

CQ

**INTEGRATED RURAL WATER SUPPLY AND
ENVIRONMENTAL SANITATION DEMONSTRATION PROJECT**

**MOHAMMAD BAZAR BLOCK, BIRBHUM DISTRICT
WEST BENGAL**

822 INWE90

**DISCUSSION PAPER
FOR
WORKSHOP ON PROJECT STRATEGIES**

OCTOBER 10 - 12, 1990

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

Public Health Engineering
Department
Government of West Bengal
New Secretariat Building
1 K.S. Roy Road
Calcutta-700 001

National Drinking Water Mission
Department of Rural Development
Government of India
Ministry of Agriculture
Krishi Bhavan
New Delhi-110 001

UNDP/World Bank Water &
Sanitation Program
Regional Water & Sanitation Group-
South Asia
53 Lodi Estate
New Delhi-110 003

AUGUST 1990

822-INWE90-8234

INTEGRATED RURAL WATER SUPPLY AND ENVIRONMENTAL
SANITATION DEMONSTRATION PROJECT,
MOHAMMED BAZAR BLOCK, BIRBHUM DISTRICT, WEST BENGAL

DISCUSSION PAPER
FOR
WORKSHOP ON PROJECT STRATEGIES
(October 10-12, 1990)

LIBRARY, INTERNATIONAL REFERENCE
CENTRE FOR COMMUNITY WATER SUPPLY
AND SANITATION (IRC)
P.O. Box 93190, 2309 AD The Hague
Tel. (070) 814911 ext. 141/142

RN: 15N 8234
LO: 822 INWE90

Public Health Engg. Deptt.
Govt. of West Bengal
New Secretariat Building
I.K.S. Roy Road
Calcutta-700 001

National Drinking Water Mission
Department of Rural Development
Government of India
Ministry of Agriculture
Erishi Bhawan
New Delhi-110 001

UNDP/World Bank Water and
Sanitation Program
Regional Water and Sanitation
Group-South Asia
53 Lodi Estate
New Delhi-110 003

August 1990

CONTENTS

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
I	Introduction	1
II	Sector Background	
	- Organisation	3
	- Sector Coverage	3
	- Project Area	4
	- Issues	5
	- Area Maps & Table	7
III	Objectives	10
IV	Components	
	- Water Supply	11
	- Environmental Sanitation	15
	Sanitation	15
	Drainage	18
	Solid Waste Management	19
	- Information, Education & Communication	19
	- Monitoring and Evaluation	23
	- Institutional Development	24
	- Community Participation/Management	25
V	Strategies	27
VI	Activities	32
VII	Organization Structure for Project Implementation	
	- Management	39
	- Role of Different Agencies	40
	- Envisaged Structure to Facilitate Project Implementation	42
VIII	Inputs	45

CONTENTS (CONTD.)

<u>SECTION NO.</u>	<u>TITLE</u>	<u>PAGE NO.</u>
IX	Action Plan and Implementation Schedule	46
X	Financing Mechanism	47
<u>Annexures</u>		
1.	Status of Water Supply Coverage to Rural Population in Birbhum District on 1.3.90	49
2.	Tentative Project Linkage Organogram	50
3.	PHED Organization Structure	51

I. INTRODUCTION

The Government of India (GOI) attaches high priority to the provision of water supply and sanitation in rural areas to improve health and environmental conditions. The launching of the National Drinking Water Mission (under the Department of Rural Development) by the GOI in 1986 represented a major step to further strengthen the Rural Water Supply & Sanitation (RWSS) sector and accelerate the coverage of population in this sector.

The National Drinking Water Mission is convinced that there is a need to provide water, environmental sanitation and health and hygiene education concurrently to derive optimal benefits for the concerned populations. The GOI has requested assistance in implementing such integrated demonstration projects.

The UNDP/World Bank Regional Water and Sanitation Group - South Asia (RWSG-SA) believes that the implementation of well-conceived and well prepared rural integrated water and sanitation projects based on appropriate and innovative approaches to reach the poor with water and sanitation facilities will result in optimal benefits to communities. This can best be demonstrated through a well-planned medium-sized rural integrated water and sanitation project.

In the past, water and sanitation components were conceived of and implemented as separate components and the emphasis had tended to be on hardware. This approach has contributed to the health interface suffering from considerable underemphasis. Further the elements of awareness and motivation which can contribute to community participation and management were not accorded sufficient importance. While some integrated water and sanitation pilot/demonstration projects have been implemented in the past, there appears to be no project on a substantial scale which can be taken as a model for replication. It is therefore necessary to demonstrate on a significant scale, the benefits that the communities could derive, when an integrated approach to water and sanitation management is adopted and to present a model that is sustainable and replicable.

To demonstrate the impact of an integrated approach which includes communication, water supply, environmental sanitation, drainage, health and hygiene education, and community participation and management and to establish a proven model that is replicable, it is proposed to implement an integrated water and environmental sanitation demonstration project at the block level. This document

is primarily intended to be a discussion paper which should lead on to a project proposal. The intention of the proposed workshop to be held at the Mohammad Bazar block of Birbhum District, West Bengal from October 10-12, 1990 is to deliberate on the various issues outlined and strategies proposed in this paper and then arrive at recommendations which will find place in the project proposal.

II. SECTOR BACKGROUND

ORGANIZATION

India's present population (1990) is estimated to be approximately 800 million living in some 3500 towns and 600,000 villages. Over 75% of the population lives in villages. The federal constitution of India provides for water supply and sanitation as a state subject. The Central government formulates policy guidelines and provides technical assistance wherever needed. Although water supply is a state subject, in the VIIth Five Year Plan, the rural program got a major boost from the centrally sponsored Accelerated Rural Water Supply Program (ARWSP) for which the National Drinking Water Mission was launched. In 1985, the Rural Drinking Water Supply Program was delinked from the Ministry of Works and Housing and shifted to the Department of Rural Development under the Ministry of Agriculture so as to integrate it with other rural development programs.

At the state level, the Public Health Engineering Department (PHED) of the Government of West Bengal (GOWB) has the responsibility for financing the entire rural water supply program in the state. Planning and implementation of the piped water schemes and the Rig Bored Tube Wells (RBTW) is the responsibility of the PHED. Operation and maintenance of the provided facilities is presently managed, for the most part, by the PHED. However, GOWB has already taken a decision to transfer the O&M responsibility to the local bodies.

The Panchayati Raj institutions (under the Department of Panchayats and Community Development of GOWB) is responsible for the planning, implementation and O&M of water supply facilities other than the piped water and RBTW schemes. These include Hand Bored Tube Well (HBTW) schemes and other simple measures such as open wells. The Panchayati raj has a three tiered structure, viz. Zilla Parishad at the District level, Panchayat Samiti at the Taluka (or Block) level and Gram Panchayat at the village (or group of villages) level.

The responsibility for promoting environmental sanitation in the rural areas rests solely with the Panchayati Raj institution.

SECTOR COVERAGE

Over the past ten years, the Government of India has made a major investment in rural water supply to provide at least one safe water source to every village. It is estimated that about 85% of all villages in India presently have access to at least one safe water source.

Small programs have been initiated to promote latrine usage among the lower income groups in rural areas, but these programs have not been very successful due largely to low demand. Less than 3% of the rural population uses latrines and public sanitation standards are low.

At the state level, the coverage for both rural water supply (71.36%) and sanitation (almost non-existent) in West Bengal is lower than that at the national level.

At the District level, (Birbhum) about 82% of the rural population has been provided with drinking water facilities whereas environmental sanitation is almost non-existent.

At the Block level (Md.Bazar Block), water supply coverage is close to 80% though varying between 60% to 100% in various Gram Panchayats in the Block.

Spot sources (HBTW, RBTW) have been used for providing water supply in all the villages; piped water schemes do not exist. Environmental sanitation facilities in the Block are non-existent except for sporadic instances of private facilities.

PROJECT AREA

Mohammadbazar Block of Birbhum District in the State of West Bengal has been selected as the area for implementation of this Demonstration project. A map of West Bengal State showing the location of Birbhum District is depicted in Fig. 1. The location of Mohammadbazar Block within the Birbhum District is shown in Fig. 2.

Statistical data in respect of the area, population, number of villages etc. in Mohammadbazar block, Birbhum District and West Bengal State is given in Table III.1.

Birbhum District has two distinct topographical features. The western part (in which the Mohammadbazar block is located) has highly undulating topography due to the heavily dissected plateau of Santal Parganas and is drought prone. The eastern part has a North-South fertile belt with excellent irrigation facilities.

All the rivers originate from the Chotanagpur Plateau of Bihar State and flow eastwards cutting across the western and eastern region of the district. The rivers experience floods in monsoon and dry conditions after the monsoon. The district has a rich deposit of China clay, black stone and coal. At present the stone quarries are mainly situated near Panchami in Mohammadbazar Block.

The main constraint is an inadequate roads network.

The chief activity in the area is agriculture. The chief occupation of the population of Scheduled Caste (19.7%) who are educationally backward. Landless ST families are engaged in agricultural operations in the neighbourhood.

ISSUES

1. The constraints are for adequate sewerage and sanitation. The installation of reticulation and maintenance.
2. The lack of an integrated sanitation issues meaningful coordinated development and implementation at various levels. This bifurcated separate and distinct approach at addressing health and planning and infrastructure.
3. The need for adequate infrastructure to ensure safe water supply.
4. The low demand for water supply.
5. The low priority programmes, which lack linkages to health and sanitation.
6. The adoption of sustainable and affordable water supply.
7. Lack of involvement and implementation of programmes. More participation of the women in the implementation of these programmes, associated with water supply.
8. The prevalent attitude that the supply of water is a government responsibility.

9. The relatively low emphasis placed on the collection of data recording users attitudes and habits, as an input into project strategies relating to health/hygiene education.
10. The low priority accorded, both conceptually and financially, to information education and communication (IEC) strategies that can play a vital role in orienting the user community to better management of its water sources as also in terms of environmental sanitation.
11. Shortage of trained personnel both at the state, district and community level who could be used for educational/motivational work.
12. The lack of awareness among technical personnel regarding a community's perceptions of its own needs and the vital role that software (IEC for example) can play in making hardware acceptable and sustainable.

WEST BENGAL

SCALE

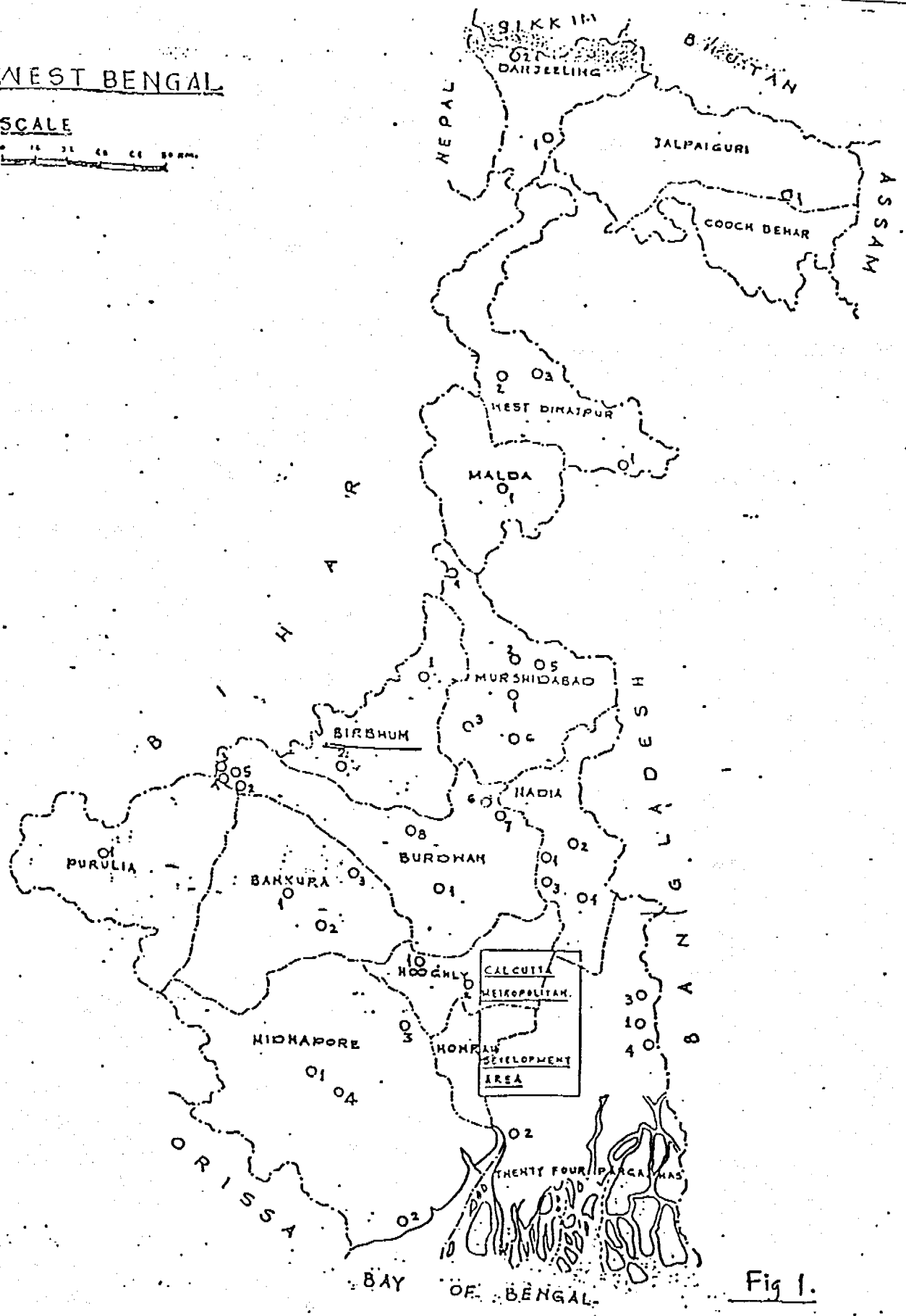
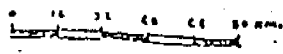
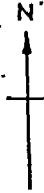
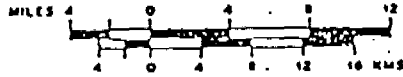


Fig 1.

WEST BENGAL DISTRICT BIRBHUM



- BOUNDARY, STATE... ..
- " DISTRICT... ..
- " POLICE STATION... ..
- HEADQUARTERS: DISTRICT / POLICE STATION... ..
- STATE HIGHWAY... ..
- IMPORTANT METALLED ROAD... ..
- RAILWAY LINE WITH STATION, BROAD GAUGE... ..
- " " " " " NARROW GAUGE... ..
- RIVER AND STREAM... ..
- VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME... ..
- URBAN AREA WITH POPULATION SIZE — CLASS III, IV, V & VI... ..
- POST AND TELEGRAPH OFFICE... ..
- DEGREE COLLEGE AND TECHNICAL INSTITUTION... ..
- DAK BUNGALOW AND INSPECTION BUNGALOW... ..

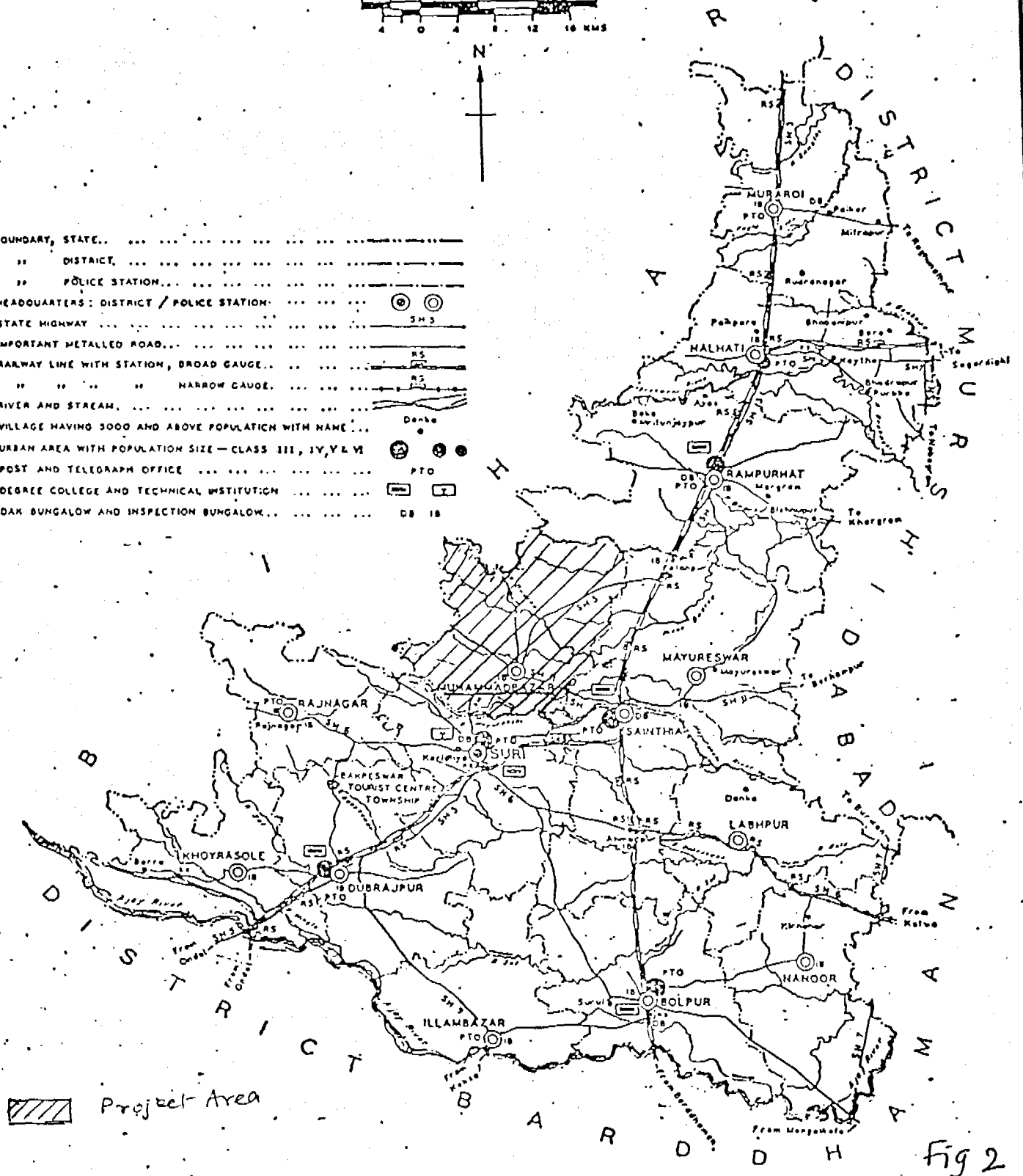


Fig 2

Based upon Survey of India map with the permission of the Surveyor General of India

© Government of India Copyright, 1965

TABLE III.1: STATISTICAL DATA

S.NO	DESCRIPTION	WEST BENGAL STATE	BIRBHUM DISTRICT	MD.BAZAR TALUK
1.	Total Area (sq.kms)	88,752	4,545	313.4
2.	Population ('000) (as per 1981 census)	54,580	20,960	92.8
	- Urban(%)	26.50	8.30	0.0
	- Rural(%)	73.50	91.70	100.0
	- Decennial Growth Rate (1971-81)	20.36	16.42	??
	- Density Persons/sq.Km	615	461	296
	- Literacy Rate (in %)	40.94	33.69	29.0
	- Scheduled Caste(in %)	21.99	29.80	27.42
	- Scheduled Tribe(in %)	5.63	6.92	19.70
3.	No. of Villages Total	41,112	2,461	158
	uninhabitated	3,088	232	24
4.	No. of Towns	291	7	0

III. OBJECTIVES

MAIN OBJECTIVES

1. To develop a delivery system that is effectively utilized, is sustainable and largely replicable.
2. To integrate rural water supply and environmental sanitation strategies so as to contribute towards improved health standards in the project area. This could be vital to the increased productivity of the concerned communities.

SUB-OBJECTIVES

1. To motivate the community to participate actively in the project by creating awareness and changing present attitudes to water and environmental sanitation issues.
2. To involve the community and more particularly the women to the maximum extent possible from the inception of the project in planning, implementation, operation and maintenance of facilities in order to help create a sense of responsibility and ownership.
3. To sensitize all implementing agencies of the Government, including Panchayats regarding the need for community involvement in order to optimize the utilization and sustainability of facilities.
4. To strengthen the co-ordination between agencies involved in service delivery through institutional capacity-building and joint training.
5. To provide/upgrade water supply and environmental sanitation facilities.
6. To develop additional local implementation capacity in the private sector, specifically in construction.
7. To develop a viable financial and cost recovery system.
8. To prepare guidelines for future implementation based on tested and proven approaches to various aspects of the delivery system.
9. To demonstrate the impact and benefits of an integrated project approach to water and sanitation issues.
10. To develop a monitoring and evaluation system.

IV. COMPONENTS

The main components of the project are briefly discussed here. More definitive descriptions will result from the project formulation workshop and the baseline/needs assessment survey.

The components are as follows:-

- (1i) Water supply
- (2) Environmental sanitation
- (3) Information, Education and Communication
- (4) Monitoring and Evaluation
- (5) Institutional Development
- (6) Community participation/management

1. WATER SUPPLY

Technology Options

The present coverage of drinking water supply facilities in the Muhammad Bazar Block varies between 60% to 100% in the 12 Gram Panchayats. 100% coverage indicates that the minimum needs as per GOI's guidelines have been met. The villages have a mix of open wells and different makes of hand pumps as sources of drinking water. Various options that could be made available to the communities to provide and upgrade drinking water facilities include the following:

- (a) Rehabilitation of the existing open wells.
- (b) Construction of new open wells/deepening of existing wells
- (c) Rehabilitation of existing hand pumps including platform and drainage system .
- (d) Modification of the existing India Mark II hand pumps to reduce the frequency of breakdown.
- (e) Drilling of new shallow/deep tube wells and fitting them with village level operation and maintenance (VLOM) hand pumps.
- (f) Piped water schemes with a high-yield deep tube well fitted with a submersible pump as source, distribution through a pipe network and supply through public standposts.

- (g) Piped water schemes with surface water source if available, inclusive of associated transmission, treatment, distribution and delivery system consisting of both public standposts to institutions such as anganwadi centres, primary schools, secondary schools, gram panchayat centres etc and private connections, where feasible.

The project will make available the most appropriate option/s to the community, considering the following:

- (a) Present level of service and satisfaction of minimum needs.
- (b) Per capita water consumption as per National Guidelines.
- (c) Advice of State/Central Ground Water Board in respect of availability of groundwater of potable quality and adequate yield.
- (d) Willingness of the users to take over completed facilities, operate and maintain these, ensure entire O&M cost recovery and also to share a part of the investment costs in the case of piped water schemes as would be decided by the GOWB.

Implementation

The panchayat institutions will be responsible for planning water supply facilities. While the work related to the rig bored hand tubewells and piped water schemes will be executed by the PHED, the construction of Hand bored Tube Wells will be the responsibility of the Panchayati institution. All the facilities once constructed would be taken over by the Gram Panchayats for operations, maintenance and service delivery.

Operation and Maintenance(O&M)

In general, the Gram Panchayat institution will be responsible for the O&M of all installed water supply facilities. In the process of setting up O&M support facilities the following guide lines will be followed:

Open wells: Maintenance requirements will be limited to proper drainage arrangements around the well and keeping the surroundings clean, which has to be taken care of by the community.

Handpumps: On construction, all the handpumps would be operated and maintained by the community. A maintenance structure which will facilitate community management will be developed. Various models that are available i.e. SEM system in Orissa and TRYSEM in Rajasthan will be carefully evaluated to design the proposed community-based maintenance system. Local skills would be developed to take care of preventive maintenance and minor repairs. Backstopping arrangements to take care of major repairs would be provided at the Block Level.

Piped water scheme: O&M of a piped water scheme is a complex activity where direct inputs from consumers is difficult to incorporate. Only in case of the standposts (drainage, theft of taps, wastage of water, general cleanliness) will it be possible for the community to provide inputs. The Gram Panchayat will be responsible for the O&M of the piped water schemes. Local skills would be developed to attend to minor maintenance needed for pumps, pipe leakages etc. With regard to major problems, assistance from the Zilla Parshad/PHED would be made available on an agency basis.

Water quality monitoring: Monitoring the quality of water from all the drinking water sources at regular intervals would be essential to ensure that only potable water is being supplied to the users. The community would be trained to collect samples at predetermined frequencies and get the water samples tested through a public health laboratory of the Health Dept. of GOWB located within the project area. A Public Health (PH) laboratory would be suitably equipped through this project to carry out such analyses and advise the gram panchayat in respect of corrective actions needed and retesting. Use of field kits for water quality testing will be promoted.

Financing Mechanism

- (a) The program relating to the satisfaction of minimum needs by upgrading/installing open wells and handpumps would be financed in accordance with the current practices of the GOWB.
- (b) In the case of piped water schemes, these will be taken up subject to the availability of resources with the GOWB and in accordance with the current financing mechanisms of GOWB for piped water schemes.
- (c) If the selected option/s pertain to raising the service level beyond the national guidelines on minimum needs in respect of per capita supplies then the community would be expected to share a portion of the investment costs as would

- (g) Piped water schemes with surface water source if available, inclusive of associated transmission, treatment, distribution and delivery system consisting of both public standposts to institutions such as anganwadi centres, primary schools, secondary schools, gram panchayat centres etc and private connections, where feasible.

The project will make available the most appropriate option/s to the community, considering the following:

- (a) Present level of service and satisfaction of minimum needs.
- (b) Per capita water consumption as per National Guidelines.
- (c) Advice of State/Central Ground Water Board in respect of availability of groundwater of potable quality and adequate yield.
- (d) Willingness of the users to take over completed facilities, operate and maintain these, ensure entire O&M cost recovery and also to share a part of the investment costs in the case of piped water schemes as would be decided by the GOWB.

Implementation

The panchayat institutions will be responsible for planning water supply facilities. While the work related to the rig bored hand tubewells and piped water schemes will be executed by the PHED, the construction of Hand bored Tube Wells will be the responsibility of the Panchyati institution. All the facilities once constructed would be taken over by the Gram Panchayats for operations, maintenance and service delivery.

Operation and Maintenance(O&M)

In general, the Gram Panchayat institution will be responsible for the O&M of all installed water supply facilities. In the process of setting up O&M support facilities the following guide lines will be followed:

Open wells: Maintenance requirements will be limited to proper drainage arrangements around the well and keeping the surroundings clean, which has to be taken care of by the community.

- (h) Small handouts printed in the regional language would be widely circulated to educate the community in methods of operating and maintaining handpumps. A video film would also be considered in this regard as an effective training vehicle. Providing a set of tools required for repairs of India Mark II hand pumps to the Gram Panchayats or self-employed mechanics on a one time basis through the project resources will be considered. Tools for India Mark III pumps/direct action pumps would be provided for each handpump and the project would consider providing these to the communities for all the new handpumps installed through the project. The project will undertake the training of handpump caretakers and mechanics at the village level.
- (i) The need to regularly monitor water quality will be emphasized. A PH laboratory at the block headquarters level would be adequately equipped and trained manpower developed to carry out water testing and advise the Gram Panchayats on the required corrective actions. Any complex testing required would be referred to the All India Institute of Health and Public Hygiene, Calcutta. Use of field kits for testing water quality will be promoted.
- (j) In case piped water schemes are installed, the Gram Panchayats will be assisted in recruiting appropriately trained personnel for the O&M of various components like pumps, pipes and treatment units.
- (k) The financing pattern for various technological options would be explained in detail to the communities to help them select appropriate options.

2. ENVIRONMENTAL SANITATION

Environmental sanitation is as important as the provision of safe water supply. Studies conducted in several countries indicate that poor environmental sanitation reduces the impact of safe water supply. Consequently, to ensure optimal benefits to the concerned community, both environmental sanitation and water supply issues must be dealt with, both conceptually and on the ground, as inter-related subjects. The sub-components under 'Environmental Sanitation' are sanitation, drainage and solid waste management.

SANITATION

(a) Technology Options

Considering the size of the villages and affordability, on-site sanitation methods should be best suited to the project

area. The project will make available a number of designs, giving the user the option to select the facility that suits the household best according to price and space requirements.

A twin-pit pour flush type latrine which has been extensively used in various parts of the country could be the ideal choice. This type of latrine would include a squatting pan, a trap to provide a water seal set in the concrete floor, connecting drain and two leach pits. After each use, the pan is to be hand flushed by using approximately 2 litres of water. Each of the pits should normally get filled in 3 years time. Once the pit is full it is put out of use and the pipe connected to the second pit. After 2 years, the contents of the first pit are removed, which by then will have become a rich manure. In case of constraints of costs/space single-pit pour-flush type latrines will be used.

The superstructure of the latrine could be of different varieties depending upon the desire and the financial capability of the owner.

(b) Implementation

The project will support the establishment of sufficient implementation capacity at the Village/Block level. It is intended to train 1 or 2 masons in a group of 4-5 villages, in construction of the latrines/latrine components. The beneficiaries are expected to provide the entire unskilled labour component of construction such as digging of pits and assisting the mason. The project will train selected masons and provision of loans will be considered through rural banks/cooperative banks/district industries centers to enable the masons to manufacture and stock latrine components. The mason will serve as a promoter of low-cost sanitation.

(c) Operation & Maintenance

This will be the responsibility of the user. The minor repairs, such as damage to the concrete floor or drain, could be got done through the local mason.

(d) Financing Mechanism

The cost of constructing a twin pit type latrine inclusive of an inexpensive variety of superstructure would be around Rs.2500. The financing mechanism would be finalized in consultation with the West Bengal Government and may include the following considerations:

(i) Entire unskilled labour by the user.

(ii) A suitable loan/grant mix coupled with the benefici-

aries cash contribution to make up the cost of material and skilled labour (mason).

(e) Approach

- (i) The project will encourage individual households to instal private latrines.
- (ii) A promotion and mobilization campaign will be undertaken to create awareness and understanding of the benefits that sanitation provides to the community.
- (iii) The project would finance the construction of demonstration latrines in places such as schools, anganwadis, primary health centers, gram panchayat offices. This is expected to create a demand for individual latrines by raising awareness in the community regarding hygenic practices.
- (iv) Priority will be given to the construction of latrines in the households of willing volunteers from amongst women, social workers, teachers, doctors, nurses etc. whose status as influencers would help in the promotion of the household latrine. Financing to these units, however, would be similar to the normal financing mechanism that would be set up for the construction of individual household latrines.
- (v) The construction of the household latrine will be the responsibility of the household head, with advisory support from the project. The construction will be through the joint efforts of the beneficiary (unskilled labour) and from local masons.
- (vi) Implementation will be taken up only on demand from the user and will depend on his/her willingness to provide a cash contribution and the unskilled labour component.
- (vii) The project will encourage the establishment of the necessary installation capacity, so as to be able to respond to demand. The local people who come forward to take up mason's work will be encouraged and provision of loans/seed capital through the District Industrial Centres/rural banks/Co-operative banks will be encouraged.

- (viii) Training programmes for small local contractors, NGOs and masons will be organized to impart knowledge in the siting of latrines, their proper construction including fixing of the water seal, precautionary measures to prevent pollution of ground water etc. The UNDP Manual on design, construction and maintenance of this type of latrine would be translated into the regional language and circulated to the trainees. Here again, a training video film could also be considered.
- (ix) A small write-up would be prepared in the local language on maintenance and care to be taken in the day-to-day use of these latrines and printed copies supplied to the users for their guidance. Keeping in mind the low literacy rates, the emphasis will be more on effective visuals with minimum supporting text.
- (x) The strategy for financing mechanisms would be formulated in consultation with the West Bengal Govt. to facilitate the sanction of loans to the beneficiaries through the existing District Industrial centers/co-operative banks/rural banks.

DRAINAGE

The project area is located in the low rain-fall zone. The Public Works Department of the GOWB provides culverts and road-side drains as a part of its road construction program for the diversion of storm water. Provision of a full-fledged network of surface drains for the disposal of storm water from the entire village areas is not considered necessary at this stage and is therefore not included in the project.

Stagnant pools of water around the wells/handpumps is a common sight in the villages and are a potential health hazard. Communities will be informed of the dangers of such stagnant water pools and encouraged to provide proper drainage arrangements and soak pits around the water supply delivery points. Such arrangements would be provided at the new wells/handpumps that would be installed through this project.

In the case of piped water schemes, drainage arrangements would be provided around the public standposts. The users taking private connections would be advised to dispose of the waste water through soak pits or utilize it for kitchen gardens.

The cost of providing drainage and disposal arrangements for the

new installations (wells, handpumps, standposts) would be financed through the normal program of the GDWB as a part of the water

supply component. The emphasis would be to create awareness among the communities in respect of the health hazards of improper drainage arrangements and the need to eliminate stagnant water pools and muddy surroundings at the water supply delivery points.

SOLID WASTE MANAGEMENT (SWM)

Considering the general standards of living in the villages in the project area and the consumption habits, SWM is not expected to be a major issue in the project area. The system of providing garbage bins and making elaborate arrangements for daily collection, transportation and disposal of the solid waste would not be justified in the rural context, due to the very small quantities of solid waste generated and the disproportionate costs involved.

Due to the free movement of cattle through the village areas, cattle excreta lies at many places and creates unhygienic conditions. One of the best methods of disposal of this waste is through biogas plants which appear to be present in significant numbers in the project area. The construction of biogas plants through existing mechanisms will be encouraged.

The SWM component is not expected to require any investment on hardware through this project. The emphasis would be on creating awareness through the IEC component of the project and encouraging the communities to inculcate good habits of solid waste management at the individual household level itself, through such methods as composting.

3. INFORMATION, EDUCATION AND COMMUNICATION (IEC)

(i) Status

Based on the observations of a recent (May 22 - June 1, 1990) field visit to Mohammed Bazar block and the information available the community's attitude to the IEC/community participation with regard to water supply and sanitation issues seems to be as follows. Community does not regard water supply and sanitation (WSS) as a package - only water is considered important and sanitation is not perceived as an issue. While the community is aware, however marginally, that safe water and adequate sanitation are important to their health, this belief is still very theoretical and not reflected in their hygiene behaviour.

The community has not played any significant role in the planning and implementation of WSS schemes and the consequent prevalent attitude is that the handpump being Government property, it is the Government's responsibility to keep the surroundings clean.

In terms of structures that could help in implementing IEC strategies and sensitizing the community as well as the implementing officials, there seems to be very little evidence of either their presence or any on-going efforts to create such linking devices. For example, the Public Health Engineering Department (PHED), Government of West Bengal tends to concern itself with the technical/ engineering aspects of WSS, with not enough attention being paid to the social and communication aspects. This situation seems to have improved with the prospective formation of an information, education and communication cell attached to the PHED, GOWB. Further, there have been no visible efforts to co-ordinate the efforts of officials from complementary departments such as the Departments of Rural Development, Panchayati Raj, Health, Women and Child Development. Given that this intradepartmental co-ordination is lacking, there has been no stimulus to change the provider-beneficiary relationship between the government agencies and the community, thus reinforcing the paternalistic image of the government as regards WSS.

At the community level, there seems to exist no viable structure such as hamlet/village committees, or animators, etc. who would initiate and co-ordinate activities through the Gram Panchayats with the already established Jana Swasthya Sthayee Samitis (JSS) at the Panchayat Samiti level.

ii) Proposed Action

The IEC component will aim basically at raising awareness in and motivating the community toward considering water and sanitation issues as two sides of the same coin, so to speak, as well as to foster in it a sense of ownership of the project. While in the former, the vital connecting link will be water and sanitation related health issues with its consequent need for sustained hygiene education, the latter aspect will be crucial to developing the idea of community management on the ground as well as creating an atmosphere conducive to implementing a viable cost recovery mechanism.

Community management, a concept which leads on as a natural evolution from effective community participation, will not be treated as a separate component as it runs like a thread through virtually all the project components. In effect it

will tend to be the determining criterion of the project's effectiveness.

Another function of the component will be to disseminate information about the project's activities to other concerned and interested partners, both official and non-official at various levels. The intention is to formulate guidelines on the WSS experience of the project that could help in suitable replication, with local variations, across the country.

iii) Methodologies

While the chief foci of the IEC strategy have been briefly described under the 'Proposed Action' section, the methodologies to mobilize and operationalize these options are outlined here. These strategies are subject to modification depending on the outcome of the baseline survey/need assessment study.

A. Workshops/Seminars

These workshops/seminars will be conducted in order to facilitate a free flow of information between the participants which will eventually serve as an important feedback source for project strategy and implementation. The participants would represent, in most cases, a mix of community representatives, implementing agency officials at all levels, non-government officials (NGOs), and invitees with subject expertise from the state or other states. The vehicles of communication used at these fora could be audio/audio visual/visual, etc. The first workshop is proposed to be held in early October 1990, the general objective of which will be to discuss this document and the various related inputs expected from the community's representatives, select NGOs, representatives from other concerned UN agencies, government officials and project staff.

The project will also consider a short 2-day workshop on communications strategy based on the results of the baseline/needs assessment study, which will help to give concrete shape to the strategy to be articulated in the final project document.

B. Training

The training sub-component will be initiated very early in the project and will involve training of trainers, training/sensitization sessions for officials of different implementing agencies and training programmes at the

community level.

Training will be implemented through a number of channels, such as educational institutions, training institutes and selected NGOs. The local International Training Network Centre (ITN) at Calcutta will also be involved.

Training materials will be prepared in consultation with the community and government implementing agencies. The content and scope of these training courses will be arrived at after the information derived from the needs assessment study has been analyzed.

C. Group formation

The project will focus on the formation of groups at the hamlet/village level who will be instrumental in motivating the community on a sustained basis towards the stated objectives of the project. These groups could be women's groups/adolescent girls' groups/children's groups. The effort will be to draw persons from each household into this activity. An effort will also be made to initiate the development of IEC materials from the constituents of such groups. These groups will interact on a virtually continuous basis with the selected animators and facilitators so that adequate feedback is available to modify or reorient IEC strategies as and when needed. The needs assessment study will be instrumental in establishing the viability of such groups on a sustained basis.

D. Media Vehicles

The choice of media vehicles will be largely influenced by the findings of the needs assessment study and discussions with the community. While vehicles such as primary schools, anganwadis, radios, puppet shows, films, cartoons etc. will be considered for effective communication and dissemination of the messages, the basic emphasis will be on the interpersonal aspect, as any fundamental change in attitude seems to result from the sustained use of this form of communication. In this sense, the contribution of the groups referred to above can be vital. As mentioned earlier the project will also seek to encourage village/hamlet initiatives regarding the creation of IEC materials. The project may consider activities such as a one-page news-sheet on WSS issues once-weekly from local primary schools.

E. Information Dissemination

As part of the IEC component, the project will prepare documentation - printed and audio-visual - on the project's ongoing activities for dissemination of information to

concerned departments at various levels of government, as well as to NGOs and other non-official parties interested/involved in the development process. As the project develops, it will also prepare WSS guidelines as to how the project could be replicated, with local variations, on a national level.

4. MONITORING AND EVALUATION

i. Status

Available information seem to indicate that there is no viable monitoring and evaluation mechanism at the block level regarding water and sanitation issues.

ii. Proposed Action

(a) The project will develop a monitoring and evaluation mechanism at the block level that can be applied to water and sanitation strategies and activities on a long-term basis.

(b) The project will encourage continuous monitoring and internal evaluation as well as a planned schedule for external evaluation.

iii) Methodologies

Internal evaluation will take place through the holding of regular workshops/seminars at the community/district/state levels as well as through more informal discussions by project staff with animators and the community at large.

External evaluation of project activities will be scheduled twice during the lifetime of the project - a mid-term review and an end-of-project review. The project will consider hiring two agencies/consultants (one international/one local) who will undertake these reviews.

Data from the baseline survey at the beginning of the project will be compared with data collected through the monitoring activity in order to measure the impact of the project. In this context, a set of progress indicators will be prepared during the final project preparation. The project will attempt to involve the community in data collection, as a strategy to facilitate community participation leading on to community management of the project.

5. INSTITUTIONAL DEVELOPMENT

i) Status

The present institutional framework theoretically reaches down from the government agencies to the Panchayat Samiti level with water and sanitation issues being provided a forum through the JanaSwasthya Sthae Samiti (JSS). It does not, however, indicate that there is a free flow of information in both directions which would offer the maximum potential for both feedback into governmental policy and implementation of these policies. Further, there seems no structure available for a regular and easy transmission of information from the hamlet/village level up to the Gram Panchayat level.

Related to the above is the need for sensitizing through training programmes, officials and non-officials involved in implementation towards the need to recognize the vital nature of information available at the community level, and the need to use this information in the formulation and implementation of WSS strategies.

ii) Proposed Action

The project will consider the formation and establishment of the necessary group structures at the hamlet/village level and wherever else is considered necessary by the community, in consultation with the concerned government officials and Panchayati functionaries. The presence and effective functioning of these groups could contribute a great deal to sustained attitudinal changes in the community that would be vital to the successful implementation of the present project.

The project would also consider setting up training programmes, both technical and non-technical, for officials/non officials and community involved in the formulation and implementation of the project.

iii) Methodologies

The strategies leading to group formation, though already articulated in this document, are to be viewed as initial or explanatory scenarios. More concrete strategies will evolve from the proposed workshop at the block level. Training programmes for staff/non-staff functionaries associated with the project would be conducted at the state level, district level and block level. The nature and content of these training programmes will be worked out by a training specialist/communications specialist in

conjunction with the community and the concerned State Government officials.

6. COMMUNITY PARTICIPATION/MANAGEMENT

i) Status

It became increasingly apparent towards the middle of the International Drinking Water and Sanitation Decade (1980-1990) that the development and provision of low-cost technologies relating to water supply and sanitation to low-income communities would pose serious long term financial constraints for the government. This was reflected in a scenario where facilities, especially those for water supply were regarded by the community as government property with the related attitude that maintenance of these facilities was entirely the government's responsibility. This situation not only puts a great strain on the government's financial resources but also has negative implications regarding the actual maintenance of the facility as for example, long response times in case of breakdown with help expected from the block/district level. These long waiting periods also had the potential of triggering off water related disease epidemics, as the villagers would have in the meantime, turned to any alternative water source.

Planners began to realize that the active involvement of the community in the Water and Sanitation (WSS) programme, in the operation and maintenance of facilities would be crucial to its success. In order to create this sense of involvement and "ownership" of water and sanitation facilities at the community level, it was regarded necessary to involve the intended beneficiaries, especially women, in the planning and implementation of the project/programme right from the inception.

The theoretical construct of the W. Bengal Panchayat Act 1973 involves the devolution of power so that responsibility for operation and maintenance of the WSS programme rests with the Panchayat system. While attempts to involve the community in WSS programmes through the Panchayati Raj network form the theoretical basis of WSS schemes in W. Bengal, the participatory approach, leading on to community management does not as yet seem to have struck deep roots in actual practice.

ii) Proposed Action

The primary focus of the project will be to assist the community in organizing itself to take responsibility for the operation and maintenance (O&M) of the water supply facilities and also to contribute in terms of labour and cash in the construction of sanitation facilities. To this end, the project proposes to hold an initial project formulation workshop at which representatives of the community, NGOs, GOWB and RWSG-SA could discuss the proposals in this document. Recommendations emanating from this workshop will find place in the final project document.

The strategies which could conceivably lead to effective community participation/management relate directly to the formulation and implementation of a participative communication and training strategy.

The communication strategy, which will be evolved in close consultation with the community, will tend to focus on the involvement of the user community and especially women, through building up a network of groups at the village/hamlet level and filling gaps in the information flow. Thus, while there are Jana Swasthya Sthyaee Samiti (JSS) at the Zilla Parishad and Panchayat Samiti level, no such body exists at the gram panchayat and hamlet level. The project will therefore consider the formation of a JSS at the Gram Panchayat and hamlet level which will organise the village/hamlet level activities through the groups (women/adolescent girls/boys/children) formed at that level. Animators and facilitators will act as the link persons in the information/activity flow.

As regards training activities, these again will flow up and down the channels which the project will seek to establish between the community on the one hand and the State Government on the other. The network that will hold the various strategies in place and lead to the empowerment of the community will potentially consist of the community groups, animators, facilitators, the JSS committees, concerned project officials and government staff. Ultimately, through this community based approach the project hopes to stress the mutual responsibility that exists between the community and government institutions and articulate this sense through participative strategies at every level of the project's functioning.

V. STRATEGIES

As part of the National Drinking Water Technology Mission mandate to promote improvements in the drinking water sector the project will develop and demonstrate implementation strategies for integrated rural water supply and sanitation services suitable for replication. These strategies will be conceptualized and operationalized within the framework of planned policy reform devolving responsibility for infrastructure services to the panchayat level. The strategies will include, but not be restricted to the following.

1. Water Supply

a) While considerable progress has been made in the block in providing drinking water facilities (with the RWS coverage ranging from 60% to 100%), attention needs to be paid to improve service levels and ensure sustainability. The implementation strategy would have the following priorities:

- to provide water supply to presently unserved/underserved communities;
- to rehabilitate existing systems;
- to upgrade the facilities on demand if supported by willingness to cost-share on a substantial basis.

(b) Involvement of the communities in planning and implementation is considered most important. To inculcate a sense of ownership in the communities towards the facilities to be installed, contributions to investment cost would be considered an essential element.

(c) The project would finance the installation of some new versions of handpumps to demonstrate the easy maintenance aspects which is expected to create demand.

(d) Implementation would be taken up only for those communities which express willingness to take over the completed scheme and agree to operate and maintain these on their own.

(e) The project would hold training programs/workshops/demonstrations to create self sustaining O&M capabilities at the hamlet/Gram Panchayat level.

- (f) The communities would be sensitized regarding the need to monitor water quality at regular intervals to ensure that the water they drink is really safe. The project would support the establishment of a public health (PH) laboratory in the project area. Use of field kits for water quality testing will be promoted.

2. Environmental Sanitation

Very little progress has been made in this area, with the coverage under rural sanitation standing at as low a percentage as 3% of the rural population. This is largely attributable to the lack of awareness at the community level of the benefits that sound environmental sanitation can provide. The implementation strategy would have the following priorities.

(i) Sanitation

- (a) It is clear that substantial work needs to be done to improve the sanitation in the project area and the project will ensure an adequate emphasis on this aspect.
- (b) A promotion and mobilization campaign will be undertaken to create awareness of the dangers of open defecation and the benefits of using latrines.
- (c) On-site sanitation methods are considered most suitable in the villages and the installation of private latrines will be encouraged.
- (d) The project will make available a number of latrine designs, giving the user the choice to select the one that suits the household best according to price, space requirements etc.
- (e) The project would finance 'Demonstration Latrines' in places such as anganwadis, primary health centres, gram panchayat offices, etc.
- (f) The construction of latrines would be taken up only on the basis of demand from the users and their willingness to make cash contributions and offer unskilled labour.
- (g) The project would support the development of the necessary installation capacity by developing masonry capabilities through training programs and giving loan assistance as seed capital.
- (h) Considering the low income status of the villagers, the GOWB would consider appropriate subsidy/loan through the existing rural banks to accelerate the latrine program.

ii) Drainage

The strategy would be to educate the communities in respect of the health hazards of improper drainage arrangements and the need to prevent stagnant water pools and muddy surroundings at the water supply delivery points. Simple methods to improve the drainage and maintain general cleanliness at the water sources would be demonstrated through the project.

(iii) Solid Waste Management

Considering the small quantity of the solid waste generated, SWM is not expected to be a major issue. Disposal of cattle excreta would be one major problem and simple methods of disposal at the household itself would be demonstrated. The emphasis would be on creating awareness and inculcating hygienic habits relating to SWM at the household level itself.

3. Communication

- a. The communication strategy will be based on an exhaustive baseline and needs assessment survey conducted at the Mohammed Bazar block level. A social marketing approach could perhaps yield hard information on clients perceptions and needs which will influence the content and vehicle of behavior changing messages and training curricula.
- b. The strategy will attempt to present water and environmental sanitation issue as a single package. A basic connecting link here would be the health factor.
- c. The strategy will focus on various levels of clientele. In other words, within a scheduled caste village, apart from attempting to ascertain whether the adults have markedly different perception from upper caste villagers about their problem/needs and approaches to these, the strategy would also focus on other groups at the village level such as women, children, adolescent girls and boys. In a mixed caste village, the strategy would perhaps have to be positively weighted in favour of the scheduled castes in terms of substance and approach. Again the strategy toward a scheduled tribe village/s may have important differences. In effect, there may be a multi-layered communications strategy of a complementary nature.
- d. The communication strategy will emphasize as far as possible, training in IEC at all levels - of leaders of youth groups, women's groups, schoolteachers, gram pradhans, Sabhapatis, sabhadipatis, animators, facilitators and all

government implementing agency officials. Different levels of training materials may have to be developed in this context.

- e. The strategy will emphasize through its various stages of planning, implementation and evaluation that the success or failure of the project is in the hands of the community itself. Here considerable emphasis will be put on the role that women can play in the successful implementation of the project. Against this background, the strategy will be to underscore the fact that while the operation and maintenance of the water source would be their complete responsibility, this community project would expect contribution from the community in the form of labour and cash with regard to the provision of sanitation facilities.
- f. The strategy would be based on the perception that the 'hardware' to be provided to the client community will be optimally used only when the clients are prepared to accept the 'ownership' criterion with all or most of the responsibilities that this entails.
- g. As part of the communication strategy, efforts will be made to disseminate the findings of the project through workshops, reports, articles, case studies and networking with other similar projects. These materials will focus on project experience regarding community involvement, communication strategies and financial cost recovery systems, for example. Village level and block level RWSS project packages will be prepared which will include detailed guidelines on these various aspects. These packages are intended to facilitate the setting-up and replication of self-reliant community-managed water and sanitation projects, with only minimal assistance from outside agencies.
- h. The communication strategy will emphasize the need for constant evaluation of the project's activities so that any necessary modification/redesign of components can be effected as part of a dynamic model.

4. Institutional

- a. The Eighth Five Year Plan emphasizes the need for village-based management with the active participation and management of the water/sanitation facilities by the community. The project will assist local level authorities in formulating strategies for the implementation of RWSS projects at the block and village panchayat level. Human resource development initiatives will attempt to strengthen

institutions at various levels in order to optimize response to the community's needs. The major focus of such initiatives would relate to systematic training programmes.

- b. While the project will be executed jointly by the state government institutions and the community, an aspect that will be examined in detail will be the potential involvement of NGOs, who often prove to be effective intermediaries between the government and the community. Consequently, the project will consider using a link system of state government, local government, NGOs and the community, should such an arrangement be clearly seen to contribute towards meeting the community's needs.
- c. The institutional strategy of the project will be to attempt to bring together the different implementing agencies so as to minimize any significant variations in terms of perception or approach regarding implementation of the project.

VI. ACTIVITIES

1. Sub-objective:

To motivate the community to participate actively in the project by creating awareness and changing present attitudes to water and environmental sanitation issues through effective communication and training strategies.

i) Output: Situation analysis

Activity :
Intensive baseline/needs assessment study using a social marketing approach

ii) Output: Communication strategy

Activity:
Based on the above, a media assessment strategy leading in to a communication strategy. The KAP profile will suggest the emphases to be put on various communication vehicles - interpersonal, audio, audio visual, printed, group formations, etc. which will present water supply and environmental sanitation issues as an integrated issue.

iii) Outputs: (a) Co-ordinated IEC strategy implementation. (b) Heightened awareness

Activity:
Training of extension workers, such as facilitators/leader of groups, etc in IEC so that a uniform approach to WSS issues is offered to the prospective clients.

Agencies responsible

- i) Professional local organization skilled in social marketing surveys and formulation of communication strategies.
- ii) Government agencies in review of communication strategy
- iii) District/Zilla/Panchayat/Gram authorities
- iv) NGOs

2. Sub-objective:

To involve the community and more particularly the women to the maximum extent from the inception of the project in planning, implementation, operation and maintenance of facilities in order to help create a sense of responsibility and ownership.

i) Outputs:

- (a) Community sense of ownership of project
- (b) Empowerment of women

i) Activity:

- (a) Formation of neighbourhood networks at the hamlet level, Water and Supply and Sanitation(WSS) Committees as extensions of the Jana Swasthya Sthae Samitis (JSS) at the Gram Panchayat and village/hamlet levels. Provisionally, it is suggested that the gender-based networks have animators at the hamlet level; that WSS committees at the Gram Panchayat Level consist of animators as members, facilitators as conveners and the Pradhan as chairperson; that the JSS samiti consist of Pradhans at the Block or Panchayat Samiti level. The conceptual links for effective community participation thus brings together the animator and households at the hamlet level, animators, facilitators and panchayat members at the panchayat level though an extension of the JSS and the facilitator, sabhapati and Project Co-ordinator at the block level. Naturally this is not a static model, and there will be visible and invisible lines of communication established at and between all levels, including the Zilla Parishad.
- b) Discrete activities arising out of communication strategy such as group discussions, interpersonal motivation, training of extension workers and related training activities at the hamlet/village/cluster/block levels.

Agencies responsible

- i) Project staff (co-ordinator/communication specialist/training specialist/facilitators)
- ii) Panchayat raj officials (village leaders, Gram Pradhans, Sabhapatis, Sabhadipatis).
- iii) Animators at hamlet/village level
- iv) NGOs

3. Sub-objective:

To sensitise all implementing agencies of the Government, including panchayats regarding the need for community involvement in order to optimize the utilization and sustainability of facilities.

i) Outputs:

(a) Increased awareness created

(b) Positive change in attitude of government/non government officials towards concept of community participation.

Activity:

Regular training sessions, workshops, seminars for all concerned officials in the implementing departments and related departments as well as, where useful, official/non officials persons at state/national level.

Agencies responsible

- i) Implementing agencies such as the Department of Public Health Engineering, the Dept. of Rural Development, the Department of Panchayati Raj, as well as concerned departments such as the Dept of Health, Government of West Bengal.
- ii) Non-officials from the panchayati raj structure.

4. Sub-objective:

To strengthen the co-ordination between agencies involved in service delivery through institutional capacity building and joint training.

i) Outputs:

(a) Better understanding of each agency's role in the successful implementation of the project.

(b) Feedback into project's implementation strategy.

Activity:

(a) Regular joint workshops/seminars for official/non officials involved in implementation

(b) Study tours to similar projects in other states.

Agencies responsible

Implementing agencies such as Dept of PHE, Dept of Rural Development and Dept. of Panchayati Raj as well as concerned departments such as the Department of Health, Govt. of West Bengal.

5. Sub-objective:

To provide/upgrade water supply and environmental sanitation facilities.

- i) Outputs:
Needs assessment

Activity:

To arrive, with the community's participation, at a clear perception of its needs, so that priorities can be established.

- ii) Output:
Design and development of microlevel projects.

Activity:

To assist the community in planning for facilities.

- iii) Output:
Construction of facilities.

Activities

- a) Preparation of proposal with community involvement;
- b) Approval of proposal by community
- c) Construction of facility
- d) Handing over of facility to community
- e) Acceptance of the facility by community/individual acknowledging responsibility for its operation and maintenance.

Agencies Responsible

- (i) Community
- (ii) PHED/Panchayati Raj
- (iii) Project Staff

6. Sub-objective:

To develop additional local implementation capacity in the private sector, specifically in construction and maintenance.

- i) Outputs:
(a) Trained masons and handpump mechanics.

- (b) Village level persons proficient in maintenance of water and sanitation facilities.

Activities:

- a) Systematic training in construction and maintenance procedures both for men and women, if possible
- b) A phased schedule of training in operation and maintenance of water and sanitation facilities for both men and women.

Agencies responsible

- i) PHED, Government of West Bengal
- ii) Project Staff
- iii) International Training Network (ITN) Centre, Calcutta
- iv) NGOs

7. Sub-objective:

To develop a viable financial and cost recovery system.

Outputs:

- (a) Develop a sense of ownership and responsibility for water and sanitation facilities set up in the block
- (b) Development of a viable financial and cost recovery system, including a mechanism for provision of loan to beneficiaries through the existing rural banking system.

Activities:

- (a) Preliminary feasibility study on a location specific basis.
- (b) Discussions with concerned government officials and non-officials who have been associated with any comparable exercise.
- (c) Discussion with representatives of zilla parishads/-panchayat samitis/gram panchayats/community groups.

Agencies Responsible:

- (i) JSS committees
- (ii) Concerned government departments
- (iii) Project staff
- (iv) Rural Banks/Cooperative Society/ District Industries Centre officials

B & 9 Sub-objectives:

To prepare guidelines for future implementation based on tested and proven approaches to various aspects of the delivery system; and to demonstrate the impact and benefits of an integrated project approach to water and sanitation issues.

i) Output:

Feedback information for project implementation.

Activity:

Continual internal evaluation as well as systematic external evaluation exercises.

ii) Output:

(a) Material for networking with other development agencies both official and non official

Activity:

(a) Preparation of audiovisual/printed matter on project activities.

(b) Holding of workshops/seminars to discuss on-going project activities.

iii) Output:

Gathering of information for optimal implementation of activities.

Activity:

Holding of workshops/seminars to discuss the project's ongoing activities.

iv) Outputs:

Constructing a model, based on field experience, for replicable projects on a nation-wide basis; increased public awareness of demonstration project relevance.

Activity:

Putting together of WSS packages/kits which could serve as instructional material for similar projects. These will contain guidelines on various issues such as the viability of a cost recovery mechanism, the role of NGOs, the strengths/weaknesses of the communication strategy used, etc.

Agencies responsible

Project staff
GOI/GOWB

10. Sub-objective:

To develop a monitoring and evaluation system.

- (i) Output:
Situation Analysis.

Activity:
Study of the existing monitoring & evaluation system by a consultant.

- (ii) Output:
Progress indicators.

Activity:
Base line and KAP study and Analysis by a Consultant.

- (iii) Output:
Recommendations on institutional mechanism for Monitoring and Evaluation Mechanism.

Activity:
Analysis of data under above two activities.

- (iv) Output:
Establishment of Monitoring and Evaluation system.

Activity:
Development of formats and frequency of data collection and structural changes in the existing institutions.

VII ORGANISATIONAL STRUCTURE FOR PROJECT IMPLEMENTATION

1. MANAGEMENT

The State government through its local departments will primarily be responsible for the execution of the demonstration project with active participation and support from RWSG-SA in close coordination with the Department of Rural Development (DRD), Government of India. Apart from providing technical and communication support, RWSG-SA will be directly responsible for the dissemination of findings, monitoring, evaluation, and coordination. The PHED will be the nodal agency for the project.

In general, the project will be executed through existing channels with the active involvement of the community which means by the State government through its district level, block level and village level institutions working together with the community. Steering/advisory committees consisting of representatives from all involved sectors are proposed at state, district and block levels. These steering committees will meet regularly to discuss the progress of the project and to take decisions to ensure speedy and efficient implementation of the project, modifying strategies as necessary in consultation with the line personnel. Forming a "design support" team of specialists with specific terms of reference to suggest and where necessary, initiate modifications will be an integral part of the project implementation process.

At the state level the project co-ordinator/head of the project implementation support unit, will be responsible for the preparation of the final project document, introduction of the integrated approach package at block and village level; and coordination between different agencies. The co-ordinator will provide support to state government institutions for effective implementation of the project, monitoring, training, supervision of NGOs and consultants, and arrange workshops and seminars. The co-ordinator will work closely with the Panchayati Raj officials and government functionaries. Effectively, the project Co-ordinator will assist the BDO in project implementation.

NGOs could be responsible for providing extension and similar training activities, depending on the inputs into project formulation relating to their need and efficacy at this specific location. The responsibility of the management of operation and maintenance of installed facilities will be progressively handed over to the community.

2. ROLES OF DIFFERENT AGENCIES

The role of different agencies in the implementation of the demonstration project is discussed in the following paragraphs.

I. Community

The approach in this project will be different to that of the usual water and sanitation project that tends to measure its success in terms of installation of hardware. The community will play a very important role in this demonstration project. The role of the community will be to participate in the project from the initial stage itself. The inputs from the community are perceived as follows:

- (i) Participate in the process of need assessment.
- (ii) Decide about the level of service required by it and location of facility.
- (iii) Take active part in the project strategies formulation process.
- (iv) Take part in construction activities, workshops and training programs.
- (v) Organize the operation and maintenance of water and sanitation facilities at village level; and
- (vi) Participate actively in cost recovery.
- (vii) Participate in Monitoring and evaluation exercise(s).

II. State Governments

The state government will be the main implementing agency responsible for the execution of the demonstration project. The implementation will be done through the existing state, district, block and village level government institutions. The inputs from the state government are as follows.

- (i) Provide office space for the project office at block headquarters, with water and electricity, telephone, office furniture and equipment;
- (ii) Provide services of all relevant government personnel.
- (iii) Organize workshops, seminars, training camps, etc.,

- (iv) Construct water, sanitation, drainage and solid waste facilities through local agencies/users/NGOs/private sector.
- (v) Provide loans and other funding arrangements to beneficiaries for construction of water and sanitation facilities; and
- (vi) Review documents/guidelines prepared by the project staff.

III. Central Government

At the national level the Department of Rural Development, Ministry of Agriculture will coordinate and monitor the project. The inputs from the GOI are as follows.

- (i) Assist in finalizing the location of the project;
- (ii) Provide support in finalizing agreement between the state government and the RWSG-SA;
- (iii) Participate in different workshops and assessment missions;
- (iv) Assist in finalizing project strategies/priorities; and
- (v) Monitor progress and give suitable directions to implementing agencies.

IV. RWSG-SA

RWSG-SA will assist the state government in the implementation of the project. Apart from providing technical and communication support, the RWSG-SA will be directly responsible for dissemination of findings, monitoring, evaluation and coordination. The inputs from the RWSG-SA are as follows.

- (i) Provide services of consultants as needed;
- (ii) Develop training packages on different topics;
- (iii) Provide resources for construction of initial demonstration facilities in water supply and sanitation;

- (iv) Support training programs at various levels in cooperation with the state governments;
- (v) Disseminate lessons learnt at state, national and international level;
- (vi) Prepare guidelines and packages based on the tested and proven approaches; and
- (vii) Coordinate between different agencies.

3. ENVISAGED STRUCTURE TO FACILITATE PROJECT IMPLEMENTATION

The proposed structures relate to the benefits that can be derived in terms of project implementation from establishing a framework linking the hamlet/village to the state-level organization in a meaningful manner. The various levels at which committees relating to water supply and sanitation (WSS) are intended to be formed and representation in these committees are briefly outlined here.

(i) Hamlet/Village Level

Extension of JSS committee, specifically focused on WSS issues, consisting of suitable representatives from members of each household (emphasis on women, as far as is practical and possible)

The convenor of this committee would be the Animator chosen by the community from among the various household representatives.

Supporting functionaries at this level would be the anganwadi worker, the MPHWF (F) or (M) the handpump caretaker, women's/ adolescent girls/children's groups, etc.

(ii) Gram Panchayat/Village cluster level

The JSS Committee at this level will be composed of selected animators.

The convenor of the committee would be the facilitator, the chairperson would be the Pradhan and the Extension Officer could be the Co-chairperson.

The supportive network here would be the mechanic helper, the Mukhya Sevika/Sevak and MPHWF (F) (M).

(iii) Panchayat Samiti/ Block Level

The Janasasthya Sthayee Samiti (JSS) is an already-established committee at this level. The Samiti consists of the Sabhapati of the Panchayat Samiti, not less than 3 and not more than 5 persons elected from the samiti by the members themselves and not more than 5 persons from the State Government.

Since this committee is a functioning one, the project will seek to include the Project Co-ordinator, perhaps on a selective basis in the deliberations of the Committee. The sabhapati and the Block Development Officer (BDO) would be the key functionaries of this committee.

Supporting functionaries at this level include the Assistant sub-engineer (PHED), Extension Officers of the various concerned Departments of Government, the Primary Health Centre Doctor, etc.

(iv) District/Zilla Parishad Level

At this level, there already exists a Janasasthya Sthayee Samiti which consists of the Sabhadipati, no less than 3 nor more than 5 persons elected from the Zilla Parishad by its members and not more than 5 officials of the State Government.

The Collector of the District and the Sabhadipati would be the key functionaries here, with the PHED Engineer as the possible Convenor. It would be useful to seek permission, if possible, for the project co-ordinator to attend such meetings as are relevant and important to project implementation.

The supporting functionaries here would be the Deputy Heads of Departments such as PHED, Health, Panchayat Raj, Rural Development, Women and Child Development, etc.

(v) State Level

The steering committee of this level would be composed of the various concerned departmental heads, and RWSG-SA representatives. The convenor would be the Secretary, PHED.

4. Project Office

The block level project office to be set up will consist of the following personnel:

- (i) Project Co-ordinator
- (ii) Engineering Specialist
- (iii) Communication Specialist
- (iv) Training Specialist
- (v) Facilitators (probably 12; 1 for each Gram Panchayat in the Block).
- (vi) Office support staff.

VIII INPUTS

I. Human Resources

Project Coordinator - 1
Communications Specialist - 1
Training Specialist - 1
Engineering Specialist - 1
Office Assistant - 1
Data Entry Operator - 1
Driver - 1
Facilitators (village level) 12
Consultants - 25 M/M

II. Office Equipment

Computer - 1
Typewriter - 1
Portable Generating Set - 1
Miscellaneous Items

III. Transport

Motor Van - 1

IV. Training Equipment

Slide Projector - 1
Overhead Projector - 1
Colour Television - 1
Video Cassette Recorder - 1
Training Aids - 12 sets

V. Construction

Water and environmental sanitation demonstration facilities (excluding drilling of borewell). Quantity to be decided after a baseline and need assessment survey.

VI. Maintenance Tools

Tool sets for the maintenance of Indian Mark II Deepwell handpumps - 12 sets.

VII. Training Activities

- Training materials
- Training courses at selected institutes

IX ACTION PLAN AND IMPLEMENTATION SCHEDULE

	1990								1991		
	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1 Approval of project proposal	x										
2 Preparation of project discussion paper				x							
3 Initial workshop on project formulation						x					
4 Recruitment of project staff					x	x					
5 Establishment of project office						x					
6 Identification of consultant/ organization to carry out baseline survey/needs assessment survey					x						
7 Training of facilitators						x					
8 Baseline/needs assessment study/analysis of information/ presentation of report							x	x	x		
9 Project document									x	x	
10 Project launch workshop											x

X. FINANCING MECHANISM

The total cost of the project for all the components over the 3 year period is estimated at U.S. \$ 800,000.

1. Government of West Bengal: Non-reimbursable costs

The following components which are to be provided by the Government of West Bengal have not been included in the project costs. The cost of these components is to be borne entirely by the State Government.

- i. Office accommodation;
- ii. Office furniture;
- iii. Construction of water and environmental sanitation facilities, excepting the demonstration facilities;
- iv. Loan to beneficiaries/artisans;
- v. Subsidies, if any, for beneficiaries.

2. Funding Pattern

The Government of West Bengal and RWSG-SA will jointly finance the project. 25% of the budgeted amount will be provided by the State Government with the RWSG-SA making up the remaining 75% percent. RWSG-SA's contribution has been made possible through financial inputs by NORAD.

3. Operation of Imprest Account

An imprest account holding funds required for a 3- month normal operation of the project will be opened with a nationalized bank at Mohammad Bazar. The account will be operated by the project co-ordinator and the engineering specialist of the team. The project co-ordinator will submit a monthly statement of expenses to RWSG-SA. The responsibility for scrutiny and approval of the statement of expenses will rest with the RWSG-SA. The Government of West Bengal will, on receipt of the approved statement of expenses, replenish the project imprest account to the extent of 25% of the actual expenditure incurred by the project. Similarly, RWSG-SA, after scrutiny and approval of the expenses statement, will replenish the project imprest account to the extent of 75% of the amount actually incurred.

4. 'Popular Contribution' by Communities

With regard to the construction of water and environmental sanitation facilities (excepting the demonstration units), the beneficiaries are expected to make a 'popular contribution' which will consist of cash and/or labor as per the guidelines formulated by the Government of West Bengal in consultation with the community. The construction of new

water facilities to upgrade the service level will be considered only if and when the concerned community agrees

to make its contribution towards the capital costs and agrees to bear the full costs of operation and maintenance of the facility.

5. Loans to Artisans

As part of the local capacity building exercise, training will be imparted to potential masons and pump mechanics. The Government of West Bengal will consider providing loans to the artisans trained by the project through the District Industrial Centres/Rural Banks/Co-operative Banks so as to enable them to establish manufacturing/service centres in each Gram Panchayat.

6. Subsidies

Currently, the State Government has no scheme through which subsidies can be provided to extend financial support to those who wish to construct a twin-pit latrine for private use. Based on the experience of subsidy schemes working in other states, the Government of West Bengal will consider the formulation of such a scheme as part of the demand-generating exercise in the rural sanitation sector.

ANNEX 1

Status of Water Supply Coverage to Rural Population in Birbhum as on 1.3.1990

1.	Total No. of Villages	: 2,229
2..	Total Population	: 1,922,000
3.	<u>Piped Water Supply</u>	
	No of villages	: 61
	Population	: 173,000
	Percentage of population covered	: 9%
4.	<u>Spot Sources</u>	
	No. of spot sources	: 9,370
	Population	: 1,405,000
	Percentage of population covered	: 73.1%

TOTAL

Population	: 1,578,000
Percentage of population covered	: 82.1%
Balance to be covered	: 344,000 (17.9%)

2. Physical target for Rural Water Supply over the 8th 5 year plan period (1990-95)

Piped Water Supply (PWS)	: 9
No. of villages to be covered	: 134
Population	: 116, 000
New HBTW	: 440
New RBTW	: 900
New Wells	: 180
No. of wells to have sanitary protection	: 75
No. of PWS to be rejuvenated	: 1
Augmentation of PWS	: 14

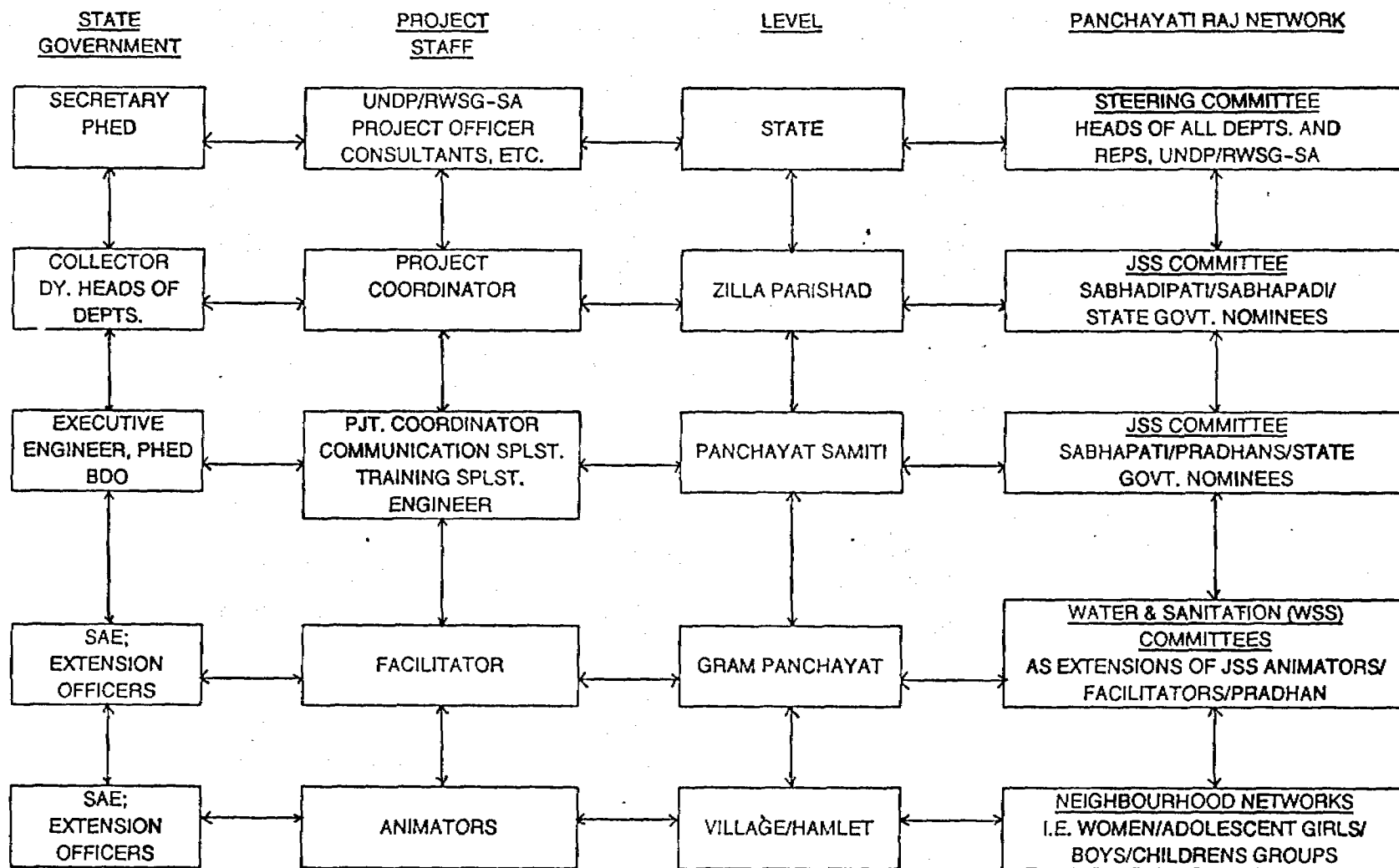
HBTW

Resinking/conversion	: 345
Replacement of handpump	: 1,381

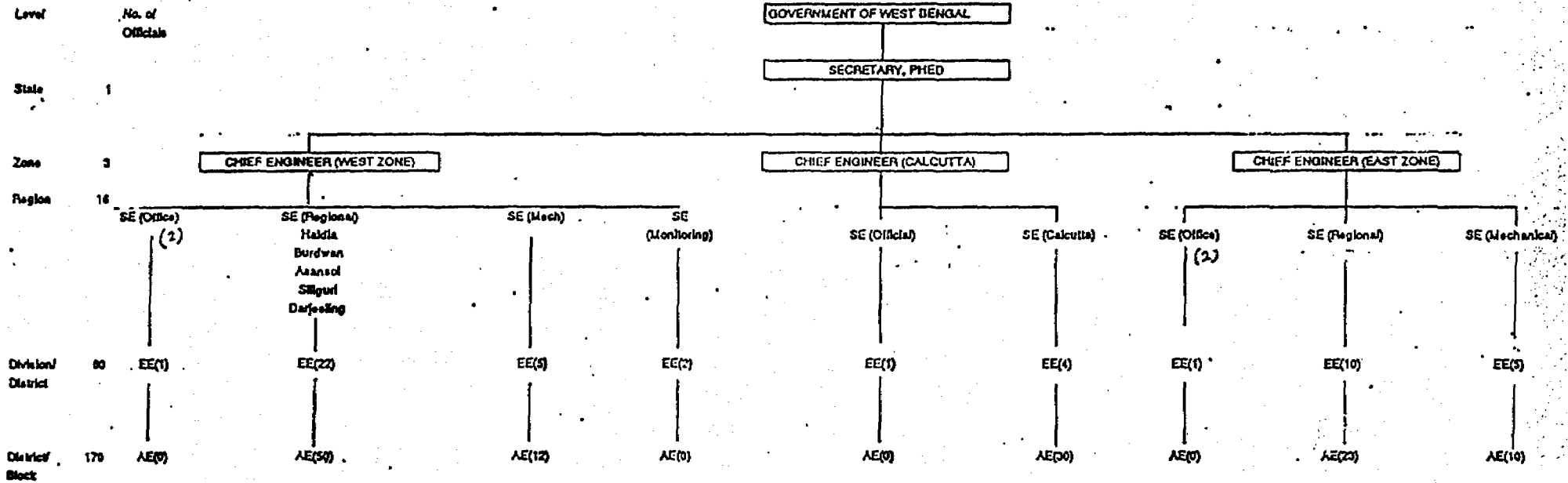
RBTW

Resinking	: 342
Replacement of handpump	: 300

ANNEX 2: TENTATIVE PROJECT LINKAGE ORGANOGRAM



ANNEX 3 : PHED ORGANISATION CHART



Note: SE= Superintending Engineer; EE= Executive Engineer; AE= Assistant Engineer
 Numbers in bracket indicate sanctioned strength