

SANITATION STRATEGIES & TECHNOLOGIES

Flood-prone and High Water Table Areas of Bangladesh



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Flood-prone and High Water Table Areas of Bangladesh

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FOREWORD

Bangladesh achieved a remarkable success by providing impressive coverage in water supply while sanitation is lagging far behind. In rural socio-economic context, pit-latrines is considered as an appropriate sanitation option in Bangladesh. However, annual flooding, high water table, excessive rainfall and adverse soil condition in many areas often causes overflow and collapse of pit-latrines rendering them unsuitable for the intended purpose. ITN-Bangladesh undertook this research project to work out a suitable sanitation strategy supported by appropriate sanitation technologies for flood-prone and high water table areas of Bangladesh.

The report presents a very good review of technological and social aspects of sanitation in Bangladesh. In the process of development of sanitation strategy, extensive socio-economic and technical survey have been conducted in three flood-prone areas characterized by normal rainwater flood, flash flood and tidal flood. Software input in the form of capacity building, community participation, motivation, integrated approach, affordability have been given priority in the proposed sanitation strategy. The technical solution to flooding and over-flowing of latrines has been given based on the concept of 'raised latrine' constructed above flood level in flood-prone and high water table areas. The technologies include 'Earth Stabilized Raised Pit Latrine', 'Step Latrine', 'Mount Latrine' and 'Sand Enveloped Pit Latrine'. However, these latrines are needed to be experimentally installed in representative study areas to assess stability, suitability, and acceptability in rural conditions.

I hope this document will provide some guidelines for safe disposal of excreta in flood-prone and high water table areas of Bangladesh.

M. Feroze Ahmed
Centre Director

PREFACE

The present research essentially focuses on two broad aspects of sanitation - strategies and technologies, with the aim of investigating a sustainable sanitation package for the high-water table and flood-prone areas of Bangladesh.

This report is based on the outcome of the socioeconomic and technical survey on sanitation that has been completed in three project areas in Dhaka, Patuakhali and Sylhet. The report also overviews various sanitation technologies and the existing sanitation facilities in Bangladesh. The problems of high water table and flooding were kept in mind while over-viewing the available technologies in order to adapt an appropriate sanitation technological option for such problem areas of Bangladesh.

Based on field data and outcome of local level workshops in the three different study areas in Dhaka, Patuakhali and Sylhet and the final workshop in Dhaka, comprehensive recommendations on sanitation strategies and technologies are made.

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