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FOR COMMUNITY WATER SUPPLY AND
SANITATION (IRC)**rural water supply****OPERATION AND MAINTENANCE****eight questions to ask**

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OPERATION AND MAINTENANCE OF RURAL WATER SUPPLIES

EIGHT QUESTIONS TO ASK

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| |
|---|
| <p>QUESTION 1</p> <p>ARE SITE CONDITIONS FAVOURABLE? 1/</p> |
|---|

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|--|------------|---|---|-----------|----------------|----------|
| (a) Can access be gained to all parts of the supply area throughout the year? | | | | | | |
| (b) Are source conditions such that the supply does not suffer from seasonal interruptions? | | | | | | |
| (c) Are site conditions such that the most simple technology (e.g. gravity supply, protected springs, shallow wells fitted with handpumps, rain-water collection systems) can be utilized? | | | | | | |
| (d) Other (state) site conditions which may affect operation and maintenance. | | | | | | |

1/When replying to the questions, answers should be ticked in the appropriate columns - if the answer to a particular question is "Yes" then tick column 4; if the answer is "No" then tick column 1; Columns 3 and 2 can be utilized to indicate a response which lies between a definite "Yes" or "No".

QUESTION 2
ARE SOCIOECONOMIC CONDITIONS
IN THE SUPPLY AREA FAVOURABLE?

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|--|------------|---|---|-----------|----------------|----------|
| (a) Is the literacy rate amongst the people high? (If possible provide percentage of literacy for adult males and females and for children in the "Comment" column.) | | | | | | |
| (b) Is the community served homogeneous from ethnic, cultural, religious and socio-economic points of view? | | | | | | |
| (c) Is there a history of progressive development in the community? | | | | | | |
| (d) Is there an absence of taboos or beliefs that hinder utilization of water supply facilities? | | | | | | |
| (e) Do members of the community use mechanical equipment in their daily work? | | | | | | |
| (f) Is the development of community water facilities a recognized priority in relation to other community needs (e.g. market, school, dispensary)? | | | | | | |
| (g) Are the O & M costs associated with the water supply to the community members (e.g. tariffs or inputs in kind) within their means? | | | | | | |

- (h) Is there an absence of vandalism of the facilities provided?
- (i) Other (state) socio-economic facts which may affect operation and maintenance.

| 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|------------|---|---|-----------|----------------|----------|
| | | | | | |

QUESTION 3

WERE FACTORS RELATED TO SUCCESSFUL
O & M FULLY CONSIDERED DURING
THE PLANNING AND DEVELOPMENT
PHASES OF THE PROJECT?

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|--|------------|---|---|-----------|----------------|----------|
| (a) Was the community consulted during the planning phase and had it an opportunity to influence design of the facilities? | | | | | | |
| (b) Does the supply meet needs as perceived by the community (e.g. convenience, quantity, quality, domestic, stock, gardens, etc.)? | | | | | | |
| (c) Is the technology used understood by the community? | | | | | | |
| (d) Was the community made aware of and did it agree to meet contributions (in cash or kind) required for development of the system and its operation and maintenance? | | | | | | |
| (e) Was this agreement the subject of a formal contract between the community and the development agency? | | | | | | |
| (f) Is the community meeting its agreed obligations? | | | | | | |
| (g) Does the community have a sense of ownership of the facilities? | | | | | | |

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|---|------------|---|---|-----------|----------------|----------|
| (h) Did the community receive any training for the work expected of it in operating and maintaining the system? | | | | | | |
| (i) Is the project well designed? | | | | | | |
| (j) Is the project well constructed and are the materials used of appropriate quality? | | | | | | |
| (k) Other (state) planning and development factors which may affect operation and maintenance. | | | | | | |

QUESTION 4

ARE THERE FACTORS RELATED TO THE AVAILABILITY OF RESOURCES FROM OUTSIDE THE COMMUNITY SERVED?

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|---|------------|---|---|-----------|----------------|----------|
| (a) Are external resources (Government, Regional, Water Authority, etc.) in the form of recurrent subventions to support operation and maintenance readily available? | | | | | | |
| (b) Is foreign exchange, required for the importation of fuel and spare parts, readily available at the national level? | | | | | | |
| (c) Is fuel/energy readily available in the country? | | | | | | |
| (d) Are spare parts readily available in the country? | | | | | | |
| (e) Are chemicals readily available in the country? | | | | | | |
| (f) Are communication systems (roads, telephones, postal service) well developed? | | | | | | |
| (g) Is there a referral system within the institutional structure responsible for water supply that provides a back-up service? | | | | | | |
| (h) Is the back-up service functioning well through regular inspection visits and rapid response to emergency calls for assistance? | | | | | | |
| (i) Other (state) factors related to availability of resources outside the community served which affect operation and maintenance. | | | | | | |

QUESTION 5
ARE THERE FACTORS RELATED
TO MANAGEMENT AND OPERATION?

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|---|------------|---|---|-----------|----------------|----------|
| (a) Is there defined and recognized leadership in the community? | | | | | | |
| (b) Is there an established community organization to deal with issues related to water supply? | | | | | | |
| (c) Is the community organization noted in (b) active and functioning? | | | | | | |
| (d) Are women actively involved in the community organization? | | | | | | |
| (e) Is there a policy on operation and maintenance which | | | | | | |
| (i) clearly defines the distribution of responsibility? | | | | | | |
| (ii) clearly defines the provision of resource requirements? | | | | | | |
| (f) Are good operation and maintenance records being kept? | | | | | | |
| (g) Is equipment standardized throughout the supply area? | | | | | | |
| (h) Have consumer charges been defined? If so, are they | | | | | | |
| (i) being collected? | | | | | | |
| (ii) equitable? | | | | | | |

| 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|------------|---|---|-----------|----------------|--|
| | | | | | (iii) retained specifically to meet O & M costs? |
| | | | | | (iv) adequate to meet all O & M expenses? |
| | | | | | (i) If the answer to question (h) (iv) above is "no", is there a reliable source of revenue to pay for incurred O & M costs which exceed revenues from consumer charges? |
| | | | | | (j) Are adequate store procedures for the supply and issue of fuels, chemicals and spare parts in operation? |
| | | | | | (k) Apart from day-to-day operation and maintenance, have preventive maintenance and surveillance procedures been established, and are they being effectively followed? |
| | | | | | (l) Are there sufficient incentives for skilled workers to live and work in rural areas? |
| | | | | | (m) Are the workers employed on operation and maintenance sufficiently motivated to do a good job? |
| | | | | | (n) Are the workers allowed to use their initiative without undue bureaucratic restrictions? |
| | | | | | (o) Other (state) factors related to management and organization which affect operation and maintenance. |

QUESTION 6
ARE THERE FACTORS RELATED
TO MANPOWER DEVELOPMENT
AND TRAINING?

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|--|------------|---|---|-----------|----------------|----------|
| (a) Is there a policy on manpower development? | | | | | | |
| (b) Is there a clear description of the tasks required to properly operate and maintain the facilities provided? | | | | | | |
| (c) Is there a job description for each post required for operation and maintenance? | | | | | | |
| (d) Is there an effective training programme for those responsible (employees and/or community members) for operation and maintenance? | | | | | | |
| (e) Is supervision of staff adequate? | | | | | | |
| (f) Are there promotion opportunities for the staff? | | | | | | |
| (g) Other (state) factors related to manpower development and training which affect operation and maintenance. | | | | | | |

QUESTION 7
ARE THERE FACTORS RELATED TO THE AVAILABILITY OF ON-SITE RESOURCES?

| | 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|--|------------|---|---|-----------|----------------|----------|
| (a) Is sufficiently skilled manpower available for full-time employment? | | | | | | |
| (b) Is skilled manpower locally available for hire to undertake specific tasks as required (e.g. local garage mechanics, plumbers, blacksmiths, electricians, etc.)? | | | | | | |
| (c) Are the following items readily available for operation and maintenance staff? | | | | | | |
| (i) Drawings of the layout and components of the system. | | | | | | |
| (ii) Tools and plant required for operation and maintenance. | | | | | | |
| (iii) Fuel/Energy. | | | | | | |
| (iv) Spare parts. | | | | | | |
| (v) Chemicals. | | | | | | |
| (vi) Operating manuals and instructions. | | | | | | |
| (vii) Transport and communication facilities. | | | | | | |
| (viii) Ready access to an effective back-up support system. | | | | | | |

(d) Other (state) factors related to on-site resources available for operation and maintenance.

| 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|------------|---|---|-----------|----------------|----------|
| | | | | | |

(a

(b

(c

(d

QUESTION 8
ARE THERE COMPLEMENTARY
INPUTS WHICH AFFECT O & M?

- (a) Has there been active promotion of the water supply within the community?
- (b) Has there been a hygiene education programme to enhance demand?
- (c) Are credits available for activities which require water (e.g. cottage industry)?
- (d) Other (state) complementary inputs which affect operation and maintenance.

| 4 (Yes) | 3 | 2 | 1 (No) | Do not know | Comments |
|------------|---|---|-----------|----------------|----------|
| | | | | | |

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