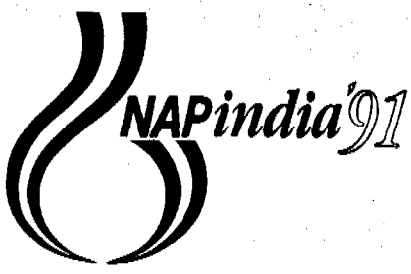
822 IN91

TECHNICAL PAPER : ESI, GUJARAT

Human Resource Development for Rural Sanitation



Conference on Indo-Dutch bilateral cooperation
in rural water supply and sanitation
February 25-26 1991 Lucknow

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HUMAN RESOURCE DEVELOPMENT FOR RURAL SANITATION

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I. Introduction: Sanitation is a health-related package, a way of life. It is a prime parameter in uorating quality of life. The components of sanitation are: personal hygience, nutrition and food hygience, sanitary house, disposal of waste waters, solid wastes safety, economically and environmentally prudent way and safe clean drinking water. It is expected to lead to improved health, income and sense of wellbeing. It has to be interowven as an ingredient of sustainable community development holistically rather than an isolated 'latrine programme'. It is not sufficient to provide electricity, roads and opportunities; it is equally necessary to provide cleaner habitat and hygienic conditions both within and outside one's place of residence. The entire village level activity, therefore, needs to be toned up and the Government has to provide training and extension input in this regard in a sustained fashion.

2. Magnitude of Sanitation Problematique : It is heartening to observe that decision-makers have appreciated the significance of preventive hygience vis-a-vis prophylactic and curative health measures. Preventive hygience and health measures would reduce load on expensive pharmaceutical hospitals and capital-intensive infrastructure, and also the concomitant habit of overmedication viz. iatrogensis among people. It has been guestimated that solution of santitation problbem would need investments of Rs.24 000

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crores at 1991 levels, implying a time factor of about a century to cover the entire country, even with simple and cost-effective sanitation options abiding by the criteria of 'untouched by hand' and 'out of sight'. Simultaneous change in attitude at the planning Commission would necessitate replacement of parameters of GNP/ GDP by more reflective Gross Ecological product (GEP) which will portary santitation conditions in terms of water taps, disinfected supplies and sanitary latrines inter alia, assuming linear growths. Such a predicament calls out the need of human resource development for rural sanitation.

3. Successful programmes : The Components of successful sanitation programmes are: generation of 'felt need', people's participation simple yet appropriate technology with foolproof construction without compromising on quality, integration of sanitation as part of community development and effecti e communication. It is necessary to create sanitation awareness by generating the need to have sanitation infrastructure by creating new status symbols in society, like having a sofa/ radio/ TV set and financial educational and social standing. It needs proliferation of conviction about foul odours or malddours; it has to be emphasised that nothing is good or bad entirely. Little malddours too can be effectively controlled alongwith nuisances of housefiles and mosquitoes with applications of scientific principles in all technologic options. It is to be appreciated that technology is much more adaptable than social change. Greater investments of time, efforts, communication and motivation are necessary to make social and societal changes, intended to benefit the masses.

4. Communication : Communication is a prime mover of social change. Communication is perception, expectation and involvement and it paces the way to information. Learning

Contd. 3...

material is to be conceived, perceived and concepted. Trainer has to imbibe the skills of effective communication by changing the attitude of 'type designs' permeating down from design offices or even ~~xxx~~ Safai Vidyalaya, There is a tendency to raise expectations among people which may culminate to frustrations. What is achievable within time and financial constraints should be projected.

The motivator or trainer has to approach the community respectfully, without any air of superiority and listen, discuss and educate in a friendly enviorenment, with a view to generating interactions so that the educator is benefitted. Without involvedent, a motivator remains a preacherx and never becomes an implimenter. A multichannel Communication presupposes an open mind.

Communication may be written, verbal/oral and/or audio-visual. It has to be carried out in simple local dialect (if possible) without the use of technologic/ management jargons or verbosity.

5. Identification of Leads, Timings, Models : The motivators have to emerge from beneficiaries. These should be the people who are respected by the community. These may be school teachers, religious leaders, sanitary insepctors, inservice personnel, extension officers, panchayat members, ICDS workers, Anganwadi workers, doctors/physicians, youth clubs, primary health centres, gram-sevaks and NGOS Mahila Mandal chiegs, scouts and guides and the like. Motivation programmes could be held on festival days or weekly market

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days. The message could be displayed in the form of either plays or drames or rhymes or jingles or poems. Written message could be communicated on bullock carts, bicycles, tricycles through women and/or children. The methodology of questions and answer, demonstrations and competitions are available. Annual competition of CLEANEST LATRINE, CLEANEST STREET or CLEANNEST HOUSE-GRONT, CLEANEST BACKYARD, LARGEST ORGANIC MANURE DUMP on occasions like Diwali, Holi, Gandhi Jayanti, Ramzan Idd, New Years Day could be organised, taking care to exclude past winners from future competitions.

6. Levels of Trainers and Trainees : Women are the worst affected by insanitary conditions. Children have clean minds to absorb concepts - good or bad. Hence motivators selected may be women and the education/awareness needs to be initiated at school ages. It can start with 'bringing any one piece/article on way to school' to be collected at the school, which should generate esprit de corps.

Participation level could be raised at ITIS and polytechnics. Disposal of human wastes could be integrated with nursery development or afforestation or science clubs or scitech or community centres. Polytechnic and engineering college students study a lot about sewerage and sewage treatement which is hardly practised these days at least in India. It is felt that half the portions on sewerage could be compressed and replaced by low cost or no cost sanitation options, which number over 100. Many of these are suitable for multi-stroeyed buildings, periurban areas and even catering houses and hotels.

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7. Monitoring : No project can be successful without monitoring. Its aim is to assess the intensity and frequency of interaction between field level motivators and the community, the level of usage of facilities, the extent if adoption of improved sanitary practices being introduced and to check the quality of the facilities provided. Monitoring could be simplified and effectively carried out by evolving simple and unambiguous checklists. Similar checklists for personnel like masons, motivators, supervisors and institutions should also have to be devised. Trainers are expected to be agents of change in sanitation.

I wish that replicates of Safai Vidyalaya in their improved and up dated versions sprout out from each region, State and major towns to expedite the implementation of rural sanitation using local skills, materials and management. Safai Vidyala will be too willing to play its role of development of human resources for rural sanitation.

Objectives

"IT IS NOT SUFFICIENT TO PROVIDE ELECTRICITY, ROADS AND JOB OPPORTUNITIES; IT IS EQUALITY NECESSARY TO PROVIDE CLEANER HABITAT AND HYGIENIC CONDITIONS BOTH WITHIN AND OUTSIDE ONE'S PLACE OF RESIDENCE. THE ENTIRE VILLAGE LEVEL ACTIVITY, THEREFORE NEEDS TO BE TONED UP AND THE GOVERNMENT HAS TO PROVIDE TRAINING AND EXTENSION INPUT IN THIS REGARD IN A SUSTAINED FASION".

Items for Orientation of Trainers:

1. CONCEPTS AND APPROACH TO SANITATION.
2. APPROPRIATE TECHNOLOGIES AFFORDABLE BY COMMUNITIES.
3. COMMUNICATION TECHNIQUES.
4. COMMUNITY INVOLVEMENT.

" COMMUNICATION IS PERCEPTION
COMMUNICATION IS EXPECTATION
COMMUNICATION IS INVOLVEMENT.
COMMUNICATION PAVES THE WAY TO INFORMATION"

: - Peter F. Drucket.

MODES OF COUMMICATION :

- VERBAL - RHYMES, JINGLES, Q & A TYPES
- WRITTEN - POEMS, QUOTATION
- AUDIOVISUAL - PLAYS, DRAMAS, SKITS.

DISPLAY SITES :

- PLACES OF FREQUENT VISITS
- ON BULLOCK CARTS.
- ON CYCLES, BYCYCLES, TRICYCLES

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TIMINGS : .FESTIVAL / WEEKLY MARKET DAYS

HOW ?

- DEMONSTRATIONS
- COMPETITIONS

LEVELS OF TRAINING :	THROUGH :
DISTRICT LEVEL OFFICERS	WOMEN
TALUKA LEVEL OFFICERS	AND
VILLAGE LEVEL OFFICERS	CHILDREN
N G O WORKERS	AND
PRIMARY TEACHERS	NON GOVERNMENT
HEALTH STAFF	ORGANISATION
ICDS WORKERS	
ANGANWADI WORKERS	
SANITARY INSPECTORS	
YOUTH CLUB MEMEBERS	
SCOUTS AND GUIDES	
RELIGIOUS LEADERS	
P H C WORKERS	
GRAMSEVAKS	
INSERVICE PERSONNEL	

COMPONENTS OF TRAINING :

1. OBJECTIVES OF ORIENTATION.
2. SANITATION CONCEPT.
3. ROLE OR TRAINERS IN PROMOTING SANITATION.
4. SANITATION AND DISEASE TRAINMISSION.
5. LOW/NO COST APPROPRIATE TECHNOLOGIES.
6. DEMONSTRATION OF SANITARY FACILITIES.
7. FIELD VISIT.
8. COMMUNICATION AND ITS TECHNEQUES.
9. AWARENESS BUILDING AND COMMUNITY INVOLVEMENT.
10. MONITORING OF SANITATION ACTIVITIES.
11. CHLOGRINATION OF POTABLE WATERS.
12. IMMUNISATION : PREVENTION AND CARE OF DIARRHOE.

I. PLANNING, PROCEDURE, MANAGEMENT, IMPLEMENTATION OF SANITATION PROJECT THROUGH NON GOVERNMENTAL ORGANISATIONS (NGO'S).

(1) ON 18-11-1988 RESOLUTION ISSUED BY GWSSB TO HANDOVER WORK TO E.S.I. AS A NODEL AGENCY TO IMPLEMENT LOW COST SANITATION THROUGH N.G.O'S.

(2) PROGRAMME WAS PREPARED BY E.S.I.FOR IMPLEMENTATION & PREPARATION AS UNDER :-

i) SELECTION OF N.G.O. BY DECEMBER, 1988.

ii) SELECTION OF VILLAGES BY N.G.O. FROM OCTOBER, 1988 TO FEBRUARY, 1988.

iii) SELECTION OF BENEFICIARIES BY NGO-JANUARY TO FEBRUARY,1988.

iv) TRAINING OF N.G.O.'S. IN MARCH 1989 BY E.S.I.

v) TRAINING OF GWSSB, BY 2/1989 BY E.S.I.

vi) TRAINING OF V.P.STAFF/VILLAGE PEOPLE/MASONS IN 3/1989.

vii) PAMPHLET, FORMS, POSTERS PRINTING BY 3/1989.

viii) COMMENCING CONSTRUCTION OF LATRINES BY APRIL 1989 & TO COMPLETE BY MARCH, 1992. (20,000 LATRINES).

(3) PLANNING :-

Period.	Palnning. (Nos.)	Achievements (Nos.)
3/89 to 5/89	1100	1407
6/89 to 8/89	1200	2228
9/89 to 11/89	1300	2137
12/89 to 2/90	1300	3451
	4900	9273

SIMILARLY FOR :-

Period.	Planning.(Nos.)	Achievements(Nos.)
1990-91/3	~~5200~~---	11815(Upto 2/91)
1991-92/3	----	---
1992-93/3	----	---
Total.	30000	NUMBERS. 21088 (Upto 2/91)

.....2.

FUNDS - PHASING :		Actual Expdr. incurred.
89/90	Rs.1,40,00000	1,98,49,406
90-/91	Rs.1,60,00000	1,68,39,418 (upato 1/91).
91-92	Rs.1,60,00000	----
92-93	Rs. 90,00000	----
	Rs.5,50,00000 (5.5 Crorees)	3,66,88,824 (Upto 1/91).

II. ACHIEVEMENTS :

1) GWSSB INVITED NGO FOR EXPLAINING THE SCHEME.
N.G.O'S IDENTIFIED 120 NUMBERS FOR DISCUSSION.

2) 85 N.G.O.'S ATTENDED ON 20-1-39 MEETING.

3) CHAIRMAN & MEMBER SECRETARY GWSSB FINANCIAL CONTROLLER, O.S.D. (S.E.), HON. ADVISER (ISHWARBHAI).

4) OUT OF 85 N.G.O'S - 55 NUMBERS WERE SELECTE WHO COULD UNDER TAKE LOW COST SANITATION SCHEME.

5) THESE WILLING N.G.O'S (55 NOS) ENTERED INTO AGREEMENT (ON RS. 10 STAMP PAPER).

6) TRAINING ARRANGED I BATCH OF 30 NGO'S AND NGO'S TRAINED THEIR OWN MISTRIES.

7) IInd BATCH TRAINING FROM 7/3/89 TO 11/3/1989 25 NGO'S ATTENDED.

8) THEN 55 MEMBERS OF NGO'S TRAINED THEIR MISTRIES/MASONS FROM 3/1989 TO 4/1989.

9) OUT OF 55 N.G.O'S, 7 NUMBERS DROPPED OUT THUS 48 NGO'S REMAINED.

10) FROM 12 DISTRICTS 382 VILLAGES WERE SELECTED BY NGO'S WITH 16800 NUMBERS OF LATRINES PROGRAMME PLANNED BY N.G.O.'S.

11) THE ESTIMATED COST OF THIS 16800 LATRINES WORKS OUT TO = 16800 x 2000 (NET) PLUS Rs. 357 E.T.P.CHARGES.

.....3.

(12) OUT OF ABOVE E.T.P. CHARGES Rs.357 MONEY DISTRIBUTION AMONGS AGENCIES AND BENEFICIARIES AS UNDER :-

Rs. 100 FOR ESI FOR SUPERVISION + GUIDANCE

Rs. 100 FOR NGO FOR SUPERVISION IMPLEMENTATION.

Rs. 100 FOR BENEFICIARIES FOR THEIR MANAGEMENT OF PROCESSEMEN OF MATERIALS ETC.

Rs. 57 FOR GWSSB OVERALL SUPERVISION MONITORING MANAGEMENT.

Rs. 357/- TOTAL E.T.P.

(13) GRANT-IN-AID

HARIZAN, ADIVASIS AND ECONOMICALLY BACKWARD Rs.1500/- IS GRANT AND FOR OTHER GRANT IS Rs.1000/-.

III. HOW PROJECT IMPLEMENTATION DONE THROUGH NGO'S.

(1) WHY ESI IS SELECTED AS A NODAL AGENCY ? IT HAS GOT EXPERIENCED DIRECTOR SHRI ISHWARBHAI PATEL.

(2) BOARD CALLED FOR INFORMATION FROM EDUCATION DEPARTMENT, KHADI BOARD, GRAM TECHNOLOGY FOR LIST OF NGO WHO CAN TAKEDUP THIS SANITATION WORK.

(3) SELECTION OF NGOS WAS LEFT TO EST (NODAL AGENCY) IN COLLABORATION WITH THE GWSSB.

(4) DETAILS OF NGO'S CALLED FOR AS PER ANNEXURE-A. DETAILS OF BIODATA OF NGO.

(5) NGO'S RESOLUTION STATION THAT THEY ARE WILLING TO TAKEUP THE WORK.

(6) SIMILARLY VILLAGE PANCHAYAT ALSO PASSED A RESOLUTION STATING THAT N.P. IS WILLING TO TAKE UP THE WORK AND ATLEAST 25 LATRINES WILL BE CONSTRUCTED IN THE VILLAGE.

(7) NGO'S GAVE LIST OF VILLAGES ALONG WITH NUMBER OF LATRINES VILLAGE WISE.

(8) PANCHAYAT RESOLUTION ALSO RECEIVED SIMILARLY.

(9) NGO'S DETAILS OF THEIR MANAGING BOARD AND LIST OF WORKERS,

.....4.

LIST OF IMPORTANT PERSONS? AUDIT STATEMENT OF NGO AND ANNUAL REPORT OF NGO'S WORKING AND CHARITY COMMISSIONERS CERTIFICATE.

(10) THE SAMJHOTI I.E. AGREEMENT BETWEEN ESI AND NGO EXECUTED.

(11) THE LIST OF BENEFICIARIES ARE RETAINED WITH NGO'S AND LIST OF NUMBER OF LATRINES VILLAGEWISE GIVEN TO E.S.I.

(12) APPLICATION OF INDIDIDUALS IS GIVEN TO NGO AND NGO SENDS AFTER CONSTRUCTION OF LATRINE TO E.S.I.

(13) THE ARRANGEMENT IS NGO CLEARS ALL REQUIREMENTS OF LEGALITIES WITH PANCHAYAT AND INDIVIDUALS.

(14) E.S.I. WILL RECEIVE NAMES, NUMBERS OF LATRINES, VILLAGE ETC. FROM N.G.O.

(15) A REGISTER IS MAINTAINED BY E.S.I. (THE COLUMNS, DETAILS ARE AS PER ANNEXURE-B),

(16) DETAILS OF BENEFICIARIES OF VILLAGE UNDER TAKEN BY LALBHAI GROUP NGO "LOSUNDRA VILLAGE"- ANNEXURE-C.

(17) ANNEXURE-C WILL GAVE DETAILS DATA ... UPTO COMPLETION OF LATRINE.

(18) THEN DETAILS OF COST ESTIMATE -
INSTEAD OF CASH, ADVANCE ONE SET OF MATERIALS GIVEN AS ADVANCE (PAN, FOOT REST, PIPE AND TRAP) MANY PEOPLE HAVE CONSTRUCTED THEIR LATRINE.

(19) WORK STARTED BECAUSE TRAINING COMPLETED AND NGO'S MOTIVATED AND AWARENESS CREATED.

(20) WHERE BENEFICIARIES EXTREMELY WEAK FINANCIALLY, NGO'S HAVE CONSTRUCTED WITH THEIR OWN FINANCIAL ASSISTANCE (25% CASH, LABOUR COMPONENT, MATERIAL AND NGO'S CONTRIBUTION).

(21) NGO ARRANGED WITH BRICK MANUFACTURERS SAND SUPPLIERS OR METAL REINFORCMENT STEEL BARS OR STONE ETC. TO SUPPLY FROM SUPPLIERS. NGO'S TOOK RESPONSIBILITY ON THEIR OWN CREDIBILITY FOR MATERIALS SUPPLY.

.....5.

(22) THE PAYMENT FOR SUPPLY OF MATERIALS ADJUSTED WHEN GRANT MONEY MADE AVAILABLE.

(23) NGO'S FURTHER, ALSO APPROACHED LABOURERS AND PIECE WORKERS TO CONSTRUCT 4-5 LATRINES IN ONE AGREEMENT AND PAYMENT MADE AFTER COMPLETING LATRINE WORK IN ALL RESPECT.

(24) NGO'S FURTHER PAID SUBSIDY MONEY PLUS EXCESS COST IF ANY BY BENEFICIARIES PAID TO PIECE WORKERS AND SUPPLIERS.

(25) ONLY IN CASE OF ONE NGO IN TRIBAL BELT AN ADVANCE WAS REQUIRED TO BE PAID BY E.S.I. OF Rs.25000/- AS TRIBAL PEOPLE BEING POOR COULD NOT COME FORWARD WITH ADVANCE.

(26) READYMADE SUPERSTRUCTURES OF 4-5 TYPES MADE OF RMP SHEETS, HUME PIPE, ASBESTOSE FIBRE GLASS.

(27) SIMILARLY VARIOUS TYPES OF DOORS ALSO SUGGESTED.

(28) PEOPLE HAVE ADOPTED FABRICATED M.S. SHEETS AND FRAME AND NOT WALLING AND ROOF.

(29) COST WITH LOCAL MATERIAL ESTIMATED COST Rs. 2150/-.

(30) DETAILS OF MATERIALS REQUIRED :-

1000 BRICKS, 4 BAGS OF CEMENT 31 CUFT. SAND, PAN, TRAP, PIPES ONE SET 1 DOOR, KOTAH STONE (2 Nos x 2' x 2' x 1") ONE T ANGLE.

CONCRETE BURNT BRICK, STONE COVER OVER PIT WHITE WASH, COLOUR, LABOUR, MASON ETC.

(31) METHOD OF IMPLEMENTATION :-

FIRST NGO'S MEETING TO EXPLAIN TO SELECT VILLAGE AND BENEFICIARIES.

(32) E.S.I. APPROVES NGO WISE NUMBER OF LATRINES AND COST OF LATRINE.

(33) NGO AND AWARENESS, MOTIVATION, DEMONSTRATION RECEIVING APPLICATION SITE SELECTION BY NGO WITH GUIDANCE OF E.S.I.

(34) MASONS TRAINED, E.S.I. SENT MATERIALS (SOFAR 9624 NOS. SENT COST Rs. 15,78,366 RECOVERED Rs.4 LAKHS).

.....6.

(35) AFTER COMPLETION OF 25 NOS. EACH NGO SENDS REPORT THEN E.S.I. FIELD WORKERS GOES TO SEE THE SITE.

(36) ESI REPRESENTATIVES SEES THE FOLLOWING ON SITE VISIT.

(37) E.S.I. ISSUES INSPECTION NOTES AFTER THE SITE VISIT AND CHECKING INSTRUCTIONS.

(38) NGO'S ATTEND WITH ALL COMPLETED BENEFICIARIES CASE PAPERS IN TWO COPIES (CONSISTING OF APPLICATION DETAILS ETC.).

(39) E.S.I. AFTER GETTING SATISFIED THAT WORK IS DONE ON SITE ISSUES CHEQUES AS PER RULES.

(40) THEN DETAILS OF DOCUMENTS VERIFIED AT E.S.I.

i) INFORMATION ABOUT N.G.O.

ii) AGREEMENT BETWEEN N.G.O.+ E.S.I.

iii) RESOLUTION N.G.O.WILLING TO TAKEUP WORK.

iv) VILLAGE PANCHAYATS RESOLUTION.

v) BENEFICIARIES CERTIFICATE FOR EXPENDITURE IS NOT LESS THAN SUBSIDY.

vi) NGO'S RECEIPT Rs.100/- PER BENEFICIARY.

vii) APPLICANTS INCOME CERTIFICATE ISSUED BY SARPANCH.

viii) NGO VERIFIED INCOME TAX ETC.

ix) NGO CERTIFY THAT WORK COMPLETED AS PER DESIGN AND ACTUALLY IN USE.

(41) NGO SUBMITS FOR PAYMENT WITH DETAILS OF BENEFICIARY, ADDRESS, CASTE, SC/ST., ECONOMICALLY BACKWARD AND OTHERS AND HOW MUCH ENTITLED AND FEE TO BE TAKEN BY N.G.O. FOR EACH UNIT.

(42) FOR THE ABOVE DEMAND NGO BRINGS CERTIFICATES.

(43) SUBMITTING OF ACCOUNDS TO BOARD AND DEMANDING FUNDS BY E.S.I.

(44) INDIVIDUAL BENEFICIARIES-DETAILS TO CHECK WHETHER THEY HAVE RECEIVED PAYMENT FROM NGO + STAMPED RECEIPT SENT TO BOARD TO CHECKUP ON FIELD RANDOM CHECKING - HOW MUCH PAID ETC. BY BOARD/E.S.I

.....7.

(45) NGO WILL ATTEND TO FURTHER M. & R. E.I.C. FOR ONE YEAR.

IV. RECORDS & PROGRESS REPORTS :

(1) REGISTER NO.1 INDIVIDUAL NGO'S ACCOUNTS MAINTAINED.

(2) INCLUDES - DATE OF PAYMENT, CHEQUE NUMBER, AMOUNT AND VARIOUS STAGES OF PAYMENT (SUCH AS 50%, 75% 100%) REGISTER ALSO GIVES IN ANY PARTICULAR DAY PAYMENT WITH 50%, 75% and 100% PAID. NGO USE DETAILS MAINTAINED.

(3) TOTAL PAYMENT TO NGO'S BILLWISE MAINTAINED IN OTHER REGISTER.

(4) PROGRESS REPORT MONTHWISE REPORT IS KEPT REGISTER MAINTAINED SHOWS NUMBER OF APPLICATIONS RECEIVED, FINALISED ETC. COMPLETED LATRINES, INCOMPLETED LATRIENES PAYMENT MADE ETC. NOTED.

(5) REGISTER NO.2 SANITARY WARES SUPPLIED TO NGO'S DATEWISE DETAILS ISSUE ETC.

(6) REGISTER NO.3 VILLAGEWISE REGISTER SHOWING COMPLETED LATRINES /DATEWISE.

(7) REGISTER NO.4 - FIELD VISIT - DATE, INSPECTOR WHO HAS VISITED WHERE HE HAD GONE? HOW MANY VILLAGES VISITED TOTAL AND OBSERVATION POINTS.

(8) REGISTER NO.5 COMPLETED AND INCOMPLETED LATRINES AND DETAILS.

(9) REGISTER No.6 DAILY PROGRESS - REGISTERS COMPLETED/INCOMPLETED LATRINES PAYMENT MADE NUMBERS, NO.OF APPLICATION ETC.

(10) REGISTER NO.7 - INWARD.

(11) REGISTER NO.8 - OUTWARD.

(12) REGISTER NO.9 - NAME OF VILLAGE SELECTED & BENEFICIARIES - NGO ETC.

(13) REGISTER NO.10 } NAME OF THE BENEFICIARIES WHO HAVE

(14) REGISTER NO.11 } COMPLETED AND RECEIVED PAYMENT.

(15) INSPECTION REPORTS ARE ISSUED TO NGO'S FOR RECTIFICATION DEFICIENCY.

.....8

(16) AFTER COMPLETING ONLY PAYMENT IS MADE TO NGO.

(17) WHILE PAYMING WHETHER INSPECTION REPORTS COMPLETED OR NOT ALSO CHECKED.

(18) FOR INSPECTION, DEFINITE FIXED POINTS FOR INSPECTION ARE GIVEN IN THE FORM OF TABLE-INSPECTORS HAVE TO VARIFY EACH POINTS AND RECORD IN PRESCRIBED PROFORMA POINT BY POINT SAY (i) WHETHER PLASTER DONE OR NOT, (ii) DOOR FIXED OR NOT? (iii) COLOUR WASH DONE OR NOT ? ETC.

(19) WHTHER LATRINE IS IN USE AFTER COMPLETION OR NOT ALSO TO BE CHECKED AND RECORDED.

(20) THESE EVERY LATRINE IS INSPECTED BY INSPECTORS FROM E.S.I. WITH EXTREME CARE AND MINUTE DETAILS SO THAT QUALITY AND QUANTITY ARE BOTH MAINTAINED.

(21) N.G.O'S. CAPACITY IS EVALUATED ON MONTHLY PROGRESS OF COMPLETED LATRINES - ONLY AFTER GETTING SATISFIED THAT THEY ARE REALLY CAPABLE FURTHER WORK IS ALLOTED. FOR THIS EVALUATION DETAILS OF INSPECTION POINTS, NATURE OF AND QUALITY OF WORK AND SPEED OF CONSTRUCTION ARE TAKEN INTO CONSIDETATION.

* * * * *

ACTIVITIES DONE BY E.S.I.(FROM MARCH,89 TO FEBRUARY,91).

Sr. No. 1.	Particulars. 2.	March,89 to Feb.,90. 3.	March,90 to Feb.,91. 4.
1.	Target.	20,000	30,000
2.	Application Received.	14,261	28,700
3.	Organisation taken part.	62	65
4.	Total No.of villages where implementation of latrines is done.	217 villages. (10 Dist. & 31 Talukas.)	627 (17 Dist. & 65 Talukas)
5.	Total Subsidy paid.	Rs.1,56,03,300/-	1,54,39,100/-
6.	Monthwise latrines constructed.		
	March.	332	1762
	April.	470	1591
	May.	605	1160
	June	604	1481
	July	815	1116
	August	809	1279
	September	742	570
	October	865	561
	November	580	455
	December	835	680
	January	1130	857
	February	1486	303
	Tptal.	9273	11815
	Grand Total.	21088 (Upto Feb., 1991).	

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822 IN91

POSITION PAPER : KERALA

NAPindia'91

Conference on Indo-Dutch bilateral cooperation
in rural water supply and sanitation
February 25-26 1991 Lucknow

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PROJECT HISTORY - SOCIO-ECONOMIC UNITS, KERALA

Background

Socio-economic units, in Kerala was conceptually formulated during 1984-85. In 1984 both the Governments of the Netherlands and Denmark launched a joint mission to develop systematic framework for implementation of three socio-economic units and a Co-ordinating Office to work jointly with the Kerala Water Authority (KWA). The three units are located in the north, central and southern parts of Kerala State. Each unit covers a project area which consists of about 600,000 population. The activities are concentrated in 73 panchayats (approximately 2 million people) where 11 bilateral water supply schemes are under implementation. The activities include community education, community mobilization, human resource development and institutional development including training programmes (for staff members of health, social welfare, panchayats rural development and voluntary sectors) , establishment of viable and realistic management information system etc. The major thrust of the programme interventions are on developing micro-level planning and implementation system and procedures at the local level.

Objectives

The longterm objective is to improve the quality of life and health of rural population by providing safe drinking water and sanitation facilities to the people in the selected rural panchayats.

The immediate objective of the socio-economic activities are, in partnership with the KWA, to :

a) facilitate the integration and institutionalization of relevant socio-economic activities and methods into KWA's current programme for water supply;

b) continue to develop integrated, sustainable and replicable strategies which will, within the community and household-

- contribute to improved hygiene/health practices related to safe handling and use of water;
- enhance sanitation practices and essential sanitary facilities.

During the process SEU's are to develop and demonstarte creative and innovative approaches in the following areas :

- to involve the communities specially the women folks in the site selection of public standposts (street fountains,) functionality and coverage studies of piped water supply schemes, use and maintenance etc.)
- to closely follow the implementation of the schemes with participation of Ward Water Committeees (WWCs) and be

directly involved in working out detailed designs for providing 90% coverage to the community;

- to introduce meaningful and appropriate hygiene education activities (cost effective) with more focus on traditional and local media;

- to develop and implement cost effective sanitation programmes (both household and institutional latrines) in selected areas;

- to develop a systematic inbuilt monitoring and evaluation mechanism for periodically assessing and improving the progress of the programme components;

- to strenghten the capacity of existing government departments and local level organizations to plan and implement their activities related to drinking water and sanitation.

Community Participation and Mobilization

The core element of the project is to ensure community participation through the involvement and mobilization of the communities in the selected public standposts, locations for sites for low cost latrines, organization of hygiene education programme and beneficiary meetings, upkeep of standposts, fault reporting of the schemes etc.

The identification of the optimum locations of public water points add a social dimension to the engineering activities. Site selection ensures population coverage rather than area coverage. The minimum criteria for site selection works are :

(a) Minimum 15 households (except under unusual circumstances) maximum of 40 households per public tap;

(b) Maximum walking distance to standpost 200 to 250 metre.

This is one central place for the involvement of people and KWA in the selection and location of public standposts. The process closely involves the community in the planning and design of the water supply scheme. For facilitating this task, Ward Water Committees have been formed in the selected panchayats. These are representative groups from each ward who determine the pattern by which water supply and sanitation programmes can be implemented in the locality. A ward contains an average of 3,000 to 4,000 people. Ward Water Committee (WWC) compose of members such as elected panchayat members, two women representatives, two representatives of youth organizatioh, ICDS supervisor/Junior public health nurse and an active social worker. Due to continuous involvement of local water committees the commitment and motivation of the people towards the water schemes have increased.

The selected sites for standposts are indicated in each map (1:4000 scale) and subsequently KWA determines the feasibility of the standpost and carries out hydraulic calculations. After

this process, the technically feasible sites are discussed and agreed in a panchayat meeting, which are attended by members of ward committees, KWA and SEU staff.

Due to this active involvement of the local people, KWA and panchayat in the selection process, the parties are satisfied with this approach. The Ward Water Committee also facilitates the establishment of creative links between users of relevant institutions such as Panchayats, KWA, departments of health, rural development, social welfare, voluntary organizations etc.

Hygiene Education

A health education sub committee composed of three people (2 females and 1 male) has been selected from some Ward Water Committees for the the planning and implementation of hygiene education programmes. The objective of the education is to improve hygiene practices related to water use and sanitation with the purpose of reducing the.the incidence of water borne and water-washed diseases, and thus contributing to improved health of the people. In addition to this continuous training programmes, exhibition, medical camps and mobilization campaigns are being organized with the help health and social welfare departments.

As an initial effort, school health clubs have been formed in 23 selected schools for developing good health and hygiene practices among pupils on various aspects related to water; environmental sanitation and other associated factors.. The members of the health clubs have been involved in activities related to school hygiene, mobilization and motivation activities at household level.

Sanitation

In the pilot programme 5296 latrines and approximately 46 demonstration and institutional latrines (in schools, ICDS centes, primary health centres, etc.) have been built with the participation of the people. The project provides a 75% subsidy to the poorest people. The remaining 25% is provided by the beneficiaries in both labour and cash. The cost of a latrine varies from Rs. 1500 to Rs. 2000.

Environmental sanitation is another component of the project. This includes sanitation around public standposts, school sorroundings, market places etc.

In the sanitation programme, locally available masons were selected and trained for constructing the latrines. Three months before the construction activities, the mobilization programmes are carried out with the identification of beneficiaries. The panchayat is responsible for implementing the programme. A beneficiary committee at ward level is established to provide the necesary support for carrying out the construction activities as well as motivation and mobilization work. The implementation committee is responsible for the procurement of materials, storage, monitoring and supervision of the construction activities. The day to day managerial jobs are carried out by a

beneficiary committee at the ward level.

Atleast 3 months before the implementation of the programme and for atleast for one year the use of latrine is monitored carefully to reinforce the hygiene education and deal with any problem that might have arisen. Independent evaluation of the sanitation programme has shown that 95% of the households and 100% of the institutions are using the latrines and keeping them clean. Similarly, the incidence of diarrhoeal diseases seems to have been reduced in part as a result of the programme.

Women in the Programme

As stated in the objective of this programme, a central feature is the strengthening the community participation in relation to water, health and sanitation. Within this, particular emphasis has been given to women. In the SEU programme the major challenge will be to build on successful past initiatives gradually forming a more coherent approach to support and empower women.

In areas where women organizations are not existing, SEU is helping to form womens groups, besides measures to strengthen and motivate existing ones. Another innovation of the organization and training of women masons in the construction of latrines programme. For carrying out health education activities 2 women and a man from the water committees are selected and given short term training. They implement the hygiene education programme. Health education and environment programmes (such as well chlorination) with the help of local youths (both women and men) have been used to promote the health supportive behaviour.

Background

The Kerala Water Authority is entrusted with the provision of safe water, specifically piped water, for the entire state. It has charge of approximately 1,600 schemes of varying size. Among these are 11 piped water schemes being implemented with the support of the Governments of Netherlands and Denmark. The 11 piped water schemes, number of panchayats each covers and population as of 1981 are :

Dutch Supported

Vakkom-Anjengo	-	6 panchayats	-	134,000 population (1981)
Kundara	-	7 panchayats	-	160,000 Population (1981)
Cheriyanad	-	1 panchayat	-	20,000 population (1981)
Koipuram	-	1 panchayat	-	24,000 population (1981)
Thrikkunnapuzha	-	5 wards	-	12,000 population
Nattika-Firka	-	10 panchayats	-	231,000 population (1981)
Mala	-	6 panchayats	-	136,000 population (1981)
Pavaratty	-	18 panchayats	-	400,000 population

Danish Supported

Eddapal	-	5 panchayats	-	127,000 population (1981)
Kolacherry	-	8 panchayats	-	170,000 population (1981)
Cheekode I	-	3 panchayats	-	56,000 population (1981)

As stated in the plan of operation, the long term objective of the Socio-Economic programme is to improve the health and the living standards of the people. Specifically, the immediate objective of the project are, in the partnership with KWA, to :

a) facilitate the integration and institutionalization of relevant socio-economic activities and methods into the KWA's current programme for water supply;

b) continue to develop integrated, sustainable and replicable strategies which will, within the community and household -
   - contribute to improved hygiene/health practices related to safe handling and use of water
   - enhance sanitation practices and essential saniatry facilities

c) strengthen/establish mechanisms which enable people and their local institutions to plan and participate in activities related to water supply, sanitation and hygiene education. Particular emphasis will be paid to women's involvement.

There are three Socio-Economic Units, each with three professionals, supporting adminitrative staff. Two Units currently have temporary field workers. Each unit is based in a regional office of the KWA. The first unit (called SEU-North) was established with Danish support in the northern region of Kerala in March 1987. The other units (SEU-South and SEU-Central) were set-up about a year and a half later in August 1988 with Dutch support. There is also a small coordinatimg office (CO) in

Trivandrum which is also concerned with institutional aspects of the programme and integration. Although the Socio-Economic Units (SEUs) are directly funded by the donors, they are responsible to and work closely with the Kerala Water Authority. Each Unit covers a project area with a current population of 400,000 to 450,000. Work in two large schemes (Pavaratty , 18 to 20 panchayats) and Cheekode II (7 pancahyats) has not yet started pending in final approval.

822 IN91

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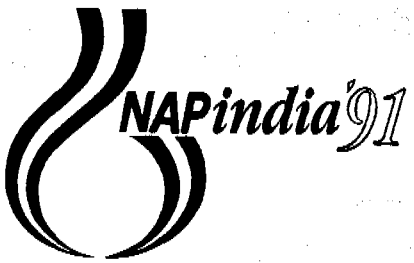
TECHNICAL PAPER : KERALA

Approach to Monitoring and Evaluation of Water Supply and Sanitation Programme



Conference on Indo-Dutch bilateral cooperation
in rural water supply and sanitation
February 25-26 1991 Lucknow

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Approach to Monitoring and Evaluation of Water Supply and Sanitation Programme

This paper makes a somewhat artificial but nonetheless helpful distinction between macro and micro monitoring and evaluation. Macro refers to monitoring of the projects, regional and national levels as well as at the level of donor agencies - information needed for monitoring the progress of the project. Micro refers to monitoring at the lowest levels such as the ward, panchayat and scheme level.

Some general constraints to monitoring apply to both levels, as we are all perhaps aware. For example, it is easier to measure progress of activities than to assess effectiveness. It is easier to determine the number of training activities, their variety and the number of people involved, for example, than it is to determine if the training is useful and has a positive impact on the performance of those trained.

Another general constraint is that the criteria for evaluation are not always clear as expressed by the various representatives of donor agencies. Their evaluation missions, Delhi-based professionals, and their consultants sometimes give confusing messages. This, of course, is perhaps more the case with the SEU project as there are two sets of donor representatives.

We approach monitoring and evaluation from the point of view of measuring the achievement of the project-objectives and looking for changes and progress towards achieving those objectives. We are not expert in monitoring and evaluation, but perhaps our experiences may provide some insight for future discussion.

Macro Level Monitoring and Evaluation

Monitoring the project at the macro level means to us that we try to assess progress or bottlenecks in achieving the overall project objectives. For each project objective, therefore, a few comments are made below regarding monitoring and assessment.

Objective I :

> facilitate the integration and institutionalization of relevant socio-economic activities and methods into the KWA's current programme for water supply;

It is not very difficult to determine if institutionalization has been achieved. Indicators include, for example: Has a new programme or cell been opened in the host agency? Has the host agency developed new guidelines or staff procedures for carrying out certain relevant activities? Are the new procedures being implemented in areas or schemes outside where the project works? It is more difficult to assess progress towards institutionalization, except in subjective ways such as : Do the attitudes of professionals seem to be changing? Are professionals actively discussing the key issues? Examples from our activities: Because the piped water schemes have not been fully commissioned, the project has been most involved with design and site selection. The criteria set by both donors are to work with the

community to ensure that 90% of the community has access to piped water, according to certain distance/density guidelines, with particular emphasis on poorer population. To achieve this, the main activities of the SEU are production of maps and siting of standposts with the community. Progress in the activites themselves are fairly easy to assess: for example, how many maps are completed, how the design of the schemes might be adjusted to take the desires of the community and population distribution into account. However progress in institutionalizing such activities are somewhat difficult, in part because of factors outside the control of the project. For example: donors approve projects without providing support for initial design that will ensure that these high population-coverage criteria can be met. Thus, from the beginning it would not be possible to involve the community in planning, or initiate monitoring activities for a certain level of coverage - cost overruns are almost built in from the first point. A second problem is that the criteria initiated by donors for population coverage drive up the cost per capita, as currently circulated for centrally-funded schemes. This makes site selection process leading to high coverage beyond the financial capacity of all except the externally-funded schemes.

Objective II :

Continue to develop integrated, sustainable and replicable strategies which will, within the community and household -

- contribute to improved hygiene/health practices related to safe handling and use of water

- enhance sanitation practices and essential sanitary facilities.

For the first item, <u>improved hygiene/health practices</u>, this is difficult to monitor objectively in the context of an ongoing project. For example : washing both hands after defecation can be observed, but often this may be only when the observer is there. We have had small but good experience with the children monitoring in their schools.

Monitoring for changes in incidence of water borne diseases is also in general very difficult. It is, of course, possible to select a control area for comparative purposes; however, our project has not done this yet and there are possible political or ethical problems implicit in selecting an area for evaluation without any positive intervention.

There are objectively verifiable indicators of construction, use and maintenance of sanitary facilities: for example, number of latrines built, number used, basic cleanliness, cost of construction. See, For example, the initial data on the last page.

A particularly interesting indicator is the proportion of households constructing latrines on their own initiative, using the design (double-pit, pour-flush) and often the masons trained under the project. We call this the trickle-up effect. This is

one example of positive, unintended consequences that help increase coverage.

Objective III :

> strengthen/establish mechanisms which enable people and their local institutions to plan and participate in activities related to water supply, sanitation and hygiene education. Particular emphasis will be paid to women's involvement.

As mentioned earlier, it is not difficult to measure participation rates or number of activities carried out; but it is far more difficult to measure the quality and effectiveness of these activities and participation. For example, in our project, we know that 470 Ward Water Committees have been formed of which 158 are trained and active. The Ward Water Committee is responsible for the organization and mobilization of all aspects related to the planning and implementation of the water, health and sanitation programmes. The WWC, composed of 7 voluntary members, organizes and gives training, organizes chlorination programmes for wells, selects public standposts, is responsible for maintenance of standpost, selects beneficiaries for the latrine programme, day-to-day supervision of the latrine construction activities and so on. The Ward Water Committee is also responsible for working with local NGOs and departments (youth groups, womens groups, ICDS, primary health centres, schools) and members of these organizations are often concurrently members of the Water Committees - which helps to ensure coordination.

The Ward Water Committee may be a key group in the field-level micro assessment as is described below. Through their participation in carrying out ward-based monitoring, we hope to develop valid information that is automatically fed back into the programme to improve its functioning at the field level.

Micro Level Monitoring and Assessment [1]

Water Committees

Water Committees were established for functioning as a nucleus at the local level as a link between the socio-economic units/KWA and the community. The members of the committee were given an orientation training for one or two days on various aspects related to water supply and sanitation. There is follow up training occasionally depending on the development of the programme. Simultaneously two women members and a male member will be given special training on health/hygiene education/sanitation. At present very simple monitoring charts have been developed for recording the activities of ward

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[1] All of the activities mentioned in the following pages are already carried out by the SUEs. However, these have not been combined or analysed as the basis of a monitoring and assessment system. Therefore, this is a plan based on our experience and current activities.

committees. However, further input will have to be provided for establishing a good monitoring system. In short the water committee is responsible for the planning and implementing all community-based water supply and sanitation activities in the ward. Each committee is responsible for a population of approximately 2000 to 2500. The following paragraphs illustrate one approach in assessing the functioning of this self-managed community-based water supply and sanitation project at the local level.

Overall Objective is to ensure effective use of water supply and sanitation facilities for sustainability

Purpose is to establish an effective and efficient community-managed water supply and sanitation system at the local level.

Note Community will not be involved in the repair and maintenance of piped water systems, except at the taps for which approval has been given. In selected localities interested competent water committee members will be trained for repair of the standposts.

Prerequisite Conditions

1) An adequate water supply and sanitation system must be available.

2) Water committee should be given structural identity, delegation of power (in principle and practice) and decision-making power on aspects related to water supply and sanitation.

Indicators Each water committee will establish self-managed system of planning, implementation, monitoring and coordination of activities related to water supply and sanitation by December 1993. The success can be measured as indicated below :

- 80% of the leakage of taps and water wastage in the project will be reduced by the end of 1993
- 70% of the people in each area in the project will pay water charges by the end of 1993
- sanitation coverage will be 50% of the population; by end of 1993 sanitation usage and adequate maintenance of latrines increased to 80% by the end of 1993

Rasults

1. Effective capacity developed in the water committees.
2. Effective feedback system established.
3. Payment of water tariffs improved.

4. Usage pattern of water and sanitation improved.

These results and indicators are described more fully in the following paragraphs.

Results 1. Effective capacity developed in the water comittees. (Participation)

Indicator Water committee will be able to identify the people's needs and organise activities for standpost monitoring/maintenance, sanitation and hygiene education by mid 1993.

In order to carry out their responsibilities effectively, water committee members have been given orientation training on various aspects related to water supply and sanitation.

Through interaction and involvement with the community the committee members are able to undertake mobilisation and motivation activities. During the process, water committee members will work with the community in identifying the conditions of each water point, frequency of supply, availability of toilet facilities, people's current awareness and practices of water collection, storage, usage patterns etc. They also communicate about the various processes of piped water supply systems (including cost of treated water, value of water, costs of maintenance, difficulties of water body in getting the water payments, etc.) and plead for people's commitment and support for reducing misuse of water, malpractices (breakages, insertion of iron rod, sand etc.) at the water taps. After schemes are commissioned a survey of all the water taps will be carried out by the water committee with the involvement of people. The information from this is to be periodically shared with the Panchayat and the responsible waterbody. Low-cost drainage from the standpost will also be introduced on a pilot basis in the selected localities. If everything and everybody works together water wastage can be reduced and a self-managed effective water committees can be established.

Results 2) Effective feedback system established (monitoring)

Indicator 80% of leakage of taps will be reduced by the end of 1993

In the pilot area where the water scheme is commissioned; as indicated above a profile of the situation has been prepared and shared with the Panchayat committee and water authority for appropriate action. In addition to this a post card indicating the location, the type of fault may be directly to the waterbody. Since the people (especially women) are consulted and are involved in education/motivation activities, the commitment of people to the water sytem should be increased. Local caretakers are identified by people and they will be utilized for reducing the misuse of water and mishandling of water taps. This should further support the waterbody and its effort to respond the

request of the community and also will be able to develop a locally manageable maintenance system of taps.

Results 3) Payment of water tariffs improved. (sustainability)

Indicator 70% of the people pay water charges by the end of 1992.

The site selection procedures provide more opportunity for the people, especially the women, to locate ideal places for the public taps. This considerably helps the women for collecting water while walking only 200-250 meters. The socio-economic site selection also increased coverage and provides more access to safe water. It is also the entry point for preparing the water users to contribute to local maintenance and monitoring.

Results 4) Usage pattern of water and sanitation improved (practices)

Indicators 70% of people adopt hygienic practices of W/S facilities by the end of 1992

Women members in the water committee and selected competent unemployed women from the community will be trained in the health and hygiene education for preparing the community. They will be involved in the motivation and hygiene education activities.

Based on the survey of water points (as mentioned above), the various stages of environmental cleanliness around standposts will be available for undertaking suitable interventions with the help of the women in the locality. The first stage would be to improve the sanitation around standposts while constructing low cost drainage facilities. In such areas kitchen gardens will also be developed. Good sanitation around standposts leads to less contamination of vessels for collecting water, and reduce mosquitoes breeding.

In the project there is a provision to provide sanitation units to 50% of the people below the poverty line (approximately 15 to 25% of the total households). In addition to that the active involvement of women members, other households will also construct latrines with financial input from local bank and other institutions.

Normally young children will not use the toilets. However, as a special target group intensive education and demonstration activities will be provided to the mothers about the hazards of children faeces. The mothers will also be educated to train the children to use latrines and also put the faeces of children below 5 years to the latrines, even though they are defeacating outside. Simultaneously with this, school health clubs will also be developed for providing more demonstration latrines in schools.

As a result of improved water supply, good hygienic practices, usage of water and sanitation facilities the incidence of water borne diseases will be reduced considerably. This will lead to greater satisfaction and commitment of the community. It is

possible to reach sustainability through the self managed community based water committees at the local level, if the people are really committed and involved in the programme.

Conclusion

The whole approach depends on the continuous monitoring and evaluation of each one of the components in the project. The further replicability is based on the effectiveness of the approach in each area. Monitoring and evaluation of the variables related to user satisfaction, women involvement, good hygiene practices etc. are difficult to monitor with a single method of evaluation. A system has to be evolved for measuring the periodic progress/achievement taking place in a locality. Hence a combination of three devices are suggested :

a) Rapid assessment method
b) Observation approach
c) Monthly monitoring format/schedules

We already use these but not systematically.

A:DSCKRL
PSU, 19.02.91

STATUS AND COST OF LATRINE CONSTRUCTION (1 JANUARY 1991)

Scheme	Panchayat	# household latrine built	# instit built*	# to be built**	Cost Rs.
Cheek I	Ramanthukara	1041	7	1984	
Cheek II	Feroke	1061	4		2065
Vak-Anj	Anjengo	500		2011	
Cheryinad	Cheryinad	500	1		1845
Mala	Mala	1188	11		1800(old) 1520(new)
Nattika	Eddathurutry	500		1870	
Kundara	Kundara	500	2	150	2200(old) 1886(new)
Vak-Anj	Vakkom		2	100	1741
Vak-Anj	Kzhulm		2	250	1685
Thrikk	Thrikkunnapuzha		3	250	1780 to 2020
Nattika	Valapad	1-model		200	1750
Mala	Vellangalore	3-model		500	1478
Nattika	Nattika	1-model			1750
Nattika	Engandiyoor	1-model			1750
Mala	Annamanada		4		1520
Mala	Kozhur		3		1520
Mala	Poyya		7		1520
TOTAL		5296	46	1450	Range: Rs.1478 to Rs.2200

* Number of institutional latrines refers to low-cost sanitary facilities built in health centres, schools, ICDS centres.
**Number of latrines to be built in this phase (October 1990 to about May 1991).

822 IN91

POSITION PAPER : UTTAR PRADESH

WATER SUPPLY AND SANITATION

NAPindia'91

Conference on Indo-Dutch bilateral cooperation
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Position Paper

1. The NAP Profile in Uttar Pradesh

The Indo-Dutch development co-operation in rural water supply and sanitation in Uttar Pradesh was initiated with a piped water supply scheme in 1978 and gradually covered over 5653 villages and 10 peri urban areas in 24 districts under various ongoing and forth coming Sub-Projects (programme at a glance in Annex A). Initially, the programme activities revolved around the technical component. However, it was increasingly felt that the technical component, which had been dominating the programme activities so far needed integration with the social aspects to make the programme socially relevant and sustainable.

Community participation in the NAP was first introduced in Sub-Project V, a rural sanitation project, which covers 46 villages in the district of Rae-Bareli and Varanasi, where water supply has been provided under the NAP. Besides, providing family and school latrines, it also incorporates health education, social mobilization and community participation. Two Pilot Projects in the districts of Rae-Bareli and Allahabad have been initiated for evolving a realistic model of community participation and sustainable local institutions in the water and sanitation.

The Sub-project VI, a handpump installation programme covers 1483 villages in the six eastern UP districts of Bahraich, Ballia, Basti, Gonda, Lakhimpur-Kheri and Siddharthnagar. Since the physical implementation preceded community participation, review of handpumps installed before the inception of community participation for undertaking corrective interventions was also incorporated. Besides, selection of socially acceptable water points, institution building for strengthening operation and maintenance and health education have been considered as integral part of the programme.

2. Some Salient Technical Features in NAP

The NAP aims at saturating selected problem villages in the rural water supply and sanitation programme in Uttar Pradesh through a unique and concerned approach by :

- providing a separate water point for the socially weaker section of the community and isolated habitations having at least 50 people or 10 households, whichever is less
- ensuring that the walking distance to the water point, within a habitation, does not exceed 150 metres
- facilitating the proper determination of water points. This is done through preparation of notional maps of the villages and its hamlets, indicating the socially weaker and other sections, population, distances and traditional sources of water
- improving waste water disposal through provision of long/short drains, connection to other drains, tree

plantation, home gardening, brick on edge around the platform, etc.

- periodic water quality tests and chlorination of the deep bore wells

- installing vandal-proof standposts in the project area

3. The Programme Support Unit in NAP

To provide professional support for integrating the social component the Programme Support Unit (PSU) was conceptualised within the Indo-Dutch bilateral cooperation in Uttar Pradesh. It was established in March, 1988 in Lucknow initially to function as a catalyst for effective co-ordination in rural sanitation, Sub-Project V activities. Subsequently, PSU provided necessary professional support to incorporate the community participation component in all Indo-Dutch bilateral co-operation programme on rural water supply and sanitation in Uttar Pradesh.

The principal objective of PSU is to ensure effective participation of the local community in the programme. It also aims at enhancing the institutional capacities of the implementing agencies and the local communities and improving the quality of human resources. This objective has rather attributed a uniqueness to PSU for not being simply and rigidly a target oriented organisation but an institution with a mission.

4. Agencies Involved

4.1 UP Jal Nigam (UPJN) :

The approach of involving single executing agency for water supply and sanitation is a distinguishing feature of the NAP in Uttar Pradesh. The UP Jal Nigam, the state government's public health engineering department, is the concerned agency for implementing technical component in water supply and sanitation programme. A full fledged Rural Sanitation Division (RSD) has been created by UP Jal Nigam for implementing the rural sanitation project.

4.2 Benaras Hindu University (BHU) :

Considering the proximity of the BHU to the project area and its professional experience in social science research, it was identified for providing the health education and community participation component in the sanitation project at Varanasi

4.3 Development of Women and Children in Rural Areas (DWCRA) :

DWCRA scheme is being administered by the rural development department and also covers district Rae-Bareli, which is under the Netherlands Assisted rural sanitation project (SPV), for income generation activities. Considering its village based set-up and orientation to work among the rural women, it was decided that the DWCRA could effectively support the implementation of the social component in the rural sanitation project in Rae-Bareli.

5. Project Dynamics

5.1 Integration of Social Aspects in Water Supply Programme :

5.1.1 Participation of Women in Selection of Socially Acceptable Sites

Women are consulted for identifying socially acceptable locations in NAP villages. In order to undertake a precise spatial and social allocation of water points, notional maps, indicating available sources of water, distances and settlement patterns are prepared. The targets for site selection involving local communities are generally set in accordance with the targets of installations in joint consultation with the UP Jal Nigam and PSU.

5.1.2 Formation of Jal Samitis

The Jal Samitis are formed at the time of installation to ensure better up-keep of the water points as well as to improve the maintenance system. The Jal Samitis also motivate the users of the facilities to construct bathing platforms or construct soakpits or plant trees or kitchen gardens to improve cleanliness around the water points.

5.1.3 Developing Community Based Maintenance System

To strengthen the operation and maintenance system, efforts are directed towards sharing responsibilities of preventive and major maintenance with the local communities. The local people are trained on social and technical aspects related to operation and maintenance. At Pilot Project, Allahabad an effective information system has been evolved with the help of the Jal Samitis for timely repairs. 9 women along with 16 men have been trained as handpump mechanics at the Pilot Project to support the maintenance system of UP Jal Nigam for major repairs.

5.1.4 Review of Handpumps Installed before Inception of Community Participation

The review of the status of handpumps, installed before the inception of community participation, was initiated jointly by the participating agencies in consultation with the local community, specially women. This has enhanced the credibility of the implementing agency and acceptability of the handpump.

5.2 Integration of Social Aspects in Rural Sanitation Programme:

5.2.1 Community Participation in Selection of Appropriate Family Latrine Design

Various alternative designs to make the family latrine more functional, adaptable and acceptable to the local communities were attempted by constructing demonstration units in the project areas. Considering the suggestions of the beneficiaries, improvements in the design were made to make it replicable and aesthetically acceptable in the rural surroundings. Field visits

of a joint evaluation team of the participating agencies were undertaken and many necessary improvements were suggested to reduce the unit cost as well as to make it more functional. The twin pit latrine design (consisting of a superstructure with roof and door) was found to be quite acceptable in project areas.

5.2.2 Household Contribution in Family Latrines

Under the rural sanitation programme the beneficiaries share the cost of constructing family latrines by contributing in cash and labour. The most socially and economically deprived beneficiaries contribute by digging leaching pits, transporting construction material and water to the site, mixing mortar, curing walls, pit covers, junction chambers, storing equipment and guarding against theft and vandalism. The others contribute Rs. 400.00 in cash. The community spontaneously participated in construction work and shared the cost of construction due to the aesthetical acceptability of the design, the quality of construction, specially provision of roof and door and the fact that the community had been consulted at every stage of implementation for suggesting improvements in the design.

5.2.3 Cost Effectiveness

The family latrine is a complete unit with a roof and a door and aesthetically adapted to the rural surroundings. Due to appropriate and realistic improvement in the design, it is accepted by the community, regularly used and properly maintained. The good construction ensures durability of the unit. All this has lent sustainability and hence it is cost efffective in the long run.

5.3 Social Mobilisation

Community participation has been attempted as a participatory process and is being imptemented through :

- initial acquaintance with the caste dynamics socio-economic conditions, population distribution and main occupation of the community
- meeting with community leaders, school teachers and elders to establish rapport
- informal group meetings with women and children
- awareness raising programmes - school competitions, magic shows, puppetry, street plays, audio-visuals or water and sanitation themes
- mobilising locally available traditional forms of communication to disseminate health messages and encourage community creativity
- involving the youth organizations and local institutions to take up activities related to water and sanitation

- formation of Jal Samitis as need based sustainable participatory structures

5.4 Institution Building

Formation of Jal Samitis as the need based participatory structures is being emphasised for attaining sustainability in the programme. The water point based Jal Samitis and such committees are represented by the cross section of the users having almost 50% women members. These Jal Samitis support in identification of socially acceptable water and sanitation locations, sharing responsibilities of operation and maintenance and developing an effective information network. The members of these water committees also function as social animators for imparting health education to the people. These water committees support in identification of local persons to be trained as masons for the sanitation programme or as handpump mechanics in the water supply programme. The school level sanitation committees have been formed involving the teachers and students to maintain the sanitary units maintained as well as to function as a critical link to convince elders on proper use and maintenance of such facilities.

5.5 Coordination and Support

PSU functions as the main co-ordinating agency in the water and sanitation programmes for ensuring integration of social and physical component. A 'Taskforce', consisting of representatives of PSU and UP Jal Nigam has also been formulated for facilitating co-ordination among concerned agencies and for monitoring the progress of work in NAP. The field visits and meetings of the Taskforce, the monthly progress review meetings (MPRMs) of the representatives of all the concerned agencies with the government and recommendations of the Review and Support Mission provide an opportunity for rescheduling of targets, improving implementation strategies and settling bottlenecks and problems encountered during the implementation of the programme.

5.6 MIS and Monitoring

To monitor, quantity and analyse the progress in the water supply and sanitation programme a useful and effective management information system is established as per the need of the programme.

5.7 Training/Orientation

Human resource development is a focal point of institutional strengthening under NAP. Efforts are directed towards orienting and training the technical staff to undertake water and sanitation as a social need. Upgradation of the skills of the field staff by training and providing opportunities for sharing ideas and experiences on the relevant social and technical issues are emphasised.

The training of community representatives for enhancing their skills to share the responsibility of the maintenance is also an important training activity contributing to sustainability.

The Jal Samiti members and resource persons from the community are trained to support the operation and maintenance system.

5.8 Action Research

Besides planning, undertaking baseline surveys, situation analysis, and periodic evaluation for improving the implementation of the programme, several areas of action research have also been identified for obtaining in-depth information on the issues related to water and sanitation.

5.9 Documentation

Programme activities are being systematically documented in the form of reports, photographs and audio-visuals. It is planned that such collections will make a repository of information and experiences in rural water supply and sanitation in Uttar Pradesh.

6. Towards Sustainability

The efforts of PSU are directed towards :

- evolving a community-based maintenance system in the water supply programme by training local people on social and technical aspects.
- strengthening the existing Jal Samitis and continue the formation of new Jal Samitis in the project areas emphasising on the involvement of women
- pursuing Government of UP to take a policy decision in formation of Jal Samitis in the state
- undertaking studies on improvements in the quality of life where health education and social mobilization activities have been integrated with the physical component
- developing a system of monitoring and evaluation for the management and sustainability of the programme by analysing information collected on identified indicators.
- identifying socially acceptable water point locations involving local people
- reviewing the water points installed before the CPC for corrective interventions
- strengthening of maintenance system by training local persons as handpump mechanics and caretakers
- undertaking intensive case studies in various related field for evolving more practical implementation strategy
- creating resource base of local organizations and persons to facilitate the process of social mobilization

- involving local media for evolving situation specific promotional materials

- mobilising communities of the sanitation programme for identification of suitable location, cost sharing, proper use and maintenance of the facilities

- assisting Jal Nigam for encouraging people for accepting metered water supply in the project area of the sanitation programme

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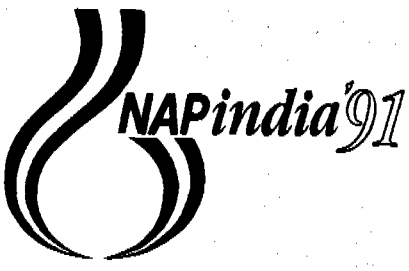
TECHNICAL PAPER : UTTAR PRADESH

The Jal Samiti in water and sanitation projects : An Uttar Pradesh Experience



Conference on Indo-Dutch bilateral cooperation
in rural water supply and sanitation
February 25-26 1991 Lucknow

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The Jal Samiti in water and sanitation projects : An Uttar Pradesh Experience

Rationale

With growing number of villages being saturated under the water supply and sanitation programme in Uttar Pradesh, it is increasingly felt necessary to become more concerned about the effective implementation, use and maintenance of the facilities. In this context, besides involving the local community, the issue of making the programme sustainable by evolving a need based participatory local structure has become most crucial.

The current development strategies reflected in a target oriented approach limits the scope of peoples' participation. Such an approach retards the development process which consequently results in apprehension and disbelief in the development effort.

The experience in water and sanitation programme showed that the existing arrangements were not effective enough to ensure participation of local communities. Therefore, alternate structures and suitable institutional arrangements were explored for lending sustainability to the programme.

Hence, the Jal Samiti was conceptualized to play a supportive role to the Gram Panchayats. The first Jal Samiti in UP was thus formed in village Tanghan of district Rae-Bareli in December 1988. Initially these Samitis were called Pani Panchayats. However, to avoid the similarity in the nomenclature of the two different village based panchayats (viz. Gram Panchayat and Pani Panchayat), the Pani Panchayat was renamed as Jal Samiti or Water Committee.

Formation

The first step in the formation of Jal Samiti was initiated in Pilot Projects Tanghan and Allahabad and subsequently it was attempted in all ongoing water and sanitation projects under the Indo-Dutch bilateral co-operation.

Initially the Jal Samitis were village based to ensure participation of local community in maintenance of the facilities provided in two Pilot Projects at Allahabad and Tanghan. They were formed at a Gram Sabha meeting in the presence of the Gram Pradhan and Panchayat members. The strength of these samitis was not less than that of the gram Panchayat and the Gram Pradhan or a nominated member of the Jal Samiti functioned as its link person. Every hamlet and social group was duly represented. These village based samitis aimed primarily to create awareness regarding water and sanitation related aspects, health and hygiene and to ensure cleanliness around the water points.

With the passage of time and as per the need of the project, the Jal Samiti took an active initiative in undertaking preventive maintenance of the water points. The distances between the

hamlets, the differences between social groups and peoples' interest in upkeep of the nearest water point had rather pragmatically changed the form of Jal Samitis into a water point based body. Such water point based Jal Samitis were formed at Pilot Project Allahabad (which is a water project) and subsequently in the sanitation project (SP V) and another water project (SP VI) covering 8 eastern U.P. districts.

Structure

The Jal Samitis are need based participatory bodies. The members of the water point based Jal Samiti are identified from amongst the users. The strength of the Samiti is proportional to the number of users of the water point. Women's representation is adequately emphasised. It can be noted here that the first Jal Samiti of the state in village Tanghan comprised of women only and subsequently, in the Allahabad Pilot Project all 34 Jal Samitis have more than 50% women representatives.

Functions

As stated earlier, the Jal Samiti started as a village based institution which aimed at creating social awareness and disseminating health and hygiene messages in the Pilot Projects at Allahabad And Tanghan. However, the need of a water point based Jal Samiti was felt by the community for taking up the additional responsibility of maintaining water points. Under the rural sanitation programme (SP V), the Jal Samitis ensure better maintenance of potable water sources and improved sanitary conditions in the villages. They identify beneficiaries and select appropriate sites for constructing family latrines. School sanitation committees maintain cleanliness of the school water points and sanitary units. At Pilot Project Allahabad, the Jal Samitis have identified caretakers for undertaking preventative maintenance as well as 25 persons, including 9 women for training as handpump mechanics. School children, organized into a Jal Sena, undertook the responsibility of teaching the illiterate trainees to read and write.

Under the rural water supply project (SP VI), Jal Samitis formed before installation of the water point help in identifying socially acceptable and spatially well distributed locations. They also offer suggestions during review of handpumps installed before the inception of community participation so that necessary corrective interventions may be undertaken by the implementing agency. As the project progressed, the Jal Samiti developed from a village based body responsible for creating awareness on health and water related aspects to a water point based body with diverse functions viz. preventive maintenance, selecting socially acceptable sites, generating resources in the form of token contributions, etc. (Annex A for details).

The priorities and functions of the Jal Samitis vary depending on the nature of the project. However, the main functions of the Jal Samitis are to :

- provide support in identifying socially most acceptable, spatially well distributed and conveniently located water

points

- maintain cleanliness around water points with the help of users
- keep a vigil on the proper use of water points and identify caretakers for preventive maintenance
- create awareness in the village for personal hygiene, environmental cleanliness and water related aspects
- generate resources in the form of token contributions from water users to support activities related to preventive maintenance
- ensure immediate reporting of the breakdown of handpumps and maintain relevant records

Lessons

- Meticulous planning, correct situation analysis, a certain amount of missionary zeal and close interactions with the local community can make community participation a success
- The implementing agency can enhance its credibility to the local community by taking up corrective interventions on facilities installed before the inception of community participation.
- Proper orientation and training of the project staff, and the improvement in the facilities evident after ensuring community participation can bring about an attitudinal change in the implementing agency in favour of socially oriented goals
- Participation of the local community during selection of socially acceptable and spatially well distributed location of facilities increases acceptability and makes the community feel responsible for maintenance and upkeep of the facilities
- Effective co-ordination and a regular information flow between the participating agencies is required for effective community participation
- Formation of Jal Samiti by involving the local community, specially women, and imparting training for maintaining the facility was very well accepted by the local community.

Problems

The formation,vis-a-vis institutionalisation of Jal Samitis is a complex process. The effective functioning of Jal Samitis depends on a conducive socio-cultural milieu, supportive political will, responsiveness of the communities as also the social commitment of the agencies involved in implementing the programme. The following problems have often been encountered during implementation of the project.

- The socio-cultural milieu restricts women from participating in group meetings and taking decisions. This prevents them from taking an active role in the functioning of Jal Samitis.

- The meagreness of political will results in the formation of policies which defeat the efforts made to evolve the Jal Samiti as a participatory body. The recent decision of the government making it mandatory to obtain the written consent of MLA's (Member of the Legislative Assembly) instead of Gram Pradhans on each selected water point is one such example.

- Subsidy, instead of community contribution, has become the pre-condition of development programmes. Interpreting the role of the government as a provider rather than facilitator makes the serious role of Jal Samitis as supportive or self-help bodies for sustaining the programme quite superficial.

- An insufficient data base, an unaccountable maintenance structure and a weak monitoring system restrict the optimal use of the Jal Samiti as a critical supportive structure. In the absence of a well defined organisational set-up for operation and maintenance, such institutions seem more of a burden than support to the implementing agencies.

- The importance of water committees is not fully recognised by the implementing agencies and therefore it is looked upon as being trivial or mundane. As a result the unattended suggestions and advice of the Jal Samitis leads to the development of an attitude of apathy and disinterest in the functioning of the water committees.

Scope

The Jal Samitis have been able to encourage womens' participation and also improve the use and maintenance of the facilities. Their responsiveness in identifying socially acceptable locations and developing an effective maintenance system are a few positive steps in the direction of achieving sustainability in the programme. However, to extend the scope of the Jal Samiti as a sustainable participatory body, much needs to be done by :

- taking a policy decision on the formation of Jal Samitis at the Governmental level to recognise their role in the programmes.

- planning and implementing income generation possibilities for ensuring sustained interest of the Jal Samitis in the programme.

- formulating an effective strategy for enabling the Jal Samiti to share the responsibility of maintenance in the long run.

- training members of the local community as handpump mechanics keeping in view income generation prospects for

optimal utilization of human resources in developing a low cost maintenance system.

- developing a strong communication network and back-up support system to facilitate the functioning of Jal Samitis.

- making efforts to integrate the other developmental programmes, eg. health, literacy, income generation, etc. for lending sustainabilty to and the Jal Samiti in overall development.

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Annex A

The Institution Building Efforts under NAP in Uttar Pradesh

Sl. No.	Project	Name of Committees	No. of Committees	Main Functions
1.	Pilot Project-Tanghan	Pani Panchayat	1	A village level committee having 5 women members to ensure proper up-keep of the water points, paved roads and drains.
2.	Pilot Project-Allahabad	Village-based Jal Samitis	3	A village level water committee to keep liaison with technical implementing agency and facilitate functioning of handpump l level Jal Samitis.
		Water point based Jal Samitis	34	- Preventive maintenance of h/ps and reporting of h/p breakdowns. - Upkeep of platform and drains - Raise awareness of people regarding the advatages of safe water.
		Jal Sena	1	- To impart literacy to Jal Samiti members and h/p mechs. - To help the caretakers in filling the register and and other information scheddules.
3.	Sanitation Project -			
3.1	Thulendi group of villages in Rae-Bareli	Jal Samitis for standpost	28	- Preventive maintenance of standpost. - Upkeep of platform sites and drains. - Motivational and health awareness activities on water and sanitation.
		Jal Samiti	22	- Maintenance of wells. - Clorination of wells.
		School Swachhta Samiti(sanitation committee)	5	- Upkeep and cleanliness of school water tank and school. sanitary units. - Inculcate better hygienic habits in children.

Sl. No.	Project	Name of Committees	No. of Committees	Main Functions
3.2	Tikari group of villages in Varanasi	School Swachhta Samiti(sanitation committee)	24	- Upkeep and cleanliness of school water tank and school. sanitary units. - Inculcate better hygienic habits in children .
		Hamlet-wise sanitation committees	15	- support in identification of socially acceptable sites - Construction of soakpits. - Awareness raising on water and sanitation aspects.
	SP VI	Water point based Jal Samiti	452	- Preventive maintenance of h/ps. - Upkeep of platform site and drains. - Make the people aware of advantages of safe water - Make the people aware of proper methods of water storage and waste water disposal.

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NETHERLANDS ASSISTED PROJECTS - ANDHRA PRADESH
AN INTERVENTION INTO THE RWS/S SECTOR OF AP

AN OVERVIEW

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1. Objectives:

   a. To support the GOAP in its efforts to provide protected drinking water to identified problem villages within the frame work and strategies of the IDDWSS.

   b. To further enhance the effectiveness of the project through the introduction of an integrated approach involving multiple inputs from various specialist agencies.

2. Project Design:

   a. Nodal Activity:

      Providing protected water supply to identified problem villages and to ensure reliability and quality of the service through effective operation and maintenance.

   b. Support Activities:

      Community organisation and education for responsible participation in the program.

      Health/hygiene education and sanitation activities to ensure maximum health benefits.

      Income generating activity to improve the life standards especially of women.

      Institutional development support for PRED and other participating agencies.

3. Project Components:

   a. Technical Component:

      Protected piped water supply:

      - Phase I (1979-91): 201 villages in 6 districts
      - Phase II (1988-93): 288 villages in 4 districts

      The sources are canals and rivers and in a few cases bore wells or infiltration/open wells.

b. Income Generating Activities:

5600 women to be organised into 80 All Women Dairy Cooperatives. At least 1600 of these will be landless rural poor.

10000 acres to be brought under lift irrigation to benefit some of the villages submerged in the Sri Sailam Reservoir.

c. External Water Quality Monitoring:

Eight laboratories to be set up in 8 districts for independent water quality surveillance.

d. Sanitation Infrastructure:

Sanitation around water supply and toilet facilities for individual households and institutions along with environmental and domestic sanitation activities.

e. Community Participation:

Organise the people in the communities especially women for responsible participation in the managment of water supply systems through education programs, identification and training of leadership, organisation of stand post committees, village action committees, youth and mahila groups, school health clubs etc.

d. Human Resources Development:

Trainings/exposure programs for project personnel and long term HRD plans for PRED involving also construction and equipping of training centres. Consultancy services to agencies for specific issues.

e. Management Information Systems:

Support to the PRED for developing an information system for monitoring the integrated approach at field and state level.

4. Task Allocations:

a. Water Supply: Panchayati Raj Engineering Department

b. Lift Irrigation: Minor Irrigations Department

c. External Water Quality Monitoring: Directorate of Institute of Preventive Medicine

d. Dairy Cooperatives: Andhra Pradesh Dairy Development

Cooperative Federation Limited and its District Union, the Prakasam District Milk Producers Cooperative Union Limited.

e. Community Participation and Health Education:

In 266 villages (4 Districts): Catholic Hospitals Association of India and its regional unit, the Catholic Health Association of Andhra Pradesh.

For the remaining villages/districts NGOs are in the process of being identified.

f. Sanitation Programs:

Technical/financial management: PRED
Front line organisation: NGO
Construction: Village masons identified by the GPs and trained by PRED

g. Coordination/Liaison/Support: Netherlands Assisted Projects Office

5. **Project Coverage:**

District	Phase I				Phase II			
	Vil	CPWS	PWS	Cost	Vil	CPWS	PWS	Cost
Prakasam	155	3	13	1463.70	70	3	31	900.00
Guntur	21	-	21	231.90				
Krishna	6	1	-	43.00				
Kurnool	2	-	2	6.70	64	5	2	950.00
Nalgonda	14	-	11	44.59				
Karimnagar	3	-	3	29.62				
Medak					118	3		840.00
Mahabubnagar(+LI)					36	1		1548.00
8 Districts	201	4	50	1819.51	288	12	33	4238.00

Population:

	Ultimate	Present
Phase I	7,62,000	4,83,000
Phase II	6,47,000	4,03,000
	14,09,000	8,86,000

6. Project Cost:

Water Supply :	Phase I +IPM:	1825.51
	Phase II:	4238.00
	Sub Total	6063.51
Sanitation:		355.00
CEP		63.03
Income Generation (Dairy)		185.31
Water Quality Monitoring		64.30
NAP Office		101.81
HRD Consultancy		3.64
Other Consultancies		7.22
	Sub Total	780.31
	GRAND TOTAL	6843.82

It is anticipated that further Rs.300 lakhs would be required for taking up Community participation and income generating activities to cover all the project villages.

7. Institutional Arrangements for Overall Coordination:

State Level: Apex Steering Committee headed by the Chief Secretary

Nodal Agency: PRED assisted by the NAP Cell in the office of the CE-RWS

District Level: Exclusive NAP-PRED Circles (2) and Divisions (5). The Superintending Engineer is the Chairperson of the District Project Committee involving District level project agencies and health/education departments.

Project Level: The Executive Engineer is the Chairperson of the Project Coordination Committee involving the PRED and NGO.

Village Level: The Village Action Committee being set up by the NGO and involving the community, GP, PRED ground level operators, school teachers and PHC staff.

8. Third Generation Projects:

Third generation projects are under formulation for covering more than 1200 villages/hamlets in four districts. The anticipated project cost will be Rs.250 crores, including all project escalations during the project execution period of 6 to 7 years.

how realistic, when 25/30% costs to non-LW: items ?

Project Components include:

a. Technical Component: water supply

b. Community Oriented Activities:
   - community participation and health education
   - income generating activities
   - mother and child welfare
   - sanitation

c. Institutional Development:
   - human resources development
   - management information systems
   - strengthening of planning/monitoring/design cells

The policy framework for bilateral cooperation for the next 5-10 years is now under preparation outlining the strategies to be adopted for the third generation programs.

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TECHNICAL PAPER : ANDHRA PRADESH

Programme, Perceptions and Possibilities

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NETHERLANDS ASSISTED PROJECTS - ANDHRA PRADESH
AN INTERVENTION INTO THE RWS/S SECTOR OF AP

PROGRAMME, PERCEPTIONS AND POSSIBILITIES

A. SECTOR SCENARIO:

1. The Constituency:

Andhra Pradesh is the fifth largest state in India (70 million people). 3/4 of the state is rural, with 50 million people living in 27,379 villages and 35000 hamlets, in cluster habitations widely scattered all over the 23 districts. At the fringes of these villages are the harijanwadas (about 10 million people). Add the isolated tribal thandas (about 5 million tribal population).

2. Interventions:

Intervention into the rws/s sector is three decades old. It started with borewell programmes for drought hit districts and has steadily grown over the years. Investments are estimated at Rs. 543 crores, which have gone into the construction of 1.60 lakh borewells, 7932 PWS/MPWS and 10 CPWS schemes. 42 CPWS and 6800 PWS/MPWS schemes are under execution. By the year 2000 AD, about 75 CPWS and 15000 PWS schemes will be in operation.

3. External Inputs:

External interventions in rws/s are limited to Netherlands, UNICEF, and now the World Bank.

Netherlands inputs over two phases (1979-1991) have been Rs. 51.50 crores for covering 489 villages in 8 districts with 16 CPWS and 83 PWS schemes. A lift irrigation scheme is also taken up, at a cost of RS.8.5 crores. Apart from this, NAP has committed 7.80 crores for the support activities.

The World Bank credit of Rs.20 crores is to cover rehabilitation of 328 cyclone affected schemes and construction of 30 CPWS (covering 200 villages) in cyclone-prone coastal districts.

The borewell programme has been supported largely by UNICEF.

4. Technology:

The technology adopted for rws ranges from simple handpump fitted borewell to complex comprehensive scheme covering a population of over 1.25 lakh (111 villages), with treatment units, large pumping mains, overhead service reservoirs, intermediate booster stations, and internal distribution through public standposts. The treatment units range from disinfection with bleaching powder to rapid sand filtration followed by disinfection (primary and booster). Under the Technology Mission, desalination and defluoridation plants are also being introduced.

5. Sanitation Interventions:

Coming to sanitation inputs, the policy has been to spread thin the meagre resources. The programme (Vimukthi) was launched in 1983. Investments have been Rs. 14 crores and facilities provided 1.07 lakh individual and 1500 community larines. Most are not utilised, or add to the sanitation burden.

Achievements are thus generally negligible. However, a fresh start is now being made under the auspices of UNICEF, involving voluntary agencies, and adopting intense coverage approach.

B. SECTOR AGENCY:

1. Status/Functions of PRED:

The task of providing safe drinking water and sanitation facilities is vested with the Panchayati Raj Engineering Department. PRED is also the rural engineering service, with responsibilities for: rural infrastructure development such as construction and maintenace of school buildings, health centres, panchayati raj buildings, minor irrigation works, panchayat roads etc.

2. Organisational Set Up:

The department has at the moment 4 Chief Engineers, 20 Superintending Engineers, 95 Executive Engineers, 2500 graduate/diploma holder field engineers and a large number of technical and administrative support staff.

At the state level the Chief Engineers are responsible for specific sectors of activities. At the district, division

and sub-division level, the monitoring and implementing staff are responsible for all activities and report to all CEs. At the field level (mandals), one junior engineer is to be responsible for gram panchayat and mandal works and another for Zilla Praja. Parishad works and rural water supply/sanitation.

Administration is with the seniormost Chief Engineer, who has the rank of Engineer-in-Chief.

As the engineering wing of the panchayati raj institution, PRED is also accountable to peoples bodies and district administration.

3. **Budget:**

The annual budget of the department (for all works) is around Rs.100 crores, of which allocation for rws/s is around Rs.50 to 55 crores.

The sources of funds for rws/s are: centrally sponsored ARWS, state sponsored MNP (bilateral funds are included under this head), special programmes such as DPAP etc. 10% of all funds are earmarked as SC component.

The allocation under the VII plan had been Rs.224 crores for rws and Rs.17 crores for sanitation.

Under the VIII plan, the proposed outlay for rws is Rs.450 crores, and for sanitation Rs.25 crores. This includes anticipated inputs from bilateral assistance, and World Bank. Outlay include HRD (1 crore), MIS (2 crores), O/M (25 crores), water quality monitoring (3.45 crores), community participation (1 crore).

C. CRITICAL SECTOR ISSUES:

1. **Operation and Maintenance:**

The most critical issue now being faced by PRED is the operation and maintenance of the rws assets created, and to be created.

The present practice is to hand over the scheme to the Gram Panchayat after its completion. The GP is expected to maintain the scheme with its own resources and man power. All except major panchayats are exempt from electricity charges on PWS schemes. PRED is responsible only for breakdown maintenance, and for periodic corrective/

preventive monitoring. Often the GPs have neither the financial resources nor the technical know-how to manage a scheme, especially when it involves treatment units, pumps and large distribution net work. Majority of the schemes operate below acceptable standards.

At mandal level, a junior engineer is to be responsible for all water supply schemes (average no. of schemes: 15 to 20). But, due to inadequacy of staff, the junior engineer responsible for the GP works has to look after also rws. Infrastructure, mobility and resources at his command are inadequate. And O/M of rws comes very low in the priority of a field engineer.

2. **Inadequacy of Ground Water Sources:**

Excess fluoride, salinity/brackishness and scarcity constitute the main source problems. Further, most of the bores especially in the interior districts of Rayalseema and Telegana fail during summer. Unregulated tapping of ground water for irrigation compounds the problem. PRED is now of the opinion that only the tapping of surface sources (rivers/reservoirs/irrigation canals) can provide lasting solution to the water supply problems in the state.

3. **ARWS Norms/Private Connections:**

The norms adopted under ARWS: 40 lpcd, per capita cost ceiling (around Rs.250/-), are inadequate to realistically respond to rural water supply demands. Most technical solutions remain ad hoc and villages once tackled, continue to reappear as problems in subsequent years. The number of problem villages do not in effect get reduced.

Though private connections are prohibited and systems are not designed for them, pcs are a reality in most rws schemes, albeit illegal. GOAP loses precious revenue, and the weakest sections are deprived of their legitimate share of the water. Systems go into disarray and people revert to their traditional sources.

4. **Tariff and Revenue:**

Because systems are designed only for minimum service, they are considered social services, to be paid for and serviced by the government. Community involvement in capital cost sharing is exception than the rule, even under MNP, where if at all, it consists of at source deductions from grants to GPs.

O/M is to be manged by the GP except in the case of CPWS,

where provisions are made under non-plan budget, and 50% of the cost is recovered at source from GPs covered. But by and large all GPs consider drinking water as a free service, and hence the attention paid to ensure and demand quality of service is minimal. Invariably, PRED has to take up corrective maintenace at some stage or the other, tapping from the plan capital funds (upto 10% is permitted). Recommendations made for O/M cost sharing have not been implemented except for CPWS schemes maintained directly by PRED.

5. **Institutional Memory:**

In a generalist department, it is inevitable that specialisation suffers. Consequently, skills and capabilities for planning and executing, and more important, for maintaining water supply schemes do not easily get institutionalised. Cumulation of experiences, and learning from one's own and from others' mistakes become difficult.

Such lack of specialisation has backward linkages on the quality of work and down stream repercussions on articulation of need for specialisation, in-service learning, improved institutional set up for design, construction, monitoring, O/M etc.

In sum, institutions and procedures have not been reshaped to suit the changed sector reality - from simple borewells to more complex piped water supply systems, which require specialist skills in planning and execution, and a totally different approach to O/M.

D. NAP INTERVENTIONS:

1. Achievements:

NAP intervention in the sector is a decade old, as old as the IWSSD. During this decade, NAP has contributed to the construction of 50 PWS and 4 CPWS schemes and a second generation 12 CPWS and 33 PWS are under various stages of completion.

Achievements have been considerable, in terms of complexity of schemes, expertise and confidence departmental engineers gained in tackling technology/ management issues. In fact the largest schemes in the sector are those constructed under NAP.

In terms of project planning/execution capability, the department has made giant strides, from 10 years for the

first generation to a maximum of 5 years for the more complicated second generation schemes.

NAP was launched in the 80s as a pure financial intervention, to contribute to the state's efforts to reach the targets of the IWSSD. Very soon, the programme took on added dimensions as it grappled with issues beyond the micro-reality of the project environment.

2. Significance of the Intervention:

During NAP-INDIA, Hyderabad, one ofthe crucial issues addressed to was to what extent NAP can persume to contribute at the sector level. The burden of the argument of the Chief Engineer of PRED was that NAP contributions were more at the level of new perceptions, increased capability, and explicitation of issues in the management of rws/s, than at the level of financial inputs.

Two conclusions emerged. One, as important as NAP objectives are the sector objectives, in fact one cannot be met without the other. Two, NAP needs to consciously address sector issues, and to equip it to do so, NAP policies/funds/ support services, should increasingly cover institutional development.

In terms of financial inputs and physical coverage NAP contributions are no more than marginal. NAP interventions have been limited, partly because of the inability of PRED to absorb capital intensive and time bound projects, at least during the early 1980s. Even in the future, NAP inputs will probably be no more than 10 to 15% of annual sector investments, given the present RNG resource allocation for the sector.

Hence, the contribution of NAP to rws/s sector in AP is to be measured not so much in terms of the capital investments, but more for the new perspectives, capabilities... that NAP has contributed to generate, within the sector. The approach, the areas of intervention, and the interactions themselves are as important as the quantifiable achievements.

E. NAP - A POINT OF DEPARTURE AND... ARRIVAL:

1. A Development Orientation to NAP:

The NAP Office is designed for operating from outside the PRED, as an independent team, almost as an extension of and support to the WACO. The office is small, low profile and

and a catalyser of agencies/programmes, than charged with any actual implementation responsibility. Though external monitoring was to be one of the key functions of this office, it is to be at the service of understanding the reality and for addressing it - not with ad hoc knee-jerk responses, but rather in terms of appreciating the macro-issues, the structural problems.

NAP presence, though from the project platform, has to avoid the dangers of turfism: interpretation on a functionalist model of gaps in attaining expected results within anticipated time and projected costs as indicative of poor commitment, lack of efficiency/skills.

2. **NAP Within the Sector:**

Issues though identified at the project level, are addressed to at the sector level, but the response is assessed at the project level. In this sense, for NAP, a project is the point of departure, but always also the point of arrival. And enroute, there can be no demands for inputs that are not feasible in terms of sustainability/replicability. NAP efficiency reflects the sector efficiency. And the efficency of NAP can be enhanced only if sector efficiency is built up.

F. SECTOR CONCERNS:

Sector contributions cannot be mere welcome but unanticipated spinoffs. Institutional Development becomes a conscious concern right from the beginning of a project, or never at all. Sustainability of strategies, building of internal dynamics promotive of the strategies, conscious support to ensure institutionalisation of project concepts - all these also become specific project tasks.

There is a very valid reason for this approach ... organisational changes require agents to initiate the process, and external ones are best suited to trigger off the process, and to shape it to a reasonable level of maturation and direction.

G. NAP EXPERIENCES/STRATEGIES IN INSTITUTION BUILDING:

1. **Areas Identified:**

Partly through stumbling over them, and partly through critque of these irritants, NAP has identified some areas where it should contribute at the sector level:

- operation and maintenance of rws
- institutionalisation of integrated approach
- institutional development within PRED

Project performance is dependent on the building up of capabilities and institutions in the above three areas.

2. **Operation and Maintenance:**

Though the specific concern of NAP has been the O/M of NAP schemes, the consensus is that the systems developed for NAP should be the same as those for any scheme. Privileged attention is neither indicative of the reality, nor sustainable.

Any observation on functioning of NAP is contextualised within the O/M realities of the sector. And strategies evolved will be rooted in NAP, but will reflect real possibilities for the sector.

Actions initiated include: preparation of a general O/M manual, and scheme specific manuals (with provisions for training, infrastructure, mobility).

A more ambitious plan is the proposed village level water supply management study, which will cover a cross section of all rws schemes in the state. The objective of the study is to evolve strategies, institutions, financial, technical and administrative procedures for community based O/M. Tariffing, revenue for O/M is one of the important issues. The study is to have policy implications. As such the strategy for the study and for the finalisation of recommendations is as important as the recommendations themselves. Apart from engineers, administrators, policy makers and opinion leaders are to be involved in various phases of the study, through workshops, consultations, seminars....

3. **Institutionalisation of Integrated Approach:**

Integrated approach has now been officially adopted as the strategy for all rws/s programmes. But the question is: how are slogans to be converted into actions and instituionalised?

At the moment, integration is NAP baby, to be managed by NAP. From this awareness, how do we proceed? Do we push ahead with programmes, irrespective of the latent and real departmental perceptions or do we slow down, take time to carry PRED with us? Or do we hope results are the best persuaders?

Who are NAP counterparts within PRED with whom meanigful interactions and transfer of know how take place? In a highly fluid organisational set up, can expertise be built up in a specified number of engineers? Or do we need specialists recruited for this purpose? What will be the impact of such specialists?

At the project level, the issues are: who is to take up the responsibilty of community participation? NAP option has been for NGOs, for sustainability and least cost. But these raise other issues. What specialist skills in water and sanitation do generalist NGOs have? How do NGOs cope with the challenge of modifying their approaches to co-exist with bureaucratic organisations? Does a two way process of learning really take place?

This points to the inevitability of a specialist rws/s department.

4. Institutional Development:

There are non-threatening areas where NAP plans to intervene: HRD and MIS. In both these areas it is easier to convince on the need for expertise: trainers and computer specialists!

It will follow that the PRED should also identify and equip at least a number of personnel to interact meaningfully and at par with external resource persons.

Steps to be slowly bulit up would include carrying the concept forward into project monitoring units which are made muti-disciplinary. Engineering personnel could be supported with systematic training inputs to open themselves up to areas, such as inter-disciplinary appraoch, participatory monitoring.

HRD and MIS could provide the impetus and the ground swell of opinions supportive of such approaches.

Planning and monitoring could become the responsibility of a single team so that feed back circuits are possible and institutional memory gets stronger!

H. A LAST WORD:

This paper has focussed more on possibilities than on achievements. Compared to the magnitude of the sector realities and challenges, chievements cannot be more than

demonstrative. But any demonstration presupposes that the experiments are consciously carried out, for their own sake and for their ramifications.

Could we explicitate our project and evaluation agenda? Can we first integrate our own development interventions - at the inter-sector and inter-donor level?

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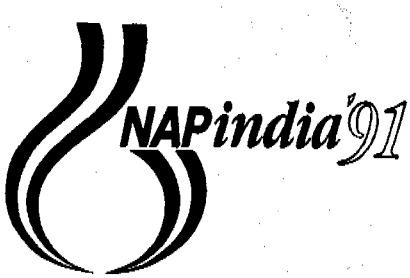
TECHNICAL PAPER : ANDHRA PRADESH

Programme, Perceptions and Possibilities



Conference on Indo-Dutch bilateral cooperation
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FEASIBILITY OF DEVELOPING A COMMUNITY BASED OPERATION & MAINTENANCE SYSTEM FOR RURAL WATER SUPPLIES

R.Kondala Rao*

"The number of water taps per 1,000 population will be an infinitely more meaningful health indicator than the number of hospital beds per 1,000 population."

Halfdan Mahler
Director General,WHO(1980)

The Governments of India and Andhra Pardesh consider the provision of safe drinking water to the rural masses as a sacred duty and social obligation.In fact,centuries ago, Aristotle had stated:

"Ruling governments can best be judged by the care they take for water supply".

This paper attempts to bring forth various aspects of Operation and Maintenance of rural water supply schemes in Andhra Pradesh;role of PRED,the Government vis-a-vis making the O & M system community based.

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INTRODUCTION

Andhra•Pradesh is the fifth largest state in the Indian union both in terms of geographical area and in terms of population. As per 1981 census the state has a population of 53.54 million and has 77% population (41.23 million) living in 27,379 Revenue villages.

Panchayati Raj Engineering Department (PRED) is vested with the responsibility of providing water supply and appropriate low cost sanitation facilities in these villages and about 150 major panchayat towns,in addition to other rural development works.

THE PRED

The Panchayati Raj Engineering Department is headed by an Engineer - in - Chief; who is in - charge of Rural Water Supply and Sanitation apart from overall general administration,and two more ChiefEngineers one (C.E.-PR) for other rural development works v.i.z. roads, buildings, minor irrigation andthe other incharge for the designs.The PRED consists of 17 circles headed by Superintending Engineers(including 3 Mini-mission districts under Technology Mission, two for NAP Projects & one for vigilance and quality control). In office, the Engineer in Chief and the C.E-PR are assisted by Dy.C.Es of the rank of S.Es for RWS & Admn., Monitoring and for P.R. At district level 3 or 4 Executive Engineers are responsible for the works.

NAP Projects are executed by 4 exclusive divisions and part of A.P.-I is maintained by an exclusive maintenance division with two cricles.

Also there is an exclusive wing headed by a Chief Engineer and 4 Superintending Engineers with supporting Engineering and other staff for implenting Cyclone re-construction project taken up with the World Bank assistance.

THE SECTOR

The RWS programme was started in Andhra Pradesh in 1962.Till now an investiment of Rs.5438.08 million is made in this sector.This has resulted in creation of about 10 CPWS Schemes, 7,932 PWS/MPWS schemes and about 1.60 lakh tube wells fitted with handpumps.Apart from these,as of December,1990, 6,816 PWS/MPWS schemes and projects under bilateral assistance of Royal Netherlands Government for 288 (234 + 54 enroute) villages are in various stages of execution.

NAP INTERVENTION

Under NAP, AP-I(1979-90),201 fluoride affected villages were taken up in 6 districts at an estimated cost of Rs.182.551 million.There are 4 CPWS and 50 PWS schemes in this phase.

NAP:AP-II was takenup from 1988 and will be completed in 1993.Under this 288 villages in 4 districts are being covered with 12 CPWS Schemes and 33 PWS Schemes in addition to 10,000 acres of land to be irrigated dry under lift irrigation.The revised cost of these projects is Rs.423.60 million.

Under this phase,keeping in with the integrated approach recommended by the International Drinking Water Supply and Sanitation Decade; support activities such as community education and participation, health aware-ness,sanitation,income generation activities and external water quality monitoring have also been taken up.The anticipated estimated cost is Rs.75.00 million.

The proposed third phase of the projects under N.A.P.-III,involves 4 districts of the state;Nalgonda, Prakasam(Kanigiri),Ananthapur and Krishna.These Projects are estimated to cost about Rs.250.00 crores, benifiting 1200 villages and hamlets.

THE WORLD BANK

The World Bank aided Cyclone Re-construction project consisits of rehabilitating 328 cyclone affected schemes and construction of 30 CPWS Schemes (200 villages)at Rs.20 crores is also under progess.

OPERATION AND MAINTENANCE

At the moment,once the PWS/MPWS schemes are completed, they are handed over to the Grampanchayats for operation & Maintenance.The CPWS Schemes,where the responsibility of Operation & maintenance cannot be fixed on a single benifiting GP are being maintained totally by the PRED.

As far as the Hand Pumps are concerned, the Department is taking care of maintenance with funds provided by the state government at a rate of Rs.360/- per HP per year. 50% of such expenditure is being recovered from the concerned GPs from out of Grants due to them from the government at source, Similarly, in respect of CPWS schemes also 50% of the O & M expenditure is recovered from the Gram Panchayats at source.

However, with regard to individual PWS/MPWS schemes no such systematic approach has been developed. The Gram Panchayats according to their whims and fancies either levy or desist from levying any tariff for drinking water.Though the AP Gram Panchayats Act(1964 Section 75) empowers the GP to impose tariff for drinking water it is seldom resorted to.

The State Committee on Panchaayti Raj Institutions in its report of 1981,realised that, although it is the responsibility of the Gram Panchayats to maintain drinking water supply schemes,experiance has revealed that the Gram Panchayats are unable to maintain the schemes effectively due to lack of financial resources.

As long as the financial position of the GPs remains what it is today,not much improvement in these circumsatances could be expected. As such the committee has recommended that A.P.G.P.Act, 1964 should be suitably amended so as to provide compulsory levy for a general property tax, which inter alia will consist of propoerty tax for water supply.

They further recommended that for house connections a charge of @ Rs.500 per tap may be levied. In addition, maintenance charge of not less than @ Rs.10 per month may be collected.Suitable minimum and maximum rates may be devised.

For the purpose of meeting the cost of maintenance of drinking water supply schemes executed in villages,the Panchayats may be devided into three categories and some sugestions were made for O & M cost sharing.

However, so far no provisions were made for recovery of O & M costs and the stalemate continues. THis may have to be now revised and cost of House Service Connection charges and maintainance to be worked out taking into account cost escalation over this decade.

Under these circumstances, looking at the deteriorating O & M levels of the schemes already completed, and also realising that the schemes will reach a staggering number of about 15,000 PWS Schemes and 75 CPWS Schemes, by the end of VIII plan, Department has grabbed the opurtunity of taking up a study of Village Level Water Management.

VILLAGE LEVEL WATER MANAGEMENT STUDIES

The Government through a memorandum ordered constituting a committee headed by a Superintinding Engineer and two NAP Executive Engineers for conducting the study.

It was decided during the RSM-A.P.24's review to engage consultancy team of an engineer and a sociologist to assist the Committee in conducting the study.

The study will look for the best possible arrangements - institutional and financial - under which O&M responsibility for commissioned schemes can be shared with the Gram Panchayats.

OBJECTIVES OF THE STUDY

a) To determine best possible arrangements under which O/M of piped water supply schemes can be shared with Gram Panchayats.

b) To spell out specific areas of responsibility for PRED and Gram Panchayat under the arrangements in terms of technical/administrative and financial controls.

c) To analyse the long term feasiblity of procedures recommended, from socio-economic, financial and managerial angles, including capacity and willingness to pay.

d) To evolve strategies for cost recovery - initially for O/M and eventually (and ideally) towards capital costs.

e) To evolve strategies for optimal use of water and for improved O/M of the supply including hygiene/sanitation practices involving the village people and especially women.

SPECIFIC AREAS FOR STUDY

a) It has been suggested that O/M of schemes can be handed over to the gram panchayats as follows:

individual schemes - totally

CPWS Schemes - from service reservoirs to distribution.

Feasibility has to be examined from technical and managerial angles.

b) It is felt that gram panchayats would be interested in O/M of schemes and in cost sharing/recovery only if they can raise some revenue from the schemes. This is possible if the scheme can have private connections, for which beneficiaries can be charged.

c) In order to ensure involvement of people, arrangements such as water committee, village level care taker etc. may be required. Concrete proposals are to be developed regarding their selection, appointment, status, remuneration, responsibilities, accountability, training etc.

d) The areas of O/M to be covered by gram panchayats and by PRED, and the regulating/supervisory role of PRED etc. have to be studied.

PILOT STUDY

It is proposed that such a study be conducted initially in a Mandal each selected from the following districts where C.P.W.S. & some P.W.S.schemes are there will be taken up.

Srikakulam - Mandal which is covering CPWS Scheme for Gonaputtuga and other villages.

Kurnool - Aluru Mandal covering Aluru CPWS Scheme.

West Godavari, Nalgonda & Karimnagar - concerned Superintending Engineers have been asked to select suitable Mandals for the study.

METHODOLOGY

The study will be conducted in Three Phases:

Phase.I

1. Identification of villages to be taken up under the study.
2. Identification of the consultancy team and detailed discussions between consultants, PRED committee and NAPO regarding the objectives of the study.
3. Shortlisting of the villages after preliminary appraisal of schemes selected in terms of technical and social viability.
4. Detailed technical study of the schemes in terms of O&M requirements, financial viability etc.
5. Detailed discussions with the Gram Panchayat on steps to be adopted for O&M responsibility sharing.
6. Finalisation of recommendations on experiments to be carried out in the selected villages.

Phase.II

1. Securing policy/administrative/technical approval to implement the recommendations on an experimental basis.
2. Implementing the recommendations in the pilot villages.

Phase.III

1. Monitoring the results of implementation of Phase.II.
2. Documenting the results and conclusions of the study.
3. Discussing the conclusions in workshops to be organised involving PRED/district/village administration.
4. Finalising the report and submission to Engineer-in-Chief for taking up with the Government for implementation all over the State.

TIME SCHEDULE

The first phase may take about 4 months. At this stage the study strategy may be reviewed. The implementation and monitoring phases time schedules will be decided at the strategy review stage.

The results of study may help the Department in convincing the Government to adopt a feasible approach towards operation and maintenance of rural water supply systems.

Will it ensure community based/involved maintenance systems ?

So far during the discussions, the Gram Panchayat is referred to represent the community.However, this may not reflect the grass root level of the benifiting community - at the standpost level,though the Panchayat is a body of elected representatives of the people.

COMMUNITY INVOLVEMENT

Having realised this aspect and to involve the community in RWS sector, the Government have issued orders to constitute a committee at Panchayat level with the following:

(a) The Sarpanch _ Chairman
(b) Mahila Panch
(c) School Teacher
(d) Gram Sevak
(e) Hand Pump Mechanic
(f) Anganwadi Worker
(g) Adult Educator
(h) Village Health Worker
(i) 4 women nominated by the Panchayat.

The village Development Officer or Gram Sevak will be the convenor of the above committee.

The following functions shall be performed by the committee:

1.Monitor the rural water supply programme in the villages under the Panchayat.

2. Ensure that all RWS assets-H.Ps created in the villages are maintained properly.

3. Motivate to train one person from each Panchayat to do the work of H.P mistry/H.P mechanic.

4. Ensure maintenance of the environment around the H.P/ Stand-post clean.

5. Committee to report through a Post Card to the Secretary of the District level committee(E.E. of the district/Division)of any repair that is not attended to over one week despite report to the Block /sub-division level.

The ideal situation willbe when all these committees are in place and start to function.However, will this ensureinvolvement of community in the O & M of the systems in true sense ?

Vital aspects of creating awareness,health education and motivating improved hygene practices are yet untouched.To fill this gap a catalystic agency has to be introduced in to the present system to bridge the seemingly existing gap between the PRED/the system and the benificiary community.

This role can be played well by an agency devoid of officialdom, which will be in a position to interact with the department and the benifiting community and motivates the community to get involved in the O & M of the assets created for them at enormous investi- ments # financial,material and manpower.

The community shall be involved.Both in terms of sharing of cost of O & M and monitoring the qualitative and quantitative aspects of the supplies made.

Success of O & M system need not be measured by the degree of achievement but by the degree of departure from the conventional engineering approach and the extent of involvement of the benificiary community.It is possible and feasible to involve the community in successful O & M of the rural water supply systems.

The institutional setup now existing is:

State level Committee

District Project Committee (Official & non- official)

Village Water(/Action) Committee

In non project districts,the ZPPs will more or less play the role of DPCs.

As far as the project districts are concerned presently there are NGOs who are playing the catalystic role to mobilise/organise the community to form VAC/VWCs.

A Voluntary agency either an organisation,a youth club (Nehru Yuvaka Kendra) or a mahila mandal can be associated to mobilise the community to form the VWCs.

There shall also be a system /cell within the PRED which can monitor/co- ordinate the working of the NGOs and to folow-up the feed-back.

The present institutional setup will be conducive to gearup the department towarrds adopting participatory approach in O & M.

One A.E./A.E.E. shall be kept in- charge of RWS schemes at sub-division level.He will be reporting directly to the Executive Engineer concerned and can interact with the community through the VACs.With a little training in sociological aspects of Water Supply systems he could be oriented towards bridging the gap in communication/ maintenance system of the RWS sector.

A village based Youth Group/ Mahila Mandal could be identified and trained in communication skills and knowledge to implement the activities related to health/hygiene practices and sanitation needs.

The present Superintending Engineer(Monitoring Cell)in the Engineer-in-Chief's office can suitably be strength-ened with a multidisciplinary team to take care of all activi ties under integrated approach which would ensure the community participation not only at O & M stage in the sector but also in planning,design and construction stages.

All these efforts may eventually lead to a meaningful community based Operation & Maintenance system for Rural Water Supplies.

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