taking their thoughts to the WC. In that year, a Chicago hairdresser took out a patent for a novel toilet seat which embodied a buttock-stimulator for relieving constipation and for general massage. An electric motor set the two separate halves of the seat moving backwards and forwards alternately. Both halves could also vibrate together at high speed". (Presence, P. 79-83)

In spite of great strides made in the field of urban sanitation in advanced countries of the world, the diffusion of these facilities did not cross the boundaries of the rich and prosperous countries. In poor countries of the world such facilities have not made their presence. In these countries the system of excreta disposal tends to remain primitive and unhygienic. In many of the cases there are areas in such countries which are marked by a complete lack of modern scientific arrangements for urban sanitation. According to the survey of housing conditions conducted by the National Sample Survey (NSS) in 1973-74, one third of the urban population of 120 millions, accounting for 40 millions, was using service latrines in the country. In Bihar alone, 20 lakhs of people are using bucket privies as a means of on-site excreta disposal. The system was often disliked because of its several demerits which became more conspicuous as the society advanced. It appeared to be very nasty and hazardous to health. It also caused pollution of the environment and was responsible for the spread of infectious diseases like diarrhoea, dysentery, cholera, hook-worm, ring-worm etc. The containers of bucket privies develop holes at times with the result that the night-soil gets scattered around the residential houses and creates a problem both for the dwellers and the cleaners.

Notwithstanding the demerits of the bucket privy system for the disposal of night-soil in the urban areas, in the absence of an alternative, the growing urban population has had to content itself with this system. As a result, the number of persons using bucket latrines has been increasing year after year. According to a recent survey conducted by the author there are about 41 lakh dry latrines in the coun-

try which are served by scavengers. As against this the number of bucket privies in Bihar is 2,95, 085. 8,524 scavengers are deployed for cleaning these latrines in Bihar.

With the phenomenal rise in the population of towns and cities even the increasing number of service latrines has failed to cope with the rising demand of the urban people. What we find in the urban areas now is that even the bucket privy system is beyond the reach of the urban poor, the pavement dwellers and those living in slum areas. These people still use open fields, wherever possible, roadsides, drains, lanes and bylanes or wherever and whenever lonely places are available for the defecation purpose. The data collected in this regard show that 40 million people or approximately 7 million households have no latrine facilities in the country.

With one third of the urban population of the country deprived of this most basic necessity of life and another one-third using the old system of dry latrines, provision of an alternate arrangement conforming to their pattern of living has been a subject of discussion among the planners, sociologists and health experts. It is unanimously accepted by them that the introduction of the sewerage system may solve this problem to a large extent, but because of heavy cost this system remains a far cry. Only about 217 out of a total of some 3,119 towns in this country have the sewerage system. Most of them are partially covered and do not serve more than 10-15% of the population.

It has been estimated that if the entire revenue of the Central and State governments for the next 50-60 years is exclusively utilised for provision of underground sewerage, even half the population of this country would hardly be covered. In the State of Bihar, for instance, the sewerage system was introduced in Patna in the year 1939. So far a very small portion of the population, 1.5 lakhs out of 4.75 lakhs according to the 1971 census, has been partially covered in the capital town. Jamshedpur, with a population of 3,41,576 according to the 1971 census, has got the sewerage system for the disposal of night-soil. But difficulties are being experienced there also in the maintenance of the sewerage lines due to shortage of water. Thus about 5 lakh people out of an urban population of 56,33,966 in Bihar have been provided with the facility of the sewerage system so far (Ahmed: 1980).

Another system for the disposal of human wastes is the septic tank which too is a costly device. Moreover, it requires specialised skill for its construction. It also requires more space which is not invariably available in urban areas. According to the National Sample Survey for 1973-74, 53.2% of urban households in India had only one living room while 7.2% had some sort of accommodation, but no living rooms as such.

There is another disadvantage in the septic tank system. The gas-pipes emit foul odour which may cause pollution of the air. Hence, this system too has not been widely accepted. In Bihar, only 6 lakhs of people are making use of the septic tank latrines.

Considering the country as a whole the figures given in Annexure-I based on the National Sample Survey of 1973-74 show that only 20% of the urban households in this country have toilets connected to the sewerage system and 14.1% have water-borne latrines connected to septic tanks. This means that 34% of the urban households are using sanitary latrines. Of this 7.2% have exclusive use of flush latrines (connected to sewerage); 5.7% septic tank latrines and 21.1% have been sharing households or community flush latrines.

The household bucket privy system exists as an ugly, cruel and unavoidable reality in India. Its existence, even after decades of urban growth in India, is indicative of the inadequate civic amenities for the urban dwellers. The undisturbed continuance of service latrines in a social environment characterised by rapid, socio-economic and political development, is a curse on the Indian social system.

Sanitary engineers, social scientists, planners and administrators all over the world are feverishly searching for an economical, safe and hygienic system, other than the sewerage and septic tank, for the disposal of human excreta which can be adopted on mass scale.

Now here is a question mark. The sewerage and septic tank systems came into being in the years 1400 and 1460 respectively for the proper, safe and sanitary disposal of human wastes, yet why even today is a big chunk of the population deprived of this facility? When we think deeply over these issues we come to the conclusion that economic constraints, lack of space and political will, all these combine to hinder mass adoption of the sewerage and septic tank systems.

Growth of cities started in India after the Second World War. It was so rapid that town planners and engineers were taken aback.

Expansion went on in a hotch-potch way. Those who migrated to cities had rural orientation and began construction of their houses without caring for guide rules and regulations. Sewerage did not exist and the septic system was too costly. Hence they started constructing service latrines in their houses. As the system was cheap it attracted mass adoption.

Though negligible efforts were made earlier also, since 1940 onwards experts and engineers started a hectic search for a safe and economical alternative to the sewerage and septic tank systems for disposal of night-soil. Various international agencies, notably the WHO, UNICEF and UNDP, have been engaged in evaluating the methods for removal of any possible defects in order to ensure their mass adoption. Here it is worthwhile to quote an eminent sociologist, Tylor's principle of 'psychic unity of mankind' and 'parallel growth of inventions.' There are evidences to suggest that as early as 1940 a world-wide search was made for evolving alternative solutions suited to the regional and geographical conditions and social peculiarities. Although all the alternatives may not have been useful, yet they were tried on an experimental basis and some success was achieved. Here it is to be noted that though all Asian, African and Latin American countries were busy searching for an alternative, there was no contact among them on the subject. VIP latrine, vault latrine, Vietnamese latrine, PRAI, ESP latrine, RCA and Sulabh Shauchalaya etc. were the products of the above experiments. What to speak of other countries, even in India the research carried on in one State was not known to the other States till 1978.

In India, due to so many defects the trench and borehole latrines could not find favour. Hence, these two designs were not adopted on a mass scale. The hand-flush water-seal sanitary latrine developed by PRAI could be adopted in UP and Gujarat while ESP and RCA in Kerala and Madras.

Sulabh Shauchalaya : In Bihar the design of the hand-flush water-seal compost latrine, popularly known as Sulabh Shauchalaya, was developed by the author who happens to be the founder member and Chairman of the Sulabh International (formerly known as Sulabh Shauchalaya Sansthan). The design of Sulabh Shauchalaya having two lateral pits is better than any other system developed so far in India. This design has been adopted not only in the different States

of India but it has also been favoured by world agencies like the WHO, UNICEF and UNDP etc. which have recommended its adoption in under-developed and developing countries with minor modifications.

Any system of excreta disposal to be technically effective is required to fulfil certain requirements. According to Wagner and Lanoix, these are as follows:

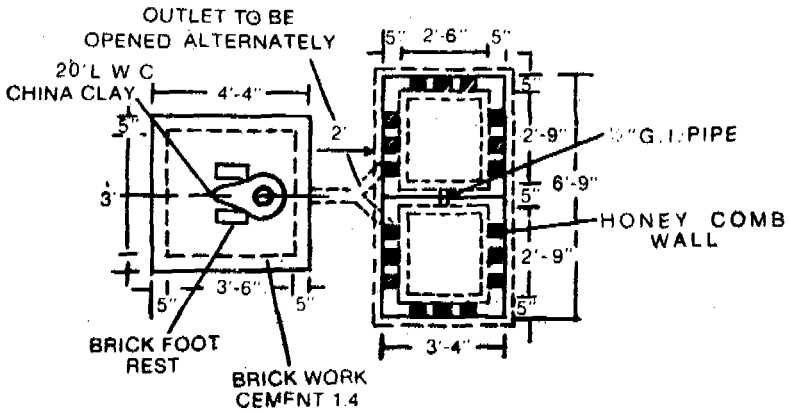
1. The surface soil should not be contaminated.
2. There should be no contamination of ground water that may enter springs or wells.
3. There should be no contamination of surface water.
4. Excreta should not be accessible to flies or animals.
5. There should be no handling of fresh excreta; or, when this is indispensable, it should be kept to a strict minimum.
6. There should be freedom from odours or unsightly conditions.
7. The method used should be simple and inexpensive in construction and operation.

Sulabh Shauchalaya fulfils all the above conditions. It consists of plinth, pan, water-seal, drain, tanks and tank cover. The pan and water-seal are connected with two leaching pits, of which one functions at a time while the other is kept closed. The second pit is opened for use when the first is filled up. While the second pit is in use, the human excreta gets transformed into manure in the first tank. The design of Sulabh Shauchalaya is illustrated in the enclosed diagrams.

Sulabh Shauchalaya can be maintained easily by the house owners themselves without the help of anyone. Some of the main advantages of Sulabh Shauchalaya are enumerated below:

- (i) It is odourless as the gases produced are absorbed in the soil.
- (ii) There is no danger of air pollution as the water-seal does not allow the gases to go out of the pit and, as such, no gas-pipe is needed for the system.
- (iii) It is easy to construct and it also involves less cost.
- (iv) It requires a small space and can be provided even in the corridor, verandah or bedroom of the house.
- (v) It can be constructed in different soil conditions and under

SULABH SHAUCHALAYA (RECTANGULAR TYPE)

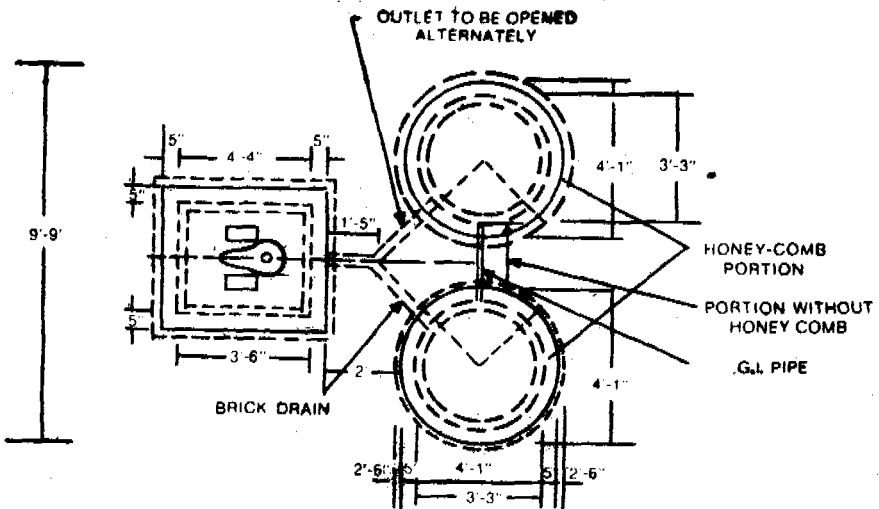


HONEY-COMB IS NOT TO BE PROVIDED IN COARSE AND MOORUM SOIL

PLAN

Fig. I-1

PLAN OF SULABH SHAUCHALAYA (CIRCULAR TYPE)



PLAN

HONEY-COMB IS NOT TO BE PROVIDED IN COARSE AND MOORUM SOIL

Fig. I-2

varying depths of sub-soil water table.

- (vi) A small quantity of water is required to flush out the human waste from the pan to the leaching pits.
- (vii) The human excreta collected in the pit is transformed into organic manure which is used for different purposes.

This hand-flush pit-privy, popularly known as Sulabh Shauchalaya, represents an innovation in the field of urban sanitation. The scheme is relatively more advantageous than the arrangement it has superseded. It is an improvement over the pattern rendered obsolescent. It has proved to be economically cheaper, convenient and in accordance with the felt needs of the people. It is also in consonance with the existing value, past experiences and needs of the receivers. It is a compactable innovation. It is so simple that it is readily understood even by ordinary people. It lacks complexity. This, in turn, is bound to ensure its widespread adoption by the people. The innovation has high viability so far as its results are concerned. The widespread acceptance of the scheme represents directed contact change. Directed contact change is a change "which is caused by outsiders who, on their own or as representatives of change agencies, intentionally seek to introduce new ideas in order to achieve goals they have defined (Rogers and Shoemaker, 1971: 9)".

The present study was conducted in Lohanipur Mohalla of Patna. All the 215 households which had Sulabh Shauchalayas were included in the survey. The adopters of the Sulabh Shauchalaya system covered during the survey included persons of all categories, high and low, rich and poor and of various castes. The residents belong to all sections, service holders, traders, farmers and other self-employed persons. Those in service are employed in Government and private offices. The traders include small and big ones and the self-employed persons consist of lawyers, doctors etc. The ratio of male and female population of Lohanipur is virtually equal. A vast majority of the residents are Hindus. The users of Sulabh Shauchalaya belong to all age groups and of different educational levels.

As the study covers Lohanipur area, it is worthwhile to give some vital details of the area. Lohanipur is noted for its filthy environments. It is situated north of the railway line, west of Rajendra Nagar, east of Lalji Tola and south of Kadamkuan. The Mohalla has pitched roads

which connect it to the various parts of the city. Rickshaw is the main conveyance in the locality. Not far away from there is Kadamkuan where tempos, buses and taxis are easily available. Besides, there are many shops, wholesale and retail, which cater to the needs of the local people. The Hathwa Market and the New Market at the railway station are the nearest main shopping centres. The road junction of Lohanipur is a centre of attraction. There are several primary schools in Lohanipur, but the Mohalla lacks a high school. The reason is that the adjoining Mohallas of Rajendra Nagar and Kadamkuan have several high schools where the boys and girls of Lohanipur receive secondary education. Those desirous of higher studies often go to the Patna and Magadh Universities. The Mohalla consists of Pucca and Kachcha houses as also Jhuggi-Jhopris (hutments). The streets are narrow and dirty and the drains are invariably full of stagnant water. The Domes (a scheduled caste) also constitute a portion of the population who also rear pigs which vitiate the surroundings. As a result Lohanipur is considered as a slum area of the city.

Theoretical Orientation :

The present work is an attempt to study the diffusion of directed contact change in the area of urban sanitation. The necessary theoretical underpinings for the present study have been obtained from theoretical considerations guiding studies on diffusion of innovation. We live in an era of change. The change is an inevitable and universal phenomenon. The current tempo of social change in most areas of the world is unparalleled in history. The magnitude of change and the rapidity with which it is occurring is unprecedented in human history. We can hardly conceive an area that is not being touched by the process of change. The structure and functions of the social system are being altered rapidly. The process is all-pervasive. At no other time in history have such important change processes been brought about. Significant changes are visible in the life style values, technological innovations and social institutions. There is, in fact, an onward surge of the social and cultural environment. Life is on the move. Groups, institutions and social orders are receiving new stimuli regularly. Everyone is eager for some kind of change in his life and situation. Changes have been so great in modern times that the examination of

this phenomenon has become a major and pressing enterprise. In order to visualize change the sequential steps characterising change have to be studied in depth as well as in coverage. Diffusion is an important step in social change preceded by invention and followed by consequences. The diffusion of innovation is one of the major mechanisms of social and technical change. Diffusion is the process by which a thing spreads. Diffusion involves (1) acceptance (2) over-time (3) of some specific item—an idea of practice (4) by individual groups or other adopting units linked (5) to specific channels of communication (6) to a social structure and (7) to a given system of value or cultures. Invention is the process of creation or development of new ideas and practices. The changes brought about by the adoption or rejection of innovation are called consequences.

Review of Literature:

The study of diffusion has a grand intellectual ancestry. It has been a theme of concern to many fields of enquiry. The studies are numerous and varied. The literature on diffusion is compared to a river which has several sources. Anthropologists were the first to study diffusion. They have studied the diffusion of language, religion and methods of farming, fishing and hunting between tribes and societies. "Compared to other diffusion traditions anthropology has generally been more concerned with the exchange of ideas between societies than with the spread of an idea within a society. It has tended to emphasize the social consequences of innovation more than any other diffusion tradition" (Rogers and Shoemaker, 1971: 49). Anthropologists, by and large, appear to be highly impressed with the importance of diffusion in bringing change. Linton's thesis was that within any one area far more elements are derived from diffusion than from invention within that area. Of late, the cross-cultural programme of technical assistance has come to constitute the major concern of the anthropologists studying diffusion of innovation. "In many of these research reports anthropologists show that technical assistance planners failed to take fully into account the cultural values of the target audience" (Rogers and Shoemaker, 1971: 49).

Whereas anthropologists have kept themselves preoccupied for a considerable period of time with how new ideas and practices diffuse

from one society to another, sociologists have studied the diffusion of new values and styles in life within society. Rural sociologist represents the tradition of diffusion research which is most enduring and is the largest. Among the rural sociologists, the diffusion of farm input innovations such as hybrid corn, soil conservation practices and similar objects or ideas have become subjects of lively interest. The studies of educational innovations are also abundant. In spite of the large number of studies available in the field of diffusion of educational innovation, this tradition of research is criticised for its meagre contribution to the understanding of the theory of social change.

Commenting on the state of research in this field Carlson (1968) observed: "Data collection on acceptance has not been characterised by rigor. . . . Given this weak base it is rather difficult to count on what is known about the diffusion of educational innovations". With the emergence of medical sociology as a special branch of sociology, there has been a regular increase in the study of diffusion as provided by medical sociologists. The innovations studied by medical sociologists consist of either new drugs or medical techniques where the adopters are doctors of polio vaccines, family planning methods or other medical innovations where the doctors are clients. These disciplines represent the major contributors to the study of diffusion. Rogers, however, identifies several other minor collaborators in this field, as communication, marketing, agricultural economics, general economics, general psychology, speech, general sociology etc.

So far as sociology and anthropology are concerned, two different overall perspectives regarding diffusion have been discerned from the available materials! "1. The broad international interest that, for the most part, has been held by the anthropologists has been concerned with such diffusion analyses as the practice of coffee drinking, use of tobacco, use of gum powder and the diffusion of myths and these have spread from believed points of origin. 2. The second focus is more local and detailed comprising such studies as the diffusion of farm implements or of medical innovations within the country or city. Both macroscopic and microscopic interests then are represented (Allen 1971: 290)."

The intellectual interest in diffusion of innovation is still in its infancy so far as India is concerned. The start in the study of diffusion of innovation was made in early 60's. A perusal of various studies made in

this field indicates that a majority of them relate to adoption of agricultural innovations. Sinha (1963) studied the various stages of adoption process and the relationship between the stage of adoption and family size. S.P. Bose (1965) studied innovation of farm practices in West Bengal. He studied the factors facilitating the acceptance of innovation. A comparative study of the characteristics of the diffusion curve of a farm practice in 7 villages of West Bengal has been made by Bose in a subsequent study. Sinha and Prasad (1966) studied the sources of information at different stages of adoption. Rao and Moulke (1966) studied the role of community sources and extension teaching aids in the adoption of agricultural practices. Singh and Pareek (1966) have studied communicators and non-communicators on a composite measure of socio-economic status as some of its important dimensions. Bose and Saksena (1965) studied the role of caste and lineage groups in acceptance of agricultural innovations. The role of extension workers and inter-personal communication along informal channels have also been studied. Mann (1966) studied adoption in an agricultural tribe. He found that there was a wide gap between knowledge and adoption. Deb and others (1968) studied the role of personal and impersonal agents in diffusion of agricultural practices. Das Gupta (1963) made a study of adoption of agricultural innovations with a view to attempt a classification of adopters of different agricultural practices. A comprehensive study of adoption of agricultural practices was made by the National Institute of Community Development, Hyderabad. It studied adoption of innovations by farmers in the village setting. The villages for this study were selected from the States of Maharashtra, Andhra Pradesh and West Bengal. Sachchidananda (1972) studied the impact of intensive agricultural district programme in some Bihar villages. He made a detailed study of the process of diffusion in rural settings. Aslam (1981) studied the adoption of innovations in rural Kashmir. Including in the parameter of his analysis, he focused his attention on the socio-economic background of the adopters. While examining the extent of adoption of agricultural techniques in Kashmir, he tried to identify the various types of adopters and channels of communication for adoption of new agricultural practices. So far as urban milieu is concerned, studies on diffusion of innovations are few and far between. Similarly diffusion of a non-agricultural innovation has also not received much attention in India. So far as Sulabh

Shauchalaya is concerned some work has been done, but in none of them the Sulabh Shauchalaya technique is considered as an innovation for study of its process of diffusion. It, therefore, appears that the present study is the first of its kind. It is a pioneer work in the field of diffusion of innovation in an urban setting.

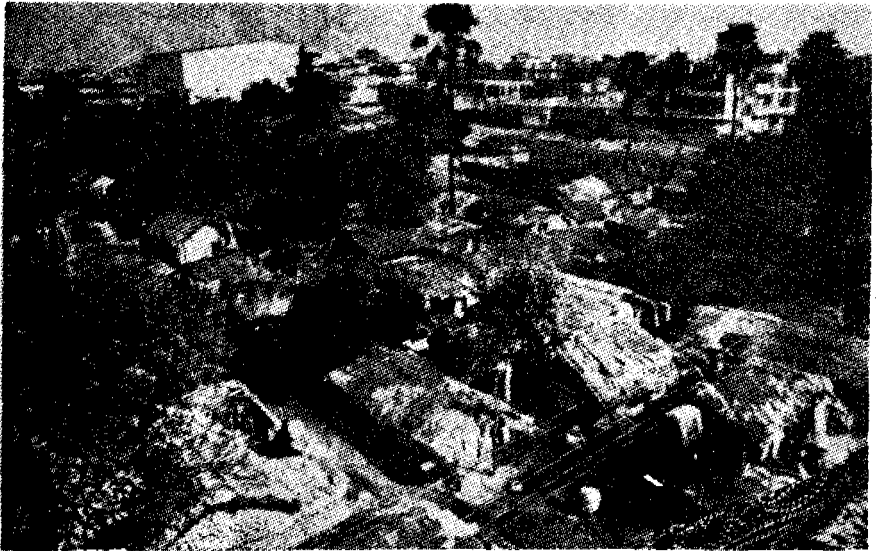
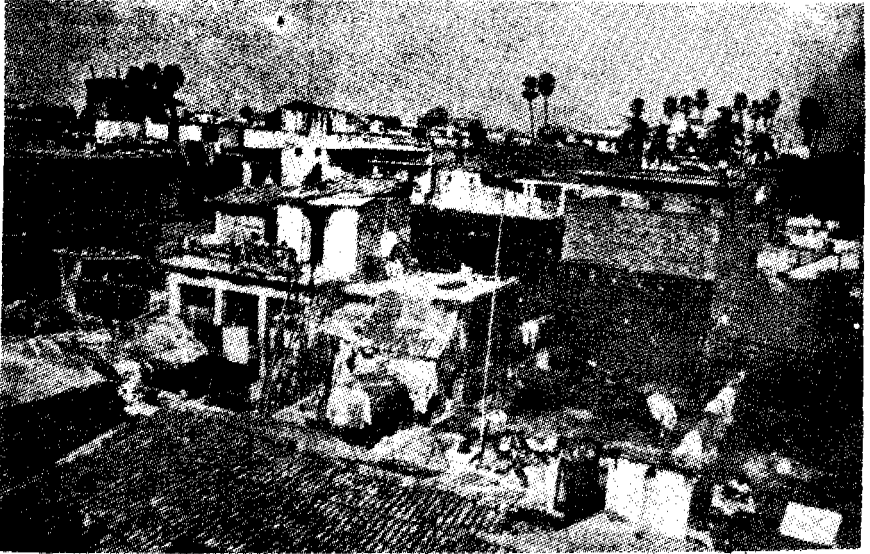
Objectives:

The following constitute the objectives of the present study:—

- (i) To identify the adopters of Sulabh Shauchalaya in an urban setting.
- (ii) To obtain a socio-economic profile of the adopters of this innovation.
- (iii) To evolve a scheme for the classification of adopters using the criterion of innovativeness.
- (iv) To study the role of different channels of communication in the adoption of the innovation.
- (v) To examine the role of the change agents in the spread of the message of change.
- (vi) To study the attitudinal dimension of the respondents with regard to the nature, functioning and social consequences of the scheme of Sulabh Shauchalaya.
- (vii) To collect valuable suggestions for improvement in the functioning of the Sulabh Shauchalaya scheme as available from the adopters of the scheme.



AREA STUDIED



A view of Lohanipur, Patna (Bihar)



House inmates in glee over the construction of Sulabh Shauchalaya in Lohanipur

CHAPTER II

METHODOLOGY

Methodology

The scientific value of any research is measured in terms of accuracy of results, predictability and reliability. Reliability, predictability and accuracy are dependent upon the method employed in the research. In this sense the methodology of research has rightly been called the back-bone of any research, be it physical research or social research. It is the methodology which is at times considered more important than the subject matter. In view of this fact special precautions for adoptions appropriate to methodological techniques had been taken in the present study. The selection of respondents has been made at two stages. In the first stage we selected the area to be covered for the present study. We selected Lohanipur for study of diffusion of Sulabh Shauchalaya. The main consideration behind selecting this locality was its heterogeneous population. There is no concentration of one particular socio-ethnic group in the area. The adopters trying the system in this part of the town include persons of different socio-economic groups engaged in various types of occupations, belonging to joint and nuclear families, residing in their own or rental houses constructed under different soil and water-table conditions, paying various amounts of taxes to the Municipal Corporation and having different types of tastes for entertainment. Almost all prominent castes have been represented in the study. Insights obtained through the diffusion of innovation among such heterogeneous population are likely to help in evolving effective strategies for adoption of the Sulabh Shauchalaya type of sanitary latrines both inside and outside the State of Bihar. Thus in the selection of the milieu we have been purposive. Once we selected the area, we decided to contact each and every adopter of Sulabh Shauchalaya in all the 215 households in Lohanipur, where this system has been adopted after getting such service latrines con-

verted. Thus the method of complete enumeration has been used to conduct the present study and accordingly 215 respondents were interviewed, the unit of enquiry being the household.

For the collection of data we relied upon the technique of schedule. The questions in the schedule were divided into three parts. The first part deals with questions related to the sex, religion, age, education, profession, family's monthly income, kind of family (nuclear or joint), type of house (kachcha, pacca or semi-pacca), ownership of the house (owner or tenant), amount of taxes paid to the Municipal Corporation, affiliation to political or non-political organisations and the entertainments of the respondents. The second part consists of questions pertaining to the functioning of Sulabh Shauchalaya including constructional defects, if any, and the difficulties experienced in maintenance. The questions about the opinions and reactions of the adopters regarding the usefulness of the Sulabh Shauchalaya system and suggestions for its improvement formed the third and final part of the schedule.

We opened the interview by asking factual and simple questions and then moved gradually towards eliciting responses on more and more complex phenomena. We began with personal, factual and biographical questions. It helped us considerably in preparing the respondents for gradual and deeper involvement in the interview.

Personal observations were made with regard to the functioning of Sulabh Shauchalayas with a particular reference to the constructional defects and the difficulties being experienced during maintenance. Wherever necessary, the various components of the system were exposed for inspections. These were examined critically to verify the reported defects and the entries recorded in the schedule. This system of study was found very helpful in getting the required co-operation from the respondents in filling up the schedule and they welcomed it with the hope that the defects observed in their presence during the survey would be immediately removed.

As to their opinions and experiences, the people whose Sulabh Shauchalayas were functioning satisfactorily had all praise for the system. But some of them needed more persuasion to provide us responses in this particular aspect. In many cases they had to be contacted early in the morning or on Sundays and holidays so that they could take some time to think before expressing their views on various

types of questions put to them regarding the usefulness or otherwise of the Sulabh Shauchalaya system for the disposal of excreta.

Apart from personal contacts with the respondents to fill in the schedule, meetings of different groups of respondents were convened to discuss the problems faced by them in general.

After the field work was completed and data compiled the information collected was codified for computerisation. The computerisation was subsequently done and thereafter the data was processed and presented in different tables forming part of different chapters. Each table was prepared with a view to give a statistical analysis of the facts collected during the field surveys.



Sulabh Shauchalaya is so odourless that man can sleep on its tank covers

CHAPTER III

SOCIO-ECONOMIC CORRELATES OF ADOPTION

Socio-Economic Correlates of Adoption

The social consequences of innovation are very important. "From the stand-point of social consequences, the fate of an innovation is as important as its conception" (Barnett 1953 : 291). The bottom line for the success of any system is its acceptance by the users. The social consequence, in turn, is the function of the degree and direction of acceptance of the innovation. In this chapter which is devoted to the analysis of the social consequences of the Sulabh Shauchalaya scheme as reflected in its acceptability among people, we intend to provide a social profile of the beneficiaries. We intend to attempt a detailed analysis of the status characteristics of the beneficiaries of the Sulabh Shauchalaya system. This is being done to locate the extent and pattern of acceptance of Sulabh Shauchalaya. As we have covered all households of Lohanipur which have adopted Sulabh Shauchalaya the socio-economic profile of the beneficiaries, to a great extent, reveals the degree of acceptability of the scheme among different sections of the people. This chapter is devoted to the exploration of the problem of individual variability in response to the presentation of novelty and we attempt to bring some order out of the bewildering complexity of data. The problem here is to find out not why a novelty or its auspices has an appeal, but why it appeals more to one person than to another? We intend to probe the reaction pattern of people towards Sulabh Shauchalaya as manifest in this specific context. In other words, it is being endeavoured to analyse deeply the effectiveness of the scheme through the socio-economic indicators which classified the beneficiaries into different categories to which they belong. We attempt an analysis of the social position of the beneficiaries, their level of education, occupation, economic condition and related aspects.

Sex of Respondent:

Sex differences represent a social distinction of a high order. Modern Indian society is, by and large, a male-dominated society. Women are a "dependency class". They are a "second creature" and "the second sex". Female subordination in the present society is an essential feature of human life. The existence of women is very much parasitic on the men. In such a society women do not have much share in the decision-making process of the family. Most of the decisions are autocratic and male-dominated. Females do not have much say in such a society. Success of an innovation in such a society depends, in a big way, on the extent of acceptance among the males of the society. Against this background we have tried to explore the relationship between sex and adoption.

TABLE III-1

Sex of Respondents

Sex	N	%
Male	196	91.2
Female	19	8.8
Total:	215	100.0

We have found that a vast majority of the respondents (91.2%) are males. The female respondents are few and far between and they account for 8.8% of the respondents. If we assume that these respondents constitute the de facto head of the family studied, we can say that in most of the cases the decision for adoption of Sulabh Shauchalaya has been made by the males. Even though the scheme is being favoured by all types of heads of the family, it is being more favoured by such families as have male heads than those having female heads. The fact that even female heads are also inclined to accept the scheme leads us to construe that it is being favoured by them also.

Age and Adoption:

It is to be mentioned that young people are more prone to accept change. It is said that people, young in age, have a natural inclination towards taking more risk. They are also supposed to be more exposed to outside contact. They are more likely to be oriented to the adoption behaviour. They are also more prone to make various kinds of explorations. However, there is no unanimous support for the observation from the available studies that younger people are better adopters.

TABLE III-2
Age and Adoption

<i>Age-group</i>	<i>N</i>	<i>%</i>
20—30	36	16.7
31—50	104	48.4
Above 50 years	75	34.9
Total:	215	100.0

In order to study the relationship between age and adoption, we have classified the respondents into three age groups viz, up to 30 years, 31 to 50 years and 51 and above. The data presented in Table III - 2 shows that a majority of the respondents, i.e. 104 out of 215, are in the age group of 31 years to 50 years constituting 48.4% of the beneficiaries. This is followed by persons above 50 years of age. Such persons are 75 in number and account for 34.9% of the respondents. The adopters belonging to the age group of 20-30 constitute only 16.7% of the total beneficiaries as their number is only 36. From the table, therefore, it can be interpreted that the Sulabh Shauchalaya scheme has found less acceptability among the youngest group of respondents. It is being favoured more by middle aged and old people. However, the youngest group of respondents have not totally disfavoured this scheme. A good number of them have revealed a positive inclination for the scheme.

AGE AND ADOPTION

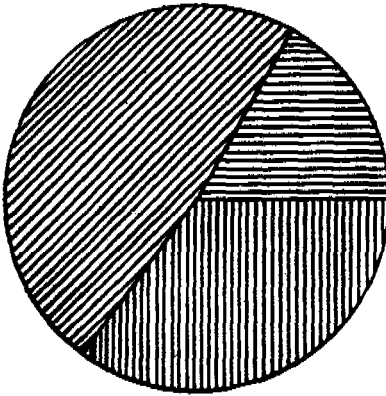
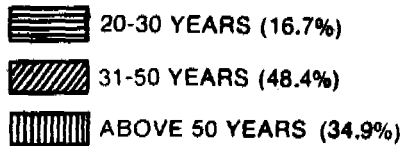
LEGEND

Fig. III-1

Caste and Adoption:

The Indian social system is inconceivable without caste (Sachchidananda, 1972 : 65). Even at present it is an important and sacrosanct institution in India. The Hindu society is a caste-ridden society. It is the bed-rock of Hindu life. Caste still retains its pivotal position in the social structure of the country. Caste is a powerful and important factor regulating the status behaviour and value system of the Hindu. There is intimate relationship between caste and economic development. In the various studies on innovations and their adoption, caste has been found to be an important correlate of adoption while Patnaik, (1967) found caste to be an important variable exerting negative influence on agricultural adoption, Bose (1971) on the basis of his study of villages of West Bengal found that agricultural innovations are more

acceptable among the upper castes than the backward and the scheduled castes.

In our study we made an attempt to study the role of caste variable in adoption of Sulabh Shauchalaya. For this purpose all the castes were divided into three categories viz upper castes, backward castes and scheduled castes. The upper castes include Brahmin, Rajput, Bhumihar and Kayasth. Regarding the classification of different castes as backward castes and scheduled castes, the Government's scheduled list has been followed. Table III - 3 shows that the beneficiaries of the Sulabh Shauchalaya system are distributed in as many as 21 caste categories.

TABLE III - 3

Caste and Adoption

<i>Upper caste</i>		<i>Backward caste</i>		<i>Scheduled caste</i>	
Name of the caste.	N	Name of the caste	N	Name of the caste	N
1. Kayastha	33	1. Kurmi	30	1. Dhobi	10
2. Rajput	27	2. Kahar	25	2. Chamar	8
3. Brahmin	17	3. Yadav	15	3. Pasi	6
4. Bhumihar	8	4. Baniya	10	4. Dusadh	1
	—	5. Mallah	7	5. Others	3
Total :	85	6. Hajam	5	Total :	28
	(39.5%)	7. Kanu	5		(13.1%)
		8. Halwai	1		
		9. Koeri	1		
		10. Mali	1		
		11. Nonia	1		
		12. Brahi	1		
		Total :	102		
			(47.4%)		

CASTE DISTRIBUTION

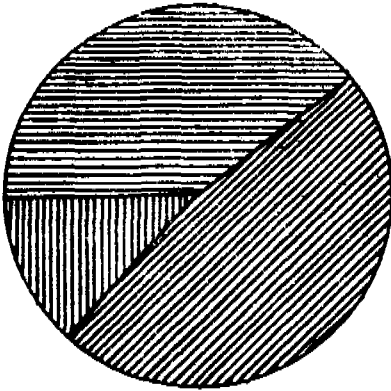
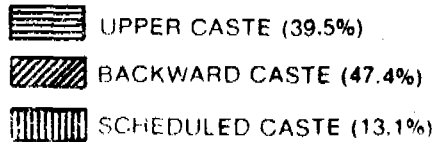
LEGEND

Fig. III-2

There is no concentration of beneficiaries in any particular group. However, the scheme has been found to be more acceptable among the backward and the upper castes. Among the upper castes, it is more acceptable among the Kayasthas and Rajputs. Similarly the largest number of adopters among the backward castes are from among middle range castes like Kurmi, Kahar and Yadav. While the scheme is quite popular among the upper and the backward castes, the scheduled caste persons also do not lag behind. Among the scheduled castes the largest number of adopters are Dhobis. Their position is followed by Chamars and Pasis. Thus it can be said that the scheme has found acceptance among the different castes occupying different positions in the traditional stratification system. However, because of other reasons like ignorance, poverty, illiteracy and lack of information, the scheduled castes have not accepted the scheme to the extent their brethren in the upper and backward castes have accepted. This low incidence

of adoption of Sulabh Shauchalaya among the scheduled castes may also be attributed to their small population in the locality which we have studied. A similar pattern of adoption of this scheme has been observed in the study conducted by Ahmed (1980 : 26).

Education and Adoption:

Education has the effect of widening the mental horizon of a person. It prepares or predisposes him to be receptive to new ideas. Even limited education has a positive influence on the people. More literacy or the capacity to read and write exposes a person to the influence of new ideas atleast by enabling him to read newspapers and other periodicals.

An educated man is considered to be more responsive to change. The educated people share the value complex of the scientific civilization. They tend to think of development "as manifest in science and technology : better automobiles, faster airplanes, finer buildings and more comfortable homes, hybrid seeds and larger crops, miracle drugs and better health" (Foster, 1973 : 5). It can, therefore, be assumed that innovations promoting better living conditions would be more acceptable to people with education. Education is an important variable affecting awareness attitude and occupation and the people. It has been found that in the acceptance of agricultural innovations literate and better educated farmers are more apt to accept innovation. On the basis of the study of some villages in West Bengal, Bose (1961 : 138—145) has observed that literacy and education affect the acceptability of innovation among the farmers. In the study conducted by the National Institute of Community Development also education appears to be positively related to the adoption of agricultural innovations. In the study of Sulabh Shauchalaya in Ranchi (1979 : 28), it was observed that the scheme was very popular among the people having some literary background. A similar observation has been made with regard to the scheme of Sulabh Shauchalaya in the study conducted by Ahmed (1980).

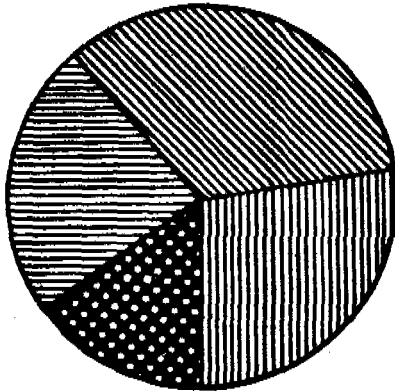
Table III - 4 deals with the educational level of the beneficiaries. It shows that Sulabh Shauchalaya is very popular among the educated persons who account for 72.5% of the beneficiaries. Among the literates 14.9% are those who have attained the level of education

TABLE III - 4

Education and Adoption

<i>Level of Education</i>	<i>N</i>	<i>%</i>
Illiterate	59	27.5
Up-to Non-Matric	73	33.9
Up-to Intermediate	51	23.7
Graduation and Above	32	14.9

up to graduation and above, 23.7% are educated up to Intermediate whereas 33.9% are non-matric. Those who do not have any education account for 27.5% of the respondents. This shows that Sulabh Shauchalaya has found more acceptability among the literates. Some form

EDUCATION AND ADOPTION**LEGEND**





-  ILLITERATE (27.5%)
-  NON-MATRIC (33.9%)
-  GRADUATES (23.7%)
-  INTERMEDIATE (14.9%)

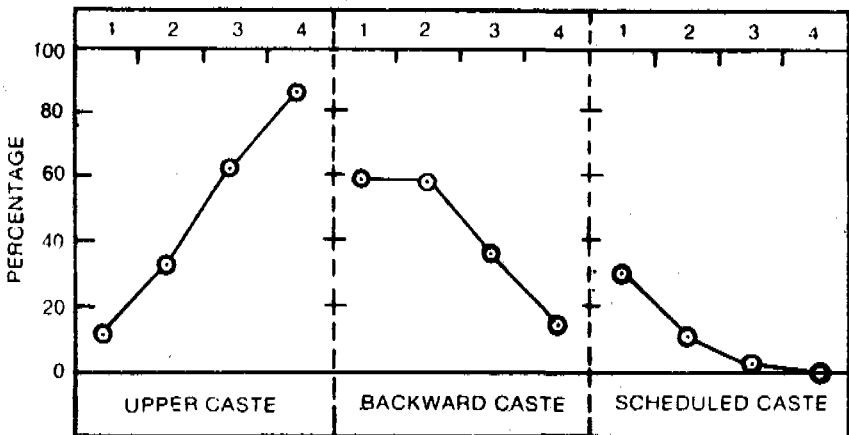
Fig. III-3

of education on the part of the potential beneficiaries is required in order to make them realise the benefits of the scheme and fruits of modern civilization. The fact that a number of families having illiterate persons as head have adopted the scheme indicates that they are not completely resistant to the introduction of Sulabh Shauchalaya. It is further evident that education has facilitated adoption of this scheme more among the upper castes than the backward and the scheduled castes.

TABLE III-5
Education, Caste and Adoption

Level of Education	Caste						
	Upper caste		Backward caste		Scheduled caste		Total
	N	%	N	%	N	%	%
Illiterate	6	10.2	35	59.3	18	30.5	100 (59)
Upto non-matric	21	28.8	43	59.8	9	12.3	100 (73)
Upto Intermediate	31	60.8	19	37.2	1	2.0	100 (51)
Graduation & above	27	84.4	5	15.6	0	0.0	100 (32)
Total:	85	39.5	102	47.4	28	13.1	100 (215)

EDUCATION CASTE ADOPTION



EDUCATION

1. ILLITERATE
2. UPTO NON-MATRIC
3. UPTO INTERMEDIATE
4. GRADUATES & ABOVE

Fig. III-4

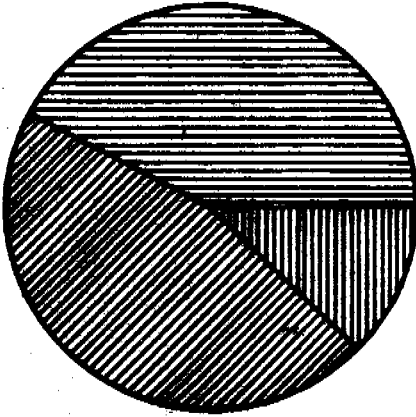
Table III - 5 shows that of the illiterate persons numbering 59, 89.8% belong to the backward and the scheduled castes. The upper castes have only 10.2 per cent of the illiterate beneficiaries. In the non-matric group of respondents, the majority are from the backward castes (58.9%). It may be noted here that the next position is that of the upper caste respondents that account for 28.8% of such beneficiaries. As the level of education increases the number of respondents from the backward and scheduled castes diminishes. Among the scheduled castes, there is only one respondent who has read up to Intermediate. The representation of scheduled castes among the well-educated beneficiaries is very marginal whereas the number of respondents in higher education categories is the highest among the upper castes followed by the backward castes. This leads us to infer that education is an important factor affecting the acceptability of an innovation. It is more effective among the upper castes than the backward and the scheduled castes. The backward and the scheduled castes, even if moderately educated, are quite prone to adopt the scheme. This may be attributed to the fact that among these categories of people education is very meagre. As such, persons with even less education do not lag behind in embracing the implications of modernity.

Income and Adoption:

If education leads to the exposure of an individual towards modern facility, the economic factor is the permissive factor. Until and unless an individual has sufficient resources at his disposal, he cannot take the risk in accepting new innovations. The economic environment in which an individual finds himself affects his habit, behaviour and aspiration to a considerable extent. The well-to-do people have the means to acquire many innovations inaccessible to their less well-off neighbours. Other researchers have found that there is positive correlation between economic status and adoption of modern farm practices.

To study the relationship between income and adoption we divided the respondents into three income categories: those having a monthly income between Rs. 100-400, Rs. 401-800 and Rs. 801 and above. It is evident from the Table III-6 that the largest income bracket

INCOME AND ADOPTION



LEGEND




-  RS 100-400 (42.3%)
-  RS 400-800 (45.6%)
-  RS 800 & ABOVE (12.1%)

Fig. III-5

TABLE III-6

Income, Caste and Adoption

Caste	Income group							
	Rs. 100-400		Rs. 401-800		Rs. 801 and above		Total	
	N.	%	N.	%	N.	%	N.	%
Upper caste	27	31.8	39	45.9	19	22.4	85	100.0
Backward caste	49	48.0	46	45.1	7	6.9	102	100.0
Scheduled caste	15	53.6	13	46.4	0	—	28	100.0
Total:	91	42.3	98	45.6	26	12.1	215	100.0

INCOME CASTE AND ADOPTION

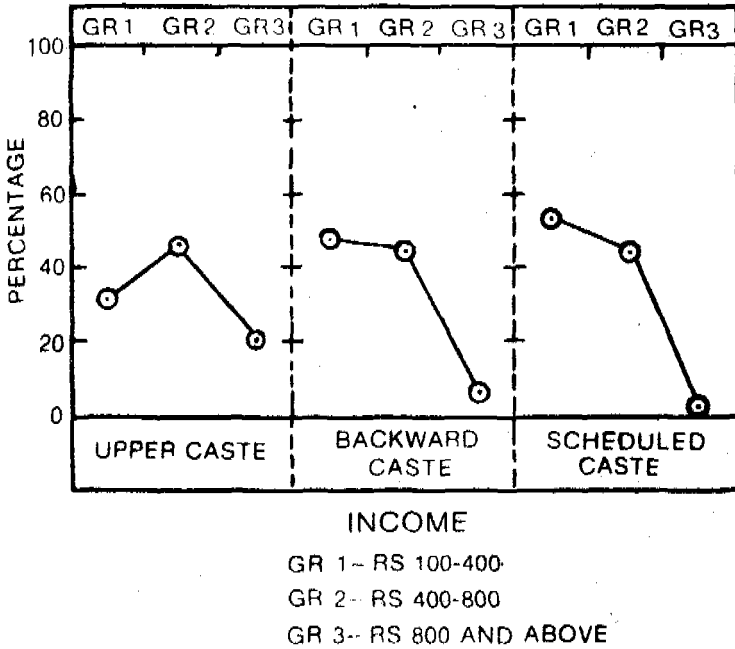


Fig. III-6

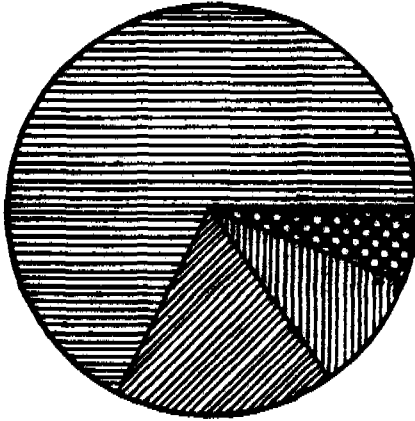
has the lowest number of respondents. Only 26 households are in the largest income bracket which is 12.1% of the households covered. The majority of the respondents are those having a monthly income between Rs. 401 and 800. Next is the position of such respondents who have a monthly income below Rs. 400/-. They account for 42.3% of the respondents. Therefore it can be said that there is no positive relationship between income and adoption. It is not that the higher income group has a higher degree of adoption. Instead, a good number of respondents from low income groups have come forward to accept the scheme of Sulabh Shauchalaya. The economic factor does not offer a complete explanation of innovative behaviour. That Sulabh Shauchalaya is quite popular among lower income groups is but quite natural. Unlike the sewerage system Sulabh Shauchalaya is not capital-intensive. It is quite within the paying capacity of an average

urban household. It is a magic solution to the sickening sanitary condition of the poor people and slum dwellers. It is further clear from the table that income as variable is more effective among the upper caste respondents. It is also affecting the acceptance capability of the backward castes to some extent. But in the case of the scheduled castes there seems to be an inverse relation between income and adoption. The table shows that among the upper caste people majority of the respondents (68.3%) are those who have a monthly income above Rs. 400.00 while 31.8% are those having a monthly income below Rs. 400.00. Those having a monthly income between Rs. 401 and 800 are of the tune of 45.9%. Similarly the upper castes have the largest number of people having a monthly income above Rs. 800/-. Among the backward caste people majority are in the lowest income bracket. People having a monthly income below Rs. 400/- account for 48% of the total respondents from the backward castes. Those having a monthly income between Rs. 401-800 account for 45.1% of such respondents. The respondents having a monthly income of Rs. 801 and above are few and far between so far as the backward castes are concerned. Among the scheduled castes the majority of the respondents (53.6%) belong to the lowest income categories. Their position is followed by such respondents as are having a monthly income of Rs. 401 to 800. This accounts for 46.4% of the scheduled caste respondents. There is none among the scheduled castes who has monthly income above Rs. 800/-. Thus it can be said that the scheduled and backward castes covered for the present study are, by and large, a poor people. Still they have a great inclination to usher in a major breakthrough in the field of urban sanitation by adopting the Sulabh Shauchalaya scheme. Among the upper castes income is an important variable affecting the acceptability of the scheme.

Municipal Tax Slab and Adoption:

The economic status of an individual is also apparent from the amount of tax paid to the municipality or corporation for the household in which he resides. Since municipal tax is based on the type of building, it is an indication of the economic status of the individual occupying it.

MUNICIPAL TAX AND ADOPTION

**LEGEND**





-  UPTO RS 20 (67.4%)
-  RS. 20-40 (17.2%)
-  RS 40-60 (9.3%)
-  RS 60 & ABOVE (6.1%)

Fig. III-7

TABLE III-7

Municipal Tax-slab, Caste and Adoption

Caste	Municipal Tax-slab									
	Up to Rs. 20		Rs. 21-40		Rs. 41-60		Rs. 61 & above		Total	
	N.	%	N.	%	N.	%	N.	%	N.	%
Upper caste	45	52.9	16	18.8	15	17.6	9	10.6	85	100.0
Backward caste	75	73.5	18	17.6	5	4.9	4	3.9	102	100.0
Scheduled caste	25	89.3	3	10.7	0	0.0	0	0.0	28	100.0
Total:	145	67.4	37	17.2	20	9.3	13	6.1	215	100.0

MUNICIPAL TAX—CASTE

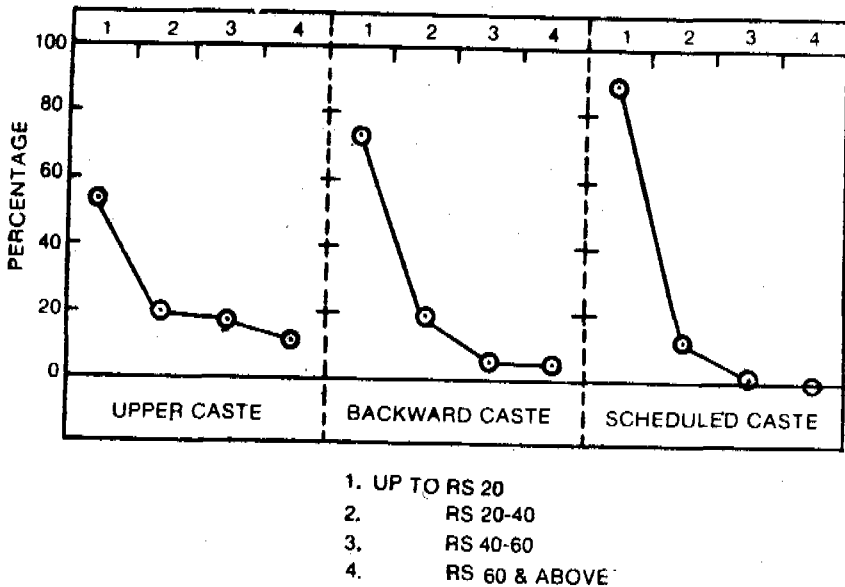


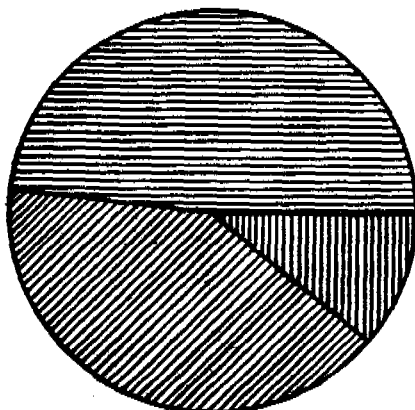
Fig. III-8

To ascertain the relationship between payment of municipal tax and adoption, the amount of tax paid by the respondents was arranged under four categories viz. up to Rs. 20, Rs. 21-40, Rs. 41-60 and above Rs. 61. Information incorporated in Table III - 7 shows that bulk of the respondents (67.4%) are those who pay quarterly municipal tax up to Rs. 20/-. Their position is followed by such respondents who pay municipal taxes between Rs. 21-40. Those who pay municipal taxes between Rs. 41-60 are of the tune of 9.3%. Such respondents who pay municipal tax above Rs. 60 are few and far between. It can, therefore, be said that there is inverse relationship between the municipal tax and adoption. The number of adopters of Sulabh Shauchalaya decreases with the increase in the amount of municipal tax paid. Among the beneficiaries the largest number is comprised of those who pay very little amount of municipal tax. We can, therefore, say that Sulabh Shauchalaya is more acceptable among persons having simple households. Such respondents who pay higher municipal tax are less attracted towards the Sulabh Shauchalaya scheme. The inverse relationship between payment of municipal tax and adoption of this

TABLE III - 9
House Ownership and Adoption

<i>Type of Respondents</i>	<i>Number</i>	<i>Percentage</i>
Owners only	104	48.4%
Owners-Tenants	88	40.9%
Tenants only	23	10.7%
Total:	215	100.0%

HOUSE OWNERSHIP AND ADOPTION



LEGEND




-  OWNERS ONLY (48.4%)
-  OWNERS-TENANTS (40.9%)
-  TENANTS ONLY (10.7%)

Fig. III-10

It has been presumed that such households where the owners themselves reside would go in for adoption to improve sanitary conditions in a bigger way. The house owner is a man who has to take the decision with regard to improvement in the facility of the

house. If he is not occupying the house and the house is occupied by tenants, provision of better facility is likely to be delayed. From Table III - 9 it is clear that a majority of the houses are such wherein owners themselves reside. Such households which are occupied solely by tenants who have adopted the scheme of Sulabh Shauchalaya are of the order of 10.7%. The scheme seems to be so good that even a tenant has successfully persuaded the owner, living away from the house, to adopt the scheme of conversion of service latrines into Sulabh Shauchalayas.

It is also clear from the above table that households wherein owners reside are more quick to adopt the scheme. There seems to be positive relationship between the ownership type and adoption of the scheme.

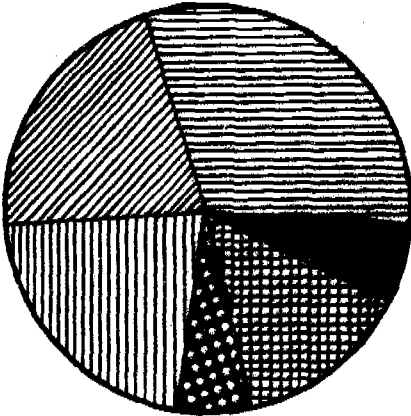
Occupation and Adoption:

There seems to be an intimate relationship between occupational status of an individual and his behaviour and attitudinal patterns. A man's behaviour is governed, to a great extent, by the type of work in which he is engaged. A man practising a traditional occupation is bound to be less exposed to modernity than one who is in modern occupation.

TABLE III - 10
Occupation and Adoption

<i>Type of Occupation</i>	<i>Number</i>	<i>Percentage</i>
Government service	66	30.7
Private service	45	20.9
Business	47	21.9
Farming	12	5.6
Independent occupation	33	15.3
Dependent	12	5.6
Total:	215	100.0

OCCUPATION AND ADOPTION

LEGEND







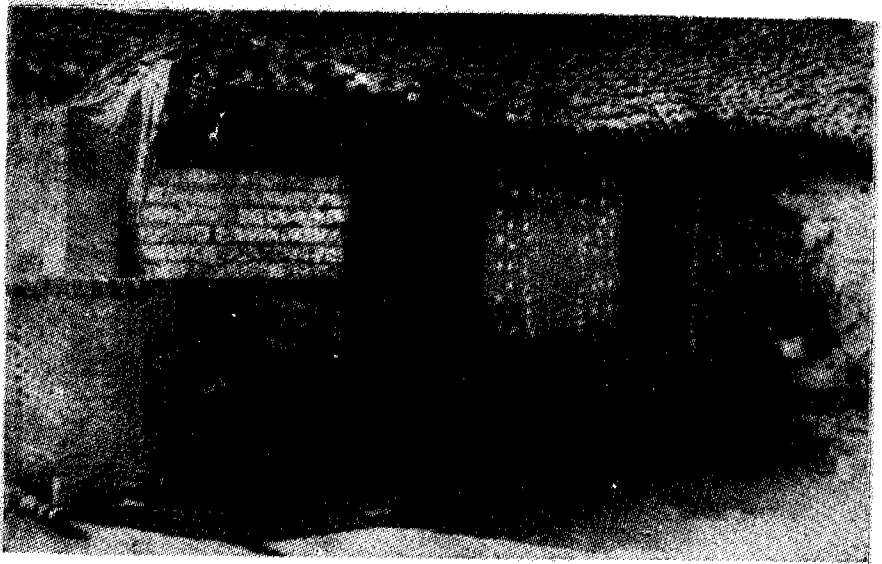
	GOVT. SERVICE (30.7%)
	PVT. SERVICE (20.9%)
	BUSINESS (21.9%)
	FARMING (5.6%)
	INDP. OCCUPATION (15.3%)
	DEPENDENTS (5.6%)

Fig. III-11

It is apparent from Table III - 10 that the Sulabh Shauchalaya scheme has found acceptance by persons of diverse callings. It is, however, evident from the table that 111 out of 215 respondents are in service. These constitute 51.6% of the total respondents. Of this 30.7% are in Government service while 20.9% are working in private establishments. The second largest number of respondents, according to their occupation, are from the business community. They constitute 21.9% of the total population. Those engaged in independent occupations come next. They comprise 15.3% of the total respondents. There are several people whose primary occupation is

agriculture. They account for 5.6% of the population. It can be said, therefore, that while the scheme is most popular among persons in modern occupation, it is quite acceptable to persons in other occupations also. Even persons depending for their livelihood on agriculture are quite enthusiastic to adopt this scheme. It shows that the scheme has the potentiality of being adopted in the countryside also.



Even this house has a Sulabh Shauchalaya

CHAPTER IV

CATEGORIES OF ADOPTERS

CHAPTER - IV

Categories of Adopters

In every society the acceptance of innovation is characterised by phased adoption. There are individuals who adopt an innovation at the very outset whereas there are individuals who are always late in responding to the imperatives of social change. An innovation gets acceptance by different individuals at different points of time and it is not adopted simultaneously by all individuals. There is a time continuum along which the adoption takes place. In other words, the adoption takes place in an ordered time sequence. Adoption of an innovation being always selective, different individuals are differently motivated to accept the innovation.

Innovativeness is an important theme in studies on diffusion of innovation. The study of the degree to which an individual is relatively early or late in adopting new ideas is the most favourite dimension attracting considerable attention of the scholars in this field. The classification of the entire population on the basis of the degree of willingness to accept novelty has its own significance. Since the objective of the various change agencies is to facilitate the adoption of innovation by the members of the society, a classification of individuals on the basis of the degree of innovativeness would be a favourable guide to the change agents. Such classifications help them to identify potential innovators and laggards among the client population prompting them to adopt an appropriate strategy for each of the sub-population. The classification of individuals into different categories, each consisting of individuals with identical degree of innovativeness, has much practical usefulness. It enables the change agent to adopt differential promotional programmes appropriate to different categories of adopters. "Because increased innovativeness is the objective of change agencies, it has become the main dependent variable in the diffusion research, these change agencies sponsor" (Rogers, Shoemaker, 1971 : 175). The

description of the status characteristics of the different types of beneficiaries is also important as it goes a long way in locating the extent and directions of modernization experienced by the society. Since innovativeness is an important indicator of modernization, the classification of adopters on the basis of the degree of acceptability of a new scheme is a necessary step in the study aimed at exploring the changing contours of a society. "A further reason for the prime focus on innovativeness in diffusion research, specially in less developed countries, is that innovativeness is the best single indicator of modernization" (Rogers, Svenning, 1969 : 292). "Innovativeness indicates behaviourable change, the ultimate goal of modernization programmes rather than cognitive or attitudinal change" (Rogers and Shoemaker 1971 : 176).

There is lack of unanimity with regard to the titles of adopter-categories in the different schemes for the classification of adopters as envisaged in the different projects on the study of diffusion of new schemes and ideas. The classification of the adopters is made in a number of ways. The adopter categories are as numerous as the diffusion researches. The names proposed for adopter categories are many. This indicates a lack of agreement among the social scientists on a common typology for adopters. "The inability of diffusion researchers to agree on a common semantic ground in assigning terminology has led to a plethora of adopter descriptions" (Rogers and Shoemaker 1971 : 176). There does not appear to be one standard method for classifying the adopters. Each study has its own method of classification and nomenclature. Titles for adopter categories range from "pioneers" (Ross, 1958) and "progressist" (Chaparro, 1955) to parochials (Carter and Williams, 1957) and "drones" (Danhouf, 1949). The most innovative individuals have been termed progressists, high-tier experimentals, light houses, advance scots and ultra adopters. Least innovative individuals have been called drones, parochials and diehards (Rogers and Shoemaker 1971 : 176).

Thus there is an apparent need for developing standard categories and nomenclature to characterize categories. This is necessary as it ensures comparative analysis of the research findings of the studies from different settings. Any research in the field of diffusion of innovation, in order to be more effective, has to be communicative in a meaningful and accurate manner. "The fertile disarray of adopter

categories and method of categorization illustrated by adopters categories emphasizes the need for standardization" (Rogers and Shoemaker 1971 : 176). However the concern for the development of standard criteria for categorising the adopters is far from marked. Few researches in the field of diffusion and analysis are concerned with the development of standard categories for classification of adopters. Though the present study is not concerned primarily with the development of a standardised classification scheme for adopters, keeping in view the need for standardization of the classification scheme for the adopters, it intends to adopt the classification which may facilitate comparison of findings in this field in the best possible manner. Since Sulabh Shauchalaya is a scheme which is gaining acceptability in different regions and cultures, we intend to classify the adopters on the basis of their innovativeness in order to prescribe different strategies of persuasion for the potential clients in order to ensure the optimum utilization of the scheme. We have to locate such adopters as are late in accepting the scheme. Once they are located and put under appropriate categories, our task as change agent is made easier. This is because each adopter category possesses some distinguishing characteristics which either facilitate change or hinder it. Once the potential adopters are classified under different categories and their special characteristics are known, the task of promoting change by adopting suitable strategies is made easier.

In India there is now an abundance of studies using innovativeness as variable. However only a few deal with the methodology of classification of adopters. In course of a study Das Gupta (1963) had classified the adopters in Indian villages into three categories viz. innovators, earlier adopters and average farmers. The innovators are such farmers who come forward and seek information about the utility and application of a new item. The early adopters seek information from the innovators before they adopt an innovation. Last come the late adopters or average farmers. In a study of acceptance of agricultural innovations in Bihar villages Sachchidananda (1972) has made a four-fold classification of adopters. They are first adopters, early adopters, late adopters and laggards. Thus it is apparent that in the study on adoption of innovation, the scholars working in India have considered the time of adoption to be an important measure for classification of adopters. Those who have adopted the scheme earlier

than others are considered to be more innovative. In order to compare the findings of the present study with similar studies in the sphere of innovation research, we have regarded the time of adoption of the Sulabh Shauchalaya system to be the basis for classifying the adopters. Since most of the persons adopted the scheme in the year 1975, those who have adopted this scheme before 1975 are considered earlier adopters, those adopting the scheme in the year 1975 are labelled average adopters and those adopting the Sulabh Shauchalaya scheme after 1975 are called late adopters.

The time-of-adoption dimension can be of a cross-cultural utility for classifying the acceptors. It is very simple also. This is also likely to ensure comparability.

The categories developed on the basis of time-dimension of adoption are exhaustive, that is, they included all respondents of the sample and are mutually exclusive.

Year-wise Adoption of Sulabh Shauchalayas:

TABLE IV -1

Year-wise Adoption of Sulabh Shauchalayas

		<i>Number</i>	<i>Percent</i>
Before year	1975	24	11.2
During	1975	161	74.9
During	1976	22	10.2
During	1977	4	1.9
During	1978	2	0.9
During	1979	1	0.5
During	1980	1	0.5
Total:		215	100.0

From Table IV-1 it is apparent that there are only 24 households out of 215 which adopted the Sulabh Shauchalaya scheme before 1975. These are early adopters and account for 11.2% of the respondents. This category includes innovators as well. These are the first persons to accept the advice of the change agent with regard to the new idea in the

field of sanitation. They tried out the scheme first. They can be called experimenters. Since they have tried out the Sulabh Shauchalaya scheme before other members of the community, they are looked upon as a good source of advice and information by the neighbours. They have been considered as those contact persons whom the average person contacted before adopting the new scheme. They are "the men to check with" before using any idea. This adopters' category is generally sought by change agents to be a local missionary for speeding up the diffusion process. These constitute a key target for the change agent. Potential adopters also look to them for advice and information about the innovation. In the present case they have acted as a demonstration model encouraging the rest of the community to follow their pattern in accepting the Sulabh Shauchalaya scheme. They serve as a role-model for many other members of the locality. It is further evident from the table that the scheme which came into vogue in 70's got a fillip in the year 1975. During this year as many as 161 new households adopted the Sulabh Shauchalaya system. These account for 74.9% of the total adopters of Sulabh Shauchalayas in Lohanipur. We have called them average adopters as they constitute a big majority which adopted this scheme at a particular period of time. By 1975 most of the dry latrines of the area were converted into Sulabh Shauchalayas. In almost all the households of average persons Sulabh Shauchalaya got unprecedented popularity. It may here be noted that the time taken by the average adopters in adopting the scheme is relatively longer than the early adopters. "Be not the last to lay the old aside nor the first by which the new is tried" seems to be the motto of the average adopters. They are quite willing in adopting the scheme, but they do not lead. After 1975 the rate of conversion of dry latrines into Sulabh Shauchalayas is slower when compared to the rate of conversion in the year 1975. This is quite natural because once the majority of the households in an area have adopted the scheme, the number of new aspirants for the scheme has to diminish. The table shows that in 1976, 22 more households, that is 10.2% of the total number, got Sulabh Shauchalayas installed in their houses. In 1977 only 4 households constituting 1.9% got the old system of latrines converted into Sulabh Shauchalayas. In the subsequent year the system found its way into only a few households. The year 1978 accounts for 0.9% of the total adoption of Sulabh Shauchalayas in the area whereas 1979-80 shows a

0.5% rate of adoption. Thus we find that as many as 30 households are such which have adopted Sulabh Shauchalayas after the year 1975, a year during which the acceptability of Sulabh Shauchalayas among the people of Lohanipur became widespread. These are late adopters and account for 14% of the total households covered. They are the last to adopt the scheme of Sulabh Shauchalaya. They appear to be late in accepting the innovation. Adoption in their case lagged far behind awareness of the idea. Unlike the average adopters and early adopters who look to the road of change ahead, the late adopters have their attention fixed on the rear view of the mirror.

ADOPTER CATEGORIES

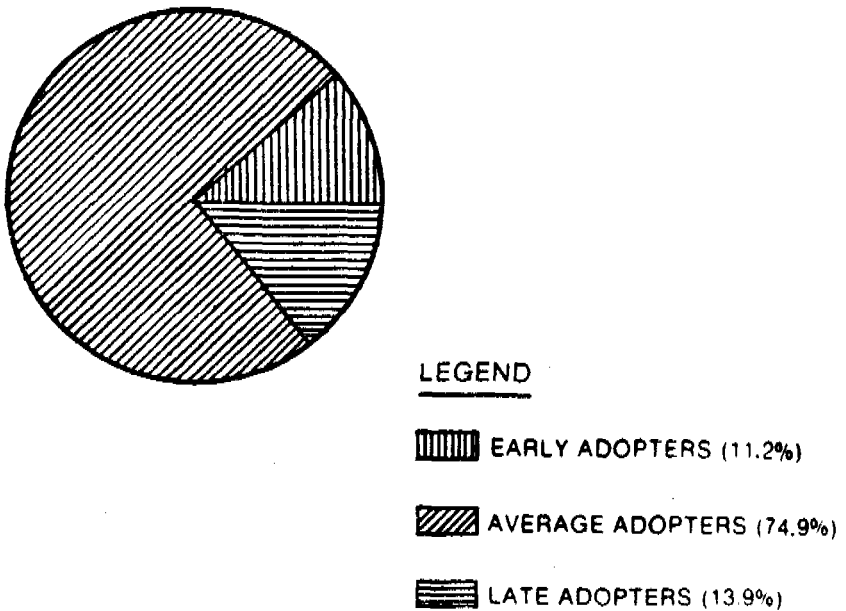


Fig. IV-1

After providing a scheme for the classification of the beneficiaries, we now present a thumbnail sketch of the dominant characteristics associated with each of the adopter categories to be followed by a more detailed generalization. Evidences from extensive research in rural sociology reveal that different adopter categories possess distinguished characteristics.

Adopter Categories and Age:

Gross (1942), Jones (1960), Lionberger and Coughnour (1957), Rahudkar (1961), Rogers and Burdge (1961-62) found younger age associated with innovativeness. However, in certain studies no significant relationship between age and innovativeness has been found.

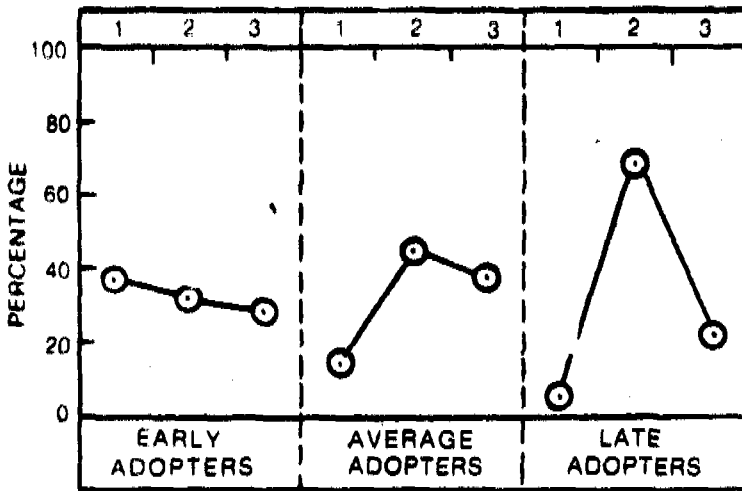
TABLE IV-2

Adopter Categories and Age

Age Category	Adopter Categories							
	Early Adopters		Average Adopters		Late Adopters		Total	
	N.	%	N.	%	N.	%	N.	%
20-30 years	9	37.5	25	15.5	2	6.7	36	16.7
31-50 years	8	33.3	73	45.3	21	70.0	102	47.4
Above 50 years	7	29.2	63	39.1	7	23.3	77	35.8
Total:	24	100.0	161	100.0	30	100.0	215	100.0

In order to find out the relationship between the age and different categories of adopters we have cross-tabulated the age of the respondents with the categories of adopters to which they belong. From Table IV-2 it is apparent that early adopters are comparatively younger than the average and late adopters. Young age seems to be positively related to likeness for hazards and is more risk-taking and daring than the older persons. The table shows that 37.5% of the early adopters are below 30 years of age whereas 33.3% are above 30 years and below 50 years. The percentage of older persons as early adopters is very low.

AGE AND ADOPTER CATEGORIES

LEGEND

1. 20-30 YEARS
2. 31-50 YEARS
3. ABOVE 50 YEARS

Fig. IV-2

It is of the order of 29.2%. It is apparent that as age increases, there is little likelihood of a person becoming an early adopter. The table also shows that average adopters in a big majority of cases (84.4%) are from the older age group. The percentage of young people as average adopters is less than those as early adopters. Among the late adopters the percentage of persons above 30 years of age is very large. It is of the order of 93.3%. Only 6.7% of the late adopters are below 30 years of age. This shows that innovativeness is positively co-related with age. Older persons need more persuasion and greater education about the programme than the young people. It is, therefore, advisable that the change agent should have different strategies for people in different age categories. In order to cut short the delay in adoption by the older people a strategy different from that adopted for the younger people has to be adopted.

Adopter Categories and Sex :

To find out the relationship between sex and adopter categories, we have cross-tabulated the two variables. From Table IV-3 it is apparent that there is no marked relationship between sex and adopter categories. Early adoption is not the exclusive characteristic of any particular sex category. There does not exist any correlation between orientation to late adoption and sex.

TABLE IV-3

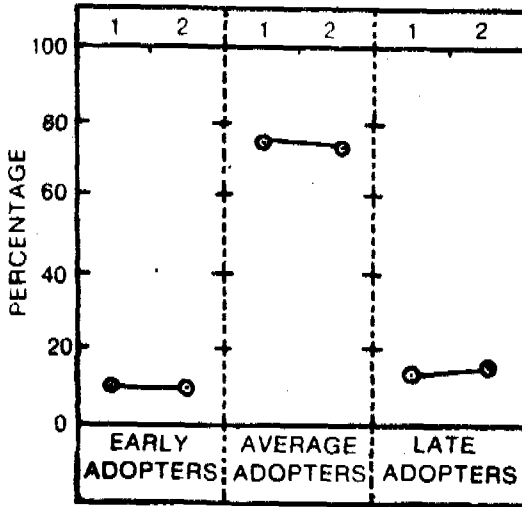
Adopter Categories and Sex

Sex	Adopter Categories							
	Early		Average		Late		Total	
	Adopters		Adopters		Adopters		N.	%
	N.	%	N.	%	N.	%	N.	%
Male	22	11.2	147	75.0	27	13.8	196	100.0
Female	2	10.5	14	73.7	3	15.8	19	100.0
Total	24	11.2	161	74.9	30	13.9	215	100.0

The table shows that of the total number of males, 11.2% are early adopters. This figure is of the order of 10.5% for the female respondents. Both males and females have the same degree of eagerness in adopting Sulabh Shauchalayas. Of the total number of males interviewed in the study 75% are average adopters whereas 73.7% of females are average adopters. Thus there is a slight decline in the percentage of female respondents in the category of average adopters as compared to male respondents. This is followed by an increase in the percentage of female respondents in the category of late adopters. Female respondents are late adopters in a slightly larger degree than the male respondents. However, the difference in the percentages of the males and females in the category of late adopters is very insignificant. If at all there is any relationship between sex and adopter categories, it can be said that women are more likely to adopt the Sulabh Shau-

chalaya system as late adopters than the male respondents. However, this does not appear to be a very marked tendency.

SEX AND ADOPTER CATEGORIES



SEX

1 MALE

2. FEMALE

Fig. IV-3

Adopter Categories and Caste :

TABLE IV-4

Adopter Categories and Caste

Caste	Adopter Categories						Total	
	Early Adopters		Average Adopters		Late Adopters		N.	%
	N.	%	N.	%	N.	%		
Upper caste	5	5.9	72	84.7	8	9.4	85	100.0
Backward caste	15	14.7	68	66.7	19	18.6	102	100.0
Scheduled caste	4	14.3	21	75.0	3	10.7	28	100.0
Total:	24	11.2	161	74.9	30	13.9	215	100.0

CASTE AND ADOPTER CATEGORIES

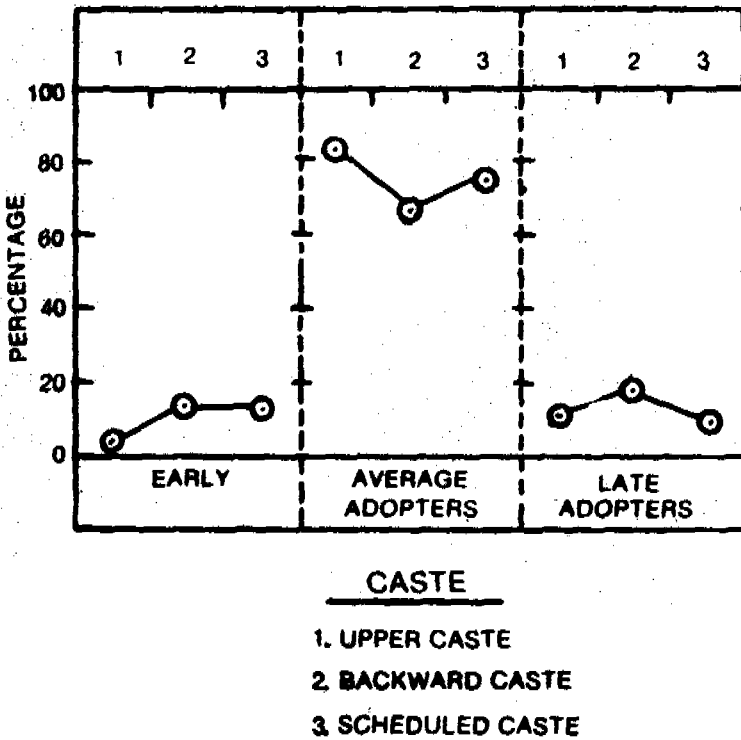


Fig. IV-4

An analysis of the castes of different types of adopters has been made. We have tried to know whether there is any relationship between caste and time of adoption. From Table IV-4 it is apparent that out of the total of the upper caste population adopting the Sulabh Shauchalaya scheme, only 5.9% are such who have adopted the scheme at the time of its initiation. The percentages of such respondents are of the order of 14.7 and 14.3 in the case of the backward and the scheduled castes respectively. This means that the upper castes are less likely to be early adopters than the backward and the scheduled castes. The upper castes do not appear to be risk-prone to the extent the backward and the scheduled castes are. The fact that the percentage of average adopters is the highest among the upper castes indicates the possibility of the upper castes being the average adopters in a larger number of cases than the backward and the scheduled castes. The percentage of average

appear to be a positive relationship between education and the type of adopters in the sense that there is no increase in the number of respondents in the category of early adopters with the increase in the level of education. That higher education is inversely related to the time of adoption is also not borne by the study. In fact graduates account for the lowest number of early adopters. The percentage of early adopters is larger in the case of illiterate, non-matric and intermediate respondents than those who have read up to graduation. The percentage of early adopters is of the order of 11.9% among the illiterates, 12.3% among the non-matrics and 11.8% among such respondents as have studied up to the intermediate level. There is an inverse relationship between the graduate stage of education and the time of adoption. The discussion leads us to conclude that literacy is a major variable related to the early adoption of Sulabh Shauchalaya. More years of education do not appear to be a variable having clear-cut implications. Better educated persons are not in all cases early adopters. A good number of them are late in adopting the Sulabh Shauchalaya scheme.

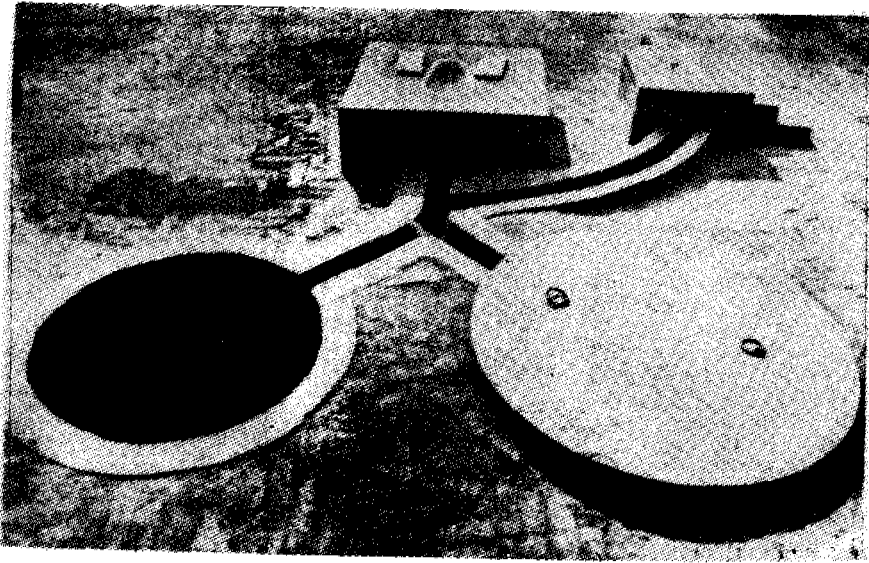
Adopter Categories and Income :

Economic status is reported to be the characteristic of early adopters. Bulk of studies on diffusion of innovation find a positive relationship of economic status with the time of adoption (Rogers and Shoemaker 1971 : 186). An economically better man is found to be very quick in accepting the new programmes and adopting them. They are prepared to take risk in a greater proportion than the poor and destitute.

In order to test this hypothesis we cross-tabulated the categories of adopters with some indices of economic status. Table IV-6 cross-tabulates different income levels and types of adopters. It is clear from

TABLE IV-6
Types of Adopters and Income

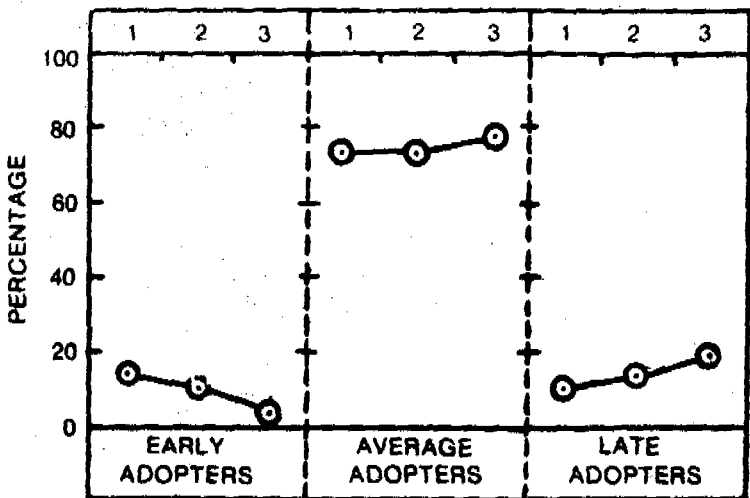
Income	Types of Adopters							
	Early Adopters		Average Adopters		Late Adopters		Total	
	N	%	N	%	N	%	N	%
Rs. 100—400	13	14.3	67	73.6	11	12.1	91	100.0
Rs. 401—800	10	10.2	74	75.5	14	14.3	98	100.0
Rs. 801 and above	1	3.8	20	76.9	5	19.2	26	100.0
Total:	24	11.2	161	74.9	30	13.9	215	100.0



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

the table that of the 91 respondents having monthly income below Rs. 400, 14.3% are such as have adopted the scheme during the initiation period. The percentage of early adopters among such respondents as have monthly income between Rs. 401 and Rs. 800 is of the order of 10.2% and the percentage of such respondents among those having monthly income of Rs. 801 and above is of the order of 3.8%. Thus there is an inverse relationship between income and time of adoption. Contrary to the findings of other studies, the early adopters of the Sulabh Shauchalaya scheme are the poor and those of average economic standing. The rich and prosperous constitute such respondents as are not willing to try the scheme immediately. They are more likely to become average and late adopters. It is significant to note that the representation of the high income group in the category of late adopters is very high. As is evident from the table, as many as 19.2% of the respondents earning monthly income of Rs. 801 and above are late

INCOME—ADOPTER CATEGORIES



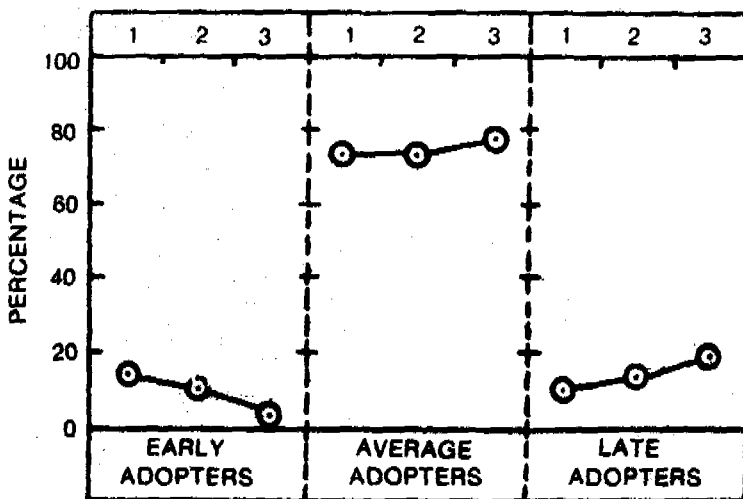
INCOME

- 1. RS 100-400
- 2. RS 401-800
- 3. RS 801 & ABOVE

Fig. IV-6

the table that of the 91 respondents having monthly income below Rs. 400, 14.3% are such as have adopted the scheme during the initiation period. The percentage of early adopters among such respondents as have monthly income between Rs. 401 and Rs. 800 is of the order of 10.2% and the percentage of such respondents among those having monthly income of Rs. 801 and above is of the order of 3.8%. Thus there is an inverse relationship between income and time of adoption. Contrary to the findings of other studies, the early adopters of the Sulabh Shauchalaya scheme are the poor and those of average economic standing. The rich and prosperous constitute such respondents as are not willing to try the scheme immediately. They are more likely to become average and late adopters. It is significant to note that the representation of the high income group in the category of late adopters is very high. As is evident from the table, as many as 19.2% of the respondents earning monthly income of Rs. 801 and above are late

INCOME—ADOPTER CATEGORIES



INCOME

- 1. RS 100-400
- 2. RS 401-800
- 3. RS 801 & ABOVE

Fig. IV-6

adopters. The percentage of such respondents among the income categories of Rs. 401-800 and Rs. 100-400 is of the order of 14.3% and 12.1% respectively. It is also clear that average adopters are more numerous among persons having better income. Thus there is an inverse relationship between the income of respondents and the ability to adopt the scheme. The early adopters are poor whereas the late adopters are comparatively better off in a larger number of cases. This is quite natural as the scheme is quite within the reach of poor persons also. There is, in fact, no need to make any payment at the time of construction of Sulabh Shauchalaya. Therefore, the economic factor, specially the immediate inability to bear the cost of construction, does not hinder the acceptance of the scheme. The fact that the economically well off are not quick in coming forward with a willing acceptance of the scheme may be attributed to the existence of many alternatives before these people. It is, therefore, advisable that such people who are economically well off should be imparted more education with regard to the scheme. The fact of this scheme being cheap should not convey any impression of being inferior.

Types of Adopters and Municipal Tax :

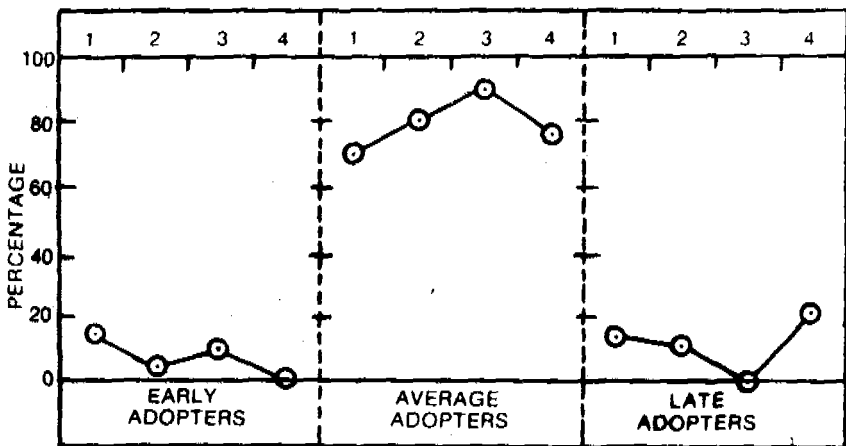
TABLE IV-7
Types of Adopters and Municipal Tax

Municipal Tax	Types of Adopters							
	Early Adopters		Average Adopters		Late Adopters		Total	
	N	%	N	%	N	%	N	%
Up to Rs. 20	20	13.8	103	71.0	22	15.2	145	100.0
Rs. 21—40	2	5.4	30	81.1	5	13.5	37	100.0
Rs. 41—60	2	10.0	18	90.0	0	0.0	20	100.0
Rs. 61 and above	0	0.0	10	76.9	3	23.1	13	100.0
Total:	24	11.2	161	74.9	30	13.9	215	100.0

We have also attempted to find a relationship between the types of adopters and another index of the economic status of the respondents, that is the amount of municipal tax they pay for their households. It is clear from Table IV-7 that the highest number of respondents in the category of early adopters are those who pay municipal tax up to

Rs. 20/-. This accounts for 13.8% of the respondents. Those paying municipal tax between Rs. 21-40, Rs. 41-60 and Rs. 61 and above have respectively 5.4%, 10.0% and 0.0% representation in the category of early adopters. Similarly among the average adopters the representation of such respondents who pay municipal tax between Rs. 41-60 is of the order of 90.0%, which is the highest. The percentage of average adopters is 81.1% among persons paying municipal taxes between Rs. 21-40, 71.0% in the case of those paying municipal taxes up to Rs. 20 and 76.9% among those who pay municipal taxes above Rs. 61/-. Among the late adopters the highest representation is of respondents paying the highest municipal taxes. As it is clear from Table IV-7 that 23.1% of the respondents characterised as late adopters are such who pay municipal taxes above Rs. 61/-. Of those paying municipal taxes up to Rs. 20/-, 15.2% are late adopters. Finally among those who pay municipal taxes between Rs. 21-40, five persons are late adopters and they account for 13.5% of the respondents in this tax slab.

M. TAX—ADOPTER CATEGORIES



M. TAX

- 1. UPTO RS 20
- 2. RS 21-40
- 3. RS 41-60
- 4. RS 61 & ABOVE

Fig. IV-7

From the discussion, it is clear that such respondents as have to pay low municipal taxes are more quick in embracing the revolutionary programme in the field of urban sanitation than those paying higher municipal taxes. Those paying higher municipal taxes are very late in responding to the propaganda of the change agent. High tax-payers are more likely to be average adopters than low tax-payers. They are also likely to be late adopters in a large number of cases.

Adopter Categories and Occupation:

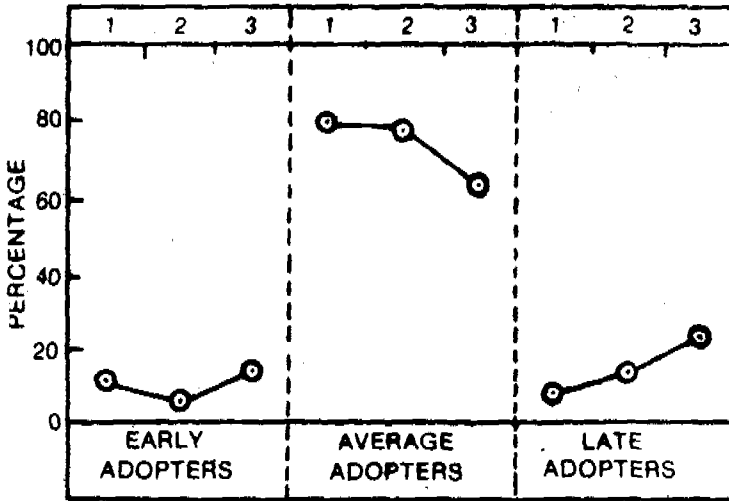
TABLE IV-8

Adopter Categories and Occupation

Occupation	Adopter Categories							
	Early Adopters		Average Adopters		Late Adopters		Total	
	N	%	N	%	N	%	N	%
Service	13	11.7	88	79.3	10	9.0	111	100.0
Business	3	6.4	37	78.7	7	14.9	47	100.0
Others	8	14.0	36	63.2	13	22.3	57	100.0
Total:	24		161		30		215	100.0

It has been our endeavour to know the relationship between different occupational categories and the three adoption categories. We have tried to know whether innovativeness is the special province of any particular occupation. For this purpose we have classified the occupations under three categories viz. service, business and others and cross-tabulated the responses in these categories with the adopter categories. From Table IV-8 it is apparent that such respondents as are engaged in business are less likely to be early adopters. From the table it is further apparent that of such respondents as are in some service 11.7% have adopted the Sulabh Shauchalaya system at the time of initiation. Among the business community early adopters are of the order of 6.4% whereas among such categories of respondents as are in other occupations early adopters are of the order of 14.0%. This indicates that persons in occupations other than service and business are more likely to adopt the scheme as early adopters. Next to become early adopters are such respondents as are in some

OCCUPATION—ADOPTER CATEGORIES



OCCUPATION

- 1. SERVICE
- 2. BUSINESS
- 3. OTHERS

Fig. IV-8

private or public service. There seems to be an inverse relationship between business and early adoption. The table further indicates that most of the respondents whose occupation is either service or business are likely to be early adopters in a big majority of cases. Of such persons as are in some service nearly 79.3% are average adopters whereas from the business community there are 78.7% respondents who have been labelled average adopters. However, persons in callings other than service and business are not willing to be average adopters. Only 63.2% from such occupational categories are average adopters. Such persons are also late adopters in the highest number of cases.

The representation of persons engaged in some service is the lowest among the late adopters. As many as 22.8% of the respondents in professions other than business and service are late adopters whereas 14.9% of persons in business are late adopters. Persons in some sort

of private and Government professions are late adopters in 9.0% of the cases. Thus we can say that persons in some Government or private employment have better records of adoption than those in business and other professions. However, they are more likely to be average adopters. Those in business are not willing to adopt the scheme as a good number of them are represented as late adopters. Persons in that profession are very late in adopting the scheme as the number of late adopters is the highest among them. It can, therefore, be said that innovativeness is not the exclusive privilege of any particular occupational group. However, there are certain categories of people who are very consistent in their response to the propaganda of the change agent than others.

CHAPTER V

COMMUNICATION IN URBAN SANITATION

Communication in Urban Sanitation

Communication plays an important role in every society. As a process it transfers message from a source to a receiver. Communication is vitally involved in many aspects of human behaviour. It helps human beings in culture building by providing interaction between themselves. The word communication is derived from Latin "communis" meaning common. Communication is, therefore, a process by which commonness is established among different individuals. Thus communication is at the base of all social processes. It is the web of human society. "The structure of a communication system with its more or less well-defined channel is, in a sense, the skeleton of the social body which envelops it. The content of communication is, of course, the very substance of human intercourse" (Pye, 1972: 4). As a disseminator of cultural values and habits, communication is the most important influence impinging upon the members of a society. It attunes the individual to the broader issues of the society. More than this, it tends to be the most important mobility-multiplier. It channels rising aspirations into activities, facilitating, developing and impressing a realistic stamp upon the individuals. Communication affects the attitudinal dimensions of outlook, behavioural pattern and value systems of the people. The information about all aspects, domains, properties, places of events in the past, present or future, whether actual or possible, real or imaginary, are made possible with the help of communication. "Living is largely a matter of communicating (Sachchidananda, 1972: 111). Communication is an essential feature of a living society in the way interaction is. All instances of passing messages from one person to another involve communication. Communication is thick with a thousand ingredients. Communication is so much a part of daily activities that some of us may come to look upon

it as a more or less automatic and natural act like breathing or winking. Societies are not identical with regard to the development of agencies of communication. Modes of communication differ in different societies. In a simple society, we have a less developed system of communication whereas the modern developed society is characterised by the techniques of communication that are highly sophisticated and technically sound.

The relationship between communication and development is very intimate. One influences the other. Economic development is facilitated to a considerable extent by the techniques of communication. The messages of development and prosperity are transmitted through the agencies of communication. It is through communication that the flow of information, the circulation of knowledge and ideas are maintained. Similarly as a society develops there takes place a change in the pattern of communication. The development of communication "runs parallel to the development of other institutions of the society, such as schools and industries and is closely related to some of the indices of general, social and economic growth such as literacy, per capita income and urbanization" (Schramm, 1967: 7). The development of mass media is, of course, one of the requisites for and sign of a modernizing society.

Methods of communication get altered with the attainment of advanced stages of development. "The flow of communication determines the direction and the pace of dynamic social development. Hence it is possible to analyse all the social processes in terms of the structure, content and flow of communications" (Pye 1972: 4).

In a country where national development is being pursued with an exceptional sense of urgency, social change depends more upon actual adoption of new ideas than on their introduction. The successful adoption of ideas depends upon the nature of innovation itself, on the social and cultural characteristics of the client population and techniques of introducing the innovation. Such innovations which are in accordance with the felt needs of the people are likely to find easy acceptance in the society. Similarly if an innovation is such for which there is no immediate need in the society, it is less likely to be followed by the client population. In order to be widely accepted the innovation has to be in accordance with the accepted norms of the society. Until and unless it is sanctioned by the norms of the society, an innovation is not

likely to find favour with the larger section of the community. "In a society characterised by a high rate of literacy and which places a premium on novelty and innovation, all that may be necessary is to disseminate new ideas and knowledge either through education or other media of communication. But in small and cohesive communities of the traditional type characterised by close personal and social relations and direct social control and where high premium is placed on conformity, people are more likely to be reluctant to accept an innovation unless it has the community's sanction" (Rajagopalan and Singh: 1971). The social environment of the client system is a big determinant of acceptance of innovation. It may be either conducive or inimical to the spread of particular innovations. "The social system may be traditional in its outlook and may actively discourage the adoption of new ideas and practices, or it may be progressive and encourage the adoption of innovation. Thus the norms of the group with respect to innovation may determine the extent to which diffusion of innovation occurs in a social system" (Kuppuswamy: 1976). More important than these two is the role played by communication in acceptance of innovation. The technique of dissemination of the knowledge of innovation is very important in the spread of innovation. "If the technique of introduction is defective no innovation, however beneficial it may be, and no matter how congruent with the culture of the people, can find introduction. Successful introduction of innovation calls for a considerable amount of initiative, understanding, perseverance, persuasiveness and patience on the part of those responsible for its actual introduction" (Rajagopalan and Singh 1971-36). Thus the diffusion process is critically dependent upon the communication of innovation to potential adopters.

In this chapter we have studied the role of different media of communication in the adoption of Sulabh Shauchalaya and the relationship between the degree of innovativeness and extent of exposure to mass communication. This is important because it enables us to prescribe the appropriate communication strategy to be followed by the different categories of adopters so far as the adoption of Sulabh Shauchalaya is concerned.

Role of Communication in Adoption of Sulabh Shauchalaya :

To study the role of different channels of communication in the adoption of the Sulabh Shauchalaya scheme, we have classified communication channels as inter-personal channels and mass channels. Inter-personal channels of communication involve a face to face exchange between two or more individuals. In a situation where there is apprehension of resistance or apathy on the part of the communicatee, this channel of communication is very effective. In inter-personal communication the receiver may secure clarification or additional information about the innovation from the source of individual. It represents a two-way exchange of ideas. Inter-personal channels are parts of the personal communication structure. It is possible through the inter-personal channels to overcome the social and psychological barriers of selective exposure, perception and retention. It happens to be highly persuasive and it can compel an individual to accept the desired directions in a more effective way. Mass media channels are part of the impersonal communication structure. These do not involve a direct face to face exchange between the communicator and communicatee. Mass media communication is also called "mediated" or 'interposed' because of the print or electronic channel which links the source to the receiver (Rogers and Shoemaker 1971: 252). Mass media communication has the potentialities to reach a large audience in a rapid manner. It is conducive to the creation of knowledge and spread of information. Weakly held attitudes are likely to be changed effectively through channels of mass media. "They function mainly as rapid, one-way efficient dispensers of information. Mass communication is most effective in calling various decision alternatives to the initial attention of individuals. Because of their 'mass' nature they can not be beamed at a specialised or local audience" (Rogers, 1965: 99). Thus the message flow in inter-personal channels tends to be two-way while it happens to be one-way in the mass media channels. Mass media channels have interposed communication context, whereas inter-personal channels are characterised by face-to-face communication. The amount of feed-back available and, therefore, the ability to overcome selective process is high in interpersonal channels and low in mass media channels. Mass media channels are rapid whereas inter-personal channels are slow.

The channels of communication can also be classified as originating from either localite or cosmopolite source. Not only do individuals range along a cosmopolite-localite dimension, but communication channels also may be classified as to their degree of cosmopolitaness. While cosmopolite communication channels are those from outside the social system being investigated, other channels of information about new ideas reach the individual receiver from a source inside their social system.

It is to be noted here that a channel is not to be confused with the source. The source of a message and the channel which carries it are two different things. "A source is an individual or an institution that originates a message. A channel is the means by which a message goes from a source to a receiver. There is an analogy to the channel that a barge takes as it carries its cargo (message) across a harbour from the ship to the shore (source to receiver)" (Rogers and Shoemaker 1971: 251). The source of a communication is the originating point. A source then is the person or agent, who is responsible for originating the message. A man who is an agent to carry the promotional communications to the client is the channel to carry the message from a source to a receiver. Similarly mass media becomes a channel if it advertises some goods for promoting its sale. Against this background we now analyse the importance of different channels of communication in the adoption of the Sulabh Shauchalaya scheme. This is being done to assess the role of personal, impersonal and localite, cosmopolite channels of communication for the adoption of Sulabh Shauchalaya. A review of the various studies dealing with the role of different media of communication in adoption of an innovation has shown that personal and impersonal channels of communication have different importance for the spread of different types of information. It has also been found that in certain cases either exclusively personal or exclusively impersonal channels are highly effective, whereas in certain other cases a combination of the two is the only way out. It is noted that different channels have different effectiveness at different levels of the spread of information about an innovation.

Rogers and Shoemaker (1971) after reviewing many studies on sources of information by stages made a generalization that impersonal information sources were most important at the awareness stage and personal sources were most important at the evaluation stage in the

adoption process. Sinha and Prasad (1966) have found impersonal sources to be the most important in providing first information about hybrid maize and chemical fertilizers. Singh and Sahay (1972) have found that personal cosmopolite sources and mass media provided the first source of information in a village which they characterised as a progressive village. In a non-progressive village few cosmopolite and more personal localite sources provided information to the majority of the farmers. Thus they found different channels of mass communication to be effective in different settings. Rao and Moulike (1966) have found impersonal sources to be the most important agencies for spreading information about agricultural innovations. Sachchidananda (1972) is of the opinion that impersonal cosmopolite channels are the most important in helping farmers to adopt agricultural practices in certain villages of Bihar. Against this background we now analyse the importance of different channels of communication in the adoption of the Sulabh Shauchalaya scheme.

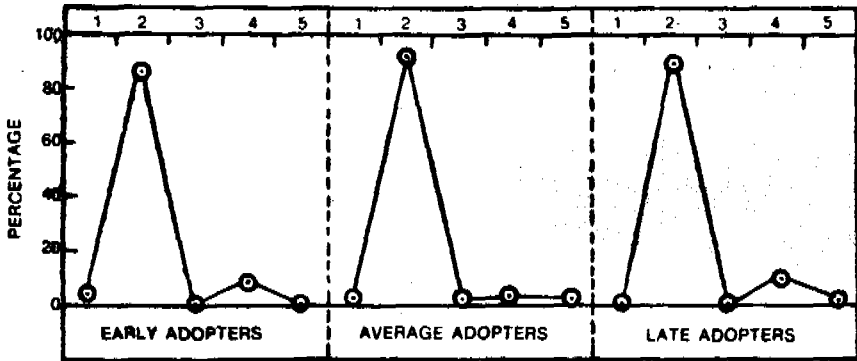
Channels of Communication and Dissemination of Information:

TABLE V-1

Type of Adopter	Channel of Communication											
	Patna M.C.		Change Agents		Govt. Circulars		Friends etc.		No response		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Early adopters	1	4.2	21	87.5	0	0.0	2	8.3	0	0.0	24	100
Average adopters	3	1.9	150	93.2	1	0.6	4	2.5	3	1.9	161	100
Late adopters	0	0.0	26	86.7	0	0.0	3	10.0	1	3.3	30	100
Total :	4	1.9	197	91.5	1	0.5	9	4.2	4	1.9	215	100

Table V-1 contains cross-tabulation of innovativeness with the role of different channels of communication in the dissemination of information. It is apparent from the table that a big majority of all types of adopters have been informed about the Sulabh Shauchalaya scheme

CHANNELS OF COMMUNICATION—
TYPE OF ADOPTERS



CHANNELS OF COMMUNICATION

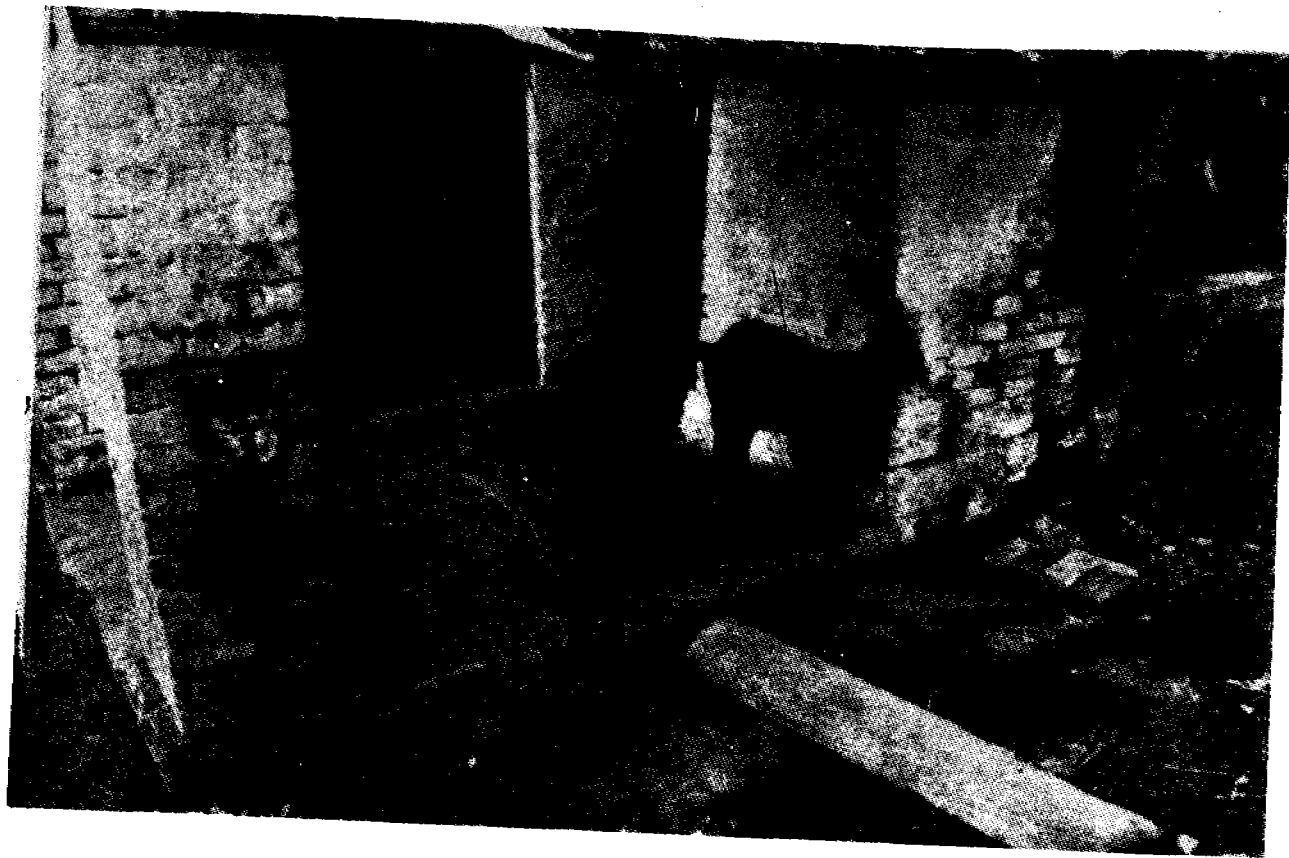
1. PATNA MUNICIPAL CORPORATON
2. CHANGE AGENT
3. GOVT. CIRCULARS
4. NEIGHBOURS & FRIENDS
5. NO RESPONSE

Fig. V-1

by the agents of the Sulabh International. These are the change agents for the diffusion of innovation. The change agent is the professional person who attempts to influence the adoption decision in a direction that he feels desirable (Rogers, 1965: 254). They are also called “diffusion agents” and “professional advocates” or “advocates of change”. They have functioned as a communication link between two social systems by providing linkages between their professional system and the client system. The social position of the change agents is located midway between the organisation to which they are responsible and the client system in which they work. The change agents are local bureaucrats. They have exerted cosmopolite influence on the client social system. It is apparent from the table that of the early adopters 87.5% have got the first information about Sulabh Shauchalaya from the agents of the Sulabh Shauchalaya organisation while 93.2% of the average adopters have got the first information about Sulabh Shau-

chalaya from the change agents. The figure for late adopters in this regard is of the order of 86.7%. It is, therefore, apparent that average adopters are slightly more exposed to the propaganda of the change agent than early and late adopters. Among the early adopters and late adopters another channel of personal communication is also popular for obtaining information about the Sulabh Shauchalaya organisation. The table shows that 8.3% of early adopters have first information about Sulabh Shauchalaya from their neighbours and friends whereas 10% of late adopters have been informed about Sulabh Shauchalaya through their neighbours and friends. That the impersonal media of communication constitutes the weakest link in the dissemination of information about the Sulabh Shauchalaya system is also apparent from the table. This indicates that the personal media of communication have an edge over the impersonal media which are being used as channels of communication. Between the two main types of public communication system, media and oral, for a complex society representing audiences belonging to various heterogeneous groups, the former exercises greater premium over the latter which is more suited to cater to the needs of primary and homogeneous groups. There have been, in fact, remarkable shifts in many developing societies, particularly in their urban areas, from oral to media system of public communication. Yet in all traditional societies personal oral channels of communication are still more popular in the spread of information about important innovations. This is quite natural because such societies have a long-standing tradition of oral transmission of news and views. As such, personal channels of communication retain their popularity over mass media in spreading innovations. This is also quite natural because of the fact that in developing countries the urban culture tends to remain, to a great extent, personalised where face-to-face communication and change agents are particularly important.

From Table V-1 it is also apparent that personal cosmopolite channels are more important than the personal localite channels of communication. This is because friends and neighbours are only marginally significant as channels for dissemination of information. The change agents as personal and cosmopolite channels of communications are much more popular than any other channels of communication. In fact the whole credit for the successful adoption of the Sulabh Shau-



Sulabh Shauchalaya located in the verandah of a house

chalaya system goes to the institution itself which has engaged the services of a number of social workers to be the change agents for the successful communication of the ideas of Sulabh Shauchalaya and its subsequent adoption. The head of the Sulabh Shauchalaya Sansthan and his co-workers have been successful not only in spreading information, but arousing sufficient interest in the client population for the adoption of the scheme. They have been successful in relating it to the felt needs of the people. Dube (1967) has observed that water-seal latrines, smokeless kitchens and sanitary wells with attached bath enclosures have not been adopted in certain villages because the change agents failed to successfully relate these to the felt needs of the people. That this has been possible in the case of the Sulabh-Shauchalaya scheme is the reflection of the good quality of the scheme as well as the sustained efforts by the change agents engaged in persuasive dialogue with the client population. The rapid rate of adoption of the Sulabh Shauchalaya scheme may be attributed to the promotional efforts of the head of the institution and his band of dedicated social workers. The successful adoption of Sulabh Shauchalaya by so many persons is the test of effectiveness efforts by change agents to spread the rate of adoption of this new idea.

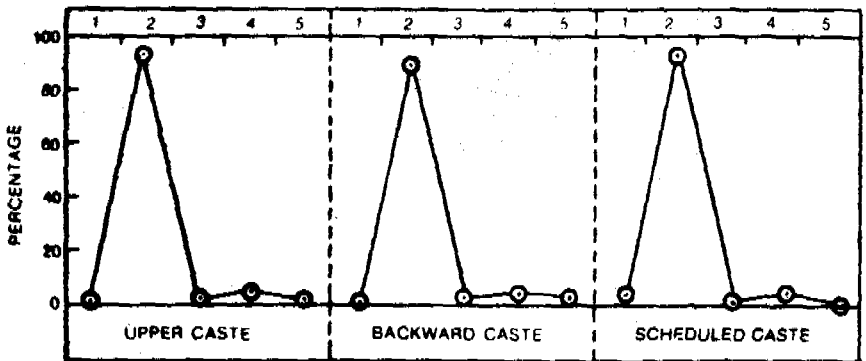
In certain cases, it has been observed that the change agents are more prone to contact persons with better socio-economic background than those who are having modest or poor social standing. This is quite natural as social influentials happen to be persons of higher social status. As such, to ensure the widespread adoption of any innovation, these persons are first contacted by the change agents. Persons thus contacted later on become demonstration models to be emulated by the rest of the community. Thus persons in upper income brackets and occupying higher positions in the traditional prescribed status system are said to be contacted in larger numbers at the first instance. In order to see whether the change agents propagating the Sulabh Shauchalaya scheme have followed the pattern mentioned above, we have cross-tabulated the role of different media of communication as channels for the spread of information and arousal of interest with the caste and income background of the respondents.

TABLE V-2

Caste and Channel of Information

Caste	Source of Information											
	Patna Municipal Corporation		Sulabh Shauchalaya		Govt. circulars		Neighbours & friends		No response		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Upper caste	2	2.4	78	91.8	0	0.0	4	4.7	1	1.20	85	100
Backward caste	1	1.0	93	91.2	1	1.0	4	3.9	3	2.90	102	100
Scheduled caste	1	3.6	26	92.9	0	0.0	1	3.6	0	0.0	28	100
Total:	4	1.9	197	91.6	1	0.5	9	4.2	4	1.8	215	100

CASTE—CHANNELS OF INFORMATION



CHANNELS OF INFORMATION

1. PATNA MUNICIPAL CORPORATION
2. CHANGE AGENT
3. GOVT CIRCULARS
4. NEIGHBOURS & FRIENDS
5. NO RESPONSE

Fig. V-2

Caste and Channel of Information :

It is apparent from Table V-2 that in approaching different sections of the client population the change agents have been equally attentive. The table shows that 91.8% of the upper castes, 91.2% of the

backward castes and 92.9% of the scheduled castes have been approached by the change agents to provide first-hand knowledge about the Sulabh Shauchalaya system. We are, therefore, inclined to infer that their efforts have not remained confined to any particular caste. They have been equally open to the members of the upper castes, the backward castes and the scheduled castes.

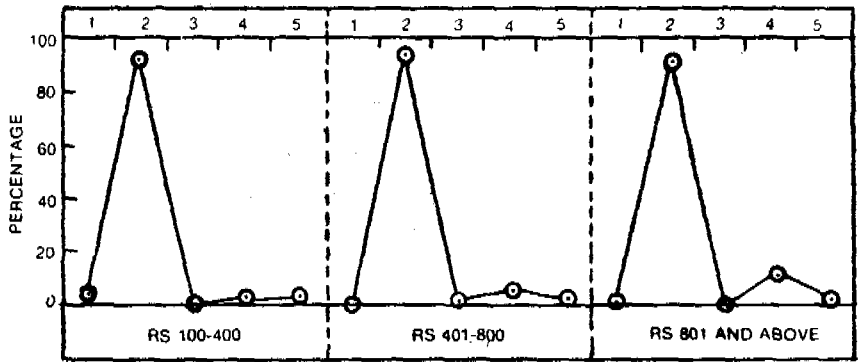
Income and Channel of Information:

TABLE V-3
Income and Channel of Information

Monthly Income	Source of Information											
	Patna M.C.		S.S.		Govt. Circular		Friends etc.		No response		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Rs. 100—400	4	4.4	83	91.2	0	0.0	1	1.1	3	3.3	91	100
Rs. 401—800	0	0.0	91	92.9	1	1.0	5	5.1	1	1.0	98	100
Rs. 801 & above	0	0.0	23	88.5	0	0.0	3	11.5	0	0.0	26	100
Total:	4	1.9	197	91.6	1	0.5	9	4.2	4	1.8	215	100

Similarly, it is further evident from Table V-3 that 91.2% of persons having monthly income below Rs. 400/-, 92.9% of respondents having monthly income between Rs. 401-800 and 88.5% having monthly income above Rs. 800/- have got the first information about the Sulabh Shauchalaya scheme from the social workers working in their areas for the Sulabh Shauchalaya organisation. It therefore appears that movements of the change agents have not been confined only to upper income groups. In fact they have found slightly more acceptance among the lower income groups. However, it has to be noted here that the services of change agents have not been utilised exclusively by persons of any particular income group. A big majority of respondents in all the three income brackets have been informed about the scheme by the change agents and they have also been goaded to accept the scheme through frequent persuasions by the change agents.

MONTHLY INCOME & CHANNELS OF INFORMATION



CHANNELS OF INFORMATION

1. PATNA MUNICIPAL CORPORATION
2. CHANGE AGENT
3. GOVT CIRCULARS
4. NEIGHBOURS & FRIENDS
5. NO RESPONSE

Fig. V-3

Media of Communication :

TABLE V-4

Exposure to Mass Media and Adoption

Respondents	N	%	
Cinema goers	205	95.3	
Radio listeners	117	54.4	
Newspaper readers	99	46.0	
Magazine readers	75	34.9	
Participants in sports & games	36	16.7	Total No.
			of respondents—21

From the earlier discussion it appears that personal cosmopolite channels of information are more popular in dissemination of information about the Sulabh Shauchalaya scheme than other media of communications. This may lead one to conclude that in the urban setting also this type of communication is more prevalent and the client population is more favourably inclined to the above type of communication. However, from Table V-4 it is apparent that the client population's exposure to the media of mass communication is quite marked. In fact it appears that they are highly exposed to the outside world. The table shows that 95.3% of the respondents are cinema-goers, 54.4% are radio listeners, 46.0% read newspapers, 34.9% subscribe to magazines and 16.7% participate in sports and games. Thus among the respondents cinema is the most popular media of mass communication. Next in influence is the radio. Newspapers and magazines do not find favour with the majority of the respondents as the minority among them are exposed to newspapers and magazines. Reliance upon the change agents for information and interest aroused in the matter of the Sulabh Shauchalaya scheme is a living tribute to the efficient strategy for introducing the change adopted by the Sulabh International. We can, however, say that the respondents willing to accept the change are quite exposed to the various media of mass communication. In fact their views and attitudes are shaped in a favourable manner by their being exposed to mass communication. The fact that there is lesser exposure to radio and written forms of communication indicates that their exposure to mass media is, to a great extent, for relieving emotional strains and stresses through entertainments than for being educated.

It is apparent from Table V-5 that early and average adopters are, by and large, more exposed to media of mass communication than late adopters. All early adopters are those who visit cinema. Among such adopters who listen to radio the bulk is comprised of those who are either average or early adopters. As many as 56.5% of the average adopters and 54.2% of the early adopters are attuned to radio whereas 43.3% of the late adopters are attuned to it. Similarly among such categories of respondents who read newspapers and magazines, the proportion of early and average adopters is either slightly or fairly high. This indicates that such residents as are better exposed to mass media are more prone to adopt innovation in urban sanitation.

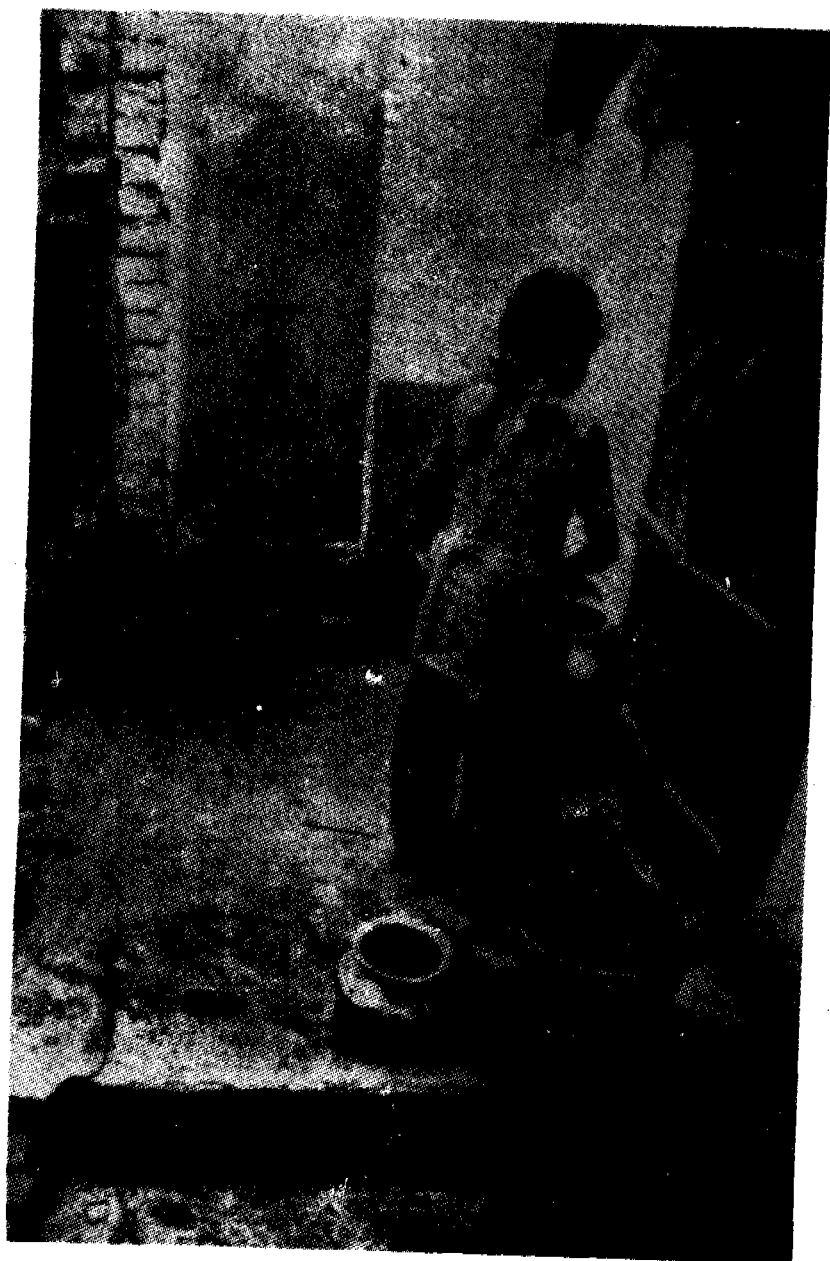
TABLE V-5

Media of Communication and Types of Adopters

Types of Adopters	Total No. of Adopters	Media							
		Cinema		Radio		Newspaper		Magazine	
		N	%	N	%	N	%	N	%
Early adopters	24	24	100.00	13	54.17	10	41.67	6	25.00
Average adopters	161	152	94.41	91	56.52	77	47.83	63	39.13
Late adopters	30	29	96.67	13	43.33	12	40.00	6	20.00
Total :	215	205	95.35	117	54.42	99	46.05	75	34.88

CHAPTER VI

THE CHANGING CONTOURS



Tanks of Sulabh Shauchalaya can be used even for cooking purposes

The Changing Contours

Inventions, innovations and consequences of innovations are three important dimensions of the process of social change. There are three sub-processes of social change (Rogers and Shoemaker, 1971: 319). The consequence is one component in the process of social change. Very often, however, it is the critical factor. Quite apart from questions concerning origins of an innovation, those dealing with the consequences are far more important. "Many new ideas are still-born and countless others are ephemeral and perish without a trace. Some are only casual thoughts; others become corner-stones of faith. Some affect only innovators themselves, others, millions of individuals. Some are bitterly resisted, others are welcomed. For some, the welcome comes early; for others it is tendered late" (Barnett, 1953: 291). The consequence of innovation, though a third part of the social change following invention and diffusion, is none-the-less quite important. Consequences are the changes that occur within a social system as a result of adoption or rejection of an innovation.

In spite of importance of significance in the process of social change, the theme of consequences of innovation has not received the attention it merits. It continues to be neglected by researchers as well as change agents. "Researchers have given little attention to consequences; so have change agents. They often assume that adoption of a given innovation will produce only beneficial results for its adopters. Change agents should recognise their responsibility for the consequences of innovation they introduce. They should be able to predict the advantages and disadvantages of an innovation before introducing it to their clients, but this is seldom done" (Rogers and Shoemaker, 1971: 319). In researches an emphasis is placed on determining the attributes of innovation. Attempts to delineate the consequences of the innovation

are rare. Diffusion researchers have devoted much attention to the antecedents of adoption including the social, economic and personal characteristics of respondents and their communication behaviour. Thus the entire field of consequences of innovation remains aterra incognita. Efforts have to be made to provide valuable insight in this dimension of diffusion research. When this is done, only then a successful strategy for planned development can more effectively be envisaged. If we analyse the materials dealing with the consequences of innovation we find that by and large they are "soft" in nature as they are based on case studies only. Lack of research attention and the nature of the data make it difficult to attempt at a valuable generalization in the field of consequences.

In this chapter we intend to present the receiver's perception of the consequences of innovation. Since ours is a survey research the generalization of the consequence of adoption of the Sulabh Shauchalaya scheme can be compared for generalizations with other fields also. Our approach is, by the way, not inflicted by the short-comings of the anthropological approach of the participants' observations which yield descriptive and idiosyncratic data from which valid generalizations are difficult to be arrived at. The present work is an improvement over the other attempts in the sense that it has analysed the consequences of an innovation over an extended period of time.

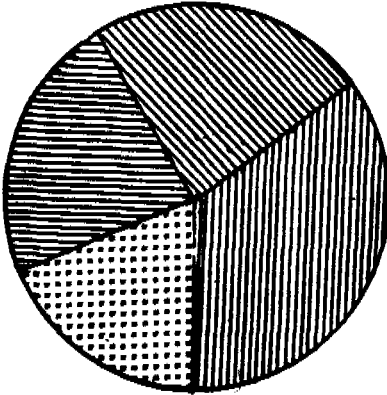
As nearly a decade has elapsed since the scheme was initiated, it is now high time to study the social consequences of the adoption of the scheme.

TABLE VI-1

Duration of Stay in Residence

Duration of stay in residence	N	%
Above 30 years	76	35.4
21-30 years	51	23.7
11-20 years	49	22.8
1-10 years	39	18.1
Total :	215	100.0

DURATION OF STAY IN RESIDENCE



LEGEND





-  ABOVE 30 YEARS (35.4%)
-  21-30 YEARS (23.7%)
-  11-20 YEARS (22.8%)
-  1-10 YEARS (18.1%)

Fig. VI-1

The first change that has taken place in the social system is the change in the type of latrine itself. The primitive system of carrying human excreta has been replaced by Sulabh Shauchalayas which are scientific and fool-proof. That it has changed the structural design of and the facility available from latrines prevalent for quite a considerable period of time, is an intended and manifest consequence of the introduction of the Sulabh Shauchalaya system. From the table it would be apparent that all the respondents were accustomed to the dirty form of service latrines for decades together. As many as 35.4% are such people who have used service latrines for 3 decades or more. 23.7% respondents have used service latrines for more than 20 years but less than 30 years. Such respon-

dents who have used service latrines for one decade and for two decades are of the order of 18.1% and 22.8% respectively. This indicates that the Sulabh Shauchalaya scheme has ushered in a major break-through in the life style of the people. With the introduction of Sulabh Shauchalayas the death-knell of the outdated excreta disposal system has been sounded. The practice prevalent for many decades has been brought to an end.

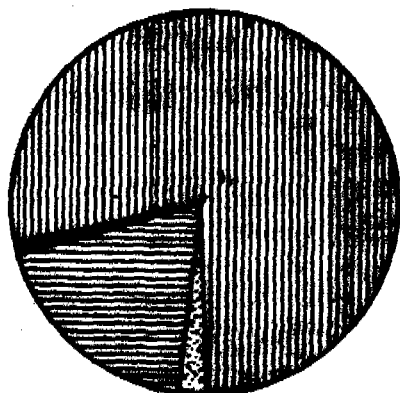
TABLE VI-2

Type of Latrine before Introduction of Sulabh Shauchalaya

Type of latrines	Number of households	%
Service	168	78.1
Sandas	1	0.5
No latrine	41	19.1
Not known	5	2.3
Total .	215	100.0

An analysis of the type of latrines converted into Sulabh Shauchalayas indicates that the system has brought an end to different types of latrines that were a big health hazard, primitive in nature and totally unscientific. Table VI-2 shows that of the total number of households benefited by this scheme 78.1% are such as had service latrines. This is followed by such respondents who had no toilet facility in their households. Such respondents account for 19.1% of the total sample. We can, therefore, say that the introduction of the Sulabh Shauchalaya system has provided toilet facility to a good number of persons for the first time. As this type of latrine does not need much space and puts dirt and filth under check, it has been possible for persons living in even hovel type of households to avail the facility of toilets. There is one household where a Sandas type latrine, so uncommon in

**TYPE OF LATRINE BEFORE INTRODUCTION
OF SULABH SHAUCHALAYA**



LEGEND





-  SERVICE (78.1%)
-  SANDAS (0.5%)
-  NO LATRINE (19.1%)
-  NOT KNOWN (2.3%)

Fig. IV-2

urban areas, was found to be in use before the introduction of the Sulabh Shauchalaya system. In any case it is a fact that it has brought to an end many pernicious, primitive and unscientific methods of excreta disposal. That none of the respondents likes the exploitation of sweepers by carrying human excreta indicates that the old practices continued on account of non-availability of an adequate substitute. Sulabh Shauchalayas have fulfilled a felt need of the people.

Here, to present a rounded picture of the utilization pattern of

Sulabh Shauchalayas, we make a brief digression and describe in detail the manner in which this scheme is being utilised by the respondents. It will help us to comprehend the phenomenon of a social consequence in a better way.

TABLE VI-3
Utilisation Pattern of Sulabh Shauchalayas

No. of sets	N	%
One set	155	72.1
Two sets	59	27.4
Three sets	1	0.5
Total .	215	100.0
Type of use		
Separate	111	51.6
Common	104	48.4
Total .	215	100.0

From Table No. VI-3 it is clear that the number of Sulabh Shauchalaya sets is more than the number of households covered for the present study. In Lohanipur 215 households have adopted this scheme. These 215 households have the responsibility for the adoption of 276 Sulabh Shauchalaya sets. This means that on an average there are 1.3 Sulabh Shauchalayas per house hold. It is, however, further apparent that an overwhelming majority of the houses covered during the survey have only one Sulabh Shauchalaya set constructed within it. Out of 215 households 155 are served with only one set. These account for 72.1% of the total households covered, whereas 27.4% of the households, that is 59 out of 215 households, have two sets. Only one household, which accounts for 0.5% of the sample, has 3 Sulabh Shauchalaya sets. It is to be noted here that 51.6% of the households are such

that are benefited by the construction of Sulabh Shauchalayas. That is to say, in such households Sulabh Shauchalaya is being used exclusively by those who have been occupying it. In these houses it is not being shared. Such households as have two sets and whose occupiers share Sulabh Shauchalaya with others are of the tune of 48.4%. On further enquiry it was revealed that the sharing of the services of Sulabh Shauchalaya generally takes place between house-owners and tenants.

TABLE VI-4
Number of Sets and Users of Sulabh Shauchalayas

Set	Number of users											
	1-5		6-10		11-15		16-20		Above 20		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
One set	11	7.1	55	35.5	50	32.3	18	11.6	21	13.5	155	100.0
Two sets	Nil	0.0	14	23.8	11	18.6	11	18.6	23	39.0	59	100.0
Three sets	—	—	—	—	—	—	—	—	1	100.0	1	100.0
Total:	11	5.1	69	32.6	61	28.8	29	13.0	45	20.5	215	100.0

SET OF SULABH SHAUCHALAYA AND NUMBER OF USERS

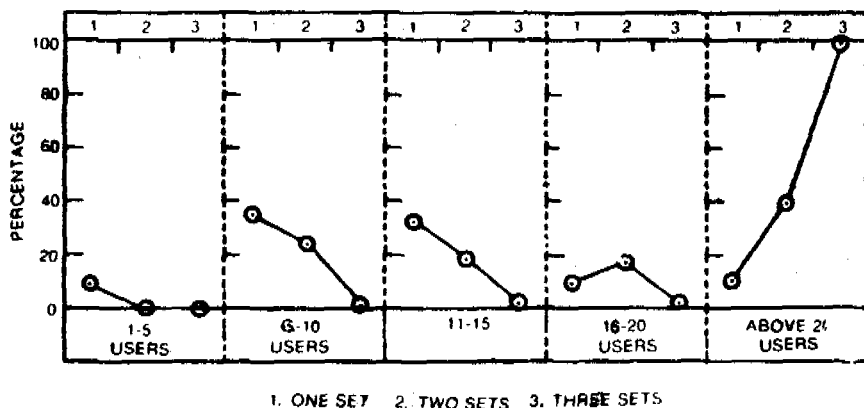


Fig. VI-3

The adoption of Sulabh Shauchalaya does not affect only the head of the household. He is only the decision maker in this regard. His decision to adopt this scheme is likely to affect the life-style of a number of persons living with him. In order to assess the magnitude of the change ushered in by the introduction of this scheme, we have tabulated the use of Sulabh Shauchalaya in different households. For this purpose we have classified households into three categories; those having only one Sulabh Shauchalaya set, those having two Sulabh Shauchalaya sets and those having three Sulabh Shauchalaya sets. We have also classified the households into five categories viz. those where Sulabh Shauchalaya is being used by 5 or less number of persons, those where it is being used by 6 to 10 persons, those where it is being used by 11 to 15 persons, those where it is being used by 21 persons and above. Table VI-4 shows that in all the households Sulabh Shauchalaya is being used by more than 5 persons in a majority of cases. It is further evident from the table that 155 households are such which are having one Sulabh Shauchalaya set each. Of these 155 households, 35.5% are such where 6 to 10 persons use one Sulabh Shauchalaya set. Similarly there are such households where one Sulabh Shauchalaya is catering to the needs of 11 to 15 persons. These account for 32.3% of the households having one Sulabh Shauchalaya. One thing has to be noted here that in a good number of households one Sulabh Shauchalaya is being used by more than 15 persons. 11.6% are such where one set is being used by 16 to 20 persons and 13.5% of the households are such where one Sulabh Shauchalaya is catering to the needs of 21 persons and more. There are 59 houses where two sets of Sulabh Shauchalayas are installed. Of such households in 23, 21 or more persons have been found using two sets of Sulabh Shauchalayas and these account for 39% of the households having two sets of Sulabh Shauchalayas. While in 11 such houses accounting for 18.6% of the households having two sets of Sulabh Shauchalayas, two sets are being used by 16 to 20 persons. The number of households having two sets of Sulabh Shauchalayas, and catering to the needs of 11 to 15 persons is exactly the same. In as many as 23.8% of the households having two sets of Sulabh Shauchalayas each, two sets are catering to the needs of 5 to 10 persons. Thus it is apparent from the table that Sulabh Shauchalaya has the capability of catering to the needs of a good number of persons. As a result of this it is likely to affect the habit pattern of all

the members occupying a particular household. It has, therefore, ushered a big change in the habit of a large number of persons in the area studied.

The direct intended social consequence of the Sulabh Shauchalaya system is to provide better sanitary facilities to the client population.

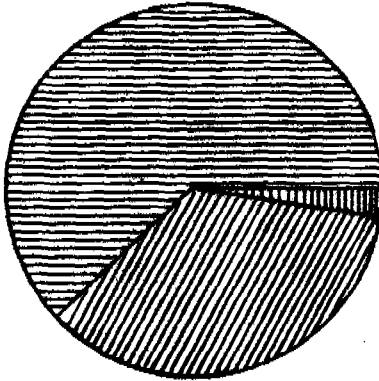
TABLE VI-5

Appraisal of Sulabh Shauchalaya

Appraisal of Sulabh Shauchalaya	N	%
Very good	135	62.8
Good	76	35.3
Bad	0	0.0
No response	4	1.9
Total	215	100.0

If these objectives are fulfilled then the client population is likely to be greatly satisfied with the introduction of this innovation in the urban milieu. For this purpose we have examined the extent of the client population's satisfaction with the working of Sulabh Shauchalayas in their households. For this we asked them to comment whether they considered the functioning of Sulabh Shauchalayas in their households to be good or bad. From Table VI-5 it is apparent that 62.8% of the respondents are of the opinion that the scheme has been a great success so far as they are concerned. 35.3% of the respondents are those who consider this scheme to be moderately good. Of those who are of the opinion that the scheme is moderately good, nearly 80% have recommended more effective maintenance and the remaining 20% want it to be connected with the sewerage line. That the scheme is, by and large, a big success is indicated by the fact that there is none among the respondents who considers this scheme to be bad in any respect. Improvement is a way of life and is a continuous process. Therefore in all ventures there is always a scope for improve-

APPRAISAL OF SULABH
SHAUCHALAYA



LEGEND

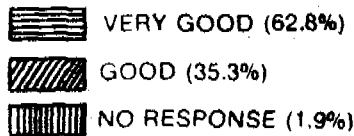


Fig. VI-4

ment. That the scheme has been evaluated to be of great utility is a big tribute to the quality of the scheme.

It is apparent from Table VI-6 that the Sulabh Shauchalaya system has brought various types of advantages to the adopters. It has been revealed in the course of our investigation that the system has been liked by the respondents mainly for three reasons. In the first place the Sulabh Shauchalaya system has relieved the beneficiaries from filth and dirt which used to be a very common and depressing feature of the area before introduction of the scheme. Then the scheme has contributed to putting a check on the spread of various types of epidemics. This is an indirect contribution of the scheme. The users of the scheme have got redemption from the excruciating grip of different types of diseases. Lastly the spread of the system has ensured clean

TABLE VI-6

Advantages of Sulabh Shauchalaya

Advantages of Sulabh Shauchalaya	Sulabh Shauchalaya	
	N	%
Relief from filth	21	9.8
Relief from diseases	9	4.2
Clean surroundings	8	3.7
Relief from filth and diseases	10	4.6
Relief from disease and availability of clean surroundings	6	2.8
Relief from filth and availability of clean surroundings	139	64.7
Relief from filth, disease and availability of clean surroundings	22	10.2
Total :	215	100.0

surroundings to the respondents. From the table it is apparent that out of 215 persons, majority of them, 72.1%, are of the opinion that the construction of Sulabh Shauchalaya has provided two simultaneous benefits to them. 64.7% of the respondents have opined that the introduction of the scheme has helped them in keeping filth and dirt away and in providing clean surroundings. Ten persons, that is 4.6%, were of the opinion that apart from primary relief from insanitary conditions they are now less prone to diseases. Diseases related to hook-worm and stomach troubles have been checked greatly. 2.8% of the respondents are of the opinion that it has made the surroundings clean and has put a check on the spread of infectious diseases. 10.2% of the respondents answered that this scheme had provided three benefits simultaneously. These are prevention of diseases, removal of dirt and filth and maintenance of clean surroundings. There are such persons also who are of the opinion that the scheme has provided

at least one benefit. Thus 17.7% is comprised of such respondents who opined that the scheme has brought about the removal of filth (9.8%) or has helped in prevention of diseases (4.2%) or has provided clean surroundings (3.7%) to the individuals. Thus among the various indirect consequences brought in the wake of the introduction of the Sulabh Shauchalaya scheme those concerning removal of filth and dirt and availability of better sanitary conditions are the most important.

Extension of Sulabh Shauchalaya Services:

Adoption of an innovation amounts to the success of the change agent. It means the fulfilment of the desired goal of the advocates of change. But to make an innovation more popular, it is also necessary that its benefits are transmitted to other people who do not constitute the immediate client population. This is not possible unless the adoption results in a change in the attitudinal dimension of the people to the extent that they themselves become the conduit to carry the message of change to different sections of the society. When the immediate beneficiary assumes the role of the propagator of the innovation the diffusion of the innovation is said to be a big success. Keeping this in mind we tried to assess the views of our respondents with regard to the scope of further extension of the scheme. We addressed a number of questions to them. In the table below we have cross-tabulated the attitude of the adopters of Sulabh Shauchalaya with regard to its extension in rural areas for the uplift of women.

TABLE VI-7

Sulabh Shauchalaya for Rural Women

Opinions	Yes		No		No response	
	N	%	N	%	N	%
There is no latrine facility for females in rural areas.	209	97.2	0	0.0	6	2.8
Sulabh Shauchalaya should be constructed for rural women.	208	96.8	0	0.0	7	3.2

It is apparent from Table VI.7 that almost all the respondents, barring a negligible number, are aware of the problem of lack of toilet facilities for women in rural areas. It appears that the problem of suitable toilet facilities for women in the rural areas is acquiring importance with the spread of consciousness among the people. Until and unless this elementary facility is made available for women in the rural areas, no scheme for the elevation of the social status of women can be said to have succeeded. As many as 97.2% of the respondents are quite alive to the problem of providing suitable toilet facilities to women in rural areas. Only 2.8% of the respondents have no knowledge about the lack of such facilities in the rural areas. It is also to be noted here that almost all the respondents have favoured the introduction of Sulabh Shauchalaya in the rural areas to eliminate this problem. Only 3.2% of the respondents did not advance any opinion in this regard. From the figures in this table it is apparent that the Sulabh Shauchalaya scheme has a bright future in the rural areas of India to help in the elimination of the problems of the vast rural population.

rural

While rural areas are characterised by total lack of toilet facilities for women, the urban areas stink because of defective or improper and inadequate means of sanitation. During recent decades there has been a mushroom growth in the urban population, but this has not been matched by proportionate extension of elementary sanitation facilities. As a result the urban areas present a sick look. People are susceptible to a number of diseases on account of stinking sanitary conditions in the urban areas. Against this background we have tried to adduce the views of the respondents with regard to the scope for further extension of the Sulabh Shauchalaya facilities in urban areas. It is to be noted here that all the 215 respondents are aware of the bad sanitary conditions in urban areas. All have seen people going to open fields for defecation in urban areas. The bad habit of defecation in open fields in urban areas is disliked by all the respondents. They consider it a potential health hazard. It pollutes the immediate surroundings and makes the people sick. People consider this practice to be highly condemnable. Their reaction indicates that they are in favour of some better substitute to do away with the pernicious practices prevalent in urban areas. In response to our questions respondents have suggested a number of measures for putting an end to tightly

urban

objectionable habits of the people in the urban areas. The responses of persons interviewed are given in Table VI-8.

TABLE VI-8

Sulabh Shauchalaya and Better Sanitary Conditions

	Yes		No		Total
	N	%	N	%	
Awareness of improper sanitary habit in urban area	215	100.0	0	0.0	215
Enforcement of proper sanitary habit among people					
Through the help of Police	8	3.7	207	96.3	215
Through education	6	2.8	209	97.2	215
Through construction of more community latrines	192	89.3	23	10.7	215
Through conversion of service latrines into Sulabh Shauchalayas	184	85.6	31	14.4	215
Through propoganda	158	73.5	57	26.5	215
Through executive orders	4	1.9	211	98.1	215

The table shows that construction of more community latrines, conversion of more service latrines into Sulabh Shauchalayas and propoganda are the major steps considered to be most appropriate for doing away with this practice. The table shows that construction of more community latrines has found favour with 89.3% of the respondents whereas conversion of service latrines into Sulabh Shauchalayas has found favour with 85.6% of the respondents. Similarly cleanliness is advocated by 73.5% of the respondents. Police action, executive orders and education have not been suggested by an impressive number of people. In their opinion mere executive orders or

ENFORCEMENT OF PROPER SANITARY HABIT

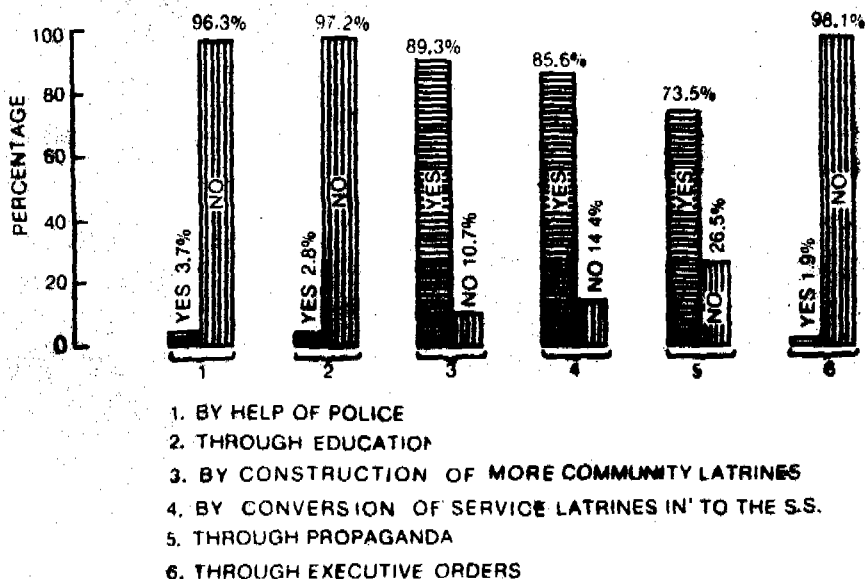


Fig. VI-5

police action without the availability of proper infrastructure is not sufficient to eliminate this problem. Similarly simple education is also not a panacea. The table indicates that only 1.9% have favoured executive orders, and 3.7% have favoured police action to bring to an end this common but ugly patches of urban living. Thus respondents appeared to be in favour of more community latrines in the urban areas for creating proper sanitary conditions. The Sulabh Shauchalaya, therefore, either in the households or as community latrines, has a very bright future in the urban and rural areas and has a big role to play for eliminating the bad sanitary conditions of the cities.

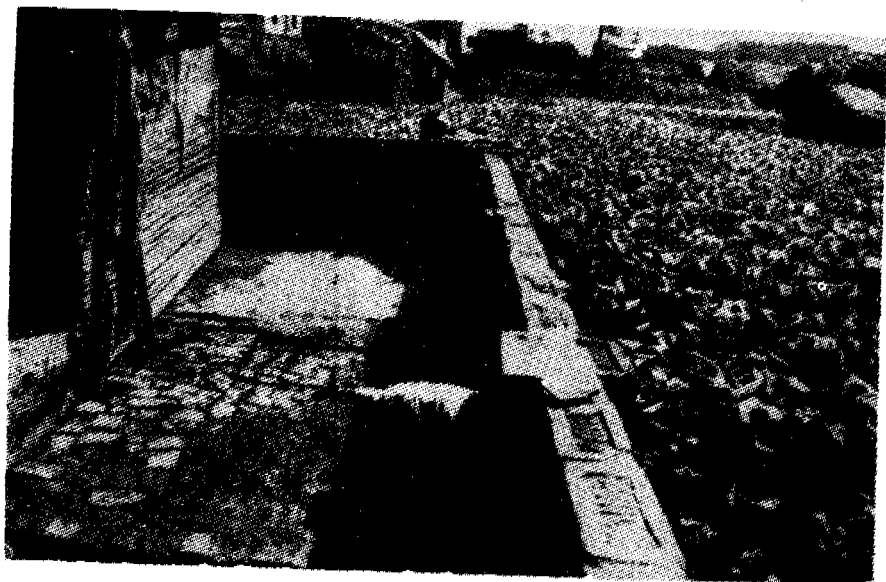
The respondents have recommended the extension of the Sulabh Shauchalaya facilities in areas hitherto left uncovered. In fact a good number of them are reported to have acted as motivators for others to suggest adoption of Sulabh Shauchalayas.

TABLE VI-9

Motivating others for Adoption

	Yes		No		No response	
	N	%	N	%	N	%
Respondents acting as motivators for adoption of Sulabh Shauchalayas	95	44.2	114	53.0	6	2.8

The above table suggests that a good number of respondents (44.2%) have recommended the use of Sulabh Shauchalayas to others. However, as many as 53% of the adopters favour the extension of the Sulabh Shauchalaya scheme to other neglected areas, but they have got to play some positive role in this regard. A few respondents have not been found articulate with regard to our query concerning their role in motivating others for the adoption of the Sulabh Shauchalaya scheme. Thus the beneficiaries have atleast started playing the role of motivators for more and more adoption of the scheme. The efforts of change agents as well as the recommendations of those neutral public men who have been highly impressed by the scheme will go a long way in ensuring further adoption of the Sulabh Shauchalaya scheme.



**Sulabh Shauchalaya in high sub-soil water table in
Lohanipur area**

CHAPTER VII

SUMMARY AND CONCLUSIONS

Summary and Conclusions

The present work is a modest contribution to the growing literature on diffusion of innovations. The accumulation of huge materials in this field has been made possible through the amalgamation of various contributions from various areas of specialisation in social sciences. In a sense the present volume is a pioneer contribution to the field of diffusion of innovations from the discipline of sociology of sanitation. In Bihar during the last few years some pioneering work has been done through the Sulabh Shauchalaya system to improve civic amenities by implementing a programme for the conversion of service latrines on a very large scale. The scheme has been launched in different areas of Bihar. It is presently in different stages of execution. There are certain regions where the adoption of the Sulabh Shauchalaya scheme is quite marked. The result has been better civic facility to the residents and emancipation of a large number of scavengers from the demeaning work of collection of human excreta in buckets to be transported physically for disposal in road-side dumps. The Sulabh Shauchalaya scheme marks a major breakthrough in the area of urban sanitation. It is an innovation having great potentialities for solving the urban sanitation problems at a very reasonable cost. The implementation of the scheme represents diffusion of an innovation intended to bring directed contact change. It has sounded the death-knell of the primitive system of excreta disposal. It has rendered obsolescent the previously existing arrangement of sanitation in this regard.

In the present work we have attempted a study of the process of diffusion of this particular innovation with the help of theoretical postulates available in the field of diffusion of innovation. As included in the parameter of the analysis, we have tried to obtain a socio-economic profile of the adopters as also to study the role of personal, impersonal,

local and cosmopolite channels of communication in diffusion of this innovation. An attempt has been made to relate the degree of innovativeness with certain socio-economic variables. The role of change agent in the widespread acceptance of this innovation has also been examined. Finally we have obtained an evaluation of the functioning of the scheme in the urban setting. The data has been collected with the help of a schedule. All the households in Lohanipur, where adoption of the scheme is quite marked, have been covered for the present study. The data obtained from the interview has been coded and computerised.

The study shows that the diffusion of the Sulabh Shauchalaya system is characterised by phased adoption. There is a time-continuum along which the adoption seems to have taken place. The adoption has occurred in an ordered time sequence. An analysis of the socio-economic characteristics of the adopters reveals that there is no concentration of beneficiaries in a particular group or category. However, the Sulabh Shauchalaya scheme has found more acceptability among the old, poor and backward caste people. From this, however, it is not to be construed that other groups are far behind in accepting the scheme. They also appear to be quite enthusiastic to embrace the new technology of change. The scheme has found acceptability among the illiterate people. However, there does not appear to be any positive correlation between the level of education and adoption. Moreover, early adoption has been found mainly to be the characteristic of young age. Literacy also appears to be an important variable affecting the degree of innovativeness in the adoption of the Sulabh Shauchalaya scheme. Early adoption of the scheme is by far the characteristic of the backward and the scheduled castes. The early adopters of the Sulabh Shauchalaya system are poor people and those of average economic standing.

Neither adoption nor innovativeness appear to be the exclusive privilege of any particular occupational group. The study indicates that personal media of communication have an edge over the impersonal media as channels for adoption of this innovation. Personal cosmopolite channels are more important than the impersonal localite channels of communication. The most important personal cosmopolite channel of communication affecting adoption of an innovation is the change agent. The change agents have functioned as a communi-

cation link between two social systems by providing linkages between their professional and client systems. They have inserted cosmopolite stimuli into the client social system. The study shows that the impersonal media of communication constitutes the weakest link in the dissemination of information about the Sulabh Shauchalaya system. The change agents have been reported to be equally attentive to all sections of the client population.

The biggest intended and manifest consequence of the Sulabh Shauchalaya scheme is the eclipse of dry latrines prevalent for a considerable period of time. The Sulabh Shauchalaya system appears to be quite capable of catering to the needs of a good number of persons. The innovation has still to play a bigger role in tackling the problems of urban as well as rural sanitation. Influenced by the facilities accruing from this scheme, the adopters in many cases feel inclined to act as motivators in ensuring its wider acceptance.

The scheme appears to be full of rich potentialities to help solution of problems of urban sanitation. It is a panacea and a magic wand to help the developing countries of the world in getting rid of some of the existing aberrations of the modern habitat.

ANNEXURE-I

Percentage Distribution of Households by type of Latrine and by Facility of Latrine

URBAN

Type of latrine	Facility of latrine					Total
	For exclusive use of the household	For community use	Shared with other households in the same buildings	Others	Not recorded	
1	2	3	4	5	6	7
Flush system	7.17	2.74	9.89	0.17	0.11	20.08
Septic tank system	5.66	1.60	6.36	0.20	0.10	13.92
Service	10.07	6.43	13.02	0.37	0.36	30.25
No latrine	—	—	—	—	33.01	33.01
Others	1.19	0.35	0.68	0.18	0.16	2.56
N.R.*	0.04	0.04	0.05	0.00	0.05	0.18
All	24.13	11.16	30.00	0.92	33.79	100.00

Source: 'Sarvekshana', Journal of the National Sample Survey Organization, Government of India, Vol. 1 No. 2, October 1977.

*Not recorded.

III. Your opinion about Sulabh Shauchalaya

1. Do you know that the Sulabh Shauchalaya Sansthan (Sulabh International) has constructed community latrines in Patna?

Yes/No

If yes, then have you ever used such a latrine?

Yes/No

2. Is Sulabh Shauchalaya a good means in your opinion? Yes/No

3. Should it be publicised through cinema, newspaper and radio?

Yes/No

4. Do you know that no latrine facility is available, especially for ladies, in most of the houses in villages?

Yes/No

If yes, then do you think that publicity and construction of Sulabh Shauchalayas in villages will be beneficial to rural ladies?

Yes/No

5. Have you ever suggested to anyone to adopt the Sulabh Shauchalaya system?

Yes/No

6. Have you seen people defecating or urinating on roadsides in your town?

Yes/No

If yes, then do you like such an act?

Yes/No

How can it be stopped?

- (i) With the help of police.
- (ii) By inculcating a sense of cleanliness.
- (iii) By conversion of more and more service latrines into Sulabh Shauchalayas.
- (iv) By constructing more and more community latrines.
- (v) Through other means.

ANNEXURE III

LETTERS AND EXPERT OPINIONS

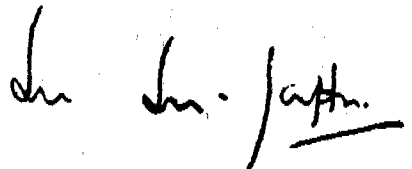
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New Delhi-110011.
Member, Indian Association for Water Pollution Control

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.



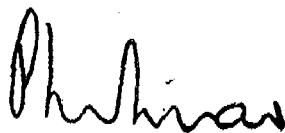
(M.M. DATTA)

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

SIKANDER BAKHT

मंत्री
निर्माण, आवास, पूर्ति और पुनर्वास तथा कृषि
भारत
Minister of
Works, Housing, Supply and
Rehabilitation & Works
India

November 1, 1978.

My dear *Pantabhai Sahni*

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, ~~Patna~~
Sulabh Shauchalaya (Toilet) Bath,
(Sangathan),
Patna.

ANNEXURE IV

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 labor 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 produced low-cost, flush latrines with shallow, odor-free subterranean tanks. Here in the state of Bihar it has installed 30,000 units and had 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 arrange-

ments 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 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 SUNDAY STATESMAN



CALCUTTA SUNDAY NOVEMBER 30 1990

12 P.M.

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. 3.5 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.

For subscribers: Rajasthan and Bihar 5 paise
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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. 982

New Delhi: Wednesday, September 24, 1968

50 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".

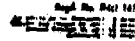
Dr. Ramalingaswamy said the high incidence of the hookworm disease in rural areas was the result of the death of environmental sanitation. He said parasitic eggs in human excreta hatched immediately and rural people, who mostly moved about bare-foot were infected by them through cuts or wounds on their 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.

Lent City 5/11/60



THE HINDUSTAN TIMES

No. 1234 1/11/60

New Delhi Saturday November 22 1960

6 Pages

Price 1/6

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 presecond 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 kutchra at the ground level. The construction is such that it allows bacteria to be consumed by earth and prevents bad smell and unsanitary 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 Desh-bandhu 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.

NO. 10, B-1, 10
Publishing and Distribution Office



Printed and Published by
M. K. GUPTA
at the Press of
M. K. GUPTA
10, B-1, 10

THE TIMES OF INDIA

NO. 10, B-1, 10

NEW DELHI: MONDAY, OCTOBER 11, 1969

8 PAGES

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 Shauchalaya 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 shauchalayas." 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 enthusiasm. 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 easing 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.

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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, aqua 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 manure 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 Cente-

nary 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 Shauchalaya, 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.

Sulabh Shauchalaya intervened between householders and municipalities to process each loan application. Volunteers went from door to door, persuaded people, had forms filled 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 on a corridor or in an 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 nightsoil is always underground, inaccessible to flies and insects. As tanks are covered with

air-tight 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 million has poor sanitation and the sub-human and unhygienic system of carrying nightsoil 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. Sulabh Shauchalaya 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 Sansthan 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 chore have been given jobs as the sweepers and there are programmes to give their sons and daughters employment.

A critical review of the Sulabh Shauchalaya 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.

Sulabh Shauchalaya 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.

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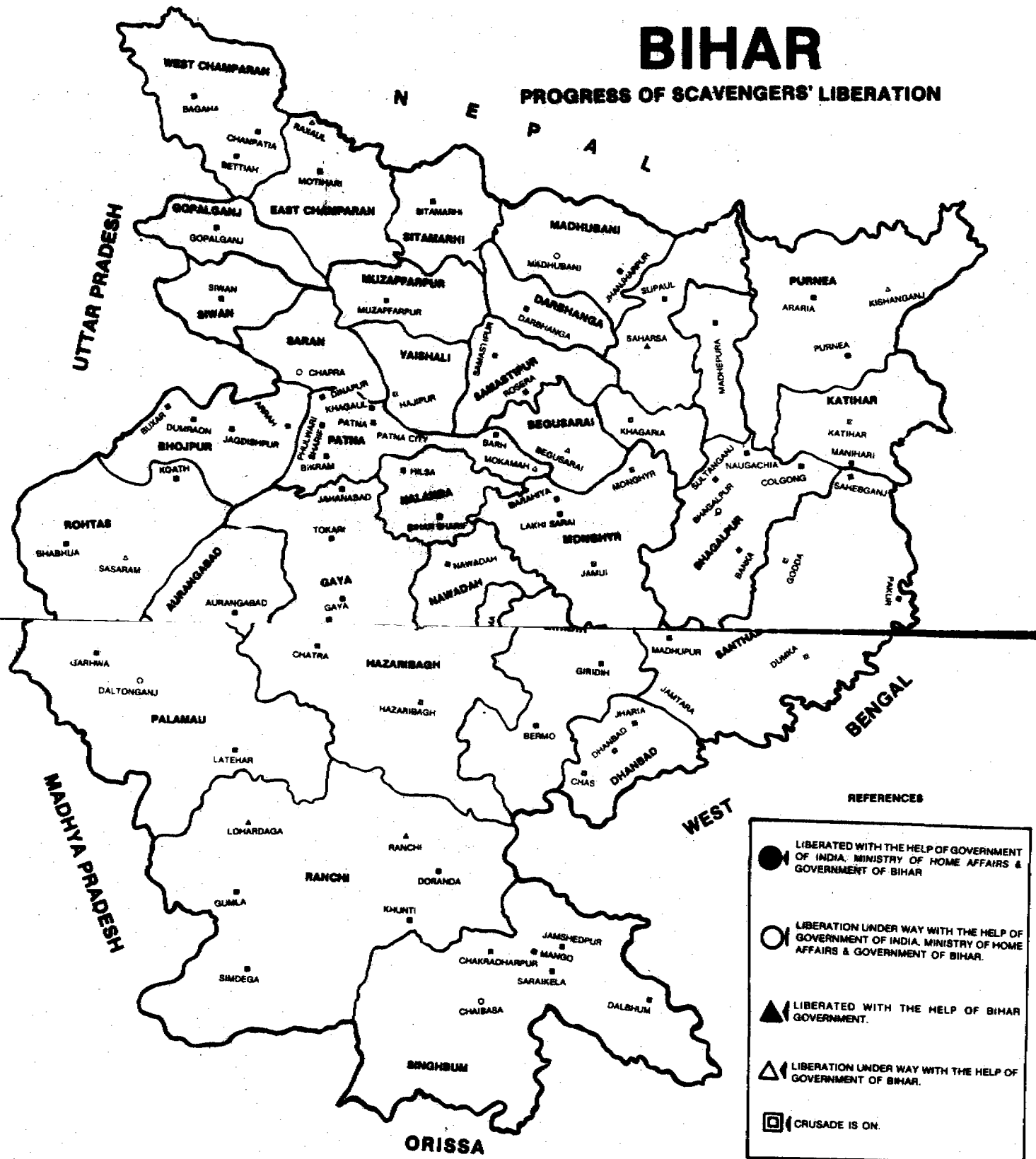
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BIHAR

PROGRESS OF SCAVENGERS' LIBERATION



“.....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”

The New York Times

“Slowly but surely the city (Patna) 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 head-load or even in a wheel-barrow.”

The Times of India

“Mr. Bindeshwar Pathak of Bihar may well become a household name in West Bengal. Mr. Pathak’s “Sulabh Shauchalaya” has brought about a mini-revolution in Bihar where municipalities are now extensively using this latrine replacing service latrines.”

The Hindustan Times

The most encouraging feature is the inclination even among the poor to pay and use the Sulabh Shauchalaya.

The Sunday Statesman

A Patna-based social service organisation has already converted,..... dry latrines into this type of flushable toilets. The same organisation is now engaged in converting 1,60,000 service latrines into water-seal toilets in Calcutta. This needs to be emulated by municipalities everywhere.

Indian Express (Editorial)

“..Not only scavengers but people all over the country are discovering that Sulabh Shauchalaya is the cheapest and fastest way of getting rid of nightsoil. Sulabh Shauchalaya requires little water to flush and can function where no water is available. It is free from air pollution, provides manure on the spot, can be cleaned by the house-owners themselves and alternately the two pits can work for 100 years”

Depthnews India