

Water and Sanitation Program

Rural Water Supply Global Study 2010

Factors in Successful Rural Water Services Management

*The objectives of the study is to identify and understand which factors in and outside the sector contribute to successful water service management in rural areas through the analysis of best practice cases and what is required for scaling up these successful examples. For the purpose of identifying best practice case studies, the selection criteria are that (i) the served population is consuming safe, reliable, affordable and sustainable water, and (ii) the water supply systems have been operating successfully for at least 5 years. **Safe** = free from chemical and bacteriological contamination; **Reliable** = continuous water supply; **Affordable** = the associated costs have been approved by users; **Sustainable** = the service is financially viable with suitable arrangements for asset maintenance (and service expansion), and it has a secure water source. **Scheme**: project, program, implementation approach. Best practice is selected on performance, irrespective the kind of approach used.*

The approach of the study is to bring together lessons from the field and carry out analysis to extract general principles or success factors. Water and sanitation practitioners from all regions would be invited to propose case studies that meet the best practice selection criteria. Draft case study reports should be prepared by the end of June 2010 to be reviewed by the study core team. Best practices validation field visits by region (including country RWSS stakeholders brainstorming sessions) will be organized from July 2010 to December 2010. Study findings will be presented at the World Bank Water Week in 2011. Final report delivery is scheduled for November 2011.

Draft case study reports should be prepared by interested practitioner and send to Chrisophe Prevost (cprevost@worldbank.org) and Maki Tsumagari (mtsumagari1@worldbank.org) no later than April 30, 2010.

Best Practice Case Study Writing Guidelines

The case study report documenting the best practice is short (3000 words maximum) and have been thoroughly investigated in the field. It should provide clear data and strong recommendations about what is needed to succeed and how to implement the approach. The report comprises the following sections: **Title; Introduction; Background; Description of the water (and sanitation) scheme; Evidence of Performance, Factors of Success and Lessons learned.**

TITLE: Title should provide enough specific information about the essence of the scheme (program, project).

INTRODUCTION: Introduction should be short – about 300 words. The introduction should justify why the case study is important and what it contributes to international knowledge in rural water supply. That will help you keep focused while you are writing the paper itself.

BACKGROUND: Background information should put best practices in a proper context to judge their relevance. Keep the background short (about 300 words). This section should briefly present the country, area of implementation, timeframe, history, scale, and implementers. What is special about the best practice? Is it any different from other approaches in the same country/sector? Describe the unique features of the

environment in which the project took place. Focus only on the features that have direct relevance to the best practices

DESCRIPTION OF THE WATER SUPPLY (AND SANIATION) SCHEME: This section should present all the features of the scheme implemented. *A checklist for describing the water and sanitation scheme in this section is provided in appendix 1.* If useful, provide information on how the scheme evolved over time and key lessons from previous scheme.

EVIDENCE OF PERFORMANCE: This section should provide all available information on the performance and impact of the case study, i.e., how it qualifies as best practice, where the population is consuming safe, reliable, affordable and sustainable water for at least 5 years. The selection criteria are that (i) the served population is consuming safe, reliable, affordable and sustainable water, and (ii) the scheme has been operating successfully for at least 5 years. **Safe** = free from chemical and bacteriological contamination; **Reliable** = continuous water supply; **Affordable** = the associated costs have been approved by users; **Sustainable** = the service is financially viable with suitable arrangements for asset maintenance, renewal and replacement, and it has a secure water source. **Scheme** = project, program, implementation approach.

To document the best practice performance, *please use the checklist presented in appendix 2.* Situation before and after the scheme should be presented clearly and if possible compare with situation outside the scheme area (covered and not covered). If available, provide appropriate monitoring and evaluation numbers and other relevant data to document the best practice indicators. If the best practice has been independently evaluated, include the major findings.

FACTORS OF SUCCESS: This section should present a clear and strong analysis of the key factors that contributed to ensure that the population of the scheme is consuming safe, reliable, affordable and sustainable water resulting in a significant impact on health. This is the most important part of the study case report. The study analysis will draw upon the section to identify the most common factors, inside and outside the water and sanitation, which contributed to successful water service management in rural areas. It is recommended to focus on a limited number of factors of success – about five is recommended - and substantiate the factors with examples. The factors of success do not have to be about the entire project, but may focus on a particular component or an issue within the scheme. Adjust your best practices background information accordingly.

A list of factors of success is provided in appendix 3. The review and analysis of the factors of success of all the best practices studied should allow the study team to identify the most common factors of success and draw some conclusions on how to support the RWSS sector according to context and country. Please use the factors of success matrix (appendix 3) and provide based on your own analysis a rating of the importance of the factors listed in the successful rural water management service. Additional factors can be added according to cases. In the text, each factors of success identified should have a specific and explicit title.

LESSONS LEARNED with respect to implementation: Drawing on the descriptions and analysis in earlier sections of the paper, this section should present the most significant positive and negative lessons learned during implementation, i.e., what was required to ‘enable’ the success factors, and conversely what were the barriers and risks that had to be managed. Focus the paper on a limited number of lessons learned – about five is recommended - and substantiates the lessons with field based evidence. Suggest which of the lessons learned have general applicability for the sector, i.e., help guide implementation in other contexts, countries, etc. What are the conditions/requirements for repeating it elsewhere and what is required for *scaling up* these successful examples?

ILLUSTRATIONS: Please attach photos, graphs, and tables (with captions and for photos, the source of the picture) that we can use to illustrate the paper. If you have a related video, include it.

ABOUT THE AUTHOR: Writers are only those who have significantly contributed to the paper. Include the current titles of the authors. Authors' background info should be short (up to 50 words /author). Please include address, emails and phone numbers.

REFERENCES: if available, please include key references (5 to 10 maximum) as well as link to useful websites.

ATTRIBUTION: You should give credit for material that is copied, adapted, or paraphrased. If you use other's words, you should put them in quotation marks and cite your source. You should also give citations when using other's ideas, even if you have paraphrased those ideas in your own words. If you adapt a chart or paraphrase a sentence, you should cite your source. (Paraphrasing is restating the author's ideas, information and meaning in your own words).

Appendix 1:	
CHECK LIST TO DESCRIBE WATER SUPPLY AND SANITATION SCHEME	
Level of service	
Point WS;	
Piped WS;	
Distribution by public taps;	
Distribution by individual connections;	
Multi-use of water (irrigation, husbandry etc.);	
Technology (point WS)	
VLOM hand pumps;	
(i) Non VLOM hand pumps	
(ii) Other pumping equipment (diesel, solar etc)	
Technology (piped WS)	
Production (treatment and pumping	
(i) Distribution (storage and networks)	
(ii) meters	
Promotion of WS schemes	
Purely demand responsive	
Mostly "top-down"	
Something in between	
Allowing the private sector to act as promoter	
Hygiene promotion and sanitation programs	
Implemented in parallel to WS operations	
Policy financing of WS schemes	
Independent and quality of appraisal of financing applications submitted by communities	
Cost capital arrangement	
Construction of WS schemes	
Involvement of the communities in the construction of the WS infrastructure	
Private sponsor	

Turnkey mode	
BTOO	
other	
Cost recovery policies: user charges set to recover	
None of the costs	
O&M costs	
O&M plus capital costs	
Relying o cross subsidies from urban WS operations	
Pay on volumetric basis (meters)	
Calculation basis for tariff set up	
Ownership	
Community	
State	
Local government	
private	
Management models	
Basic community management	
Professional community management	
Local private operators	
Municipal	
State department, regional or national public or private utility	
Technical support	
Water department	
Municipal	
NGO's	
none	
Supply chain for spare parts and equipment	
Easily available from nearby market	
Erratic	
Non existing	
Financial mechanism for extension	
Community	
Private sponsor within the community/outside/remittance/politicians	
Local banks	
Public subsidies	
Households connection promoted through	
Tariff structures replying on cross subsidies from other users	
Government targeted subsidies	
Metering system	
WS arrangements to low income people	
Special tariff for poor families	
Free access but limited for the poor	

none	
Regulation of the WS service	
Setting of user charges by communities , local government, central government	
Monitoring of the quality of the WS service	
Dispute resolution mechanism	
Social audit	
Local rules for water resources regulation	
Sources sustainability	
Water quality issues	
Management of water resources	

Appendix 2:		
CHECKLIST FOR DOCUMENTING BEST PRACTICE PERFORMANCE		
Access: Level of service achieved	Before	After
% access		
Hours of service		
Number of communities served		
Number of households served		
Total population covered by the scheme		
Percentage of the population covered compared to country rural population		
Years scheme started		
Age of the scheme		
Average age of the water supply systems		
<i>For point water supplies:</i>		
(i) Population per water point		
(ii) average and maximum distances to water points		
(iii) average and maximum differences of elevation to water points		
(iv) average consumption		
(v) number of trips/day/household		
(vi) consumption patterns: reliance on other sources of water; individual storage; switch to rain water harvesting during rainy season		
(vii) longest time per household for fetching water in dry season for one trip		
<i>For piped water supplies:</i>		
(i) Population per public taps		
(ii) Individual connection ratio		
(iii) Average consumption pr type of supply		
(iv) Consumption patterns (as above plus existence of indoor		

plumbing)		
Reliability		
Point water supplies		
Number of days per year water is unavailable because equipment failure		
Percentage of water samples that meet bacteriological water quality standards		
By piped water supplies		
Number of hours water is distributed per day		
Water quality		
Water quality analysis per source/year		
Percentage of water samples		
Water treatment		
Financial sustainability		
Contribution of user charges to		
O&M costs		
Renewal of equipment		
To renewal of civil works		
Environmental sustainability		
Number of days per year water is unavailable because of hydrological conditions		
Existence of irrigation regulation		
Existence of water resources conservation and ground water table recharge		
Evidence of contamination of water source by excreta or waste water		
Water safety planning approach used		
Protection of sources		
Protection of borehole		
Sanitation situation (percentage of household with latrine, percentage of hygienic latrines, latrine technology used percentage of household with bathroom)		
Household system for waste water management		
Affordability		
Amount in USD and percentage of annual revenue of households in the lower quintile spent for		
Accessing the WS infrastructure (upfront contribution for point WS systems or individual connection of piped WS systems)		
Consuming water from the public WS system		
For complementing the supply from a deficient public WS system by substitutes (vendors, bottled water)		
Percentage of household consuming water from community water supply system		
Public health		
Evolution of the incidence of waterborne diseases during the last [5] years		

Appendix 3: Factors in Successful Rural Water Services Management

Rating of importance of factors 1= not important ; 2 important, 3 = very important	1	2	3
Institutional			
Clear breakdown of competences <ul style="list-style-type: none"> - State - Local government - Private sector - Communities - Oversight 			
Ownership of the asset			
Social			
Local champion			
Participation of local actors throughout the project cycle with no exclusions			
Selection of the system by the community with full knowledge of the implications and constraints in terms of quality of service, cost of investment (community contribution), tariff and management complexity			
Size of community and social coherence			
Community past experience and learning curve			
Specific approach to the poorest			
Technical factors			
Choice of technological and quality of service options to meet demand most effectively			
Scheme designed on local experience and knowledge			
Technological approach that minimizes recurrent costs and the complexity of maintenance			
Level and reliability of the service provided (users satisfaction)			
Policy of standardization of short-lived equipment			
Capacity of the private sector to execute the work			
Viable supply chains of r supplying goods & spare parts and services			
Multi-sources of water supply			
Multi-uses of water (for drinking, irrigation, fishery, local industry....)			
Quality of water			
Economic factors			
Choice of technology guided by willingness and capacity to pay for the service			
Clear national policy of financing for the investment (subsidy/local contribution)			
Tariff policy for operation & maintenance and replacement of equipment			

Capacity to ensure the security of replacement, funds and/or access to credit			
Adequate mechanism for recovering O&M cost			
Subsidy for household connections			
Management factor			
Professional community management			
Participation of private sector			
Metering			
Local supervisory board			
Adequate users complaint mechanism			
Technical support and regulation			
Environmental factor			
Water scarcity and/or quality issue			
Adequate response to recurrent water crisis			
Inclusion of integrated approach to water supply, sanitation, hygiene			
Inclusion of water resource management and water conservation measures			
Integrated approach factors			
Inclusion of sanitation, hygiene, hand washing, livelihood, access to credit, income generation, agricultural and forestry program			
Long term or programmatic factor			
Scheme implementation time schedule			
Access to long term financial, technical and institutional assistance			
Performance incentive factors			
Existence of reward scheme for standard compliance			
Fiscal transfer for service improvement			
Political/public attention factor			
Enabling policy and environment			
Implication of politicians			
Other factors: please add			