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Rural Water Supply Study - Correspondence 01

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## OFFICE MEMORANDUM

DATE: November 13, 1996

TO: Yves Albouy, Chief OEDD3

FROM: Tauno K. Skytta, OEDD3 

EXTENSION: 31694

SUBJECT: **Rural Water Supply/Sanitation Review**

As we discussed the other day, Ron and I have now put together a first draft of the IM for the subject study for your early review. We would appreciate it if you could allocate some time in the next couple of days to discuss the draft and get your feedback so as to develop the IM further. Otherwise, the data preparation is underway and we should be able come up with a firm project selection by the end of this month.

Please let us know when it would be convenient to discuss the above.

cc: Parker, files



## Rural Water Supply Study Initiating Memorandum

### Overview

1. Compared with the Bank's long involvement in many other sectors, focused lending for rural water systems has a relatively short history. Nevertheless, since the first rural water project was approved in FY 82 the lending volume for the sub-sector has been increasing dramatically. By 1985 the rural water exclusive portfolio had reached US\$100 million, and it has risen to about US\$565 as of September 30, 1996. Rural water related lending (including rural water exclusive lending) expanded at a faster rate than rural water exclusive lending over the same period. Looking at portfolio growth in two seven-year periods (which roughly corresponds to the implementation periods of the "new" and "old" approach described below) shows that the lending volume in the second period quadrupled that of the first (9 loan/credits with a volume of US\$370 million were approved during FY82-90 and 20 loans/credits were approved during FY 91-97 with a volume of US \$1,544 million (see Annex 1). Although the cost of rural water systems is usually much less than that of urban systems, each dollar spent on a rural water system provides approximately four times the population coverage afforded by an investment in an urban water system.

2. The Bank and many other aid donors have strongly supported the development of rural water systems because for each settlement to have a reliable source of potable water is a life and death matter in countries subject to periodic droughts, and (once minimal nutrition levels can be reached) the essential precondition of health and hygiene. Bank attention to the infrastructure constraints of the countryside can be expected to increase further. In a recent memorandum to all staff World Bank President James Wolfensohn stated unambiguously<sup>1</sup> that the Bank will implement a strategy to give a much higher priority to the rural areas, noting that systematic attention is required to address the interconnected dimensions of the rural areas' problems.

3. During the UN sponsored International Drinking Water Supply and Sanitation Decade, one billion people obtained safe drinking water.<sup>2</sup> In spite of such dramatic progress a majority of rural villagers are still not served in many countries. About 65 percent of the rural population in Africa is still lacking an adequate supply of water.<sup>3</sup> Tragically, much of the work on rural water which has been done, has often proven to be ineffective and/or not sustainable. OED evaluation results for 13 Bank-supported rural water and sanitation projects showed that only 54 percent had substantial institutional development impact and only 46 percent were likely to be sustainable. In recent years 43-63 percent of water and sanitation projects were rated satisfactory as to outcome.

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<sup>1</sup> Memorandum on the 1996 Annual Meetings, October 8, 1996.

<sup>2</sup> An Evaluation of the UNDP-World Bank Water and Sanitation Program: Report of an Independent Team (1996).

<sup>3</sup> African Water Resources, World Bank Technical Paper No. 331, 1996.



4. A traditional "top down" approach has often been followed in the past, whereby government agencies decided which communities should receive what water services. Government agencies and/or projects tended to be paternalistic. Around 1988 this orientation changed.<sup>4</sup> Rather than increase the capacity of countries to deliver water supply services, the Bank and UNDP began to focus more on helping governments to act more as service facilitators rather than service providers. This orientation generally entailed initial investment assistance and continued back-up support. As a result, governments are now more likely to define their role as just being suppliers of water points.

5. The earlier generation of rural water projects was characterized by an inability to continue providing effective levels of service. Management of water supplies often proved to be beyond the ability of rural communities, particularly when they were expecting ongoing assistance from government and/or donor agencies and then did not receive it. Soon after the construction of water points they became non-functioning, often even before the projects which drilled the boreholes and supplied the pumps were completed. Early problems in the sub-sector included shortage of trained repair persons, difficulty obtaining spare parts and funding these activities on a sustained basis.

6. First instances of the new projects include Cote d'Ivoire, Ghana, Mali, Sri Lanka, Uganda and others to be named. Several of these are now completed and some others are well advanced. Patterns of best practices are starting to emerge, and therefore an early stock-taking involving seven countries and about ten projects could provide valuable guidance at this time. The lists below compare and contrast old and new approach in the sub-sector:

#### **Old Approach**

- supply-driven
- centralized beneficiary selection
- top-down decision making
- maintenance is governmental (utility) responsibility
- government-controlled spare parts distribution
- government selection of technicians
- weak local water committees, if any
- water given out free or at very low cost

#### **New Approach**

- demand-driven
- self-selection
- significant local participation
- maintenance is local (community) responsibility
- private sector spare parts distribution
- community selection of repairmen
- strong local water committees
- full cost recovery of O&M and replacement costs

7. Clearly, the change from old to new approach has been evolutionary, and many new projects are comprised of some but not all of the characteristics above. Some typical examples of "old" style projects include the Zambia, Rural Water Supply Project (Cr. 1332-ZM), and others to be named. [Brief description of outcome of a typical old-style project to be inserted here (PCRs)].

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<sup>4</sup> An Evaluation of the UNDP-World Bank Water and Sanitation Program: Report of an Independent Team (1996).



8. More recent projects such as the recently audited Mali Rural Water Supply (Credit 1431-MLI) required the establishment of a water committee, participation in training, and a cash contribution. Yet, the new project paradigm is not a panacea. In spite of the fact that the Audit found that the project constructed twice as many boreholes as the appraisal estimate, and the beneficiary population was more than twice the appraisal estimate, the need for preventive maintenance was poorly understood by the villagers, the pumps were near the end of their seven to ten-year useful life, and most villages had not kept the water committees functioning. Many communities were finding it difficult to cover the cost of a pump overhaul, putting the sustainability of the project at risk. Audit field visits confirmed that the villagers were not routinely and/or exclusively drinking the potable water they now have access to, thus risking the assumed health benefits.

### **Methodology and Scope**

9. This initiative will review the transition made by the Bank from the old approach (before 1988) to a new approach after 1988, and it will concentrate on recently completed and a time slice of selected ongoing projects with implementation in an advanced stage to assess the success of the new approach. The data required to address the above and related questions will require a series of information-gathering activities and involve several research components. The research process will be based on a combination of methods; both field research and a desk study will be undertaken. It is anticipated that the study will survey Mali and Cote d'Ivoire in the field, as well as several of the following countries which will also be subject to a desk/field review: Sri Lanka, China, Tunisia, India, Brazil, Philippines, Turkey, and Paraguay. The desk review will be based on earlier OED evaluative work, supplemented by selected relevant rural water project audits in early 1997.

10. The proposed OED Rural Water Supply (Sector) Assistance Review (RWSAR) will have an impact focus and it will identify the ingredients of success in selected rural water projects in these countries. Specifically, it will examine success as a function of two distinct aspects of rural water system sustainability: institutional sustainability and stream of benefits sustainability. The capacity to keep a water point in operation by the communities is all that is meant by benefit sustainability. For a water point fitted with a handpump, this implies that a pump which is maintainable at the village level is installed, spare parts are readily available at a reasonable cost, and reliable local mechanics are located within a reasonable distance of the community so that they can provide a maintenance service if and when required. The same approach is needed for other point sources, i.e. standpipes in small piped water systems. Institutional sustainability involves a functioning local committee (or a similar set-up), and the existence of a fund collected from the community members of a scale sufficient to maintain the point source and to replace or overhaul the pump at the end of its useful life. It is anticipated that the details of water point management will vary, that government extension services and project designs will be diverse, and that there will be a range of practices which contribute to sustainability and another range which constrains it. The study will focus on the appropriateness (or no) of these strategies, and develop a typology of practices which, when taken together, enable rural communities to manage their water points. Since the institutional, financial, cultural, social and technical considerations which have to be taken into account vary by country, best practices in a number of countries will be explored.



### Questions To Be Studied

11. The questions that the Study will address fall in three areas: project preparation, project design and implementation. The principal project-related research questions are as follows:

#### Project Preparation

- What has been the involvement of local institutions in the preparation process?
- What are the characteristics of the project institutional framework? To what degree was the project supply/demand driven? How are these factors associated with success or failure?
- What has been the participation of local stakeholders?
- How was the water extraction technology chosen? Was the participation of local stakeholders in technology selection adequate?

#### Project Design

- What is the relationship between eligibility criteria, nature of village contributions, the delegation of work/responsibility, cost recovery, and observed project outcomes.
- To what degree was post-project follow-up and technical support included in design?
- What suggestions do staff and borrowers have for revising the current project approach?

#### Implementation

- What are the key ingredients for a successful project/sustainable operation of a water point?
- How significant are rules/requirements for guiding field actions and communication with beneficiaries,
- What are the reasons for failure of rural water projects?
- What has been the experience of the Bank as opposed to that of other donor agencies with rural water systems? Are there any best practice cases?

12. Preliminary research will begin with the information accessible from Bank Databases. Prior to commencing research in the field, a brief review of the literature will be undertaken. The literature reviewed will include ESW (sectoral and country-wide studies), bilateral and multilateral publications and internal documents. Pilot open-ended interviews will be conducted with Bank staff early in the research process. In addition, during the field research, borrower agencies will be interviewed. The results of the interview process of implementers will be supplemented by the administration of a written questionnaire/s to beneficiaries, water committees, pump repairmen, and women's groups. Preliminary contacts have been made with key borrower rural water sector staff in Mali and Cote d'Ivoire, and they expressed interest in

participating in the study as co-inquirers.<sup>5</sup> Bilateral agencies and NGOs working in the sub-sector have agreed to share their experiences.

### **Study Team**

<u>Member</u>	<u>Name</u>	<u>Responsibilities</u>
1. Task Manager	Tauno Skytta	supervision, field research, technical aspects (best practice analyses), report production
2. Main Researcher	Ron Parker	study design, document review, field research, impact analysis, data analysis, supervision of research personnel, report production
3. Participation Specialist	to be selected	surveys, social/health aspects
4. Institutional Specialist	to be selected	institutional/economic/financial analysis
5. Research Assistant	to be selected	data base, analyses, etc.

### **Timetable**

<u>Main Activity</u>	<u>Sub-Tasks</u>	<u>Completion Date</u>
1. Preparation	<ul style="list-style-type: none"> <li>- prepare IM (includes a draft DP)</li> <li>- establish data base</li> <li>- prepare AP and final DP for CODE-meeting</li> </ul>	12/20/96 01/30/97 02/28/97
2. Initial Work at HQs	<ul style="list-style-type: none"> <li>- finalize data base</li> <li>- interviews with key Bank staff</li> <li>- review relevant project documents</li> <li>- review ODs/OMSs, donor and study reports</li> <li>- develop draft case design</li> <li>- develop generic questionnaire(s) (+ initial testing)</li> </ul>	04/30/97

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<sup>5</sup> Meetings described in memorandum from Ronald Parker to Yves Albouy of July 29, 1996.



- conduct initial groupware sessions (in the Bank)
- finalize study scope:
  - select case projects/countries
  - select projects to be audited

### 3. Field Work

08/29/97

- conduct surveys/focus group interviews
- carry out project audits (not included in the time/cost estimates)
- carry out project visits

### 4. Report Preparation

- prepare "dissemination strategy" 09/26/97
- First Draft Report 11/28/97
- conduct intra-Bank groupware sessions as necessary
- conduct workshops/seminars to be scheduled
- Final Draft Report to OED/MT 03/15/98

Notes:

IM = initiating memorandum

DP = design paper

AP = approach paper

### Cost Estimate

<u>Member/Item</u>	<u>FY1997</u>		<u>FY1998</u>		<u>Total</u>	
	SWs	US\$	SWs	US\$	SWs	US\$
1. Tauno Skytta	10	35,000	12	42,000	22	77,000
2. Ron Parker	16	40,000	24	60,000	40	100,000
3. Specialists (2)	10	25,000	12	30,000	22	55,000
4. Research Assist.	<u>15</u>	<u>15,000</u>	<u>20</u>	<u>20,000</u>	<u>35</u>	<u>35,000</u>
Personnel Costs	51	115,000	68	152,000	119	267,000

### Field Work

- Surveys	40,000	40,000
- Focus Groups/site visits	15,000	15,000
- Missions (5 trips)	<u>45,000</u>	<u>75,000</u>
Field work total	85,000	130,000

Provision for dissemination/ editing/translations	_____	<u>30,000</u>	<u>30,000</u>
Grand Total	<u>200,000</u>	<u>227,000</u>	<b><u>427,000</u></b>

### **Dissemination Strategy**

Seminars will be held within the Bank and regionally, say in September or October of 1997.



Rural Water & Sanitation and Related Projects							
Proj. Name	Country	FY	L/C No.	L/C Approval Date	L/C Revised Closing Date	L/C \$	Tot. Cancel. \$
<b>Exclusively Rural WSS Projects</b>							
RURAL WATER SUPPLY & SANITATION	BENIN	1994	C26220	6/7/94	12/31/97	9.8	0.0
RURAL WTR & SANIT	BOLIVIA	1996	C28060	1/16/96	12/31/00	20.0	0.0
RURAL WS & S PILOT	BRAZIL	1985	L25320	5/7/85	9/30/90	16.3	5.2
WATER SUP SECTOR	BURUNDI	1992	C22880	7/16/91	6/30/98	32.7	24.3
RURAL WATER S. I	CHINA	1985	C15780	4/11/85	12/31/91	80.0	0.0
RURAL WAT SUPP & SAN II	CHINA	1992	C23360	2/11/92	12/31/97	110.0	0.0
COMMUNITY WATER & SA	GHANA	1994	C26040	4/14/94	12/31/99	22.0	0.0
MAHARASHTRA RURAL WS	INDIA	1991	C22340	5/2/91	12/31/97	109.9	0.0
KARNATAKA WS & ENV/SANITATION	INDIA	1993	C24830	4/20/93	12/31/99	92.0	0.0
UP RURAL WATER	INDIA	1996	L40560	6/25/96	5/31/02	59.6	0.0
WTR & SANI FOR LOW I	INDONESIA	1993	L36290	6/24/93	9/30/98	80.0	0.0
RURAL WATER SUPPLY I	MALI	1984	C14310	12/20/83	6/30/93	4.6	0.0
WATER SUPPLY V	MOROCCO	1994	L36640	11/23/93	12/31/01	128.0	0.0
WATER SUPPLY V	MOROCCO	1994	L36650	11/23/93	12/31/01	32.0	0.0
RURAL WATER SUPPLY & SANITATION	NEPAL	not yet approved as of 10/24/96					
RURAL WATER	PAKISTAN	1991	C22280	4/23/91	6/30/00	136.7	28.4
RURAL WATER SUPPLY & SAN III	PARAGUAY	1993	L35190	9/10/92	6/30/98	23.0	0.0
RURAL WATER SUPPLY	PARAGUAY	1978	L15020	12/13/77	6/30/83	6	0
RURAL WATER II	PARAGUAY	1981	L20140	6/16/81	6/30/89	11.8	0.1
WATER SUP. II	RWANDA	1987	C17830	4/28/87	12/31/96	15.0	0.0
COMMUNITY WAT SUPP/S	SRI LANKA	1993	C24420	12/10/92	12/31/98	24.3	0.0
NATL. RURAL WATER SUPPLY	TUNISIA	1982	L21340	4/27/82	12/31/87	30.5	0.0
RURAL WATER SUPPLY	TUNISIA	1984	L23680	12/13/83	6/30/93	50.0	0.0
TAIZ W.S. PILOT PROJ	YEMEN, REPUB	1997	C29130	9/3/96	6/30/00	10.2	0.0
RURAL W/SUPPLY	ZAMBIA	1983	C13620	5/12/83	9/30/91	10.0	1.4
Sub-Total						1114.4	
<b>WSS Projects with Rural WSS component</b>							
WATER SUPPL.II	BURUNDI	1986	C16250	9/10/85	12/31/91	9.5	0.0
WATER SUPPLY II	COTE D'IVOIRE	1982	L21300	4/27/82	3/31/92	43.0	0.0
WATER SUPPLY SEWERAGE SECT.ADJ	COTE D'IVOIRE	1990	L32400	6/28/90	12/31/91	80.0	0.0
WATER SUPPLY DEV&REH	ETHIOPIA	1996	C28420	4/9/96	6/30/00	35.7	0.0
TAMIL NADU WATER SUP	INDIA	1984	C14540	3/29/84	12/31/94	36.5	0.0
KERALA WATER SUPPLY	INDIA	1986	C16220	7/16/85	3/31/94	41.0	20.2
WS/SEWER/SANITATION	PHILIPPINES	1990	L32420	6/28/90	2/28/97	85.0	27.0
WATER SUPPLY II	SENEGAL	1985	C15540	3/7/85	6/30/93	24.0	0.1
WATER SUPPLY AND SEW	TUNISIA	1995	L37820	7/28/94	6/30/02	29.0	0.0
WATER SUPPLY AND SEW	TUNISIA	1995	L37830	7/28/94	6/30/02	29.0	0.0
SMALL TOWNS WATER	UGANDA	1994	C25830	3/17/94	12/31/01	42.3	0.0
PILOT WATER SUPPLY	UZBEKISTAN	1997	L40900	9/12/96	12/31/00	5.0	0.0
MONAGAS WATER & SANITATION	VENEZUELA	1996	L40310	6/4/96	12/31/00	39.0	0.0
TARIM WATER SUPPLY	YEMEN, REPUB	1990	C21700	6/28/90	12/31/97	12.0	0.0
Sub-Total						511.0	
<b>Other Sector Proj. w/ Rural WSS component</b>							
RURAL DEVELOPMENT	ALBANIA	1995	C26800	2/14/95	6/30/99	6.0	0.0
BAHIA R/D II	BRAZIL	1983	L22690	4/26/83	12/31/89	67.8	47.2
NRDP ALAGOAS	BRAZIL	1987	L28630	6/30/87	9/30/96	42.0	0.0
NRDP MINAS GERAIS	BRAZIL	1987	L28610	6/30/87	9/30/96	55.0	0.0
RURAL DEVELOPMENT	C.A.R.	1983	C13760	5/31/83	9/30/89	10.4	0.0
RURAL DVT FUND	CAMEROON	1977	C07230	6/30/77	12/31/83	7.0	0.4
WESTERN PROVINCE RDP	CAMEROON	1984	L24060	4/17/84	12/31/92	21.5	0.0
FSAR II	CAMEROON	1985	L25670	6/6/85	12/31/93	25.5	4.5
RURAL PROJECTS FUND	CHAD	1977	C06640	11/30/76	6/30/88	12.0	0.0
PUBLIC HEALTH	COLOMBIA	1986	L26110	7/30/85	6/30/93	36.5	19.6
ESRF 1	ETHIOPIA	1996	C28410	4/9/96	12/31/01	120.0	0.0
HARYANA IRRIG. II	INDIA	1983	C13190	1/25/83	3/31/92	150.0	16.2



AGR.DEV.I (TN)	INDIA	1991	C22150	3/12/91	9/30/98	92.8	0.0
MAHARASHTRA EARTHQUAKE & RECO	INDIA	1994	C25940	3/31/94	6/30/97	246.0	0.0
BONG COUNTY AGRIC DE	LIBERIA	1977	C07000	4/19/77	12/31/83	7.0	0.0
LOFA AG.DEV.II	LIBERIA	1982	C12420	5/4/82	6/30/87	15.5	4.4
HEALTH/POPULATION/RU	MALI	1991	C22170	3/19/91	12/31/97	26.6	0.0
PIDER III R/D	MEXICO	1982	L20430	7/21/81	12/31/88	175.0	0.0
SECOND DECENTRALZTN	MEXICO	1995	L37900	9/13/94	6/30/99	500.0	0.0
EMERG. DROUGHT RECOV	MOROCCO	1996	L39350	8/29/95	6/30/98	50.0	0.0
EMERG. DROUGHT RECOV	MOROCCO	1996	L39351	8/29/95	6/30/98	50.0	0.0
AGR.SER. REHAB.	MOZAMBIQUE	1992	C23370	2/11/92	12/31/00	35.0	0.0
RURAL REHABILITATION	MOZAMBIQUE	1993	C24790	3/30/93	12/31/98	20.0	0.0
RURAL DEVT.I	NEPAL	1976	C06170	2/24/76	12/31/83	8.0	0.0
MULTI-STATE ADP	NIGERIA	1986	L27330	6/26/86	6/30/95	162.0	0.1
SOUTHERN BORNO ADP	NIGERIA	1987	L27410	7/15/86	7/29/94	25.0	0.5
M.S. ADP III	NIGERIA	1989	C20350	6/13/89	3/31/96	100.9	0.0
SOCIAL ACTION PROGRA	PAKISTAN	1994	C25930	3/31/94	12/31/97	200.0	0.0
RURAL HEALTH	PANAMA	1995	L38410	2/7/95	6/30/00	25.0	0.0
NORTHERN IADP II	SIERRA LEONE	1981	C11280	4/7/81	6/30/87	8.5	5.0
MAHAWELI GANGA II	SRI LANKA	1977	C07010	4/21/77	6/30/85	19.0	7.7
RURAL DEV III	SRI LANKA	1983	C13630	5/12/83	9/30/89	23.0	20.4
AGR.SOUTHERN UPLANDS	YEMEN, REPUB	1975	C05450	5/6/75	3/31/82	10.0	0.0
MEIFAH HAJAH AGRIC.	YEMEN, REPUB	1978	C07680	2/14/78	6/30/84	5.2	0.0
Sub-Total						2358.2	
Total:						3983.6	



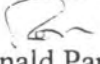
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THE WORLD BANK/IFC/M.I.G.A.

## OFFICE MEMORANDUM

DATE: October 10, 1996

TO: Yves Albouy, Chief, OEDD3

FROM:  Ronald Parker, OEDD3

EXTENSION: 31688

SUBJECT: **Draft Initiating Memorandum  
Rural Water Supply Study**

Attached please find our preliminary thinking on what should go into an initiating memorandum for the broader Rural Water Supply study. As we are working assiduously on several other more urgent matters, *inter alia* the PCR backlog and the EA/NEAP literature review, we have not spent a lot of time on this. A few figures (such as the volume of the portfolio) are only preliminary, and would be revised in the next draft.

attachment

cc: Messrs./Mmes. Tauno Skytta; Helen Watkins, Stacy Ward

## Rural Water Supply Study Initiating Memorandum

### Overview

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2. During the UN sponsored International Drinking Water Supply and Sanitation Decade, one billion people obtained safe drinking water.<sup>2</sup> In spite of such dramatic progress a majority of rural villagers are still not served in many countries. About 65 percent of the rural population in Africa is still lacking an adequate supply of water.<sup>3</sup> Tragically, much of the work on rural water which has been done, has often proven to be ineffective and/or not sustainable. OED evaluation results for 13 Bank-supported rural water and sanitation projects showed that only 54 percent had substantial institutional development impact and only 46 percent were likely to be sustainable. In recent years 43-63 percent of water and sanitation projects were rated satisfactory as to outcome.

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<sup>2</sup> An Evaluation of the UNDP-World Bank Water and Sanitation Program: Report of an Independent Team (1996).

<sup>3</sup> African Water Resources, World Bank Technical Paper No. 331, 1996.



Government agencies and/or projects tended to be paternalistic. Around 1988 this orientation changed.<sup>4</sup> Rather than increase the capacity of countries to deliver water supply services, the Bank and UNDP began to focus more on helping governments to act more as service facilitators rather than service providers. This orientation generally entailed initial investment assistance and continued back-up support. As a result, governments are now more likely to define their role as just being suppliers of water points.

4. The earlier generation of rural water projects was characterized by an inability to continue providing effective levels of service. Management of water supplies often proved to be beyond the ability of rural communities, particularly when they were expecting ongoing assistance from government and/or donor agencies and then did not receive it. Soon after the construction of water points they became non-functioning, often even before the projects which drilled the boreholes and supplied the pumps were completed. Early problems in the sub-sector included shortage of trained repair persons, difficulty obtaining spare parts and funding these activities on a sustained basis.

5. First instances of the new projects include ( \_\_\_\_\_ the best examples to be found; perhaps Mali and Cote d'Ivoire) . Several of these are now completed and some others are very advanced. Patterns of best practices are starting to emerge, and therefore an early stock-taking involving \_\_\_\_\_ countries and \_\_\_\_\_ projects could provide valuable guidance at this time. The lists below compare and contrast old and new approach in the sub-sector:

#### Old Approach

- supply-driven
- centralized beneficiary selection
- top-down decision making
- maintenance is governmental (utility) responsibility
- government-controlled spare parts distribution
- government selection of technicians
- weak local water committees, if any
- water given out free or at very low cost

#### New Approach

- demand-driven
- self-selection
- significant local participation
- maintenance is local (community) responsibility
- private sector spare parts distribution
- community selection of repairmen
- strong local water committees
- full cost recovery of O&M and replacement costs

6. Clearly, the change from old to new approach has been evolutionary, and many new projects are comprised of some but not all of the characteristics above. Some typical examples of "old" style projects include the Zambia, Rural Water Supply Project (Cr. 1332-ZM), \_\_\_\_\_[others to be named]\_\_\_\_\_, and \_\_\_\_\_. [Brief description of outcome of a typical old-style project (PCRs)].

7. More recent projects such as the recently audited Mali Rural Water Supply (Credit 1431-MLI) required the establishment of a water committee, participation in training, and a cash

<sup>4</sup> An Evaluation of the UNDP-World Bank Water and Sanitation Program: Report of an Independent Team (1996).



contribution. Yet, the new project paradigm is not a panacea. In spite of the fact that the Audit found that the project constructed twice as many boreholes as the appraisal estimate, and the beneficiary population was more than twice the appraisal estimate, the need for preventive maintenance was poorly understood by the villagers, the pumps were near the end of their seven to ten-year useful life, and most villages had not kept the water committees functioning. Many communities were finding it difficult to cover the cost of a pump overhaul, putting the sustainability of the project at risk. Audit field visits confirmed that the villagers were not routinely and/or exclusively drinking the potable water they now have access to, thus risking the assumed health benefits.

### **Methodology and Scope**

8. This initiative will review the transition made by the Bank from the old approach (before 1988) to a new approach after 1988, and it will concentrate on recently completed and a time slice of selected ongoing projects with implementation in an advanced stage to assess the success of the new approach. The data required to address the above and related questions will require a series of information-gathering activities and involve several research components. The research process will be based on a combination of methods; both field research and a desk study will be undertaken. It is anticipated that the study will review Mali and Cote d'Ivoire in the field, as well as several of the following countries which will also be subject to a desk review: Sri Lanka, China, Tunisia, India, Brazil, Philippines, Turkey, and Paraguay. The desk review will be based on earlier OED evaluative work, supplemented by selected relevant rural water project audits in early 1997.

9. The proposed OED Rural Water Supply (Sector) Assistance Review (RWSAR) will have an impact focus and it will identify the ingredients of success in selected rural water projects in these countries. Specifically, it will examine success as a function of two distinct aspects of rural water system sustainability: institutional sustainability and stream of benefits sustainability. The capacity to keep a water point in operation by the communities is all that is meant by benefit sustainability. For a water point fitted with a handpump, this implies that a pump which is maintainable at the village level is installed, spare parts are readily available at a reasonable cost, and reliable local mechanics are located within a reasonable distance of the community so that they can provide a maintenance service if and when required. The same approach is needed for other point sources, i.e. standpipes in small piped water systems. Institutional sustainability involves a functioning local committee (or a similar set-up), and the existence of a fund collected from the community members of a scale sufficient to maintain the point source and to replace or overhaul the pump at the end of its useful life. It is anticipated that the details of water point management will vary, that government extension services and project designs will be diverse, and that there will be a range of practices which contribute to sustainability and another range which constrains it. The study will focus on the appropriateness (or no) of these strategies, and develop a typology of practices which, when taken together, enable rural communities to manage their water points. Since the institutional, financial, cultural, social and technical considerations which have to be taken into account vary by country, best practices in a number of countries will be explored.

### **Questions To Be Studied**

10. The questions that the Study will address fall in three areas: project preparation, project design and implementation. The principal project-related research questions are as follows:



### Project Preparation

- What has been the involvement of local institutions in the preparation process?
- What are the characteristics of the project institutional framework? To what degree was the project supply/demand driven? How are these factors associated with success or failure?
- What has been the participation of local stakeholders?
- How was the water extraction technology chosen? Was the participation of local stakeholders in technology selection adequate?

### Project Design

- What is the relationship between eligibility criteria, nature of village contributions, the delegation of work/responsibility, cost recovery, and observed project outcomes.
- To what degree was post-project follow-up and technical support included in design?
- What suggestions do staff and borrowers have for revising the current project approach?

### Implementation

- What are the key ingredients for a successful project/sustainable operation of a water point?
- How significant are rules/requirements for guiding field actions and communication with beneficiaries,
- What are the reasons for failure of rural water projects?
- What has been the experience of the Bank as opposed to that of other donor agencies with rural water systems? Are there any best practice cases?

11. Preliminary research will begin with the information accessible from Bank Databases. Prior to commencing research in the field, a brief review of the literature will be undertaken. The literature reviewed will include ESW (sectoral and country-wide studies), bilateral and multilateral publications and internal documents. Pilot open-ended interviews will be conducted with Bank staff early in the research process. In addition, during the field research, borrower agencies will be interviewed. The results of the interview process of implementers will be supplemented by the administration of a written questionnaire/s to beneficiaries, water committees, pump repairmen, and women's groups. Preliminary contacts have been made with key borrower rural water sector staff in Mali and Cote d'Ivoire, and they expressed interest in participating in the study as co-inquirers.<sup>5</sup> Bilateral agencies and NGOs working in the sub-sector have agreed to share their experiences.

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<sup>5</sup> Meetings described in memorandum from Ronald Parker to Yves Albouy of July 29, 1996.

### **Dissemination Strategy**

It is anticipated that the Evaluation Team will have a report to make to the OED Evaluation Conference in the Spring of 1997 (interim report). Seminars will be held within the Bank and regionally later, say in September or October of 1997. The final study report is expected to be ready by February 1998.

### **Project Team**

#### **Timetable**

To be defined

#### **Cost Estimate**