

**SURVEY
OF
STATUS OF DRINKING WATER SUPPLY
IN
RURAL HABITATIONS**



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DETAILED GUIDELINES

**RAJIV GANDHI NATIONAL DRINKING WATER MISSION
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA**

TR-9

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SURVEY OF STATUS OF DRINKING WATER SUPPLY IN RURAL HABITATIONS

DETAILED GUIDELINES FOR PREPARING AND CONDUCTING THE SURVEY AND REPORTING THE DATA GENERATED FROM IT.

For the successful conduct of the survey, detailed planning is necessary. From this planning exercise should emerge a time frame for all the activities to be completed. Following are the main activities which have to be planned:

PRINTING OF SURVEY FORMAT

A set of formats (Part-I & Part-II) is enclosed for making more copies. The quality of the paper, the size of the paper and the size of the print etc. are to be carefully selected. It will be advisable to follow the same quality and size as supplied to ensure uniformity all over the country. The number of sets required will be one format per census village and, therefore, if the printing is done at the state level, the actual number of sets required will be equal to the total number of census villages in the State. If carefully handled, wastage can be reduced to less than 5% so that the extra quantity to be printed may be limited to 5%. You may have to print separately set of instructions/guidelines for each part of the survey and the Annexures giving definition and norms and list of abbreviations. The number of these will depend upon the number of teams and the number of members to be engaged in each team for the survey. Each member may be given a set to ensure better understanding among them. It is suggested that you may form maximum of two teams per Block.

The printing of all these formats, instructions/guidelines etc. should be completed, if possible, before the training is undertaken.

AGENCIES & PARTICIPANTS OF THE SURVEY

It is suggested that the nodal agency to conduct the survey may be the same organisation responsible for the implementation of Rural Water supply programmes in the state. This may be in many cases, Public Health Engineering Departments, Water Boards, Water Authorities, Rural Development Departments or Panchayati Raj Departments. The assistance from other government departments/ organisations, Non-Government Organisations (NGOs), research organisations, colleges and universities and missions like Literacy and Immunisation may also be obtained in conducting the survey.

For creating an environment, adequate publicity through media and people's participation for various items of work may be ensured. The involvement of people's representatives and their organisations may be helpful in getting the correct information. The district administration, led by District Collector may be of immense help in organising

such a massive survey. It may be advisable to designate the District Collector as the Chief District Co-ordinator of the survey. The Supdtg. Engineer/Executive Engineer, incharge of the district may be designated as Joint Coordinator.

The actual survey may be conducted by field level officers of the nodal department assisted by field officers of other departments/organisations and public enlisted specially for this. People's representatives like Sarpanchs should also be involved from the planning stage of the survey at the local level.

TRAINING

Since this survey involves understanding of technical terms, a very comprehensive training on all aspects of the survey and the data to be collected for all those involved in the training is essential. The number and the type of people required at the field level has to be assessed assuming that the first part of the survey is to be completed between 2nd December, 1991 to 19th January, 1992. The second part of the survey on existing sources and problems of Drinking Water, Operations & maintenance, Tariff structure and details of earlier approval of schemes, if any, has to be completed by 30th April, 1992 though it may start by 2nd December, 1991. This requires special manpower and they have to be listed carefully. Because of their large number, the investigators can not be trained in one camp or one batch. It is suggested that three levels of training may be organised, if necessary. In the first level, the State and District level authorities i.e. officers incharge at the state level, District Collector, Superintending Engineer/Executive Engineer etc. can be familiarized with the format and the various activities to be undertaken. Along with them, leaders of the organisations at the state and district levels participating in the survey can also be exposed to the various aspects of the survey. These trained personnel can be utilised for the second level of training. The second level may include Asstt. Executive Engineers, Sub-Divisional Officers Junior Engineers representatives of Voluntary Organisation etc. It may be a good idea to put a Sub-Divisional Magistrate as Coordinator of the survey for the area corresponding to his jurisdiction. For the third and operational level functionaries like the Overseers, Work-Asstts., health workers, representatives of other non-government organisations, Gram Sevaks, Workers of Other Missions at the field level and teachers and college students are to be enlightened. The Block Development Officer can act as co-ordinators for third level of training and the conduct of the actual survey. The data has to be collected using the formats in English for use in computers. However, for easy understanding of the process of survey by the local workers, guidelines can be translated into local languages.

It has to be clearly understood that every habitation in the rural areas is to be covered by the survey. Therefore, only persons who are actually familiar with the habitation

should be made members of the team, apart from the technical officers who are also expected to be familiar with the area. It is advisable that necessary publicity through various media is given before the survey is actually started to get the cooperation of the local people. A time schedule for the conduct of the survey be made known to the village officials, Panchyat Presidents and local people well in advance for eliciting their full cooperation. The team should visit all the habitations starting from the main habitation to ensure full co-operation of the Sarpanch/Mukhya and other local leaders. After collecting data from various habitations, these may be explained to the local representatives like the Panchyat President, Village Sarpanch. The data so collected should be subjected to checks and super checks. At least 5% of the samples may be test checked by supervisory officers at sub-divisional and district levels to ensure correctness of the data. It is advised that the data as and when elicited should be entered into the sheet in the field itself legibly and clearly avoiding overwriting, erasing etc.

COMPILING AND REPORTING SYSTEM

The data collected from the habitations for each census village has to be arranged serially following the census code no. of census villages within each block and serially for the blocks as per the census code no. of Blocks within each district and sent to the State headquarters for processing and preparation of reports. National Informatics Centre (NIC) will be the nodal agency for compiling and preparing reports. Since time is very short, the transmission of the collected data to the State headquarters should be done within the shortest possible time. It is suggested that this may be done within a week of compilation of the survey.

TIME SCHEDULE

Following time schedule is suggested :

S.No.	Activity	Time of	
		Starting	Completion
1.	Receipt of communication from Govt. of India to the Secretaries of State Governments	7th Oct. '91	20th Oct. '91
2.	Completion of deliberations and decisions on agency/ organisation for printing, decisions on		

	agencies/organisations for conducting survey, training schedule, publicity, actual date and duration of survey etc.	22nd Oct. '91	10th Nov. '91
3.	Printing of survey formats	11th Nov. '91	17th Nov. '91
4.	Training of the district level officers	11th Nov. '91	17th Nov. '91
5.	Reaching the formats to the field level through district and blocks	18th Nov. '91	27th Nov. '91
6.	Completion of training at field level (This to be preceded by identification of organisation, institution, departments and persons involved at the various level in the district, sub-division and village levels)	28th Nov. '91	30th Nov. '91
7.	Field Survey (Ist Part) (IInd Part)	2nd Dec. '91 2nd Dec. '91	19th Jan. '92 30th Apr. '92
8.	Data reaching the State headquarters (Ist Part) (IInd Part)	20th Jan. '92 1st May '92	27th Jan. '92 20th May '92
9.	Processing of field data (Ist Part) (IInd Part)	28th Jan. '92 21st May '92	1st March '92 30th June '92
10.	Despatch of final result from state/NIC to centre (Ist Part) (IInd Part)	2nd March '92 1st July '92	18th March '92 25th July '92

COST

Cost of survey will be met by the MRD
Following are the items :

Printing, Training, Stationary, Travel, Remuneration for the investigators other than the departmental people involved or to be included in the cost estimate.

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**SURVEY
OF
STATUS OF DRINKING WATER SUPPLY
IN
RURAL HABITATIONS**



PART I - INSTRUCTIONS

**RAJIV GANDHI NATIONAL DRINKING WATER MISSION
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA**

INSTRUCTIONS/GUIDELINES FOR FILLING UP OF FORMATS

FORM-I

PART - I A: POPULATION, COVERAGE & SOURCE

This relates to the collection of field data for the habitations including the main habitation (i.e. census village).

**Code &
Name**

Follow the census code for the Block/ Panchayat/ census village as given in the 1991 census book. Details to be supplied by the Chief District co-ordinator of the survey at district level (District Collector/ District Magistrate).

**Census
Village**

Census village consists of a main habitation (sometimes called main village) and a number of other habitations attached to it. There may be cases where the census village may consist of a main habitation only.

**Name of
habitation
(Col. 2)**

A habitation means a place where people have settled permanently. Temporary settlement like that of quarry workers, construction workers, farm workers, nomads etc. will not be classified as habitation.

Main habitation means the habitation which goes by the name of the census village. Please enter the main habitation first; followed by the nearest habitation; the remotest habitation may be entered last.

**Distance from
the nearest safe
water source
(Col. 3)**

Distance from the nearest safe water source means the distance to be travelled by the people of the habitation to the nearest safe water source. If the source is inside the habitation itself, indicate this distance as '0' (zero) km. If there is more than one safe source, indicate the number of safe sources and distance between them (please refer definition given for safe source in Annexure-I)

**Population
as per 1991
census
(Col. 4,5,6)**

Population figures as per 1991 census should be furnished. In case the population of the habitation is not given in the 1991 census, please ascertain the present population from the competent authority and enter them.

Population covered
(Col. 7, 8, 9)

Population covered should be based on the existing norms for providing safe drinking water supply i.e. one hand pump/one stand post/one sanitary well per 250 persons limited to census or present population. Coverage of Scheduled Castes (SCs) and Scheduled Tribes (STs) should be ascertained and entered correctly.

Coverage Status
(Col. 10)

NC (= Not covered) for the census village means there is not even a single safe source of drinking water in the village as per existing norms and guidelines of the National Drinking Water Mission.

PC (= Partially covered) means that supply of safe drinking water is less than 40 litres per capita per day as per the existing norms and guidelines of the National Drinking Water Mission.

FC (= Full coverage) means that entire population in all the habitations including the main habitation is provided with safe drinking water as per existing norms and guidelines of the National Drinking Water Mission.

Level of Water Supply
(Col. 11)

The level of water supply means actual quantity of the safe drinking water in litres per capita per day (lpcd) provided to the population. Please enter the actual figure based on your enquiry and spot checks.

Number of safe sources existing
(Col. 12)

A source is termed as safe if it conforms to quality standards for drinking water prescribed by the National Drinking Water Mission. Number of such sources should be counted and entered in this Col.

Number of safe sources required as per norms
(Col. 13)

Number of sources required for habitations other than main habitation - the number of sources actually required is to be calculated on the basis of one source for every 250 persons. However, if the population of the habitation is less than 250 but the habitation is located within 1.6 k.m. of another habitation or main habitation, the population can be grouped in cluster of 250 each to determine the number of sources. In case the habitation is located at more than 1.6 k.m. from the main/nearest habitation, one source is to be given independently irrespective of the population. Accordingly the number of

sources required are to be worked out and entered in this column.

**Public
Institution
(Col. 14,15,16)**

Public institutions referred to in the format are as follows with Code No. :

01. Govt. Schools - primary, middle and secondary schools.
02. Govt. Hospitals - primary health centre & vaterinary centres.
03. Anganwadis
04. Panchayat Ghar/ Office
05. Market places (Shandy)

The number of institutions mentioned above should be identified. Indicate their location (habitation), number and water supply arrangement provided for the institutions (number of hand pump installed, sanitary wells, standposts provided and other water supply arrangement should be entered in these columns).

FORM-II

PART-I-B : DETAILS OF EXISTING SAFE WATER SUPPLY SYSTEMS (IF ANY)

(i) PIPED WATER SUPPLY SYSTEM

Type of scheme (Col. 17)	Enter the type of the piped water supply scheme (pumping or gravity feed type) in this column.
Programme (Col. 18)	This relates to the programme under which the scheme has been implemented. Please see Annexure-II for the details of programmes under which the water supply schemes are implemented. Indicate the name/ names of the programme accordingly in this column.
Date of commissioning (Col. 19)	The date of commissioning of the piped water supply schemes in the habitation is to be ascertained from the office records and entered in this column.
Design-population, year and quantity in kld (Col. 20,21,22)	Population proposed to be served at ultimate stage should be entered in these columns. The information can be obtained from leading details of the scheme implemented for providing the habitation with safe drinking water supply facilities. Projected year of design should be entered from the leading details of the scheme. This will also provide information about the ultimate capacity of the scheme for definite number of years and ultimate population. Quantity in kld relates to the total daily requirement of safe drinking water proposed to be supplied in kilo litres for ultimate design population. Enter the information from the schemes details.
Details of public stand posts (Col. 23-28)	This relates to the total number of Public-Standposts installed in the habitation. Please indicate the number of Standposts with tap and without tap separately in the column provided. The number of Standposts installed in SC/ST locality should be indicated in the cols. provided for.
No. of Public Standposts, with platforms and drainage arrangements (Col. 29)	Enter in this column the no. of public stand posts having concrete platform and drainage arrangements as per site observation.
No. of house connections (Col. 30,31,32)	No. of house connections should be ascertained from the local water supply authority and verified from field survey. Break-up of house connections in SC/ST localities should be ascertained and entered in these columns.

FORM-III

PART-I-B: DETAILS OF EXISTING SAFE DRINKING WATER SUPPLY SYSTEMS

(ii) SPOT SOURCES AND OTHERS

Type of system
(Col. 33)

Please use code as follows:

- 010 Deep tube well with India Mark II Hand Pump.
- 020 Deep tube wells with pumps other than IM. II (India Mark II).
- 030 Shallow tube wells with Tara Hand Pump
- 040 Shallow tube wells with pumps other than TARA HP.
- 050 Sanitary Dug wells with Hand Pumps
- 060 Infiltration Wells
- 070 Infiltration Gallery
- 080 Spring Tapped Chambers (Protected)
- 090 Traditional Sources (Protected)
- 100 Rain Water Harvesting Structure
- 110 Others (Specify)

Date of commissioning
(Col. 34)

Date on which the scheme is opened for public use may be taken as date of commissioning. In case the details are not available, this may be ascertained through local enquiry.

Design-population, year and quantity kld
(Col.35,36,37)

As explained in (B) (i) (Col.20-22). However, in case of Rain Water Harvesting, (Code No.100) the per capita norm will be 10 lpcd upto March, 1991, and 20 lpcd, beyond that. For 'traditional sources' (Code No. 090) and 'others' (Code No. 110) prescribed norms for per capita supply in litres per day may be adopted based on local conditions and entered in this column.

Number installed
(Col.38,39)

These columns are relevant for spot sources from Code No. 010 to 050 as in Col.33.

Working - Number of spot sources working as on the date of survey should be entered in this column.

Defunct - These sources may be those sources which are not giving any water supply due to various reasons and they require replacement or rejuvenation. Such sources should be entered in this column as defunct sources as on the date of survey.

Yield (lpm)
(Col.40,41)

Quantity of water available from the spot source in litres per minute for the sources in Code No. 010 to 050 should be entered after actual measurement of yield of the source on the spot. (One method of measuring the yield is to fill up a container of known volume within a specified period of time, say one minute).

FROM-IV

PART-I- C: DRINKING WATER REQUIREMENT FOR CATTLE

Total number of cattle (Col. 42)	Cattle population assessed on the basis of latest cattle census should be entered in this column. In case this is not available, information can be obtained from local enquiries.
Daily Requirement of water supply (kld) cattle (Col. 43)	This should be entered on the basis of estimated consumption of water by the through local enquiries.
Existing system of water supply (Col. 44)	Indicate the type of system such as ponds, canals, ditches, oorani, springs, systems such as cattle troughs, soak pits, local water collections, etc.
Existing level of water supply (kld) (Col. 45)	The objective of this column is to ascertain whether the drinking water supply arrangement is adequate or inadequate from the existing sources. The estimated availability of drinking water, based on local enquiry, should be entered in this column.

**SURVEY
OF
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RURAL HABITATIONS**



**PART I — FORMATS
(FORM I, II, III & IV)**

**RAJIV GANDHI NATIONAL DRINKING WATER MISSION
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA**

STATUS OF RURAL DRINKING WATER SUPPLY IN HABITATIONS

FORMAT FOR COLLECTION OF FIELD DATA

CODE NAME

STATE :

BLOCK :

DISTRICT :

PANCHAYAT :

CENSUS VILLAGE :

PART - I A: POPULATION, COVERAGE AND SOURCE

Sl. No.	NAME OF HABITATION, DISTANCE (D) FROM NEAREST SAFE DRINKING WATER SOURCE (kms)		POPULATION AS PER 1991 CENSUS			POPULATION COVERED			COVER-AGE STATUS (NC/PC /TC)	LEVEL OF WATER SUPPLY (lpcd)	NO. OF SAFE SOURCES		PUBLIC INSTITUTION		
			TOTAL	SC	ST	TOTAL	SC	ST			EXISTING	REQUIRED	CODE NO.	NO.	NO. OF EXISTING SOURCES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Main Habitation

1.

Other Habitations

2.

3.

4.

5.

6.

7.

8.

Total

Note : Please add additional sheet, if required.

PART-I B : Details of Existing Safe Drinking Water Supply Systems (if any)

i) Piped Water Supply System

Sl. No.	Type of Scheme (Pumping/Gravity feed)	Programme	Date of Commissioning	Design			Details of Public Standposts						No. of House Connections			
				Population	Year	Qty. (kl)	No. with Taps			No. without Taps			With platform and drainage arrangements	Total	SC	ST
				20	21	22	Total	SC	ST	Total	SC	ST	29	Total	SC	ST
	17	18	19				23	24	25	26	27	28		30	31	32

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Total

PART I - B: Details of Existing Safe Drinking Water Supply Systems

ii) Spot Sources and Others

Sl. No.	Type of System	Date of Commissioning	Design			No. Installed		Yield (lpm)	
			Population	Year	Qty. kld.	Working	Defunct	Max.	Min.
	33	34	35	36	37	38	39	40	41
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
Total									

PART I - C: DRINKING WATER REQUIREMENTS FOR CATTLE

Sl. No.	Total No. of Cattle	Daily Requirement of Water Supply (kl)	Existing System of Water Supply	Existing Level of Water Supply (kl)
	42	43	44	45
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
<hr/>				
	Total			

**SURVEY
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IN
RURAL HABITATIONS**



PART II — INSTRUCTIONS

**RAJIV GANDHI NATIONAL DRINKING WATER MISSION
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA**

PART - II A : EXISTING SOURCES AND PROBLEMS OF DRINKING WATER

(Details of the existing sources available to the people of the habitation and the problems associated with these sources should be entered in these columns).

Name of Habitations
(Col. 2)

Please follow the same order as in FORM - I.

Type of source
(Col.3)

Use code number for various type of sources. Codes to be used are as follows:

B1: Ground Water

B2: Surface Water

B3: Rain Water Harvesting

B4: Traditional sources like Khadins, Nadis, Tankas, Ooranis, Baoris, Ditches etc.

B5: Others

Indicate the nature of source, if not coming in any of the above.

Source inadequacy
(Col. 4)

Inadequacy means that the source is not able to provide the required quantity of water as per the existing norms in the guidelines prescribed by the National Drinking Water Mission. The inadequacy may arise from the following or their combination. (Use the following code nos. for entering data)

Code No. Cause for inadequacy

- 01. Depletion of ground water.
- 02. Deterioration of water quality
- 03. Increase in population beyond design limit.
- 04. Social/other.

If source is adequate write (YES) and if inadequate write (No), followed by Code Nos as indicated above.

Iron
(Col. 5) Concentration of iron as Fe in mg/l (or ppm) should be entered in this column.

Fluoride
(Col. 6) Concentration of Fluoride as F in mg/l (or ppm) should be entered in this column.

Total Dissolved Solids
(Col. 7) Concentration of total dissolved solids should be measured following standard method and indicated in this column in mg/l (or ppm).

Others
(Col. 8) Contamination of ground water/ surface water due to presence of excess Nitrate, Sulphate etc. and wastes from industrial and agricultural activities should be indicated in this column; after analysis of water sample and concentration of the pollutants may be given in appropriate units.

Bacteriological
(Col. 9) Bacteriological contamination of drinking water means presence of disease causing bacteria, viruses etc. beyond permissible limits. The relevant information/details should be entered in this column after analysis of water sample and be indicated in MPN/100 ml.

Guineaworm
(Col. 10,11) If the habitation is affected by guineaworm disease, enter the no. of patients/cases suffering from guineaworm disease and no. of step wells in these columns as per field observation. In this connection the assistance from the local primary health centre/ health worker should be obtained. It should be coordinated with the State Health Services.

FORM - VI

Part - II B: Operation and Maintenance

This part relates to organisational and financial set-up of State Govt. for ensuring smooth Operation & Maintenance of Rural Water Supply Schemes in habitation.

1. **Organisation responsible** The organisational responsibility has been briefly codified in terms of Govt. (011), Non-Govt. (012), Local people on voluntary basis (013) and others (014). Put tick mark to the relevant code.

2. **Cost & Manpower Annual Cost (Col. 2,3,4,5)** The annual cost of Operation and Maintenance incurred by the organisation may be entered in these columns. Please enter relevant information on Plan, Non-Plan. Public contributions, other sources as indicated in the format.

Manpower Deployed (Nos) (Col. 6,7) Please enter in these columns the technical, non-technical personnel, as deployed by the Deptt./Organisation for O&M of scheme.

3. **Tariff Structure (Per Family):**

In these columns, rate of recovery of O&M cost is to be indicated.

Stand Post House connection (Col. 3,4,5) Rate per annum for Stand Posts and House Connection as charged by the organisation responsible for O&M to the beneficiaries, classified as General, SC, ST, for House connection and Standpost should be entered as per Tariff structure prescribed by State PHED or Local authority for O&M of scheme.

Revenue Collected Per Annum (Col. 6,7,8) Amount of money collected for Standposts and House Connection by the organisation responsible for O&M towards tax/water charges, based on the prevailing rates, should be entered in these columns.

FORM - VII

PART - II C: DETAILS OF EARLIER APPROVAL OF SCHEMES (IF ANY)

This relates to the approval of schemes which are on-going or completed for the habitation under survey for providing safe drinking water supply under various programmes as given in Annex.II. This may relate to the individual scheme (HP/sanitary well with HP & Deeptubewell with power pump & cistern) approved for the habitation or the habitation may be one of the many habitations approved in a comprehensive piped water supply scheme. The name of habitation may be entered in column 2 following the order in Form-V, Part-II A.

**Approval letter,
Number & Date
(Col. 3)**

Furnish the details of letter number and date of technical approval of the schemes given by the Central Govt. or the State Govt. itself.

**Programme
(Col. 4)**

Furnish the details of programme under which the scheme was approved (for details of various programmes under which the schemes are approved, please see Annex. II.)

**Type of
Scheme
(Col. 5)**

Use following Codes for type of Schemes which the habitation is included for under providing safe drinking water supply as per earlier sanction :

- 041 - Deep tube well with India Mark II handpump (HP)
- 042 - Deep tube well with Power Pump (PP)
- 043 - Extended piped water supply scheme (EPL)
- 044 - Comprehensive piped water supply scheme (CWSS)
- 045 - Gravity feed piped water supply scheme
- 046 - Others (Specify)

**Estimated cost
Original, Revised
(Col. 6,7)**

Original cost means the cost of schemes as approved and indicated in the approval letter mentioned in Col. 3. Cost approved (Rs. in lakhs) should be furnished in this column. Revised cost means cost of the scheme required for completion.

**Date of
Commencement
(Col. 8)**

Date on which the implementation of scheme started should be entered in this column, based on information collected from Chief Engineer PHED/ Suptd. Engr. PHED/ Executive Engr. PHED's office.

**Date of
Completion
(Col. 9)**

Date of completion should be entered in this column for already completed schemes.

**Expenditure
incurred upto
March 91 for
Ongoing Schemes
(Col.10)**

This column refers to expenditure incurred by the State Govt. for ongoing schemes upto 31.3.91.

**Actual Cost
incurred for
completed schemes
(Col. 11)**

This column refers to the actual expenditure incurred by the State Govt. for the completion of the Scheme.

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**PART II — FORMATS
(FORM V, VI, VII)**

**RAJIV GANDHI NATIONAL DRINKING WATER MISSION
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA**

PART-II A: EXISTING SOURCES AND PROBLEMS OF DRINKING WATER

Sl. No.	Name of Habitation	Type of source	Nature of problem and measurement							
			Source Inadequacy	Iron (ng/l)	Fluoride (ng/l)	Total dissolved solids (ng/l)	Others (Nitrate, Sulphate etc.) (ng/l)	Bacteriological (MPN/100 ml)	Guineasora	No. of cases
1	2	3	4	5	6	7	8	9	10	11

Main Habitation

1.

Other Habitations

2.

3.

4.

5.

6.

7.

8.

Total

Note: Please add additional sheet, if required.

PART-II B: OPERATION AND MAINTENANCE

1. Organisation responsible :
(put tick mark on relevant code)

011 Govt.
012 Non-Govt.
013 Local people on voluntary basis
014 Others (specify).

2. Cost & Manpower :

Sl. No.	Annual Cost (Rs.)				Manpower deployed (Nos)	
	Government		Public Contribution	Others (Specify)	Technical	Non-Technical
	Plan	Non-Plan				
1	2	3	4	5	6	7

3. Tariff structure :- (Per Family).

Sl. No.	Rate per Annum (Rs.)			Revenue collected per Annum (Rs.)		
	General	SC	ST	General	SC	ST
1	2	3	4	5	6	7
	Stand Post					
	House-Connection					

PART-II C: Details of earlier approval of Schemes (if any)

Sl. No.	Name of habitation	Approval Letter No. & Date	Programme	Type of scheme	Estd. cost Rs. Lakhs		Date of Commencement	Date of Completion	Expenditure incurred upto March 1991 For on going Schemes Rs. in Lakhs	Actual Cost incurred for completed schemes Rs. in Lakhs
					Original	Revised				
1	2	3	4	5	6	7	8	9	10	11

Main Habitation

1.

Other Habitations

2.

3.

4.

5.

6.

7.

8.

Total

Note : Please add additional sheet, if required.

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ANNEXURES

**RAJIV GANDHI NATIONAL DRINKING WATER MISSION
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA**

Annexure I

DEFINITION AND NORMS

1. **Census Village** A census village consists of habitation (sometimes called main village) and/or number of other habitations attached to it.

2. **Habitation** A habitation means a place where people have settled permanently. Temporary settlement like that of quarry workers, construction workers, farm workers, nomads etc. will not be classified as habitation.

Main habitation:- The habitation which goes by the name of the census village is termed as main habitation.

3. **Safe Source** A source is said to be safe if it is free from physical, chemical & bacteriological/biological contamination and conforms to the drinking water quality standards prescribed by the National Drinking Water Mission.

4. **Type of sources** The sources can be classified as follows:
 - (a) Ground - openwell
 tubewell (deep/shallow)
 Infiltration gallery/well

 - (b) Surface - pond
 river
 lake
 stream
 canal
 spring

 - (c) Rain-water - rooftop/ground collection for individual household/ community.

 - (d) Traditional - local methods practised for collecting surface water/rain-water/ground water for drinking purpose. This includes khadins, nadis, tankas, ponds, ooranis, baoris, open wells, spring, ditches etc..

- (e) Others - Non-conventional methods of collecting drinking water as practised by tribes & local residents.

5. Norms

A. Problem Villages

The following norms have been adopted for categorisation of problem villages:

- a) those which do not have an assured source of water within a distance of 1.6 kms. or within a depth of 15 metres in hilly areas, villages where water sources are available at an elevation difference of more than 100 metres from the habitation or
- b) those where the available water has an excessive salinity, iron, fluoride or other toxic elements; or
- c) those where diseases like cholera, guinea-worm etc. are endemic.

B. Design

- a) In order to have maximum coverage with the limited available resources, the schemes to be taken up under the ARWSP would be designed on the basis of 40 litres per capita per day (lpcd).
- b) In case of hand pump schemes one source should be provided for every 250-300 persons. Pipe water supply schemes should be designed for supplying water through public stand-posts and without house connections. Norms should be developed for the number of stand-posts in villages.
- c) In the desert areas, schemes designed on the basis of a higher norms of 70 lpcd would be considered as a special case for meeting the requirement of cattle.
- d) The schemes should be framed for a designed period of 10-15 years. In general, the increase in the projected population for the design period should not exceed 40% of the 1991 census population.
- e) Cost effective designs evolved under the Technology Mission would be adopted under the ARWSP & MNP Programmes.

Annexure-II

Programmes under which the water supply projects are implemented.

1. Minimum Needs Programme (MNP)
2. Accelerated Rural Water Supply Programme (ARWSP)
3. Drought Relief Fund (DRF)
4. Technology Mission (TM).
 - (a) Mini-Mission (MM)
 - (b) Sub-Mission (SM)
5. Desert Development Programme (DDP)
6. Jawahar Rozgar Yojana (JRY), erstwhile National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP).
7. Hill Area Development Programme (HADP)
8. Community Development Programme (CDP)
9. Bilateral, Multilateral (specify)
10. Schemes assisted by LIC, HUDCO and other Financial Institutions.
11. Others (specify)

LIST OF ABBREVIATION

ARWSP	-	Accelerated Rural Water Supply Programme
CWSS	-	Comprehensive Water Supply Scheme
CDP	-	Community Development Programme
Conc.	-	Concentration
DRW	-	Drought Relief Works
DDP	-	Desert Development Programme
DPAP	-	Drought Prone Area Programme
FC	-	Fully Covered
HUDCO	-	Housing and Urban Development Corporation
HP	-	Hand Pump
HADP	-	Hill Area Development Programme
JRY	-	Jawahar Rozgar Yojana
kld	-	Kilolitre per day
km	-	Kilometre
LIC	-	Life Insurance Corporation
lpm	-	Litres per minute
lpcd	-	Litres Per Capita Per Day
MNP	-	Minimum Needs Programme
MPN/100 ml	-	Most Probable Number per 100 mililitres
MM	-	Mini-Mission
mg/l	-	Milligram per litre
NC	-	Not Covered
NGO	-	Non-Government Organisation
NREP	-	National Rural Employment Programme
O&M	-	Operation & Maintenance

PC - Partially Covered
PP - Power Pump
PHC - Primary Health Centre
ppm - Parts Per Million
PHED - Public Health Engineering Department
PWS - Piped Water Supply
RLEGP - Rural Landless Employment Guarantee Programme
SM - Sub-Mission
SC - Scheduled Caste
ST - Scheduled Tribe
TDS - Total Dissolved Solids
TM - Technology Mission

**SURVEY
OF
STATUS OF DRINKING WATER SUPPLY
IN
RURAL HABITATIONS**



**GUIDELINES
FOR
FIELD LEVEL OFFICERS/SURVEYERS**

**RAJIV GANDHI NATIONAL DRINKING WATER MISSION
MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA**

INSTRUCTIONS/GUIDELINES FOR THE FIELD LEVEL SURVEY
(FOR THE USE OF THE LEADER AND MEMBERS OF THE TEAM)

General:

You are participating in a very important activity. Your understanding and good work can help greatly in the formulation of schemes and programmes for rural drinking water supply in the country. The data you collect is going to be used immediately for the preparation of programme for Eighth Plan.

Unlike other surveys, you are collecting lot of technical data also. Therefore, it would be helpful if you understand the terms used and even the problems of rural water supply in the field before you report these through the formats supplied to you.

Getting ready for Survey

Going through the training at the district/block level, understanding all the instructions and learning all the activities you have to perform (like measuring distances, conducting tests for quality of water and assessing various parameters of water) are definitely important. Please apply your mind fully into these. Alongwith this you have to get ready to go to the field to do an effective job. This would involve the following:

Advance Planning:

You may get about six weeks for completing the first part of the survey (form I to IV). Your team may have to cover about 100 villages during this period. Unless activities for each day are carefully planned with other members of the team, you may have difficulty in completing the work. Please prepare an advance plan of action and send a copy of this to your Chief Coordinator (Block Development Officer) who in turn is expected to keep the Chief Coordinator of the District informed of your advance plan.

You may prepare advance plan also for the more elaborate work of filling in Part II of the format (Form V - VII). This involves conducting some field tests. Procuring the necessary equipments, practising to do the tests completely and learning to enter the data accurately are parts of advance planning for Part II. Your travel plan for filling in Part II should also be finalised in advance in consultation with the opinion leaders.

Involving People

Ensure in advance the cooperation of the people. Please get in touch with the important voluntary organisations, people's representatives and other opinion leaders. You can also take the help of officers of other departments like doctors and paramedical staff of health departments, field level workers of rural development department, Panchayat Raj and many others. It may be a good idea that you help the Chief Coordinator (BDO) to arrange a meeting of all the important people (please list them out in advance in consultation with other knowledgeable people) before the survey is started and your advance plan is finalised. In fact you can finalise your advance plan in such a meeting.

Publicity

Giving adequate publicity to the survey would help in getting cooperation from all these leaders. The support you will get from the State through TV, Radio, Newspapers etc. can be strengthened by local publicity through local meetings, bit notices and other methods suitable to local area.

Actual conduct of survey:

Actual survey should follow the advance plan already made. The time limits given for filling in and completing Part I and Part II are to be strictly adhered. Since data for Part II involves collection of technical data and the conduct of various field tests (and even laboratory tests) it is likely to take more time. Therefore a second round would be necessary to complete Part II.

It is presumed that you have complete understanding of the village you are going to survey. Please prepare the maps in advance (scale 1:40,000 or 2.5 cm = 1.0 k.m.). You can fill in more data as you go along and prepare a detailed map after the survey on a standard drawing sheet before you send it to the Chief Coordinator. Please remember that this map you prepare will be used for national planning and monitoring.

Understand thoroughly the requirements in each form. Please read carefully the instructions for each form. Please remember that the name and other details of the main habitations are to be entered first. The order followed in Form I in listing habitations should be continued in all other forms also. In filling in Form V, Part II special attention is invited to Column 8 "Others (arsenic nitrate etc.) in mg/l. Please ensure that you find out the level of alkalinity in mg/l. This is particularly necessary in planning for the control of fluorosis. It can so happen in

some cases that the number of habitations may exceed 8. In such cases use additional sheets and make those sheets as additional sheets No.I, No.II etc. as the case may be. Wherever codes are to be used familiarise with them before entering.

It is quite possible that while discussing with the villagers you may get very critical comments from them. You may listen to them carefully. Any special problems brought to your notice, but not listed in the format, can be summarised and attached to the format. However, care should be taken not to give any promise which you cannot fulfil immediately. Please keep in mind that the survey is only an effort to understand the problem in each habitation. Solutions to these problems would be the next stage; decisions on these will be taken only when the general picture is known through the survey.

Submission of the Formats, Super checks etc.:

Part I of the formats should be arranged strictly according to the code member of the census villages and the bundle/s so formed should be handed over to the Chief Coordinator (BDO) or any other person so authorised. Please remember that at least 5% of the data in the forms will be subjected to super checks. In case you are required to assist these officers engaged in such super checks you should be prepared to do so. You should keep contact with the Chief Coordinator till the super checks are over. Super checks for Part I will be conducted before 19th January, 1992 and for Part II before 30th April, 1992. The bundle of forms so checked is expected to be ready by 19th January, 1992 and 30th April, 1992 respectively for part I & II.

Time Schedule:

Following is the time schedule provided for various activities :

S.No.	Activity	Time of	
		Starting	Completion
1.	Receipt of communication from Govt. of India to the Secretaries of State Governments	7th Oct., '91	20th Oct., '91

S.No.	Activity	Time of	
		Starting	Completion
2.	Completion of deliberations and decisions on agency/ organisation for printing, decisions on agencies/organisations for conducting survey, training schedule, publicity, actual date and duration of survey etc.	22nd Oct., '91	10th Nov., '91
3.	Printing of survey formats	11th Nov., '91	17th Nov., '91
4.	Training of the district level officers	11th Nov., '91	17th Nov., '91
5.	Reaching the formats to the field level through district and blocks	18th Nov., '91	27th Nov., '91
6.	Completion of training at field level (This to be preceded by identification of organisation, institution, departments and persons involved at the various level in the district, sub-division and village levels)	28th Nov., '91	30th Nov., '91
7.	Field Survey (Ist Part) (IInd Part)	2nd Dec., '91 2nd Dec., '91	19th Jan., '92 30th Apr., '92
8.	Data reaching the State headquarters (Ist Part) (IInd Part)	20th Jan. '92 Ist May, '92	27th Jan., '92 20th May, '92
9.	Processing of field data (Ist Part) (IInd Part)	28th Jan., '92 21st May, '92	Ist Mar., '92 30th June, '92
10.	Despatch of final result from state/NIC to centre (Ist Part) (IInd Part)	2nd Mar. '92 Ist July, '92	18th Mar. '92 25th July, '92