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VIII PLAN

APPROACH

WORKING GROUP

REPORT

RURAL SANITATION

APRIL, 1989

FOREWORD

Although sufficient emphasis has been given in the Seventh Plan for drinking water supply, on sanitation, the progress was slow. While on one hand nearly 100% achievement would be made by the end of Seventh Plan in the rural drinking water supply sector, hardly 3% population coverage would be achieved in rural sanitation sector. Nearly 80% of the diseases are water borne and the health of the children, mothers and overall rural population suffers due to lack of proper sanitation. Preventive activities through supply of safe drinking water and sanitation facilities are more effective and cheaper than curative medical approach. With this in view, a separate Working Group was constituted for rural sanitation programmes by Planning Commission vide Office Order No.PC/WS/10(i)/88 dated 26th September, 1988 for formulation of approach to the Eighth Five Year Plan under the chairmanship of Secretary, Department of Rural Development, Ministry of Agriculture, Govt. of India. The terms of reference of the Working Group is placed at Annexure I.

The Working Group in its meeting held on 24th October, 1988 constituted four Sub Groups, namely:

Sub Group I - Technology and Implementation
Sub Group II - Community participation, Health Education, Voluntary Organisation
Sub Group III- Administration and Financial
Sub Group IV - Manpower Development & Training

The composition of the Sub Groups is given in Anneuxre II.

All the four Sub Groups met a number of times and came up with their reports covering all the points raised in the terms of reference. The Working Group met twice to finalise the report.

The final report of the working group taking into account the sub-group report is appended.

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REPORT OF WORKING GROUP
RURAL SANITATION - VIII FIVE YEAR PLAN

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EXECUTIVE SUMMARY

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RURAL SANITATION - VIII FIVE YEAR PLAN

EXECUTIVE SUMMARY

Although India will achieve near 100 per cent coverage through safe drinking water supply in rural areas by 1990, the coverage of rural population through the sanitation facilities would not be more than three per cent in the same period. This has created a paradoxical situation because the programme of provision of safe drinking water for improvement of the rural health will be much jeopardised if the sanitation facilities are not available. Nearly 20-25 per cent of of the rural population are keen to install low cost pour flush sanitary latrines on their own provided the correct material, components etc. are available to them. In the name of pour flush sanitary latrines various non standardized designs or traditional sanitary pit designs are being installed because of lack of delivery system. It has also been unanimously agreed that for a sustaining change of habits in the areas of sanitation a minimum of fifteen per cent of the allocation should be spent on information, education and communication (IEC) activities. That could generate demand and with the help of a network of delivery system, people will come forward to install the sanitary latrines themselves.

The above approach will be the beginning of the change in the personal food, hygiene, habits etc. thus making the total sanitary impact. This programme cannot be a Centrally Sponsored subsidised programme but should be a people's programme. It has been unanimously agreed that there is a need of a Central Rural Sanitation Programme (CRSP) which with the help of NGO, voluntary agencies should be able to create a demand from the people and thus help to develop a decentralised delivery system based on commercial motives. This will meet the special situation and will thus enable to achieve a much larger coverage with smaller seed money. Long term loans should be made available to beneficiaries and motivators. The soft loan which is to be paid back by the beneficiaries would create their interest in maintenance of the structures thus created and will result in their utilisation.

The project should be on selected districts based approach with intensive activity of education, motivation and delivery system. Eighth Plan would be right time to launch this programme in an intensive way as with the success of Drinking Water Technology Mission, a programme on sanitation close on its heels would enable to develop a better health for the rural areas. It has been unanimously agreed that strategy should be based on individual oriented communication and will be targetted towards contribution of family latrines and not community latrines which should be built only in congested areas and should preferably be 'pay and use types'. As far as possible attempt should be made to link up the latrines with biogas plants whenever it is

feasible. Preference should be given to the areas where availability of water, existence of demand, dense population and shallow ground water level exist.

Research and Development activities in these areas shall continue and should be given priorities particularly in areas of change in Social habits, introduction & use of small bore water disposal system, local material specific latrine etc.

REPORT

1.0 INTRODUCTION

"Sanitation" is a protective measure for all conditions that affect health especially with regard to dirt and infection. Basic sanitation services include safe drinking water supply, excreta and waste water disposal and personal hygiene. Their needs have greatly increased due to rapid population growth and higher expectations. In India, as elsewhere, there is a deep concern for environmental and ecological balance. An ideal approach would be an integrated ecologically balanced system of all the basic sanitation services.

There has been considerable awareness of community water supply needs, but the problems of excreta and waste water disposal have remained almost neglected.

For the health and welfare and also for the social and environmental impacts that it can produce in the communities involved, safe disposal of excreta is of paramount importance and this should be given highest priority in VIII Plan.

There is however a need for technical specialists to be aware of the social and cultural context, together with the need for poople's participation in design and implementation. Effectiveness of a sanitation programme depends not merely on community but more particularly on the consent and commitment of households and individual users. The technical and social decisions are inter-related in such a programme.

1.1 Technology Options

Selecting the most appropriate option requires a thorough analysis of all factors including cost, socio-economic and cultural acceptablity, simplicity of design and construction, operation and maintenance, local availability of materials and skills, hygienic safety and technical soundness.

The various options commonly available are shallow pits, simple pit latrines, bore-hole latrines, ventilated pit (VIP) latrine, compost latrines, septic tanks, acqua privy, bucket latrines, vaults and cesspits, pour-flush latrines, sewarage etc.

In the absence of latrines, people resort to open defecation, which encourages flies spreading faecal related diseases. In moist ground the larvae of intestinal worms develop and faecas and larvae may be carried by people and animals. Surface water run-off from places where people have defecated results in water pollution. In view of the health hazards created and the degradation of the environment no open defecation should be tolerated in villages.

1.1.1 Shallow pits

Some people working on farms dig small holes each time they defecate and cover the faeces with a thin layer of soil. Flies breed in large number over the soil and hookworm larvae spread round the holes. Hookworm larvae can migrate from excreta buried less than one metre deep to penetrate the soles of the feet of subsequent users.

1.1.2 Simple pit latrine

These consist of slabs over pits, which may be two meters or more deep. Considerable fly nuisance and mosquito nuisance if the pit is wet, is experienced besides the smell nuisance.

1.1.3 Bore-hole latrines

Bore holes are excavated by hand augers or by machines, to be used as latrines. In this type the sides are liable to be fouled with consequent fly nuisance. It has a short life due to small cross sectional area of about 400mm dia.

1.1.4 Ventilated Improved pit (VIP) latrines

Fly and odour nuisance may be substantially reduced if pits are ventiliated by pipes extending above latrine roofs, with fly proof netting across the top. The inside of the superstructure is kept partially dark. This type of latrine is more suitable to communities which do not use water for ablution, or water is very scarce.

1.1.5 Compost latrines

These are latrines in which excreta falls into a water-tight tank to which ash or vegetable matter is added. If the moisture content and chemical balance are controlled, the mixture will decompose to form a good soil conditioner. Thus it requires careful operation, urine has to be collected separately, ash and vegetable matter has to be added regularly. This has not found favour in the Indian situation.

1.1.6 Septic tanks

A septic tank is an underground water-tight settling chamber into which raw sewage is delivered through a pipe from the plumbing fixtures. The sewage is partially treated in the tank by separation of solids to form sludge and scum. Effluent from the tank infiltrates into the ground through drains or a soakage pit. The sludge requires to be removed at appropriate

intervals. The main disadvantage of this system is its high cost, it requires reliable and ample water supply. Regular desludging is required and the sludge needs careful handling, which otherwise may expose the persons handling the sludge to health hazards. In case where the vent pipe is open the mosquito breeds takes place. The effluent should never be discharged into the open. Infact septic tank sometimes proves to be a health hazard.

1.1.7 Aqua-privy

It has a water-tight tank immediately under the latrine floor. Excreta drops directly into the tank through a pipe, the bottom of which remains submerged in the liquid in the tank forming a waterseal. The tank functions like a septic tank. Enough water must be added to compensate for evaporation and leakage losses. Incase of insufficient water, the seal is lost resulting in fly, mosquito and smell nuisance. It is more expensive than VIP and pour-flush latrine.

1.1.8 Bucket latrines

These latrines have bucket or other containers for the retention of faeces which is periodically removed for disposal. The system creates fly nuisance, exposes those who collect the night-soil to health hazards, besides being physically, socially and culturally unacceptable and demanding. For disposal of night-soil it has to be transported outside the habitated area which entails heavy expenditure besides man-machine management problems.

1.1.9 Vaults and Cess pits

In some areas watertight tanks called vaults are built under or close to latrines to store excreta, until it it removed by hand (using bucket or similar receptacles) or by vacuum tanker. Similarly household sewage may be stored in larger tanks called cess pits which are usuallyemptied by vacuum tankers. These involve high construction and collection costs. Removal by hand has even greater health risks than bucket latrines. Efficient institutional organisation is required to operate vacuum tankers.

1.1.10 Sewarage

Sewarage is an ideal system. The discharge from WCs and other liquid wastes of the community flow along a system of sewers to treatment works. It requires very high construction, operation and maintenance costs, skilled and efficient institutional organisation, both for construction and operations. It requires ample and

reliable piped water supply system and for discharge into watercourses adequate treatment is needed to avoid pollution. This option is not suitable for rural areas, as its experience even in the urban areas has not been very happy.

1.1.11 Pour flush latrines

Pour flush water seal latrines consist of a squatting pan fitted with a trap which is connected through a pipe or covered drain to twin leach pits. Waterseal prevents flies, mosquitoes and odour reaching the latrine from the pit.

1.1.12 Review of the Technology Option

From a review of the various options, it may be concluded that an excreta disposal system should be hygienically and environmentally safe, technically and scientifically appropriate, socially and culturally acceptable, financially affordable and simple enough for implementation, operation and maintenance.

1.2 Recommended Option

Pour flush latrine seems to be the most satisfactory low cost technological solution for proper collection and disposal of human excreta in rural areas of India. It may be necessary to have alternative designs of this type to make them acceptable to people in different regions. Where people are not habitual of not using water, VIP latrine may prove to be best suited.

1.2.1 The rural sanitation package for the 8th Five Year Plan should include not only construction of sanitary latrines but also provide for guidance to the rural population in regard to proper sanitary disposal of refuse, garbage and waste water. Those who have individual household water connection and those who have a hand pump of their own, must be persuaded to construct soak pits for the disposal of waste-water. Proper drainage system leading to kitchen garden needs to be advocated in the rural areas. For sanitation programme. Monitoring cell in the district and maintenance cell within the region of the district needs to be developed. All public stand posts and public hand pumps should also be provided with soak pits and it should be incumbant on the agency responsible for installing public stand posts and hand pumps to include the construction of soak pits as a part of their programme.

2.0 ACHIEVEMENT IN REGARD TO RURAL SANITATION

2.1 Upto VII Plan, sporadic study/demonstration programme on rural sanitation was done, as compared to the magnitude of the problem. UNICEF undertook a drive for the development of software for social communiation in the construction maintenance and operation of Low Cost Sanitary latrines. They provided financial assistance to the extent of 100% in cash for sanitary latrines to be constructed in rural institutions like health centres, schools, anganwadis etc. and about 80% for construction of latrines upto plinth in case of individual houses. This progamme was initiated in 13 states in selected areas to serve as demonstration and to provide training in construction, maintenance and operation of the units. As per 1981 census the rural population of India was about 547 million requiring approximately 110 million latrines to be built. The physical achievement during the 7th plan is hardly likely to touch 1 million latrines. At the end of the 7th plan the coverage is expected to reach about 3% of rural population. The implementation of Central Rural Sanitation Programme was commenced in 1986-87. It has also been added as a component under the Minimum Needs Programme since 1987-88 with the objective of supplementing the efforts made under different State and Central sector programme. The other programmes under which Sanitary latrines are being constructed in rural areas are the (1) Indira Awas Yojna, (2) Employment Guarantee Programme for Rural Landless (RLEGP) and (3) National Rural Employment Programme (now integrated into Jawahar Rojgar Yojna). The sanitary latrine programme under RLEGP and NREP was started in 1986.

3.0 MAIN PROBLEMS AND WEAKNESSES

3.1 The following problems and weaknesses in the current policies and programme in rural sanitation programme have been noticed:

a) There are a number of programmes under Rural Sanitation Scheme.

b) Inadequate infrastructure in both Central and State Governments to properly plan, implement and monitor for proper planning, implementation and monitoring.

c) Major schemes are implemented under the Rural Employment Programme without software component. Beneficiary involvement is practically nil.

d) 100% subsidy without felt need results in non-utilisation of latrines.

e) Lack of delivery system for design, materials and masons.

f) There is no women's involvement in the programme.

g) Community latrines in rural areas are not successful due to lack of maintenance facilities.

h) Mix-up of funds from NREP, RLEGP and CRSP.

i) Inadequate matching contribution from the State MNP.

j) Adoption of unsuitable design.

k) Alternative designs are necessary as per Socio-economic, cultural and environmental condition.

l) Implementation of latrine programme has been done by Govt. agencies with inadequately trained manpower, and without any software component.

m) Inadequate political will at different level.

n) Lowest priority given to rural sanitation programme.

4.0 ASSESSMENT OF THE SITUATION AND TARGETS

4.1 The Decade target for sanitory latrines to cover 152.17 million rural population by 31st March, 1991, i.e. 25 percent of the rural population.

4.2 By 31st March, 1985, the coverage has been reported to be only 0.72 percent. As per the present ongoing programme, the coverage is expected to be 3% by the end of VII Five Year Plan.

4.3 In the field of rural sanitation, action plan may be prepared with the following strategy:

a) **Promotion of total concept of sanitation amongst the people.** This will include environmental sanitation, , home, food, personal hygiene, solid waste disposal and waste water disposal etc. Except for excreta disposal through construction of latrines, the other components should be covered through sanitary education and persuading people to implement them through self-help.

b) Sanitation cells to be created at the State, Districts as well as Block level.

c) Intensive programme of "Sanitation Information, Education and Communication" for rural sanitation in certain selected areas be taken up.

d) Selection of beneficiaries should be need based and not be forced on the people even if it is free.

e) Development of the Delivery System is of prime importance. In fact, the development of software will get more attention than the hardware. Once, people understand the importance of the subject through motivation and health education there may not be any difficulty in acceptance, proper usage and maintenance of the hardware provided to them.

f) As availability of finance for the implementation of programme may not be easy, it may be necessary to go in for institutional loan for agencies/beneficiaries.

g) For realistic assessment, the information regarding availability of latrine facilities and its usage should be included for data collection process in every census (conducted in 10 years).

h) Progress of sanitation programme should be included in monthly proforma submitted by Panchayats to Dev. Commissioner.

.4 Strategy for successful implementation:

.4.1 **Target should be need based. For establishing a country-wide large scale demonstration programme, at least 80% of money spent in 8th Five Year Plan should be NEED BASED and 20% for initiating the programme in difficult areas where intense awareness has to be created. Economically weaker sector will not give priority for sanitation compared to their urgent needs of food, housing etc. Hence the programme is integrated with Rural Develpoment Programme.**

.4.2 **More emphasis should be on software for successful implementation. Institutions be developed for the purpose.**

.4.3 **Twin pit Pour flush waterseal latrine is the most appropriate technology** (where water is used for ablution & available for flushing). VIP latrine be adopted where water is scarce and water is not used for ablution.

.4.4 Materials for these type of latrines can readily be varied to suit site conditions and availability. Pour Flush latrines conserves water as only 1.5 to 2 liters of water is required for

flushing.

4.5.1 Possible implementing agencies are:

- PHED
- Panchayat Raj Deptt.
- Rural Development
- Suitable NGOs

However there should be one suitable agency in the State for implementation and co-ordination of the programme. The implementing agency should be responsible for both hardware and software.

4.5.2 The sanitation cell should work within the nodal agency.

4.5.3 There should be guidance comittees at the Panchayat, District and State level.

4.5.4 Construction can be done through NGOs, contractors/trained persons self-construction under the guidance and supervision of implementing staff. People may prefer an agency which undertakes the entire responsibility not only from the beginning to end of construction but also follow-up later to attend to their complaints and give guidance in use and maintenance.

.5.5 Programme should have legal support. There should be law for implementation.

.5.6 Awareness, Publicity through media sanitation, promotion, motivation, education and training are essential ingradients of a sanitation programme.

.5.7 Financing should be based on affordability of people. It should not be uniform to all.

.5.8 Monitoring & evaluation to improve the methodology and modify the strategy.

.5.9 A sanitation component should be included in the school curriculum as well as other field level workers including in technical institutions. Demonstration units should be constructed in schools and health centres.

5.0 AVAILABILITY AND REQUIREMENT OF MATERIALS AND EQUIPMENT

5.1 For the construction of a pour flush waterseal latrine, following materials are needed:

i) Latrine pan and trap
ii) Footrests
iii) Pipe
iv) Bricks or stones
v) Brick ballast and stone grit
vi) Steel
vii) Cement

5.1.1 Latrine pan and trap :

The pans and traps can be of ceramic, glass fibre reinforced plastic (GRP), PVC, mosaic or cement concrete. Ceramic or GRP pans have many advantages over the concrete ones. They are smooth, require less water for flushing and are more aesthetic. A GRP pan is cheaper, lighter and easier to transport than a ceramic one. The concrete/mosaic pans are heavy, difficult to transport and get roughened and unattractive after use due to action of uric acid but are less expensive. ISS has also been framed for GRP pan.

Ceramic pans for pour flush latrines are being manufactured by sanitaryware manufacturers in Gujarat and Tamil Nadu. Mosaic or cement concrete pans and traps can be manufactured locally by trained masons by using moulds. FRP pans are being manufactured by a number of small manufacturers in a number of states where demand of such pans exists. Establishing manufacturing units for GRP pans does not require much space and investment required is also very small. Hence if demand is generated, GRP pans can be manufactured without any difficulty.

With GRP pans, HDPE traps are used as traps of GRP are not smooth. HDPE traps are supplied by GRP manufacturers along with the pans. However it is necessary to reduce the central excise on Ceramics/GRP and PVC material.

5.1.2 Footrests :

Footrests can be of ceramic, concrete with mosaic finish, brick or stone, ceramic ones are manufactured by all the sanitaryware manufacturers. The other type of footrests can be manufactured locally.

5.1.3 Connecting pipe :

The trap is connected to the leach pit either by pipe or drain. Pipes can be of AC, PVC, stoneware or cast iron. Such pipes are available in the market everywhere and there are a large number of manufacturers.

5.1.4 Lining of pits :

The lining could be with bricks, stones, Laterite or ferro-cement, burnt clay or cement concrete rings with perforations could also be used. Lining could also be done with treated bamboos or planks or tar drums but the life of such lining is limited.

5.1.5 Pit Cover :

The pit covers can be reinforced cement concrete, stone slabs, treated wooden planks or bamboos. Selection of material for pit covers depend upon site condition and expected load over them. Wherever possible biogas plant may be installed along with it.

5.1.6 Plinth and superstructure :

Construction of latrine upto plinth level should be done in brick or stone masonry in cement or lime mortar. The superstructure can be pucca, kutcha or improvised.

5.1.7 Drain :

The drain for connecting the latrine pan with pits should be pucca and plastered. The drain can be constructed with bricks or stone in cement mortar.

There is no problem in getting bricks, sand, brick ballast, stone grit, steel and cement required for the construction of a latrine.

5.1.8 Low volume flushing cistern and latest design of pan & trap :

The National Swedish Institute for Building Research Sweden in collaboration with the Central Building Research Institute, Roorkee, UNDP/World Bank has develped 2 litre flushing cistern and has also modified the design of pan and trap. These pans and traps have been found hydraulically more efficient than those provided in the I.S.I. code. These flushing cisterns are now being manufactured in India

5.0 PROBLEM AREAS

5.1 Since the resources available for implementation of the rural sanitation programme in the 8th plan are limited, it is desirable that the critical areas are given adequate priority instead of spreading the programme thinly over the entire rural region. These critical areas could be as follows, which may be taken up initially:

1. Districts where there are demands of the people.
2. Towns within the Districts where there are demands from the people.
3. Where people would contribute towards construction of the sanitation units.
4. Villages having higher population of SC and ST.
5. Schools specially girl schools, Health Centres and Sub Centres, Aganwdis.

.2 It has been observed that there is a higher degree of acceptability in areas where there is high literacy and exposure to the urban way of life. It may therefore be easier to take up villages which are closer to towns and where literacy ratio is higher. Another important aspect is the problem to reach the material in the site. This needs to be done at present through the Panchayat Samiti by the nodal organisation. However, slowly the local availability of material needs to be encouraged which may enhance Panchayat Udyog.

.0 INDUCE COMMUNITY PARTICIPATION AND INVOLVEMENT OF VOLUNTARY ORGANISATION

.1 To induce proper community participation meeting with the community, preferably dialogue with individual family is a must before taking up a programme.

.2 For the success of rural sanitation programme it is proposed to be given for every household. The latrine should be constructed based on needs of individual household, where they will contribute towards cost and labour thereby inducing community participation.

3 Amongst the designs which are currently acceptable, the beneficiary should be free to choose any particular design after the motivator has explained the relative advantages and disadvantages of various designs during discussion. A booklet giving features of current designs, estimates, where used, environmental conditions with advantages and disadvantages should be made available in different languages for different levels of workers in the field.

4 The role of women in health education and community participation is very vital though it is equally important for men and children. More thrust should be

given to educate women as they want more privacy and safety. They are also looking after the welfare of the family and provide primary education to children.

.5 Community latrines would be encouraged only where the responsibility of maintaining the system is taken up by some organised institutions like voluntary organisation/Panchayat Samiti etc. This should include regular cleaning and upkeep of the place against suitable payment by users.

.6 Voluntary Organisations which are well established in an area and are committed to promoting womens' involvement are likely to be the most qualified to motivate communities to accept sanitation.

.7 Since the well established organisations are better equipped to provide a thrust to the programme, it is necessary to provide them with incentives so that they can work far away from their headquarters.

.8 Not enough has been done in creating software development to convey the message for sanitation effectively. Voluntary organisations should be encouraged to develop effective software packages.

.0 IMPACT OF RURAL SANITATION ON INFANT MORTALITY RATE/COMMUNICABLE DISEASES

.1 Water related diseases have, since a longtime, been leading killers of infants and children in India. Lack of basic sanitary facilities such as latrines have a serious adverse impact on young girls and women. A significant quantum of evidence supports the positive linkage between sanitary water supply and excreta disposal and long term improvements in health status. This linkage is supported by long-term empirical observations in both the developed and less developed countries.

.2 Improvement in Health is associated with sanitary improvement are linked with numerous other aspects of personal and community life, especially nutrition, personal hygiene, food sanitation, primary health care and the like. Water supply and sanitation measures are more effective in the long run than vaccination programs for water borne diseases.

.3 As health education and awareness are the major components of the better health of the community, awareness among the rural population of the importance of personel hygiene, particularly among young women, mothers and primary school children are desirable and should be established by linking with Health Department.

.4 Linkage with other activity programme like ICDS, Primary Education and Primary Health Care needs to be established.

.0 MOTIVATION OF PEOPLE

.1 Beneficiaries should be motivated to take up the programme of their own. Such discussion should stress on the financial aspects and physical factors such as advantages and disadvantages of various types of designs and basis on which these designs have been adopted. This would create a greater sense of participation and ownership.

.2 Sanitation has not yet become a priority issue amongst village population. Training to Gram Sewaks, Mohilla Mondals, Anganwadi workers, Village Health Workers, Teachers, etc. should be given so that they can work as motivator. Voluntary organisations can take up this programme as part of awareness building programme on Drinking Water and Sanitation. House to house motivation will be more beneficial than the mass meetings. Even the motivators could be from the villagers trained under TRYSEM programme. They will be provided with soft loan for starting manufacturing/distribution of pans for the construction of latrines.

.3 Motivation of people through mass media like radio and television should be given due priority. The standard practice of conveying a message for a fixed duration and withdrawing it later would not do. Radio and Doordarshan slots should be arranged with local stations on a permanant basis so that message is not forgotten. Posters, slides and audio-visuals have less permananent impact and should be used to supplement the regular radio/TV slots. Pamphlets, booklets and handouts also should be encouraged simultaneously with audio-visuals so that a retainable source of information is presented.

.0 PROGRAMMES OF ACTION AND POLICIES

.1 The IDWS&SD target was to cover 25% of rural population with low cost sanitation programme. By the end of VII Plan hardly 3% of population is likely to be provided with low cost sanitation facilities. Hence the target of VIII Plan has been kept at 25%, which was to be achieved by 1990. However looking to the financial constraints the proposal is to finance 10% of coverage and balance 15% will be achieved through motivators.

.2 Distinct component of software - Knowledge, Attitude and Practice - information, education and communication should be included within the programme. Motivation to

precede construction of latrines.

0.3 Community latrines provided so far have not proved to be successful due to poor maintenance, no sense of ownership and non involvement of the individual. It is therefore essential to make a conscious shift in the implementation of the programme. Individual household latrines should be encouraged to create sense of ownership and belonging. Funds have been calculated based on 5 persons per household. The estimated cost of each latrine has been taken at an average of Rs. 2000 including the superstructure. Depending upon the various percentages of coverage of rural population estimation of funds has been done. Two different alteratives of funding to SC/ST and others have been indicated in the AnnexureIII. Depending upon the resources the target will be fixed.

0.4 However based on the target of 10% of rural population to be covered in VIII Plan, the total fund required would be Rs. 2500 crores of which Rs. 986 crores will be contributed by the beneficiaries. The net outlay required should be shared by States under MNP and the Centre in the ratio of 1:2. The assistance to the States should be given on the condition that funds will be distributed on districtwise basis to the implementing agency involving Gram Panchayats at all stages of execution of schemes.

0.5 Community latrines have been proposed in village PHC, Anganwadis, Panchayat Ghar, school buildings etc., 5 twin sets in each village at Rs. 10,000/- in each of the 5.83 lakhs villages. Fund required is Rs. 583.00 Crores.

0.6 Awareness campaign, Health Education, Media publicity are an integral part of the sanitation programme. CRSP should have strong KAP/IEC link to sanitation approach. Upto 15% of the funds given to the State/UTs should be utilised for IEC and production of social awareness materials including training of motivators in accordance with the Central guidelines. To make the programme successful a sum of Rs. 20.00 Crores has been proposed.

.7 Training of motivators, masons, implementing staff will require adequate importance. The staff to be trained are required to be paid TA/DA from the plan fund to reduce the burden on Non-plan and successful implementaiton. A sum of Rs. 20.00 Crores has been proposed for training.

.8 Research and Development including standardisation of material and designs require utmost attention. A sum of Rs. 20.00 Crores has been proposed.

0.9 For proper implementation of the programme a constant monitoring and concurrent evaluation of the same is desirable. The state monitoring cell alongwith central Govt. requires strengthening. A sum of Rs. 10.00 Crores has been proposed.

0.10 Disposal of waste water requires equal attention as that of sanitation. This programme, if not implemented, will still result in an unhygienic environment in the rural areas. Estimating at Rs. 10/- per capita for 25% of the rural population, a sum of Rs. 157.0 Crores will be required.

SUMMARY OF TOTAL OUTLAY

On the above basis the total outlay required in the 8th Plan and funding pattern is as under :- (Annexure IV)

	Rs. crores
Central sector assistance	1518.51
State sector MNP	766.49
Contribution by the users	986.00
Bilateral assistance etc	39.00
Total	3310.00

1.0 ACCESSIBILITY TO THE SYSTEM BY POOR

.1 The weaker section suffer the most due to lack of proper education, health, sanitation facilities, safe drinking water etc. and this needs to be corrected.

There should be closer linkage of activities of Technology Mission on Literacy, Immunization and Drinking Water to give top priority to the needs of SCs/STs and persons below the poverty line.

.2 Proper awareness campaign, and motivation schemes be undertaken to generate a felt need and demand from SCs/STs for sanitation facilities before embarking on hardware construction programme.

.3 At least 25% of funds under MNP and Central outlays should be earmarked for providing latrines to SCs/STs etc.

.4 For sense of ownership and involvement, at least 10% contribution to be raised from SCs/STs beneficiary,

either in cash or in kind or repayable loan from financial institutions.

1.5 Proper training of weaker sections for income generating activities like Masons for construction of latrines etc.

1.6 The sanitary latrines should be constructed as per the approved designs and through approved masons and Govt. subsidy given to the Panchayats with mobilisation advance mainly on reimbursement basis. There should be special emphasis and a distinct sub-programme for training of masons for construction of latrines.

1.7 Standard material should be provided to the Panchayats. Local materials suited to the topography and superstructure design specific to the areas be used to the maximum possible extent. Materials like pans traps etc. should be made available to village Panchayats till suitable arrangements are made for their sale through a centralised agency/cooperative to cover the requirement of a particular region/area. Steps should be taken to encourage manufacture of materials with in the state on a regional basis.

2.0 ROLE OF INTERNATIONAL AGENCIES

2.1 International Agencies like UNICEF, UNDP/ World Bank have done excellent work in promoting low cost sanitation all over the world, particularly in developing countries. Their experience in different parts of the world should be extensively utilised and replicated. UNDP low cost design for sanitary latrines can be further developed and improved. UNICEF studies in KAP/IEC will be extremely useful in improving the implementation of the programme with emphasis on software, training of manpower in India and abroad. So far in the field of Sanitation, UNICEF contribution is most important.

World Bank has not taken up projects in rural sanitation in India. Pilot projects should be taken up by WHO/World Bank on total sanitation concept basis in different regions in India and based on the results, these can be replicated. Their role should be that of a catalyst.

2 Taking the example of Bangladesh where UNICEF first tried to introduce the 100% government sponsored programme with the help of national government which flopped. Presently the programme consists of providing the basic material (including the platform, the pan and pipes and rings) for construction of latrine which the beneficiaries pay and take it to their home for installation at their own cost. Trained masons are

available for installation of the same. The cost of 250 Takas is subsidised cost whereas the actual cost comes to about 600 Takas. This experience of Bangladesh and experiences in other countries in South East Asia clearly proves that it is the delivery system, availability of the standard design and masons which are the key factors for spreading the sanitation concept rather than giving the latrines free under any scheme.

2.3 Integrated Projects involving rural water supply, sanitation facilities, waste disposal, health education etc. involving substantial funds should be posed for funding by such organisations and other donor agencies. Social education, sanitation cells etc. should be an essential feature and components of such projects.

2.4 The projects should be need based depending upon response from the States and prepared jointly with the guidance and assistance of experts from donors and involvement of local voluntary agencies.

3.0 CURRENT ADMINISTRATIVE ARRANGEMENTS AND SUGGESTED IMPROVEMENTS

3.1 There is overlapping of functions and too many schemes and Departments are involved in the programme leading to confusion and contradictions. An Integrated Programme under a single nodal Department in a State is a must.

.2 Local institutions particularly Panchayats should be pivotal in implementing the rural sanitation programme and give due importance to it.

.3 Co-ordinating steering committees at the Centre and State levels have to be constituted. Organisational set up at central level will be the Department of Rural Development (Water and Sanitation Division).

.4 At the State level, Department of Rural Development or Panchayati Raj or PHED (sanitation cell) will be the nodal agency.

.5 At the District level DRDA sanitation cell will be the nodal agency. The district sanitation cell will provide the material, keep a stock of it and accept the finance.

.6 At the Block level, BDO/TDO/Taluk Panchayat. It will then ensure implementation in the Block as per Action Plan in co-ordination with Engineers, to identify and train masons etc.

.7 At the village level Panchayat will help in

implementing the programme.

3.8 CAPART is carrying on the implemention of rural sanitation programme through various voluntary agencies. However it should reorient its activities by giving special emphasis on

- Training of skilled manpower like masons on state-wise basis.
- Supply of such materials to Panchayats at reasonable prices.
- R&D for cost effective and long lasting designs of latrines.
- Involvement of community health education, personal hygiene, usefulness of safe drinking water supply sanitary latrines, awareness camps, creating a felt need for sanitary latrines etc. by adopting an integrated approach.

1.0 ADDITIONAL RESOURCE MOBILISATION

.1 The scheme is yet to take off the ground and make a dent but activities have started and interest created.

.2 10% contribution by SCs/STs/persons below the poverty line in cash or labour and 50% by others has been recommended.

.3 No further scope for raising the contribution is contemplated. Review of the situation in mid-plan depending on progress and response has to be done.

.4 Voluntary organisations/Non-Government Organisations to be involved in a big way in implementing the programme by raising 60% contribution and 40% subsidy.

.5 Financial institutions to give soft loans for 60% of beneficiary contribution.

.6 Special levies and cess not feasible as contributory of such taxes will be different from the beneficiary. Cesses are feasible for a universal scheme and not individual felt need based programme. However, the State Govts. may examine/consider levying a special cess/Sales Tax surcharge to be put in a special fund for exclusive use for sanitary latrines. The Panchayat should be provided with sufficient flexibility for imposing cess.

.0 SELF FINANCING OF THE SANITATION PROGRAMME

.1 Sanitary latrines programme alone cannot be made self-financing. Nor it is so all over the world.

.2 Integrated Water Supply and Sanitation/sewarage/water

been developed. Too much water use will however reduce the life of leach pits.

7.2 Latrines in the rural areas when constructed as a community one, have been observed to be misused and prove to be a health hazard rather than health benefit. People are not being able to use it properly mainly due to ill maintenance. Mostly water is not available nearby and even if it is available proper cleaning of the area is not being done. Unless any organisation/institution is mainly responsible for operation and maintenance of the system it would not be advisable to have community latrines in the rural areas.

7.3 Apart from day to day maintenance consisting only of washing the latrine floor and cleaning the pan, the leach pit need to be cleaned after every 3 years. This can be done by the house holder himself or by engaged labour.

.4 To ensure adequate maintenance of facilities, local residents need to be trained in simple procedures and the reporting of major malfunctions need to be kept in record by the authority responsible. Any malfunction reported should be looked into thoroughly by the nodal agency and necessary corrective measures need to be carried so that people get confidence about the systems developed.

.0 MANPOWER DEVELOPMENT

.1 No definite assessment of the current availability of trained manpower in the field of rural sanitation is available at present. A lot of masons doing building works are also engaged for sanitation work when needed. There is no definite institution to implement the programme in a large scale in the rural areas. Hence, it is difficult to assess the present availabity of manpower.

.2 But for implementation of countrywide programme of rural sanitation the functionaries from various departments and village motivators have a role to play in the implementation of the sanitation scheme. To perform their role effectively they have to be oriented/ trained. These courses should be conducted in the early phase of the programme so that the education and motivation campaign can be initiated at the earliest. Training courses may be related to five categories of personnel, namely,

a) Trainers/government functionaries
b) Technical personal (engineers and masons)
c) Head Masters/School Teachers

d) ICDS field staff (supervisors and Anganwadi workers)
e) Village sanitation motivators.
f) Masons

8.3 Manpower development will be required for masons, NGOs, state functionaries in the Rural Development Department/PHED and Panchayat Raj Departments. Apart from this training will be required at the village level for village functionaries including Gram Panchayat for motivation of the beneficiaries creating social awareness, advantages of use of safe water and sanitary latrines etc. Even users require proper motivation and training for the upkeepment of the sanitary latrine including its routine maintenance. The projected programme is to train about 10,000 persons in different disciplines to carry out the work over a period of 5 years.

8.4 A Training Netwrok programme discussed for Rural Water Supply - VIII Plan approach will be used for training under the Rural Sanitation Programme as well. The Participating Institute and the Key Institutes at States will be developed in such a way that proper trained manpower at different levels are available to implement, maintain and motivate the people.

9.0 TRAINING MATERIAL

9.1 Training modules for each of the five categories of personnel have to be developed. They should be used for conducting these trainings. The training modules need to be made in local languages. The training may be of short duration of 2 - 3 days covering the low cost sanitation technique and health education.

9.2 Apart from training modules and training the staff education and awareness campaign has to be launched well in advance. For this it is necessary to know the existing knowledge, attitude and practices of the community members. This information will help to structure the education component as well as to provide a baseline to monitor impact of the educational activities. To conduct the awareness it may be necessary to train a large number of motivators, who in turn will help the project functionaries to launch awareness camps, conduct group meetings and person to person contact. These can be arranged at the Panchayat Ghar, School, Anganwadi Centre, Youth Club and Mahilla Mandal Centres. A programme of human resources development is placed at Annexure V.

0.0 TRAINING INSTITUTE

0.1 The district cell/staff in collaboration with the State cell/staff should identify suitable institutions which can undertake the training courses. These can be the training institutes attached to the Departments of Rural Development, Health, etc. for the training of field workers. Suitable NGOs can also be considered.

0.2 A number of NGOs are at present in the field of rural sanitation programme. To increase their activities in this field they require trained manpower. Training programme for NGOs may be carried out in the training institutions as well as by the NGOs themselves. At the sametime the NGOs may work as training institutions, where State Govt., officials/staff mey be trained.

0.3 Besides training institutions, more trainers at district and block levels are required to train the field level workers. It may be necessary to have teams consisting of an Engineer, Medical Officer, Education Officer and Social Welfare Officer and trained them for each district and block. They are also required to visit the project areas regularly.

0.4 The State Implementing Department should also identify training institutions which have the potential of being upgraded to impart training on sanitation. Apart from this, the training institutions which are already imparting the training need to be upgraded to meet the situation.

.0 RESEARCH & DEVELOPMENT

.1 Research and development efforts should aim at:

a) Determination of technical and social feasibility of various options which are available for water supply and basic sanitation (human excreta disposal).

b) Evaluation of economic and environmental system effects of technologies which provide for conservation of water, reclamation and reuse of wastewater.

c) Development of devices to save energy & chemicals.

d) Technological innovation at intermediate technology levels to improve efficiency and enhance appropriateness and

e) Evaluation of social attitudes, cultural patterns and community participation to improve health benefits.

1.2 With high investment cost in conventional water carriage, sewarage systems, it will be prudent to adopt low cost, low energy simplified collection and treatment systems like pit privies, septic tanks followed by secondary treatment/disposal units. Acceptance and active involvement of community is essential for successful implementation. Research and development aspects have been identified in the order of priority:

1. Development of sanitary latrines:

   Develop simple inexpensive techniques with different materials for W.C. pan and trap, superstructure, lining of pit, etc.

2. Operation and Maintenance of Individual/Community Latrines.

3. Study community attitude and engineering aspects regarding operational maintenance of individual/ community latrines.

1.3 There should be a Central Reference Centre created in the Deptt. of Rural Development to provide information as and when desired. The reference centre may assimilate information from different institutions, organisations both in India and abroad and pass on to the implementing agencies. This will help in reducing the cost factor as well as proper field application of the Research activities.

1.4 The possible different subjects for Research and Development are enclosed at annexure VI.

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SUMMARY OF RECOMMENDATIONS

REPORT OF WORKING GROUP
RURAL SANITATION - VIII FIVE YEAR PLAN

SUMMARY OF RECOMMENDATIONS

1. Rural sanitation programme should have an integrated approach towards total sanitation which includes personal hygiene, waste water disposal, solid waste management , home sanitation etc;

(para 1.0)

2. Two-pit pour flush water seal latrines (Sulabh Sauchalaya) as developed by the UNDP should be the basic model for low cost sanitary latrines. However, local research and experimentation should be made on the materials available locally and accordingly the low cost model should be developed;

(para 1.2)

3. The rural sanitation programme should not merely be an approach for the construction of latrines but should promote general awareness of health education and personal hygiene;

(para 4.3)

4. Development of the delivery system is of prime importance and for this the District Rural Development Agencies (DRDA) as well as Talukas and Gram Panchayats should be utilised for both delivery of hardwares as well as softwares.

(para 4.5.1/4.5.2)

5. To reduce the cost of the latrine, it is necessary to reduce the central excise on ceramics and PVC pipes which are very high at present. This will encourage rural industry in small scale or cottage industry sector.

(para 5.1.1)

6. Wherever people's demand exists, the possibility of the installation of biogas plants along with the low cost sanitation system should be included.

(para 5.1.4)

7. Priority areas may be selected and these initially may include :

   1. Districts where there are demands from the people.
   2. Towns within the Districts where there are demands

from the people.

3. Where people would contribute towards construction of the sanitation units.
4. Villages having higher population of SC and ST.
5. Schools specially girl schools, Health Centres and Sub Centres, Anganwdis.

(para 6.1)

8. The general campaign for overall health and sanitation aspect has to be promoted between Health, Water Supply, Panchayat etc. departments at State & Village level;

(para 8.4)

9. Like family welfare campaign, emphasis should be given an campaign for personal hygiene on Doordarshan, Radio, Mass Media and frequent campaign has to be launched in the States for the same. Instead of launching the campaign only in summer when gastroenteritis disease prevails, it should be continued through out the year and intensified during the summer;

(para 9.3)

10. Sanitation programme should be oriented towards individual household latrine rather than community latrine. However, community latrines may be constructed in instiutions and common places but should always be maintained.

(para 10.3)

11. The panchayats should be the core agency for taking care of water supply as well as sanitation and technical backup would be provided by PHED;

(para 13.6)

12. The soft loans should be provided under World Bank and other bilateral agency programmes, from LIC, from banks and also directly from the Government;

(para 14.5)

13. The Panchayat should be provided with sufficient flexibility for imposing cess for sanitation and water supply in the respective areas.

(para 14.6)

14. District level training of masons, motivators an implementing staff will be given so that the problem of implementation and after service are reduced.

(para 20.1)

15. It is also found from the existing programmes tha unless the super structure is provided upto at leas 4-1/2 ft. (with open top and overlapping entranc walls without door) it will be difficult for th people to accept such latrines.

(para 21.2)

ANNEXURES

Annexure-I

No. PC/WS/10(1)/88
Planning Commission
Development Policy Division
(Housing, U.D. & Water Supply Unit)

New Delhi
The 26th Sept., :

ORDER

Subject: Constitution of Working Group for formulation approach to the Eighth Five Year Plan on Ru Sanitation.

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In order to examine issues relating to formulation of polic guidelines, objectives and strategy for Rural Sanitation, t Planning Commission has decided to set up a Working Group unc the Chairmanship of Shri V.C. Pande, Secretary, Department Rural Development, Ministry of Agriculture, Govt. of India, per decision taken in the meeting of the Steering Group on Rur Water Supply and Sanitation held on 13.9.1988 in the Planni Commission under the Chairmanship of Prof. Raja J. Chellia Member, Planning Commission.

1.1 Composition

1.	Shri V.C. Pande, Secretary Department of Rural Development, M/o Agriculture, Krishi Bhawan, New Delhi.	Chairman
2.	Commander N. Singh, DNES, New Delhi.	Member
3.	Ms. Aloka Mitra, Secretary Women Co-ordinating Council, Member National Committee on Women, 10A, Alipur Avenue, Calcutta-700027.	Member
4.	Dr. Bina Aggarwal Institute of Economic Growth, Delhi University Area, Delhi.	Member
5.	Shri A.K. Roy, (Ex-Regional Manager, Technology Advisory Group, UNDP/World Bank) D-168, Defence Colony, New Delhi-24.	Member
6.	Dr. T.R. Bhaskaran, A-12A, Green Park, New Delhi-110016.	Member
7.	Dr. Rakesh Mohan, Adviser Water Supply & Economic Adviser, Planning Commission, Govt. of India, Yojana Bhawan, New Delhi.	Member
7A.	Dr. D.N. Prasad, Adviser Adviser (SP), Planning Commission, Govt. of India, Yojana Bhawan,	Member

8. Mohd. Inamul Haq, Member.
Adviser(Technology Mission)
National Drinking Water Mission,
Deptt. of Rural Development,
Krishi Bhavan, New Delhi.

9. Shri V.R. Iyer, Director(Water Supply), Member.
Ministry of Urban Development,
Nirman Bhavan, New Delhi-110011.

10. Shri Y.N. Nanjundiah, Member(Technical), Member.
Gujarat Water Supply & Sewerage Board,
Gandhi Nagar, Gujarat.

11. Shri B.B. Rau, (Ex-Adviser(PHEE) to Member.
Govt. of India, M/O Works & Housing
and Ex-Sanitary Engineering Adviser to
Technology Advisory Group, UNDP/
World Bank),
7-1-69/26-AI, Dharam Karam Road,
Ameerpet, Hyderabad 500016, A.P.

12. Shri Ishwar Bhai Patel, Safai Vidalaya, Member.
Sabarmati Ashram, Ahmedabad-380027.

13. Dr. Bindeshwar Pathak, Member.
Sulabh International Gandhi Maidan, Patna.

14. Dr. K.K. Dutta, Dy. Director, Member.
Epidemiology Division,
National Institute of Communicable Diseases,
22 Shamnath Marg, Delhi-110054.

15. Chief Engineer, Member.
TWAD Board, Madras.

16. Shri N. Dass, Engineering-in-Chief, Member
PHED, Govt. of Bihar, Patna.

17. Prof. S. Ramachandran, Director, CAPART, Member.
Gurunanak Foundation Building,
New Mehrauli Road, New Delhi-110067.

18. Shri B.S.S. Murthy, Adviser(Engg.), Member.
Deptt. of Rural Development,
Krishi Bhavan, New Delhi.

19. Shri M.M. Datta, Member.
Deputy Adviser(Water Supply),
Planning Commission, Yojana Bhavan,
New Delhi.

20. Prof. K.J. Nath, Member.
Prof. & Head of the Deptt. of Sanitary
Engineering,
All India Institute of Hygiene and
Public Health,
110 Chittaranjan Avenue, Calcutta.

21. Dr. V.P. Jharagaonkar, Member.
Scientist, NEERI, Jawaharlal Nehru Marg,
Nagpur, Maharashtra.

22. Shri G.C. Mathur, Member.
(Ex-Director, National Building Oranisation)
G-35, SFS, DDA Flats, Mangala Appartment,
Opposite Nehru Place, New Delhi.

23. G. Ghosh, Jt. Secretary, Member- Secretar
Deptt. of RD and Mission Director,
National Drinking Water Mission,
Krishi Bhavan, New Delhi.

1.2 Terms of Reference

i) To review the achievements in regard to rural sanitatio programmes in the Central and State Sectors by the end of the Seventh Plan period and to identify the main problems and weaknesses in the current policies and programmes.

ii) To make a realistic assessment of the current availability of sanitation facilities in rural areas in the country, to suggest targets, preferably disaggregated, to be achieved in the Eighth Plan; and to evolve an appropriate strategy for achieving these targets.

iii) To formulate programmes of action and policies necessary for achieving the desired objectives in the Eighth Plan — to estimate the outlays necessary for achieving the targ desired for rural sanitati.. keeping in view the expected overall resources constraints and with special emphasis on low cost sanitation.

iv) To suggest effective ways and means for improving the accessibility of the rural p.. particularly the Scheduled Castes and Scheduled Tribes to these facilities; and to suggest appropriate priorities and norms towards this end.

v) To suggest strategies for effective utilisation of the limited resources available, in particular appropriate guidelines for selecting technologies which are technically, economically, and socially appropriate for different areas.

vi) To suggest practicable means to induce community participation as well as involvement of voluntary agencies in the implementation of rural sanitation programmes including maintenance of completed schemes.

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vii) To advise on the role of International and other External Agencies like the WHO, UNICEF, UNDP, World Bank and bilateral donors and suggest the nature of the projects which should be posed for external assistance.

viii) To review the current administrative arrangements and to suggest improvement in the organisational set up for construction, maintenance, monitoring and evaluation of rural sanitation schemes and in particular, to delineate the role of local institutions starting from village panchayats.

ix) To suggest steps for inducing more extensive use of technological inputs, in the Planning and implementation of rural sanitation schemes.

x) To review the current status of maintenance of rural sanitation schemes and suggest strategy, policies, ways and means for effective maintenance of the assets created.

xi) To review the current status of linkage of Rural Sanitation Programme with overall Rural Development activities in the country and to formulate programmes of action and policies for effective linkage in the Eighth Five Year Plan.

xii) To review the impact of Rural Sanitation activities on Infant Mortality Rate and communicable diseases in rural areas with particular reference to Rural poor and to formulate programmes of action for achieving the desired objectives in the Eighth Five Year Plan.

xiii) To consider the relevant key issues/suggestions relating to rural sanitation as recorded in the minutes of first meeting of the Steering Group for formulation of the approach to the Eighth Five Year Plan on Rural Water Supply and Sanitation held on 13th September, 1988 in the Planning Commission under the chairmanship of Prof. Raja J. Chelliah, Member, Planning Commission.

1.3 Policy issues that may be considered in addressing the above terms of reference may particularly include:-

a) The feasibility of additional resource mobilisation through financial institutions, special levies and cess and contribution from beneficiaries.

b) A realistic assessment of the extent to which rural sanitation projects may be made self-financing.

c) Assessing the current availability of trained manpower in the field of rural sanitation and measures necessary for its upgradation in both quantity and quality necessary for the technological and other needs in the future.

d) Assessment of the current availability and requirements in the future of materials and equipment necessary for rural sanitation and the measures necessary for inducing adequate supply and introduction of new cost effective technology.

2. The chairmen of the Working Group may constitute Sub-Groups and co-opt other official and non-official members as may be considered necessary.

3. Non-official Members of the Working Group or its Sub-Groups shall be entitled to TA/DA as permissible to Grade-I officers of the Government of India. TA/DA of the non-official members of the Working Group will be paid by the Department of Rural Development, Govt. of India.

4. The Working Group should submit their report to Prof. Raja J. Chelliah, Member, Planning Commission and Chairman of the Steering Group by 15th December, 1988 positively.

(J.C. Dangwal)
Director (Admn.)

Copy forwarded to:

Chairman and all Members of the Working Group.

(J.C. Dangwal)
Director (Admn.)

Copy also forwarded to:

1. P.S. to Dy. Chairman, Planning Commission.
2. P.S. to Minister of State for Planning.
3. P.S. to Member(S)/Member(M)/Member(Y)/Member(A).
4. P.S. to Secretary/Special Secretary, Planning Commission.
5. Ministry of Finance (Plan Finance), North Block, New Delhi.
6. Ministry of Home Affairs, North Block, New Delhi.
7. All Advisers/Heads of Divisions, Planning Commission.
8. Administration-I/General-I, Planning Commission.
9. Accounts I Branch, Planning Commission.
10. P.S. to Director (Admn.)

(J.C. Dangwal)
Director (Admn.)

Subgroup I - Technology and Implementation

Terms of Reference :

i) To review the achievements in regard to rural sanitation programmes in the Central and State Sectors by the end of VII Plan period and to identify the main problems and weaknesses in the current policies and programmes.

ii) To make a realistic assessment of the current availability of sanitation facilities in rural areas in the country, to suggest targets, to be achieved in the Eighth Plan and to evolve an appropriate strategy for achieving these targets.

iii) To suggest steps for inducing more extensive use of technological inputs in the planning and implementation of rural sanitation schemes.

iv) Assessment of the current availability and requirements in the future of materials and equipment necessary for rural sanitation and the measures necessary for inducing adequate supply and introduction of new cost technology.

v) To suggest real problem areas where the programme may be implemented.

1.	Shri A.K. Roy (Ex. Regional Manager TAG, UNDP/World Bank), D-168 Defence Colony, New Delhi - 110024	Chairman
2.	Dr. T.E. Bhaskaran A-12A, Green Park, New Delhi-110016	Co-chairman
3.	Dr. S.P. Datta, Dy. Director, N.I.P.H. 45 Shamnath Marg, New Delhi	Member
4.	Shri N.Das, Engineer-in-Chief, PHED, Govt. Of Bihar, Patna	Member
5.	Comd. N.Singh, DNES, CGO Complex New Delhi	Member
6.	Dr. V.P. Thergaonkar Scientist, NEERI, Nehru Marg, Nagpur	Member
7.	Shri Y.Nanjundiah, Memeber(Tech) GWSSB, Gandhi Nagar, Gujarat	Member
8.	Shri S.A. Jagdeesan, Engineering Director, TWAD Board, Madras	Member

9. Mrs. Aloka Mitra, Secretary — Member
Women Co-ordinating Council
10 A, Alipur Avenue, Calcutta - 700027

10. Shri Inamul Haq, Adviser(TM) — Member
DRD, New Delhi

11. Shri M.Akhtar, Sr. Programme Officer — Member
UNICEF, 73 Lodi Estate, New Delhi

12. Shri G.C. Mathur (Ex Director NBO) — Member
G-35,SFS DDA Flats, Mangla Apartments,
Opp Nehru Place, New Delhi

13. Shri A.K. Sengupta, Dy. Adviser — Member
DRD, New Delhi — Secretary

Sub Group II - Community Participation, Health Education/ Voluntary Organisations etc

Terms of Reference :

i) To suggest practicable means to induce community participation as well as involvement of voluntary agencies in the implementation of rural sanitation programmes including maintenance of completed schemes.

ii) To review the impact of rural sanitation activities on Infant Mortality Rate and Communicable diseases in rural areas with particular reference ro rural poor and to formulate programmes for achieving the desired objectives in the Eighth Five Year Plan.

iii) To suggest means of motivating the people to carry out the programmes of low cost sanitation.

1.	Shri G.Ghosh, Joint Secretary & Mission Director, DRD, New Delhi	Chairman
2.	Dr. Bindeshwar Pathak Sulabh International, Gandhi Maidan Patna	Member
3.	Mrs. Aloka Maitra, Secretary Women Co-ordinating Council, 10 A, Alipur Avenue, Calcutta - 700027	Member
4.	Shri Y.N.Nanjundiah, Member(Tech) CWSSB, Gandhi Nagar, Gujarat	Member
5.	Prof S.S.Chakravorty, Director Ramkrishna Mission, Lok Siksha Parishad Narendrapur, Dist-24 Parganas (S). West Bengal - 743165	Member
6.	Dr. Rina Agarwal, Institute of Economic Growth, Delhi University Area, New Delhi	Member
7.	Dr. Ishwarbhai Patel, Gafsi Vidyalaya, Sabarmati Ashram, Ahmedabad - 380027	Member
8.	Dr.(Mrs) Gadkari, NEERI, Nehru Marg, Nagpur	Member

9. Prof. S. Ramachandran, Director — Member Secretary
CAPART, Gurunanak Foundation Bldg.
New Mehrauli Road, New Delhi - 110067

Sub Group III - Administration and Financial

Terms of Reference :

i) To formulate programme of action and policies necessary for achieving the desired objectives in the Eighth Plan to estimate the outlays necessary for achieving the targets desired for rural sanitation keeping in view the expected overall resource constraints and with special emphasis on low cost sanitation.

ii) To suggest effective ways and means for improving the accessibility of the rural poor particularly the SC/ST to these facilities and to suggest appropriate priorities and norms towards this end.

iii) To suggest strategies for effective utilisation of the limited resources available, in particular appropriate guidelines for selecting technologies which are technically, economically, and socially appropriate for diffrent areas.

iv) To advise on the role of International and other External Agencies like the WHO, UNICEF, UNDP etc., and to suggest the nature of the projects which should be posed for external assistance.

v) To review the current administrative arrangements and to suggest improvements in the organisational set up for rural sanitation schemes and in particular, to delineate the role of local institutions starting from village Panchayat.

vi) To suggest the feasibility of additional resources mobilisation through financial institutions, special levies and cess and contribution from beneficiaries.

vii) [illegible] assessment of the extent to which [illegible] projects may be made self-financing.

viii) To review the current status of linkage of Rural Sanitation Programme with overall Rural Development activities in the country and to formulate programmes of action and policies for effective linkage in the VIII Plan.

1. Shri Ishwarbhai Patel — Chairman
Gafai Vidyalaya, Sabarmati Ashram,
Ahmedabad - 380027

[illegible] Secretary
Mission Director, DWD, New Delhi.

3. Shri V.R.Iyer, Director(WS) — Member
Min. of UD, Nirman Bhavan

4. Shri B.S.S. Murthy, Adviser(Engg) — Member
DRD, Krishi Bhavan

5. Shri M.M.Datta, Dy. Adviser(WS) — Member
Yojna Bhavan, Planning Commission

6. Shri S.A.Jagdeesan, — Member
Engineering Director, TWAD Board
Madras

7. Shri P.K. Pradhan, Secretary — Member
Department of Rural Development,
Govt. of Sikkim, Tashiling, Gangtok

8. Shri H.Nath, Addl. Chief Engineer — Member
PHED, Govt. of Meghalaya, Shillong

9. Shri Jagdish Chandra, Dy. Secretary — Member Secretary
DRD

Sub Group IV = Manpower Development and Training

Terms of Reference :

i) To review the current status of maintenance of rural sanitation schemes and suggest strategies, policies, ways and means for effective maintenance of the assets created.

ii) To assess the current availability of trained manpower in the field of rural sanitation and measures necessary for its upgradation in both quantity and quality necessary for the technological and other needs in the future.

iii) To suggest different training material and also to indicate the number of trained manpower to be developed for implementing the programme.

iv) To suggest possible training institutions to be developed to carry out training programmes under sanitation activities.

v) To suggest the Research and Development activities to be carried out under Sanitation Programme.

1.	Shri B.B.Rau, Ex Adviser (PHEE) 7-1-69/26-AI, Dharam Karam Road.	Chairman
2.	Prof K.J.Nath, Prof & Head Deptt. of Sanitary, AIIH&PH 110 Chittaranjan Avenue, Calcutta	Co-chairman
3.	Shri Ishwarbhai Patel Gefai Vidyalaya, Sabarmati Ashram Ahmedabad - 380027	Member
4.	[illegible] Gujarat International, Gandhi Marban [illegible]	Member
5.	Shri N.M.Dutta, Dy. Adviser (HS) Yojna Bhavan, Planning Commission	Member
6.	Dr. K.K. Dutta, Dy. Director, NICD, 22 Shamnath Marg, New Delhi	Member
7.	Shri Inamul Haq, Adviser(TM) DDB, New Delhi	Member
8.	Dr. Arup Mitra, Secretary, [illegible] 10 A, Tiljur Avenue, Calcutta	Member

9. Dr. T.V. Luong, Programme Officer — Member
UNICEF, 73 Lodi Estate, New Delhi

10. Shri A.K. Sengupta, Dy. Adviser ---------- Member
DRD, New Delhi — Secretary

Annexure III

Statement showing requirement of funds in 8th Plan for rural sanitation programme

(in Crores)

Rural Population	Total	SCS	STC
As per 1981 cencues	52.546	8.91	5.08
Assuming 20% increase	10.594	1.78	1.02
As per 1991 census	63.14	10.69	6.10

One sanitary household latrine to cater to a family of 5 persons.

Total No. of units to be constructed to cover the entire population	12.63	2.14	1.22

No. required if coverage objective in the eighth Plan is kept at	SCs	STs	Others	Total
10% of rural population	0.21	0.12	0.92	1.26
15% of rural population	0.31	0.18	1.39	1.98
20% of rural population	0.42	0.24	1.86	2.52
25% of rural population	0.53	0.30	2.32	3.15
30% of rural population	0.63	0.36	2.79	3.78
35% of rural population	0.74	0.42	3.23	4.41
40% of rural population	0.84	0.48	3.72	5.04

Cost per unit with superstructure average = Rs. 2000 (Rs. in Crores)

	Coverage of rural population						
	10%	15%	20%	25%	30%	35%	40%
Total outlay required	2500	3750	5000	6300	7500	8750	10000
Alternative A less recovery from							
a) 10% SCs/STs (-) (Subsidy 90%)	66	99	132	166	198.6	231	264
(b) Others at 50% (-) (50% subsidy)	920	1380	1840	2320	2760	3220	3680
Net outlay	1514	2461	3028	3814	4542	5289	6056
Alternative B less contribution by							
a) SCs/STs at 20% (-) (Subsidy 80%)	132	198	264	332	396	462	528
(b) Others at 60% (-) (40% subsidy)	1012	1518	2024	2552	3036	3542	4048
Net outlay	1350	2034	2712	3416	4068	4746	5424

Other items

a)	Amount required for community latrines in each of 5.83 Lakh villages PHC, Anganwadis, Panchayat Ghar, Bus Stand etc.	583.00
b)	Awareness campaigns health education, media publicity	20.00
c)	Training Masons, motivators, State laboratories, village laboratories	20.00
d)	R&D	20.00
e)	Sanitation cells, monitoring units	10.00
f)	Disposal of waste water at Rs. 10 per capita (based on 25% coverage of increased pupulation.	157.00
	Total outlay required for other items (a to f)	810.00

ANNEXURE IV

Statement showing financial outlay required for coverage of 10 % of rural population with sanitation facilities in the 8th Plan and the source of funding for the same.

(Rs. in crores)

Item	Total Outlay	Source of funding: Central Govt.	State Govt.	Contribution by the users	External Aid
Construction of individual sanitary latrines (1.25 crores)	2500.00	987.50 (39.5%)	501.50 (20%)	986.00 (39.5%)	25.00 (1%)
Community latrines in village institutions (5.83 lakh units)	583.00	385.00 (66%)	192.00 (33%)	-	6.00 (1%)
Awareness campaigns, health education, media, publicity	20.00	12.67 (63%)	6.33 (32%)	-	1.00 (5%)
Training of masons, motivators, state/village functionaries etc	20.00	12.67 (63%)	6.33 (32%)	-	1.00 (5%)
R & D	20.00	12.67 (63%)	6.33 (32%)	-	1.00 (5%)
Sanitation cells, monitoring units	10.00	6.00 (60%)	3.00 (30%)	-	1.00 (10%)
Disposal of waste water at Rs.10 per capita	157.00	102.00 (65%)	51.00 (32.5%)	-	4.00 (2.5%)
Total	3310.00	1518.51	766.49	986.00	39.00

Annexure VI

Different Subjects for Research & Development

1. Development of Sanitary Latrines

   Develop simple inexpensive techniques with different materials for W.C. pan and trap, superstructure, lining of pit, etc.

2. Operation and Maintenance of Individual/Community Latrines

   Study community attitude and engineering aspects regarding operation and maintenance of individual/community latrines.

3. Composing of Household Wastes and Nightsoil

   Develop simple and hygienic methods of making compost with household waste and nightsoil.

4. Integrated Bio-gas System for Treatment of Excreta and Animal Wastes and Utilisation of Gas

   Develop and undertake field studies on integrated approach for the treatment of excreta, use of biogas and utilisation of effluent for agriculture and aqualculture.

5. Low Cost Waste Water Collection & Disposal System

   Evaluate and assess simplified collection and disposal system.

6. Package Wastewater Collection and Treatment Units for Small Communities

   Develop low cost and simplified package wastewater collection and treatment systems for small communities.

7. Community Latrines Attached to Bio-Gas Plants

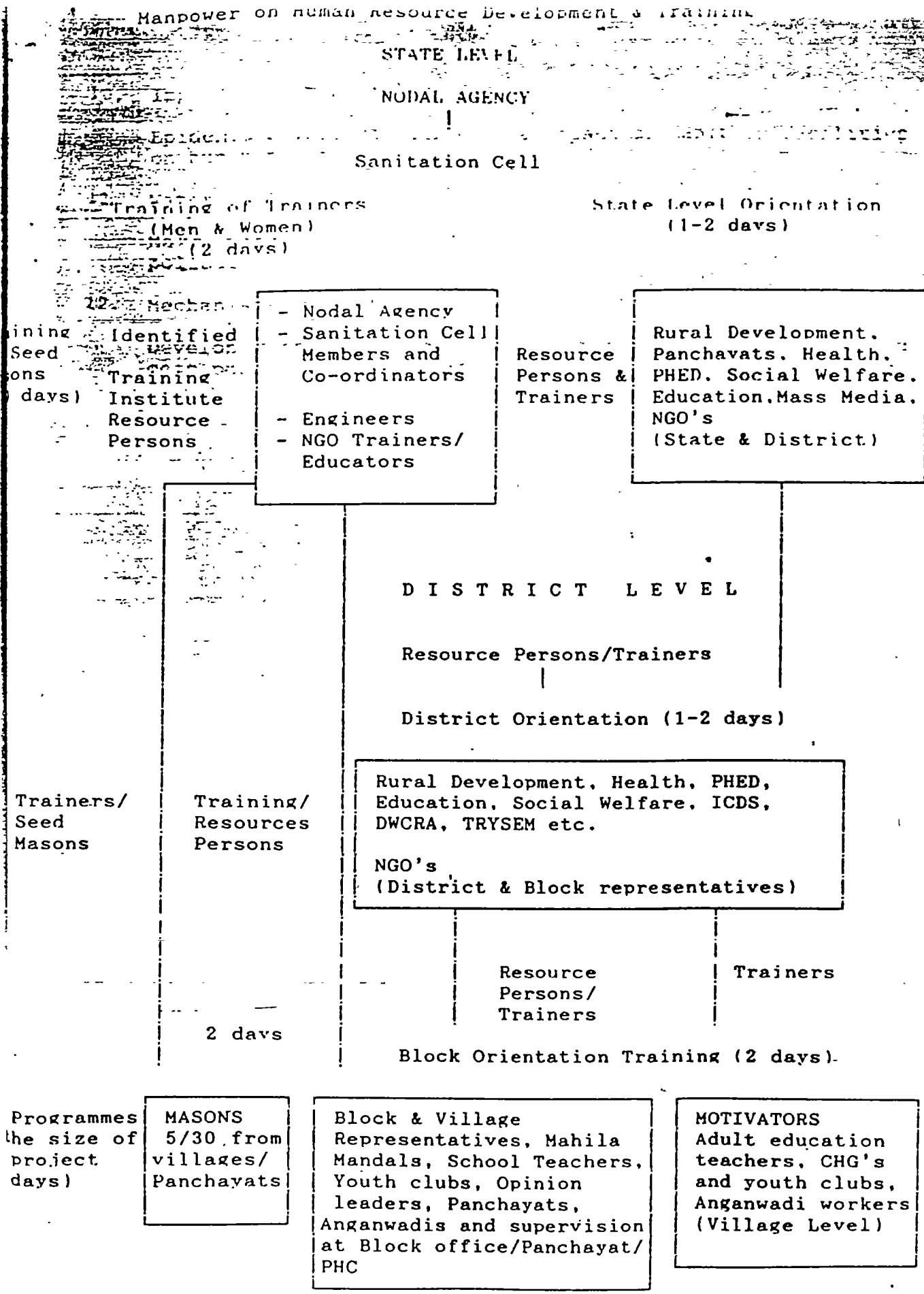
   Evaluate the performance of communal latrines directly connected to bio-gas plants.

8. Community Organisation Patterns

   Study and develop sociological and health education methods for community acceptance and participation for maintenance and operation of sanitary fasilities.

9. Sanitary Latrines Suitable for Rocky/Impervious/Water Logged Areas

   Evolve suitable sanitary pit type latrine or alternate devices suitable to rocky and water logged areas.


Manpower on Human Resource Development & Training
STATE LEVEL
NODAL AGENCY
Sanitation Cell
Training of Trainers
(Men & Women)
(2 days)
State Level Orientation
(1-2 days)
- Nodal Agency
- Sanitation Cell Members and Co-ordinators
- Engineers
- NGO Trainers/ Educators
Resource Persons & Trainers
Rural Development, Panchayats, Health, PHED, Social Welfare, Education, Mass Media, NGO's (State & District)
Identified
Training Institute Resource Persons
DISTRICT LEVEL
Resource Persons/Trainers
District Orientation (1-2 days)
Rural Development, Health, PHED, Education, Social Welfare, ICDS, DWCRA, TRYSEM etc.
NGO's
(District & Block representatives)
Trainers/ Seed Masons
Training/ Resources Persons
Resource Persons/ Trainers
Trainers
2 days
Block Orientation Training (2 days)
Programmes the size of project
days)
MASONS
5/30 from villages/ Panchayats
Block & Village Representatives, Mahila Mandals, School Teachers, Youth clubs, Opinion leaders, Panchayats, Anganwadis and supervision at Block office/Panchayat/ PHC
MOTIVATORS
Adult education teachers, CHG's and youth clubs, Anganwadi workers
(Village Level)

10. Impact on Human Health

Epidemiological studies on the impact of sanitary facilities on human health.

11. Water Pollution due to Pit Privies

Make detailed field studies on travel of groundwater pollution due to pit prives for different soil conditions.

12. Mechanisms for Removal of Human Excreta/Sludge

Develop simple systems, vacuum tankers, etc. for clearing process pools and septic tank desludging.

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