PUBLIC-PRIVATE PARTNERSHIPS FOR WATER SUPPLY TO URBAN POOR

Researched by
Eng. N H D P DHARMAPALA
B.Sc. Eng. (PRC), C Eng., MIE (SL)

THIS THESIS IS SUBMITTED TO
THE DEPARTMENT OF CIVIL ENGINEERING,
UNIVERSITY OF MORA TUWA
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR
THE DEGREE OF MASTER OF SCIENCE
IN CONSTRUCTION PROJECT MANAGEMENT 200212003

Supervised by
Prof. K A M K RANASINGHE
B.Sc. Eng. (SL), M.A.Sc. (UBC), Ph.D. (UBC), C Eng., FIE (SL)

DEPARTMENT OF CIVIL ENGINEERING
UNIVERSITY OF MORA TUWA, SRI LANKA

2007

Abstract

Development of new infrastructure, providing social services efficiently and effectively, and better targeting of services to those in most need, are critical to alleviate poverty and provide economic opportunities for the less fortunate. Reforms using "quasi- public" contracts, commercializing public agencies, contracting out specific services to the private sector, and transferring responsibility for providing services to the private sector would be better alternatives to leverage with private sector skills and resources.

Small-scale entrepreneurs and urban poor communities are the focus of this paper in developing a model as a feasible strategy of private sector financing of development and operation of water services for improved efficiency and reduced wastage. The case study on urban water supply at Halgahakumbura low-income settlement is developed using base data of various pilot studies of the National Water Supply and Drainage Board in the recent past and the recent initiative of 'Pro-poor Public-Private Community Partnership' to provide an individual water connections in urban low income settlements.

The analysis shows that further subsidy is required to make the project viable. It is clear that in order to reap the maximum benefit to the economy as well as attracting competitive private service providers, the users should pay the full cost of service. If the social affordability level is inadequate, then the Government should complement user fees with a carefully targeted subsidy payment, ensuring the subsidy to those in most need.

PUBLIC-PRIVATE PARTNERSHIPS FOR WATER SUPPLY TO URBAN POOR

Researched by

Eng. N H D P DHARMAPALA
B.Sc. Eng. (PRC), C Eng., MIE (SL)

THIS THESIS IS SUBMITTED TO
THE DEPARTMENT OF CIVIL ENGINEERING,
UNIVERSITY OF MORATUWA
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR
THE DEGREE OF MASTER OF SCIENCE
IN CONSTRUCTION PROJECT MANAGEMENT 2002/2003

Supervised by

Prof. K A M K RANASINGHE
B.Sc. Eng. (SL), M.A.Sc. (UBC), Ph.D. (UBC), C Eng., FIE (SL)

DEPARTMENT OF CIVIL ENGINEERING
UNIVERSITY OF MORATUWA, SRI LANKA

October, 2007

CONTENT

ABSTRACT

Development of new infrastructure, providing social services efficiently and effectively, and better targeting of services to those in most need, are critical to alleviate poverty and provide economic opportunities for the less fortunate. Reforms using "quasi- public" contracts, commercializing public agencies, contracting out specific services to the private sector, and transferring responsibility for providing services to the private sector would be better alternatives to leverage with private sector skills and resources.

Small-scale entrepreneurs and urban poor communities are the focus of this paper in developing a model as a feasible strategy of private sector financing of development and operation of water services for improved efficiency and reduced wastage. The case study on urban water supply at *Halgahakumbura* low-income settlement is developed using base data of various pilot studies of the National Water Supply and Drainage Board in the recent past and the recent initiative of 'Pro-poor Public-Private Community Partnership' to provide an individual water connections in urban low income settlements.

The analysis shows that further subsidy is required to make the project viable. It is clear that in order to reap the maximum benefit to the economy as well as attracting competitive private service providers, the users should pay the full cost of service. If the social affordability level is inadequate, then the Government should complement user fees with a carefully targeted subsidy payment, ensuring the subsidy to those in most need.

DECLARATION

I, N H D P Dharmapala declare that the work included in the dissertation *'Public Private Partnerships for Water Supply to Urban Poor'* in part or whole, has not been submitted for any other academic qualification at any institution.

N H D P Dharmapala
(Applicant of the dissertation)
Date: 04/10/2007

I, K A M K Ranasinghe certify that the declaration is true to the best of my knowledge.

K A M K Ranasinghe
(Supervisor of the dissertation)
Date:

ACKNOWLEDGEMENTS

This dissertation is presented as part of the eligibility requirement for awarding the degree of Master of Science in Construction Project Management by the Department of Civil Engineering, University of Moratuwa, Sri Lanka. I sincerely thank the National water Supply and Drainage Board for sponsoring me for this course and the University of Moratuwa for giving me the opportunity for carrying out this research project.

I extend my deepest gratitude to Prof. Malik Ranasinghe, the supervisor assigned for my project, for encouraging, guiding and motivating me to make it a success. I wish to express my sincere thanks to the course coordinator, research coordinator and all other lecturers who conducted seminars during the course. My special thank to Dr. N V Chandrasekaran for having helped in proof reading this report.

Finally, I wish to gratefully acknowledge my colleagues working with me, for sharing their knowledge and experience and for having helped me in numerous ways to prepare this report.

Abbreviations

BET	Break Even Tariff
CB I	Consumer billing area of Colombo 10, 11, 12, 13, 14 & 15
CB II	Consumer billing area of Colombo 2, 3, 8, 9 & 10
CB III	Consumer billing area of Colombo 4, 5, 6 & 7
CEB	Ceylon Electricity Board
DSCR	Debt Service Coverage Ratio
GOSL	Government of Sri Lanka
ILA	International Lending Agencies
IRR	Internal Rate of Return
JBIC	Japanese Bank for International Corporation
JICA	Japan International Cooperation Agency
LIS	Low Income Settlements
MARR	Minimum acceptable rate of return
MDG	Millennium Development Goals
NGO	Non-governmental organization
NPV	Net Present Value
NRW	Non-revenue water
NWSDB	National Water Supply & Drainage Board
OECF	Overseas Economic Corporation Fund
PPP	Public- Private Partnerships
PPPCP	Pro-poor Public Private Community Partnership
SAP	Special Assistance for Project Sustainability
SAPROF	Special Assistance for Project Formation
SAT	Social Affordable Tariff
UN-ESCAP	United Nations - Economic and Social Commission for Asia and Pacific

LIST OF TABLES - ANNEXED

Data Tables

Tables of Economic Analysis

Tables of Financial Analysis