



# A Case Study on Capital Cost Recovery Approach in Water Supply Projects for Urban Poor Communities

*This paper has been prepared to promote discussion in WaterAid Nepal and partner organizations on the issue of cost recovery. We hope that discussion will lead to a greater understanding of this complex issue and contribute to a WaterAid Nepal Policy on cost recovery. We hope to produce similar discussion papers on other important issues on water supply and sanitation.*

## Introduction

The financial cost of water for an individual includes operational costs and capital costs. The operational cost and capital cost of water supply are recovered from users in different proportions. For example, in Small Town Water Supply Project, 50% of the capital cost is recovered from the users. This paper explains water supply project implementation in urban poor communities in Butwal Municipality based on 80% capital cost contribution by the communities.

## Why Capital Cost Recovery ?

Poor communities are unable to benefit from the existing Municipality approach of 50:50 cost sharing, as they are unable to pay upfront cash contribution of 50%. In the 80:20 approach, the beneficiary will pay the upfront capital cost on an instalment basis. Therefore, the approach helps the community to immediately gain access to water supply services.

The approach is the first of its kind in Nepal which constitutes a loan for the poor community to improve basic services in their own community. The most significant feature of this approach is that the recovered fund is then mobilized to replicate similar program in other poor communities.

## What is the 80:20 concept

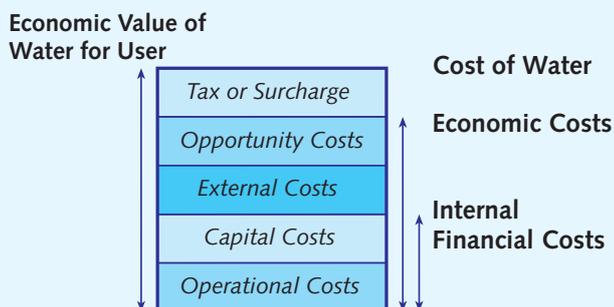
The main concept of the 80:20 capital cost recovery approach is that the users pay 80% of the total capital cost of the project and only 20% is provided as a grant to the users. Initially total amount required for the project is borne by the supporting agency/local government. The community then has to pay back 80% of the total cost on an instalment basis, over a certain period of time, fixed by the users themselves.

## Salient features of the 80:20 concept

1. Eighty percentage of the total cost of the project is recovered from the community over a certain period
2. Twenty percentage is provided as a subsidy by the Municipality
3. Creation of a revolving fund to replicate the program in other needy communities
4. Making the Municipality policy pro-poor with respect to providing basic services by helping them to create an Urban Housing and Infrastructure Fund (UHIF) at the Municipality level where poor people have access to credit facilities to fund basic infrastructure such as water and sanitation

### Composition of Water Price

*The water price is composed of many different elements that reflect production (financial) costs, economic costs, the economic value of the commodity, and the clients willingness to pay, which is the economic value for the water user.*



## Communities' Acceptance

The 80:20 cost recovery approach was first implemented in Danda Tole in Butwal Municipality. This approach has successfully managed to give the conventional trend a new dimension.

During the initial phase, the approach faced lots of scepticism. Though Butwal Municipality is sensitive towards providing basic services, including water and sanitation, to the poor they were doubtful about the 80:20 approach. The main concern of the Municipality people was that the 80:20 approach would be increasing the debt burden on the already poor people and will make them even poorer.

But to their disbelief when the idea was proposed to the community of Danda Tole, the people were not only convinced but supported the idea wholeheartedly. They were really surprised to discover that the people of Danda Tole were not only positive but seemed totally committed to do something by themselves to improve their own community. So, this informal settlement of Danda Tole was selected to pilot a Gravity Flow Water Supply System based on the new 80:20 concept.

### Demographic Information of Project

Location:	Danda Tole, Ward No 4 Butwal Municipality
Total No. of Households:	116
Population:	640
Ethnic group:	Brahmin, Chhetri, Gurung, Chaudhary, Rai, Newar
Occupation:	Daily wage earner, Blacksmith, Mason and few Service holder
Project:	Gravity flow drinking water system project

### Technical Information

Source:	One spring intake
Reservoir tank capacity:	6 m <sup>3</sup>
No. of Taps:	11
Length of pipe:	1150 m



## Communities acceptance inspires Municipality

"At first the Butwal Municipality was skeptical about the 80:20 concept. But we were surprised to see the squatter settlement of Danda Tole support the idea. So we agreed to join hands with Lumanti to implement a drinking water supply project in Danda Tole based on the 80:20 cost recovery principle. Lumanti has taught us a lesson" said Ms. Nirjala Bhattarai Adhikari, Programme Officer of Butwal Municipality.

## From Concept to Action

Once the community agreed the concept, following steps were undertaken to translate the concept into action.

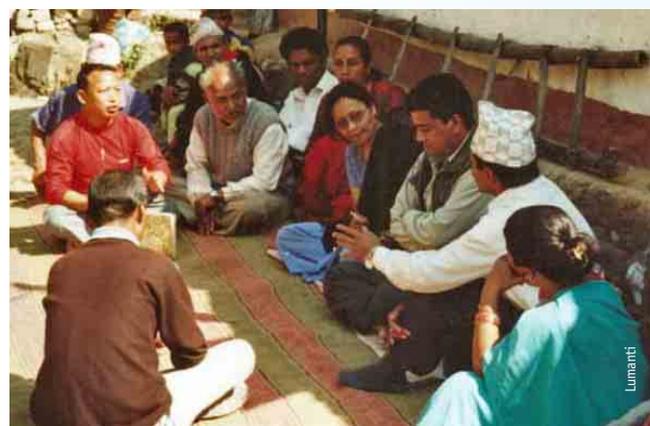
- Creation:** "Drinking Water Management Fund" is created at Municipality in which the loan recovered from the community is deposited.
- Operation:** Fund Management Committee is set up comprising representatives from Butwal Municipality, Danda Tole community and Lumanti for its operation.
- Management:** The main responsibility of the Fund Management Committee is to initiate, manage and monitor the collection of loan payments on a monthly installment basis. A separate account is opened in the name of Butwal Municipality where the recovered amount is deposited. Then the Municipality decides in consultation with the community for the reinvestment in the needy communities for implementation of water and sanitation projects.
- Transparency:** For transparent accounting each household is provided a "card" to record the monthly installment paid as the proof of the payment.

## Cost Recovery Calculation in Danda Tole

SN	Particulars	Amount (NRs)	US\$
1	Total construction/capital cost	428,466	6,121
2	20% Grant on capital cost	85,693	1,244
3	80% cost recovery	342,773	4,877
4	Loan payback per month	60	0.86

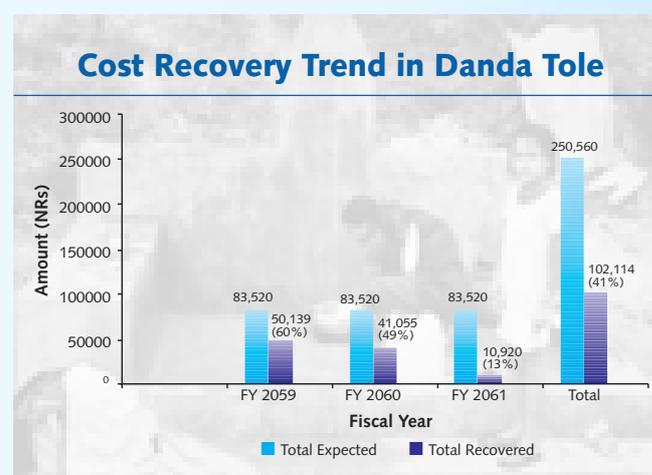
Months required to pay back the 80% cost by 116 households is 49 months

(exchange rate: 1US\$ = NRs 70)



## Assessment of Loan Repayment

Loan recovery was relatively good in the beginning, at 60% in the first year. However, it gradually went down over the next few years. The graph below indicates how the recovery rate went down.



The real cause to this downfall was surprisingly not because the inhabitants could not afford to pay but due to lack of transparency in fund management and lack of capacity to manage fund.

## Communities Willingness and Ability to Pay

"We have committed to pay and will pay, but there should be transparency on fund management." said Rina Bishwakarma of moderate income household. Her husband works in an office and earns Rs 2,000(\$29) per month.



"Paying the amount is not difficult for me. I have bought this house months back but I am asked to pay the default of the previous house owner" said Shanti Sharma, a wife of a teacher earning Rs. 3000 (\$43)/month. Therefore there should be clear policy on these issues.

## Lessons learned

The 80:20 concept is a creative approach in reaching to the more needy people particularly the poor. However, as reported by the community, the programme needs continuous refinement in the following areas:

- 1. Level of transparency to be increased:** The community members are very concerned about the money they have paid back. Their regular payment depends upon maintenance of a clear book of accounts. Therefore, periodic disclosure of the accounts in mass meetings increases trust in the management committee, thereby increasing the payback by the consumers.
- 2. Capacity of the community:** A skilled person within the community to keep records of payments is vital for the success of the scheme. Many issues arise which need to be clarified. For example, there should be a clear policy on how much a new household should pay as tariff. Should the new household be responsible for the default made by his previous house-owner in case of sale of property? A lack of clear policy in this regard caused confusion and is hampering the payback.
- 3. Follow-up support from Municipality:** Support of the Municipality and supporting organizations is vital as a part of capacity building of community organizations, especially in accounting management.
- 4. Equitable cost recovery approach:** A community comprised of different economic groups, they have different abilities to pay. Therefore, the cost recovery should be customized according to their ability to pay. This can be done by a different proportion of capital cost recovery for different economic groups.

### A glimpse on Chisapani Gravity Flow Water Supply Project

**Location:** Butwal Municipality, Rupandehi  
**Wards:** 1 & 4  
**Places:** Sheksar Deurali, Bhimsen Tole, Narsing Tole, Pakhapani Tole & Mankamana  
**Households:** 541  
**Ethnic Group:** Newar, Brahmin, Chettri, Sarki, Sahi, Biswarkarma, Kasodhar, Tamrakar, Muslim  
**Occupation:** Rishkaw driving, meat selling, stone crushing, construction works, teaching, service, small business, making gagrirs & furniture shops

#### Technical information

**Source:** One spring intake  
**Reservoir tank capacity:** 5 tanks (two 15m<sup>3</sup> & three 5m<sup>3</sup>)  
**No. of taps:** 64  
**Length of pipeline:** 8775m

## Replication of the Approach

Based on the lessons learned from Danda Tole project, Chisapani Water Supply Project is being implemented on 80:20 cost recovery principle. This project will serve 541 households of Shikhar Deurali squatter community located in Ward no.1 and Narsingh Tole, Paakhapani Tole, Manakamana Tole and Bhimsen Tole situated in Ward no. 4 of Butwal Municipality.

The community not just agreed to pay back 80% of the capital cost but they will also set up a fund for the maintenance of the project. Each household will contribute Rs. 500 upfront to the fund. By learning lessons of cost recovery approach from Danda Tole, the Users Committee have passed a stringent rule that if a household fails to pay the loan, then they will have to pay double the amount the following month as a penalty. The committee members said that they will strictly stick to the rule so that the loan payback can be enhanced within the stipulated time.

Butwal Municipality has also decided to assign a staff to build the capacity of Committee to keep the accounting record properly.

### Cost Recovery Calculation in Chisapani Water Supply Project

SN	Particulars	Amount (NRs)	US\$
1	Total construction cost	1,654,444	23,635
2	20% Grant on construction (capital) cost	330,889	4,727
3	80% cost recovery	1,323,555	18,908
5	Loan payback per month	68	1

68 Months required to pay back the 80% cost by 541 households.  
*(Cost of transmission line is excluded from the total construction cost)*

### Key to Success

- ◆ Proper accounting system
- ◆ Transparency in all activities
- ◆ Rotation of leadership of management committee every two years
- ◆ Follow-up support from Municipality for capacity building
- ◆ Periodic fund monitoring by the Municipality
- ◆ Reward for compliance and punishment for defaulters
- ◆ Active community participation and preparation

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