



**WATER AND SANITATION
FOR HEALTH PROJECT**

FINANCE AND COST RECOVERY

by

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FINANCE AND COST RECOVERY

Introduction

At any level--a national water authority, a regional O&M support agency, or in a community--funds are needed to cover the costs of maintaining water and sanitation services. Programmed funds (coming from ministry and agency budgets) are generally inadequate to maintain the services that have been installed. In many rural areas, government funds for water and sanitation system O&M are not even available. As a result, in both urban and rural areas, obtaining the funds that are needed to operate (and to minimize the burden on ministry budgets) can only be achieved through the recovery of costs from the system users.

The lack of adequate cost recovery practices is one of the most frequently cited reasons for failures of water supply and sanitation systems. However, cost recovery cannot occur in a vacuum--since the magnitude of the cost to be covered depends on the particular system design and the level of service provided. The success of cost recovery relies, in turn, on the appropriateness of the design, the participation of the community in the project (particularly in rural areas), and the willingness of individuals to pay for the service that is being provided. Cost recovery systems that are designed after projects are constructed may not succeed because the level of service was not what the community wanted or the cost of the service may be too high for many of the community members to afford.

WASH Activities in Finance and Cost Recovery

To address some of the problems that are typically encountered in cost recovery, the WASH Project (through recently completed or ongoing activities) is focusing on the following:

- (1) a methodology for assessing the willingness of individuals to pay for water service,
- (2) the study of water vending as a real measurement of people's willingness to pay for water supply,
- (3) the development of strategies for cost recovery and tariff design (principally for urban areas).

In addition, WASH is looking at ways to improve the management of water supply and sanitation institutions that have responsibilities for implementing or maintaining water supply and sanitation projects. Improvement in institutional management and efficiency has many advantages--one being the reduction of the cost that has to be recovered from users. Following the direction of

WASH's successful Guidelines for the Assessment of Water and Wastewater Institutions, WASH is pursuing two activities in this financial management area:

- (1) The development of guidelines for the financial management of water and wastewater institutions.
- (2) The development of cost management indicators for the management of water supply and sanitation institutions.

Finally, also in the broader finance area, WASH is attempting to promote the standardization of project costing methods. The lack of standardized formats within the water supply and sanitation sector and in other areas of primary health care makes it difficult to compare the cost effectiveness of different water supply and sanitation projects or different types of interventions (i.e., oral rehydration therapy, immunizations, water supply and sanitation, etc.). WASH has developed a simplified costing format that can be used for different types of primary health care projects.

Summary of WASH Activities in Financial Management and Cost Recovery

1. Cost Recovery

- Willingness to Pay for Water in Rural Areas: Methodological Approaches and an Application in Haiti, WASH Field Report No. 213, September 1987.

The WASH project, through the University of North Carolina, is developing and field testing methodologies for assessing the willingness of rural communities to pay for a water supply. It is intended that these estimates of willingness to pay, along with information on the cost of design, construction, operation, and maintenance will assist planners and designers to select a level of service which matches the financial resources of a community.

Initial WASH investigations of willingness to pay for water services were carried out in two rural communities in Haiti. The main objectives of these studies were to develop methodologies for estimating individuals' willingness to pay for rural water services and to field test one of these methodologies to assess its applicability as a practical planning tool.

The results of the studies are given in this report, which concludes that a highly promising methodology, termed the "contingent-valuation approach," has been successfully used in Haiti. The authors found that the method offers a rapid and inexpensive means of determining willingness to pay for improved water supplies.

- Water Vending Activities in Developing Countries, WASH Technical Report No. 45, April 1987 (draft).

In order to better understand vending systems, WASH carried out two water vending studies with the assistance of the University of North Carolina. These studies were done in Honduras and Kenya. WASH objectives for these water vending investigations included (among others) developing and field testing a methodology for gathering information on existing water systems, and showing how data on water vending could be used to improve water supply planning.

The studies provided the following information:

- Data on water vending operations can be reliably gathered with the methodology developed by WASH and UNC.
- Prices charged for vended water are generally much higher than for water from other sources. In Tegucigalpa, Honduras, vended water is 35 times the cost of water from the distribution system.
- Water vending also provides insights into consumers' willingness to pay for water and provides an estimate of potential cash flow data.

- Other Activities

In addition to the two activities already completed and described above, WASH and UNC are collaborating with the World Bank on the study of water vending in two areas of Nigeria, to provide an assessment of consumers' willingness to pay for improved (piped) water supply. The piped water supplies are being constructed through a World Bank loan and information on willingness to pay will be used to establish tariff rates for consumers. This study is being carried out under WASH Activity No. 370.

WASH is also collaborating with the World Bank on two other willingness to pay studies: The first is also in Nigeria (Activity No. 353) and the second is in Pakistan (Activity No. 354).

2. Financial Management

- Guidelines for Financial Management Assessment (WASH Activity No. 267 in progress).

Under this activity, WASH, through the Research Triangle Institute (RTI), is developing guidelines to assess the financial management strengths and weaknesses of water supply and sanitation institutions.

The activity is divided into two phases. Phase I is the development of the guidelines (a methodology) and Phase II will involve the field testing of the guidelines.

- Cost Management: Comparative performance in WS&S Systems (WASH Activity No. 240 in progress).

Most of the finance work to date in the water supply and sanitation sector has focused on various revenue generation problems. Although there also has been some work on institutional practices and improving management in this sector, very little of it has focused on cost management and performance assessment. These are particularly critical issues as requirements for revenue generation are extended to more water supply and sanitation projects.

To meet the need for better indicators of cost management and assessment, WASH, through the Research Triangle Institute, is developing management performance standards and measures for institutions which have responsibility for water supply and sanitation projects. The final report will include recommendations for performance measures and standards and a description of the purposes of performance monitoring. The report could be used in workshops, in technical assistance activities, or by project evaluation and design teams. Following the development of the WASH report, it will be field tested and revised as needed.

- A Simplified Costing Format for Primary Health Care Activities, by J. Ellis Turner and Dennis B. Warner, March 1987 (Conference Paper).

This costing format and paper were developed by WASH staff members for the World Federation of Public Health Associations Fifth World Congress in Mexico City, Mexico, in March 1987.

The purpose of the paper is to present a set of standardized costing formats for both development (start-up) and recurrent (operating) costs. The formats are intended to be used as a starting point or checklist for the costing of a wide variety of primary health care activities. Although the specific elements of any given program may vary, the standardized groupings serve as a reminder of the types of costs that are to be included and to ensure that the inputs from all sources (i.e., donors, ministries, communities) have been considered. Examples of the uses of the formats and example calculations of annual costs for a water supply program and an immunization program are also presented in this paper.