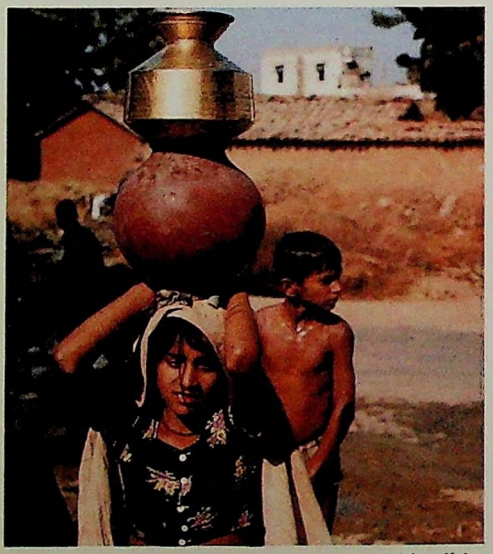
PEOPLE, WATER & SANITATION

WHAT THEY KNOW, BELIEVE AND DO IN RURAL INDIA

LIST OF CONTENTS

INTRODUCTION



Courtesy Krishan Kalra

Lack of a sufficient quantity of potable water, poor sanitation services and lack of hygiene awareness contribute to most of the sickness prevalent in India. Children are the ones most vulnerable. It is estimated that 2500 children below five die of diarrhoeal diseases every day in India. Millions more live on, perhaps surviving recurrent attacks but suffering retardation of physical and mental growth due to diarrhoea draining their bodies of vital nutrients. The loss to the nation also includes 180, 00,00,000 person hours of productive work lost due to water and sanitation related diseases every year.

Although sanitation coverage is still a minimal 3 per cent in the country, provision of at least one source of safe drinking water to all villages in India is a target nearing completion in 1990.

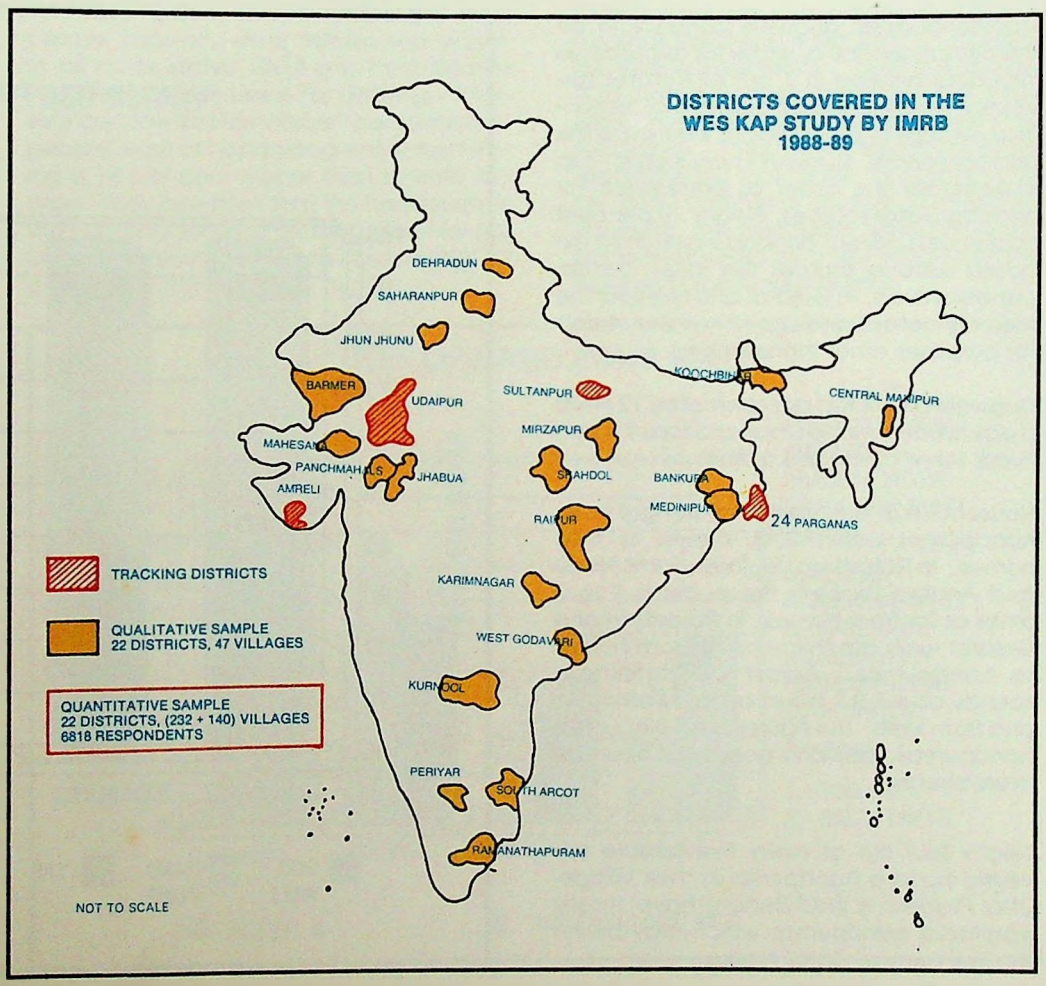
However, since the late 1980s, a realisation has been growing among policy makers that provision of services will not automatically lower mortality and morbidity rates and achievement of physical targets is no reason for complacence. Improving public health through better water supply and sanitation is a matter of changing people's behavior related to the use of water and hygiene.

For a system designed for a one way flow of inputs and instructions from the planner to the people, this has been a difficult realisation. The government of India's Technology Mission on Drinking Water instituted in 1986 decided to meet the challenge headlong. UNICEF was requested to help develop a strategy for bringing about desirable behavioral changes among people as well as within the system delivering water supply and sanitation services.

The first step was to understand ***whose*** behaviour (target group) would have to change, ***which*** behaviour patterns needed to change in ***what*** direction (target response), and what ***messages*** would need to be addressed to specific groups to effect these changes. These questions raised more fundamental ones like what do people already ***know, believe*** and ***do*** in terms of water use and hygiene in different parts of the country? Why do they believe what they do? How do they define 'safe water', 'unsafe water' 'cleanliness', 'health'? The only answers then available were the subjective assumptions of planners and implementors but no reliable information to base a strategy upon. In a country of India's size with an enormous heterogeneity of cultures, the implications of planners' ignorance on the issue were obvious.

In order to build a firm foundation for planning strategies for social mobilisation and behavioral change, at the request of the Government of India, UNICEF commissioned a country wide knowledge, attitudes and practices study on water use and hygiene in rural areas during 1988-89.

The study, conducted by IMRB, a premier market research organisation of the country, covered more than 7900 individuals in villages of 22 districts in eight major states of the country. Sampling criteria included socio-economic indicators, geo-climatic variations and availability of water in the region, to yield as representative a sample of the rural population as possible. The study also covered a sizable sample of Water Supply and Sanitation programme implementors in these states. It was conducted in two phases, using qualitative and quantitative methods like focus group discussions, interviews using semi-structured questionnaires and direct observations by field investigators.



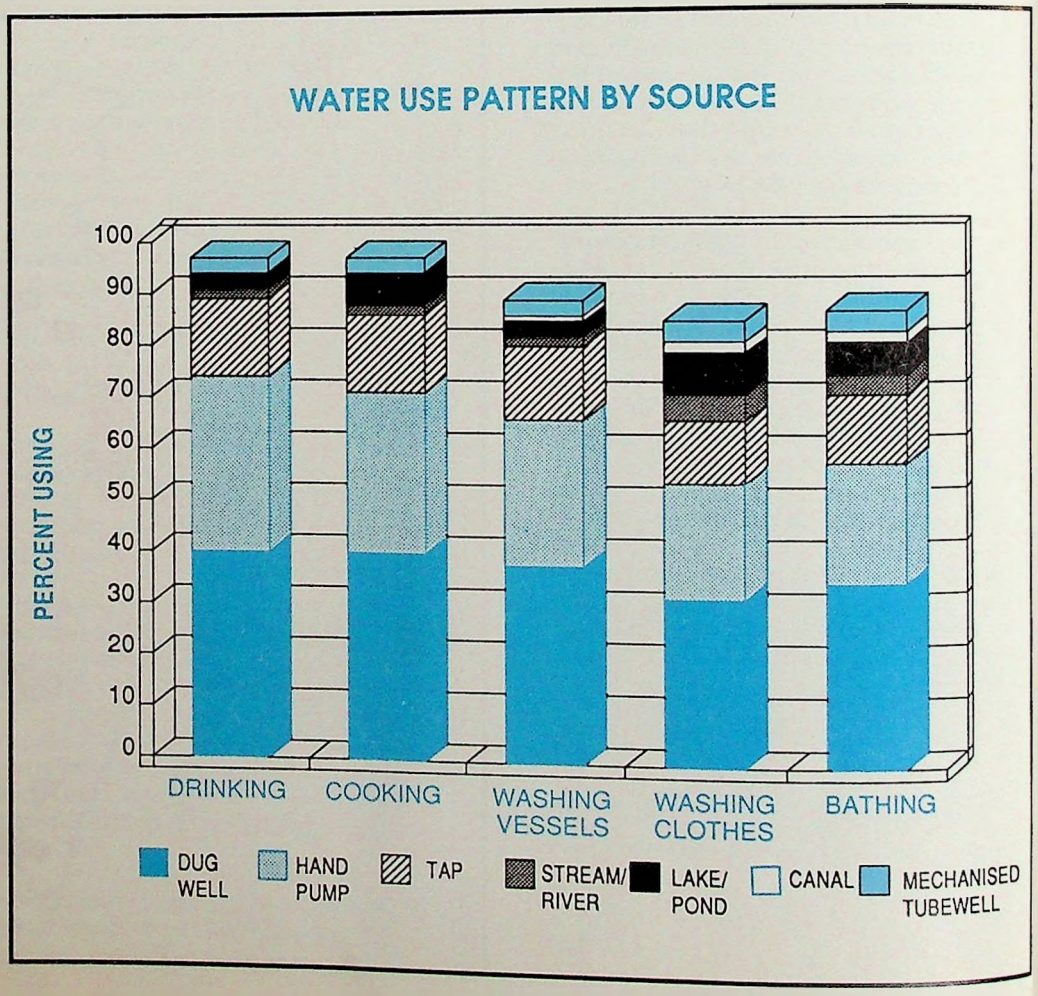
WHERE DO PEOPLE GET WATER FROM ?

Traditional open dugwells continue to be the primary source of water for all purposes including drinking in 7 out of 8 states surveyed. The handpump comes a close second, except in West Bengal where it is the primary source. Dugwell - handpump - tap is generally the order of preference for drinking water sources. Nearly 10 per cent households collect drinking water from exposed surface sources like lakes, ponds, canals or rivers. In Gujarat and Manipur the majority collect and use rain water mainly for purposes other than drinking.

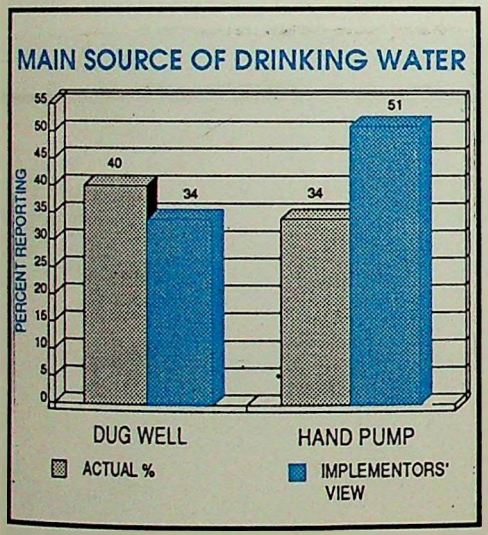
Dugwells are visited approximately 12 times a day, public handpumps and taps 9 times, rivers, lakes or streams 6 times.

Households in U.P. and West Bengal have handpumps within 40-80 metres of their homes. In Rajasthan, Gujarat, Tamil Nadu and Andhra Pradesh the pump is 2 to 3 times as far from homes. In Rajasthan and Gujarat wells are thrice as far from homes as handpumps. Across the states one spends about 2.2 hours a day walking to and from wells. The figures are 1.3 hours for handpumps, taps and ponds, 2.4 hours for rivers/streams.

Nearly four out of every five people surveyed have a handpump in their village. Uttar Pradesh & West Bengal have mostly traditional handpumps which may be he shallow pumps. Tamil Nadu,



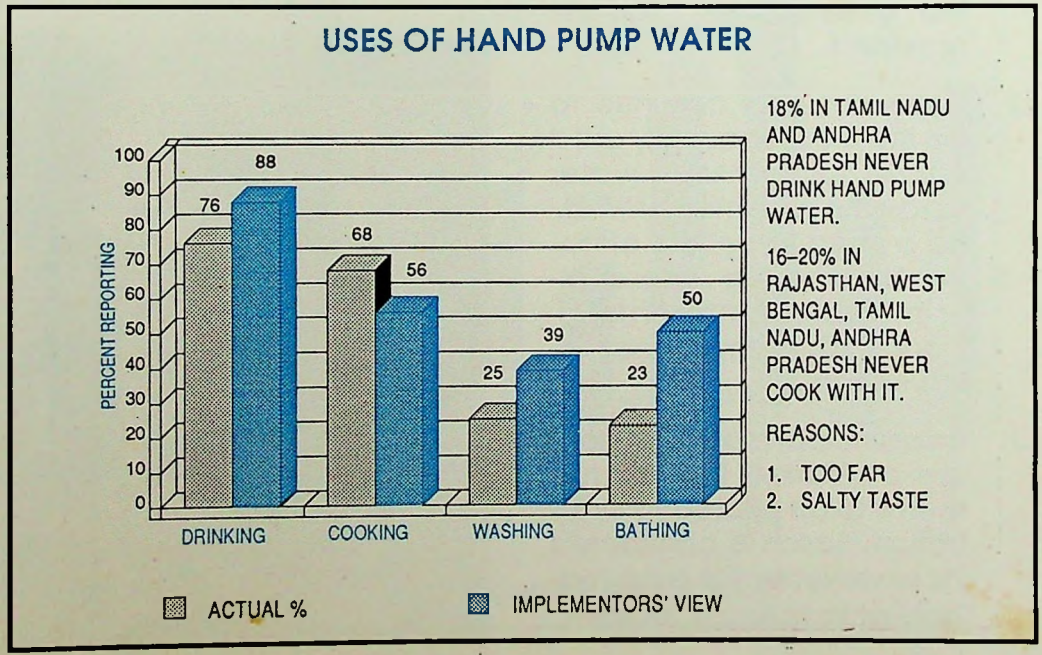
Courtesy Krishan Kalra



Madhya Pradesh, Rajasthan and Manipur mainly have the deep well Mark II. Andhra Pradesh and Gujarat have an overlap of both types.

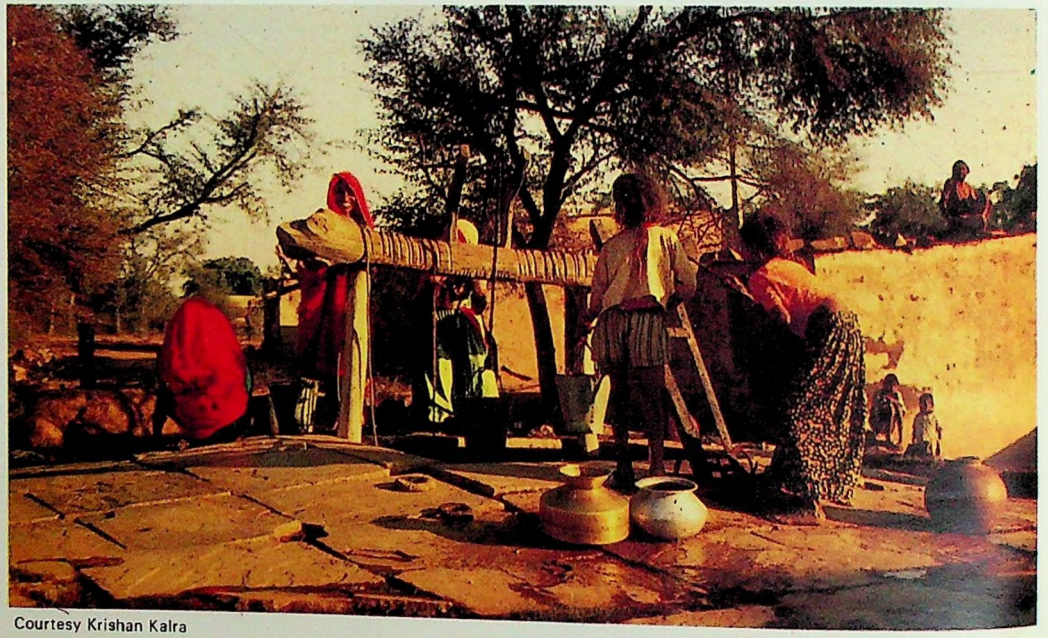
In Uttar Pradesh and West Bengal most people regularly drink handpump water. In all other states 13-18 per cent people reportedly never use it for drinking. Interestingly, the implementors' perception of people's use of handpump water for drinking is 14 per cent higher than is really the case. They also think that the handpump is the primary source of drinking water for the largest majority whereas according to people it is the dugwell.

Over half the non-users of Mark II handpump say that the pump is located too far away for their convenience. One out of three non-users also feels that its water tastes salty, mineralised, looks rusty or smells medicinal. They have fewer complaints regarding the look, taste and smell of water from traditional shallow handpumps. However, the traditional handpump is often monopolised by a few which is not the case with the Mark II pump.



SOME EMERGING IMPLICATIONS

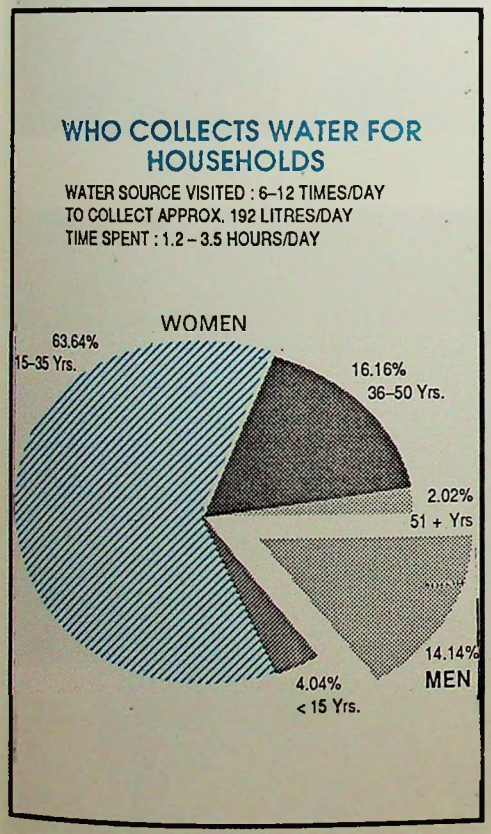
- Handpumps have brought water closer to homes and cut down on time/effort needed to collect water from traditional sources. However, this does not necessarily mean that people have, by and large, switched over to drinking the safer water from the groundwater sources provided.
- Since dugwells continue to be the most frequently used source of drinking water across the country, there may be a need to devote attention to improving water quality in these wells through technical and informational interventions.
- The principal reason for non-use of Mark II handpumps seems to be related to its location, which is considered inconveniently far by a majority of its users i.e. women.
- Popular resistance to deepwell handpump water related to its salinity or mineralised taste in certain regions may not be overcome simply through promotion of Mark II pump as the safest water source. Particularly if the alternative sources in the same area like shallow dugwells offer better tasting water. In such areas it may be more relevant to concentrate on community eduction for well protection.

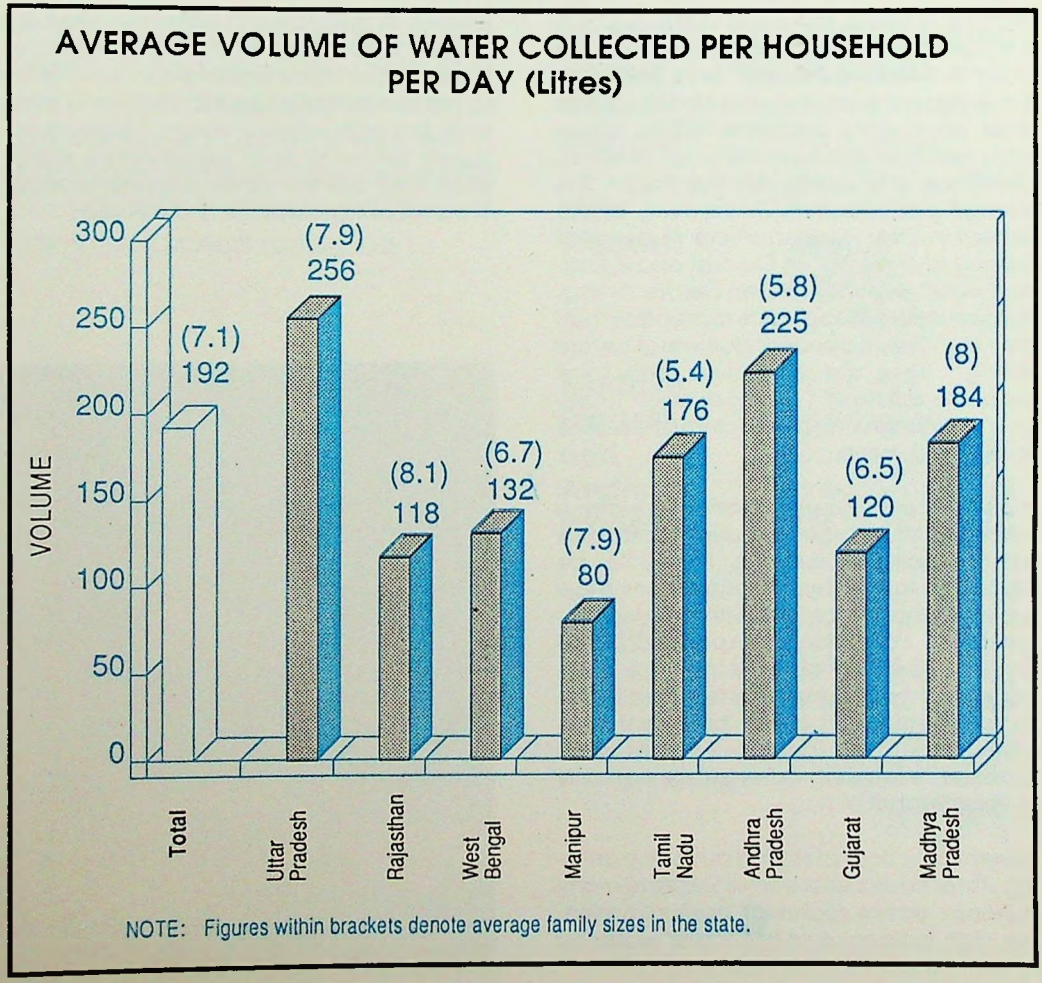


Courtesy Krishan Kalra

HOW DO THEY COLLECT, STORE AND USE WATER ?

The principal water collector in Indian households in the woman, usually between 15-35 years old. She collects about 192 litres of water per day for each average household of 7 members.





Water is stored in the same vessel in which it is collected, in 3 out of 4 households. In Gujarat, Madhya Pradesh and Rajasthan the water pot is often stored above ground level on special platforms/niches, away from reach of animals and small children. Elsewhere it is usually on the floor. The storage pot is kept covered every where except in Uttar Pradesh where 41 per cent leave it uncovered. In Gujarat and Rajasthan water is usually filtered before storing. Women report this practice more often than men do. Only 4 per cent boil water before storing. They are in Manipur and Tamil Nadu. In addition 1 out of every 4 households in Manipur also uses alum or chlorine to disinfect water.

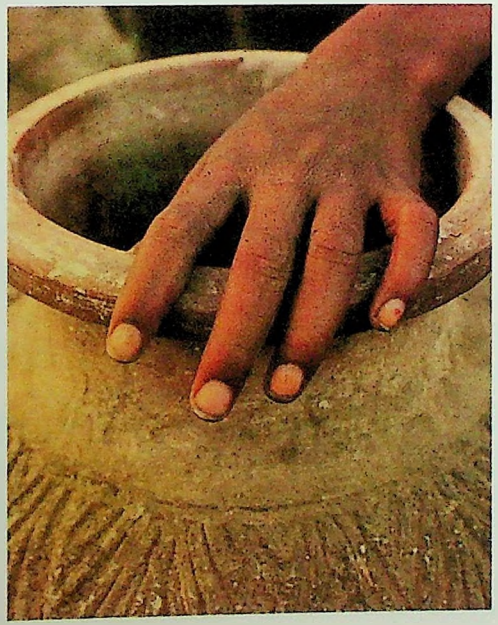
In 68 per cent households drinking water is taken out of storage pots using containers without handles, causing hands to be dipped in the water.. Observations show repeated hand contact with drinking water during collection, transportation, storage and serving in all the states. The desirable practice of using long-handled ladles to take water out is not prevalent anywhere except in Manipur. Another good practice i.e. pouring water out exists mainly in West Bengal.

Present practices of storing and using drinking water in rural households illustrate many currently active routes of contamination. The high incidence of filtering of water by women in guineaworm afflicted areas like Gujarat and Rajasthan probably indicates the impact of concerted health education inputs promoting this practice in the area over the past several years.. Women respond better to such educational efforts since they are the collectors and managers of drinking water for the family.

SOME EMERGING IMPLICATIONS

Promotion of hygiene awareness needs to be based on state-specific water handling practices and directed towards women in rural homes of the state. Examples of desirable state-specific bias in communication could be :

West Bengal and Manipur	Drinking water should be stored above floor level.
Uttar Pradesh	Focus on keeping drinking water covered.
Madhya Pradesh and Andhra Pradesh	Promote filtering as Guineaworm prevalence in these states is substantial.
All states	Promote pouring out/using long handled ladles for taking drinking water out of storage pot.



WHAT DO THEY BELIEVE ABOUT WATER?

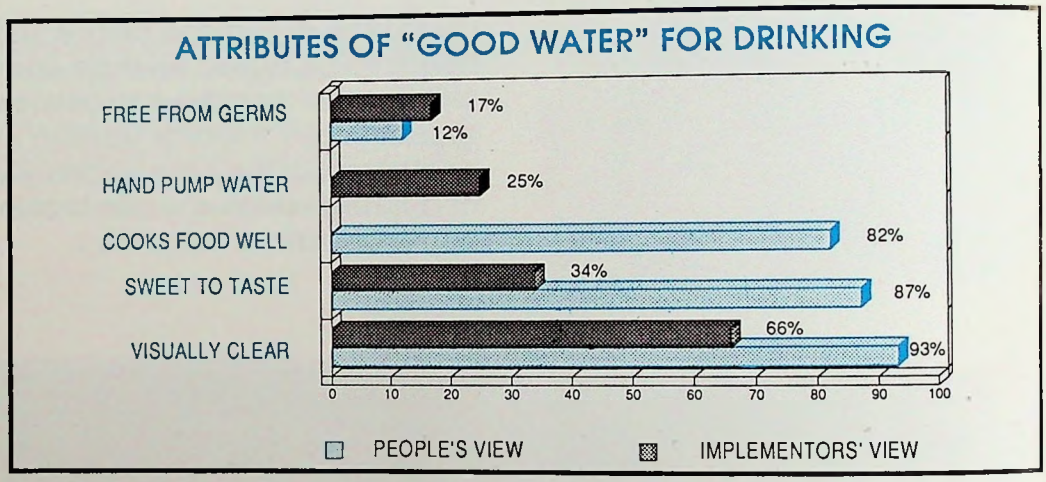
Good and Bad Water

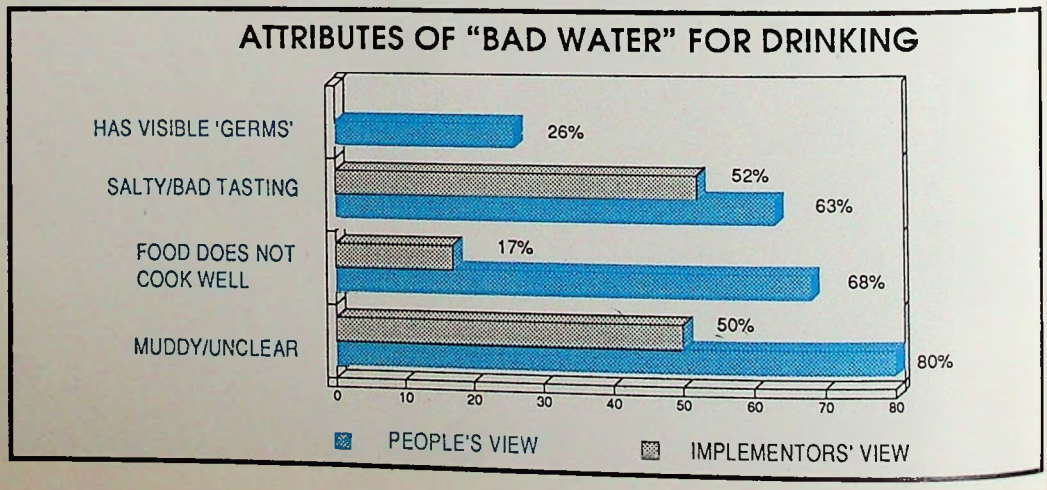
Popular definition of 'Good drinking water' is water that is visually clear, tastes sweet (free of unpleasant flavours and odours) and cooks food well/quickly.

Conversely, bad water or water unfit for drinking is that which is visually unclear, has tinge of colour, salty/metallic taste or smell and water in which grains/pulses take a long time to cook.

Thus, popular definition of good drinking water covers both safe and unsafe sources. The criteria people presently use to distinguish 'good' drinking water from 'bad' can at times cause classification of water from certain safe sources as 'unfit for drinking' e.g. deepwell handpump water which may have a metallic/mineralised taste or rusty appearance. The study already indicates that faced with a choice between a handpump and a well people often opt for the well water for drinking and cooking.

While look and taste are universally used evaluation criteria for water, its 'cooking quality' is particularly important to women, who make the final choice about the water source used for drinking/cooking in their families. Most implementors are not conscious of the significance women attach to the 'cooking quality' of water.



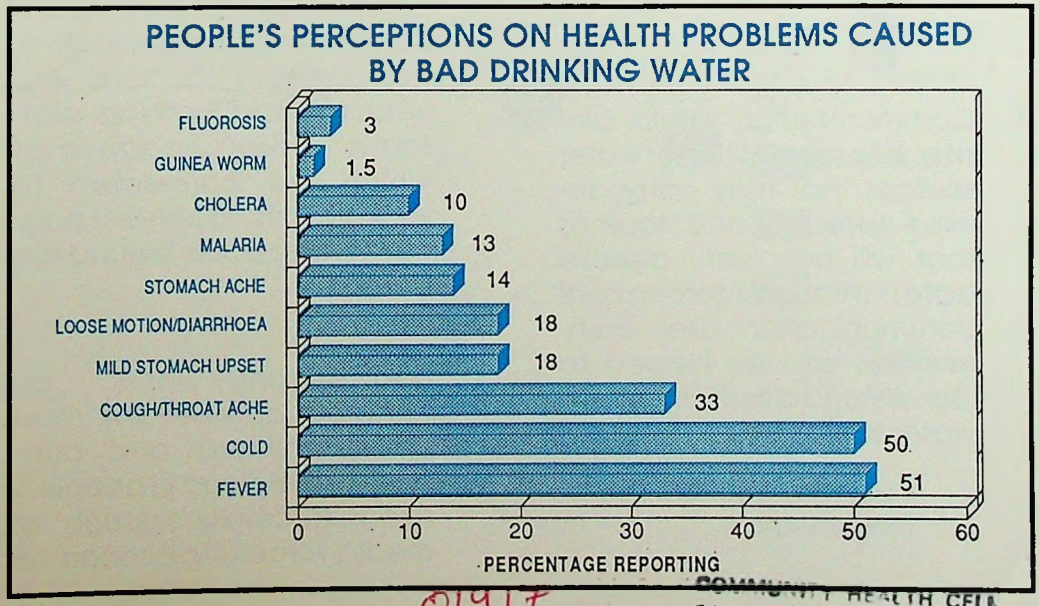


Water and Health

There is a large area of public ignorance about how health is affected by bad drinking water. In the absence of factual knowledge, misconceptions and vague guesses are used to explain the relationship.

Across the states 88-95% people believe that bad drinking water causes health problems. However, when asked what these health problems are, the majority mention fever, cough and clods, throat ache etc. which are not directly related to drinking unsafe water. Only 10-18 per cent people across India are aware that bad drinking water causes diarrhoea, stomach disorders, cholera. This awareness is higher in the eastern states. In West Bengal and Manipur more than 55 per cent know about bad drinking water - diarrhoea linkage. 13 per cent of the total sample erroneously link malaria with bad drinking water.

Focussed communication efforts in guineaworm/fluorosis affected areas have managed to raise public awareness about the relationship to 5 to 20 times the state average. In the guineaworm affected district of Udaipur 22 per cent people are aware of bad drinking water causing the disease, as opposed to only 1.6 per cent in the rest of the Rajasthan state. Similarly, 11 per cent people of the fluorosis affected Amreli district are aware of the fluorosis - drinking water link although only 2 per cent know about it in the rest of Gujarat.



SOME EMERGING IMPLICATIONS

- Most of the implications here pertain to peoples' perceptions and resulting behaviour. Popular definition of 'good drinking water'. needs to be modified through sustained communication efforts, to become 'safe drinking water'. However, it may be difficult as well as unnecessary to explain the germ theory in detail to users.

- Communication could aim at public recognition of water sources that may carry disease (unsafe) and sources that will not carry disease (safe). Through interpersonal communication user communities can be helped to identify and classify their own water sources as :

  i) open to pollution, therefore unsafe,

  ii) protected from pollution, therefore safe.

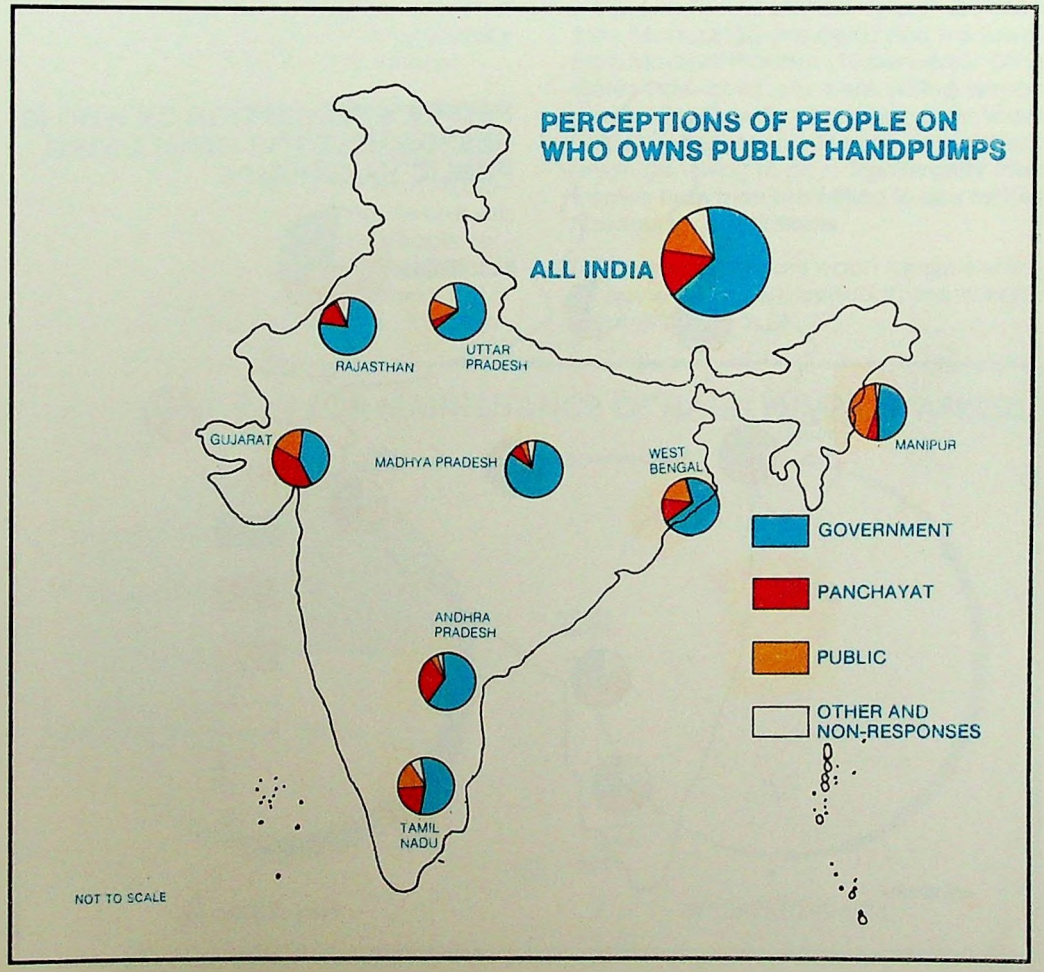
- Communication can focus on region and state-specific user behaviour at water sources and homes to highlight prevalent practices that pollute drinking water. Publicity can help build public pressure against these practices and suggest alternative, non-polluting solutions e.g. washing and bathing platforms near handpumps which are connected to soakage pits, to prevent stagnant water pools around the pump.

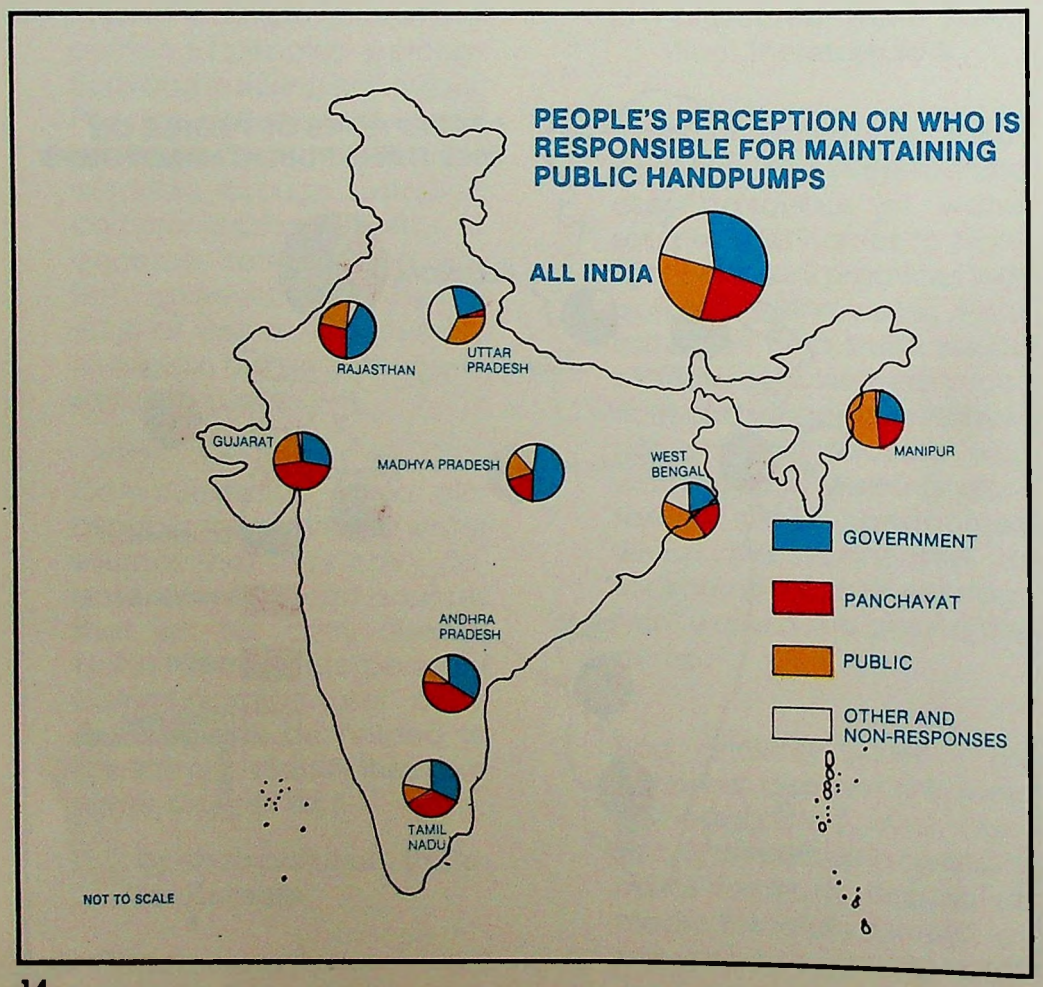
- Bad drinking water - diarrhoeal diseases link must be established and constantly reinforced in people's minds forcefully through all media forcefully through all media channels available. Along with it, each region/state would need to promote 4-5 key practices for hygienic handling of drinking water, during collection, transportation, storage/use at home. These practices would have to be related to the way water is currently handled by users in each region, to identify and counteract specific routes of contamination prevalent there.

"IT IS A GOVERNMENT PUMP"

'Public handpumps' continue to be looked upon as the government's property and responsibility. Although one quarter of all the users feel they should look after day to day maintenance, they expect the actual cost to be borne primarily by the government and secondarily by the Panchayat (Village Council)

Two out of three users of public handpumps believe them to be the property of the government. This belief is particularly strong in Northern and Central parts of the country. In Andhra Pradesh and Gujarat 30-41 per cent think it belongs to the Panchayat (Village Council). People's ownership is an unfamiliar concept in Rajasthan, Madhya Pradesh and Andhra Pradesh, but is widely accepted in the eastern states.





Although the majority of the users do not believe that the pump belongs to them, nearly one fourth agree that maintaining it is their own responsibility. Manipur and West Bengal lead the rest in acknowledging public responsibility for handpump maintenance. Andhra Pradesh comes last in this respect.

Nearly half the users in West Bengal and Manipur feel that the villagers themselves should pay for repairs. Only 9-14 per cent do so in Madhya Pradesh, Andhra Pradesh, Rajasthan and Tamil Nadu.

Significantly more literate persons and men expect the government to bear the cost of repairs, as compared to illiterate persons and women.

Willingness to Pay

"If villages were asked to pay a fixed amount per month regularly towards handpump maintenance failing which the pump would not be repaired, how much would you be willing to pay?".

In response to this question implementors had predicted that no one would pay, but on an average two out of three respondents expressed their willingness to ay a monthly fee. The largest proportion of users willing to pay are in West Bengal (89 per cent), followed by Manipur (81 per cent), Uttar Pradesh, Andhra Pradesh and Gujarat (70-80 per cent). In Tamil Nadu and Rajasthan about half are willing to pay, but only one third are willing in Madhya Pradesh.

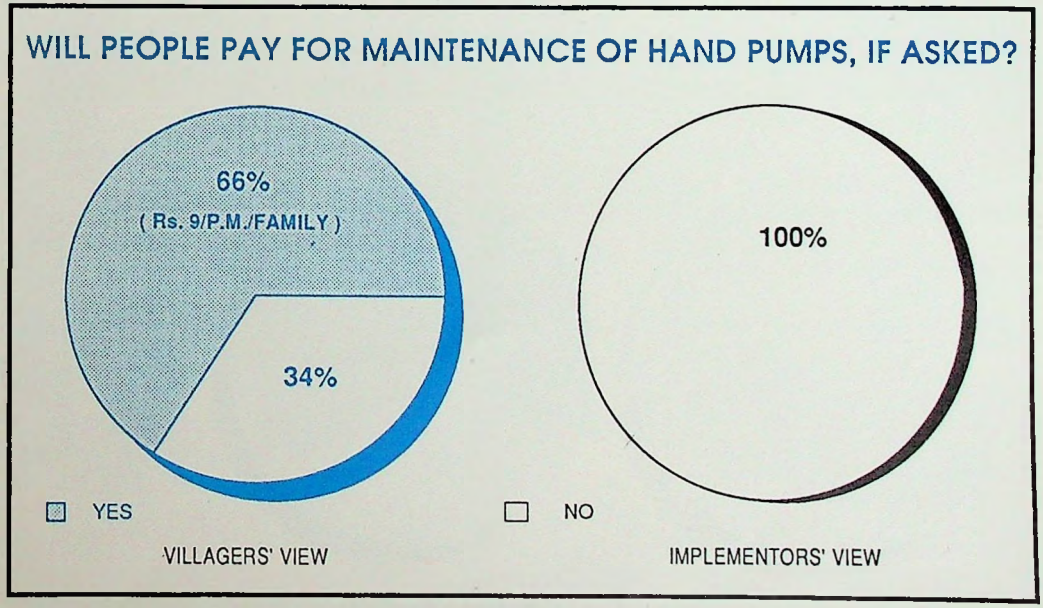
Younger and literate respondents are significantly more willing to pay as compared to the older and illiterate ones. Income, however does not appear to be a major factor as there is only a 6 per cent difference between the lowest and highest income categories in this study*

The average amount each family is willing to pay per month ranges from Rs. 4.30 in West Bengal to Rs. 20.40 in Rajasthan. There seems to be a clear link between the amount the user is willing to pay and the extent of water scarcity in the State Literacy and sex do not seem to influence this amount.

If maintenance and new installations are made conditional to people's contribution, it seems probable that they will willingly share the cost, although at present the programme implementors feel that no one will contribute. 41 per cent of the people surveyed say that they are willing to contribute for new handpump installations, ***if it is conditional to their contribution.*** The highest proportion of positive responses came from Manipur (62 per cent) and the lowest from Madhya Pradesh (18 per cent). Other states had 42-43 per cent willing respondents. Expectedly, upper income households, younger and literate respondents are more willing to pay. **Significantly more women than men are willing to pay for new handpump installations.**

The average amount each family is willing to pay is Rs. 61.50, although the median amount is Rs. 16.

*Lowest : less than Rs. 500 per month
Highest: Rs. 2,500 + per month

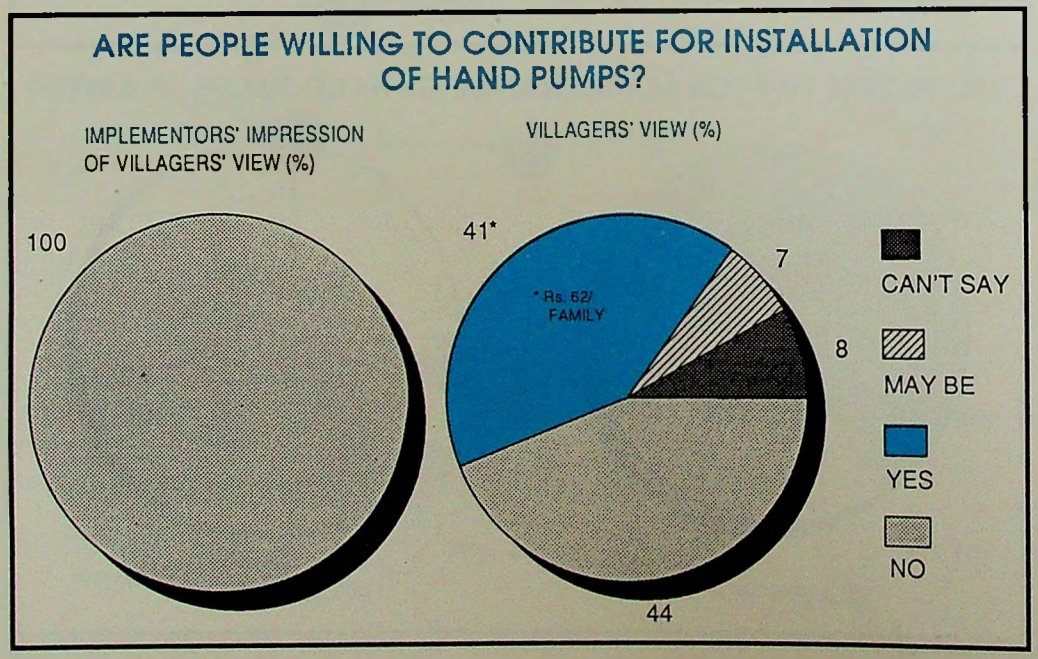


Do the Women have a say ?

Rural women who are the principal users and beneficiaries of water supply services are at present peripheral and somewhat incidental to the programme. Implementors of the programme know this but are not required to do anything about the anomaly.

Two out of three implementors state that, in theory, women should be consulted about selecting pump sites. In practice, however, women's opinions are not considered in selecting drilling sites, according to implementors in all the states except West Bengal. Even where women are asked, it is usually through representatives like village functionaries or male members of the household and not through direct interaction. According to implementors, women's opinions are not considered because "women do not come forward" (57 per cent), "village representatives represent women also" (10 per cent) and women "need not be asked since geohydrological and land availability considerations determine sites" (10 per cent).

Majority of the implementors state that they are satisfied with the present system of site selection.



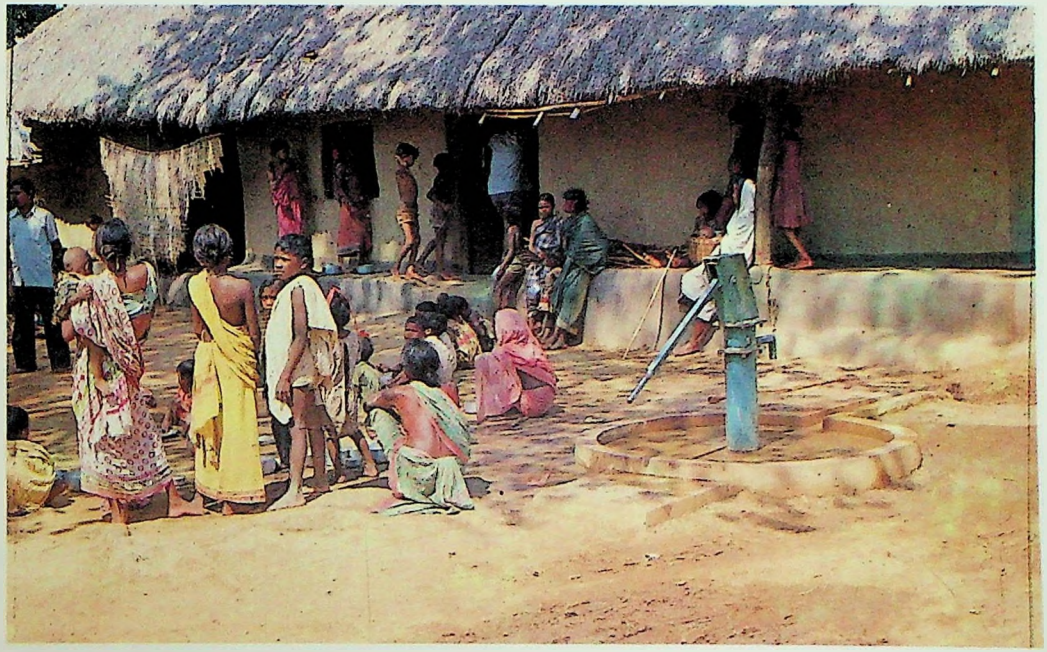
SOME EMERGING IMPLICATIONS

- The present process of providing water supply services needs to be examined to identify what causes the public handpump to be labelled as 'government property' instead of 'people's property'.

- Definite community involvement measures necessary for the public assets to acquire a 'people's property' image need to be built into the system providing water supply services.

- There seems to be a larger potential for financial involvement of users in maintenance and new/additional installations that what the implementors believe.

- Putting the above into action will require major revisions in the present procedures and structures of the service delivery system as well as a redefinition of targets for the next decade.



CLEANLINESS: PEOPLES' PERCEPTION

"We should have enough money for fresh food and clean clothes first"
- poor villager, Andhra Pradesh

"One has to go to work, no time, so house is unclean."
- poor villager, Rajasthan

"If people are healthy, they have the stamina to keep the house clean."
- poor villager, Tamil Nadu

"If all basic amenities are present, people will have interest in being clean".
- rich villager, West Bengal

Among the village folk in India, "Cleanliness" is understood as a holistic concept, emanating from within the person — from one's thoughts and behaviour and extending to one's physical self, home and environment, in that order.

However, time and money are seen as major constraints to achieving the desired level of cleanliness. "Cleanliness" is low on the average family list of priorities. Poor families see it as a desirable but improbable ideal, to be pursued by those who can spare the effort and resources. There seems to be, in their minds a high positive correlation between time/money avilability and different levels of hygiene, i.e.

Level 1 - personal hygiene
Level 2 - household hygiene
Level 3 - environmental hygiene

PEOPLES' PERCEPTIONS

PERSONAL HYGIENE	SOME LINK	HEALTH
HOUSEHOLD HYGIENE	WEAKER LINK	HEALTH
ENVIRONMENTAL HYGIENE	ALMOST NO LINK	HEALTH

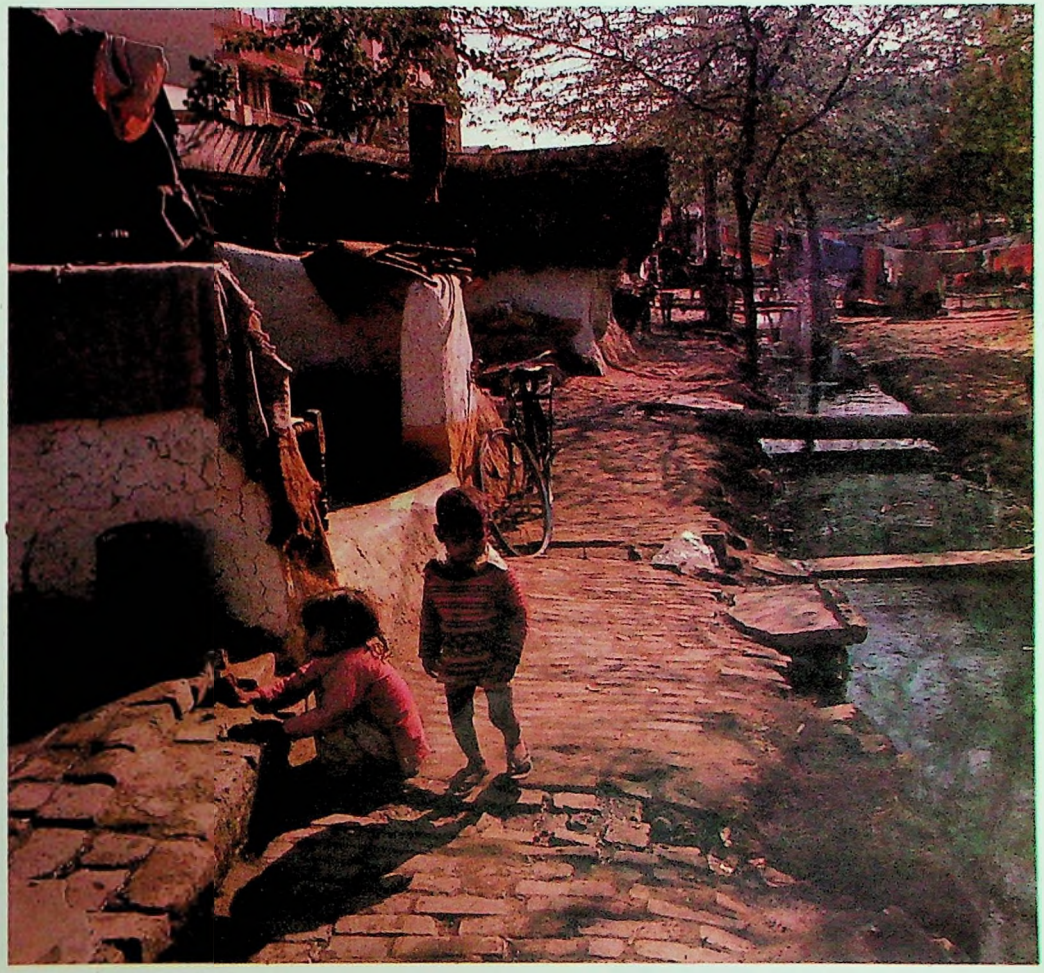
AND HABITS

HAND WASH AFTER DEFECATION AND BEFORE EATING	99%
WASTE WATER LET OUT INTO STREET/CESS POOL/OPEN AREA OUTSIDE HOUSE	62%
DEFECATION OUTDOORS, AWAY FROM HOME	92%
COVERING OF EXCRETA : NEVER	99%

ENVIRONMENTAL CLEANLINESS IS SEEN AS THE THE GRAM PANCHAYAT'S RESPONSIBILITY. INDIVIDUALS DO NOT FEEL THEY CAN DO ANYTHING ABOUT IT

This graded relationship results in most people attempting to practice a rudimentary amount of personal hygiene and a lesser amount of household hygiene but almost no effort is directed towards maintaining environmental hygiene which seems to be beyond everyone's area of responsibility. The Panchayat (Village Council) is expected to look after environmental sanitation of the village without the villagers' involvement.

Most people are aware of a link between hygiene and health but it is a belief lacking conviction, diluted by years of resigned tolerance of unhygienic surroundings. While personal hygiene and to some extent household hygiene are believed to influence health, people fail to see the possibility of environmental hygiene influencing their health. Nor do they see themselves as factors influencing the quality of their own environment.

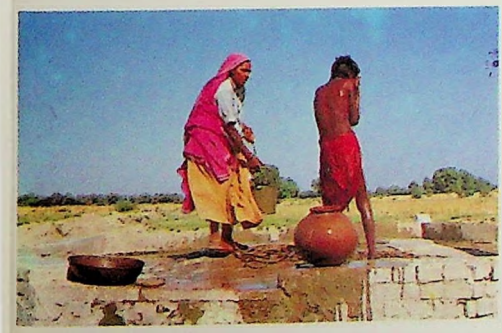


PERSONAL HYGIENE

Awareness of personal hygiene is high but often exists only at a theoretical level. Shortage of money, time and lack of conviction about its necessity cause people to be negligent of personal hygiene. This is an area where inadequacy of public amenities and economic status of families continue to inhibit desirable behavioural changes substantially, despite educational and motivational efforts.

Handwashing after defecation, before and after eating and cleaning of mouth everyday are reportedly universal. Six people out of every ten wash their hands with water and a little ash or mud. About one quarter use soap with water the rest wash with water only. Mouths are most often brushed with a chewed up twig.

A daily bath is infrequent. A little over half bathe every 2-4 days. In water scarce areas like Barmer in Rajasthan, one may bathe only fortnightly. Use of soap is irregular, linked to special occasions and considered somewhat a luxury. Soap is used more frequently by upper income groups, younger and literate villagers and by women.

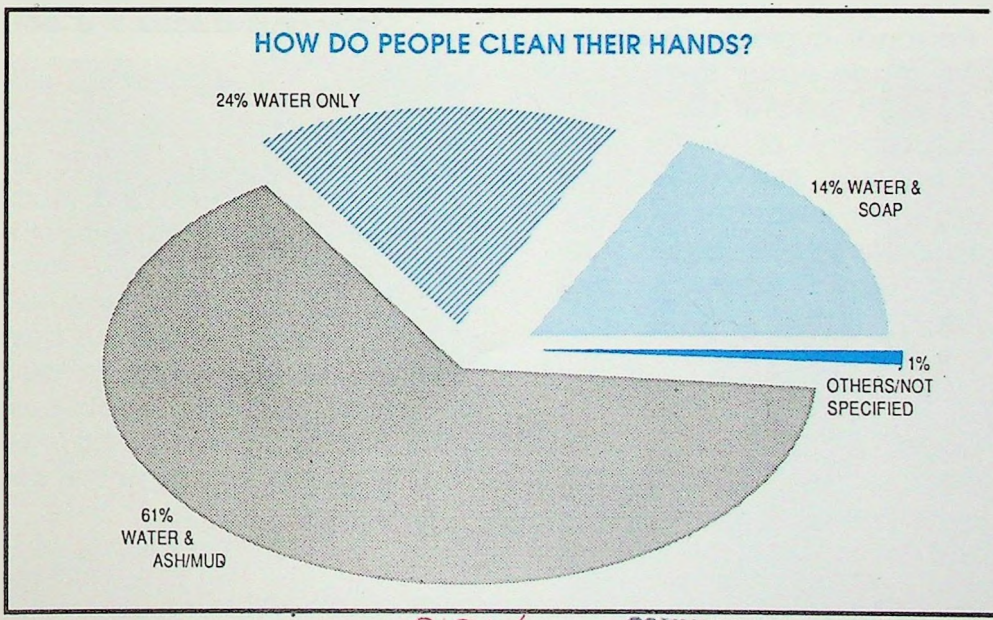


Although people recognize that changing clothes ought to go together with bathing, regular changing and washing of clothes is not considered feasible by most.

As one poor peasant from West Beng commented :

"If one has money, one will have cle clothes since he can have more th one set of clothes".

The use of footwear is infrequent and lir ited to special occasions or when goir out of the village. Men think it is necessa more often than women. The major co straint to using footwear in everyday life lack of habit and its cost.

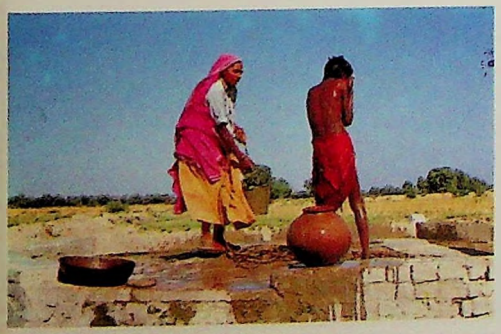


PERSONAL HYGIENE

Awareness of personal hygiene is high but often exists only at a theoretical level. Shortage of money, time and lack of conviction about its necessity cause people to be negligent of personal hygiene. This is an area where inadequacy of public amenities and economic status of families continue to inhibit desirable behavioural changes substantially, despite educational and motivational efforts.

Handwashing after defecation, before and after eating and cleaning of mouth everyday are reportedly universal. Six people out of every ten wash their hands with water and a little ash or mud. About one quarter use soap with water the rest wash with water only. Mouths are most often brushed with a chewed up twig.

A daily bath is infrequent. A little over half bathe every 2-4 days. In water scarce areas like Barmer in Rajasthan, one may bathe only fortnightly. Use of soap is irregular, linked to special occasions and considered somewhat a luxury. Soap is used more frequently by upper income groups, younger and literate villagers and by women.

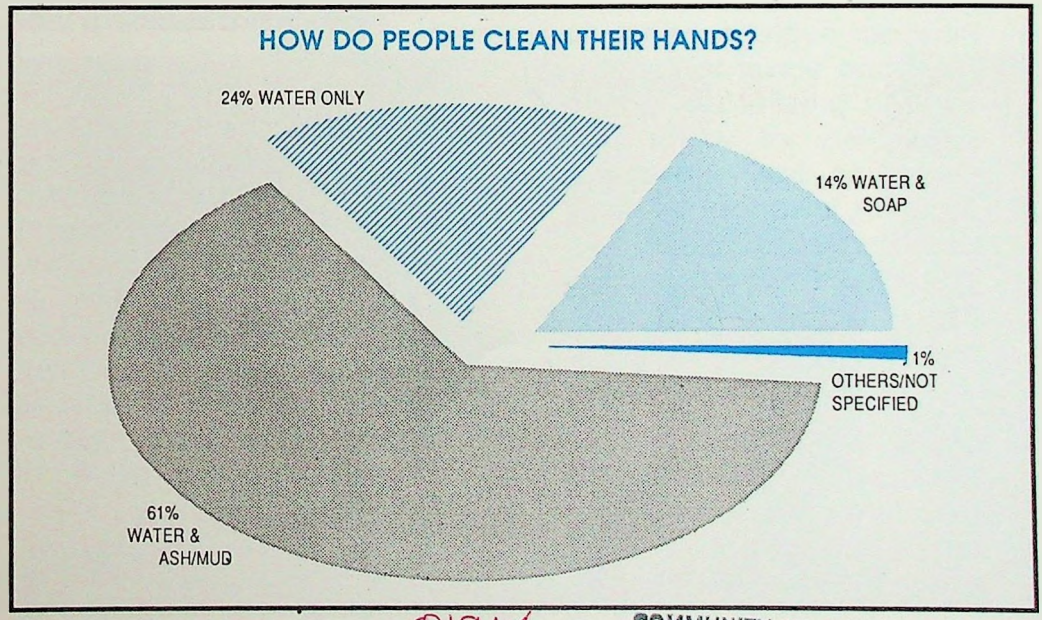


Although people recognize that changing clothes ought to go together with bathing, regular changing and washing of clothes is not considered feasible by most.

As one poor peasant from West Bengal commented :

"If one has money, one will have clean clothes since he can have more than one set of clothes".

The use of footwear is infrequent and limited to special occasions or when going out of the village. Men think it is necessary more often than women. The major constraint to using footwear in everyday life is lack of habit and its cost.



SOME EMERGING IMPLICATIONS

- Personal hygiene needs to be made easier to practise through greater per capita availability of water and measures like subsidising soap for instance. Without such facilities, hygiene education can perhaps have only limited impact on people's practices.

- Under the present circumstances, it seems relevant to selectively promote those habits that can improve the existing status at no cost, before trying to promote those requiring immediate financial outlay e.g.

  - use of fresh ash for hand-washing, but not mud.
  - building of household soak pits.
  - covering of excreta with soil until a latrine is acquired.

- Communication for improving personal hygiene must be locally formulated (e.g. at a district level), in keeping with what is feasible for the majority to practise in the region. Failure to do this has often resulted in people dismissing hygienic practices as impractical and inappropriate for their way of life, an 'unaffordable luxury'.

HOUSEHOLD HYGIENE

Traditional beliefs and social pressures enforce maintenance of 'visible cleanliness' within the household by the rural housewife. However, what happens immediately outside the walls of the house is not considered her responsibility, nor that of any other family member. Burdened with her usual chores, she ends up keeping a clean looking home amidst surroundings made dirty by waste water and garbage generated by her own household.

Need for cleanliness within the home is emphasised in rural communities. A clean house is associated with less sickness and well being of family members. Household cleanliness is the housewife's responsibility and she meets with strong social disapproval if her household remains dirty. The only resources needed are time and effort of the housewife and villagers feel that even the poorest woman can manage to keep a clean house.

Traditionally, the highest priority is the cooking and eating area, followed by the sleeping area. The cooking area is swept clean of food particles, ash and garbage after every meal. Regular mud plastering of kitchen floor and cooking stove (Chullah) is prevalent in all the states. Washing and cleaning of utensils is done after every meal in the courtyard or kitchen from where a drain leads to outside the house. In case of lack of space within the house, utensils are washed beside the roadside drain or at the village pond (West Bengal), using ash, mud and natural fibre scrubbers.

Villagers are aware of the need to cover food and drinking water to keep away flies and insects. It is understood that cleaning the kitchen regularly prevents flies and insects. The need to wash and eat food and give children clean food was mentioned in Gujarat. However, those who report all these practices also state that most villagers (including themselves) are negligent and do not follow them as rigorously as they should.

What Happens to Household Waste?

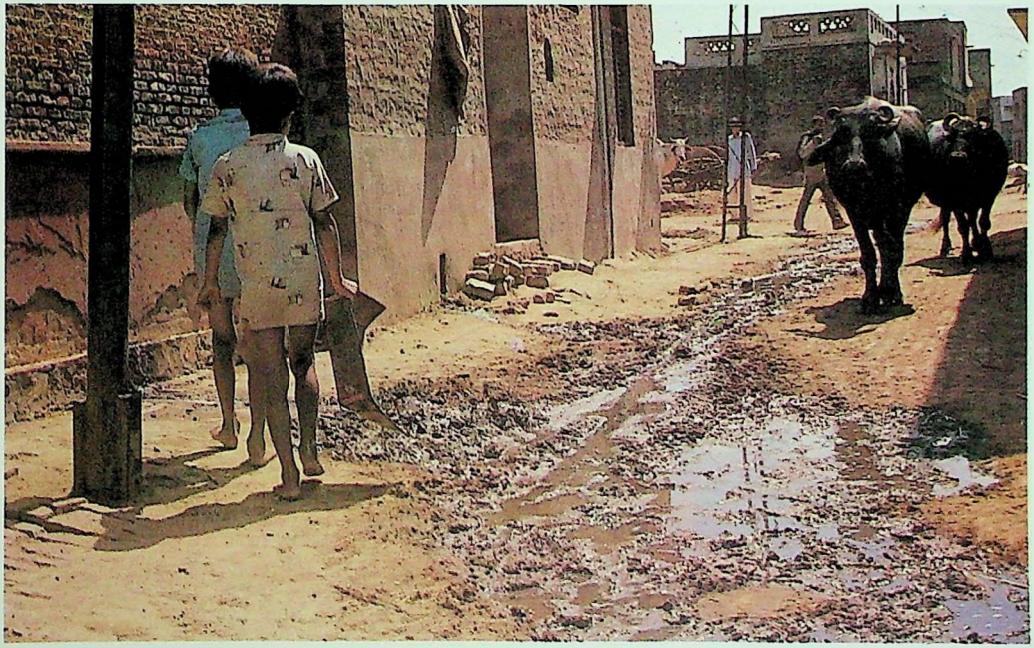
More than 80 per cent households throw garbage into a private or common garbage pit. The rest throw it anywhere within or outside the courtyard. Only 8 per cent mention the use of manure pits.

Waste water generated in the household is simply let out into the village street/outside the house boundary by 62 per cent families. Only 5 per cent mention using a private soak pit and 12 per cent lead it into a kitchen garden.

81 per cent households have domestic animals, mainly cows and buffaloes. A third of them store and use the dung as fuel, for plastering walls or manure. 15 to 20 per cent families, however throw it away as garbage. This practice is common in Gujarat and Tamil Nadu. Almost half the respondents do not believe that cow dung or buffalo dung can be harmful to human health. Dung of other animals could be harmful, buffalo dung less so and cow dung least of all.

SOME EMERGING IMPLICATIONS

No-cost simple sanitation measures like household soakage pits and garbage pits are not practised widely in the villages. The present situation reflects a lack of public awareness of such self-help interventions, rather than a lack of motivation since tradition and religion in India provide ample motivation for keeping one's habitat clean. The situation calls for direct contact with village women for promotion of such sanitation interventions through interpersonal communication and demonstrations by familiar village motivators. Already there are isolated pockets in the country where village sanitation has been vastly improved using this strategy.



WHAT HAPPENS TO HUMAN WASTE ?

Current Practices:

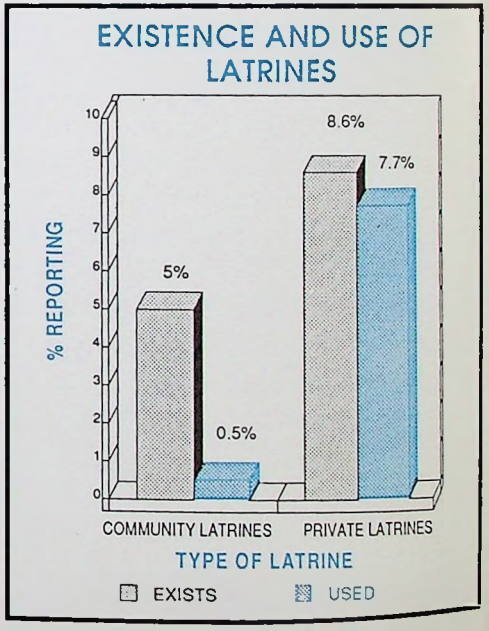
In rural India excreta disposal is still by and large a matter of letting nature take its own course. 92 per cent people surveyed defecate out of doors, at sites common for all categories of villagers. About one tenth express a distinct preference for sites close to a water source. Privacy is the overriding concern while selecting a site.

Those who do use private latrines range from 3 per cent of the state sample in Rajasthan to 12 per cent in Madhya Pradesh, the overall average being 8 per cent for all the states. Manipur stands out as the state where 85 per cent reportedly use private latrines. Majority of the latrine owners and users predictably belong to upper income households. Only 2 per cent of the illiterate persons use latrines as compared to 13 per cent of the literate ones. **While those having household latrines regularly use them, community latrines are used by less than 10 per cent of these who have access to them.**

Almost all who defecate outdoors do not cover or dispose of their excreta in any manner. Washing of hands after defecation is a universal practice. However, 23 per cent wash only with water. This practice is most prevalent in Tamil Nadu, Andhra Pradesh and Manipur. 14 per cent use soap and water. More than 6 out of 10

wash using water and mud or ash. This practice is popular in Uttar Pradesh, Rajasthan, West Bengal and Madhya Pradesh.

Soap usage is a recent phenomenon, found among the young, the literate and the upper income group. Use of water only is markedly higher among older persons and poorer families. Use of mud or ash as a cleaning material with water seems to prevail across all socio-economic categories.



Beliefs Behind Practices

The majority think they really have no choice and outdoor defecation is a necessary evil. Women feel this more often than men. But 31 per cent people also feel the practice has advantages like fresh air and absence of unpleasant smell. 8 per cent even think outdoor defecation is a cleaner way of life since excreta is deposited far from the home. This is mentioned more often by poorer families, older persons and men rather then women.

Those who do mention specific disadvantages of outdoor defecation, speak mainly about occasion or situation-related problems rather than a sustained difficulty. Almost two thirds of the sample think it is problematic during the night, the rainy season, for sick and old people. Nearly 30 per cent also mention lack of privacy and having to walk long distances to find suitable spots. These problems are voiced very frequently in densely populated states like West Bengal and Uttar Pradesh and most often, by women in almost all states. Health hazards of the practice are not mentioned by more than 7 per cent of the people

Knowledge Behind Beliefs

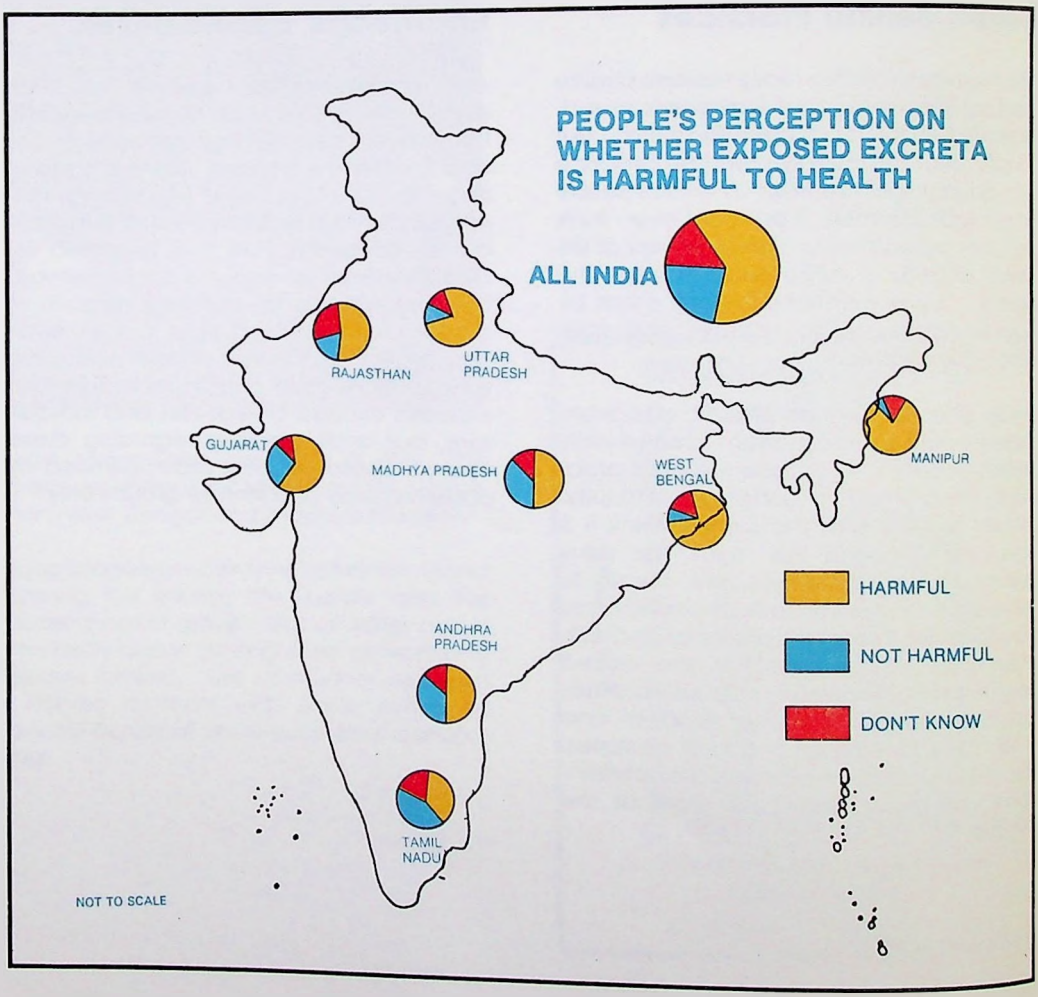
Although 63 per cent people think that exposed excreta can be harmful to health, less than 20 per cent are correctly aware how the harm is caused. There is a strong belief that the bad smell emanating from excreta is the principal cause of ill-health/ carrier of germs that are breathed in. Negative feelings about outdoor defecation are related to polluting aspects of contact with exposed excreta, i.e., revulsion rather than the fear of contracting diseases. More than one thirds realise that exposed excreta breeds flies and mosquitoes, but understanding regarding these vectors contaminating food is limited to upper income and literate groups only.

As many as 37 per cent of the people either do not believe that exposed excreta can endanger health, or do not know whether this is possible. They feel that excreta is deposited so far away from their homes that it cannot affect them. In any case, dogs and pigs eat it and clean up the area, according to them.

There is an unspoken tolerance of a young child's excreta which is considered less harmful than that of adults. An unweaned infant's excreta is considered 'absolutely harmless' as it is made up of mother's milk and nothing else. Since these are disposed of within or close to the household they represent a major health hazard for the family.

16 per cent of the implementors of Sanitation programmes are also not sure whether exposed excreta can harm health. Also, only 10 per cent of the implementors surveyed mention 'health education/communication' as one of their job responsibilities.

Since people do not perceive clear links between environmental conditions and their own health, there is a general lack of concern about exposed excreta. However, in crowded villages where secluded spots and vegetation cover for privacy are becoming scarce, outdoor defecation is becoming problematic and a desire for change seems to be building up, specially among women.



SOME EMERGING IMPLICATIONS

- Sanitation programme implementors need to capitalise on growing motivation for latrine adoption by focussing on crowded villages and women's groups.

- All programme implementors have to be fully convinced about the health hazards of outdoor defecation, to be able to promote sanitation practices. They must also become more conscious of their prime responsibility of informing and motivating community members.

- Building on the universality of handwashing as an already prevalent desirable practice, communication efforts must aim at making it more hygiene - effective. For example communication could spell out that handwashing only with water does not really clean. The only way to assure cleanliness is to wash with water and soap or fresh ash. Mud does not clean, but can actually cause contamination, thus should not be used for cleaning purposes.

- It may be difficult to explain the faeco-oral cycle of disease transmission in terms of invisible disease - causing microorganisms to community members. Health education can take advantage of people's perception of polluting aspects of excreta to explain how sickness travels from exposed excreta through flies, food and water to healthy persons.

- The harmful effects of infants' and children's faeces have to be highlighted in all communication efforts, targeting the same to mothers. Hygienic handling of children's faeces, whether or not the household owns a latrine, is a key behavioural change to be promoted.

SANITARY LATRINES: THE 'GREAT UNKNOWN'

Public awareness of an alternative to outdoor defecation is limited. Only 37 and 52 per cent people have reportedly ever seen a dry or pour flush type of latrine respectively. Those who have ever used one are even fewer in number. Apart from the minority who own a household toilet, the rest have encountered latrines only at public places like railway stations, bus terminals, health centres etc. where maintenance levels are often far from desirable. Predictably, the first impressions are unlikely to have been positive.

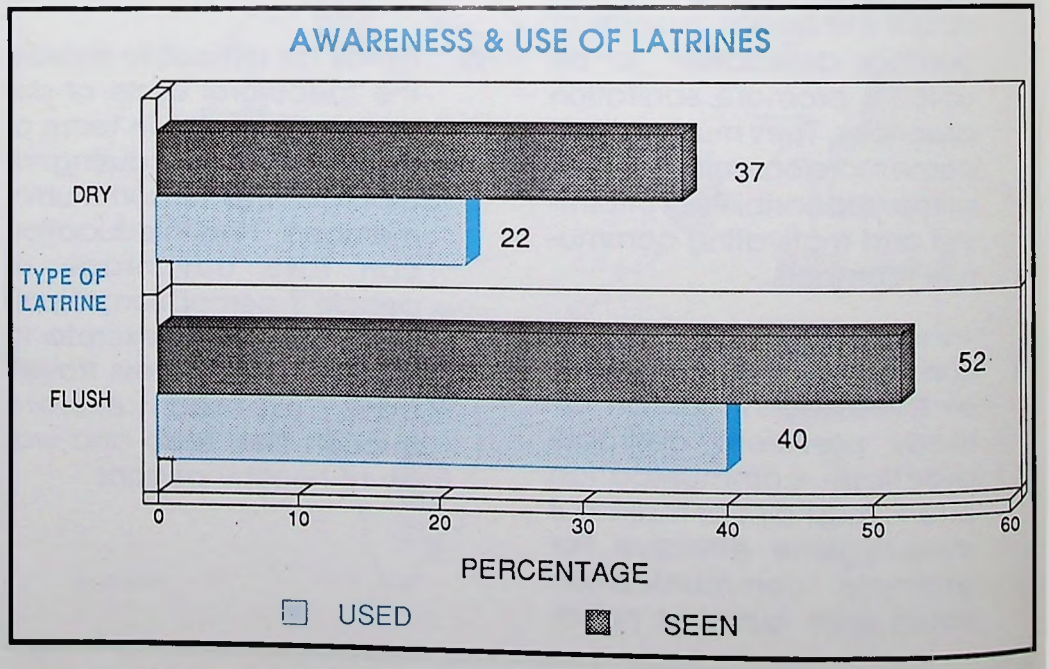
Families having private household latrines range from 4 per cent in Uttar Pradesh to 15 per cent in West Bengal, with the rest of the states falling in between. Manipur stands out as a state where four out of every five families own private latrines, in stark contrast to the rest of the country . They are usually the dry type of latrine. The rest of the states report a mix of dry and pour-flush types, the latter being more popular in West Bengal, Tamil Nadu and Gujarat. Predictably, latrine ownership is positively correlated with income and literacy.

About 5 per cent people also have access to community latrines. Whereas almost all who own private latrines use and clean them regularly, community latrines are rarely used by anyone due to lack of maintenance. In majority of latrine-owning families all members use the facility. Wherever selected members use it, they are invariably the female members of the household.

Knowledge

65 per cent do know that excreta flushed away from pans goes into a pit into the ground. Thereafter what happens is an area of widespread confusion.

30 per cent do not know how often the pit will have to be cleaned out/emptied. Another 43 per cent think that it will have to



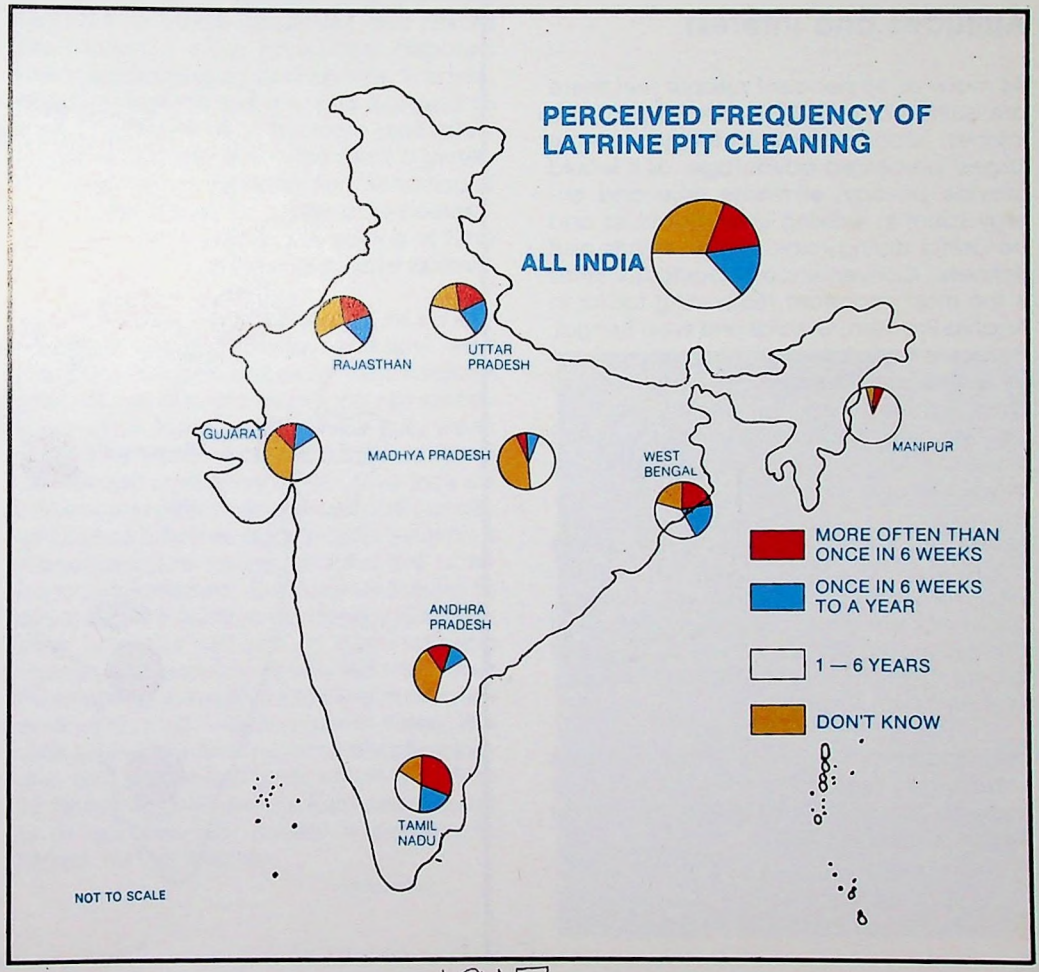
be cleaned out a lot more frequently than is actually needed. While the correct frequency ranges from once every 3-5 years depending on family size, as many as one fifth think this has to be done every 6 weeks or more often.

Although, in reality, pit contents at the time of cleaning would be a dry, odourless substance, the majority think that they would be liquid (53 per cent), and foul smelling (81 per cent) or are simply not sure what they would be like (19 per cent).

More than half do not know that the pit contents can be used as manure. They envisage having to dig another pit and transfer the contents, or transporting the stinking mass to a point outside the village or the house.

71 per cent across the country are unaware that government subsidy is available for private latrine construction. While the household's actual contribution under the subsidised programme is not more than Rs.300-400/- (US $ 17-23 approx.), popular perceptions of the cost to the family range from Rs.2000 to Rs.10,000 per latrine (US $ 117-588 approx.)

The level of ignorance and misconceptions about all these questions is significantly higher among women, the lower income groups, the older group and the illiterates.



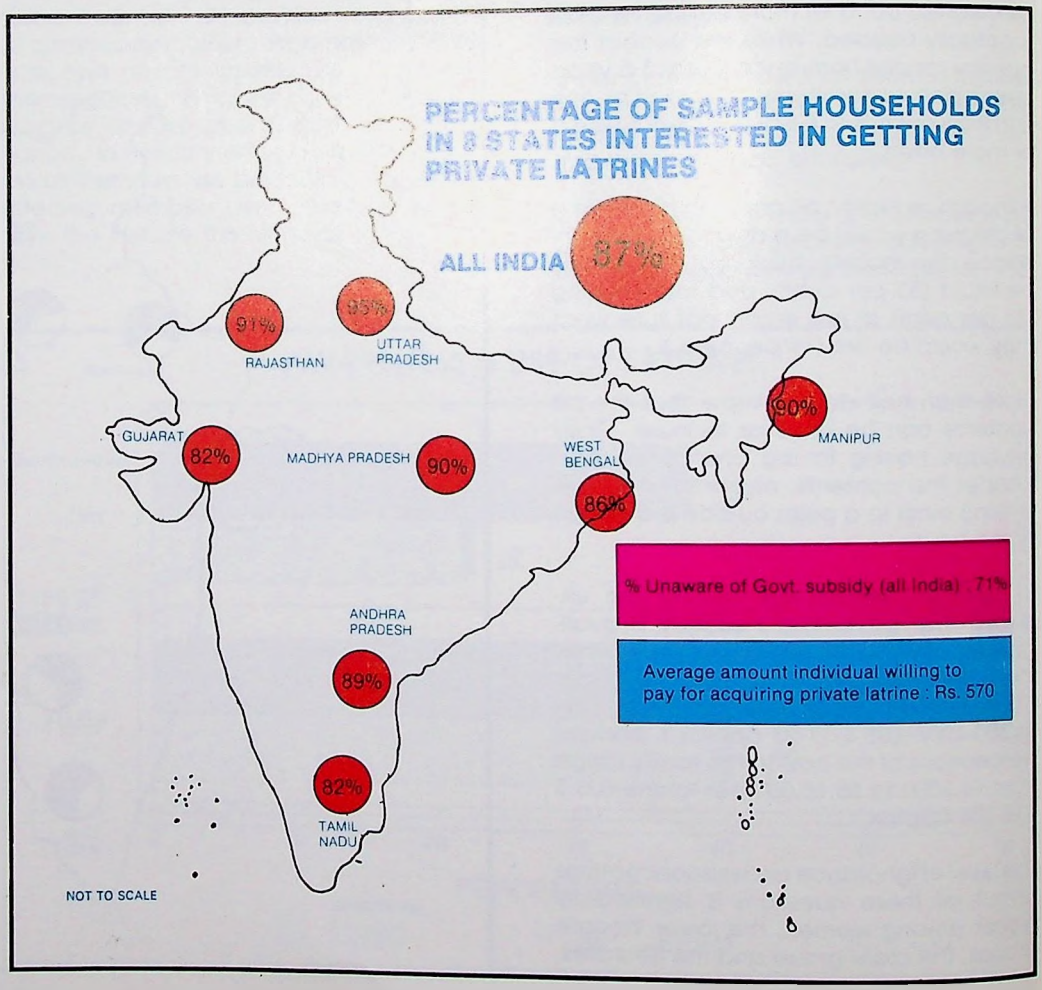
1917
E-140

Attitudes and Interest

As many as 86 per cent people feel there are distinct advantages to having private latrines. 'Convenience' is clearly the single largest perceived advantage, as it would provide privacy, eliminate time and energy spent in walking long distances and be useful during rains, winter, nights and sickness. Convenience at particular times is the most important motivating factor in Andhra Pradesh, Gujarat and West Bengal. Privacy is the prime advantage perceived by women and also by the inhabitants of West Bengal, Rajasthan, Uttar Pradesh. Health benefits as an advantage of having a private latrine are rarely mentioned in any state.

Among the states, villages in West Bengal are most in favour of household latrines, followed by Andhra Pradesh and Gujarat. Upper income groups, literate persons and women are significantly more in favour of latrines than poorer families, illiterate persons and men respectively.

The minority who mention disadvantages of having household latrines are afraid of accumulation of filth near the house and foul smell resulting from it.



82-95 per cent of the non-owners of household latrines in all the states express strong interest in getting private latrines constructed. The highest population of uninterested persons is in Tamil Nadu, followed by Madhya Pradesh and Andhra Pradesh. Notably, the reasons given for lack of interest include, lack of space (36 per cent), fear of dirt and foul smell near the house (38 per cent) and lack of water (20 per cent) but not lack of money.

If the government provides a subsidy, the average potential latrine owner in rural India says that he/she is willing to contribute about Rs.570 for getting a private latrine. Estimation of what a family expects to pay is highest in Rajasthan (Rs.716), and lowest in Manipur (Rs.393), but even the lowest amount is sufficient under the presently available government programme. On the whole, about 15 per cent are unwilling to pay for a latrine. They belong to lower income groups, older age groups and are usually illiterate. Among the states, Madhya Pradesh seems to have the maximum number of 'unwilling' households (23 per cent) and Manipur the least (5 per cent).

To summarise the issue, it appears that people in rural India are still far from being adequately aware that there are feasible, affordable and more hygienic alternatives to defecating outdoors. The younger, literate and better off people, who are more exposed to urban influences and media are markedly more favourably disposed towards adopting sanitary latrines. Women, although less literate and less exposed to new information are also more motivated to adopt latrines. There also exists a generally favourable climate for behavioural change because of the perceived advantages of convenience and saving of time and effort through having private latrines.

Yet, coverage of population with sanitation facilities is painfully low and slow. Half the population is unaware that facilities exist. Those who are aware do not clearly know what these are like, how they work, what they cost, what effort/resources will be needed to maintain them, how they will influence or alter their overall quality of life. Ignorance is further aggravated by serious misconceptions acting as effective barriers to acceptance. The vision of having to dig an infinite number of excreta pits hereafter or clean out pits of slushy stinking masses of excreta every six weeks are more than sufficient to deter even the most interested individual. Coupled with these, the widespread ignorance of available subsidies and perceived costs which are 10 to 15 times the real cost make latrines appear as a 'questionable' facility 'impossible to afford' for the majority.

SOME EMERGING IMPLICATIONS

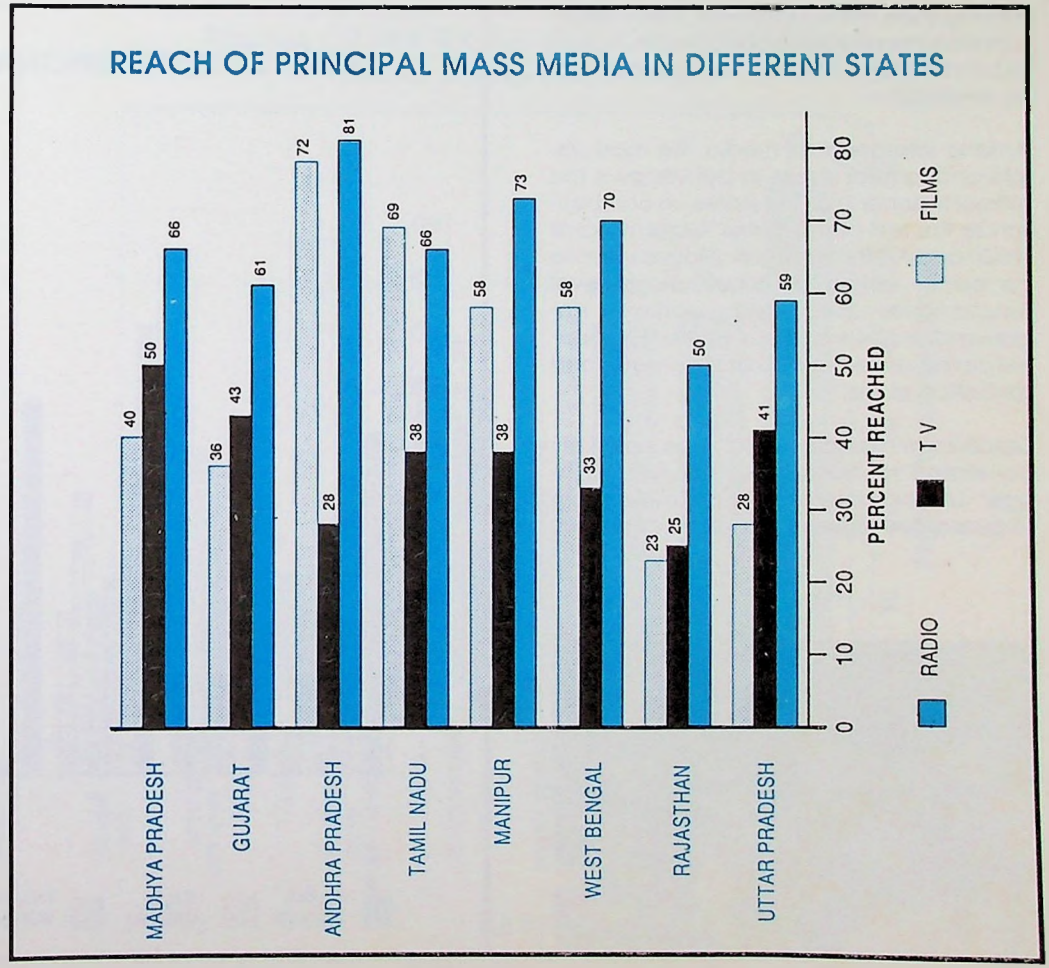
The KAP study provides several pointers for the required social marketing strategy; which must necessarily be synchronized with a localised service delivery system capable of responding to village level articulation of demand. The principal features of such a strategy would be as follows:

- If possible, it should begin by focussing on groups and situations where problems of outdoor defecation are being felt more intensely and a desire for change is building up i.e. among women, in districts having densely populated villages.
- It should capitalise on the existing motivation i.e. for greater convenience and privacy. Promoting the private latrine as the 'Protector of health' per se (as has been done so far) will not capture people's attention and interest, when they see it primarily as something that will make life more comfortable. Health benefits may be promoted as an additional advantage, while highlighting the convenience and privacy factors.
- Presently available media materials do not adequately address the information gaps in people's minds regarding how the latrine works and what the user has to do about regular/periodic maintenance. Communicators and designers of communication materials have to consciously address themselves towards filling these gaps.
- Widespread publicity using village level mass media networks about sanitation services available, costs to the acceptor, subsidy/assistance available and whom to contact must become essential features of every district 2-3 times a year.
- Villagers who see/hear/read anything over mass media on this highly personal and intimate area of their lives need to be able to discuss it interpersonally with persons of their own sex before doubts are resolved, conviction can be reached, decisions can be taken and desire/demand expressed for acquiring facilities. Indispensable to the sanitation programme is the presence of block/village level motivators of both sexes who are adequately trained to be able to provide required information and make the necessary contacts between villagers and the programme delivery mechanism.

REACH OF MEDIA

Media outreach into rural India seems to be fairly high, with every 4 to 6 persons out of 10 being exposed to some electronic mass medium. Apart from these there are upto five categories of village level functionaries who can reach 10-90 per cent villagers with messages on water and sanitation. Women seem to respond better to these messages than men, but have lower access to most media.

Villagers in different states have varying exposure to media. Mass media like radio and films seem to be reaching more villages in Andhra Pradesh than anywhere else. Reach of interpersonal media is high in Gujarat and Andhra Pradesh. Rajasthan is poorly reached by mass media. Interpersonal media channels do not seem to be reaching most villagers in Uttar Pradesh.

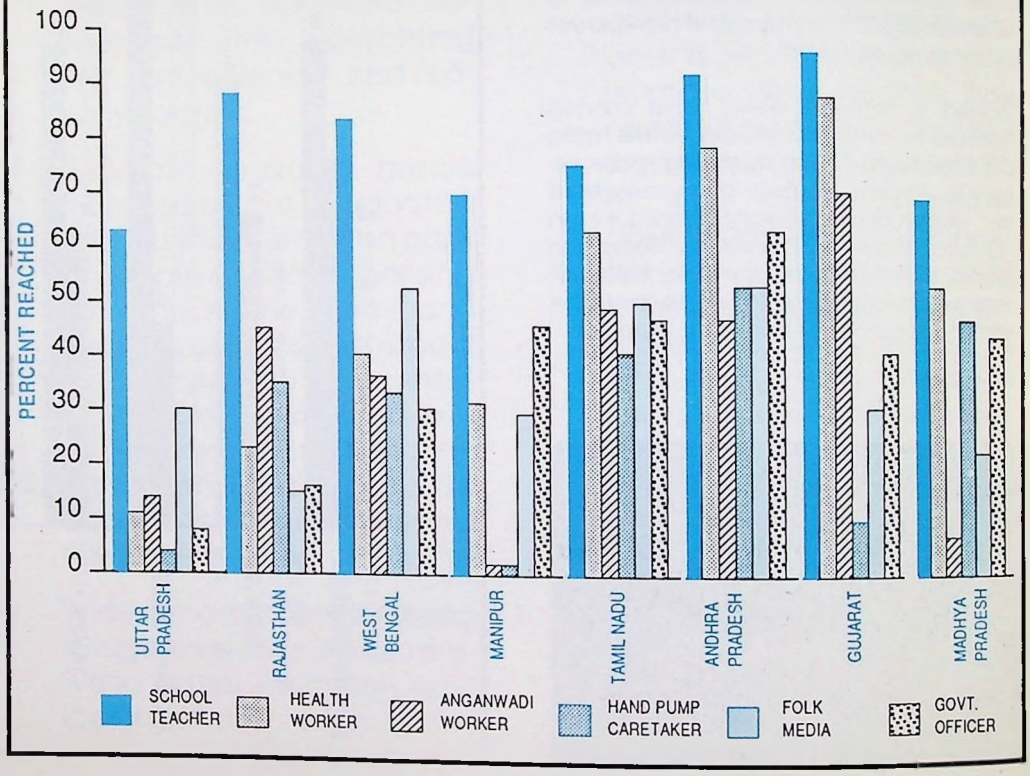


Among mass media channels, radio reigns supreme in every state. Films came a close second, followed by folk media and lastly by television.

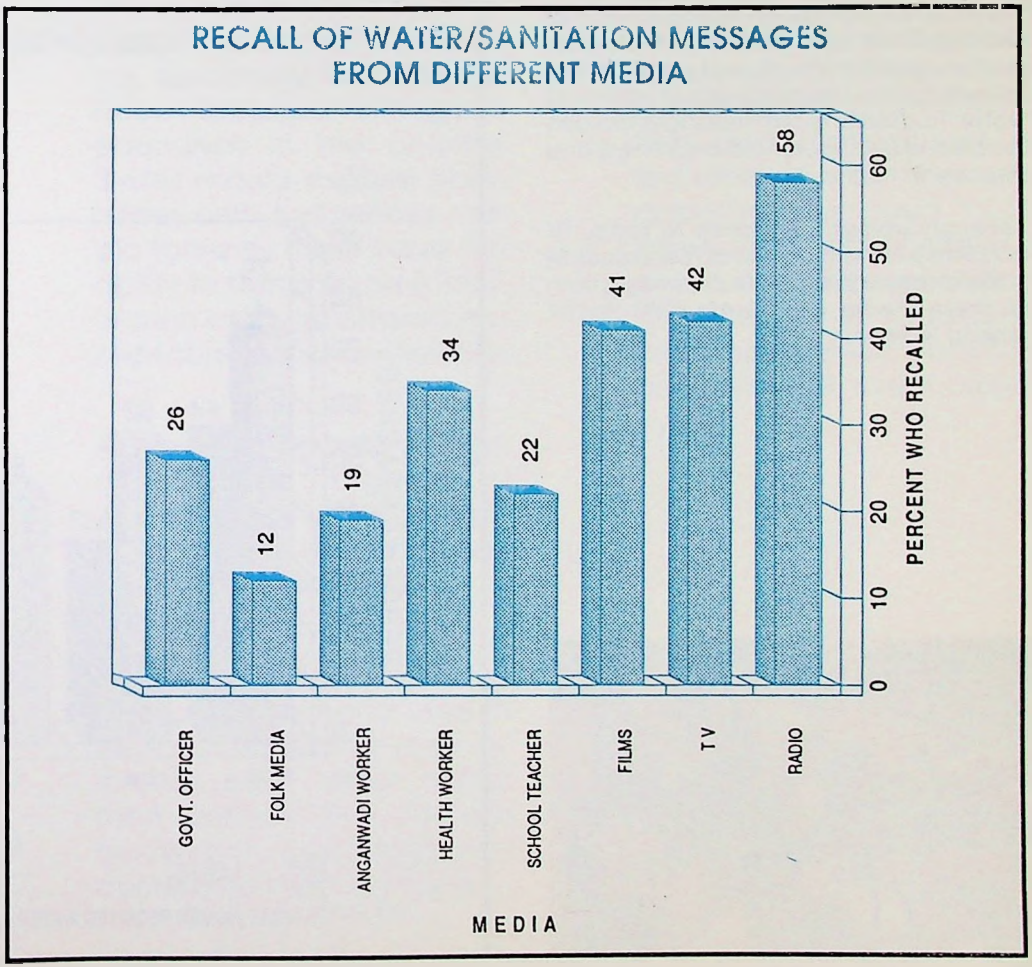
Among interpersonal media the most visible and familiar figure in the village is the school teacher in all the states. In comparison to the rest of the states, Gujarat, Tamil Nadu and Andhra Pradesh villages seem to be better served by other village level functionaries like health workers, Anganwadi workers and government personnel acting as communicators on water and sanitation issues.

Exposure to media is found to be positively co-related to income but not related to age. Literacy and being born male seem to guarantee higher exposure to all media.

REACH OF INTERPERSONAL MEDIA IN DIFFERENT STATES

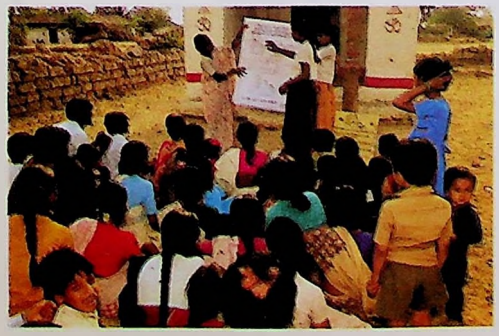


Of those exposed to different media, varying proportions recalled messages on water and sanitation received over the same. The highest recall was from radio followed by television and films, health workers, government officers, school teacher and Anganwadi workers. Folk media at present do not seem to be carrying many water and sanitation related messages although their reach is better than that of TV in most states. The only village level functionary of the water supply programme i.e. the handpump caretaker is not carrying these messages at all to the community.

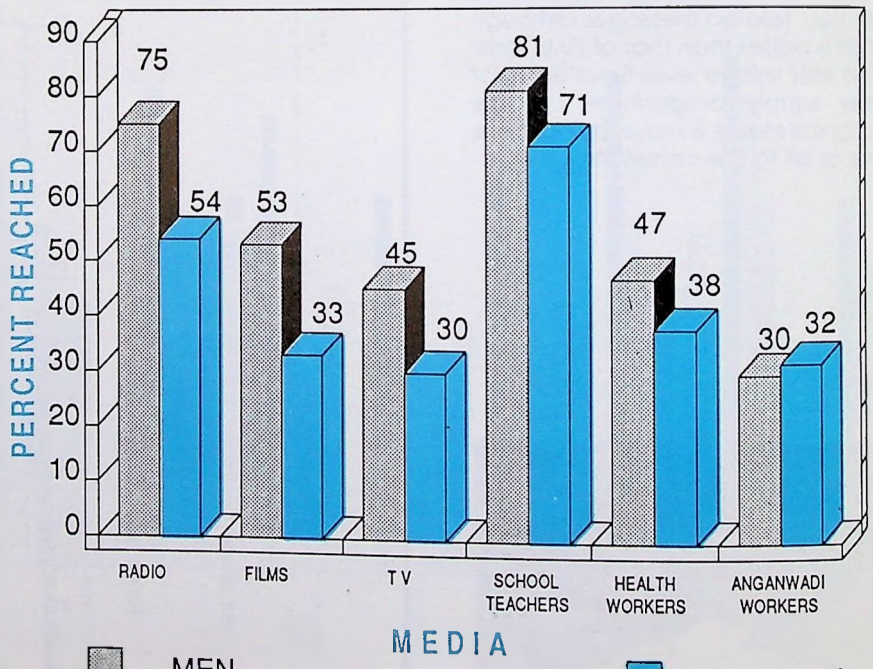


The maximum number of messages recalled are about the right type/source of water and household purification of water, closely followed by household storage of collected water. To a lesser extent messages are also recalled about household cleanliness and disposal of human waste.

Although women's exposure to radio, TV and films is lower than that of men, recall of water and sanitation related messages from all these media was 15 per cent higher among women.



SEX DIFFERENTIAL IN MEDIA REACH



YET, 12–16% MORE WOMEN RECALLED WATER & SANITATION MESSAGES RECEIVED OVER ANY MEDIA

SOME EMERGING IMPLICATIONS

- Greater use needs to be made of the radio for spreading an awareness of safe water and hygiene. The vast network of local radio stations in India, broadcasting in local languages and dialects provide the most economical means for disseminating this information far and wide to rural homes and difficult to reach areas.

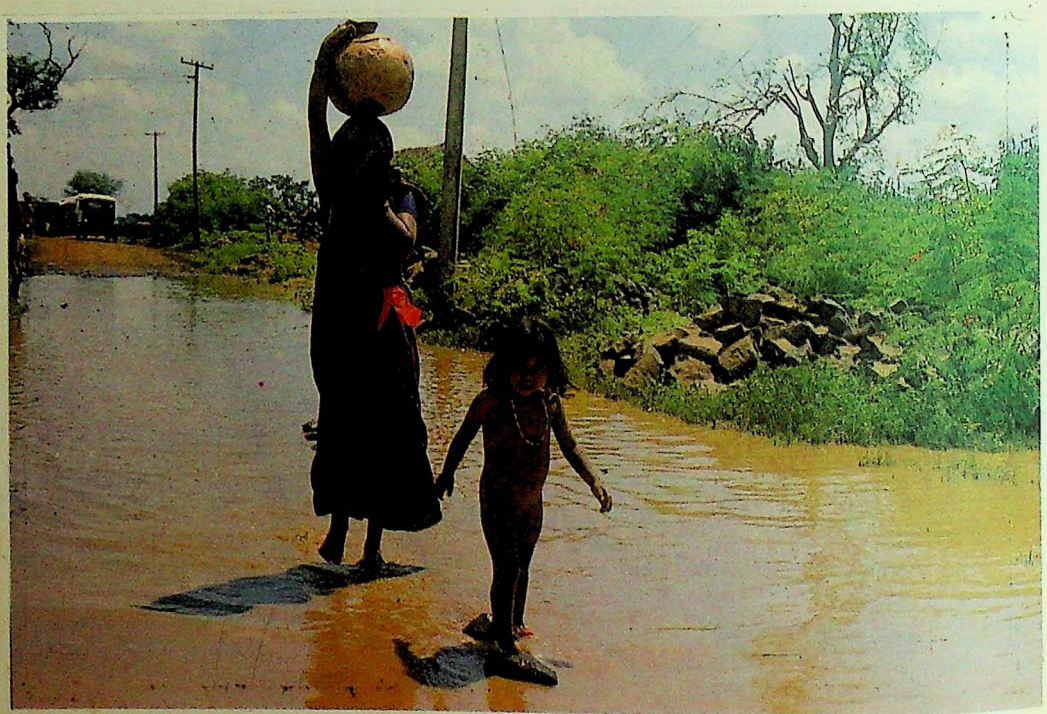
- The interpersonal communicators available at village level are not being fully utilised. There is no alternative to energising this cadre of influencers with motivation, communication skill training, visual and other communications aids.

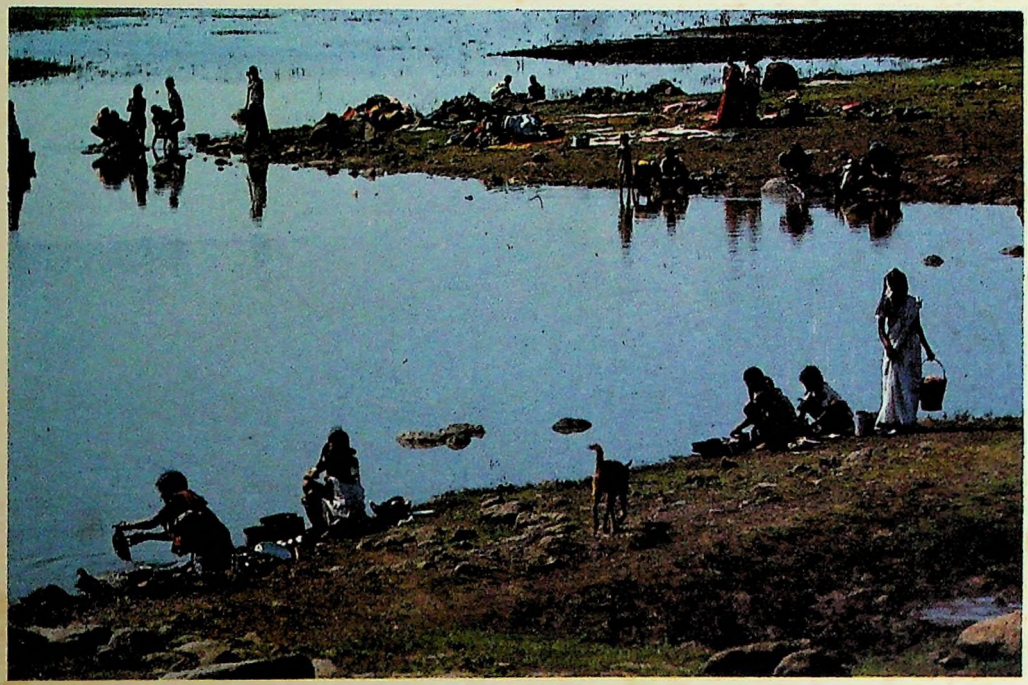
- The outreach and effectiveness of folk media for spreading awareness has not yet been harnessed for hygiene education in the country. States should explore possibilities with indigenous media forms as these have the ability to translate new information in a way instantly acceptable to their audiences.

- All forms of communication need to be targeted to women specifically for maximum impact upon hygiene behaviour of families.

- Different media forms have to be designed and used in such a manner that they reinforce each other rather than confuse the end receiver with a multiplicity of communication products.

- Since the objective of the programme is to bring about behavioral changes to improve health, communication and motivational requirements of the programme now need to be given their rightful status at every level, through official allocations of adequate funds, specialised personnel and time in every project cycle.





Of those exposed to different media, varying proportions recalled messages on water and sanitation received over the same. The highest recall was from radio followed by television and films, health workers, government officers, school teacher and Anganwadi workers. Folk media at present do not seem to be carrying many water and sanitation related messages although their reach is better than that of TV in most states. The only village level functionary of the water supply programme i.e. the handpump caretaker is not carrying these messages at all to the community.