

Water for All?

Implementation of ADB's Water Policy in India: A Review



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**Implementation of ADB's
Water Policy in India:
A Review**

WaterAid India
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Foreword

Water, sanitation and hygiene have been the focus of WaterAid work in all the 15 countries of Asia and Africa. WaterAid is committed to the provision of safe and effective water and sanitation for all, specially the poor. In India, where the government (central and state governments) is the largest contributor to water and sanitation programmes, WaterAid India's work is focused on filling critical knowledge gaps in the sector, upscaling community based and pro poor approaches through our modest programme and advocacy work.

“Implementation of Asian Development Bank's Water Policy in India – A Review by WaterAid India” is a research study that was carried out under a three-country (Bangladesh, India, Nepal) study to provide an independent input for the ADB's own initiated Water Policy Implementation Review. WaterAid as part of a “knowledge partnership” with ADB, conducted this study during 2005 (with funding support from ADB). The process of this study involved active engagement with a range of researchers, NGOs, sector specialists and ADB staff. A synthesis report arising from the three country reports is the main output of this work that has also been done. This work is not an evaluation of the ADB work on water and sanitation in India.

This study had as its focus, four Integrated Urban Development projects, at different stages of implementation, in three states (Karnataka, Rajasthan and Madhya Pradesh). ADB's development financing in India for water and sanitation is largely urban and India is a non concessional recipient of development lending of ADB. Reiterating our focus on the access & affordability, this study took a close look at the access of sustainable water and sanitation services for the urban poor. This has been a learning process for WaterAid India as well. We have gained from an improved understanding of the modus operandi of urban infrastructure financing, the issues, challenges and constraints in implementing large infrastructure improvement works through Special Purpose Vehicles and Project Teams, the concerns and resistance of local NGOs and Municipal bodies and their contradictions with the decision makers, monitoring & evaluation systems of development banks, the larger issues of debt and development priorities of state governments, and the contradictions between state and national government and development lending. Some of these aspects have been directly examined in a modest way in this study.

The research work involved an intensive and participatory research work that was anchored at the WaterAid by James Wicken our Regional Advocacy Advisor who led this research with lead WA staff in each of the three Asia Country Programmes and developed the framework and questions for this research and a synthesis of the combined reports from the three Country Programmes of WA. The primary research for the India study and the interim report was done by CURE (consultants), a peer group review panel provided critical inputs to the methodology and interim findings. From WaterAid India Biraj Swain, Programme Officer Research was the lead person to anchor and finalise this output. This study is one of the largest WaterAid has undertaken in recent times and would not have been possible without the guidance and support from Ms. Belinda Calaguas from the Public Policy & Education Department of WA UK.

We acknowledge the wholehearted support and engagement of the ADB Manila specially Mr.K Seetharam, Mr. Hun Kim and Ms. Ellen Pascua from ADB Manila; Mr. Debasish Bhattacharjee, Mr. Alex Jorgensen and Mr. Saugata Dasgupta from the ADB Indian Resident Mission; Ms. Renu Khosla and Ms. Shveta Mathur from CURE. To Prof. Amitabh Kundu who, as the expert panel member from India, provided inputs for the methodology and interim findings in August workshop. And to all the NGOs in all the three states who participated in the NGO consultations and the final presentation in Delhi in September 2005 ADB meet. In this gathering the results of this study were presented to invited experts and project affected people invited by the ADB India for feedback and review before finalisation.

We hope this report will be useful as well as informative. The study questionnaires are also enclosed as annexure for the larger purpose of learning. Released on the Water Day 2006, let us rededicate ourselves to our commitment for reaching the poor with access to improved water and effective sanitation.

Depinder Singh Kapur
Country Representative
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2006

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The Study would not have been possible without WaterAid India for the inception workshop and their contribution in tackling the methodology and other issues and their continued cooperation during the whole process. We would also like to especially thank James Wicken of WaterAid Asia, Depinder S Kapur and Biraj Swain of WaterAid India for their regular and timely inputs and keen involvement in the study and their useful suggestions. Professor Amitabh Kundu of JNU guided the process with his thoughts on methodology and format for which we would like to thank him deeply.

Abbreviations

ADB	Asian Development Bank
APUSP	Andhra Pradesh Urban Services for the Poor
BME	Benefit Monitoring & Evaluation
BWSSB	Bangalore Water Supply and Sewerage Board
CBO	Community Based Organisation
CLC	City Level Committees
CURE	Centre for Urban & Regional Excellence
DAE	Double Accrual Entry
DEA	Department of Economic Affairs
DFID	Department for International Development
DSC	Design & Supervision Consultants
DMCs	Developing Member Countries
EGCIP	Expert Group on Commercialisation of Infrastructure Projects
FGD	Focused Group Discussion
GDP	Gross Domestic Product
IL&FS	Infrastructure Leasing & Financing Services Ltd.
IMC	Indore Municipal Corporation
IIRM	Indian Institute of Rural Management
KII	Key Informant Interviews
KUDCEMP	Karnataka Urban Development Coastal Environment Management Project
KUIDFC	Karnataka Urban Infrastructure Development Finance Corporation
KUIDP	Karnataka Urban Infrastructure Development Project
KWSSB	Karnataka Water Supply and Sanitation Board
LABS	Livelihood Advancement Business School
LCS	Low Cost Sanitation
MAPP	Municipal Action Planning for Poor
MDG	Millennium Development Goals
MDT	Millennium Development Targets
MLD	Million Litres per Day
MOUD&PA	Ministry of Urban Development & Poverty Alleviation
MPToR	Madhya Pradesh Terms of Reference
NGO	Non Governmental Organisation
NKUIDP	North Karnataka Urban Improvement Project
NSSO	National Sample Survey Organisation

NWP	National Water Policy
O&M	Operation & Maintenance
PAT	Project Advisory Team
PHED	Public Health & Engineering Department
PIU	Project Implementation Unit
PMU	Project Management Unit
PPTAS	Project Preparation Technical Assistance Studies
RRP	Reports & Recommendations to the President
RUIDP	Rajasthan Urban Infrastructure Development Project
SE	Superintending Engineer
SHGs	Self-Help Groups
SIP	Slum Improvement Package
SKDRDP	Sri Kshetra Dharmasthala Rural Development Project
SPV	Special Purpose Vehicle
STPs	Sewerage Treatment Plants
TA	Technical Assistance
ULB	Urban Local Body
UNICEF	United Nations Children's Fund
URIF	Urban Reforms and Infrastructure Fund
USAID	United States Assistance for International Development
UWSEIP	Urban Water Supply and Environmental Improvement Project in Madhya Pradesh
VIPP	Visualisation in Participatory Planning
WHO	World Health Organization
WSS	Water Supply & Sanitation

Executive Summary

ADB's development assistance in the urban WSS sector in India began in the late 1990s. Since then it has funded several multi sector and stand-alone projects to provide and expand water supply and sanitation facilities in Indian cities. In 2001 ADB approved a water policy that recommended an increase in the flow of resources to the sector, and linked water supply to reduction in poverty. As the Policy comes up for a review in 2005, it was decided to take stock of achievements under different projects and evaluate the implementation of this Water Policy. WaterAid undertook a three-country study in Bangladesh, India and Nepal to find out if the ADB Water Policy is being implemented and if it is ultimately ensuring sustainable water and sanitation services for the poor.

Projects were selected for the study in consultation with ADB and Executing Agency staff. Six cities in four projects were selected: Ramnagaram which is part of the completed Karnataka Urban Infrastructure Development Project (KUIDP); Karwar as part of ongoing Karnataka Urban Development and Coastal Environmental Management Project (KUDCEMP); Jodhpur and Ajmer as part of Rajasthan Urban Infrastructure Development Project (RUIDP) and Indore & Ratlam of Urban Water Supply and Environmental Improvement Project in Madhya Pradesh (UWSEIP).

The study is a review of ADB's Water Policy implementation from the lens of access and equity for urban poor. The five key research questions to examine this are: ADB's involvement in the Water and Sanitation sector including impacts on national and sector policies; the effectiveness of WSS funding in ensuring sustainable services to the poor; the extent and nature of involvement of key stakeholders; M&E procedures used to assess project implementation; and impact of WSS funding on national, State and municipal finances. Evidence gathered in answering these questions was used to assess the level of implementation of ADB's water policy.

ADB's Involvement in the WSS sector in India

ADB's water and sanitation projects in India are classified under a broad urban portfolio and

generally combined with targeted poverty reduction components, municipal governance and policy reforms. A stated key objective of ADB funding is also to increase access and involvement of slum dwellers through NGOs in planning and management of WSS to improve the overall quality of their lives and reduce their poverty.

ADB entered the WSS sector in India in 1998 and to date has invested \$960m in five Integrated Urban Development Projects. In 2004 around 14 per cent of its total investment in India was for urban WSS related projects. ADB started with the developed state of Karnataka and is now leveraging its experience in the less developed states like Rajasthan, Madhya Pradesh, North-East, Jammu & Kashmir and Uttaranchal. ADB's Country Strategy and Programme envisages one new urban development project annually and an estimated 56 per cent of the total project cost of the IUD projects is allocated to WSS related activities and municipal capacity building. It is calculated that by 2015, ADB will fund 6 per cent of the total outlay of resources needed for 100 per cent water and sanitation coverage in urban areas, using estimates prepared by the Expert Group on Commercialisation of Infrastructure Projects (EGCIP)¹. However, direct pro-poor components under slum packages make up a mere 2.84 per cent of total project funding. Less priority is given to sanitation sector, despite the high cost of sanitation infrastructure and the sanitation coverage gap.

By ADB's own admission, water sector assessments have not yet been carried out for influencing national water policy changes even though it was recommended in the internal ADB assessment of its own water policy in 2003. Focused dialogue on water policy at the State or National Level is yet to take place. WA believes national sovereignty has to be upheld and national policies need to be consultative and legislative. However, if there are pro-poor elements missing, ADB should focus on facilitating

¹ The EGCIP estimate at Rs 1505 billion, is inclusive of cost estimates for new infrastructure (i.e. drainage, sewerage, solid waste management) and it is highest compared to MoUD estimate of Rs 514 billion for Urban water & sanitation and UNICEF/WHO/Planning Commission estimate of Rs 304 billion for meeting MDG Urban water and sanitation target. Source: Drinking Water and Sanitation Status in India: Coverage, Financing and Emerging Concerns, WAI-2005, Page 31.

amendments to incorporate the same in their loan agreements. However this needs to be worked out in a consultative and legislative manner.

Despite three generations of loans, projects for the poor continue to be designed as stand-alone rather than integrated/mainstream interventions; inequitable State policies on service provision in slums have been accepted and upheld, and community inclusion and NGO involvement has received low priority in all stages, i.e. project conceptualisation, design, investment and monitoring.

Despite funding a TA on urban poverty and making commitments to poverty reduction, ADB appears not to be encouraging governments to adopt pro-poor elements in policies. By its own admission, this is due to a lack of understanding of poverty issues. Rather ADB is adopting an incremental approach of trying to show case best practice through its projects before entering the policy arena.

This study has not looked at gender issues in detail hence impact on the same could not be conclusively verified.

Effectiveness of Sustainable Services for the Poor

Water Supply

Coverage of piped water supply has increased inside intervened slums. Nearly half of the project households had access to municipal water supply inside homes. However, differential service provision level is prevalent in all the three projects where unauthorised slums still resorted to public stand-posts. Those unconnected are primarily either the poorest or people in technically difficult areas.

Around a third of households reported paying for water, and of those only a half reported functional water meters.

Reduced time for water collection has been used as a proxy indicator for improved supplies in our study. Water collection time has considerably decreased in completed projects i.e. 10 minutes and marginally decreased in ongoing projects i.e. 42 minutes. On the question of quantity, responses were quite mixed but there was overall satisfaction with water pressure. In the completed project of Ramnagaram 67 per cent people reported satisfaction with water pressure. Water quality was reportedly good and the responses were mostly veering towards “satisfactory”².

As expected, the variation in service level was noted in intervened and non-intervened settlements with

former reporting better access to piped water supply and water pressure and convenient water timings.

Service levels in HIG areas were reported to be better than those in the slums. However, satisfaction levels in the high income groups were much lower, indicating not only a higher payment capacity but also an expectation and awareness of higher level of services amongst the HIG families.

Sanitation Services

Sanitation services largely aimed at building systems for underground sewerage, solid waste management and wastewater management. A significant increase in the proportion of households with individual toilets in project settlements was noted, although majority were built through personal expenditure and not ADB investment. Open defecation practices continue in all communities. Credit for individual latrines was being provided through just one project (KUDCEMP).

Despite free connections to the junction box, households with septic tanks were reluctant to switch to sewerage systems due to cost implications of laying the underground pipe from their latrines to the junction box. In the completed project, people had connected themselves to storm water drains and sewerage connectivity was low. It was also witnessed in the ongoing project in Rajasthan.

Community toilets were constructed only in Ajmer and Karwar. Community latrines were generally poorly maintained and located in far off areas.

All households in the high income groups had access to individual household toilets. With the ADB project intervention – sewerage lines are being laid in RUIDP, most of the HIG areas of cities will get connected to a sewerage network. As expected, latrine coverage was lower in non-intervened slums than intervened slums.

Solid and liquid waste management is yet to get adequate attention. The majority of people just dumped household waste into drains and open spaces. Drainage improvement inside slums was reported in some areas. However, it was a matter of concern that the quality of works was poor and already deteriorating.

Capacity to Pay

Users pay three costs to access piped water supply – connection fee, plumbing and tariff. There was an expressed concern over the high connection cost amongst the poor households. Borrowing for water connection was not an option poor households preferred. Connection charges average Rs 2,320³ and

² FGDs in all the 4 cities.

³ The connection cost varies within a range of Rs 1250 to Rs 3320. However, the connection cost of Rs 1250 at Jodhpur excluded plumbing cost.

most connected families reported not paying for a connection.

The present tariff for water user charge is within Rs 55-100 and the average tariff is Rs 74. Poor households pay up to 6 per cent of income on tariffs with the majority paying above 4 per cent, which is expected to rise annually as tariffs increase in line with cost recovery principles. A policy for variable tariff for the poor does not exist in the projects.

In HIG areas, tariff charges are on flat rates as meters are either not installed or non-functional. Billing is mostly done on flat rates. In most towns tariffs have not increased after projects. However in the completed project, tariff levels had increased and meters were being installed. In Ramnagaram, the only completed project city studied, 80 per cent of households in intervened slums were found to have individual connections yet only 10 per cent were metered. Hence 90 per cent households with individual connections in Ramnagaram were paying as per slab rate billing.

While most project pre-feasibility studies make suggestions of multi-fold hikes in water and other tariffs, the study team experienced deep resistance to the proposed steep hikes amongst the people (poor and non-poor) in project towns. Mapping this resistance was beyond the scope of the study.

Community Participation

Over the various project generations, community participation is beginning to get more attention. The newest projects are more specifically planned to engage communities through complementary funding and inclusion of experienced NGOs.

Community participation has remained low in the first generation projects, where many NGOs involved, lacked expertise in engaging poor communities. NGO selection process was non-transparent and lengthy. Payment based on reimbursement meant that good NGOs were not interested. Non-local NGOs lacking familiarity with local issues were contracted. NGOs followed a fixed task list instead of focusing on empowering and organising communities. That community engagement processes got low priority was evident from the much-delayed appointment of CAPP teams (as in Rajasthan), the very small proportion of fund share for the task in relation to the funding for physical works (Karnataka) and the task oriented design of the component (Rajasthan). NGOs in the project cities expressed that real needs of the poor had been ignored in the project design, and there had been poor information dissemination in slums creating confusion. Linkages with livelihood components, and hence poverty reduction, was weak. No system has been developed for community feedback or interface

except in KUDCEMP. Project staff being dominated by engineers meant that NGO components were badly designed and under funded. There has been reluctance amongst the PMU to use expensive loans for community participation. They would rather use allied grants for soft components.

Slum selection process has followed the government slum lists that have generally missed the most vulnerable, unlisted settlements and on average covered only a quarter of slums in city. Infrastructure designs do not focus on networking solutions, but promote stand alone water supply systems for slums. Such an approach raises issues of equity, quality control and alienation.

Institutional Arrangements

KUIDP serves as a model for all ADB urban projects in the country. It has a Special Purpose Vehicle as the Executing Agency i.e. KUIDFC. In this model, the Project Management Unit at the state level is the sole executor of the project and it is supported by consultants who are accountable to the SPV. At the city level a Project Implementation Unit, located outside the ULB, is the main implementer. Other actors in the project include the Public Health Engineering Department or State Water Boards, Urban Improvement Trusts and other line agencies linked through an empowered committee at the level of the State Chief Secretary for functional synergy and decision-making.

Prior to its formal establishment and during the period of loan negotiation, PMU remains a part of the State Urban Development Department and is responsible for undertaking the Technical Assistance (TA) studies and feasibility surveys that provide the basis for project design. After the loan agreement the PMU, with the support of consultants (PMC), tenders for physical works and develops plans for capacity creation. Tendering is centrally managed, global and package wise.

PIU, the city level implementation agency, sits outside the Municipality. It is directly accountable to the PMU and responsible for local demand assessment, developing city level infrastructure plans, testing designs, developing the terms of reference for contractors and execution of physical works. PIU is staffed by borrowing engineers from ULBs/ Water Boards/ government departments or hiring new staff. Being outside the municipal system, PIU's severest limitation is its inability to engage local authorities, hold them accountable for project outcomes, and build capacities for project implementation. With frequent staff turnover, ULBs are unable to manage post project O&M. Capacity creation appears to be confined to State level institutions, where capacity to plan and

execute large infrastructure projects has increased, and little effort to enhance local capacity is visible.

City Level Committees headed by the District Collector and comprising the key stakeholders (Mayor, Municipal Commissioner, PHED, UIT), and set up by the State government to oversee implementation and address operational bottlenecks, have limited membership and influence, as decisions are not necessarily backed by rigorous demand assessment.

Lack of influence is also the outcome of limited engagement with the people on issues of tariff and infrastructure. Hence municipal reforms, being an important component of the ADB interventions, has taken off in a very limited way because of the extremely limited public engagement that this institutional arrangement guarantees.

Monitoring and Evaluation

ADB projects have elaborate reporting procedures that are strictly adhered to. The PMU has a skeleton staff for M&E, which is managed by consultants. However, the latest generation of projects has overcome initial problems and are fully trained in developing the monthly, quarterly and annual progress reports quickly and uniformly.

However monitoring is largely a housekeeping activity that checks physical works and their quality. There is no system for monitoring services to the poor, and community processes and inclusion, despite the developed log frames and indicators. As in the case of planning, slum residents are excluded from monitoring of physical works and the task is managed by PIU officials with their consultants.

A common set of indicators has not been established and each study uses different indicators making comparisons difficult. Data is not disaggregated which means it is not possible to measure changes in slum and impact on the poor. In some cases baselines were delayed and undertaken after implementation had begun and hence changes resulting from ADB projects will either be under or over estimated. The feedback loop from M&E results to decision-making appears to be missing, and coupled with the inflexibility of project design means that M&E processes are largely incidental to implementation.

The project pre-feasibility study never included "Ability to Pay". The proposed hikes in the service charge, property tax et al were not linked with mapping the ability of the citizens to pay.

Indicators for use in M&E of services for the poor are proposed in this study.

Debt Analysis

At the national level total debt to GDP ratio is 18 per cent. The World Bank has recently reclassified India from a high to a moderately indebted country. State government debt is however mounting. Debt repayments are accounting for 25 per cent of total revenue receipts in 2004-05, resulting in a circle of deficit, debt and interest payments. There is no information on State repayments to ADB, as loans are channelised through the Central Government as Additional Central Assistance and repayments by the State are made to the Central Government. Amounts owed during repayments are deducted from federal outlays from central government to state government.

Cities placed under debt obligation have only a minimal awareness of loan obligations and are unable to pay their instalments. Loans are viewed by the ULBs as grants. The accounting set-up too, does not provide for any kind of reporting on debt-burden on the city (ULB/ PHED) or amount of repayment already made by the city.

There is complete divergence between pre-feasibility projects and actual policies followed by the ULBs on tariff revision. Feasibility studies have made unrealistic projections and recommended tariff rises of nearly 8.4 times. Cost recovery on capital costs and O&M is being attempted, further burdening cities and overstepping ADB's water policy regarding cost recovery. ULBs have not been involved in making financial projections. Collection efficiency is thus not backed by political will and is low.

It is reported by Ratlam Municipality resolution that it turned down the loan based on their inability to service the debt (because of high on-lending rates of central, state govt) through raising user charges. Subsequently, GOI has modified its rules for on-lending, opening the opportunity for cities to access funds on the same terms available to central government. Post the 12th Finance Commission Report all external assistance is being transferred to the States on the same terms and conditions, and the Central Government is to act merely as a financial intermediary without making any gain or loss. This means decreased debt burden at the State level but it also means increased exposure to the risk of forex fluctuation.

Small towns' municipalities have limited access to finance and their own revenue source is not enough to finance infrastructural expenditure, hence they are left with no option but high cost loans which add to the debt burden. In this process of financing the poor are bypassed, ADB loans notwithstanding.

Implementation of Water for All

Low level of implementation is evident with regard to developing a comprehensive water policy, promoting accountability and autonomy of service providers and strengthening women's ability to participate. Medium level of implementation is evident in participation of the poor and addressing their needs, optimisation of agency functions, promotion of sustainable plans for capacity building, developing and adoption of water action agendas and encouraging involvement of civil society and adoption of cost recovery mechanisms.

A detailed matrix of implementation of twelve policy actions with ranking for each is included in the study.

Some Major Recommendations for the ADB Water Policy

Macro Level

- Engagement with city level citizens' forums (which has adequate representation of the poor)
- Transparency in contracts and loan agreements and throughout implementation of the project
- Grievance Redressal Mechanism for the public for accountability of service providers
- Mapping all slums in the project city
- Base lines need to be done before project implementation
- A larger share of funds for the poor needs to be negotiated for (in all the three categories i.e.

authorised, unauthorised and resettled) with the national and local governments

- Ensure that planning for infrastructure in slums is mainstreamed in state and city level planning
- Sanitation needs to be prioritised for household connections where space permits and community toilets in old slums and both need to be linked with provision of adequate water supply and wastewater disposal systems

Projects

- Greater local control/flexibility over use of loan money is advocated to ensure need-based intervention.
- Institutional arrangement for project implementation needs to be done in a manner where elected representatives are engaged and capacity is created at the municipality level.
- Larger share of funds must be provided for Community Mobilisation and community participation activities and these must precede implementation.
- Basic common Indicators for BME need to be established to allow cross-city and temporal comparisons.
- Variable tariff policy and other pro-poor financial arrangements need to be included in project design.
- Regular assessment of improvements need to be done on water quality, adequacy, access and equity (in slums, intra-city and inter-city)
- Ability To Pay studies need to be undertaken with focus on affordability

Introduction

“Some for all rather than all for some”

Access to clean drinking water is central to poverty reduction. Delivery of good quality water in sufficient quantity to people who do not have access is the key to reducing vulnerabilities of poor households. In India, 10 per cent of households in cities still do not have access to safe drinking water (Census of India, 2001). Decreased availability of water, as water resources shrink, is adding to the numbers that are living under conditions of water stress. In addition nearly 23 per cent also lack access to a toilet facility either in the house or as a shared facility (Census of India, 2001).

A major hurdle in provision of water and sanitation services in urban areas relates to inadequate financing for development of the required infrastructure. Inefficient management of water resources, high incidence of non-revenue water and inadequate cost recovery also exacerbate resource starvation.

Water for all: ADB’s Water Policy, 2001

The ADB approved its Water Policy in 2001. The policy is premised upon the “concept of water as a socially vital economic good that needs increasingly careful management to sustain equitable economic growth and to reduce poverty” (ADB Water Policy, 2001). The policy has seven key focus areas; of which five are of interest to the study: Promoting a national focus on water sector reform, improving and expanding the delivery of water services, fostering the conservation of water and increasing systemic efficiencies, facilitating the exchange of water sector information and experience and improving governance in the sector¹.

The water policy makes a commitment to pro-poor water development. The policy recognises that the “specific needs and vulnerabilities of the poor are central in formulating sound and equitable water strategies” and that the poor “must be enabled to influence decisions that affect their access to water for both consumptive and productive uses” as they

have tremendous potential to directly contribute to pro-poor water development. To realise the vision of water security for all, particularly the poor, ADB aimed at supporting the

- Development of national water policies that address both resource and service management concerns through a broad-based policy dialogue.
- Optimisation of institutions involved in WSS service delivery, through decentralised planning and implementation, setting up of regulatory mechanisms, and reviewing and revising water legislations, in particular in the area of water rights and improved water quality.
- Improved accountability, and focus on participatory planning with services’ aligned to user needs and wide-ranging public awareness programmes to improve hygiene, health and sanitation knowledge and practice.

Accepting the tenet of fostering participation, ADB resolved to promote recentering of communities, especially women, and civil society into the hub of water management with appropriate mechanisms for monitoring and dispute resolution. Gender data was to be collected and analysed for gender equity provisions in the design of projects.

Scope of the study

In 2005 ADB is carrying out a Comprehensive Water Policy Implementation Review. WaterAid decided to engage in the review and undertook studies in the three countries in which it works in South Asia. This study was planned to assess the effectiveness of ADB’s investment in the water and sanitation sector; provide an informed, evidence-based input to the ADB Water Policy Review process and to seek changes to ADB’s water policy and project design and implementation and evaluation procedures so that ADB supported projects ensure sustainable water supply and sanitation services for the poor.

This evaluation of the implementation of ADB’s Water Policy has collected information from 4 WSS projects in various stages of implementation from 3 states in India; Karnataka Urban Infrastructure Development Project (KUIDP); Karnataka Urban

¹ For more details refer to Water for All, The Water Policy of the Asian Development Bank 2001 pp 15-16.

Development and Coastal Environmental Management Project (KUDCEM) and Rajasthan Urban Infrastructure Development Project (RUIDP) and Urban Water Supply and Environmental Improvement in Madhya Pradesh (UWSEI). The four selected projects in the study have all aimed at providing and upgrading essential WSS urban infrastructure and services including development of slum areas. These have also aimed at creating municipal and institutional capacities to plan and sustain these investments based on the principles of cost recovery and increased willingness to pay for better services. Except for UWSEIP, which is a stand-alone WSS project, the other three include components of road development, sites and services, housing and livelihood development. Karnataka projects also included a housing development and infrastructure expansion component that is lacking in the others. A snapshot of the selected projects is provided in Annex 1. All second-generation projects (KUDCEM, RUIDP and the very recently sanctioned UWSEIP) have benefitted from the learnings of KUIDP. Each one has also been designed to fit in with the specific conditions in the respective states.

Objectives of the study

Specific objectives of the study in India were:

1. To assess ADB supported WSS intervention in three states in India: Rajasthan, Karnataka and Madhya Pradesh.
2. To undertake evidence-based assessment of ADB interventions in selected cities and settlements from the perspective of the community.
3. To review the nature of institutional arrangements for project implementation and their effectiveness in implementation of WSS projects in the selected cities and states.
4. To make a temporal review of policy implementation in completed, ongoing and originating projects.
5. To make a financial assessment of state/city budgets and impact of loans on debt burden.
6. To make recommendations to ADB vis-à-vis their evaluation processes and indicators used for assessment with a view to improve the effectiveness of project implementation.
7. To make recommendations to ADB regarding implementation of the pro-poor elements of the water policy implementation.

Organisation of the report

This report is organised around the research questions. Section two presents the methodology used. Section three discusses ADB's involvement in the sector in India, including its contribution to the MDTs for WSS and its involvement in policy formulation. Section four discusses the effectiveness of ADB WSS projects in providing sustainable services to the poor. Section five reviews the institutional arrangements in the projects and section six examines Monitoring and Evaluation procedures. Section seven examines the debt burden created by the project loans and various levels. Section eight presents the recommendations for the study and the final section presents a summary of some key policy actions from the Water for All policy.

SECTION 2

Methodology

This section describes the methodology used in the study and highlights its main limitations.

Research questions

A set of five key questions were developed based on the project objectives. The questions and specific indicators for an evidence-based assessment were finalised in the Inception Workshop held on 31 January to 2 February 2005. The questions are specified below.

Main research question

How effective have ADB's water and sanitation projects in India been in ensuring sustainable services to the poor?

Specific research questions

1. What was ADB's involvement in WSS in India, its contribution to achieving the MDTs and impact on sector policies and practices?
2. How effective have the selected ADB water and sanitation projects been in ensuring sustainable services for the poor and involving them as key stakeholders?
3. How does ADB monitor and evaluate the WSS projects and do these procedures need to be changed to enable ADB to know if projects are ensuring sustainable services for the poor?
4. How do these projects contribute to the debt burden at the state and/or city level, what is their impact on WSS allocations and what are the conditionalities of the loans?
5. How is the ADB Water Policy reflected in the project design and implementation, and does the Policy need to be changed to make it more effective?

Indicators

The following broad set of indicators for each research question along with the proposed methodology was also finalised during the Inception Workshop.

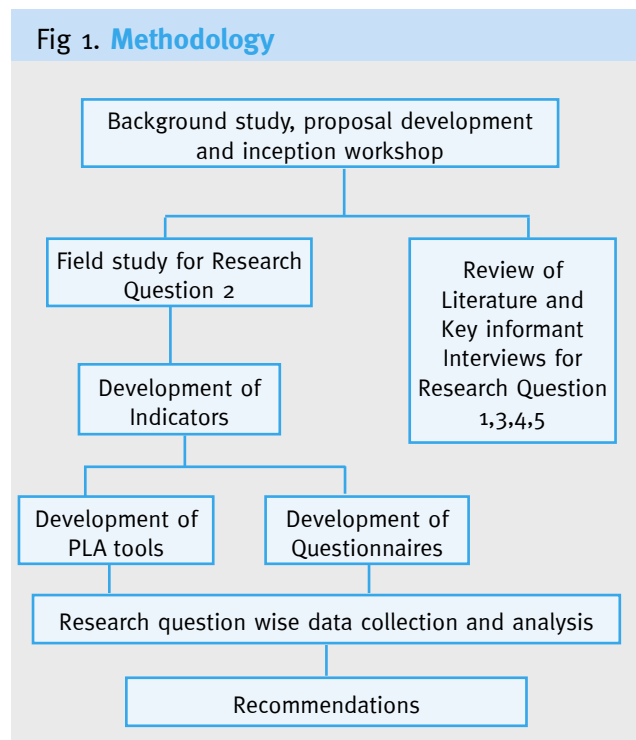
- Involvement in WSS, contribution to MDGs and National Policies
- Sustainability of services for the poor: **Water Supply:** Reliability, Quality, Accessibility, Quantity, and Equity; **Environmental sanitation:**

Use of a hygienic latrine, reduced user/toilet ratio, accessible public latrines, improved drainage, waste water disposal and solid waste management; **Hygiene practices:** Hand washing; **Capacity to pay:** User charge less than 4 per cent of household income, inclusion in tariff setting, flexible billing and payment cycles, access to Formal Credit; **Sustainability:** capacity to maintain, financial sustainability, ownership and tenure; **Community Participation:** consultation/participation, extent, awareness; **Impact on Poverty reduction:** Time and income savings, reduced health costs, reduced collection time/distances

- M&E systems: coherence, suitability of indicators used, measuring development impacts, desegregation of data, comparability of indicators with national statistics
- Financial Indicators: Budgets, O&M Costs, Tariff structures, cost recovery, loan amounts, revenue, coverage for property tax, other donor agency grants/loans, Loan conditionality

Detailed set of indicators is at **Annexure 2**.

Fig 1. Methodology



Sampling framework

Sampling framework used for collecting data for the study is described below.

- 1. Selection of Projects:** Four WSS projects funded by ADB were purposively selected. In order to do a temporal analysis, an originating, on going and a completed project were identified for the study. UWSEIP-MP, the originating project was chosen as it was in an advance stage of negotiation, feasibility studies had been completed and RRP drawn up. Two ongoing projects were included. While at first only RUIDP was identified, at the request of ADB, KUDCEM was also included. The concluded project selected was KUIDP. Key project officials from the selected projects were interviewed for the study.
- 2. Selection of Cities:** Two cities each from the three States were selected after reviewing available mission reports. Cities that had implemented slum improvement packages were short listed. Those with the largest number of slum packages or where review reports indicated successful implementation of SIPs, were included in the study. Cities in the sample were: Jodhpur and Ajmer in Rajasthan, Ramnagam and Karwar in Karnataka and Indore and Ratlam from MP. Initially Udaipur was selected for study as Udaipur and Jodhpur were being served through two different water supply sources. However, Udaipur had to be replaced with Ajmer after discussions with RUIDP project office which informed that no slum improvement packages had been taken up in the city. Ramnagam was the only completed project city from KUIDP. Ramnagam was a substitute for Tumkur, selected originally, due to an ongoing political hue and cry over project implementation process due to delays in infrastructure. The cities of Indore and Ratlam were included in the study even as works were yet to be initiated in these cities for two unrelated reasons. Indore has had a saga of funded projects aimed at improving water supply and sanitation situation in the city at large and in slums in particular. Their need for another tranche of loan required some exploration. In contrast, Ratlam refused the loan despite an obvious requirement for improved services due to an expressed inability to service the loan. Including Ratlam in the study, it was felt would help throw light on debt servicing capacity of ULBs.
- 3. Selection of Settlements:** Five slum settlements and one high income settlement was selected from each of the four cities (Ajmer, Jodhpur, Karwar, Ramnagam) where projects were underway or had been concluded. MP was omitted from ground level evaluation, as it was an originating project. Of the five low-income settlements, four were

beneficiaries of SIPs. Intervened settlements were chosen from the list of settlements with slum packages provided by the PIU in each city. It was decided to exclude large sized settlements due to difficulties in making qualitative assessment. Preference was also for settlements where SIPs had been delivered. However, in ongoing projects, slum settlements – where works were still in progress – had to be included. An attempt was made to select settlements from different parts of the city to ensure the sample was representative. One non-intervened slum settlement, near the infrastructure pathway was also identified to allow comparisons of service differentials. The high-income served community was also included in the sample to study the equity issue. Selection of communities was done in consultation with Project Implementation Units and active local NGOs in the respective cities **(Annexure 3).**

- 4. Selection of Households for Survey:** Household maps were prepared for all settlements except high-income areas. In total 2,988 households were mapped (2,235 intervened and 753 non-intervened). Data on select indicators was collected from these households. 15 households were chosen from each of the six selected settlements in a city for household survey. Interval sampling method was used to make the final sample selection. Sampling interval was determined by dividing total number of households in each settlement by 15. Houses were assigned sequential numbers starting from one on the household map, number one being allocated randomly on the map. Using the sampling interval, 15 households were selected for the sample survey. Total number of surveyed households was 360 (Intervened: 225, Non-intervened: 75, High Income Group: 60)

Data collection

Data for the study was gathered using a combination of qualitative and quantitative assessment tools. Qualitative tools were used in the present analysis, to capture a wide range of perspectives and group dynamics quickly. While there were obvious advantages in using qualitative tools over quantitative methods in the study, after much deliberation it was decided to use a combination of the two methodologies. While both methods have a sampling bias, quantitative methods that provide conclusive evidence are generally more acceptable to managers.

Six field facilitators were identified for data collection in each state. Each team worked under a supervisor. Facilitators were oriented to the survey formats and qualitative tools in a 2-day training programme organised separately in Delhi and Bangalore.

Tools of Data Collection

Data for the study was generated using both primary and secondary data sources.

Primary Data Collection

Primary data was collected from all six settlements in each city using both quantitative and qualitative instruments.

- **Household surveys:** Questionnaires were developed for collecting information from the 15 selected houses in each settlement. The questionnaires were pre-tested in two Delhi slum settlements and refined on the basis of feedback received.
- **Household Mapping exercises:** Household maps were developed for all slum settlements in the study during the FGDs. Primary information on six water supply and sanitation indicators listed in Box 1 was gathered for all households in the settlements. Neighbourhood knowledge has been used for collecting information for the households not present in the FGDs with community members sharing both personal data as well as information about neighbours. Household maps were not prepared for high-income settlements due to known difficulties in assembling people in such areas.
- **Key Informant Interviews:** Key Informant Interviews were carried out at the settlement and institutional level. Interview guidelines were developed for this purpose. List of Key informants is attached in **Annexure 18**
- At the settlement level, key informant was the community leader. Institutional respondents included key officials from implementing and line

Box 1: Indicators for household mapping

1. Total number of males and females in each household
2. Households paying for water supply
3. Households using various sources of drinking water
 - Community piped supply
 - Piped supply within the house
 - Protected well
 - Unprotected well
 - Surface water such as river/ponds etc.
 - Community tubewell
 - Tubewell within the house
 - Protected handpump in the community
 - Protected handpump in the house
 - Water vendor by vendors source of supply
 - Tanker supply
4. Households using various sanitation facility
 - Community toilets
 - Individual toilets
5. Open defecation
6. Location of Community Waste Disposal

agencies; PMU, PIU, finance department, local body, PHED etc. These interviews were used to probe into issues of policy, planning, project implementation, finances etc. and provided inputs to specific research questions 1, 3, 4 and 5 listed above.

- **NGO Consultations:** Three NGO consultations were organised in each of the States in Jodhpur (Rajasthan), Bangalore (Karnataka) and Indore (MP). Project and non-project NGOs from all project cities were invited to the consultation to assess the nature and extent of civil society participation in project design and implementation. Lists of NGOs were developed with the support of WaterAid in the states. Visualisation in Participatory Planning (VIPP) technique was used for consultation to facilitate the dialogue. Approximately 12-15 NGOs participated in each consultation. List of participated NGOs is provided in **Annexure 4**



NGO Consultation Jodhpur

- **Qualitative tools for In-depth Analysis:** Qualitative tools were used primarily to collect in-depth/perceptual information on impact/service effectiveness indicators related to question 2. Qualitative data was collected using four key participatory methods: focus group discussions, trends analysis, seasonality diagramming, and matrix rankings.
 - a. Focus Group Discussions: FGDs were organised only for slum settlements. High-income communities were excluded as



FGD session at site

explained earlier. 20-30 persons, a mix of women and men, attended each FGD. Focus group discussions were organised around the main study issues. Facilitators were provided a guide with key questions and indicators to steer the discussion and probe into issues and arrive at conclusions.

- b. Trends analysis: Trends analysis examines change over time and identifies factors that triggered the change and its impact on people. Trends analysis was undertaken in the study in all slum settlements to assess perceived changes as a result of project intervention.
- c. Seasonality Diagrams: Seasonal variation in water supply services and the relationship of WSS issues with other aspects of community development were assessed using seasonality diagrams in the selected slum settlements. Three parameters were used to assess the variation: usage, quality of supply and willingness/capacity to pay. An indicative seasonality diagram was developed to ensure uniformity in data collection as a guide for facilitators. **(Annexure 5).**
- d. Matrix Ranking: Matrix ranking was used in all slum settlements to determine service choices and preferences of people and reasons for making the choice. Matrix ranking was done on the following six indicators. A matrix ranking guide was developed in consultation with facilitators to ensure uniformity of data collection **(Annexure 6).**

Box 2: Indicators for matrix ranking

1. Available water supply sources ranked by community preference
2. Available sanitation facilities ranked by community preference
3. Available waste disposal facilities
4. Sources of credit
5. Reasons for taking credit

Secondary Data

Documents pertaining to the project made available to the team by ADB, PMUs and PIUs were reviewed and have been used in the final analysis. List of relevant reports of projects/assessments – available on the internet, ADB website – reviewed are at **Annexure 7.**

Data analysis

Primary data collected was computed to assess improvements in coverage, access, availability and quality of services due to project intervention.

Household maps had the larger number of observations. This data was used to develop the demographic and income profile of sampled settlements, sources of water supply and type of sanitation services used. Data from the study has been compared with official national and state statistics, baseline and benefit monitoring studies and other project documents/reports.

Household questionnaire data was analysed to provide both quantified information on effectiveness of service delivery and residents perception of change and service quality. Quality information from participative tools (FGDs, matrices, seasonality maps and trends) was used to exemplify/validate the information from questionnaires and maps.

Since more than one tool has been used to collect information on the selected indicators, the incomplete method of analysis advocated by Prof. Amartya Sen has been used for arriving at conclusions. The incomplete method of analysis suggests that only conclusions confirmed by all methods may be accepted.

Comparisons were made for service differentials across socio-economic classes, cities and project phase. Comparisons were also made between intervened and non-intervened settlements.

Data for each city has been presented independently to account for contextual variations. Summations have however been made for purposes of drawing conclusions.

Data from KII officials has been used primarily in making an institutional, financial and policy analysis. The analysis has been presented as a narrative and exemplified wherever possible with documentary evidence or reported interviews with project officials.

Financial analysis has been made both through KII and an analysis of municipal budgets, and account statements.

Limitations of the study

This study is about making an evidence-based assessment of the implementation of ADB's Water Policy. Most state project monitoring/progress reports are however, housekeeping documents that only give an account of physical achievements and financial spend. Hence, large part of the analysis made through interviews cannot be substantiated by documentary evidence.

While suitable sampling strategies were followed, caution should be taken in generalising the findings.

Some of the projects studied were implemented prior to the approval of ADB's Water Policy. This is an uncontrollable limitation given that the study is based on a ground level assessment and that few projects have been designed or implemented after approval of Water For All.

There has been an assumption that all projects have focused on water supply and sanitation in collection of data on effectiveness of services. However, in case of Rajasthan, the project focused more sharply on underground sewerage. A majority of questions related to water supply therefore could not be attributed to ADB interventions.

NGO consultations were to be used as a platform to understand the nature of community participation in the project. Only very few NGOs had been engaged in the project and discussions therefore focused more on issues rather than actual nature of participation.

Since MP was an originating project, officials were reluctant to share information. Also discussions with MP officials had to centre on vision, plans and lessons learnt rather than outcomes, achievements and constraints.

SECTION 3

ADB's Involvement in the Water and Sanitation Sector in India

ADB funded water and sanitation projects in India

The Asian Development Bank entered the WSS sector in India in 1998. Water and sanitation projects are catalogued under a broader urban portfolio and generally water and sanitation provision is combined with targeted poverty reduction components, municipal governance and policy reforms. These are funded together with other infrastructure development components of roads, bridges, and transport. Total ADB lending to the WSS sector (through five Integrated Urban Development Projects) has been \$960 million.

In India urban sector funding comprised just 23.7 per cent of all loans, or \$1.25 billion, in 2004. Of the entire urban portfolio, the following projects listed under Water Supply, Sanitation and Waste Management received 14 per cent of the total India share¹:

- Kerala Sustainable Urban Development (formerly Urban Infrastructure Development and Environment II)
- Urban Water Supply and Environmental Improvement in Madhya Pradesh
- Multi-sector Project for Infrastructure Rehabilitation in Jammu and Kashmir
- Private Sector Infrastructure Facility at State Level
- Calcutta Environmental Improvement Project
- Rajasthan Urban Infrastructure Development Project
- Gujarat Earthquake Rehabilitation and Reconstruction Project
- Urban and Environmental Infrastructure Facility
- Karnataka Urban Development and Coastal Environmental Management Project

A key objective of the project funding is to increase access of slum dwellers to basic services to improve the overall quality of their lives and to reduce poverty through a process of involvement of the poor in planning and management of community

level services. According to ADB, its urban Indian experience has been particularly encouraging, with the government deeming these ADB operations as highly successful and innovative. Specifically, ADB's contribution to the development of the Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC), a model agency in municipal financing, has been recognised and replicated for implementation of WSS projects in other states of the country. Having entered the sector working in comparatively more developed States, the 2005–2007 Country Strategy and Programme Update proposes to leverage on these experiences in the less-developed states in the Northeast, Uttaranchal, and Jammu and Kashmir, and has provided for pre-project capacity building support for project management to save about 24 months in implementation time. Buoyed by its success, KUIDFC too, has plans to leverage strong private sector involvement in basic urban services through a new loan modality.

ADB's contribution to the Millennium Development Targets and national targets for water and sanitation

The following section is a review of the contribution of ADB's Water Policy in achieving the Millennium Development Goals, based on evidence collected in the present study. Data for this analysis has been collected through key informant interviews and a desk review of documents and reports.

ADB's Financial Contribution to the WSS Sector

ADB has invested \$960m in Integrated Urban Development projects. One loan of \$250m to Kerala is on standby. Based on the five IUD projects approved to date it is estimated that 56.3 per cent of the costs of these projects (\$540m) are for WSS related activities. This estimate includes capacity building funds but excludes contingencies and interest during construction.

The latest ADB Country Strategy and Programme document anticipates ADB support for one new IUD project per year². Hence between 2005 and 2015 another 10 new IUD projects could be financed. Based

¹ <http://www.adb.org/Documents/Profiles/default.asp?key=ctry&val=LOAN&scpe=12>

² p.158, India Country Strategy and Programme 2003-06, ADB.

Table 1: WSS components in ADB assisted projects

S. No.	Project Approval	Loan Number	ADB supported project	Total project cost (\$m)	ADB loan (\$m)	Estimated % for WSS
1	1995	1416	Karnataka Urban Infrastructure Development Project	112	85	42.3%
2	1998	1647	Rajasthan Urban Infrastructure Development Project	362	250	55%
3	1999	1704	Karnataka Urban Development and Coastal Environmental Management Project	251	175	50.8%
4	2000	1813	Calcutta Environmental Improvement Project	360	250	93 ³ %
5	2003	2046	Urban Water Supply and Environmental Improvement in Madhya Pradesh	304	200	77.13%
			Total	1,389	960	56.3 ⁴ %

on the size of the loans for recent projects we have estimated that the loan for future projects could be \$0.25bn. Therefore, ADB investment for IUD between 2005 and 2015 is estimated at \$2.5bn (0.25bn X 10), with 56 per cent (\$1.4bn) for WSS. ADB's investment in WSS in India for the period 1990 to 2015 will be around \$2bn (investment to date \$0.54bn + estimated investment of \$1.4bn).

Based on the estimate of outlay required for 100 per cent water and sanitation coverage in urban areas produced by the Expert Group on Commercialisation of Infrastructure Project (EGCIP), we calculate that ADB would contribute around six per cent of the resources required. Similarly ADB's likely investment (during the 10th plan period) is equivalent to six per cent of the required outlay given in the 10th FYP, although the coverage target used in the Plan is unclear. Using the UNICEF/WHO estimates, ADB's investment is equivalent

to 23 per cent of the required amount. However it is felt that the methodology used to calculate this estimate (a simple extrapolation of coverage increases and past expenditure) underestimates the scale of the task.

ADB's contribution to the sector in terms of beneficiaries served

According to UNICEF/WHO/Planning Commission figures for urban areas, an additional 44m people need to be served with water and 115m with sanitation between 2000 and 2015 if MDG targets are to be met. Given that provision of WSS is included in IUD projects along with other services, the lack of desegregated data on number and types of beneficiaries and actual use of facilities in these projects and a lack of detailed information about future projects, ADB's contribution to the MDTs in

Table 2: ADB sectoral investment as a contribution to various targets

Source	Target/outlay	Estimate		ADB contribution		Comment
		Rs (bn)	\$ (bn)	\$ (bn)	%	
EGCIP, 1997	Needed for new infrastructure (inc. drainage, sewerage, SWM) to reach 100% WSS coverage	1,505	33.4	2	6%	Total ADB investment to date + 10 new projects
MoUD	Outlay given in 10th FYP doc	514	11.4	0.7	6%	MP project + 4 new projects
UNICEF/WHO, 2002	Urban MDG targets for WSS (2000 to 2015)	304	6.8	1.5	23%	MP project + 10 new projects

Source: Drinking water and sanitation status in India, WaterAid India, 2005

³ Since detailed estimates for the Calcutta project have not been reviewed, totals are being used without excluding costs of loan and contingency.

⁴ This excludes Calcutta project as detailed estimates have not been examined.

terms of beneficiaries cannot be estimated. However, comparing trends of the number of people to be served with water and sanitation to meet the MDTs and those served with various facilities by ADB projects provides some insights.

It is clear from all datasets that sanitation coverage in urban India is lagging behind water coverage yet most ADB projects continue to prioritise water over sanitation (the exception being the IUD project in Rajasthan). With sanitation coverage being lower and provision of sanitation infrastructure in urban areas often requiring heavy investments in construction of new systems (whereas in water supply existing systems are often rehabilitated and expanded) this trend must be reversed by allocating more resources to urban sanitation if the MDT is to be met.

ADB's Financial Contribution to Improving Services to the Poor

A second step analysis has been made to estimate the proportion of ADB funds that are used for improving services to poor communities. Slum improvement projects being separately budgeted for, it is possible to estimate money spent in connecting the poor to WSS services. The percentage share of WSS in slums in the total project budget is just 2.84 per cent. Although some may argue that a proportion of the infrastructure investment must also be included in estimating investment for the poor, it is important to make deductions based on the following ground level evidence: a) Only about one third (28 per cent) of the estimated slums in a city are reached under the slum improvement packages; and b) pro poor components are generally funded out of the regular government resources and not ADB loans as serving the poor using high cost loans, according to officials, is bad economics⁵.

Table 3: Percentage of project budget allocated to slum improvement

	Slum Improvement (\$ m)	Total Project cost (\$ m)	% component of loan
KUIDP	2.26	80.28	2.82
KUDCEMP	8.51	251.37	3.39
RUIDP	11.5	362	3.18
UWSEIP	6.04	304	1.99
Total	28.31	997.66	2.84

⁵ In Karwar, sanitation services were being provided to slum dwellers under the LCS scheme (grant component) of the GoK and not from the ADB loan. Karnataka RRP does not have a separate budget head for Slums. Karnataka RRP does not provide a separate budget for slum services.

ADB's Poverty Reduction Strategy (1999) states, "all ADB loans and TAs must contribute to poverty reduction, all proposals will contain specific assessment of their poverty impact and proposal log frames will have poverty reduction as their ultimate objectives." To move the strategy towards implementation the strategy sets out a programme for action that commits ADB to devote not less than 40 per cent of its public sector lending to poverty interventions⁶.

However it appears a project can be classified as a 'poverty intervention' and yet not focus on serving the poor. For example, the UWSEIP is classified as a 'poverty intervention' project, however it plans to cover only 10,000 poor households with water and sanitation, equivalent to just 4 per cent of the poor population in the selected cities. Even along with complementary DFID funding to the project, UWSEIP intends to spend approximately \$70 per person on water supply and sanitation services. For an estimated 10,000 families this amounts to about \$3.5 million for the poor out of a project of \$300 million; a mere 11.6 per cent of the overall project budget of a primarily poverty reduction initiative.

The CSP for India clearly states that lack of Asian Development Fund resources for India mean that ADB does not extend support to direct poverty reduction projects. This means that projects will not be exclusively focused on serving slums; rather provision for these communities will always remain a relatively small component.

ADB's contribution to sector policy formulation

ADB seeks to influence national policies. WaterAid believes that national sovereignty should be upheld. Policies should be outcomes of legislative and consultative processes with public opinion and civil society inputs factored in. However, if national policies are distinctively missing pro-poor elements then ADB, as per its stated policy of commitment to poverty reduction, should facilitate national and State policy amendments and implementation thereof.

Bringing about changes in public policy and improvement in governance of services – in particular to the urban poor – is a key element of the ADB Water Policy: "Policy-based lending will be used to correct policy and institutional weaknesses⁷." This section of the report seeks to examine the direct and the not

⁶ (Of the 62 public sector projects and programmes approved in 2003, 10 were categorised as 'core poverty interventions' and 29 as 'poverty interventions' - amounting to \$3 billion or 51 per cent of public sector being poverty reduction focused).

⁷ ADB, Water for All, 2001

so direct policy impacts of ADB intervention in WSS in India and the efforts of ADB to promote national/state/local sector reforms.

Overall ADB's impact on policies appears to be low. Little effort has been made to bring about pro-poor changes to National and State WSS policies and ADB appears not to be pushing for changes in other important policies which impact on provision of services to the poor, such as the National Slum Policy. Despite its commitments to the poor ADB is not promoting pro-poor tariff and credit policies and well articulated policies regarding community participation. This gap can be attributed to a low understanding of urban poverty issues, although there is some evidence that ADB is seeking to learn and demonstrate good practice before engaging in policy debate. These issues are discussed in detail below.

Limited efforts at improving Urban or Pro Poor Focus in National and State Water Policy

India's National Water Policy (NWP) was first developed in 1987 and modified later in April 2002. Subsequent to the National Water Policy, all three States in the study have developed a corresponding water policy to address state specific concerns. Additional components in the revised NWP 2002 include: community participation, physical and financial sustainability, targeting of subsidies and participation of all stakeholders including the end user. Gender issues, such as the role of women and appropriate legal and institutional mechanisms to ensure their participation in the design, planning and implementation of water supply services, find explicit mention in the revised policy. As opposed to the 1987 version where water pricing is seen in the context of more conservative use of water, NWP 2002 unambiguously states that water rates must be designed to recover full O&M and part of the capital costs. Targeting of subsidies for the poor goes unexplained in terms of the desired subsidy mechanisms for reaching water vulnerable urban communities, especially those on non-tenured land. Scrutiny of the NWP and the State policies suggests that urban concerns, especially the pro-poor focus, are absent from the policy framework.

Despite its stated intention to bring about changes to policies, there are limitations to what ADB can achieve in this regard. ADB has to operate within the legal-political-administrative framework of the country and this severely limits its ability to promote a conditional dialogue with the State. Discussion with ADB officials suggests a minimal role in building up the National Policy. According to ADB, the Developing Member Country must lead in developing a national policy framework, with ADB input coming in terms of its knowledge bank and sharing of good practices. In the case of the revised NWP, evidence suggests that even

this has not happened. ADB's Water Policy precedes the revision of the NWP and has a clearer commitment with regard to reaching urban poor communities than the NWP. There is no evidence to show that ADB attempted to ensure a pro-poor focus in the revised NWP. This conclusion is reaffirmed in the Interim Review of ADB's Water Policy Implementation that concluded: "more work is required in the water sector assessments in India".⁸

ADB appears to be daunted by the complexity of institutional and political arrangements /processes in India and this has prevented a more proactive role in national policy-making. ADB is a relative newcomer to the sector in India and are on a learning curve. It was learnt that their approach has been a slow and incremental policy building process backed by successful projects and ground level evidence. In reality, it appears that ADB is reluctant to push the national government to make a significant departure from its current policies even though this is a major part of its Water Policy.

ADB's intention to support State Water Policies (SWP) is reflected in its intent to "define sound policy principles of the SWP, and to develop an effective strategy and action plan."⁹ While ADB has made significant investment in infrastructure at the State level, the effort it has made in pursuing the development of pro-poor State water policies for urban areas has been relatively insignificant with little impact.

The reason for not pushing for pro-poor policy changes may also stem from the fact that ADB's knowledge on issues that confront the poor also appears to be weak. This conclusion is based on the following facts:

- Despite three generations of loans, projects for the poor have continued to be designed as stand-alone packages rather than designed to mainstream the poor by networking them into the expanding city systems. This is not good practice. By keeping the poor outside the main network they continue to receive low levels of services. There is enough documented evidence across the globe (Metro Manila Water Project, Brazil, Parivartan in Ahmedabad, UBSP in Hyderabad, Bangalore, and Mumbai¹⁰) of significant poverty reduction through in-house private water connections (as one of the feasible options). These examples have not been reflected upon in the project design.

⁸ Page 4, Interim Review Of ADB's Water Policy Implementation, Report of the In-House Study by ADB's Water Sector Committee, February 2004

⁹ TA 3480-IND Tewari, V, Khosla, R. et al. Reducing Poverty in Urban India. 2001

¹⁰ CURE, Access to Water and Sanitation Services for Urban Poor: Literature Review, September 2004

- There is an acceptance of and adherence to existing State policies with regard to service provision in slum settlements using highly unequal norms. This is despite the clearly articulated principles of equity enshrined in the ADB Water Policy. Slum packages for the poor still reflect the conventional approach to services to the poor that the ULBs have been adopting since the start of the 7th Five Year Plan; i.e. community toilets and community stand posts. Very little evidence of equity was seen in the arrangements for services to the poor.
- NGO involvement in the project has been inadequate and has resulted in relatively weak community participation. This has created a vicious cycle where the low level of community engagement can be held responsible for the lack of debate on critical issues in water supply and sanitation such as on land tenure, in-house services, tariff affordability, etc. which in turn has meant less involvement of the community as services do not respond to their needs.

In order to develop a pro-poor urban water policy at the national level and in the supported States, ADB needs to probe deeper into some of the institutional factors responsible for inequity in supply and low slum coverage. ADB staff concur that they have a lack of appreciation of the real issues surrounding the supply of services to the poor. In the past, ADB have supported studies into urban poverty, however this learning appears not to be factored into project design. For example the ADB supported a PPTA for the MOUD&PA to develop a National Urban Poverty Reduction Strategy¹¹, with the help of the National Institute of Urban Affairs.

Water rights for poor and women

Water has been recognised as a right in the National as well State Water Policies. It has also been acclaimed an important right in ADB's own Water Policy. Further, the right has been enshrined in the Constitution of India through Supreme Court judgments on the Right to Life. Other judgments have linked the right to water with the right to improved sanitation for a better quality of life among slum dwellers.¹² However, State Municipal Acts and Acts of different service delivery agencies, such as PHED, State Water Boards and slum improvement departments responsible for slum upgrading, do not recognise water as a right of poor citizens. Supply of WSS services remains firmly linked to legality of land ownership and its provision to people living on non tenured land is made under humanitarian and

political considerations. When services are provided, slum settlements receive only community level services on the assumption that providing services in-house is:

- Likely to up the demand for regularisation of such illegal settlements and encourage further encroachment
- Tantamount to rewarding "pickpockets"¹³
- A wasted investment in the event of relocation of settlements.

Although project proposals make a cursory mention of gender rights regarding water supply and sanitation services, this appears not to have translated into development of a gender friendly approach to service delivery. The continued emphasis on provision of community toilets and community water collection points is evidence of this apathy. However, this study did not examine gender issues in much detail.

Development of a National Slum Policy: Lack of ADB support

ADB's effort at improving access of WSS to the poor needs to be better linked to the National Urban Poverty Agenda and pursuance of the development and implementation of a National Slum Policy. India has a Draft National Slum Policy and the ADB supported a TA on Urban Poverty Reduction in India, yet there has been little attempt by ADB at opening up a dialogue with the concerned department in the Ministry on this issue. Our conclusion is corroborated by this statement in the report on governance of ADB projects "Demands for policy and sectoral reforms and good governance now come in the name of poverty reduction despite its (Poverty Reduction Strategy) elaborate framework, many pages of matrices and schematic diagrams, and impressive lexicon of descriptions and definitions, the PRS has been unable to move away from its narrow focus on rapid economic growth"¹⁴.

MOUD&PA had pursued the development of a National Slum Policy¹⁵ in 1998. Due to several reasons it

¹¹ TA 3480-IND Tewari, V, Khosla, R. et al. Reducing Poverty in Urban India. 2001

¹² Vrinda Grover, Pg 39, From The Periphery To The Centre, A Rights Based Approach To Urban Poverty, CARE PLUS, June 2002
Discussing the parameters of the right to life further, the Supreme Court in *Chameli Singh and others v. State of U.P. and another* held that the, "The right to life guaranteed in any civilised society implies the right to food, water, decent environment, education, medical care and shelter....."

¹³ Pg 49 Similarly, providing drainage system in working condition and sufficient to meet the needs of the people – cannot be evaded if the municipality is to justify its existence."

¹⁴ Vrinda Grover, Pg 52, From The Periphery To The Centre, A Rights Based Approach To Urban Poverty, CARE PLUS, June 2002

¹⁵ Focus on Global South, The ADB and Policy Mis governance in Asia, www.focusweb.org, May 2005

¹⁶ The Draft National Slum Policy was developed in 1998 by HSML. However, it has remained in draft form since then.

was not adequately debated with key stakeholders nor endorsed by the Cabinet and accepted as a national policy. In the absence of clear guidelines on the subject, and since slum development is a State subject, each State has developed its own set of principles to address slum needs. Experience of working with city governments across the country¹⁶ suggests that very few have any clarity on what comprises a slum or understanding of key slum concerns. As a result, nearly all Urban Local Bodies offer an inequitable level of services to the poor living in slums. While upper income groups are entitled to unlimited water supply in the house and an underground sewerage connection, poor people in slums receive 40 LPCD through community stand posts located at a minimum distance of 50 meters from the house and one community toilet per 50 users. ADB has maintained this status quo. The reason for this is that ADB engages in India primarily through the Ministry of Finance and hence does not dialogue with other Ministries. Although this in their own words is “just a window of communication and does not prevent them from engaging with other key actors in the sector”, their commitment remains to their nodal Ministry.

Developing Policy on land tenure: Low Understanding

In ADB projects selection of slums has been left to the discretion of local authorities. Local authorities have done this in consultation with the city Mayor using pre-existing slum lists. For example, in UWSEIP slum selection is being done from a list of slums prepared in 1984, taking no account of the new non-tenured settlements that may have come up over the past 20 years. No evidence of a slum mapping was found in any of the cities prior to slum selection. The findings in section 4 have clearly pointed to the fact that the number of slums in a city is nearly twice that in ULB lists¹⁷. Local officials indicated that only listed slums have been included in the intervention and have confirmed that the number of slums is underestimated.

¹⁶ Dr. Renu Khosla has been Coordinator Urban Poverty at NIUA between 1994 and 2003.

¹⁷ Notification of slums is a political process. ULBs do not regularly update their lists of slums. For example the slum list for Jodhpur was developed in 1998. In MP the slums were last notified under their Patta Adhinyam in 1988 and all slums that came into existence before 1984 were deemed to be notified and eligible for basic services. In Karnataka the Slum Act has recently been revised in 2002. Unauthorised slum settlements receive a lower level of service than authorised slum settlements.

By not engaging the ULBs and the political representatives in a dialogue on slum selection, ADB has not only ensured that the most vulnerable groups (unauthorised colonies) are missed for services but also discouraged a change in the conventional system of service delivery. ADB however, is of the opinion that while reforms regarding the urban poor may have been, they have been incremental. In the latest project (UWSEIP) ADB have convinced the government to use ‘small piped networks’ for connecting the slums and communities in peri-urban areas of Indore and Jabalpur. ADB feels that in order to encourage government to connect such communities it is important to show case replicable and feasible pilots/examples.

Cost recovery: Common Tariff Policy for All

A key covenant of ADB loans relates to full cost recovery. The NWP states that “there is a need to ensure that the water charges for various uses should be fixed in such a way that they cover at least the operation and maintenance charges of providing the service initially and a part of the capital costs subsequently. These rates should be linked directly to the quality of service provided”¹⁸.

In all the projects, ULBs are expected to hike prices to recover O&M costs. Tariff policy is based on actual water use and the same rates are applicable for poor and rich households. Findings from this study suggest that while poor households pay nearly four per cent of their income for water consumed through individual connections, rich are likely to pay just 0.7 per cent. No effort has been made by ADB to probe deeper into tariff affordability and to develop a strategy for ensuring better targeting of subsidies to the poor.

Improving access to credit: No policy for setting up a credit line

Little evidence in the RRP was found on setting up a credit mechanism to enable the poor to access resources for getting connected to the piped network or for construction of latrines. Even where schemes have been initiated for slum households (for example in Karwar) the poorest families are unable to access these services. ADB officials feel that this is a State responsibility but admitted that not much effort had been made to bring such issues on the table.

¹⁸ National Water Policy 2002, Government of India

SECTION 4

Winds of Change: Improving Water and Sanitation Services for the Poor

Introduction

This section presents the analysis of information collected from project and non-project settlements on selected water supply and sanitation indicators through both primary survey and participatory tools. Primary data collected from intervened and non-intervened slum settlements, and intervened high-income settlements in ongoing and completed project cities have been compared with available data from Project Preparation Technical Assistance (PPTA), baseline and BME studies to draw conclusions.

Limitations

Certain constraints in data collection are being mentioned upfront as they have an impact on the final conclusions:

- Pre-project baseline surveys lack comparable data on key water supply indicators. Data comparisons have therefore been restricted to the common indicators. Trends analysis has been used instead to evaluate change over time.
- Rajasthan baseline studies have been undertaken only near the completion stage of the physical works and hence do not reflect the real pre-

- project situation and may be read with caution.
- Further, in RUIDP sewerage being the focus of intervention, some of the water supply indicators became irrelevant for which no data was available. The same was applicable to the ongoing projects where data on impact could not be collected.
- Secondary data sources (BME, Census, and NSSO) provide state/city aggregate information. Hence data from these sources for access to services in slums may be lower than data presented in these surveys.

Design of slum components

ADB funded projects in Rajasthan and Karnataka are multi-sector projects with water supply expansion and rehabilitation in selected cities forming a key project component. The Madhya Pradesh project is entirely focused on water supply and sanitation. These projects target city wide service improvements by augmenting water supply sources, improving and extending sewerage networks, construction of overhead tanks, treatment plants and landfill sites. The implementation of these large scale development works are divided and carried out under separate packages for water supply, sewerage, underground

Table 1: The infrastructure facilities provisioned for within slums in the four towns

	RUIDP (Jodhpur and Ajmer)	KUDCEMP (Karwar)	KUIDP (Ramnagaram)
Water Supply	Rehabilitation of main pipelines, installation of community taps	Rehabilitation of main pipelines, installation of community taps	Individual connections to households, borewells in hilly terrain and community stand posts
Sanitation	Laying of sewerage lines within slums and provision of household toilet connections from main sewer lines till junction boxes (one junction box for two households). Construction of manholes	Provision of Low Cost sanitation toilets under the Total Sanitation scheme of the Government	Provision of Low Cost sanitation toilets under the Total Sanitation scheme of the Government
Waste water Disposal	Provision of covered drainage along roads	Underground drainage along main roads	Underground drainage along main roads
Solid waste disposal	Provision of dustbins	Provision of tipper trucks and dustbins to local CBOs for waste management. Development of a landfill site	Provision of dustbins

drainage and solid waste management. Apart from these sector-wise packages, comprehensive slum packages including all physical infrastructure development are also included. Awareness generation and participatory activities in slums were carried out by various NGOs under Community Awareness and Participation Programmes (CAPP).

In the case of Ramnagam, improvement of basic infrastructure and environment were the thrust areas. The poverty reduction component included basic infrastructure provision and low cost sanitary latrines in slums, development of residential sites for Low Income Groups (LIG) and a cultural-cum-commercial complex and training centre for development of income generation skills of women. A combined water supply scheme for the towns of Ramnagam and Channapatna with a design capacity of 25 MLD was provided for the two towns and a sewage treatment plant was set up. Labour-intensive composting plants have been set up for supply of compost to rural areas around the town.

Karwar is a multi-sector project that primarily focuses on water supply and solid waste management. A landfill site has been developed on the periphery of the city. Karwar shares its water source of 30.8 MLD with Ankola. Water supply in slums forms part of the slum improvement packages and is planned through community supply sources and not piped supply in individual slum households. Borewells have also been included as part of the supply to slum neighbourhoods. Slum improvement packages also focus on construction of Low Cost Sanitation (LCS) units in association with the LCS and Nirmal Nagar¹ programmes of the State, with the households contributing part of the cost for construction. Formation of Self-Help Groups (SHGs), livelihood improvements and awareness campaigns on solid waste management have been some of the non-structural components.

Slums in Jodhpur and Ajmer are covered under slum packages that include laying of sewerage networks, drains and road improvements. Although the focus in Jodhpur and Ajmer has been on underground sewerage, augmentation of the water supply system was part of the project objectives. Jodhpur water supply system is being augmented by laying of 226 km of pipeline and construction of 20 reservoirs across the city. About 6.4 kilometres of water line have been laid to improve the distribution system in approximately 52 slums under these packages in Jodhpur.

¹ Nirmal Nagar Yojana (Programmes) is a scheme of the State government of Karnataka to enhance the existing solid waste management practices of cities and provides funds for the same.

The prime focus in Ajmer was to improve distribution of water from the Bisalpur dam². The city was receiving 70 MLD from the Bisalpur project, distribution of which needed to be better managed. Slum packages have been separately planned and executed under the RUIDP project as in all other projects. **Annexure 1** summarises some of the key elements of water supply projects in the selected cities.

Water supply

Status of water supply services

Coverage for piped water supply increases inside intervened slums

In the intervened slums nearly 50 per cent of houses had access to municipal water supply inside homes. Ramnagam, the completed project, showed a significant leap in the number of household connections (80 per cent) as compared with BME data for 2003 of 44 per cent. Within Ramnagam coverage appears to be unequal with one settlement (Kothipura) reporting zero individual connections and another (Yaroobnagara) where all houses have individual connections. Karwar had the lowest incidence of individual connections (17 per cent). Reasons for non-connection included affordability, lack of awareness among people about their eligibility for connections and municipal discretion in giving connections. Around one-third of all households reported use of community taps (29 per cent) with Jodhpur reporting the highest incidence of community tap usage (49 per cent). The remaining households used ground water or other sources.

Box 1: Key changes following ADB intervention in Ramnagam for water supply

- Switching from wells to municipal supply
- Reduction in time for water collection
- Regular daily supply of water

Metering of piped supply

Household connections were not necessarily metered although one-third of residents (32 per cent) reported paying a flat charge for water use. Despite Ramnagam reporting maximum number of connections, less than 10 per cent of households paid for water used. In contrast, payment for water use was highest in Ajmer, followed by Jodhpur (Box 3). In Rajasthan, user payment for water cannot be attributed to ADB intervention, since people reportedly paid for water use much before the project

² Situated at a distance of 120 kms from Ajmer

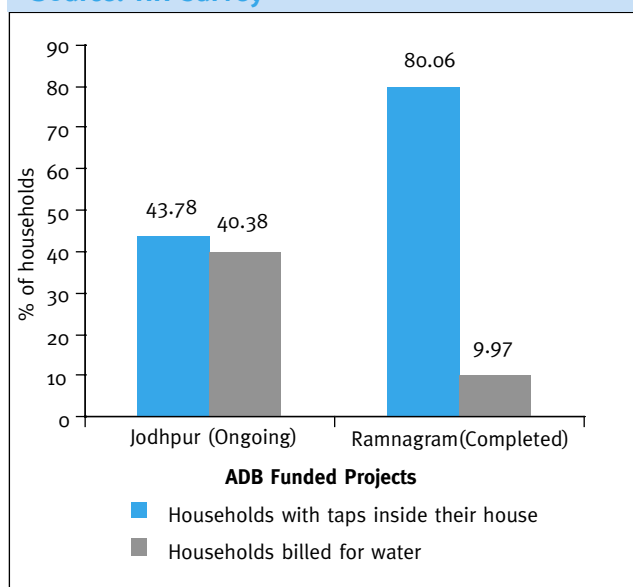
Table 2: Access and Availability of Water Supply in Intervened Settlements

		On going Projects			Completed	Total Per cent
		RUIDP		KUDCEMP	KUIDP	
		Jodhpur (N=852)	Ajmer (N=539)	Karwar (N=262)	Ramnagram (N=682)	
a.	Households with taps inside their house	373 (43.78)	329 (61.04)	46 (17.16)	546 (80.06)	50.51
b.	Households billed for water (flat rate)	344 (40.38)	320 (59.37)	46 (17.16)	68 (9.97)	31.72

(Source :Household Mapping)

came into operation. Of households that reported paying for water supply about half said that their meters were non-functional, in particular, settlements along hill slopes reported high incidence of non-functional meters.

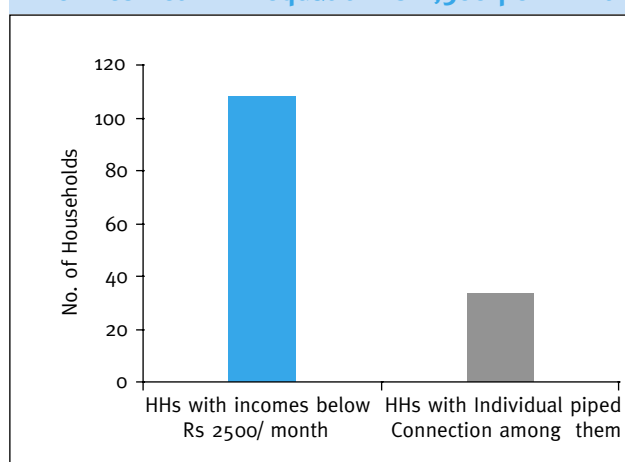
Fig 1. Comparison of % households with individual connections vis-à-vis water billing. Source: HH survey



The missing households

Households in project settlements yet to be connected to municipal supplies were either the poorest families, or people living in areas where technical difficulties prevented connectivity or people without land tenure. From the survey, there were nearly 108 families that were earning less than or equal to Rs 2,500 per month out of which only about one third had access to individual piped water supply (figure 2). The completed project of Ramnagram had the least number of connections in this income group. In Jodhpur the main earner in missed families was generally an under employed, daily wageworker unable to put together the lump sum of Rs1,500-1,800 required for the water connection. In

Fig 2. Households with piped water with incomes below or equal to Rs 2,500 per month



Box 2: “Legally-Illegal”

Jodhpur presents a unique picture with excluded settlements having better access to municipal piped water supply within the home as compared to intervened settlements. Community members indicated that PHED offers connections to all households willing to pay for legal connections irrespective of legal land ownership. Households have used this window despite the higher plumbing costs (Rs 3,000 compared with Rs 500³-1,500 for an illegal connection) for two reasons:

1. Legitimate connections add to security of stay and provide proof of residence in the event of rehabilitation.
2. Forestalls disconnection by PHED field staff.

Few residents reported offering payment for legitimate connections to the Municipality. They were told that unless all households in the settlement agreed to pay the connection charge, the ULB was unable to invest in a pipeline for the settlement for individual connections.

³ People have paid upto Rs 500 for illegal non-metered access

most settlements credit mechanisms had not been set in place to enable such households to access low interest loans or subsidies. FGDs in Habbuwada slum in Karwar revealed that despite the laying of pipelines in the area, lack of legal ownership of slum dwellers led to their exclusion. Some community members felt they had been left out of the development process due to political reasons, with political leaders and councillors of particular

communities convincing the authorities to include certain slums but not others.

Community supply sources

Municipal handpumps were generally considered safe although only one in every four in Ajmer was said to be functional. Slum improvement projects in Karwar had planned only community supply sources using a ratio of one stand post/tubewell for 25 households.

Table 3: Status of water supply services in intervened settlements (Source: Survey)

		On going Projects			Completed	Total
		RUIDP		KUDCEM	KUIDP	Percentage
		Jodhpur (N=60)	Ajmer (N=60)	Karwar (N=60)	Ramnagram * (N=45)	
A	Accessibility					
Main Source	Piped Supply in the house*	38(51.4)	48(80)	10(16.0)	31(68.8)	54.0
	Piped Supply in the community*	21(48.6)	2(3.3)	23(38.0)	12(26.6)	29.1
	Exclusive Use of Ground water	0	10(16.6)	28(46.6)	0	15.8
	Use of multiple sources	0	1(1.6)	20(33.3)	0	8.7
	Supported by Project	4(6.6)	7(11.6)	8(13.3)	15(33.3)	16.2
Alternate Source	Community point (exclusive use)	35(58.33)	1(1.6)	9(15.0)	0	18.7
	Ground water sources (exclusive use)	3(5.0)	22(36.7)	14(23.3)	6(13.3)	19.6
	Water Vendor (exclusive use)	1(1.6)	18(30)	2(3.3)	15(33.3)	17.0
	Total	39(64.9)	41(68.3)	25(41.7)	21(46.6)	55.3
Av. Time for water collection	Wet Season	86.5 min	23.3 min	17.3 min	9.88 min	34.25 min
	Dry Season	177.19 min	29.4 min	27.4 min	15.22 min	62.3 min
B	Reliability					
	Convenient water timings	30(50)	47(78.3)	17(28.3)	31(68.8)	56.3
C	Quantity					
	Satisfaction with quantity of water	36(60)	16(26.7)	20(33.3)	30(66.6)	46.6
	Good pressure	53(88.3)	33(55)	24(40)	35(77.7)	65.25
D	Satisfaction with Quality of water					
	Main Source	57(95)	49(81.6)	34(56.6)	41(91.1)	81.1
	Alternate source	44(73.3)	8(13.33)	26(43.3)	21(46.6)	44.1
	Satisfaction with overall quality of water supply service	47(78.3)	35(58.3)	9(15)	34(75.5)	56.7
E	Discrimination in implementation of project					
	No Information	3(5.0)	4(6.0)	4(6.0)	0	4.25

* Data for this indicator was collected using both household mapping tool and survey. Mapping data is presented in Table 3 above. Variation between the two data sets across the 4 cities ranges between 1 to 20 per cent.

Reduced dependence on alternate sources

One-fifth of sampled families (19 per cent) with access to municipal supply reported having to revert to community supply as an alternate source to bridge demand-supply gap. The proportion of households using alternative sources was lower in the completed project than in the ongoing project. Tanker services were used by one-fifth of slum residents. The cost of a tanker (5,000 litres) averaged Rs 200. Use of alternate sources was restricted to emergencies when even stored supplies ran out during prolonged periods of shortage or network breakdown. Frequency of dry spells had reportedly reduced to less than 3 episodes in a season and could be attributed to improved municipal supply. Jodhpur residents rarely experienced water shortages, except occasionally during the summer.

Coping with shortages

Two strategies for coping with water shortages were reported:

- 1) **Augmenting Storage Capacity:** Most households have amplified the water storage capacity by building small cemented storage tanks or installing syntex tanks. In Rajasthan where water is supplied only on alternate days, these tanks are an essential part of household plumbing and convert non-supply periods into 24x7 availability as well as tide over water emergencies. Non-connected families too have storage tanks, which are filled up by a hose pipe connected to the neighbours tap or from community stand posts.
- 2) **Economical Use:** As a coping mechanism, people used water parsimoniously during dry spells, bathed on alternate days or cleaned utensils using sand.

Decreased time for water collection

Time spent in water collection was measured using two indicators; number of trips required to fill water from the community source and time taken to collect water (return trip including waiting time); the assumption being that there should be a significant drop in both the activities following intervention.

With increasing access to individual supply, time spent in water collection had reduced significantly. The Trends Analysis confirmed this finding (Refer text box 3).

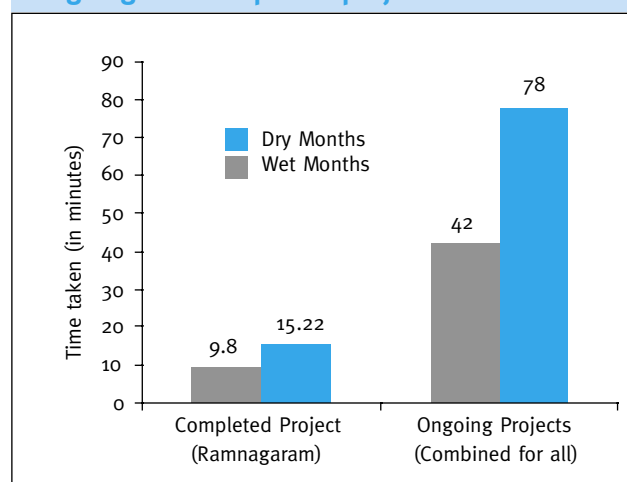
In the completed projects the average time for water collection had reduced from 15 minutes to 10 minutes and in ongoing projects a reduction from 78 minutes to 42 minutes was reported.

Trips for water collection

The number of trips required for collecting and storing water had reduced as the number of community stand posts and pressure increased. The number of trips required for collecting and storing water ranged from 2-3 in winter to 5-6 in summer based on household demand and only during shortages.

In Ajmer, people fetched water from handpumps during the dry months. Handpump water was used both for domestic and drinking purposes. Handpumps were however the least favoured option and resorted to when even the neighbours refused to oblige. Each household reported between 5 and 10 visits to the handpump to meet water demand either at one go or 2-3 times a day. Water collection was primarily the job of women and children as men were reportedly at work. Other family members stepped in when women were unavailable or the source was too far.

Fig 3. Comparison of water collection time for ongoing and completed projects



Increase in quantity and pressure of supply, although less than desirable

Less than half the residents in intervened slums reported satisfaction with the quantity of municipal supplies; the highest level of satisfaction (67 per cent) was reported in the completed project, Ramnagar, reported the highest level of satisfaction. In Kothipura slum settlement of Ramnagar, water supply is available 24x7 through community taps and borewells. Least satisfaction with quantity was reported in Ajmer (27 per cent) and Karwar (33 per cent). The latter is at odds with the baseline data for Karwar, which reports nearly 100 per cent supply sufficiency⁴. Lower levels of satisfaction in Ajmer correlate with the reported 97 per cent of respondents reporting purchase of water from water vendors.

⁴ BME data for Karwar on water quantity is contradictory with only about 16 per cent people reporting daily supply of more than one hour duration.

Fig 4. Seasonal variations in water supply services in Karwar slums

Time Line	Seasonal Variations in water supply services in the project slums in Karwar			
(months)	Scarcity of water supply	Poor quality of water	High water bills	High water collection time
January				
February				
March				
April				
May	Medium	Medium	Maximum	Maximum
June				
July				
August				
September				
October	Medium			
November				
December				

Legend: Maximum Medium Low

All high-income families expressed dissatisfaction with quantity of supply, in particular with regard to lack of sufficient water for economic activities. Non-project Jodhpur settlements complained about water insufficiency.

Improvement in water pressure was reported in nearly two-third households. Least satisfaction with water pressure was reported among the high-income groups, followed by the low-income households. Water pressure for households atop hills as expected was poor.

More water flows down the drain

With better pressure of supply, water wastage was seen to have increased. Water intensive chores such as washing clothes, utensils, animals, floors etc. were all accomplished during the supply hours, with water taps open and continuously running. Reason for this can be attributed to intermittent supply and lower confidence in water availability. Moreover, as most chores were accomplished during supply hours, the amount of water required to be stored decreases.

Better reliability of water supply

Timings

In intervened slums around half of respondents reported that the water supply hours were convenient. There was a wide variation in responses with some settlements even reported a 24x7 supply

(Jagjeevanram Baste in Jodhpur, Puralakki Bena in Karwar and Kothipura in Ramnagram) while in some towns less than a third of respondents found timings convenient (Karwar, 28 per cent).

Frequency and duration

Supply was reportedly less than an hour, once every 2-3 days in Ajmer and Jodhpur. This is consistent with findings from the baseline study for Ajmer in which 84 per cent of residents reported dissatisfaction with supply regularity. BME study data for Ramnagram shows a reduction in the number of water supply days from around 6 to 4 days per week between 1999 and 2003, however it also shows an increase in the duration of supply by nearly two hours around four hours a day for the same period. At the time of the study, Ramnagram municipality had handed over the supply responsibility to KWSSB and for the past two months the Board had begun a daily supply to all city residents. Corresponding data from the present study has been collected through the Trends Analysis in text box 3 below.

No discrimination

No evidence of discrimination was reported by communities, except some stray grievances about lack of information or consultation prior to project interventions. Residents of Karwar complained about being discriminated on political grounds, with more favoured elected representatives managing to access the bulk of services. Although not significant, a few households felt that there had been discrimination

over level of services provided. Complaints related more to control over the community water resources. Non-project communities felt that certain specific interest groups had a monopoly over the water source and lower caste households had less access to the service. They also felt that the upper income groups had benefitted more from the services while the poor had been ignored.

Satisfaction versus dissatisfaction with overall quality of water and supply services

Nearly two-thirds of residents with access to municipal supplies in all types of settlements reported overall satisfaction with the municipal water supply. In Jodhpur, however, the majority of high-income families however were dissatisfied with water quality, complaining that it was hard, caused frequent illnesses and required treatment before drinking. This was indicative of the higher level of demand and aspiration among the higher income families. Reasons for dissatisfaction included: short supply hours because of which people were unable to fill and store the required quantity of water; irregular/inconvenient timings; and low water pressure. People indicated that water should be supplied for at least three hours daily to meet household demand whereas it was only provided for

one-two hours at present. Non-connected households desired to be given household connections.

Water supply: Comparative analysis of high-income group, intervened and non-intervened slums

The status of water supply services in terms of piped water supply connections, convenience of water supply timings and average water collection time in the HIG (High Income Groups) was found to be much better in comparison to the intervened and non-intervened settlements. Access to piped water supply in all four cities was 75 per cent among the HIG, with all HIG households in Jodhpur and Ajmer reporting access to piped water supply. In Karwar and Ramnagaram some HIG households were using ground water supplies, however, none of these water supply sources were shared or community sources. Even though only 43 per cent of the HIG families reported good water pressure, the average time for water collection in HIG areas was a mere 2.5 minutes unlike the average 63.5 minutes reported in the dry seasons in the intervened settlements.

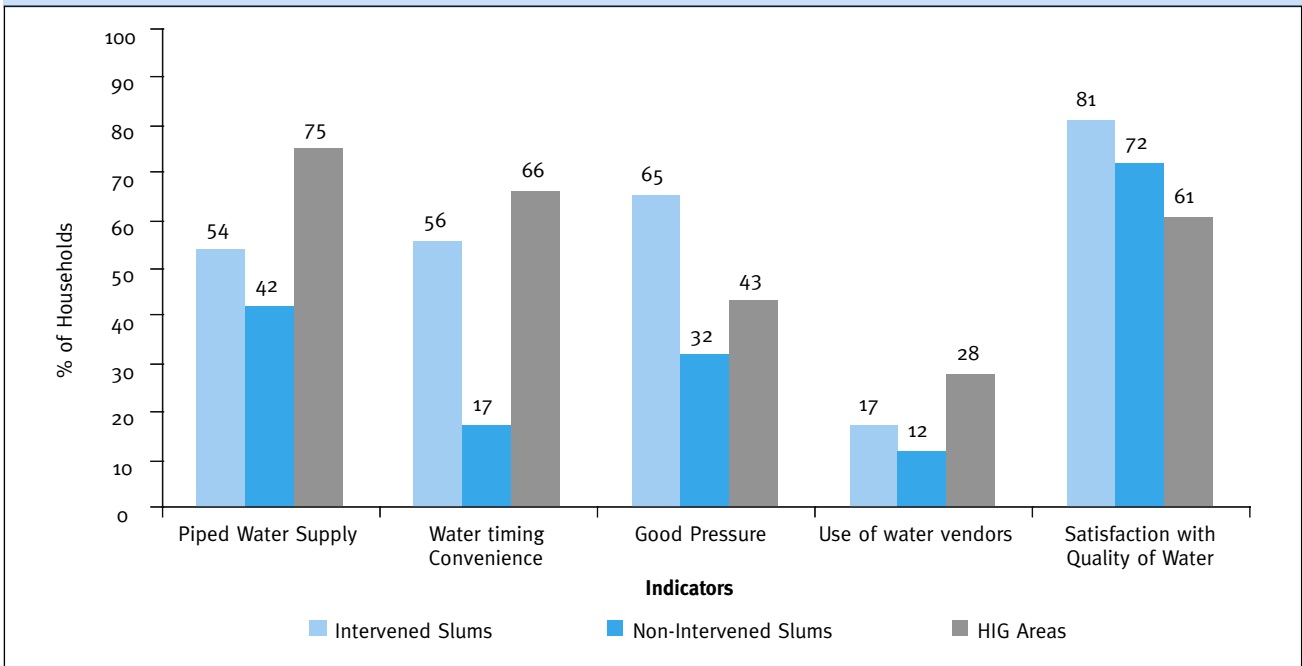
Prevalence of purchase of water from vendors was also seen to be the highest in the case of the HIG

Box 3: Changing trends in water supply in Jodhpur

- Improved water services albeit not due to project intervention.
- Progressive increase in piped water supply in the house connections, based on household affordability.
- Reduced user-tap ratio with additional number of community stand posts provided in settlements.
- Illegal extensions from community stand posts inside homes.
- Social tensions continue at community stand posts.
- Community stand posts being increasingly used for cows, buffaloes, etc. or during religious ceremonies.
- Water connections disconnected from waste water disposal systems.

	Before Project	Immediately After Project	At the Time of Survey
Intervened Settlements	No tap connections in any of the settlements Water had to be fetched from a distance of 1-2 km either from Vaba Nari or Lal Sagar	Number of stand posts increased in all the settlements Number of community taps ranged between 3 and 10 One main pipeline 450 meters long was installed Households with better incomes got individual piped connections	Progressively households are getting tap connections inside the house Still unconnected households use the community stand posts provided outside
Eklavya Bheel Basti	Community taps-1	Community taps-3	Community taps-3
Average users per community taps	50-60	25-30	15-20
Illegal extensions into households	20	30	45
Social tensions	Yes	Yes	Yes

Fig 5. Comparison of water supply indicators for intervened, non-Intervened slums and HIG areas



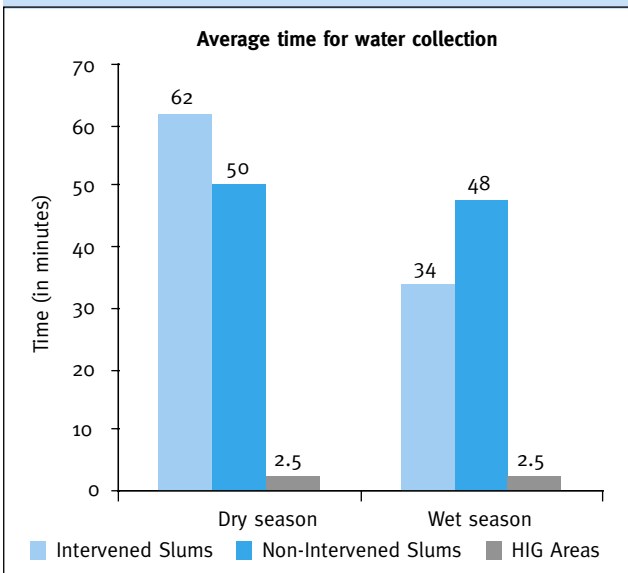
areas. In Jodhpur all the HIG families reported the purchase of water from water tankers as an alternate source of water supply in times of shortages. In the intervened and non-intervened settlements focus group discussions indicated that borrowing water from neighbours; fetching water from far off places and rationing the use of water were more prevalent than using tankers in times of shortages in water supply.

Even though service levels in HIG areas were reported to be better than those in the slums, satisfaction

levels in the HIGs were much lower than those in the intervened and non-intervened slums indicating not only a higher payment capacity but also an expectation and awareness of a higher level of services among the HIG families.

Among the poor, variation in service levels was reported in the intervened and non-intervened settlements. Access to piped water supply, convenient water timings and water pressure were all reported to be much higher in the intervened settlements when compared with the non-intervened settlements. In the case of Ramnagaram, a completed project, this can be attributed to the interventions of the KUIDP project. The non-intervened slums all indicated a lower level of service indicating that there is a need for improvement in these areas. Poor levels of services in the non-intervened slums can also be attributed to the lack of legal land tenure which subsequently denies the households access to adequate basic services. Most of the households have made alternate individual or community arrangements to access water supply services which involve tapping of municipal supplies, ground water and fetching water from other areas. These communities have not felt any change in water supply services due to the ADB project intervention in the city.

Fig 6. Average time for water collection in intervened slums, non-intervened slums and HIG areas



Environmental sanitation: Needs at the state and city level

Sanitation interventions under ADB

Intervention for sanitation is largely aimed at building systems for underground sewerage, solid waste

management and waste water treatment. In RUIDP expansion of the sewerage system and laying of both main and lateral underground sewers in the selected cities was provided for. In the Slum settlements, construction of drains for wastewater disposal and providing access to sewerage connections was planned for. Connections from the main pipeline to the household junction box are provided free of cost to slum dwellers in the two cities. No community toilets have been constructed under the project in Jodhpur, but have been built in Ajmer. Where the existing sewerage line primarily around the Dargah area is to be expanded to cover 365 kilometres of the city.

Ramnagaram received a brand new sewerage system with a Sewerage Treatment Plant (STP). The scope of work in Karwar has covered Low Cost Sanitation (LCS) for the poor communities as part of slum improvement packages. A settled sewerage system has been provided in one part of the city and a large landfill site has been developed for solid waste disposal.

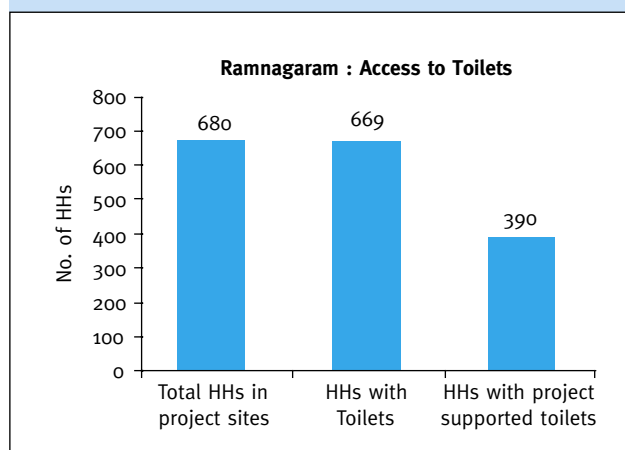
Status of sanitation services in sampled slums and cities

Increased access to household toilets

A significant increase in the percentage of households with individual toilets in project settlements has been noted. Whereas the baseline studies for Ajmer and Karwar report just 41 per cent and 90 per cent households with household toilets, the present study reports 57 per cent and 97 per cent respectively.

Four types of toilets were found in the sampled settlements: toilets connected to sewer lines, toilets linked to septic tanks, toilets connected directly to the gutter/storm water drain or nearby nullah, and pit latrines. Most toilets have been built through personal investment. In Ramnagaram nearly 380 toilets were constructed under the project.

Fig 7. Access to toilets in Ramnagaram



Reduction in open defecation

Around two fifths of respondents reported practicing open defecation. Ramnagaram the completed project reported the least open defecation (6 per cent) and the highest incidence of open defecation was reported in Jodhpur (56 per cent). Comparative data for open defecation is available from the baseline study only for Karwar. At 13 per cent it is nearly 30 per cent points less than the 45 per cent open defecation reported in the present study. This large difference could be because the baseline aggregates data for the entire town whereas this study focused on slum areas.

Reasons for open defecation were low affordability for toilet construction, convenience and force of habit.

Galli level sewer connections

According to Jodhpur residents, sewer lines had been provided only up to the main roads and residents were expected to bear the cost of household connections. Some residents had pooled resources to extend the pipelines inside the gallis, although, by and large, residents lacked information. This is because of the ill-conceived and hugely delayed

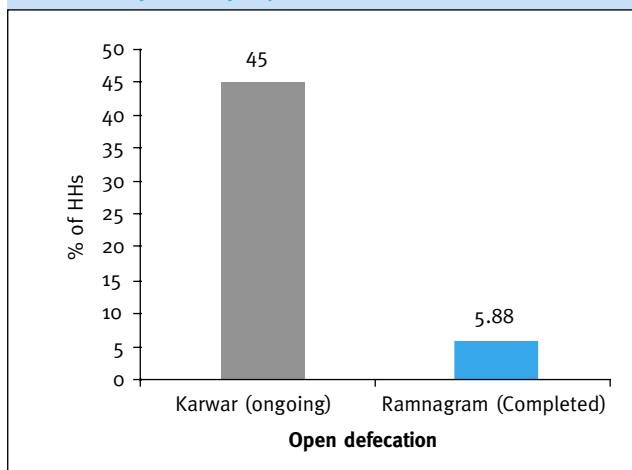
Table 4: Sanitation in intervened settlements

		On going Projects			Completed	
		RUIDP		KUDCEMP	KUIDP	Total Percentage
		Jodhpur (N=852)	Ajmer (N=539)	Karwar (N=262)	Ramnagaram (N=680)	
a.	Households with individual toilets	374(43.90)	309(56.59)	253(96.56)	669(98.09)	73.6
b.	Households using community toilets	0	16(2.97)	0	0	0.74
c.	Households defecating in the open	478(56.10)	214(30.61)	118(45)	40(5.88)	38.39

(Source: Household Mapping)

Note: The subtotal percentages amount to more than 100 per cent as some of the latrines are not being utilised or some members of each family use community toilets or defecate in the open even though they have latrines.

Fig 8. Incidence of open defecation in ongoing and completed projects



CAPP. For example residents reported being told by construction workers/engineers that connections would not be provided once roads had been built over the sewer line. Families with resources paid for the connections whereas others were omitted and had no knowledge on how to get connected. CAPP was organising “connection camps”, to encourage people to apply for connections, however, the time lag between filing the application and getting a sewer connection from the municipality was de-motivating communities.

Continued use of septic tanks

Despite the offer of sewerage connections, majority of households with septic tank toilets have been reluctant to switch systems. PIU officials cited this as a key reason for delayed physical works and poor outreach. A probe into reasons for people’s lack of enthusiasm revealed that residents had invested up to Rs12,000 in constructing a septic tank and although sewer connections were cheaper at less than Rs 3,000, it was an additional investment that they preferred to avoid. It was felt that switching to underground sewerage would happen only after the current septic tanks are filled up or rendered non-functional. In cities such as Ramnagram where people have connected themselves to storm water drains free of charge, sewerage connectivity will continue to remain low. Unless backed by penalties and interest free credit, reluctance to replace technologies will be a critical factor in cost recovery.

Community toilets poorly maintained

A few community latrines were built under the project. In Moti Vihar area of Ajmer the latrine is connected to a septic tank, as the area is not part of the expanded underground sewerage network. In Karwar too, residents of some settlements used public toilets. However, these had been constructed over 2 years ago. Besides being far from the settlement, they were

Box 4: Key Trends on sanitation under KUDCEM Project (Ongoing)

- Garbage bins have been installed in areas where there were none. Between two and six garbage bins have been installed in each slum area
- Community toilets provided are being used by the community. However they are in a poor state of repair
- Individual pit latrines being constructed by families with the assistance of local NGO and subsidy from the Government under the project.
- Reduction in open defecation from almost 60 per cent per cent to about 40 per cent.
- In the case of Habbuwada where works could not be taken up due to problems with the contractor very little change has been noticed in the communities.

dirty, non-usable, with broken fixtures and doors and had no water and electricity. In Habbuwada, Karwar, the only women’s toilet was extremely dirty and in Indiranagar, the public latrine was never opened to the public.

Access to credit for toilet building

Only in a few settlements, such as Eklavya Bheel Baste Jodhpur, Purulakhibena Karwar, and Ijjorguda Ramnagram, did poor households report access to credit for toilet construction during the project period. Under the KUDCEM project, toilet costs ranged from Rs 7,000 to Rs 12,000, to be shared equally between the householder and the Municipality. Households were expected to pay 25 per cent cost upfront and 25 per cent in instalments and the balance was subsidy provided under the LCS scheme. In some areas of Karwar poor targeting was noted to have excluded the most vulnerable.

Preference and payment capacity

People’s preferences, usage and capacity to pay for different types of toilets were assessed using a matrix analysis. Ramnagram reflects the typical responses across all cities and has therefore been presented below. Almost all households expressed a preference for individual toilets connected to sewerage followed by private toilets with septic tanks or pits. People also expressed a willingness to pay for individual toilets. Details about payment capacity are discussed later in the report.

Sanitation: Comparative view of intervened, non-intervened slums and high income groups

All households in the high income groups had access to individual household toilets. In Jodhpur, Ajmer and Karwar these toilets were linked to septic tanks in the absence of a city sewerage system. With the ADB

Table 5: Matrix analysis: Preferences of sanitation facilities expressed by communities in KUIDP

Sanitation services	Community toilets	Individual toilets with pits	Open defecation	Individual toilets with septic tanks	Individual toilets connected to Sewerage
Usage	1	3	3	1	4
Preference	2	3	1	3	5
Willingness to pay	1	3	1	3	5

Note: Most preferred option 5; Least preferred option 1.

project intervention, sewerage lines are being laid in Jodhpur and Ajmer and most of the HIG areas of cities will be connected to a sewerage network.

Unlike HIG, approximately only half of the households in the intervened and non-intervened settlements had access to individual toilets (source: household mapping). Both intervened and non-intervened settlements reported comparable (38-40 per cent) incidence of open defecation. Very few households

reported the use of community toilets as they were poorly maintained and lacked water and electricity.

Access to sanitation facilities in intervened and non-intervened settlements were on an average reported to be similar indicating that even settlements selected for improvements under the ADB project have not perceived a change in comparison to the non-intervened settlements.

Waste disposal in slums

About a quarter residents in intervened slums had access to services provided by Municipal sweepers and 14 per cent of people reported disposing of waste at the municipal dumping site. However the majority of respondents reported throwing garbage in the open or in a pit and burning. No city-wide system for house-to-house waste collection had been set up by any of the ULBs. Neither have sufficient number of bins for garbage disposal been provided in the settlements. Jodhpur and Ajmer have had very little intervention in terms of garbage disposal under the ADB projects. Even now, hill slopes, open areas, vacant plots, railway tracks and road sides are used as dumping grounds by poor communities.

The highest incidence of municipal waste collection was reported in Karwar where local NGOs are currently involved in awareness generation for proper waste disposal. In a few areas a pilot testing project has been set up in partnership with a local SHG to

Fig 9. Access to toilets and incidence of open defecation in intervened, non-intervened slums and HIG areas

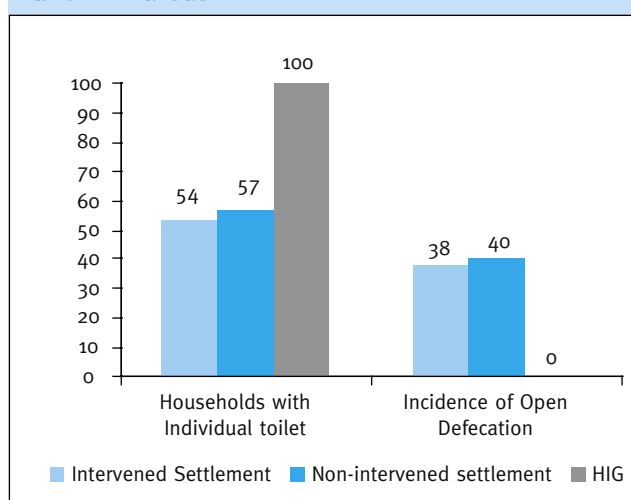


Table 6: Waste disposal scenario in intervened slums (Source: Survey)

Waste disposal	Rajasthan		Karnataka		Total Percentage
	Jodhpur (N=60)	Ajmer (N=60)	Karwar (N=60)	Ramnagaram* (N=45)	
Thrown and Left	44(73.3)	37(61.7)	15(25)	13(28.9)	46.7
Thrown and burnt	7(11.7)	7(11.7)	4(6.7)	0	7.5
Stored for collection by Municipal Sweepers	0(0.0)	7(11.7)	25(41.67)	17(37.7)	22.8
Stored and thrown in municipal dump	5(8.3)	2(3.3)	26(43.33)	0	13.7
Others	4(6.7)	7(11.7)	0	15(33.4)	12.9

Table 7: Matrix analysis: Preferences of garbage disposal facilities expressed by communities.

Waste collection and disposal	Collected and disposed by Municipal sweepers from houses	Collected and disposed by Private Sweepers	Self disposed in Municipal Dhalao	Self disposed in open	Burning
Preference	5	3	1	1	1
Capacity to pay	1	1	1	1	

collect garbage using auto tippers provided under the project. Although the pilot is successful there are problems with regard to handing over of equipment to a non-registered body, maintenance of the tippers as well as high cost of waste collection imposed (Rs 25 per family per month). This led to community demonstrations outside the local office, forcing the ULB to bring down the rates to Rs 10 per family. If such problems persist in Karwar then the percentage of households using the new waste collection facilities may drop.

In non-intervened slums household garbage was reported to be either collected and given to municipal sweepers or put in pits and covered. All high-income households had private sweepers who collected waste from the houses and then dumped these in the nearest waste collection station.

A matrix analysis suggests a high preference for waste collection from the house by municipal sweepers or alternatively by private sweepers. However, willingness to pay for the service was very low.

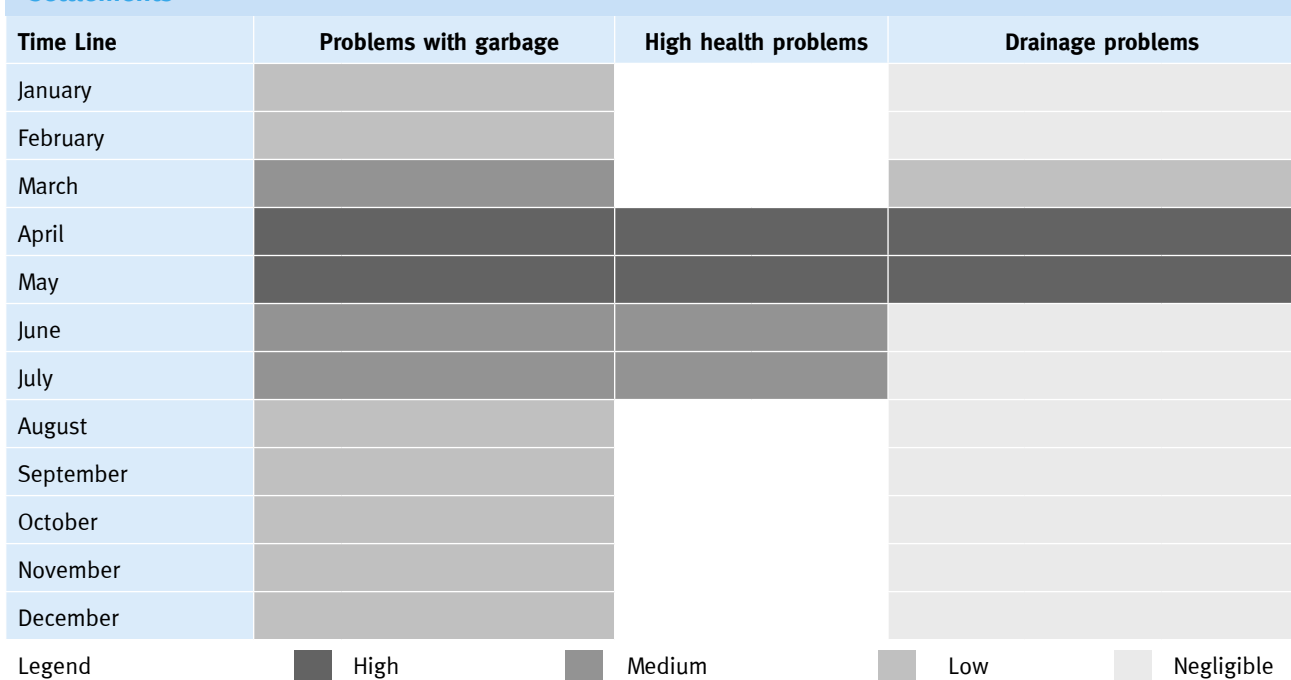
Drainage improvements: Mixed responses

Overall environmental sanitation had reportedly improved in all Ramnagram communities. In Karwar, where the projects were still in the construction stage, improvement in drainage quality was attributed to the project by a majority of residents.

Rajasthan communities did not report improved sanitation services despite an emphasis on sewerage. Residents of Bhairwa Basti, Kotda (Ajmer) complained that neither roads nor sewers had been constructed in their colony and that road construction was extremely poor.

Seasonal variation in the health of people was assessed using seasonality maps. This also helped to understand linkages with water supply and sanitation. Darker colour boxes indicate months when problems build up. Lighter or white colour indicates lower intensity of the problem. Ramnagram residents reported the highest incidence of illnesses and health problems between April to July. These were also

Fig 10. Seasonal variations in sanitation services in the project slums under KUIDP in intervened settlements



periods when drainage problems are aggravated due to the onset of rains.

Status of hygiene in sampled slums and cities

Structure and design of hygiene interventions in the projects

Change in hygiene practices is the expected outcome of improved water supply and sanitation services. Specifically, the ADB projects seek to improve hygiene practices through a community awareness programme under CAPP. In Rajasthan, CAPP interventions began long after physical works were commenced and hygiene awareness activities have been prioritised low over improving coverage.

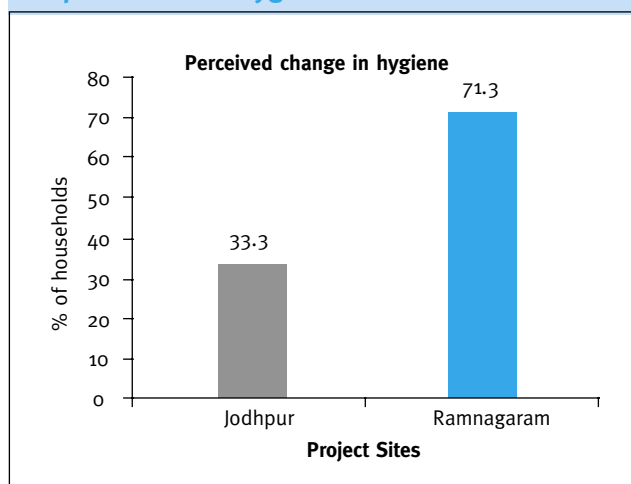
Health and hygiene practices

The impact of ADB interventions on behaviour change was measured using the following indicators: reduction in reported incidence of disease, improved health of family members, reduced expenditure on health and reduced time and money spent in travelling for health care.

Decreasing health costs

Residents reported a significant decrease in both household episodes of illness and epidemics. Improvement in health of family members was mentioned by nearly half the residents (46 per cent) in project settlements and attributed to project intervention. Nearly one-fourth of residents also indicated that family health expenses, including medicines and travel for health care access, had reduced. As non-project settlements also reported a decrease in health costs not all the change can be attributed to interventions supported by ADB.

Fig 11. Per cent HH with perceived improvement in hygiene in intervened slums



Cost recovery: Do poor people have the capacity to pay?

A key policy objective of ADB has been to push local reforms on tariff setting and cost recovery. In order to meet the objective, State governments have committed themselves to de-politicising tariff setting and levying of user charges across all sections of the society. While a detailed assessment of tariff reforms is being made in the section on financial analysis, this section analyses capability and willingness to pay by poor households.

Households have to bear three kinds of costs to access water supply and toilets in the house. These include: connection costs to be paid to the Municipality, cost of plumbing, pipes, fixtures, sanitation units etc. and monthly user costs. They also have to bear a service charge for waste collection and drain cleaning.

Capacity to pay was assessed by using two indicators: income levels of respondents and willingness to pay. Categorisation of poor used by the government of India in the Tenth Five Year Plan, developed with the assistance of ADB, (core poor, intermediate poor and transitional poor⁵) has been used to group people by incomes. State urban poverty lines for Karnataka and Rajasthan at Rs 511 and Rs 466⁶ have been used for the purpose. Using this classification, nearly one third of households in the project were found to be below the poverty line or earning less than Rs 2,500.

A thumb rule for affordable tariffs is a user charge less than four per cent of family income. The average monthly tariff was calculated to be of Rs 74, equivalent to between 2.9 per cent and 6.2 per cent of household monthly income at income points of Rs 2,500 and Rs1,200 respectively. Data from the present study indicates that the majority of families are likely to be paying more than four per cent of family earnings on water. In Ramnagar where the charge is Rs 100 per month, the cost burden will be higher. Annual price increases in tariffs proposed under the project will only add to the family financial burden.

The majority of slum residents in intervened settlements (52 per cent) were non-poor i.e. had incomes over the State urban poverty line, suggesting that slightly less than half of residents are likely to find user costs beyond reach. The completed project city of Ramnagar had the maximum percentage of poor people (70 per cent). This is higher than the baseline and BME data for 1999 and 2003 (30 per cent and 21 per cent respectively), suggesting a deepening

⁵ Tenth Five Year Plan, Volume II, Chapter 6, p 627

⁶ Planning Commission

Table 8: Household income ranges in intervened slums vis-à-vis water costs (Source: Survey)

	Rajasthan		Karnataka		Total Percentage
	Jodhpur (N=60)	Ajmer (N=60)	Karwar (N=60)	Ramnagaram * (N=45)	
Average User charge per month	Rs. 80	Rs. 55	Rs. 60	Rs. 100	Rs. 73.75*
Average Connection Cost	Rs. 1250**	Rs. 2127.3	Rs. 2577.7	Rs. 3320	Rs. 2318.75*
Households currently Paying					
User Charge for WS	41 (68.3)	45(75)	9(15)	11(24.4)	45.67***
Connection Charge for WS	32(53.33)	33(55)	9(15)	2(4.44)	31.94
HH currently paying to access alternate source	9(15)	16(26.7)	1(1.6)	0	10.8

* Figures are in Rupees ** Figures exclude plumbing costs *** Variation in figure for total households paying for water differs from the figure between table 3 and 11 is due to data collection from different sources i.e. household mapping and household questionnaire respectively.

of poverty in the selected slums.⁷ The key implications of these findings are:

- Improved WSS alone is unlikely to push people out of poverty unless accompanied by livelihood strategies. Other factors that contribute to household economic poverty must be identified and targeted for achieving poverty reduction.
- For selection of communities for intervention vulnerability criteria other than slum residence must be used to prevent subsidy leakage.
- Tariff setting must be variable, with poor paying a charge less than four per cent of monthly household income. Block water tariffs currently applicable suggest that higher income groups spend a lower proportion of their income on water.

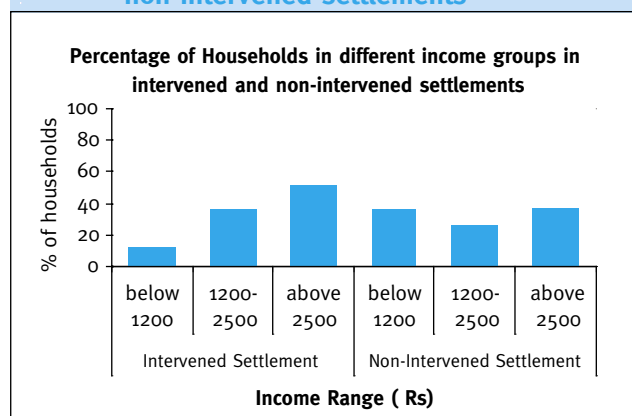
Poverty levels in the non-intervened settlements were reported to be higher with nearly 63 per cent of the households falling under the bracket of incomes below Rs 2,500. Although many households are paying for water supply even in the non-intervened settlements their capacities to bear present user and connection charges will be much lower. This is evident in the analysis in the next section.

Payment for water use

Nearly half the respondents (46 per cent) reported that they were paying regular user charge to the local body. At present payment was based on fixed monthly charges due to low coverage of metering and/or billing by consumption. In Ajmer nearly 80 per cent people reported having a water meter, although these were not read regularly for billing purpose. In Karwar nearly all the installed meters were functional in contrast to Ramnagaram where just half the meters were functional. All cities had a monthly billing cycle and people had to go to the water offices to pay bills. Overall, the proportion of households paying for water was found to be higher in intervened than non-intervened slums.

From the KII in Ramnagaram, it was learnt that the municipality staff had informed residents about tariff structures, however not all colonies were billed and lack of payment did not lead to disconnection or a penalty, which has led to many defaulters. In Ajmer however, people indicated that a penalty of Rs 20 was levied in case the water bill was not paid within 2 months. In HIG areas about two thirds of respondents reported paying a water bill.

Fig 12. Income groups in intervened and non-intervened settlements

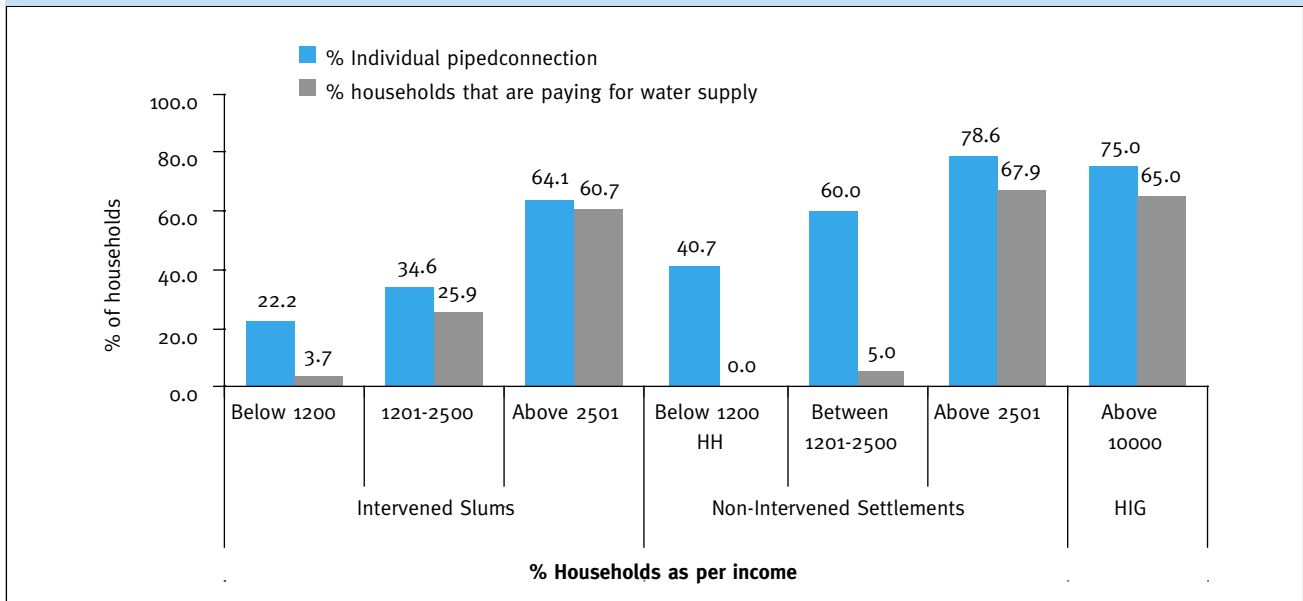


⁷ BME study has used income categories of less than Rs 2,000 and between Rs 2,001 and 4,000. Data for only the lower category has been used for making comparisons.

Inability to pay for high connection costs

Connection costs are generally high; the average across all cities being around Rs 2,320 and this

Fig 13. Households paying for water connections



amount has to be paid upfront as a lump sum to the ULB. In order to do so, poor families either save up or borrow money. In Ajmer and Jodhpur, about 50 per cent families reported paying for the connection. In Ramnagar, less than 5 per cent of families reported payment for connection. Households in non-intervened slums reported paying connection costs of Rs1,200 to the local body and Rs 3,000 for labour and material costs.

Payment for sewerage connections

In Ajmer, the current cost for a sewerage connection is Rs 205 for households with an existing water connection and Rs 455 for those without. In addition the families need to spend on construction materials. A monthly user charge of 20 per cent is added to the water bill for sewerage. Where there are no water connections, a monthly sewerage charge is billed based on the neighbour's bill.

Community participation for project sustainability: Putting the first last

An attempt has been made here to examine sustainability issues in the context of community inclusion in planning and service delivery and perceptions on work quality. NGO consultations held in Jodhpur, Bangalore and Indore with both project and non-project NGOs, FGDs, KIIs and meetings with government officials have been used to gather information on project sustainability.

Over the various project cycles, community participation is beginning to get more attention in the ADB projects. The newest projects, KUDCEMP and UWSEIP, are more specifically planning to engage communities. In KUDCEMP this is the outcome of

the inclusion of two community based organisations with sufficient experience of working with poor communities.

In UWSEIP, DFID plans to provide complimentary resources for a Municipal Action Planning for the Poor (MAPP) (Refer text box 5). KUIDP and RUIDP however have demonstrated a low level of community participation. Low priority to CAPP is amply reflected in the following statement of a senior official in KUIDFC; "What is there to monitor in slum packages? We are not giving them the water?"

Poor remain outside the mainstream: Separate slum improvement packages

Slum infrastructure has been planned under discrete slum based packages that do not network the poor into the city systems. Instead, stand alone settlement systems were planned in all the four cities. Such an approach raises issues of equity, quality control and alienation.

Selection of NGOs: Neither transparent nor appropriate

NGOs in the project are appointed using a bidding process. In Karnataka, the procedure is well laid out. Indicators used for evaluating NGO capacity, apart from administrative, financial, staff and demonstrated capacity to work with urban poor communities, also include nature and scale of projects implemented, experience of community organisation and poverty alleviation. ToRs for the NGOs included health, women's empowerment, community organisation, skill development and convergence.⁸

⁸ CAPP: A Review Report, KUDCEM, December 2004, pp 40-42

Umbrella NGOs have been identified in all projects through this bidding process managed at the PMU. However, NGOs complained that the process had been largely non transparent and the paper work for applications was so time consuming that many good NGOs decided against getting involved.

IIRM, the umbrella NGO in Rajasthan operates from Jaipur and has in turn identified a few local NGOs from each of the project cities for the community awareness work. Two faculty members are posted in each city to coordinate activities. However, in the case of Jodhpur, no local NGOs could be engaged and the entire programme is being managed by IIRM. In UWSEIP too, the umbrella organisation has been chosen from Bhopal, despite nearly 10 NGOs from Indore bidding for the task. This has led to a sense of frustration among the local NGOs who are expected to work with the Bhopal based NGO. In KUDCEM, MYRADA and SKDRDP are the selected NGOs.

Low understanding about community processes among NGOs

While the Rajasthan NGO team clearly lacked knowledge of participatory processes, in Karnataka, the NGOs had compromised and were delivering tasks assigned to them by KUIDFC instead of following a strategy for community organisation. The Karnataka NGOs felt that dependence on Government funded projects usually led to a compromise. Communities in Rajasthan were not organised. In Karnataka, SHGs organisation has happened in the second-generation project, KUDCEMP, and appears to be the result of PMUs linkage with MYRADA and SKDRDP, two well known NGOs.

IIRM in Rajasthan had been in the field for over six months. However, staff were still unfamiliar with settlement locations and lacked understanding about community problems. The approach followed by the NGO was to organise awareness camps at the community level. Community people complained during FGDs that these camps were not planned with a view to hear people's problems but to inform only, and generally the poorest households, illiterate people and women were missing from these community meetings.

Lack of flexibility in operations

NGOs across cities blamed design inelasticity and rigidity for lack of innovation. Resources provided under the project were ill planned and highly inadequate for community mobilisation. NGOs complained that the budgets had been set by engineers and resembled contracts for engineering works. NGOs were expected to pay expenses upfront and reimbursed for their work later. Most NGOs lack the resources to make such an investment in a project. This too deterred good NGOs and CBOs to engage with the project.

Low priority to community engagement

That the community engagement processes get low priority is evident from the much-delayed appointment of CAPP teams (as in Rajasthan), the very small proportion of fund share for tasks in relation to the funding for physical works (Karnataka) and the task oriented design of the component (Rajasthan). Further, comments of community leaders that officials rejected their offer for help in project implementation confirm the finding that community inclusion is incidental to project implementation.

All NGOs in the three consultations indicated that they had been involved in the project only after the initial design and planning stage was over. Non-project NGOs in Jodhpur said that apart from one State level consultation, no discussions had taken place at any stage of project implementation. Having been involved much after the implementation stage, NGOs in Rajasthan felt that they had an uphill task of mobilising communities. NGOs also felt that many long-term crucial issues such as conservation of water, rain water harvesting, pro-poor tariff setting were not addressed and were likely to influence project sustainability.

NGOs in Rajasthan felt that regional issues of water sharing between cities and states should have been addressed in public domain during project design. Lessons from NGOs working in rural Rajasthan on water conservation could have benefitted the project. They also felt that community awareness regarding wastage and conservation of water has also been ignored in the projects.

Community exclusion from design and implementation

NGOs in the KUDCEM project, SKDRP and MYRADA, are beginning to involve people in design and planning of services and obtaining community feedback. In Ramnagram the level of inclusion was limited to identifying sites for the community level infrastructure, especially in the case of sanitation, and a WSS committee headed by the councillor had been formed for this purpose. In other projects, people have by and large been excluded and planned interventions therefore do not respond to people's felt needs. Community leaders in both Rajasthan cities insisted that project designs were based on political/personal compulsions and fitted into the ADB framework, rather than as an outcome of interaction and debate.

High awareness on projects but no information on slum improvement packages

Community members and leaders were aware of ADB funded construction projects. In Jodhpur residents also knew what works (roads, bridges, sewers, installation of water meters) were being executed with ADB support. This is in spite of the fact that in Rajasthan

consultants under CAPP were appointed in October 2004, when physical works were well underway and expected to be over by March 2005.

There is however a lack of or insufficient information on slum components among the settlements in all three projects. According to community members in Jodhpur, project officials have not shared information about the project components at any point of time instead construction workers have provided half-baked information to the people or they have got to know from the local media. The following examples serve to illustrate the point. Sewer connections in Jodhpur are to be operational only after the entire network is in place. Not being informed, residents who had paid connection costs and did not receive an instantaneous response are highly critical of the functioning of the Municipality. In another instance construction companies did not start laying roads for months after having made the measurements. Only after the community leaders protested to the Mayor did the work commence. NGOs are concerned that a lack of awareness among the communities, such as on tariff structures, would test NGO credibility.

No system for community interface

No system has been developed to receive feedback from the local community on implementation of the physical works except in the upcoming KUDCEM

project in Karwar where some settlements reported a regular feedback meeting.

Inadequate coverage of urban poor communities

In each of the project cities, ADBs selection of slum areas have been based on government's list of notified slums. Notified or authorised slums are slums that despite being on illegal land are entitled to municipal services albeit at a community level.

As per city NGOs, local bodies generally undercount slums. As notification of slums is in the political domain, time for slum deceleration is generally drawn out. Consequently large numbers of new settlements remain unlisted and are missed for project improvements. In UWSEIP too, settlements selected for development have been from the authorised list and has missed the non-tenure settlements that are often more vulnerable and deprived of basic services.

A comparison of notified, estimated and intervened slums suggests that overall coverage for slum population is approximately 25 per cent of the total settlements estimated in the cities. A case in point is Jodhpur, where NGOs alluded to an estimated 220 slums in the city, 119 of which were notified. Only 68 settlements have been taken for improvement. 101 unlisted settlements were missed by the ULB for development works. As per the PIU at Jodhpur,

Box 5: Putting communities first: MP decides to make a headstart

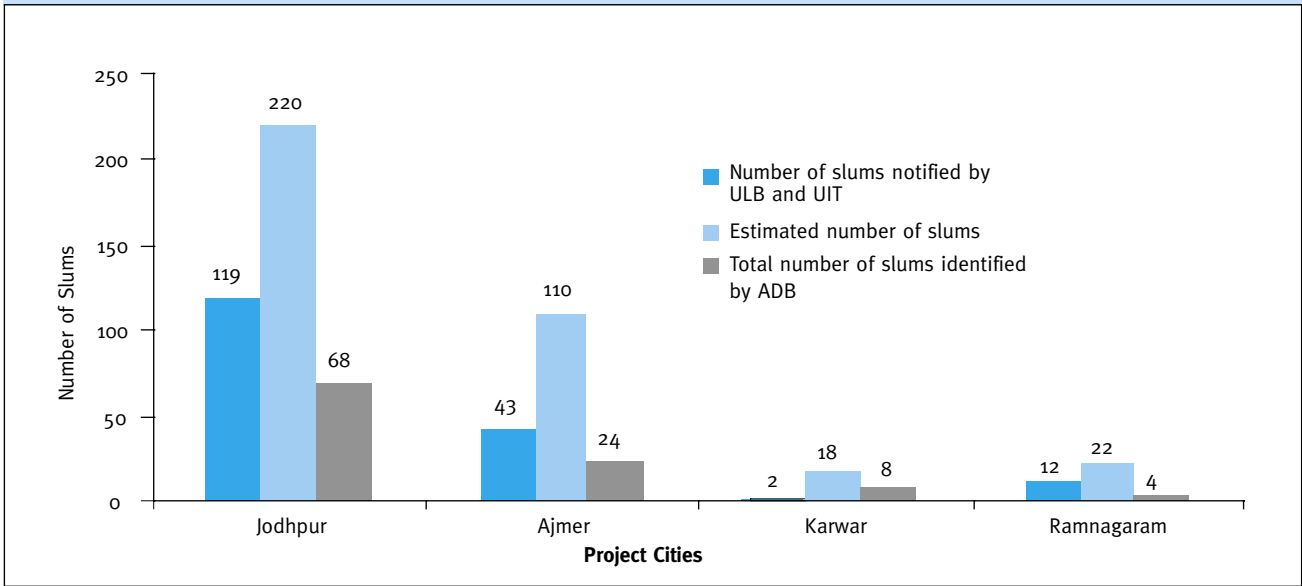
As Madhya Pradesh goes critical, it has capitalised on the experiences of KUIDP and RUIDP by utilising the pre-contract period in setting in motion a process of city and community level consultations. City Level Committees (CLC) were formed in Bhopal and Indore about two years ago even as negotiations were underway. 'Expression of Interest' was invited from local NGOs for mobilising communities and being members of the CLCs. Despite a headstart, NGOs indicated that no real progress had been achieved in making a stakeholder analysis and assessing community needs. CLCs in the two cities have met just three times in the past two years.

With the active involvement of DFID, UWSEIP proposes to develop Municipal Action Plans for Poverty Reduction (MAPP). Till date only an introduction of the MAPP concept was made to local NGOs without discussing the process of MAPP development. NGOs expressed concern over targeting of beneficiaries under MAPP. Suggestion for development of vulnerability indicators for improved targeting has however been set aside by the state government, which has remained within the comfort zone of income poverty and BPL.

NGOs felt that a PMU, powered mainly by engineers lacked capacity for community organisation, were unfamiliar with the tools and techniques of participation. This lack of understanding has been responsible for the disproportionate share of resources and emphasis on working with people versus infrastructure building. While infrastructure funding will expectedly be larger, there needs to be a correction by providing adequate funds for this task. Deputation of staff from NGOs to the PIU was recommended to improve capacity in community participation.

- NGOs would like to play the role of a monitoring and regulatory body in the ADB project
- They also felt that they were capable of hiring services of professionals to carry out engineering and technical works in slums provided funds are given to them.

Fig 14. Comparison of notified, estimated and ADB identified slums



51 listed settlements that were not undertaken in the project were or had been provided services by local bodies such as the UIT (Urban Improvement Trust) or the Municipality.

Although ADB has supported the development of the project documents and its policy focus is on improving services for poor households, no attempt has been made in any of the PPTAs, and the RRP to include non-notified slums in project development process, leaving the most vulnerable communities outside the project domain.

Infrastructure development does not translate into employment opportunities

Large scale infrastructure development in cities has not translated into employment for construction labour in the city. None of the respondents in ongoing project cities reported that they had been given work under the project. PIU officials in Jodhpur felt that construction companies selected for the physical works had originally presented lower costs based on the use of local labour. However, their experience was not very encouraging as local labour had much lower productivity. Eventually labour had to be brought from outside the city, incurring higher labour costs.

SECTION 5

Institutional Arrangements

Introduction

This section reflects upon the existing institutional structures in place where ADB projects are undertaken. The functions as well as relationship between various components such as the Project Management Unit (PMU), Project Management Consultants (PMC), Project Implementation Unit (PIU), Design and Supervision Consultants (DSC) and various other players is outlined.

Institutional modelling

The KUIDP institutional model in Karnataka has become the inspiration and the accepted norm (with minor variations) under pinning all institutional arrangements for ADB project implementation in the country (Fig 1). In Karnataka, Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC), the State-led infrastructure funding facility, has assumed the role of project implementation. In Rajasthan it functions under the State Urban Development Department. Madhya Pradesh too had plans to reactivate the existing (Pradesh Municipal Infrastructure Fund (MPMIF)¹ facility but was still uncertain about its value-add to the project.

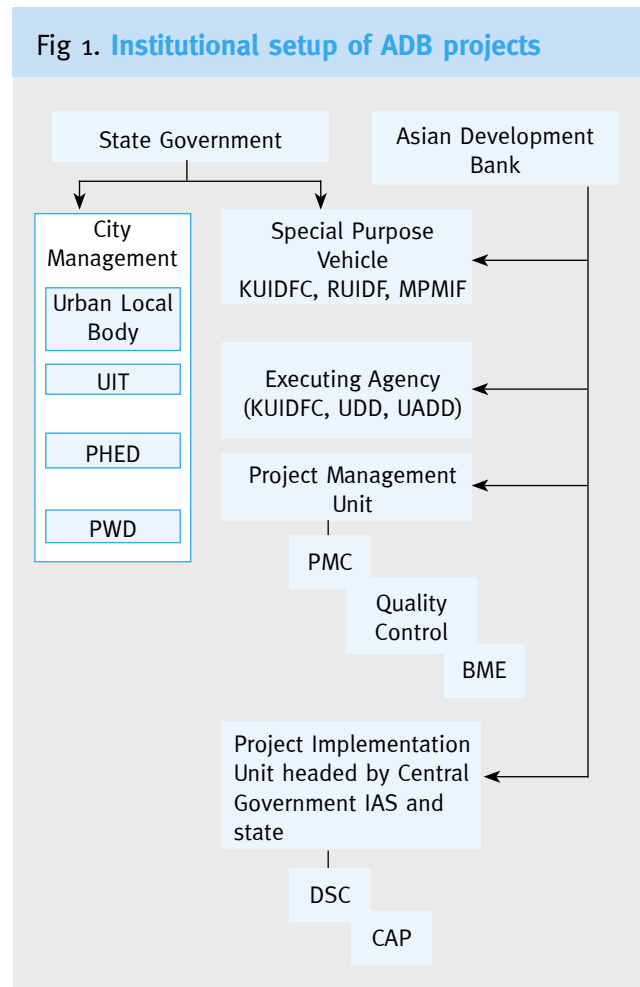
Besides the implementing agency, other actors in the project include the local Municipalities, the Public Health Engineering Department or State Water Boards and Urban Improvement Trusts. The several line agencies are linked together through an empowered committee at the level of the Chief Secretary in the State to promote functional synergies and speedy decision-making.

Project Management Unit (PMU): The sole executor

The PMU is the nodal office located in the State capital, whose specific purpose is to implement the ADB funded project. Prior to its formal establishment and during the period of loan

negotiation, it remains a part of the State Urban Development Department and responsible for undertaking the Technical Assistance (TA) studies and surveys that form the basis of the project design. The PMU is supported by the PMC in tendering for physical works and improving accounting procedures. This is a massive task as all tendering is centrally managed at the PMU and open to global bidders and individual tenders are invited for each package. Contractors, invariably from outside the State, are contracted through this process and generally bring in non-local labour for task execution. The PMU reports to the ADB, which monitors expenditure and target achievement.

Fig 1. Institutional setup of ADB projects



¹ While the Project Director was clearly not in favour of strengthening the MPMIF, an ADB facilitated TA on the activation of MPMIF suggests that the Fund be reinforced through City Challenge Fund, the Urban Reforms and Infrastructure Fund (URIF, now merged with the National Urban Renewal Mission) and linked to ADB funding.

Project Implementation Unit (PIU): Outside the mainstream

The PIU, the city level implementation agency, sits outside the Municipality. It is directly accountable to the PMU and responsible for local demand assessment, developing city level infrastructure plans, estimating costs for physical works, testing the designs, developing the terms of reference for the contractors and execution of the physical works. This is done with the support of the DSC, Benefit Monitoring and Evaluation (BME) and Community Awareness and Participation Programme (CAPP) teams. After completion of physical works, assets are handed over to the concerned departments i.e. the Nagar Nigam (ULB), PHED (State body for water supply) and other line departments. Such an arrangement has been deemed more efficient as it is able to side step bureaucratic red tape, resulting in speedy implementation of the large number of infrastructure packages included in the projects in compliance with the ADB procedures.

Box 1: Institutional capacities for project implementation and service delivery

- Tendering managed centrally by the PMU
- Technical Assistance studies, feasibility studies, design layouts, Benefit Monitoring and Evaluation outsourced to national and international consultants
- Community Awareness and Participation activities stressing on products rather than process
- PMU and PIU officials on deputation from various government departments with no clear incentives in the Special Purpose Vehicle, however most are usually deputed at a higher rank than the parent department.
- Most officials at PMU have an engineering background with very little experience in the field of community mobilisation, monitoring of benefits and other such soft components of the projects

The PIU is staffed by either borrowing engineers from the ULBs, water supply boards or other government departments from across the State or by hiring new staff. Government staff generally come on promotion/deputation from parent offices, and are often transferred/moved away following permanent promotions/transfers. Hence there is a regular turnover in the PIU teams. At the time of the visit, Jodhpur with two PIUs, had just one Executive Engineer and a small team managing the two units.

Being outside the municipal system, PIU's severest limitation remains its inability to engage the local authorities and hold them accountable for project outcomes. This is more clearly illustrated in the

financial section on preparedness for loan repayment. In Karnataka, the first generation project, KUIDFC executed the project on behalf of the municipalities. When the works were completed, the ULBs were quite unprepared to manage the O&M. Eventually the Karnataka Water Supply and Sewerage Board (KWSSB) had to be engaged to ensure service delivery. In order to steer clear of such an eventuality in Rajasthan, it was decided to get the ownership issues established upfront. Prior to project execution, clear commitments with regard to the role of each ULB/line department have been agreed upon for a smooth takeover and efficient debt repayment process. Drawing lessons from both Karnataka and Rajasthan, the Madhya Pradesh government is embarking on an alternate strategy. The strategy is to create greater city ownership of the PIU by increasing its size by transferring more functions to the local level and ensuring that the ULB has a stake in choosing the team.

PMU's improve capacities

Capacity has been created at the State level to plan and execute large infrastructure projects. This capacity is clearly demonstrated in Karnataka.

- KUIDFC is presently designing the North Karnataka Urban Improvement Project (NKUIDP) to access a third tranche of loan from ADB. The plan of the new project is being developed internally without external assistance from international consultants. In fact there is great confidence in the entire team that Phase 3 can be managed fully by national and State consultants without international intervention².
- Several learnings from the past (KUIDP and KUDCEM) have been used for designing the new phase. These include:
 - Managing project delays arising from tardiness in land acquisition by acquiring lands even as the project is being planned.
 - Projects to focus sharply on WSS, sewerage, storm water drainage, SWM, roads and to exclude site and services or commercial projects.³
 - Focus on asset utilisation instead of only creation by including within the obligations of contractor O&M aspects such as service connections as part of sewerage works, metering and road restoration in laying water pipelines, recovery of connection costs prior

² In fact a consultation fatigue that appears to have set in at KUIDFC due to the very periodic and numerous visits of consultants in the project

³ Sites and Services/Commercial project were included in the project design as a means of resource augmentation. Deleting these because of their present lack of success may in the long term lead to severe financial stress. It is important for the state to undertake a review of the factors leading to the failure of these components.

to tendering and project implementation through community inclusion.

- Design Build Operate Transfer type projects in view of limited ULB capacity, especially in the case of very small Municipalities. Instead of International Competitive Bidding the State to invite Local Competitive Bids to lower project costs and long term O&M costs and overall ULB/state debt burden.
- ULB participation to be built in the design stage through a process of consultation and consensus building. ULB to pre-pass resolutions with respect to debt payment, user cost recovery etc.
- Use of life cycle cost analysis to estimate long term economic efficiency. Examining financials of each ULB with respect to project sustainability.
- Linkages of the project to the KMRP aimed at creating capacity among the ULB for debt servicing.
- Making line agencies responsible for tendering and project implementation with improved procedures in these agencies to match with those of ADB.

Inadequate effort at improving local capacities

Discussion with local body officials and line department functionaries however, suggests that capacity creation has been confined to the State level institutions with little effort to enhance local capacity.

PIUs are generally set up by the PMU and staffed with Executive/Assistant Engineers from different line Departments of the Government and work under the supervision of a Superintending Engineer (SE) deployed from the State office. However it was noted that only very junior staff from the ULBs or line Departments are posted in the PIUs. These people are unable to influence the management systems of the line Departments since the PIU sits outside the system. No capacities are therefore getting created in the ULB for project O&M. On completion of the project, assets are handed over to the ULB or other concerned agencies and the PIU shuts shop.

The DSC are expected to work closely with the PIU unit in making detailed surveys, preparing infrastructure layout plans, preparing cost estimates for physical works, and after the tendering process is complete⁴ in the implementation of the project. In reality the DSC manage these activities quite independently and without the involvement of the PIU staff, except for supervisory inputs. At Jodhpur, DSC contractors have a staff of 35 engineers, who do the onsite supervision of physical works as well

Box 2: Weak links: PIU and ULBs

According to project officials in RUIDP, a consultative process with the ULB has been followed in developing the overall project design. The various line Departments and elected representatives were consulted to define the scope of physical works in the city. Following the first consultation all implementation is managed by the PIU independent of the ULB. The lack of coordination between the PIU and the ULB can be seen in one of the areas of the city called Rai Ka Bagh where, despite sewerage works being completed almost three months back, less than half of the families residing in the area have taken sewerage connections. The PIU at Jodhpur attributes the gaps to the approach of the municipal council and inefficient paper work. Documents of families that had applied for sewerage connections had not been processed. One PIU engineer mentioned that municipal officials were reluctant to accompany them to the site during the sewerage connection campaigns aimed to speed up the process. Lack of ownership among the municipality for the new infrastructure and the additional responsibility of O&M on the municipality may be one of the reasons for their reluctance.

as preparation of drawings in isolation from the PIU engineering team of 25.

Capacity building efforts of the Municipal Corporation of Ajmer for computerisation of land records and training of staff thereof has not happened. Sporadic attempts at training of higher ranked officers⁵ have been undertaken without a comprehensive training strategy developed by the RUIDP.

In Madhya Pradesh efforts are being made to address many of the problems faced in earlier projects. For example, local capacities are being enhanced by the inclusion of local bodies in creation of their own PIU teams. While the PMU will lay down qualifications, size, structure and role requirements, the teams themselves will be formed through local selection. Apparently, the PIU will work in close collaboration with the municipal bodies, who will take responsibility for assessing needs, designing projects and tendering of works. To enable them to deliver this task, greater control over the financial and implementation aspects of the project are to be transferred to the ULB/PIU.

Community Awareness and Participation Programme (CAPP)

A CAPP unit in the PIU is tasked to generate awareness and ensure community participation in the

⁴ Tendering is managed centrally from Jaipur

⁵ Executive Engineer and Senior Health Officer

project. This task has been outsourced to an umbrella NGO/NGOs and implemented by them through the network of local NGOs. CAPP is supervised by the PIU and there are permanent staff who serve as an official link between the NGO and local officials, however these staff are relatively low in the project hierarchy and unable to influence policy⁶. In Ramnagar, two people in the municipality in the social development unit were neither involved in community mobilisation nor had been trained under ADB for the task. They were responsible for managing the poverty alleviation programme of the government.

Box 3: Ramnagar – The after effects

In Ramnagar different assets were handed over to the concerned line departments after project completion; the Municipality (solid waste management and sanitation), Karnataka Water Supply and Sewerage Board (water supply service, meter reading and bill collection), and the Public Works Department (roads and transport). Slum development activities are undertaken by the Karnataka Slum Clearance Board out of Bangalore. Even as the project has only recently been completed, there was very little institutional memory of the process and the products in the ULB, indicative of weak reporting systems, rapid staff turnover and lack of coordination between different Departments. The Municipal Commissioner himself was new and worked with a relatively fresh team of senior officials. The KWSSB had recently set up a local office to manage water service delivery in two KUIDP towns, Ramnagar and Channapatna. The KWSSB and PWD officials posted to Ramnagar had been part of the ADB project at some point in time. This rotation of staff is seen as a process by which capacities are being shared with other State non-project, municipalities.

NGOs in Madhya Pradesh felt that despite giving the choice of PIU staff selection to the local governments, the pool from where the staff will be drawn will be largely the engineering core. This staff is unfamiliar with tools and techniques of community mobilisation and lack understanding about mobilisation process and problems of low-income settlements. Less importance will continue to be accorded to community inclusion vis-à-vis infrastructure development unless NGO staff could be made an integral part of the PIU and enhance the skills of the core team in these areas.

City Level Committees: Limited membership and influence

City Level Committees (CLC) were executed by the State government for the finalisation and

implementation of various works and removing of various bottlenecks at the local level.⁷ At the city level the Committee is headed by the District Collector. The PIU is responsible for setting up the CLC comprising key stakeholders (Mayor, Municipal Commissioner, PHED, UIT). In Karnataka and Rajasthan Ward Councillors and NGOs were both not represented on CLCs and the presence of the Mayor was considered adequate representation of the voice of the poor⁸. In Madhya Pradesh, Indore city had invited a few members of an NGO committee to be part of the CLC; however their participation was confined to development of indicators for selection of slum communities which were not used (the PMU has decided to stay within the realm of the conventional by choosing only by one indicator for slum selection, namely Below Poverty Line).

The selection of project sites is tasked to the CLC but is not necessarily backed by a rigorous demand assessment. The CLC at Bhopal and Indore has, upto now, made little progress in identifying the needs of poor communities. As per the NGO consultation held at Indore, the CLC meetings have been ad hoc and unplanned and for the sole purpose of informing new and recently appointed officers about the project rather than discussing city priorities.

In Karwar a Project Advisory Team (PAT) has been formed comprising members of various government departments under the chairmanship of the Commissioner with a view to address implementation problems, promote convergence and respond to community complaints.

Learning from past experiences: Linking services to livelihoods

Karnataka is however, learning its lessons as it moves into negotiating a third generation project fund with ADB. In KUDCEM, greater attention has been paid to community organisation in partnership with two key State NGOs; MYRADA and SKDRDP. The two agencies have helped form large numbers of Self-Help Groups (SHG) who are saving and borrowing regularly for livelihood improvements. The two NGOs work in tandem with the PIU to encourage families to opt for Low Cost Sanitation (LCS) loans. The State has also made a concerted effort at involving the Livelihood Advancement Business School (LABS) in a survey on livelihood opportunities for Karwar youth and LABS has designed courses to build relevant livelihood skills among the young. KUIDFC monitors the number of people trained and also tracks employment

⁶ This is also indicative of the centralised nature of project management process.

⁷ RUIDP, Annual Report February 2005

⁸ Interview with SE Jodhpur, PIU

Box 4: MYRADA: Changing the nature of community engagement

MYRADA is an NGO that has been working in the town of Karwar for the past 13 years with a view to promote forest conservation through neighbouring management. In 1996, their focus shifted to working with poor communities inside Village Forest Areas for formation of Self-Help Groups (SHG). MYRADA's work under the ADB project began with a vulnerability assessment in Karwar using access to toilets as the key indicator. This was done through a door-to-door survey to deepen understanding of the social condition of the people in Karwar. Following the survey, MYRADA introduced an awareness programme in the city and formed 4 teams that organised street plays on issues like SWM, LCS etc. SHGs that earlier focused on consumption loans began to support income generation activities. MYRADA also identified and trained 780 students for skill enhancement in partnership with LABS, KEONICS and the SRC Mysore.

and income increases resulting from such capacity enhancement. KEONICS, a unit of the Karnataka government with a focus on information technology skills, has attempted to provide training to upgrade these. The State Resource Centre, Mysore too has been engaged to generate public awareness on project benefits and solid waste management.

Improving governance

Improved management efficiency

Evidence of evolving local management efficiencies was also found during the study.

Karwar Council is producing an annual administrative report, a taxation report and a sanitation and solid waste management report for the DMA at Bangalore and its audited accounts were current. However it had yet to evolve a strategy for repayment of its share of the loan.

Madhya Pradesh had used its pre-project period effectively by setting in place systems for enhancing property tax collections for loan repayments. Property tax inventories, computerisation of records and switching over to the unit area method for valuation is underway in each of the four municipalities. This effort at improving municipal fiscal health can be attributed to the reservations expressed by Ratlam on debt servicing. As a result of these efforts, the Indore Municipal Corporation (IMC) was reported to have increased its revenue and tax base⁹ considerably.

⁹ It must be remembered that Indore has a long history of project funding to improve physical infrastructure and promote municipal reforms supported by ODA, USAID, Cities Alliance, etc.

Madhya Pradesh has also set in motion the changeover to the Double Accrual Entry (DAE) system of accounting. This effort was cranked up only very recently in the KUIDP towns as well, despite a head start in the project and intensive training support from AIT Mysore. The reason for the delay in switching to DAE can be attributed to the absence of an enabling environment in the municipalities for the new accounting system. ULB members in Ramnagam reported that although they had been provided training, neither the computers nor the budget for computerisation of records was available to allow them to convert to the new system.

Setting up grievance redressal systems

Ramnagam has a 24-hour help line service for consumer complaints. All complaints – including water supply and sanitation – are registered here and responded to within 48 hours. Most complaints relate to blockages, leakages, breakages etc. It also plans to set up a Citizens Service Centre from May 2005.

Under the Liaison Officer, a complaint redressal cell has also been set up in Jodhpur but is underutilised mainly by the more wealthy in the city due to lack of publicity and mostly receives complaints on construction related obstructions by individuals. Some complaints related to exclusion from the project are now being addressed. However, these complaints usually come in the form of demonstrations outside the PIU office.

Privatisation of services: A viable option for governments?

The Ajmer Municipality at present does not possess the technical manpower and know-how to deal with O&M of the sewerage network being constructed by the RUIDP. Although a number of engineers from the PHED have been involved under the RUIDP project within the water supply and sewerage components, the prospect of transfer of techno-institutional memory seems highly unlikely in the present scenario.

Box 5: Privatising Ajmer's O&M of water supply

The PHED in Rajasthan has been prompted to privatise the O&M of the new drinking water supply project from Bisalpur Dam due to the fact that the equipment in the newly built pumping stations and filtration plant is quite sophisticated and requires suitably trained staff for operation and maintenance. The PHED did not have such staff and the Government of Rajasthan has a bar on new recruitment. Hence PHED is unable to employ required qualified staff to operate and maintain the new equipment

Source: Privatising the Operation and Maintenance of Urban Water Supply: The Experience of Ajmer, Rajasthan, India. WSP India

In Karnataka, the State government has started involving the private sector in water supply services. With assistance from USAID, the government has started to issue bonds for raising capital. Plans are also underway for contracting out the management of pumps managed by BWSSB to the private sector, and based on their success this will be extended to other places.

However, this needs to be practiced with caution and need not be adopted without exhausting all options of engagement of ULBs and line departments. Privatisation without public opinion, regulatory mechanism and appropriate grievance redressal could be pre-mature and undesirable.

SECTION 6

Monitoring and Evaluation Procedures

The study sought to understand how Monitoring and Evaluation works in ADB projects and whether these processes provide ADB with the information it requires to know if projects are providing sustainable services to the poor. As previous work by WaterAid¹ had examined ADB post project M&E processes, the study focused on M&E conducted during project implementation.

M&E and reporting systems during project implementation

ADB projects follow well-established reporting procedures and discussions with officials suggesting that these are adhered to strictly. In Karnataka, initial difficulties faced by KUIDP have been overcome and both KUIDFC and PIU staff are fully trained in developing the monthly, quarterly and annual progress reports. According to officials, “reports are generated quickly and uniformly across all cities that allow collation and comparison.”² Quarterly and annual reports submitted by PIUs are generally compiled by the Project Management Consultants and analysed sectorally. As KUDCEMP is a new project, in each PIU one member of the PMC has been made responsible for preparing the progress reports. Information submitted by PIU is occasionally validated by the PMC through field visits to construction sites. A nodal officer in the PMU is responsible for M&E and he is facilitated in this task by the IT section.

In Rajasthan, officers from the PMC are not posted to the PIUs and a research associate and an office secretary have been provided in each of the city offices for BME work, supported by a team of field engineers that undertake physical checks. The PMC at Jaipur manages the project by using an MIS developed by them for the project. The MIS streamlines the preparation of quarterly and annual reports. A review of the reports suggests that these are largely expenditure and procurement statements. Quality

of works is assessed separately through physical quality control checks carried out by another set of consultants.³

A number of concerns with the monitoring processes are highlighted below.

Monitoring physical achievements and quality standards

ADB demands stringent monitoring and quality control for physical works and random quality checks are regularly carried out. According to Karnataka PWD and KWSSB engineers, there was only one reported incidence of rejection based on such checks in Ramnagam. However, field visits to an intervened slum in Ramnagam suggested that the work quality had not been up to the mark. The project was completed in 2002 and though some amount of deterioration is inevitable, visible signs of wear and tear included broken manhole covers and deteriorating roads.

PMU: The big brother

Report analysis is done by PMU. KUIDFC has used these reports to rank ULBs on the basis of their property tax collections and low ranking ULBs are identified for further strengthening support and informed of their deficiencies. At the PMUs, there is a strong belief that city governments are incapable of analysing information and deriving lessons and conclusions and no effort is reportedly being made to bridge this capability gap.

No monitoring of service delivery to the poor or community processes

Unlike stringent quality control measures and monitoring of physical works, no systems for monitoring services to the poor, community processes and inclusion have been developed. The activity reports required of the CAPP team are generally descriptive and do not focus on targets of community development. Only one KUIDP report has been found that sets out 10 indicators to assess community outcomes (**Annexure 8**). A review of these indicators shows that while they measure change they do not assess the level and nature of community

¹ It must be remembered that Indore has a long history of project funding to improve physical infrastructure and promote municipal reforms supported by ODA, USAID, Cities Alliance, etc.

² Gausseene and Botha, 2004

³ Advisor, KUIDFC

engagement. Based on these indicators, KUIDP has developed a strategy for community participation and NGO engagement, yet little effort at putting this in place was noticed in any of the Karnataka projects.

Communities excluded from monitoring

The task of monitoring physical works is managed by PIU officials with support of DSC teams. As in the case of project planning, slum residents have largely been excluded from this process. None of the cities reported a partnership between the community and local governments for monitoring physical works. Furthermore, no task Force had been formed where communities could provide feedback to the local authorities on project implementation, even in Karnataka where the Bangalore Agenda Task Force has been cited as a successful example of people and Government working together. During FGDs in Jodhpur residents indicated that their offer to the PIU to provide inputs into monitoring had been turned down.

Log frame indicators not assessed to monitor outputs or outcomes

Objectively verifiable indicators exist for each output. However these have not been used in any of the reports to monitor outputs; rather reports assess only the physical and financial achievement, and mention implementation delays and shortfalls. For example, the BME logical framework of Rajasthan refers to maintenance of slums as a key purpose (**Annexure 9**) and yet no questions pertaining to O&M were included in the household questionnaire making a pre and post assessment of O&M impossible.

Benefit Monitoring and Evaluation (BME) studies in projects in India

Benefit Monitoring and Evaluation is an integral part of ADB funded projects, serving three critical functions: extracting lessons for internal/external sharing, monitoring spending and ensuring systemic accountability, and creating a feedback mechanism by which project benefits are maintained⁴. ADB follows a twin track approach on evaluation: internal - managed by its operations department, and independent – managed by the Operations Evaluation Department.

BME forms part of internal evaluation. Responsibility for BME is with the Executing Agency and is generally outsourced to a consulting firm. The task of the firm is to develop indicators for assessment, identify projects for monitoring, collect field data, develop baseline reports, make an end-of-project benefit monitoring assessment and undertake special studies as per requirement.

Review of BME processes and outputs revealed a number of concerns over the outputs themselves, the timing of BME activities, the lack of a feedback loop and the overall relevance of BME.

Non comparable outputs

Outputs from various BME and baseline studies have been found to vary. This variation was evident even when the same team was developing the BME study reports for all the project towns.

Box 1: Variability in Baseline Data

Rajasthan BME team use separate teams for data collection and report preparation in each city. Locally hired field workers/CAPP NGO teams are involved in gathering information using questionnaires and FGDs. Reports from Ajmer and Jodhpur varied considerably. While the Ajmer report has quantified information on selected WSS indicators the report from Jodhpur is largely descriptive and based on FGDs alone.

Lack of common indicators for pre/post assessments

A common set of indicators on urban WSS for use in BME has not been developed as evident from the different reports reviewed. As a result different BME reports use different indicators and neither pre/post nor inter-city comparisons are possible and the impact of ADB interventions is therefore likely to be over or under stated.

The same problem was noted in the case of pre-feasibility and baseline studies. There is no link between the BME baselines and the pre-feasibility reports, which could have been used to provide temporal information on key indicators with regard to the poor.

Slum data not disaggregated

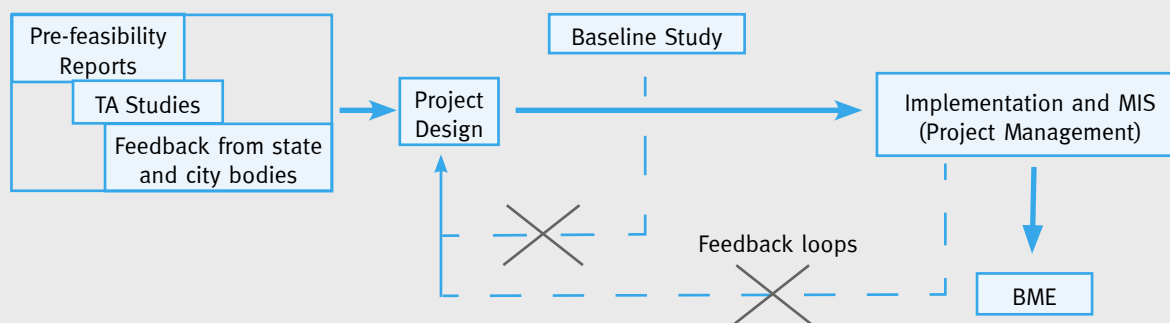
Data in the BME studies has been aggregated for entire cities making an analysis of changes in slums difficult. The Rajasthan BME study makes an attempt at presenting data from FGDs with poor communities. However data varies from one slum to another and this inconsistency makes comparisons difficult.

Non WSS indicators identified but not evaluated

KUIDFC has identified objectively verifiable indicators for measuring project goals, outputs, and activities in six core areas other than WSS: impact on livelihoods, socio-economic conditions, health and hygiene, community awareness and participation, management and sustainability. No data to assess achievements against these indicators has been collected.

⁴ Torr Steel of India

Fig 1. Lack of feedback in project structure



No use of non-intervened slums as a control

The BME and baseline studies in Rajasthan and Karnataka have made no attempt to select non-project slums as control samples to compare level of services in these areas with project slums.

Delay in undertaking baseline studies

In Rajasthan there was a delay in assigning the baseline study and the study was finally undertaken near the end of the project and is unlikely to reflect the true picture prior to intervention.

The missing feedback loop

The BME consultants operate within a framework which is followed and used only by them and no feedback loops have been created to inform the other arms of the project about the outcomes. Baseline studies are not expected to make any critical recommendations but to set the point of reference for post project assessments.

Inflexible project design: what is the relevance of BME studies?

All project implementers complained that project frameworks and packages once frozen could not be changed and that BME studies cannot bring about changes in design. A number of likely causes for the failure to bring about changes in project design have been identified:

- The structural nature of the loans and a lack of real understanding about community processes and needs-based design.
- Conventional government contracting and auditing procedures are not in sync with a demand

based project approach. Officials prefer to go by the established route rather than invite audit objections that often get recorded in Annual Confidential Reports.

- The process for modifications is drawn out and in an environment where deliverables are closely monitored this means avoidable delays in project implementation.

Although in Ramnagar, local officials indicated that design changes where costs variations were within 25 per cent of the overall project cost could be made under intimation to ADB without fresh sanctions, the KUIDFC officials in a recent report have admitted that they “have no control over project design and components, over procurement policies, and even over identification of international consultants since these are determined by the ADB. Since the ADB provides the money, they make most of these decisions. We are just the implementers⁵.”

Monitoring and Evaluation indicators

Based on the indicators used in this study and past experiences, it is recommended that the following indicators could be considered when drawing up a standard list of indicators for use in urban WSS projects. In addition to output indicators, it is vital that process indicators are also used.

⁵ www.adb.org/evaluation in report on the Definition and Measurement of Aid Effectiveness by ADB and other Organisations; Esme Gausson and Lindi Botha, March 2004

Table 1: **M&E Indicators**

Parameter		Output Indicators	Process Indicators
Water Availability	1	Reduction in time for water collection	Water supply is available to slum households through municipal piped networks
	2	Population coverage	
		Increase in number of poor households with private water connections	Systems have been set up to enable poor families to get household connections at subsidised rates/credit has been made available to households to get connected
		Decrease in number of poor households dependent on public stand posts	Poorest households have the option of using community stand posts with no user charge
	100 per cent households reached through piped network linked to municipal supply or groundwater (tubewell)		
Water Quality	3	Water quality meets acceptable standards at source and end user points based on regular quality checks	ULB has set up regular system for water quality testing at end user points and source
Efficiency	4	Reduction in percentage of unaccounted for water from distribution leakages/network problems	All pipes requiring rehabilitation have been replaced
	5	Increase in number of households paying user charges	ULBs have an efficient system of billing and collection
	6	Water supply is regular	Water supply provided has adequate pressure and appropriate timings
Sanitation	7	Reduction in open defecation	Sewerage networks are provided inside slums, are operational, households are connected to sewerage through individual chambers
	8	Population coverage	
		Increase in number of poor households with private toilets	
		100 per cent poor population has access to toilets at home or community toilets with continuous water supply	
Tariffs	9	Variable payment option plans exist	
		Payment plan for slum/poor households allows staggered payments in smaller units	Tariff setting is not linked to political process
		Percentage of income spent on user cost by poor households is in the same proportion that High Income Households spend on water user charges	
		Cost of connection, road restoration charges are lower for slum households when compared with high income households	
Environmental Impact	10	Inside slum drainage system for waste water disposal system has carrying capacity based on household water connections and there is an outfall	
	11	Sewage treatment plants working to full capacity	STPs are linked to sewerage flows from slum communities

(Contd. on page 42)

(Contd. from page 41)

Community Participation	12	Forums for participation between CBOs and government officials exist, are functional at ward/ city and state level	ULBs have community development workers (staff or through NGOs) to facilitate community organisation
	13	Slum dwellers are represented on these forums	
	14	Women from slums are represented on these forums	
	15	Forums and meetings are also attended by officials from time to time, community needs are reflected in area development plans, a feed back loop exists between officials and communities	
	16	Community participates in planning and O&M	
Policy	17	WSS Service delivery to poor is de-linked from tenure	Poor are entitled to get household connections for water supply and sewerage
Institutional	18	Project plans have been shared with all stakeholders, especially the community	Community Development Workers are trained to engage with community
	19	Logical Frameworks are used for monitoring achievements	All actors have the logical framework to help monitor achievements
	20	Civil society is equitably represented in city level committees/meetings	
	21	Grievance redressal systems exist and are used by the poor	Grievance redressal systems are people friendly, decentralised and easily accessible

SECTION 7

Financial Implication of ADB Projects

ADB financing for the WSS projects comes in the form of loans. A rapid analysis of the debt burden and local capacities to repay the loans has been undertaken in the present study. The financial analysis was prompted by the withdrawal of two cities, Ratlam and Ujjain, from the recently negotiated UWSEIP on the plea that the debt created by the loan would be difficult for the city to service. Other cities too were known to be facing the financial burden of the loan. The present analysis is limited in scope and has only drawn attention to some critical issues in this regard.

Management of loan repayment

Under the terms of the loan agreement, Government of India is the Borrower and the state governments, through their respective Urban Development Departments, the implementing parties.

Although the cities covered by the respective projects have been placed under some obligation, there is minimal awareness at the city level about the loan obligations, nor, does the accounting set-up provide for any kind of reporting regarding the debt-burden on the city (ULB/ PHED) or the amount of repayment that has to be made by the city. In fact, even at the state-level, there is no information on the amount of repayments made to ADB as the loan is channelised through the Central Government as Additional Central Assistance, and repayments by the state are made to the Central Government.¹ The entire management of the loan rests with the ADB Division in the Department of Economic Affairs at Delhi. The accounting for loans received and repaid is done by the Aid, Accounts & Audit Division in the Department. The ADB Division not only takes care of repayments as per schedule but will also pre-pay a loan if it is to the country's advantage. For example, it has already prepaid to ADB \$3.4 billion in 2002-03 and \$3.8 billion in 2003-04.

Indebtedness at the state/city levels is managed by the centre through centre-state-city fiscal arrangements. Any amount owed by a city to the state government can be adjusted from grants/revenues owed by the state to it (this remains a theoretical possibility only as a large

chunk of salaries are paid from grants). Similarly, any amount owed by the state government to the Central Government can be adjusted from grants/revenues due to it. In practice liability for loan repayment is tossed up successively by the ULBs and state governments to the Central Government, which the latter cannot shrug off. This burden of debt has therefore been analysed at the national, state and city level.

Debt burden at the national level

1991 to 2004

Most external debt indicators have shown an improvement since 1991 as seen in the following Table 1.

Table 1: External debt indicators (1991-2004)

Indicator	March 1991	March 2003	March 2004	December 2004
Total debt to GDP ratio	28.7%	20.2%	17.8%	
Short-term debt to total external debt ratio	10.2%	4.2%	5.1% (Dec 2003)	
Short-term debt to foreign currency assets ratio	38.2%			5.5%
Debt service obligations as a percentage of current receipts	35.3%			6.14%

The World Bank in its Global Development Finance Report, 2004, reclassified India as a less indebted from a moderately indebted country for the year 2002, a position it had maintained since 1999. Among the top fifteen debtor countries of the world in the last decade, India had improved its position from being third after Brazil and Mexico in 1991 to eighth in 2002. In terms of the short-term debt to total external debt ratio and short-term debt to foreign exchange reserves ratio indicators, India's position is among the top 15 debtor countries².

¹ The ADB Policy and (Mis) Governance in Asia, Focus on the Global South, CUSRI, May 2005

² Based on discussion with Director (Budget), Finance Department, Govt. of Rajasthan 44 Source: <http://indiabudget.nic.in>.

In December 2004

India's overall external debt was \$ 120.9 billion at end-December 2004, equivalent to 18 per cent of GDP. Figures of external debt are reproduced in **Annexure 10**.

Projections of Debt Service Payments

Further, projections prepared by Ministry of Finance show that Debt Service Payments will reduce over the period 2005-06 to 2014-15 (**Annexure 11**). At the national level, although the level of debt is high (18 per cent of GDP), there does not appear to be any risk of default taking place.

Debt burden at the state level

State Governments' debt has been accumulating in recent years due to their large and increasing GFD (Gross Fiscal Deficit). Outstanding state debt in the country rose by 17.5 per cent at end-March 2004 over the previous year. In terms of GDP, the debt stock of states constituted 29.1 per cent as at end-March 2004, higher than the level of 27.8 per cent in the previous year. Analysis of Debt Outstanding to Gross State Domestic Product (GSDP) strengthens the view that debt levels are uncomfortably high with considerable deterioration in Debt/GSDP ratio

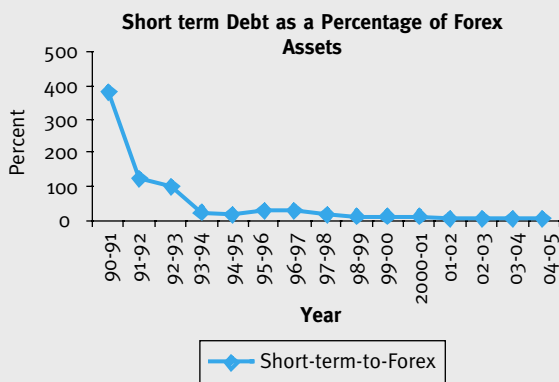
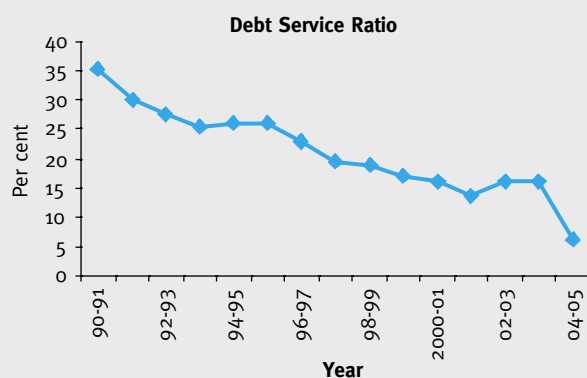
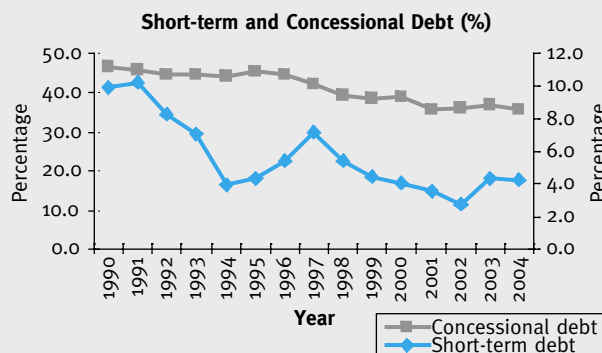
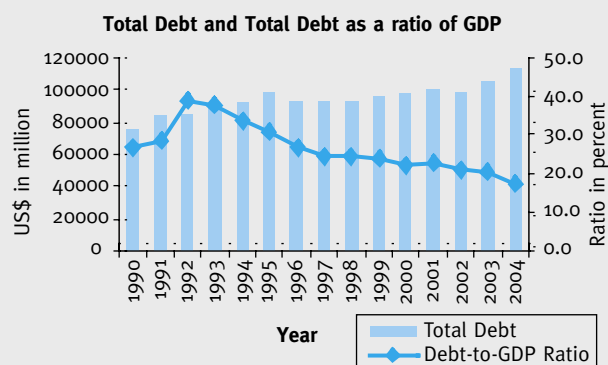
Table 2: **Debt and GSDP ratio for 2002-03 and 2003-04**

State	2002-03	2003-04
	Debt/ GSDP	Debt/ GSDP
Rajasthan	42.8	54.0
Karnataka	24.9	29.0
Madhya Pradesh	38.0	53.1

Source: RBI

in all three states (Table 2). According to a study by the Reserve Bank of India, interest payments on the debt of state governments have mounted. These payments accounted for approximately 25 per cent of revenue receipts in 2004-05 as compared with 18 per cent recommended by the EFC from the viewpoint of ensuring debt sustainability in the medium term. The interest payments have thus exacerbated the revenue deficit, and in turn the GFD, creating a vicious circle of deficit, debt and interest payments in the state government finances. To reduce the interest burden, a Debt Swap Scheme was introduced which has enabled the states to pre-pay their high cost debt to the Centre.

Fig 1. **India's debt scenario**



Source: RBI, and India's External Debt – A Status Report, Dept of Economic Affairs.
Note: Debt service ratio is debt paid to current receipts from export earnings

Debt burden at the ULB/ PHED level

It is abundantly clear even from even a cursory look at the Income and Expenditure statements of the ULBs and the PHE Departments that the cities are unable to repay any loan instalment. We also find a complete divergence between the pre-feasibility projections and the actual policies followed by the corporation/ PHED in the matter of tariff revision.

In Karnataka, repayment of the KUIDP loan from the ULBs has just begun. While the ULB's are able to pay for projects that are revenue earning (e.g. sites and service projects) WSS payments may be difficult. Despite water tariff hikes in the project cities, revenue generated is insufficient even to cover the O&M cost, as collection efficiency is very low. A detailed study of Ramnagram

Ramnagram's debt burden current status for the ADB project (Figure in lakhs)

Ramnagram	Principal	Interest	Total
Dues for Jan-March 2005 Quarter	45.6	84.0	129.6
Repayments till date	44.1	1.1	45.2

Repayment schedule was done in order to understand city debt burden. Ramnagram is expected to repay its entire loan by quarter April-June 2021. Total loan component upto the last quarter would amount to Rs 31.19 crores and the interest component, Rs 28.2 crores amounting to a total sum of Rs 59.4 crores (up till 2021). However, the state government has agreed to relax the interest rates by 3 per cent provided the ULBs meet a specified set of criteria to reduce the ULB loan burden.

Cost recovery

Suspect projections

As per the project formulation, all ADB supported WSS projects are expected to be financially sustainable. A few concerns over the projections for sustainability are discussed here. In the case of water, sustainability of operations was projected by effecting rapid and substantial increases in the tariff level, increasing the number of connections, shifting from fixed to volumetric tariffs, improving collection efficiency and controlling Non Revenue Water. In addition to increasing revenues from water, other measures to increase ULB revenue generation are proposed such as increasing revenue from house tax.

For example, in Ratlam income from water was projected to increase by 32 per cent, 36 per cent, 53 per cent, and 16 per cent in the first four years.

Over the 16-year period, water tariff was projected to increase 8.4 times. Similarly property tax was projected to increase by 154 per cent, 46 per cent, 40 per cent, and 31 per cent over the same period (see Table in **Annexure 13**). Over the 16-year period, property tax was projected to increase 10.2 times. Increases of this order are politically unfeasible and never carried out with the result that local bodies continue to incur losses and loan repayment is done by the state/ and or central governments. In KUDCEMP it has not been possible to affect the proposed tariff hikes (50 per cent immediate increase and 100 per cent subsequent increase) even though these rates are believed to fall within the consumer's willingness-to-pay range.

It needs to be noted that the pre-feasibility study with its projections are based on "Willingness to Pay" and it never captures "Ability to Pay" and that could be a major reason for unrealistic projections which are infeasible to implement.

The current 3-tier structure, consisting of the Empowered Committee, PMU and PIU, is effective in creating the infrastructure but is practically redundant and ineffective when operations commence. ULBs act quite independent of the PMU in matters of tariff revision, and therefore, projections made for assessing the sustainability of the projects remain only paper exercises carried out to enable ADB to satisfy itself that the project meets the sustainability norms, and that it can go ahead with the project.

Recovery of O&M costs plus capital costs

The ULBs are expected to bear 30 per cent of the project costs when even the recovery of operational costs is a daunting task. A more realistic proposal would be to encourage ULBs to contribute to capital costs only after a number of years and once reforms and capacity building in administration and financial management have taken place.

Cost recovery from solid waste management gets difficult

Government of India has published Municipal Solid Waste (Management & Handling) Rules, 2000, wherein every ULB will be responsible for collection, segregation, transportation, processing and disposal of solid waste and failure to implement the rules will attract stiff penalties. In response to this, the state government has invited ULBs to draw up Solid Waste Management (SWM) Action

Plans to decentralise responsibilities of primary collection of household wastes from ULBs to women's SHGs as a reform measure to benefit BPL beneficiaries (**Annexure 14**). Once this scheme becomes operational, the ULBs will not be able to earn revenue from SWM primary collection as the entire profit will go to the

Box 1: SWM in Karwar: An unsuccessful pilot

The current SWM system in Karwar is unorganised and is based on scattered dumping. In order to pilot the proposed SWM partnership with SHGs, one group was given the responsibility of managing solid waste in one area of the town. The scheme has run into several problems. The first hurdle related to people's unwillingness to pay for the collection service. Also since the SHG was unregistered, ULB was unable to transfer SWM equipment to it. This meant that SHG remained dependent on the ULB for collection and disposal equipment. Each time the tipper required repairs it had to be returned to the ULB. Since the ULB no longer had the prime responsibility for the task it gave low priority to its maintenance resulting in a breakdown in community SHG relations and poor collections that made operations of the SHG nearly impossible

SHG members. While poor women will benefit from this scheme, the ULBs role will be minimised and there will be no scope for cost recovery on SWM activities. The present ineffective measures and institutional arrangements for scaling up of such a scheme are illustrated in Box 1.

The way forward

A way out of the impasse is to make the process of setting tariff projections more participatory than it is at present and base tariffs on WTP surveys in line with the National Water Policy.² All assumptions regarding projections should be signed off by all the project implementing organisations. ULBs and PHED may not be able to develop projections on their own but they certainly can be expected to give a sound opinion on increases that are sustainable, based upon ground realities. Some adjustments may be made to their figures, as inefficiency tends to perpetuate itself. The Council should also formally approve the timetable for the reforms in their meeting minutes to overcome the problem of political instability in the Councils.

Capacity building must precede project implementation so that the organisations get time to tune up their systems by the time the project starts. The chances of achieving sustainability increase in proportion with increased capacity. Our review of the project costs indicates that inadequate funds are allocated to capacity building. For example in the UWSEIP out of a total project cost of \$307 million (original workings including Ratlam and Ujjain) only \$7 million (or 2.2 per cent) was allocated to Urban Governance and Institutional Development.

Subsidising services to the poor

Within a sustainable development framework, the need for subsidies to provide services to the poor is widely accepted and forms part of the ADB Water Policy. However, many tariff systems are designed in such a way that bigger subsidies go to those who consume more, normally the rich. Furthermore, in a piped system the poorest are generally not connected to the network and hence the benefits of subsidies accrue only to the wealthier consumers.³ This situation is found in the projects studied also, where around half of the residents in intervened slums are not connected to the municipal supply and the tariff structure provides subsidies for those who use more water. For example, in Rajasthan (Table 3), the higher the consumption (which we may safely assume to vary directly with increase in income level) the higher the amount of subsidy (although in terms of percentages it keeps dropping).

A subsidy is even available to non-domestic and industrial consumers as the tariff is lower than production costs in all cases but one (industrial users consuming <40,000 litres) (see box 2).

Loan conditionalities

Loans from external agencies are routed through the Central Government at a fixed rate of interest (which has reduced from 12.5 per cent to 9.0 per cent p.a. between 2000-01 and 2004-05) even though

Table 3: Subsidy per kilolitre of water supply in Rajasthan

Consumer Category	Subsidy	Subsidy %
Up to 15,000 litres	$(14.09-1.56)*15 = \text{Rs.}188$	89%
15,000 to 40,000 litres	$(14.09-3.00)*25 = \text{Rs.}465$	83%
Over 40,000 litres	For 50,000 litres: $(14.09-4.00)*10+465 = \text{Rs.}475$	80%
	For 60,000 litres: $(14.09-4.00)*20 + \text{Rs.}202 + 465 = \text{Rs.}667$	79%
	For 70,000 litres: $(14.09-4.00)*30 = \text{Rs.}303 + 465 = \text{Rs.}768$	78%

² Per the National Water Policy – “12. Management of the water resources for diverse uses should incorporate a participatory approach; by involving not only the various governmental agencies but also the users and other stakeholders, in an effective and decisive manner, in various aspects of planning, design, development and management of the water resources schemes. Necessary legal and institutional changes should be made at various levels for the purpose, duly ensuring appropriate role for women.”

³ Financing and Cost Recovery -Thematic Overview Paper: IRC International Water and Sanitation Centre, December 2003

Box 2: Ajmer: Unsustainable tariffs

Ajmer PHED: Tariff charged by the Department is woefully inadequate to cover the cost of production of water. This tariff has remained unchanged since 1998. As per calculations done by the Department, cost of production per kilolitre of water for the years 2002-03 and 2003-04 was Rs. 13.42 and Rs. 14.09 respectively. These costs exclude depreciation and capital costs or cost of funds

deployed. Needless to say, the actual costs would be somewhat higher. As against the above cost, the tariff for the different users is given below. Only the tariff for the highest bracket of industrial consumers is fixed above the cost of production. However, this too may not be true if all cost elements were to be included.

Consumption	Domestic*	Non-domestic*	Industrial*
For consumption up to first 15,000 litres	1.56	4.68	11.00
For consumption between 15,000 – 40,000 litres	3.00	8.25	13.75
For consumption above 40,000 litres (*20 per cent rebate allowed for payment within due date)	4.00	11.00	16.50

Government receives funds at a much lower rate (in the case of ADB loans the rate is LIBOR + 0.75 per cent). There has been a considerable demand for change in this practice of the Government of India rather than for the lending rate of ADB to be changed. The 12th Finance Commission Report added weight to the argument that all external assistance be transferred to the states on the same terms and conditions, and the Central Government ought to act merely as a financial intermediary without making any gain or loss.

The Government of India accepted this recommendation from April 1, 2005, subject to the condition that the service cost and exchange rate fluctuations would also be passed on to the states. Under the new arrangement, states would obtain external assistance on the same terms and conditions with regards to interest rate, maturity, moratorium and amortisation schedule, as those contained in the loan agreement between the Government of India and the donor. These recommendations should lighten the debt burden on the states. However, states will now have to raise foreign resources at competitive rates, manage attendant exchange rate risk and monitor externally aided projects closely to ensure a reasonable rate of return.

Box 3: Inability to repay the loan in Ratlam

Financials of the Corporation prepared by consultants indicate that the ULB would be in a position to repay the loan. However, these projections assume that there would be steep annual increases in the revenues generated from house tax, water charges and other sources of revenue to levels which may be considered to be politically and administratively impossible to achieve; the officials at the Corporation were skeptical about being able to effect such steep increases. As it turned out, the city of Ratlam turned down the ADB Loan for the following reasons:

- It would be difficult for the Corporation to repay the loan (the city demanded an interest free loan coupled with a three-fold increase in the compensation for octroi)
- The interest rate of 12 per cent was too high and should be reduced to 8 per cent
- The allocation to consultancy at 7.3 per cent (2.2 per cent Project Management Consultants and 5.1 per cent Design and Construction Supervision Consultants) of total base costs of \$ 234.2 million for the 6 cities in M.P. appears to be excessive
- Transport Nagar project not included in the overall project
- Rising main not included.

Box 4: On lending arrangements in KUIDP and KUDCEMP

The total cost of KUIDP was estimated at Rs 311.27 crores. Of this, the ADB /Government of India assistance was to be Rs 226.55 crores, and the balance Rs 84.71 crores was to be met out of the state's own resources. Of the amount disbursed by the Central Government, 30 per cent was to be treated as grant and the balance as loan. Of the total budget, the proportion of funds spent on WSS is 47.9 per cent for KUIDP and 51.6 per cent for KUDCEMP. KUIDP on lends the loan to a multitude of Implementing Agencies including Urban Local Bodies (ULBs), Development Authorities and Water Supply Boards. As per the on lending agreement, a part of the loan components is treated as grant and not to be recovered from the agencies. In KUDCEMP, the state has devised a discerning system of loan to grant ratio depending on the nature of work and associated revenue stream for each ULB. Consequently, the grant portion has varied from 0 per cent to 100 per cent for different types of projects (Annexure 15).

Improving loan effectiveness

Discussions with project officials at KUIDFC indicated that conditions for loans were mutually decided between the Bank and local agencies. In the case of KUIDP the set of assurances were few and focused on immediate action points. Later projects broadened the scope of these covenants, increasingly linking them to local capacity and sector reform, in acknowledgement of the weak financial position of the local bodies and with a view to developing an incremental approach

to capacity development. The new set of covenants recognised that most services will have to be financed through general increases in ULB revenues rather than associated revenue streams. Despite expanding loan conditionalities, ground realities suggest that they have been ineffectual in promoting reform and building capacity. By way of illustration some of the loan conditionalities and the reported achievements for the projects in Karnataka are presented below.

Box 5: Loan conditionality and reported achievements (Source: Key Informant Interviews)

Loan Conditionality	Reported Achievements
<p>KUIDP Implementation of water tariff and sewerage charge to ensure full cost recovery of WSS O&M</p>	<p>Sewage collection charges have not been levied in Ramnagam (KUIDP). In a notification issued by Government of Karnataka in 1996, ULBs were advised to impose a minimum water charge of Rs.45 / household / month. It however omitted to focus on the operative part; 'to ensure full cost recovery of O&M services'. As a result, ULBs have not affected periodical tariff increases to balance costs and revenue from WSS. The suggested amount has been treated as a norm by most ULBs and tariffs have not been revised upwards. Ramnagam, however, reports a flat charge of Rs 100 per month for domestic consumption which was revised after the project.</p>
<p>Resource mobilisation in ULBs</p> <p>Development of a comprehensive training plan for the sector personnel</p>	<p>Collection of water user charges is generally estimated to be less than 70 per cent and is attributed to political instability. Currently the billing system is manual. In the case of Ramnagam collection percentage is 50 per cent. The ULB intends to charge 2 per cent penalty for water tax defaulters. This has not been implemented as yet, but it is in the pipeline, waiting for approval from the Council Members. Ramnagam has gone a step further by commencing installation of water meters to enable the ULB to bill based on water consumption. Around 5,100 meters have already been installed and the balance is envisaged to be completed in 6 to 7 months. After consumption of 15,000 litres, Rs 7 will be charged per 1,000. This should become a source of additional revenue to the ULB and will help in loan repayment.</p>
<p>Some basic financial and revenue generation measures to increase the revenue base of ULBs</p>	<p>Although generally ULBs are unable to repay debt on time and treat loans as government grants, in the case of KUIDP, ULBs have repaid those portions of the debt which have a direct revenue stream attached, such as site services.</p>
<p>KUDCEM Greater collection efficiency of water charges, including disconnection on non-payment</p> <p>Increase of water tariffs by 50 per cent immediately and 100 per cent thereof within 2005; and reducing non-revenue water to 25 per cent</p> <p>A set of financial and institutional reform measures including computerisation of billing and collection, accounting reforms etc. to build the long terms capacity of ULBs</p> <p>Reassessment of properties in project towns and their appropriate taxation</p> <p>Introduction of local revenue augmenting measures such as land conversion charges</p>	<p>The ULBs have not been proactive in increasing water charges. Greater political will and stability in the ULB is necessary for this.</p> <p>The double entry fund-based accounting system now provides a disaggregated account of water and sewerage expenses and revenues from other municipal activities and will help in providing better information on cost recovery to ULBs.</p> <p>Private sector participation in water supply services has begun with the support of USAID that has started with a bonds issue for raising capital. There are plans to contract out the management of some pumps to the private sector, in Bangalore to begin with, followed by other cities. (See Annexure 16).</p> <p>The state government has considerably simplified the ULB property tax system, linking it to an objective area-based self-assessment scheme with banks authorised to collect taxes from the public. It has also taken several steps for improving the management and transparency in ULBs. However in Ramnagam, change from Annual Rental Value (ARV) to Self Assessment method has halved rather than increased collections from about 80 per cent to 40 per cent. The state has also enacted the Fiscal Responsibility Act along with various other measures to improve transparency in ULB operations.</p>

SECTION 8

Recommendations for ADB Water Policy Implementation

1. Transparency

Mechanism should be set up that the loan agreements, contracts and project implementation are transparent. The project affected persons or other citizens, groups etc can access the documents. The PCP (Public Communication Policy) of ADB which was recently adopted should be implemented in letter and spirit to make information related to the project available on public domain.

2. Public engagement

ADB projects need to go through the consultative process where the citizens need to be engaged right from the negotiation stage. The project design, selection of intervention areas et al should be finalised after consultations with city level citizens' forum (where the poor are adequately represented).

3. Achievement of MDGs: More resources—better baselining

Current financial investments in IUD projects in India will need to be enhanced from the current level (1 per cent) of the total ADB portfolio, and within the project for WSS, in order to help contribute significantly to achievement of MDGs. The trend towards providing a greater share of the overall project budget for WSS activities (MP, Calcutta, J&K, Kerala) augurs well for the sector.

However, estimating contribution to MDGs is far more complicated than initially imagined primarily because of a lack of relevant data and clear baseline figures on numbers reached. Further, data aggregation eclipses the poor through the law of averages. ADB would need to realign its MIS and improve the quality of its baseline data by developing a minimum set of objectively verifiable indicators with clear definitions to better assess its contribution to the MDGs.

4. Negotiating for larger share of resources for the poor

Bigger resources will still not reach the poor with improved services unless projects are better allied to the Poverty Reduction agenda. A larger proportion of the overall project funds must be allocated to servicing the poor. At present this constitutes less than 3 per cent of the overall project funding. The share for

the poor must be determined in proportion to their population in the city.

ADB needs to put together a new set of loan conditionalities for better outreach of poor communities:

- a. Mapping city wide slums before any project design
- b. City wide slum upgrading plans with monitoring implementation
- c. Networking all city slums to infrastructure networks to mainstream poor
- d. Connections for non-tenured slum households
- e. In the house water and sewerage connections with an equitable share of water in terms of quantity and quality of supply
- f. Improved targeting of subsidies
- g. Appropriate and well-advocated housing policy with serviced housing for poor migrant families, with easy loan terms to prevent slum development

5. Upping the sanitation priority with links to waste water disposal systems

Inequitable supply of water to the poor¹ is a well-researched theme. Less discussed is the issue of sanitation, where the service gap is larger. Lifting up the priority to sanitation services will be crucial in meeting the MDGs for sanitation. Even as ADB IUD projects include sewerage to Low Income Settlements (LIS), the proportion of the overall project costs allocated to it is low in real terms due to; a. LISs without legitimate land tenure being excluded from sanitation projects in a town or city² and b. sanitation infrastructure being more costly, even an equal share of the resources means lower coverage under sanitation.

To achieve MDGs for sanitation, ADB loan conditionalities must include:

- a. Private sanitation connections networked to underground sewerage system.

¹ An estimated 50 per cent poor in India live in slum like conditions and only 50 per cent of those in slums have adequate access to safe water.

² While unauthorised slums are provided water, sanitation services are more difficult to provide in these areas due to their high cost.

- b. Covered surface drainage in all slum settlements for waste water disposal and improved environmental sanitation.
- c. Appropriate solid waste management systems as in the rest of the city.

While household connection should be provided in every new slum/settlement dependent on availability of space, the old slums (without space) should be provided with community toilets and maintenance of the same should be community managed, capacity for which should be built-in.

6. The horse before the cart: Improved institutional arrangements in implementing agencies for meeting poverty reduction targets

Even as most institutions and local bodies have a poverty cell, they sit outside the system and their functioning is incidental to the entire project, both due to the low level of funding and an absence of rigorous monitoring procedure for measuring progress. Existing poverty units in the local governments³ will need strengthening. A senior officer must be put in charge of the social development unit. Current social staff must be actively involved in project implementation. A beginning has been made in Karnataka where environmental officers are being appointed and posted to the local bodies.

ADB must insist on a six-month inception period prior to release of funds. CAPP teams must be appointed for this task ahead of loan disbursement for selecting NGOs, mobilising communities and forming community structures. Even as this will help to create the enabling environment for project implementation, by prefacing this activity, community demands will find greater space in engineering designs. Systems for interaction between DSC and CAPP teams must be created and outputs monitored. Deliverable for CAPP must include annual poverty reduction action plans.

Strengthening the poverty reduction units in the cities and state implementing agencies by inducting social development experts in all operational departments as also providing training to all staff to think poverty at all times will go a long way in poverty reduction.

7. Negotiating for larger share of funds for community mobilisation and capacity building

Clearly there is a gap in resources required and those available to put in place an appropriate mechanism for community inclusion and participation. This is attributed to both a low understanding of the requirements of such a task as well as government's

hesitation in increasing high cost loans for capacity building and community mobilisation purposes. Effort must be made to a. estimate the real requirements for such a task and b. find complementary resources as in MP through DFID. Alternatively, ADB may create a cheaper Fund Source that allows governments to access soft loans for the purpose.

A Community Participation manual, a set of indicators for NGO selection, a set of guidelines for NGOs and a monitoring system for tracking NGO interventions needs to be developed for strengthening the component.

Capacity building of local governments in improving their capabilities for debt repayment is critical to the sustainability of these interventions. Capacity building budgets and activities must be better aligned for improving the effectiveness of this funding. For example, training on DAE system must be preceded by provision of computers and other equipment in the municipalities.

8. Institutionalising the feedback loop between baseline/BME learnings and project implementation

At present, the feedback loop between different technical studies, community interaction processes and implementation units is missing. Each activity operates in a silo rarely influencing the other. Greater effort at triangulating the various components in the project is essential if real benefits are to be realised from these investments. Facilitating cross learnings between 'street bureaucrats' and communities, and between different cities nationally and globally will help to improve effectiveness of loans. In MP Water for Cities and Twinning Cities Programme is aimed at enhancing the learning curve. Similar efforts must be introduced in other projects as well in poverty reduction.

9. Establishment of basic common indicators for BME in slums

A minimum common set of indicators has to be established for benchmarking and pre post comparisons. Variation in and the poor quality of data in large number of reports in the present study could be partly responsible for local inability to measure change. The indicators must also include process indicators that help measure levels of community involvement and point to future directions.

10. Greater control/flexibility over loan money

In the cost estimates, budget is allocated for "interest during construction" implying that the loan includes funding to pay interest charges for the project during construction. This money is lent because interest starts from the day the project agreement is signed (albeit at a lower rate during the grace period) but the project will not generate revenue (in theory used to

³ Each ULB has a Town Urban Development Agency /Cell to manage Government poverty reduction programmes.

pay back the loan) until completed. Reading through loan agreements, a standard clause was noted which reads as: ‘the bank shall be entitled to withdraw from the account and pay to itself, on behalf of the Borrower, the amounts required to meet payments, when due, of the interest charged on the loan during implementation.’ In effect this means that the money never really gets lent to the government but just looks that way and those governments are lent money but do not have complete control over how it is spent. It is important therefore that interest payments only begin after project completion that allow the governments to set in place plans for debt repayment at the municipal level. This will ease the city and state debt burden. However, some mechanism must be set in place to ensure that this does not result in project delays.

Greater financial freedom to adjust project designs to local needs is essential. At present, any change has to be managed after approval from ADB. This could either be in the form of untied funds or through a relaxation of procedures without compromising the quality of the works.

11. Variable tariff policy and other pro-poor financial arrangements

A variable tariff policy is essential to reduce the burden on the poor of high/progressively increasing tariffs. Better targeting of government subsidies by using a vulnerability index⁴ will ensure reduction in subsidy leakages to non-poor. Credit mechanisms that allow poor to access interest free loans for connections and payments that are amortised over time.

12. Shifting from a penalty based system to an incentive linked fiscal reform process

To enable ULBs to bear the project costs and O&M responsibilities means greater investment in fiscal reform agenda through capacity building in administration and financial management. To achieve this, the ULB must account for its liabilities on an accrual basis and be periodically advised by the state/central government about repayment made on its behalf with a more sensitive mix of penalties and incentives. As of now the entire financial system is penalty based without much effort at ‘incentivising’ fiscal efficiency.

13. Grievance redressal mechanism for the public

Every project during implementation & post completion should have a grievance redressal mechanism which facilitates the people to hold service providers accountable. This should be part of the project design.

During implementation of the project also there should be accountability of contractors which can be achieved only if information regarding the project is shared on public domain. While M&E system does capture the contractor’s performance that is not enough unless the beneficiaries are also involved.

14. Focus on policy reform

However, this should be practiced with caution and only in cases where policies are non-existent or anti-poor. If ADB is serious about its poverty reduction agenda then it has to play an active role in facilitating generation of public opinion and helping state governments to set up institutional arrangements for proper implementation of the existent national policies which are equitable and pro-poor. WA strongly believes national sovereignties need to be upheld hence any policy dialogue facilitated by ADB has to be consultative with engagement of public opinion.

The Cooperation Fund for Water is aimed at providing such assistance to governments to pursue national level policy initiatives. As per the Bank sources, this amount is very small and very little from it has been used in India. There is a need to enhance the fund under this component to prod the local, state and national governments on the reform pathway.

A key policy reform that needs to be pursued relates to land tenure and access of services by the poor. However, there is an apparent lack of knowledge at the ADB level about the issue. In their own words, they are still on a learning curve and struggling to understand the relevant pro-poor issues as also to find the right entry point for such policy intervention. Positive partnerships and consultations with international and national civil society groups would help to build that body of knowledge.

Supporting formation of an appropriate housing policy for affordable shelter to the poor with in-the-house water connections and toilets, access to livelihood opportunities and social services such as schools and health-care needs to be supported by ADB if it is serious about its poverty reduction agenda. The policy must address the issue of a housing credit line that enables easy access to housing finance at affordable interest rates.

Reopening the debate on the National Slum Policy with MOUD&PA to make this more relevant to the current context. According to the National Water Policy,” a skeletal national policy in this regard needs to be formulated so that the project affected persons share the benefits through proper rehabilitation. States should accordingly evolve their own detailed resettlement and rehabilitation policies for the

⁴ TA 3480-IND Tewari, V, Khosla, R. et al. Reducing Poverty in Urban India. 2001

sector, taking into account the local conditions. Careful planning is necessary to ensure that the construction and rehabilitation activities proceed simultaneously and smoothly”⁵. Starting a dialogue with key stakeholders on a Policy on Resettlement and Rehabilitation. Since the projects under study did not include major physical works (underground sewerage and water network rehabilitation and expansion, development of roads and bridges) for which land was required, resettlement has not emerged as a major

concern in the study. However, in more comprehensive projects R&R may come up as a major challenge. It is important for ADB to begin a dialogue with the state on R&R concerns. In a recent study undertaken by CURE⁶ on the economics of resettling slum dwellers, relocation away from current sources of livelihoods results in an economic shock that pushes slum households deeper into poverty. A family may take nearly 2-3 years to get over the economic shock of such rehab.

⁵ National Water Policy 2002, Government of India

⁶ Centre for Urban and Regional Excellence (CURE), Draft Report, Economics of Resettling Low income Settlement (slums) in Urban Areas: a case for Onsite Upgrading, March 2005

SECTION 9

Review of Water Policy Implementation

The table below provides a summary analysis of the level of water policy implementation based on the evidence gathered through the study. Twelve policy actions related to WSS and serving the poor were selected from the Water Policy for this purpose.

S.No.	ADB Policy Action No.	Policy Action	Impact
National Policies and Reforms			
1	1	The Asian Development Bank (ADB) will help develop comprehensive water policies in the DMCs.	
		<ul style="list-style-type: none"> Water sector Assessments have not yet been carried out for influencing national water policy changes even though it was recommended in the internal ADB assessment of its own water policy in 2003¹ No focused dialogue on water policy at the state or national level. Sector level reforms initiated in states, however only in the light of the projects being implemented in the state 	Low
2	3	Because project planning and implementation are commonly fragmented among many institutions, ADB will support the optimisation of agency functions for planning and implementation. It will also focus on the development of effective cross-sector coordination mechanisms , such as a neutral sector apex body that can oversee the policy formulation and sector reform process.	
		<ul style="list-style-type: none"> Development of Empowered Committees for cross sector coordination in each state However, ground level interaction amongst agencies are delayed and weak 	Medium
4	NEW	ADB will assist the DMCs in developing and adopting water action agendas that have clearly defined objectives and milestones linked to resources.	
		<ul style="list-style-type: none"> ADB has provided support to working states in listing their water action agendas and preparing list of actions needed as mentioned in the RRP. However, there is no documentary proof with regard to achieving these objectives and implementation of the action agendas. 	Medium
5	NEW	The needs of the poor will be specifically factored into legal, institutional, and administrative frameworks.	
		<ul style="list-style-type: none"> Community Awareness and Participation Program designed to be focused on generating awareness, however has been limited in its outreach and impact with regard to participation of the poor Selection of poor communities is still guided by the local body policies which, in most cases limits the outreach to only those with legal land tenure, leaving out the most vulnerable The latest MP project has included a component of MAPP to address needs of the poor with active involvement of the Municipality, however detailed ToRs of the component have not yet been designed 	Medium

¹ Interim water policy assessment of Implementation of the ADB Water Policy.

Improving Water Services			
7	19	ADB's sector strategies within countries will identify the need for introducing phased programs to increase the autonomy and accountability of service providers , either as new enterprises or by reorganising existing agencies.	
		<ul style="list-style-type: none"> PMUs lacked autonomy to make major modifications in the project plans. At the city level, the freedom was abbreviated further with power being concentrated in the PMU. Centralisation of authority has meant that line departments are engaged only after asset creation for O&M purposes reducing ownership. As a result local capacities are not being created 	Low
8	21	User participation will also be supported to (i) make services and service providers more responsive and accountable to beneficiaries; (ii) align the provision of services with users' needs and ability to pay, thereby improving cost recovery and sustainability; and (iii) tailor institutional arrangements for water service management to local practices. Participation will be the cornerstone of ADB's country water sector strategies; institutional arrangements for participation, particularly at the community level, will be strengthened.	
		<ul style="list-style-type: none"> User participation missing from project. Poor communities continue to use the old path of political leaders as a voice mechanism and complaint redressal Services planned for communities follow conventional practice. No effort has been made to design supply systems that meet specific requirements of the people Cost recovery has not been started except for Karnataka. People have been informed about user and connection costs and majority are already paying user charges. However, since the service have already begun to flow into the settlements, recovery of user/ connection costs is likely to pose problems Tariff affordability as a concern in the selected settlements exists. Tariff affordability for non-listed slum settlements needs to be assessed. They have not been aligned to payment abilities 	Medium
Conserving Water			
9	28	ADB will consistently advise governments of the need to adopt cost recovery principles in their water policies and strategies. Consumers will be expected to meet the full operating and maintenance costs of water facilities and service provision in urban and rural water and sanitation schemes subject to subsidy considerations.	
		<ul style="list-style-type: none"> Most ADB effort is seen to be concentrated around the issue of cost recovery and tariff setting. However even completed projects have not had full cost recovery yet 	Medium
10	29	ADB will promote the phased elimination of direct subsidies to the poor for accessing basic water services in line with an increase in affordability levels. ADB will support subsidies for water services where a limited quantity of treated water for the poor is regarded as a basic human need.	
		<ul style="list-style-type: none"> At present subsidies are not being provided to the poor for water or sewerage connections. It is estimated that a small percentage of people in slums would need credit assistance to get connected. No credit mechanisms are currently in place for the purpose CAPP agency lacks capacity to engage communities/organise thrift and credit societies for accessing credit 	Low
Fostering Participation			
12	36	Getting the poor to participate , and mainstreaming them into community thought and action, will be a key area of ADB work. Communities and individuals that are underserved – including the urban poor and the socially excluded, such as ethnic minorities and indigenous peoples – need to be mainstreamed, ADB will promote the recentering of such communities and individuals. ADB will promote participation in the management of water resources at all levels and collaborate in fashioning partnerships between governments, private agencies, NGOs, and communities. The poor must be enabled to influence decisions that affect their access to water for both consumptive and productive uses.	.

		<ul style="list-style-type: none"> • Participation and partnership with NGOs, communities or the private sector has not been a focus area in the project • No systems for community-official interface have been created. Federations of organised community groups have not been formed or have not reached a critical level of influencing decisions on water access and service equity. As of now, the approach is very top down and supply driven 	Medium
13	37	Water projects supported by ADB will incorporate carefully designed components that promote the participation of civil society in identifying needs and issues, designing solutions, and establishing mechanisms for monitoring and dispute resolution.	
		<ul style="list-style-type: none"> • RUIDP includes a component to promote participation of civil society. However, the component has received low priority in the scheme. It is also not very well designed and does not focus on processes of community mobilisation • City level committees set up only for identifying needs limited to departmental heads and the commissioner of the ULB • There is a lack of understanding about processes of community engagement at the level of the officials and CAPP agency 	Medium
14	38	ADB will strengthen women's ability to participate more effectively through discrete programs targeted at educating women, empowering them, and enabling their involvement in community-based decision-making. The key elements in a gender approach to planning, implementing, and evaluating of water sector activities are (i) including a gender analysis at the design stage, (ii) incorporating explicit gender equity provisions in the objectives and scope of the activity, and (iii) disaggregating data in monitoring and management information systems along gender lines. These elements will be incorporated in ADB's water sector operations.	
		<ul style="list-style-type: none"> • No special focus on gender and its role in the water sector is observed • Women's Self Help Groups are being formed in the new projects with the aim of addressing livelihood issues. No evidence of data disaggregated by gender or gender sensitive planning of services was found 	Low
Improving Governance			
16	39	ADB will promote the development of sustainable plans for capacity building ; these will include the establishment of indigenous institutional arrangements for skills development at basic and advanced levels. The plans will incorporate processes that allow the sharing of sub-regional or regional experiences.	
		<ul style="list-style-type: none"> • Municipal reforms and capacity building activities to enhance property tax undertaken in Rajasthan and Karnataka 	Medium



Annexures

Annexure 1. Comparative summary of pro-poor components in ADB funded projects

	Pro-poor components	Additional Components	Specific Financial Reforms and Tariff Policy
Completed KUIDP (2002)	Improved access to water supply, low cost sanitation in residence, solid waste management services, sewerage systems and storm water drainage	Road improvements, bridges, truck terminals and bus stands, improved industrial sites and services	Tariff raised by 2% per year in real terms Upto 25% Reduction in NRW Water surcharge 60-75% Waste collection fee @ Rs 40-30 Compost sold
Ongoing KUDCEM	Improved health Increased time and security to women/girls Livelihood /skill upgrading	Markets, landfill site, public conveniences, and road improvements	Non-domestic beneficiaries charged 2.5 times rate Charge for hospital bed use (Rs 4 per day) Charge for septic tank cleaning Rs 300 with 2% annual increase in real terms
RUIDP	Slum households connected through community/household supplies with user charges Connection subsidies targeted at the poor	Road improvements and road widening, bridges, construction of a community hall and fire station	Block tariff increase by 100% Lifeline block affordable for the poor Monthly domestic tariff raised by 25% to 100% Commercial, institutional, industrial tariff doubled 20% surcharge for sewerage, plus 13% in cities with waste water facilities
Starting UWSEIP June 2005	Integrate slum improvements with citywide infrastructure and provide in the house services through construction of tertiary distribution network Development of MAPPs Setting up of area level funds and community-level funds as the basis for participatory planning between municipal authorities and poor communities	One million new consumers to gain access to piped water supply by 2010. Implementation through urban local bodies, strengthening capacities of local governments for public participation in planning in a more effective, transparent, and sustainable manner. Urban water conservation and demand management through parallel co-financing by UN-HABITAT under the Water for Asian Cities Programme.	Water metering Water tariff measured on basis of consumption up to 10 cu.m of water as standard billing unit Increase in water rates between 50–100% depending on paying capacity Introduction of waste water surcharge @ 30-45% of water bills Monthly charge of Rs. 10 to be introduced per household for solid waste management, double for commercial establishments.

Comparative summary of ADB funded projects selected for the study

	Project Objectives	Cities	Poor Beneficiaries	Project Costs
Completed KUIDP (2002)	Reduction in poverty through improved municipal services	Mysore, Tumkur, Ramnagaram, Channapatna, Mandya, Maddur (6)	70% low-income families (520,000 people) Generate 350,000 person months employment Employment for 10000, including women	Estimated: US\$112 million (ADB: US\$85 million, State and ULBs: US\$27 million) Spent: US\$107 million
Ongoing KUDCEM	Enable poor communities to organise and plan for WSS infrastructure	Ankola, Bhatkel, Dandeli, Karwar, Kundupura, Mangalore, Puttur, Ullal, Sirsi and Udipi (10)	25 % poor families in low-lying areas, to benefit from improved drainage. Slum improvements to improve the health and living conditions of more than 30,000 residents. 65% of beneficiaries are women and children.	Estimated: US\$251.4 million Share: ADB (70%), State (22%), Local Body (8%)
RUIDP	Optimise social and economic development in high potential cities Plan for future infrastructure and service demands	Ajmer, Bikaner, Jaipur, Jodhpur, Kota and Udaipur (6)	Improved WSS services for 600,000 slum dwellers Nearly one third women and children to benefit through utilising saved time in other ways (Livelihoods, schooling, etc.).	\$362 million at a per capita annual investment of Rs 550 Local Government share pegged at 9%.
Opening UWSEIP June 2005	Converge development assistance from different donor agencies to capitalise on ADB investments Improve / expand municipal WSS services	Indore, Bhopal, Jabalpur, Gwalior (4)	Water Scheme to Benefit 10000 slum dwellers. An additional 1.2 million to be covered under co-financing. 4% poor households to be benefitted by community latrines linked to sewers. Employment opportunities for 5000 poor people.	Estimated project cost (including parallel grant co-financing by UN-HABITAT is \$303.5 million equivalent. Of this ADB loan would be \$200 million. DFID funding 10 million pounds

Project	City	ADB funded ¹	Water Sources	City Coverage	Supply Capacity	Current System Load	Per capita supply	Expenditure in Rs
Ongoing								
RUIDP	Jodhpur	Source augmentation Rehab and replacement of aging network Expansion of pipelines to uncovered areas Construction of reservoirs and Overhead Tanks Household connections in slums pre project ²	Jawai Hemawas canal 116 kms from town Ground water: 72% Sub surface water: 28% Gravity and lift canal	Length: 235 kms Taps: 94692 Community standpoints: 1450 95 per cent coverage Network length 16% of road network	70000 people	1134143 people (62% over load) Transmission losses: 24%	111 lpcd	3834.57 lakhs
	Ajmer	Augmentation of the Gravity main Rehabilitation of the service reservoir and distribution system Procurement of bulk flow and domestic water meters	Pipelines from Bisalpur	50000 people to be benefitted immediately Another 25000 to be linked to the network by 2005				2274.01 lakhs
KUDCEM	Karwar	Source augmentation for two cities of Karwar and Ankola Increasing coverage through increased distribution network	Gangavali river		30.8 mld for Karwar and Ankola since they have common water source			276.07 million
Completed								
KUIDP	Ramnagram	Combined water supply scheme with a design capacity of 25 mld for Ramnagram and Channapatna	Cauvery river, Arkavati River	The proportion of users with piped water supply increased from 25% in 1999 to 44% in 2003. ³	6 mld	30,350 persons		

Annexure 2. Research questions

Research question 1	
“What is ADB’s involvement in water supply and sanitation sector in India, its contribution to MDTs and its impact on sector policies and practices?”	
Research question 2	
Primary Survey	
Research question 3	
“How does ADB monitor and evaluate WSS projects and do these procedures need to be changed to enable ADB to know if projects are ensuring sustainable services for the poor?”	
Research question 4	
What do these projects contribute to the debt burden at the state and/or national level? What is their impact on WSS allocations and what are the conditionalities of the loans?	
Research question 5	
How is the ADB Water Policy reflected in project design and implementation and does the Policy need to be changed to make it more effective?	

Research question 1

“What is ADB’s involvement in water supply and sanitation sector in India, its contribution to MDTs and its impact on sector policies and practices?”

Indicator	Detailed Indicator	Questions for ADB Team	Method
ADB’s involvement in WSS	<ul style="list-style-type: none"> • Date of ADB’s entering the sector • Reasons for entering the sector • Level of priority given to the sector and reasons for low/high priority • Description of ADB supported WSS projects – dates, location, objectives, cost, benefits, status • Planned future engagement in the sector (based on country strategy and programme documents and the sector road maps in these) 	<p>When did ADB begin work in India, in the selected States?</p> <p>What projects has ADB supported across the country in all the sectors?</p> <p>When did ADB begin work in the WSS sector in urban India?</p> <p>What led to ADB’s interest in addressing urban WSS issues in the country?</p> <p>What is the share of WSS funding to total ADB funding in India? Why?</p> <p>How does ADB propose to increase the share of WSS resources to overall funding for development projects in India?</p> <p>What problems have you faced in implementation of these projects?</p> <p>Which do you think is the most successful of all projects funded so far and why?</p>	Desk Review and Key Informant interviews

<p>ADB contribution to MDTs</p>	<ul style="list-style-type: none"> • MDG Targets for India • No. of people reached and required to be reached between 1990 and 2015 in order to meet the MDTs for WSS • Total no. of bens served by ADB supported projects post 1990 disaggregated by urban, water/ sanitation) and projected bens from planned projects upto 2015 • ADB's contribution to MDTs in terms of people served • Investment required to meet WSS MDTs • Total ADB investment in the sector (pre and post 1990) and projected ADB investment between now and 2015 • ADB investment in the sector (1990 to 2015) as a proportion of investment required to meet WSS MDTs 	<p>How much will ADB be contributing to achievement of WSS MDGs 7/10 and 7/11 in urban India?</p> <p>Total Beneficiaries covered till date/ to be covered by 2015?</p> <p>Total Beneficiaries among slum dwellers covered till date/to be covered by 2015?</p> <p>What will be the coverage if service quality indicators are used for assessing target achievement?</p> <p>What is the total estimated investment required to meet the MDGs using: quality parameters coverage parameters</p>	
<p>Impact of ADB WSS projects on sector policy</p>	<ul style="list-style-type: none"> • Direct/Indirect Impacts • Example of specific objective/activity and its impact on the project • Conditionality of Sector Policies and Impact on sector policies 	<p>What has been the direct impact of ADB intervention in WSS policy/programming in the country? Can you give examples?</p> <p>What have been some of the other impacts of ADB intervention in WSS policy/programming?</p> <p>What has the ADB done to promote sector reforms?</p> <ul style="list-style-type: none"> • Supported TA to GOI • Facilitated dialogue with local governments/civil society • Organised experience exchange visits/ meetings • Any other <p>Have the conditions under which they initially provided funding support changed? If so how?</p> <p>Have individual state policies undergone change following ADB intervention? Has this change been institutionalised i.e. led to state wise/city wise roll out?</p>	

Research question 3

“How does ADB monitor and evaluate WSS projects and do these procedures need to be changed to enable ADB to know if projects are ensuring sustainable services for the poor?”

S.No.	Activity	Questions	Method
1	Map out the M&E systems for the selected projects, draw up a list of all monitoring and evaluation reports prepared and obtain copies of these reports for the selected projects. Based on our knowledge so far this list should include – a Project Administration Memorandum (this is the basis for project monitoring and includes indicators and progressive targets) a framework for BME/PPMS (included as a supplementary annex to the RRP), project logical frameworks, quarterly progress reports by EAs, ADB quarterly review mission reports, PCRs.	<p>To ADB Delhi</p> <p>Which nodal ministry at the national/state level does ADB engage with?</p> <p>What is the mechanism for M&E followed by ADB?</p> <p>What is the frequency of visits for M&E? It is expected to be a quarterly visit, is this frequency maintained?</p> <p>How is the Mission team chosen? Briefed?</p> <p>What core indicators are monitored?</p> <p>Apart from discussion with state and city officials what other instruments are used for monitoring?</p> <ul style="list-style-type: none"> Site visits Independent evaluation studies Report reviews of micro studies undertaken by individual researchers NGO consultations Any other <p>What is the process of sharing the report at the national/state level/city level?</p> <p>How does ADB follow up on the recommendations of the M&E reports?</p>	Key informant interviews, document review
2	<p>Review of content of M&E reports and systems, focusing on</p> <ul style="list-style-type: none"> • Coherence between various documents – e.g. does the BME/PPMS gather the data needed to measure log frame indicators and impact as envisaged in the RRP? Does the BME/PPMS gather indicators used in the Country Strategy and Programme Results Framework? • Suitability of indicators used, in terms of keeping them few and simple, easy to measure and easy to translate into local languages • How M&E systems measure development impacts (the final effects of water and sanitation interventions on different poverty dimensions) • Dissagregation of data by gender, caste and poverty status to show provision of service and impacts on different groups • Comparability of indicators with those used in national surveys and censuses 	<p>For State and City Officials</p> <p>Is there a BME or PPMS at the State/city level?</p> <p>What kind of data is collected? Is data disaggregated by caste, gender, poverty groups?</p> <p>Were the poor consulted about what should be monitored?</p> <p>What is the frequency of data collection?</p> <p>Is the data easy to collect? For what indicators is the data collection difficult?</p> <p>How many missions have visited your state/city?</p> <p>What follow up is taken on the mission reports?</p> <p>City level</p> <p>How many visits have the Project office made to your city?</p> <p>What is the follow up based on visits by the Project officials?</p> <p>How do you assess the impact of your project interventions?</p>	Key informant interviews, document review

3	<p>Review of M&E processes, focusing on</p> <ul style="list-style-type: none"> • Who does the M&E (Executing agency/Municipality/NGOs/communities, no. of staff) • How do the M&E systems work? Do they function as designed and what are the main bottlenecks? • How are the M&E reports validated? • Who and how is service provision in slums monitored? • Are poor communities involved in M&E? Are results of M&E fed back to these communities so they can take immediate action (two way information flow)? Were the poor consulted about what should be monitored? • How many staff was trained in M&E? Were community leaders also trained in M&E? What improvements did you find in staff capacity? • Is the M&E system computerised? How many staff are able to operate and access the system? • Was a baseline taken at the start of the project? • Are BME/PPMS reports integrated into quarterly monitoring and updating progress against the project logframe? • How is the M&E data used? Are changes made to the project implementation on the basis of M&E reports? What is the link between M&E systems and decision-making? • Are M&E systems institutionalised and are they used after project completion? • Is there an independent regulator for WSS? • Are M&E systems regularly updated? How many works have been delivered on time/delayed/stalled? Reasons for delay/stalling? Incentives and penalties for timely or delayed achievements? 	<p>State/city</p> <p>Who collects the information? How long does it take to collect the information?</p> <p>Executing agency/Municipality/NGOs/communities</p> <p>How many staff are engaged in M&E? How many staff was trained in M&E?</p> <p>Were NGOs/community leaders also trained in M&E?</p> <p>How do the M&E systems work? Do they function as designed (i.e. on time and for all indicators) and what are the main bottlenecks?</p> <p>How is the M&E information validated?</p> <p>Who and how is service provision in slums monitored?</p> <p>Are poor communities involved in M&E?</p> <p>Are results of M&E fed back to these communities so they can take immediate action?</p> <p>Is the M&E system computerised? How many staff are able to operate and access the system?</p> <p>Was there a baseline taken at the start of the project?</p> <p>What is done with the information collected?</p> <p>Have there been any evaluations made of the project till date?</p> <p>What follow up was undertaken of the evaluation studies? Is there an independent regulator for WSS at the State/city level?</p> <p>Are BME/PPMS reports integrated into quarterly monitoring and updating progress against the project log frame?</p> <p>How is the M&E data used?</p> <p>Are changes made to the project implementation on the basis of M&E reports?</p> <p>What is the link between M&E systems and decision-making? Are M&E systems institutionalised and are they used after project completion?</p> <p>How many works have been delivered on time/delayed/stalled?</p> <p>Reasons for delay/stalling?</p> <p>Incentives and penalties for timely or delayed achievements?</p> <p>What improvements have you found in staff capacity following the implementation of the M&E system?</p> <p>Are M&E systems regularly updated?</p> <p>Is there an independent regulator for WSS at the State/city level?</p>	<p>Key informant interviews, document review, focus group discussions</p>
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4	<p>Recommendations on</p> <ul style="list-style-type: none"> • Best indicators to use for M&E of WSS projects (based on the analysis above and how well the indicators we use in RQ#2 turn out) – we understood from ADB at the Inception Workshop that this is a key output for them • Changes to M&E processes (based on analysis above and WaterAid and partner M&E experiences) 	<p>What changes would you like to suggest to the M&E System Indicators</p> <p>Which of these indicators do you feel gives you the best information with regard to improvements in service provision?</p>	
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Research question 4

What do these projects contribute to the debt burden at the state and/or national level? What is their impact on WSS allocations and what are the conditionality of the loans?

Indicator	Questions	Method
Budgets – Municipal/State/National	<ul style="list-style-type: none"> • Sector wise allocation • Percentage of total budget allocated to WSS (total and for slum areas) • Percentage of own revenue to total income • Percentage of salary and establishment to total WSS budget <p>Outstanding Property Tax</p>	<p>Annual Reports State Budgets (from start of the project) Key informant interviews</p>
WSS O&M Cost	<ul style="list-style-type: none"> • Annual expenditure on O&M (as percentage of total Income and total expenditure) <p>Total cost of power for WSS pumping</p>	
Tariff structures and per capita cost recovery from WSS	<ul style="list-style-type: none"> • Are tariffs set at cost recovery levels or is there a subsidy? <p>What problems are there in collection of user/connection/O&M costs</p>	
Total amount of loan	<ul style="list-style-type: none"> • Total amount of loan under ADB • Contribution from the Municipality/State/National Govt. • Problems in raising the matching finances at the local level • Problems in loan repayments, loan amount and loan repayment cycle • What is the interest of the loan and the grace period? <p>What is the impact of project lengthening (delayed project completion) on the debt burden?</p>	
Increase in revenue sources and incomes from these sources	<ul style="list-style-type: none"> • What are the problems in increasing revenue? <p>Has there been a reduction in Non Revenue Water and Unaccounted for Water</p>	
Increase in coverage for property tax and other tax based sources	<p>Problems in property and other tax collections/enhancement of coverage</p>	
Other donor agency grants/loans	<p>In case of loans what is the total debt repayment by the city/state/nation?</p>	
Loan conditionality	<ul style="list-style-type: none"> • What are the conditions on the loan? <p>Did ADB or government or both set them?</p>	
Town Level		
Municipal budgets	<p>Sector wise allocation of WSS as a percentage of the total</p> <p>Percentage of own revenue to total income</p> <p>Outstanding Property Tax (arrears)</p> <p>Percentage of salary and establishment to total budget</p> <p>Percentage of total budget allocated to WSS in city /in slum areas</p>	<ul style="list-style-type: none"> • Documents: Annual Reports State Budgets (from start of the project) • Key informant interviews

O&M Cost	(as percentage of total income or total expenditure) Total cost of power for WSS pumping Total O&M cost on WSS for the town (if available) O&M cost of the project	
Tariff structures and per capita cost recovery from WSS	Problems in collection of user/connection/O&M costs • Are tariffs set at cost recovery levels?	
Total amount of loan	Total amount of loan under ADB Contribution from the state Problems in raising the matching finances at the local level Problems in loan repayments, loan amount and loan repayment cycle • What is the interest of the loan and the grace period? • What is the impact of delayed project completion on the debt burden?	
Increase in revenue sources and incomes from these sources	Problems in increasing revenue Reduction in Non Revenue Water and Unaccounted for Water	
Increase in coverage for property tax and other tax based sources	Problems in property and other tax collections/enhancement of coverage	
Other donor agency grants/loans for WSS	In case of loans what is the total debt repayment by the city?	

Indicator	Questions	Method
State Level		
State budgets	Sector wise allocation Percentage of own revenue to total income Outstanding on collection Percentage of salary and establishment to total budget Percentage of total budget allocated to WSS for cities/for slum areas	<ul style="list-style-type: none"> • Documents: Annual Reports, State Budgets (from start of the project) • Key informant interviews
Tariff structures and per capita cost recovery	Problems in collection of user/connection/O&M costs from WSS in urban areas	
Total amount of loan	Total amount of loan under ADB Problems in raising state contributions Contribution from the national level Contribution of the state problems in raising the matching finances	
Loan repayment amount and cycle	Problems in loan repayments	
Increase in revenue	Problems in increasing revenue Increase in sources or coverage	
Increase in coverage of tax based sources	Problems in property and other tax collections/enhancement of coverage (sales tax, power supply etc.)	
Other donor agency grants/loans	In case of loans what is the total debt repayment by the city	

Research question 5

How is the ADB Water Policy reflected in project design and implementation and does the Policy need to be changed to make it more effective?

S.No.	ADB Policy Action No.	Policy Action	Questions	Methodology
National Policies and Reforms				
1	1	The Asian Development Bank (ADB) will help develop comprehensive water policies in the DMCs.	What have been the key policy changes at the state/city level following the ADB projects?	Desk review and key informant interviews.
2	3	Because project planning and implementation are commonly fragmented among many institutions, ADB will support the optimisation of agency functions for planning and implementation. It will also focus on the development of effective cross-sector coordination mechanisms, such as a neutral sector apex body that can oversee the policy formulation and sector reform process.	<p>Has coordination between the different agencies in the city (local body, other service providers) improved?</p> <p>Has an apex body been created to oversee sector reforms at the state/city level?</p> <p>If yes, how effective is it? If not how can its effectiveness be improved?</p>	<p>Actions 1 to 5 only require a YES/NO answer. If the answer is YES then an analysis of action 6 is required – to what extent are these policies and reforms pro-poor. Some work has been done on this already – see Annex 3 of the interim policy implementation review by ADB.</p> <p>There is some overlap with revised research question #1 here – “What is ADB’s involvement in WSS in BIN, its contribution to MDTs and its impact on sector policies and practices?”</p>
3	4	Support will be provided for the review and revision of water legislation particularly in the areas of water rights and allocation among competing uses, water quality standards, groundwater use, demand management, resource conservation, private participation, and institutional responsibilities for water sector functions at national, regional or basin, local, and community levels.	<p>Have there been any changes in legislation related to water supply such as:</p> <ul style="list-style-type: none"> • competing uses, • water quality standards, groundwater use, • demand management, resource conservation, private participation, institutional responsibilities for water sector functions 	
4	NEW	ADB will assist the DMCs in developing and adopting water action agendas that have clearly defined objectives and milestones linked to resources.	Has the state/city adopted a water action agenda with clearly defined objectives, milestones and resources?	
5	NEW	The needs of the poor will be specifically factored into legal, institutional, and administrative frameworks.	Have these policy/legislative/institutional changes taken account of the needs of the poor	
Water Resources Management				
6	7	<i>Reallocation of water among competing uses is rapidly becoming a common challenge in the region. This impacts most of the poor who are insufficiently empowered to claim water rights.</i> ADB will encourage the DMCs to adopt participatory and negotiated approaches for water allocation.	<p>Is the state experiencing problems with regard to sharing of water resources and if yes how has the national government helped in resolving these issues?</p> <p>Are there water resource sharing issues between rural and urban areas? If yes, how has the state helped in resolving these?</p>	Desk review and key informant interviews.

Improving Water Services				
7	19	<p>ADB's sector strategies within countries will identify the need for introducing phased programmes to increase the autonomy and accountability of service providers, either as new enterprises or by reorganising existing agencies.</p>	<p>Are the state/city agencies more autonomous now?</p> <p>What decisions are they able to take on their own, without referring to the state/national government?</p> <p>How was the organisation restructured to undertake the project? (Slow chart)</p> <p>What improvements have resulted from this reorganisation?</p> <p>What problems have resulted from this process?</p> <p>Are the state/city service providers more accountable to all citizens, including the poor and the slum dwellers?</p> <p>What systems have been created for redressal of community complaints?</p> <p>How effective are these systems?</p> <p>What is the capacity of the service agency to respond to the needs of the people and address complaints?</p>	<p>Desk review and key informant interviews.</p>
8	21	<p>User participation will also be supported to (i) make services and service providers more responsive and accountable to beneficiaries; (ii) align the provision of services with users' needs and ability to pay, thereby improving cost recovery and sustainability; and (iii) tailor institutional arrangements for water service management to local practices. Participation will be the cornerstone of ADB's country water sector strategies; institutional arrangements for participation, particularly at the community level, will be strengthened.</p>	<p>How are the needs of communities assessed?</p> <p>Is there a social department unit in the project office? Give a list of staff members and their qualifications.</p> <p>What is the role of the Social Development Unit?</p> <p>How many NGOs are there in the city?</p> <p>How many NGOs is the SDU engaged with?</p> <p>How was the NGO selection made?</p> <p>How are the assessment studies used for developing sub projects/local area action plans?</p> <p>What is the average level of household income of slum dwellers?</p> <p>Has a willingness-to-pay study been undertaken? If yes, what were the results? Willingness to pay, capability for paying, affordability among the slum dwellers.</p> <p>Are the poor able to afford prices that are increased annually?</p> <p>Are people able to afford all costs: Development costs Connection costs User charges</p> <p>Are people able to afford these both for water supply and sewerage connection?</p> <p>If not what are the solutions proposed by the local government?</p>	<p>Desk review, key informant interviews and surveys, FGD.</p>

Conserving Water				
9	28	ADB will consistently advise governments of the need to adopt cost recovery principles in their water policies and strategies. <i>Consumers will be expected to meet the full operating and maintenance costs of water facilities and service provision in urban and rural water and sanitation schemes subject to subsidy considerations.</i>	<p>What is the extent of non-revenue water in the city?</p> <p>Is the department able to make full cost recovery? For water, for sewerage?</p> <p>If not, why not?</p> <p>How was the cost of services determined?</p> <p>Is it variable for different socio-economic groups?</p>	Desk review, key informant interviews and surveys, FGD.
10	29	[ADB] will promote the phased elimination of direct subsidies to the poor for accessing basic water services in line with an increase in affordability levels. <i>ADB will support subsidies for water services where a limited quantity of treated water for the poor is regarded as a basic human need.</i>	<p>How are the subsidies to poor being better targeted? phased out?</p> <p>Are there any problems with the phase out?</p>	Desk review, key informant interviews and surveys.
11	30	<i>Regulatory agencies will be helped to develop water rights in a manner that protect the rights of the poor to equitable water services. ADB will promote the establishment of regulatory systems through policy dialogue with the DMCs and by leveraging loan and technical assistance programmes to this end.</i>	<p>Is there a regulatory authority in the city? State?</p> <p>Who are its members? Who are the members from the civil society?</p> <p>How does the regulatory body protect the rights of poor?</p>	Desk review and key informant interviews.
Fostering Participation				
12	36	<i>Getting the poor to participate, and mainstreaming them into community thought and action, will be a key area of ADB work. Communities and individuals that are underserved –including the urban poor and the socially excluded, such as ethnic minorities and indigenous peoples –need to be mainstreamed; ADB will promote the reentering of such communities and individuals. ADB will promote participation in the management of water resources at all levels and collaborate in fashioning partnerships between governments, private agencies, NGOs, and communities. <i>The poor must be enabled to influence decisions that affect their access to water for both consumptive and productive uses.</i></i>	<p>What mechanisms/systems are in place for people to participate in the management of water and sanitation resources?</p> <p>Has the private sector been involved in the management of water supply and sewerage?</p> <p>If yes, how?</p> <p>How do the private companies engage with the poor communities?</p> <p>What is the role of NGOs in service provision?</p> <p>Can the role of NGOs be enhanced to include other areas of planning and design of services and management and maintenance?</p>	Desk review, key informant interviews, focus group discussions.

13	37	Water projects supported by ADB will incorporate carefully designed components that promote the participation of civil society in identifying needs and issues, designing solutions, and establishing mechanisms for monitoring and dispute resolution.	<p>How has the civil society been involved in the project planning?</p> <p>How are the NGOs selected? What is the nature of their involvement in the project?</p> <p>What specific changes have been introduced due to NGO participation in project implementation?</p> <p>Have any mechanisms been established for monitoring and dispute resolution in partnership with the NGOs?</p>	Desk review, key informant interviews, focus group discussions
14	38	<p><i>ADB will strengthen women's ability to participate more effectively through discrete programmes targeted at educating women, empowering them, and enabling their involvement in community-based decision making.</i></p> <p>The key elements in a gender approach to planning, implementing, and evaluating of water sector activities are (i) including a gender analysis at the design stage, (ii) incorporating explicit gender equity provisions in the objectives and scope of the activity, and (iii) disaggregating data in monitoring and management information systems along gender lines. These elements will be incorporated in ADB's water sector operations.</p>	<p>In what way have the projects specifically targeted the needs of women?</p> <p>How do NGOs engage with women user groups?</p> <p>Has data been disaggregated to provide information along gender lines?</p>	Desk review and key informant interviews.
15	NEW	<i>Tools, including guidelines for the design and implementation of successful participatory processes in water sector activities will be developed.</i>	What tools have been developed as part of the project to promote processes for participatory planning? To monitor participatory processes?	Desk review and key informant interviews.
Improving Governance				
16	39	ADB will promote the development of sustainable plans for capacity building ; these will include the establishment of indigenous institutional arrangements for skills development at basic and advanced levels. The plans will incorporate processes that allow the sharing of sub-regional or regional experiences.	<p>To what extent does the project offer opportunities for sharing experiences in the project?</p> <p>When was the last experience-sharing workshop held at the city level? At the state level?</p> <p>Are experience-exchange visits organised for project staff to other cities in the state? Outside the state?</p> <p>What learnings from these visits have been integrated within the project framework?</p>	Desk review and key informant interviews.

17	NEW	<p><i>ADB will work to establish appropriate standards of predictability and transparency in line with its anticorruption policy.</i></p>	<p>How has the project ensured that there is transparency of procedures?</p> <p>How many tenders/projects are delayed due to objections that relate to financial irregularities? Have communities made allegations of irregularities against project staff/contractors?</p> <p>How many contractors have been engaged in project implementation? How were these contractors identified?</p> <p>What are the penalties for non-performance by contractors?</p> <p>Has the project used CBO groups for project implementation? How has the cost of works compared with that given to a contractor?</p> <p>Have CBOs been involved in monitoring project works in their areas? If yes, have there been any complaints of irregularities? Describe?</p> <p>Is the community made aware of tendering provisions and do they use this knowledge to assess if the contractor is delivering as per specifications?</p>	<p>Desk review and key informant interviews.</p>
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Annexure 3. **List of settlements undertaken for survey in the cities**

State	City	Selected Project Settlements	Selected Non Project Settlements	Selected High Income Group Area
Karnataka	Ramnagaram	Kothipura	Rayaradodi	Vivekanand Nagar
		Yarobnagara	Kodipura	–
		Ijoourgudda, Indiranagar	–	–
	Karwar	Habbuwada	Konkan Kariwada	Jayanagara
		Indra Nagara	–	–
		Puralakhibena	–	–
Rajasthan	Jodhpur	Pahadganj I	Pahadganj II	Laxmi Nagar
		Chhipanadi	–	–
		Jagjeevan Ram Colony	–	–
		Eklavya Bheel Basti	–	–
	Ajmer	Pratap Nagar	Moti Vihar	Shastri Nagar
		Chisti Nagar	–	–
		Khanpura	–	–
		Vaikha Basti	–	–

Annexure 4. Jodhpur, Indore and Bangalore NGO consultations

NGO Consultation (Jodhpur) DRDA Hall High Court Complex 2 April 2005	
Name	Organisation
Prem Kumar Bhati	Marudhar Ganga Society
B.K. Gupta	Alert Sansthan, Udaipur
Ajmal Singh Chauhan	Manav Aashrita Sansthan, Udaipur
C.B.S Khanjan	Indian Institute of Human Help, Ajmer
B. R. Meghwal, J.R. Vishnoi	Dr. B.R. Ambedkar Shiksha Samiti
Amit Kr. Behal, Meena Arora	IIRM, CAPP NGO Jodhpur
Dr. S. R. Rajpurohit, Raviraj Rajpurohit	Rajpurohit Seva Sansthan, Udaipur
Sylvestor B. Ariel	Jyoti Vikas Samiti, Ajmer
Abhay Moondra	Capacity Building Team, Jodhpur Municipal Council
Pritisha Purohit	Thar Voluntary Health Society, Jodhpur

NGO Consultation (Indore) Pagnis Paga Bal Niketan Sangh 1 June 2005	
Name	Organisation
Anup Sahay	AARAMBH, Bhopal
Goutam Bendwal	Lok Biradari Trust, Indore
Gokul Krishna Nair, Jeevan	Pushpkunj, Indore
Preeti Nigam	Bharatiya Grameen Mahila Sangh
Prashant Tiwari, Kiran Shivhare, Mamta Jain	CECOEDECON, Indore
Anjali B. Kumar	Indore Diocese Social Service Society
Natwar Singh Lodhi	Jatam Society, Community Based Organisation, Indore
M. L. Yadav	VASPS, Indore
Dr. Sandeep Mishra	MP Voluntary Health Association, Indore

Bangalore consultation participants

	Name	Organisation/NGOs	Address, Phone & Email
1	G. Ramachandran	S.B.W.R	1/1 Pete Narvanappa Bldg, 2 nd Erose, 9 th 'B' Main, Hosahalli, Vijaynagar, Bangalore-40 Ph. 23507697
2	Venkatesh	RLHP	RLHP, No. 343 IIInd stage, Gayathripuram, Vaayagiri Post, Mysore. Ph 0821-2451216, 09448589998 Email: rlph@sancharnet.in
3	P. Shanhuga Sundaram	Shantha Jeeva Jyothi	No. 348 J.K Pura, Shanthinagar, Bangalore-560030 Ph. 22234093 sjj@sancharnet.in
4	R. Pankaja	S.B.W.R	1/1 Pete Narvanappa Bldg, 2 nd Erose, 9 th 'B' Main, Hosahalli, vijaynagar, Bangalore-40 Ph- 23507697
5	Hyentha Pimto	SAKTI	85, Rajagraha 1315 Cross, 25 th Main J.P Nagar, II Phase, Bangalore.
6	Shrini Badiger	CISED (Center for Interdisciplinary Studies in Environment & Development	ISEC Campus, Nagariathani, Bangalore-82 Tel-050-23217013
7	Greig Samdilands	Janagraha (Citizen participation in the greater Bangalore Water & Sanitation Programme)	Janagraha 198, Nandidurga Road, Jayamahall Bangalore-46 Ph. 080-23542381
8	Dr. Joseph Panochel	Parinati #2928 Crystal Plaza Koramayala	P.B No 2928 3 rd Floor, 12 Caveryout near Crystal Plaza Opp Fieere Ph. 25522070
9	Biraj Swain	WaterAid India	25, Navjivan Vihar, Malviya Nagar New Delhi-110017
10	B.M Doiddivan	Mamtha Hakkala Mandira	Kauska Vidya Sanstah Hoodalalpalaya, Bangalore-560072 Ph-23502234 9448075005
11	Shakunthala	Indira Priya Darshini, Mahila Seva Sangha	No.17, 1 st Cross, Ullal main road, Muneshwaranagara, Bangalore-560056 Ph. 080-23214061 9448064061
12	Ramkumar	APSA,34 Bangalore	25232749

Annexure 5. Indicative seasonality diagram

	Month	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb
1	Scarcity of Water Supply												
2	Poor Water quality												
3	High Water Bills												
4	Sanitation Problems												
5	High Health Problems												
6	Increased Awareness on Health Habits												
7	Increased Drainage Problems												
8	Increase in time taken for water collection												
9	Decrease in Income												
10	Increase in Expenditure												
11	Reduced attendance in schools												
12	Increased Participation of community groups in community activities												

Annexure 6. Framework for developing matrices

Options/ Choices Issues	A	B	C	D	E
Water Supply Sources	Community Standpost	Tanker Supply	Informal water Vendor	Illegal HH Extensions	Legal HH Extensions
Ranking (1-5) from most preferred to least preferred					
Sanitation services	Community toilets	Individual toilets connected to Sewerage	Individual toilets with septic tanks	Dry pit latrines	Open defecation
Ranking (1-5)					
Health care Facilities	Primary health centres	Government hospitals	Private Clinic/ Doctors	Midwives/ traditional practitioners	Others
Ranking (1-5)					
Waste collection and disposal	Collected and disposed by Municipal sweepers	Collected and disposed by Private Sweepers	Self disposed in Municipal Dhalao	Self disposed in open	Others
Ranking (1-5)					
Sources of Credit	Bank	Cooperatives	Money Lenders	Self help groups	Thrift and credit society
Ranking (1-5)					
Reasons for taking credit	Water connection charges	Toilet construction	Home Reconstruction	Family functions /weddings	Others
Ranking (1-5)					

Annexure 7. References from articles, reports and internet sources

1. ADB, *India Country Strategy and Programme*, 2003-06
2. CAPP: *A Review Report*, KUDCEM, December 2004, pp 40-42
3. Census of India, *Tables on Houses, Households Amenities & Assets, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Pondicherry, Lakshadweep*, Data Product No.: 00-036-2001-Cen-CD, 2001.
4. Census of India, *Tables on Houses, Households Amenities & Assets, Rajasthan, Madhya Pradesh, Chhattisgarh*, Data Product No.: 00-034-2001-Cen-CD, 2001.
5. Centre for Urban and Regional Excellence (CURE), Draft Report, *Economics of Resettling Low income Settlement (slums) in Urban Areas: a case for Onsite Upgrading*, March 2005
6. Centre for Urban and Regional Excellence (CURE), Sanei report, *Study on Economics of Resettlements versus On site Upgrading*, Feb, 2005
7. CUSRI, *The ADB Policy and (Mis) Governance in Asia*, Focus on the Global South, May 2005
8. Dalal Mott MacDonald, *Baseline Study Report for Ajmer City*, March 2005.
9. Dalal Mott MacDonald, RUIDP, *Baseline Study Report for Jodhpur City*, March 2005.
10. DJB literature review, *Access to Water & Sanitation Services by Urban Poor in Delhi*, September 2004, CURE
11. Focus on the Global South, The ADB and Policy (Mis) governance in Asia, www.focuweb.org, May, 2005
12. Gaussen Esme & Botha Lindi. *Report on the Definitions and Measurement of Aid Effectiveness by the Asian development Bank and Other Organisations*. Prepared for WaterAid, March 2004.
13. Government of India, *National Water Policy 2002*.
14. IHS, ORG, HSMI and Haskoning, TA 2202-IND *Capacity Building for Improved Infrastructure Development in Selected Municipalities in Karnataka, India* February 1998.
15. IRC International Water and Sanitation Centre, *Financing and Cost Recovery -Thematic Overview Paper*, December 2003
16. Interim Review Of ADB's Water Policy Implementation, Report of *The In-House Study by ADB's Water Sector Committee*, February 2004
17. Karnataka, *State Water Policy*, 2002
18. Kirloskar Consultants, *Pre-Feasibility Study Rajasthan Urban Infrastructure Development Project*, Volume I, March 1998
19. National Sample Survey Organisation, *58th Round, Condition of Slums*, 2002
20. Planning Commission, Government of India, *Tenth Five Year Plan* (2002-2007).
21. Rajasthan, *State Water Policy*
22. RUIDP Annual Report, December 2004
23. RUIDP Annual Report, February 2005
24. Tewari V and Khosla, R et.al, *ADB report*
25. The Water Policy of the Asian Development Bank, *Water for All*, 2001 pp 15-16
26. Tewari V, Khosla, R. et al. *Urban Poverty Reduction Strategy in India*. 2002
27. Vrinda Grover, Pg 52, *From The Periphery To The Centre, A Rights Based Approach To Urban Poverty*, CARE PLUS, June 2002
28. WaterAid, *Water and Sanitation in Madhya Pradesh, A profile of the State, Institutions and Policy Environment*, India, 2005
29. Urban administration & Development Department, *Main Report- Vol 1*, IUDMP, ADB Ta No. 3759-IND, December 2002
30. Urban administration & Development Department, *Draft Final Report, Vol. 2- City reports Ratlam*, IUDMP, ADB Ta No. 3759-IND, December 2002

Internet sources:

1. Asian Development Bank 2004. Retrieved: January 20, 2005 from <http://www.adb.org/Documents/RRPs/IND/rrp-R62744.pdf>
2. Asian Development Bank 2004. Retrieved: January 20, 2005 from http://www.adb.org/Documents/RRPs/IND/rrp_ind_32254.pdf
3. Asian Development Bank 2004. Retrieved: January 20, 2005 from <http://www.adb.org/Documents/RRPs/IND/rrp-R18998c1.pdf>
4. Asian Development Bank 2004. Retrieved: May 26, 2005 from <http://www.adb.org/Documents/CSPs/IND/2004/cspo200.asp>
5. Asian Development Bank 2004. Retrieved: May 26, 2005 from <http://www.adb.org/Documents/reports/operations/2004/default.asp#lending>
6. Asian Development Bank 2004. Retrieved: May 26, 2005 from <http://www.adb.org/Documents/Profiles/default.asp?key=ctry&val=LOAN&scpe=12>
7. Asian Development Bank 2004. Retrieved: May 26, 2005 from http://www.adb.org/documents/periodicals/adb_review/2004/vol36_1/taking_charge.asp
8. Asian Development Bank 2004. Retrieved: May 26, 2005 from <http://www.adb.org/Documents/RRPs/IND/rrp-R50945.pdf>
9. Asian Development Bank 2004. Retrieved: May 26, 2005 from <http://www.adb.org/Documents/RRPs/IND/rrp-R27132.asp>
10. Ministry of Finance, GOI, May, 2005, <http://indiabudget.nic.in>
11. Guidelines for posting, implementation and monitoring of externally aided projects – posted at the DEA website, http://finmin.nic.in/the_ministry/dept_eco_affairs/

Annexure 8. List of indicators for assessing community outcomes

Project Output	Objectively Verifiable Indicator	Means of Verification	Important Assumptions and External Factors
Community Organisation	<ul style="list-style-type: none"> Number of Functioning Sanghas and Functional Groups 	<ul style="list-style-type: none"> Before and after survey 	<ul style="list-style-type: none"> There is no political interference
Improved Health	<ul style="list-style-type: none"> Increased proportion of children in “Safe” nutritional levels 	<ul style="list-style-type: none"> Height to Weight Monitoring Charts 	<ul style="list-style-type: none"> Experienced NGOs are available
Improved Primary Education	<ul style="list-style-type: none"> Enrolment Rate Dropout Rate 	<ul style="list-style-type: none"> School Records 	<ul style="list-style-type: none"> There are no adverse events which could pull children out of school
Increased Earnings from Livelihoods	<ul style="list-style-type: none"> Average increase in investment base Number of new businesses 	<ul style="list-style-type: none"> Before and after survey 	<ul style="list-style-type: none"> Economic downturn does not squeeze credit for poor entrepreneurs
Increased Access to Credit	<ul style="list-style-type: none"> Number of Functioning Credit Groups Number of Bank Loans accessed 	<ul style="list-style-type: none"> Before and after survey 	<ul style="list-style-type: none"> Economic downturn does not squeeze credit for poor entrepreneurs
Increased Access to Basic Services	<ul style="list-style-type: none"> Number of New Water Supply Connections Number of Low Cost Toilets 	<ul style="list-style-type: none"> Before and after survey 	<ul style="list-style-type: none"> People’s wishes are taken into account in the design of infrastructure and delivery systems

Annexure 9. BME logical framework for Rajasthan

घरों/यात्रियों के लिए प्रश्नावली - गली, सड़क विस्तारीकरण

शहर पैकेज नं.

प्रश्नावली घरों यात्रियों के लिए

व्यक्ति का नाम
एवं पता

टेलीफोन/मोबाईल/फैक्स

1. विस्तारीकरण या सुदृढीकरण के पहले रोड को पार करने में कितना समय लगता था?
2. विस्तारीकरण एवं सुदृढीकरण के पहले आपके विचार से यातायात एवं भीड़-भाड़ की क्या समस्याएं थीं?
3. क्या इस रोड़ पर वायु और ध्वनि प्रदूषण है?
4. क्या आप यातायात के नियम व कानून से अवगत हैं?
5. क्या आपके विचार से इस रोड के विस्तारीकरण या सुदृढीकरण की जरूरत थी?
6. आपको गली चौड़ी के दौरान किस तरह की समस्या हुई?

अ. स्थान का नुकसान ब. प्रदूषण स. व्यापार का नुकसान

द. वाहनों की भीड़-भाड़ य. अन्य

7. क्या इससे रोजगार की संभावना बढ़ी है? हाँ नहीं

निरीक्षक का नाम

हस्ताक्षर

दिनांक

Annexure 10. Table showing India's external debt

India's External Debt Outstanding (US\$ million)										
Category	End-March								End-December	
	1991	1996	1998	1999	2001	2002	2003	2004	2003R	2004QE
Long-term Debt	75,257	88,696	88,485	92,612	97,698	96,098	100,289	107,284	106,778	114,033
Short-term Debt	8,544	5,034	5,046	4,274	3,628	2,745	4,669	4,431	6,023	6,864
Total External Debt	83,801	93,730	93,531	96,886	101,326	98,843	104,958	111,715	112,801	120,897

Source: India's External Debt – A Status Report, Dept of Economic Affairs.

Annexure 11. Projections of debt service payments

Year	Principal	Interest	Total
2005-06	10,910	3,228	14,138*
2006-07	6,175	1,622	7,797
2007-08	7,078	1,544	8,582
2008-09	7,643	1,350	8,993
2009-10	9,619	1,204	10,823
2010-11	4,780	995	5,775
2011-12	4,460	879	5,299
2012-13	3,804	752	4,556
2013-14	3,656	660	4,316
2014-15	3,500	581	4,081

Projections exclude NRI Deposits and FII investment in Government Debt Securities.

* Includes repayment on account of India Millennium Deposits.

Source: India's External Debt – A Status Report, Dept of Economic Affairs.

Annexure 12. Table showing loans outstanding from ULBs as on 31.03.2005

Sl. No.	Beneficiary Agency	Total Release of Loan including IDC*	Over dues	Current Dues	Total Dues	Repayment (Principal + Interest)
1	Ramnagaram & Channapatna Urban Development Authority	9.03	13.39	0.28	13.67 Dues exceed the Loan	-
2	Channapatna City Municipal Council	14.074	4.65	0.57	5.22	-
3	Maddur Town Municipal Council	4.73	0.34	0.17	0.51	-
4	Mandya City Municipal Council	8.32	0.60	0.31	0.91	-
5	Mysore Urban Development Authority	74.83	10.95	2.24	13.19	16.00 Repayment exceeds the Dues
6	Mysore City Corporation	120.30	22.63	4.51	27.14	4.10
7	Ramnagaram City Municipal Council	30.57	3.70	1.29	4.99	-
8	Tumkur Urban Development Authority	23.15	9.35	0.80	10.15	2.79
9	Tumkur City Municipal Council	42.09	6.00	1.58	7.58	-
10	Karnataka Industrial Area Development Board	10.42				
	Total	338.19	71.61	11.75	83.36	37.47 (44.9% of dues)

*IDC – Interest During Construction

The KUIDP loan, including IDC amounted to 338.19 crores, of which, the Mysore City Corporation has been the highest recipient of loan, amounting to 120.30 crores or 35% of the total loan amount, followed by Mysore Urban Development Authority, which received 74.83 crores or 22.12% of the total loan amount. Mysore City Corporation followed by Ramanagaram & Channapatna ULB's have the highest overdue amounts being 22.63 & 13.39 crores respectively. Of the total ten beneficiaries of loan only three, Mysore Urban Development Authority, Mysore City Corporation and Tumkur Urban Development Authority have started repayment of the loan. The total amount repaid as on 31.3.2005 was 31.47 crores, which included Rs.16.00 crores from Mysore Urban Development Authority.

Annexure 13. Table showing income projections made for Ratlam municipal corporation

Income Projections								
	2002	2003	2004	2005	2006	2007	2008	2009
	Actual	Projections						
Property tax	6530	16583	24245	33989	44638	49309	50610	55385
Increase over previous year %		154%	46%	40%	31%	10%	3%	9%
Income from water	14520	19230	26180	40037	46458	47805	51545	56139
Increase over previous year %		32%	36%	53%	16%	3%	8%	9%
	2010	2011	2012	2013	2014	2015	2016	
	Projections							Increase Factor*
Property tax	55735	56267	54178	62693	64774	65785	66534	10.2 times
Increase over previous year %		1%	-4%	16%	3%	2%	1%	
Income from water	70692	76942	83834	91153	102413	111931	121800	8.4 times
Increase over previous year %		9%	9%	9%	12%	9%	9%	
* No. of times the figure in year 2002.								
CAGR : Compound Average Growth rate								

Source: Draft Final Report, Vol. 2, IUDMP

Annexure 14. Salient features of SWM scheme by Government of India would include:

- Formation of SWM teams comprising 5 women from SHG in each;
- Division of the city into SWM wards (1000 household = 1 SWM Ward);
- Removal of all dustbins; Only one big dumping site where operators will dump the entire waste after collection from individual h/hs;
- No proposal for cess to be levied;
- For primary collection (door to door) levy domestic user charges of 20/- to 50/- pm depending on payment capability;
- Commercial properties will be levied user charges at the rate of 50/- and above;
- SWM teams will manage the entire operation (collection of waste, dumping, collection of user charge) ;
- They will procure equipments at subsidised costs (50% grant, 50% loan). Monthly loan repayment to be done over certain time period;
- ULB will be responsible for entering into agreement with the SWM teams for duration of 5 years.
- Employment opportunity for the BPL beneficiaries and empowerment of women folk;
- It is anticipated that if collection efficiency is around 80%, then team can earn upto 25000/-. After repayment of loan, each head income will be in the range of 2000/- to 2500/-.
- In case of payment defaults, SWM team can approach ULB to claim deficit amount which the ULB shall be liable to pay upfront. ULB can recover the amount from the defaulters directly by issuing notices.
- Govt. is waiting for fund clearance. 12th finance grants will be used to procure equipments.
- GO will be issued when clearance is obtained. Approx. in 5-6 months scheme should become operational.

Annexure 15. **Table showing the percentage of grant included in on-lending by the government (KUDCEMP)**

Water Supply Rehabilitation and Expansion	For population below 20,000: 100% Grant For population between 20,000 and 75,000: 50% Grant For population over 75,000: 23.3% Grant
Underground Drainage	For population below 20,000: 100% Grant For population between 20,000 and 75,000: 50% Grant For population over 75,000: 23.3% Grant
Storm Water Drainage	100% grant
Low Cost Sanitation	100% grant
Solid Waste Management	50% grant
Septic Waste Management	100% grant
Slum Improvements	100% grant

Annexure 16. **Sectoral allocation of KUIDP and KUDCEMP**

Amount	KUIDP		KUDCEMP	
	Rs. Crores	Percentage	Rs. Crores	Percentage
Water Supply	57.3	18.4%	371.1	36.0%
Drainage & Sewerage	80.7	25.9%	93.0	9.0%
Low Income Sanitation	5.3	1.7%	21.4	2.1%
Solid Waste Management	5.9	1.9%	46.2	4.5%
Roads	42.3	13.6%	101.9	9.9%
Residential Sites & Services	53.6	17.2%	0	-
Industrial S&S	21.1	6.8%	0	-
Sub Projects	-	-	106.1	10.3%
Others	45.0	14.5%	290.1	28.2%
TOTAL	311.2	100.0%	1029.8	100.0%

Annexure 17. Table showing allocations to project districts in Rajasthan

Allocations (Rs. in lakhs)						
Ninth Plan						
District	1997-98	1998-99	1999-00	2000-01	2001-02	Total
Ajmer	593	420	312	322	433	2080
Bikaner	348	364	338	305	307	1662
Jaipur	1298	1397	1376	1468	1567	7106
Jodhpur	521	496	422	480	534	2453
Kota	1088	1148	1033	1023	877	5169
Udaipur	928	786	652	773	782	3921
Annual Plans						
District	2002-03	2003-04				
Ajmer	2719	1195				
Bikaner	41	95				
Jaipur	2145	1874				
Jodhpur	312	1213				
Kota	258	316				
Udaipur	1272	1080				

Source: Rajasthan Ninth Five Year Plan 1997-2002, District wise Expenditure

Annexure 18. List of key informants

Settlement level

City	No.	Name	Position
Jodhpur	1	Sugnarm Devishi	Pradhan, Pahadganj II
	2	Amir Bakh	Shopkeeper, Eklavya Bheel Basti
	3	Satya Narain Sharma	Pradhan, Pahadganj I
	4	Shameem Mohammad	Chhipanadi
	5	Omprakash	Pradhan, Jagjeevan Ram Colony
	6	Ram Singh	Councillor, Laxmi Nagar
Ajmer	7	Ghanshyam Singh Rathore	Member of Mandir Samiti, Shastri Nagar
	8	Shahir Singh Shakhawat	President, Pratap Nagar
	9	Dileep Singh Chhabra	Ex Serviceman, Moti Vihar, Ramnagar
	10	Bhavri Devi	Preseident and Mayor, Bhairwa Basti
	11	Babu Bhai	Contractor, Chisti Nagar
Karwar	12	Mamta Naik	Community Organiser and Health Worker, Indra Nagar
	13	Roopa V Naik	Habbuvada
	14	Uma N G	Chaluvadi Galli
	15	Gowda	NGO Coordinator, Puralakki Bena
	16	Geeta Naik	Health Community Organiser, Puralakki Bena
	17	Vandana, R. Banavalli	Community Leader, Konkan Karivada
Ramnagaram	18	Krishnappa	Waterman, Ijoorgudda
	19	Siddharaju	Community leader, Rayardoddi
	20	Narayanappa	Councillor, Kothipura
	21	Shantmalaya	Local leader, Kodipura
	22	Sayed Wajid,	Councillor, Yariobnara
	23	H M Nanjegowda	Ex Zila Parishad Member, Vivekanandnagara

Institutional level

PMU, RUIDP, Rajasthan	1	Rohit Kumar Singh (IAS)	Project Director	
	2	M C Rajoria	Financial Advisor	
	3	N S Shekhawat	Addl CE/Dy Project Director (T)	
	4	P Agarwal	Project Officer (Plan & Mon-I)	
	5	Ashok Srivastva	Project Officer (Co-ord)	
	6	A K Chaturvedi	Project Officer (Plan & Mon-II)	
	7	B.K. Gupta	Dy Team Leader PMC- Louis Berger Group, Inc	
	8	Robert Berlin	Team Leader, PMC	
	9	Usha Gopinath	Team Leader, BME	
	10	Gandhi	Astt Director Planning	
PHED, Jaipur	11	Ratan Singh	Executive Engineer, PHED	
	12	Bharat Meena	Secretary PHED	
	13	S.K. Mittal	Director (Budget)Finance Department	
	14	Veena Gupta	Secretary Planning	
	15	Leela Bhatnagar	Dy. Secretary Planning	
	16	C.P. Mandavaria	Jt Director Planning	
	PIU, Jodhpur	17	GL Sharma	Superintending Engineer
		18	Rajiv Mathur	Executive Engineer, Slum Improvement
19		Nirmal Mathur	Assistant Engineer, Slum Improvement	
20		Mahesh Sharma	Executive Engineer, Drainage	
21		Ajay Gupta,	Executive Engineer, Sewerage Works	
22		Amit Kumar Behl	IIRM, CAPP	
23		Sanju	IIRM, CAPP	
24		Shyam Sundar	TCE	
PHED, Jodhpur	25	Purohit,	SE, PHED – Jodhpur	
Municipality, Jodhpur	26	Abhay Mundra	Oswal Data Processing, Municipal Reforms, Jodhpur	
PIU, Ajmer	27	Sh R.K.Dugar	Superintending Engineer	
	28	Ajmera	Astt. Engineer RUIDP	
	29	Paras Bhagchandani	Accounts Officer RUIDP	
PHED, Ajmer	30	K.M. Mathur	Addl Chief Engineer PHED	
	31	Rathi	Executive Engineer PHED	
Municipality, Ajmer	32	Vishwajit Singh	Accountant, Nagar Parishad	
KUWSDB, Bangalore	33	Srinivasan Reddy	Managing Director	
	34	B M Nagesh	Engineer	
Consultant	35	John Cope	Team Leader, KUDCEMP	

KUIDFC, Bangalore	36	Asok Jain	GM, Urban Affairs
	37	P Bathanal	Advisor, Municipal Reform Cell
	38	Raghavendra Purohit	Assistant GM, Urban Water Supply
	39	B V Chandrashekhar	Engineering Advisor
	40	V Chandramohan	Executive Director, Finance
	41	K S Ravindra Prasad	Deputy GM, Finance
	42	B S Niranjana Murthy	Manager, Finance
	43	N R N Simha	Assistant GM, Technical
	44	Syed Ateequallah	Social Development Officer
	45	Ramkumar	SWM Cell, KUIDFC
Municipality, Ramnagaram	46	Shivarna	Commissioner
	47	Shivanna	Assistant Executive Engineer
PWD, Ramnagaram	48	Manjunath	Engineer
PIU, Karwar	49	Pandurang Nayak	Deputy Project Director, KUIDFC
	50	C H. Nadigere	Deputy Manager, Institutional, KUIDFC
	51	Achyut Nayak	KUIDFC
PMC, Karwar	52	R Sharma	Consultanta, Black and Veach, Karwar
DSC, Karwar	53	T Subramani	Engineering Consultant, CES
CAPP	54	R C Bhatt	Project Officer, Myrada
	55	P Radhakrishna Rao	Project Officer, SKDRDP
Municipality, Karwar	56	Joshi	Deputy Commissioner
PMU, Madhya Pradesh	57	S N Misra (IAS)	Project Director
	58	M A Khan	Deputy Project Director
	59	Gopal Reddy	Director of Municipalities
	60	Suresh Gupta	Consultant appointed by ADB
	61	Rajeev	DFID
	62	S. Bhattacharya	Deputy Team Leader, ADB
	63	U.K. Sadhav	Joint Director, Directorate of Urban Administration and Development
Indore	64		Project Director
	65		Municipal Commissioner
	66	Prashant Tiwari	NGO member
Ratlam	67	Gopal Chand Dhand	Municipal Commissioner
	68	R.K. Choubhey	Ratlam Municipal Corporation Engineer (water works)
	69	Vyas	Accounts Officer, Ratlam Municipal Corporation

Annexure 19. WaterAid presentation in the ADB Delhi Meet in September, 2005

Implementation of the ADB Water Policy *India Case Study*

WaterAid India
CURE

Scope of the India case study

- Only urban water and sanitation ADB projects reviewed
- 3 consultations with civil society in India – Bangalore Jodhpur and Indore
- Community interaction
- Institutional review and interaction – PIU/PMU
- Sharing of findings with Nepal and Bangladesh WA colleagues & NGOs
- Peer review experts inputs

Methodology

- ADB Projects reviewed in this study
 - Ongoing: RUIDP (Rajasthan) KUDCEMP (Karnataka)
 - Completed: KUIDP (Karnataka),
 - Originating: UWSEIP (Madhya Pradesh)
- Cities, Settlements and Households: Purposive and Random Sampling**
 - 2 cities from each state (MP not included)
 - 4 project slums ,1 non project slum and 1 High Income settlement
 - 15 HHs per settlement for 6 settlements in a city, for 4 cities
- Development of Tools - Based on RQ 1,2,3,4,5**
 - **RQ #2**
 - Household questionnaires, household social mapping and focus group discussions,
 - PLA tools such as Trends, Seasonality diagrams and Matrix Ranking
 - Households mapping and PLA tools not done in HIG areas
 - **RQ 1,3,4,5**
 - key informant interviews & review of ADB supporting documents

Limits of the Study

- Drawing common inferences from different projects
 - Most projects studied pre-date Water Policy of ADB
 - Focus of some projects was only sewerage, making water supply indicators redundant
 - MP Project only now taking off
- Did not review ADB Water Policy Implementation with ADB internal operating procedures, loan portfolio analysis and policy impacts
- Gender & subsidy issue haven't been examined at a macro-level
- Monitoring the Water Policy implementation through sample projects

Key Considerations of Methodology

- Three different phases of ADB projects in implementation
- Before and after – project interventions
- Poor and non poor – slum and HIG
- Intervened and non intervened
- Questionnaires and FGD (quality and quantity) – matching and comparing
- Micro and macro – policy, institutional and loan/debt

Specific Research Questions

1. What is ADB's involvement in WSS in BIN and its contribution to MDTs?
2. How effective are selected ADB water and sanitation projects in providing sustainable services to poor people?
3. How does ADB evaluate WSS projects and do these procedures need to be changed to enable ADB to know if sustainable services are being provided to poor people?
4. What are the financial implications of ADB project funding?
5. How is the ADB Water Policy reflected in project design and does the Policy need to be changed to make it more effective?

RESEARCH QUESTION 1

ADB's Involvement In WatSan Sector In India

ADB's involvement in the WSS in India

- 23.7% of total lending for Urban sector
- Only 14% of ADB's total investment in India is for UWSS
- New country strategy envisages one new urban development project each year

Contributions & Concerns

- Financial
 - WSS component cost (5 IUD projects): 56.3%
 - Direct pro poor component (slum packages): 2.84%
 - Present Scenario
 - Maximum of 28% of slums reached in each city
 - Most pro poor components are funded out of government funded projects
 - For 100% WSS coverage in urban areas, estimated ADB contribution: 6% (Expert Government Committee on Infrastructure Privatisation) *
- Sanitation coverage lagging behind water coverage in ADB projects
- Beneficiaries: Disaggregated data - poor and women lacking
- MP project classified as a 'poverty intervention' project, covers only 4% of poor population from select cities for WSS & with DFID grant works to 11.6%

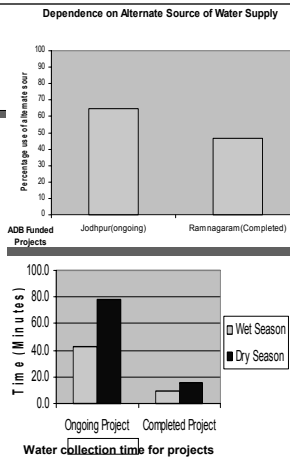
RESEARCH QUESTION 2

Are ADB Project Interventions Providing Sustainable Services To Urban Poor?

WATER SUPPLY

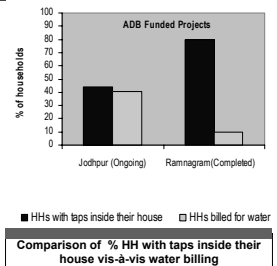
Water Supply Services improve in intervened slums

- Coverage of piped water supply up
- Reduced dependence on Alternate Sources
- Decreased time for Water collection
- Improvement in Quantity and Pressure, though less than expected



WATER SUPPLY

- Slum Improvement Projects do not plan for household connections, local governments provide as per local practice
- All HIG families have in-the-house connection but not others
- Not all houses with connections, metered or billed/Completed project had least meter-based billing
- Water quality – hh level treatment required
- Infrastructure quality issue in Rajasthan/Karnataka slums



SANITATION SERVICES

- Reduction in open defecation
- Improved city infrastructure
- Focus on construction of pit latrines despite sewerage being key intervention (KUDCEM)
- Continued Use of Septic Tanks and poor connectivity to the new system under RUIDP
- Few community latrines built under the project & were poorly maintained
- Community Toilets in Ajmer & Karwar but already deteriorating
- Significant decrease in household episodes of illness / epidemics and reduction in health expenditure

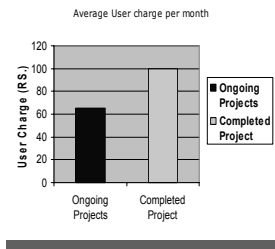
SWM

- 1/3 residents had access to municipal house-to-house waste collection service in intervened slums

CAPACITY TO PAY

Residents indicate poor capacity and/or willingness to pay

- Willingness to pay an issue for high income groups
- Poorest households opt for free water from community standposts citing affordability as the reason
- Connection costs high
- Hikes proposed in future not linked to capacity to pay studies

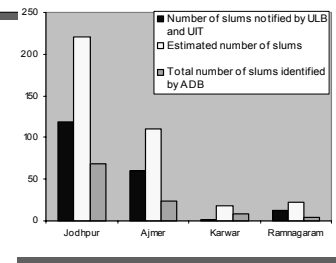


COMMUNITY PARTICIPATION

- No engagement during design phase
- High Awareness on projects but no information on slum improvement packages
- Inappropriate selection of NGOs in KUIDP/RUIDP (non-local NGOs)
- Infrastructure Development has not translated into Employment Opportunities for local people

No man's land: The Tenure Issue

- Slum Inclusion**
 - Non tenured slums missed - Low coverage
 - Slum improvement packages as stand alone
 - ADB maintains status quo: onus on city/state (MP Slum list dates back to 1984)



Institutional set up

Capacity building

Very junior staff from the ULBs or line departments posted in PIU.

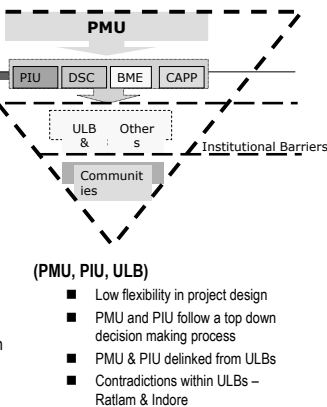
Staff unable to influence the management systems of their line departments

Engineering works handled by DSC without involvement of any local engineer

Grievance Redressal

Ramnagar has a 24 hour complaint centre

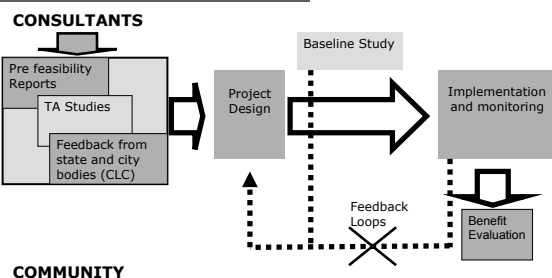
Complaint cell under Community Liaison officer (RUIDP), however under utilized



RESEARCH QUESTION 3

How does
ADB monitor and evaluate the WSS projects
and do these
procedures need to be changed
to enable ADB to know if projects are
ensuring sustainable services for the poor?

Benefit Monitoring and Evaluation



BME : A disconnect

- Pre Project
 - Feasibility studies do not identify key areas of intervention
- Post Project BME Studies
 - Data for slums aggregated with rest of the city
 - No common/comparative indicators (Baseline-BME and across cities)
 - Log frame indicators not used to assess outputs

RESEARCH QUESTION 4

**What are the
Financial Implications
of
ADB project funding?**

Loans – repayments and priority

- Loan Repayment
 - Minimal Awareness on Loan Obligations at the city level
 - Amount owed by city adjusted against grants by state
 - Increasing burden of debt
 - Worsening Debt/GSDP ratio of MP and Rajasthan
 - No perceived risk at national level
- Use of Loan money
 - ADB loans prioritise revenue generation
 - Depend on grant for poverty reduction components

Cost Recovery

- Cost Recovery Policy : full cost recovery of O&M through user charges
 - High projections of property tax in Ratlam (154% in first year). Over a 16 year period - 840% water tariff hike suggested & 1020% property tax
- Subsidies
 - Available to industrial and non domestic users

RESEARCH QUESTION 5

**How is the
ADB Water Policy
reflected in the
project design
and
Implementation?**

Policy Impact

- National Policy Reform**
 - Comprehensive Water Policies: No water sector assessments done
 - Optimisation of agency functions: Project based institutions work in silos
 - Water action Agendas: Support in development of action agendas, however no proof of implementation
 - Needs of the poor: provision of minimum services done, however not all slums in any project city mapped and few covered
- Improving water services**
 - Autonomy and accountability of service providers: State and city project offices lack flexibility. O&M and pricing by ULBs. Infrastructure creation and maintenance is de-linked
 - User participation: redressal mechanisms, tariff affordability

Policy Impact

- Fostering Participation**
 - Getting the poor to participate: CAPP lack capacity to engage with communities, Delayed intervention of NGOs
 - Gender approach: No concerted effort. Restricted to formation of SHGs
- Improving governance**
 - Capacity building: Systemic weakness of PMU/PIU staff, ULBs left out

Recommendations

- Engagement with City level Citizens' Forums and NGOs in all stages of a project.
- Timely Public disclosure of project information
- Active Grievance Redressal Mechanism
- Mapping all slums in identified project cities
- Baselines are done in time and use consistent parameters
- Disaggregated monitoring of impacts for poor, social and environmental parameters
- Prioritise Sanitation
- Debt monitoring and disclosure required – for clients at all levels

Recommendations

- O&M a key hurdle in sustainability of high cost ADB investments
 - ULBs and State govts need to look beyond loans and infrastructure creation
 - ADB public disclosure policy to consider this aspect
- Capacity of PIUs, PMUs and ULBs needs attention
- Engagement of NGOs is adhoc and contractual – technical and social expertise should be the criteria for selection, not simply lowest cost bidding
- Variable tariff policy & other pro-poor arrangements – defined and justified
- Regular assessments of improvements in services:
 - Water Quality, Adequacy, Access,
 - Intra city and inter city access to services
- Ability to Pay should be integral to all new projects, with focus on affordability, disaggregated for urban poor

Annexure 20. Research Question 2: Primary Survey Tools

1. Household Questionnaire	
Name of respondent:	
Name of Head of the Household:	
Relationship of respondent to the Head:	
Address:	
Settlement:	
City:	
Date:	
Name of Surveyor:	

1	What is the main source of drinking water used by the household?	
a	Piped Water	
i	Community Point	
ii	Within the House	
b	Protected well	
c	Protected/covered spring	
d	Unprotected well	
e	Unprotected spring	
f	Surface water such as river/ponds etc	
g	Ground water	
i	Tubewell in the community	
ii	Tubewell within the house	
iii	Protected handpump in the community	
iv	Protected handpump in the house	
v	Unprotected handpump in the community	
vi	Unprotected handpump in the house	
h	Water vendor	
	If yes, then do you know source of water from vendor (specify)	
1.1	Is it supported by the project?	
a	Yes	
b	No	
2	How long does it take you to fetch water from the main drinking water source in case you are using a community point (to go, wait, collect water and return)?	
a	Dry Season	minutes
b	Wet Season	minutes
3	How many such trips do you need to take in a day?	
a	Dry Season	
b	Wet Season	

4	What alternative source does your household use for drinking during periods of shortage?	
a	Piped Water	
i	Community Point	
ii	Within the House	
b	Protected well	
c	Protected/covered spring	
d	Unprotected well	
e	Unprotected spring	
f	Surface water such as river/ponds etc	
g	Ground water	
i	Tubewell in the community	
ii	Tubewell within the house	
iii	Protected handpump in the community	
iv	Protected handpump in the house	
v	Unprotected handpump in the community	
vi	Unprotected handpump in the house	
h	Water vendor	
	If yes, then do you know source of water from vendor (specify)	
5	When does your household use these sources?	
a	When the main source dries up	
b	When main source breaks down	
c	During times of low household income	
d	Others (specify)	
6	How often does this happen?	
7	How long does it take you to fetch water from the alternative drinking water source (to go, wait, collect water and return)?	
		minutes
8	Do you need to pay money to get water from the alternate source?	
a	Yes	
b	No	
9	Are you satisfied with the quality of water that you get from the main source?	
a	Yes	
b	No	
10	If not, what are the water quality problems in the dry/wet season	
a	Bad smell	
b	Bad taste	
c	Dirty	
d	Bad colour	
e	Hardness	
f	Floating particles	
g	Causes illness	
h	Others	

11	Are you satisfied with the quality of water that you get from the alternate source?	
a	Yes	
b	No	
12	If not, what are the water quality problems in the dry/wet season?	
a	Bad smell	
b	Bad taste	
c	Dirty	
d	Bad colour	
e	Hardness	
f	Floating particles	
g	Causes illness	
h	Others	

Questions for HHs using piped water supply at home or community point or community supply through tubewells

13	Is the present water supply sufficient to meet the different needs of the household?	
a	Yes	
b	No	
14	Tick those activities for which you do not have sufficient water supply?	
a	Drinking	
b	Preparing and cooking food	
c	Religious purposes	
d	Bathing/flushing	
e	Drinking water for cattle	
f	Washing clothes	
g	Washing utensils	
h	Economic (specify)	
i	Others (specify)	
15	Does the present piped water supply have adequate pressure?	
a	Yes	
b	No	
c	Don't know	
d	Others	
16	Is the water supply time convenient for you?	
a	Yes	
b	No	
c	Don't know	
d	Others	
17	Reasons for inconvenience	
a	Water comes during night	
b	Water comes early in the morning	
c	Water comes in the day while people are at work	
d	Others	

18	Overall (considering quality, quantity, accessibility, reliability), are you satisfied with the water supply?	
a	Yes	
b	No	
19	Do you feel there has been discrimination during project implementation?	
a	Yes	
b	No	
c	Don't know	
20	If yes, in what way?	
a	Taps have been installed only at certain locations	
b	Only selected households are using the taps	
c	Was not informed about the project	
d	Others	
21	Are there any individuals/groups who are being prohibited from utilising the public water source?	
a	Yes	
b	No	
c	Don't know	
22	If yes, who?	
a	Dalits, SC/ST groups	
b	Landless people	
c	Certain sick people (AIDS, Leprosy)	
d	Specific religious groups	
e	Others (specify)	
23	Are there any particular individuals/groups monopolising the public water source?	
a	Yes	
b	No	
c	Don't know	
24	If yes, then who?	
a	Economically affluent	
b	High caste	
c	Political leaders	
d	DWSS staff	
e	NGO staff	
f	Others (specify)	
25	Are women allowed to use public water taps during menstrual cycles?	
a	Yes	
b	No	

Environmental sanitation

1	Where do you and your family go to defecate now and before the project?	
a	Hygienic household latrine	
b	Unhygienic household latrine	
c	Public latrines	
d	Others	
<p>(Hygienic latrine is a latrine where there is no direct transmission route to the faeces – for example there is no way a fly can enter the pit, come into contact with faeces and come back out. For example: flush latrines connected to pits, septic tanks or sewers)</p>		
2	Why do people continue to practice open defecation in the community?	
a	Convenient	
b	Cannot afford latrine	
c	Dirty latrines	
d	Embarrassment	
e	Cannot change habit	
f	Others	
3	What does your household do with rubbish?	
a	Thrown outside and left	
b	Thrown outside and burnt	
c	Stored for collection to communal dump	
d	Stored and taken to communal dump	
e	Put in pit and left	
f	Put in pit and burned	
g	Put in pit and covered	

Hygiene

4	Do you wash your hands after defecation?	
a	Always	
b	Often	
c	Sometimes	
d	Never	
5	What do you use to wash your hands after defecation?	
a	Soap and water	
b	Ash and water	
c	Mud and water	
d	Just water	
6	Do you wash your hands before eating?	
a	Always	
b	Often	
c	Sometimes	
d	Never	

7	What do you use to wash your hands before eating?	
a	Soap and water	
b	Ash and water	
c	Mud and water	
d	Just water	
8	Do you think that the overall hygiene of your family has improved after the implementation of the project?	
a	Yes	
b	No	
c	Don't know	
9	If yes, in what way?	
a	Less frequency of diseases	
b	Members are now more healthy	
c	Less money spent on medicine	
d	Time and money saved from travelling to health posts	
e	Others	
10	The number of diarrhoeal incidences among all the family members in the past month?	
11	Do you take any steps to treat water prior to drinking?	
a	Boil water	
b	Filter water	
c	Leave the water for some time in copper pots	
d	Cover taps with cotton clothes	
e	Others	
12	Are the drains along your house cleaned regularly?	
a	Yes	
b	No	
c	Don't know	

Capacity to pay

1	What is your monthly family income now ?	Rs.
2	What was your monthly family income last year ?	Rs.
3	Is the increase due to	
a	More members of family now working	
b	More time available for income generation activities to the existing members	
c	Others (specify)	
4	What is the occupation of main earning member in the family?	
5	Are you being charged for water?	
	Yes	
	No	
6	If yes then how much do you pay per month?	
7	How much did you pay per month last year?	
8	Did you pay for getting a household water connection? How much?	

9	Do you have a metered supply or pay by flat rate?	
10	Do you face problem in paying for water?	
a	Yes	
b	No	
11	If yes then, what is the problem?	
a	Too expensive	
b	Unwilling to pay for low service level	
c	Unable to pay regularly	
d	Others	
11.1	Do you ration water if you find it expensive?	
a	Yes	
b	No	
c	Don't know	
12	Do you pay for latrine, sewerage, garbage collection? (separately for each)	
a	Latrine	
i	Yes	
ii	No	
b	Sewerage	
i	Yes	
ii	No	
c	Garbage collection	
i	Yes	
ii	No	
d	Drainage	
i	Yes	
ii	No	
13	How much do you pay for each?	
a	Latrine	
i	Per Use	
ii	Monthly	
b	Sewerage	
i	One time charge	
ii	Monthly	
c	Garbage collection	
i	Monthly	
14	Do you face problem in paying for sewerage/garbage collection?	
a	Yes	
b	No	
15	What is the problem? (specify)	

16	Did you need to borrow to pay for connection charges or make a latrine?	
a	Yes	
b	No	
17	How much did you borrow and from whom and at what interest rate?	
18	Have you been responsible for construction of your own toilets/drains or water pipelines in the community/extensions into households?	
a	Yes	
b	No	
19	If you are part of the construction work, is your connection cost lower than for the others or were you paid for your labour?	
a	Yes	
b	No	

Community Management and Participation

20	Did you participate in the following stages of project:	Yes	No
a	Design (Planning)		
b	Choice of technology		
c	Location of installation		
d	Day-to-day operation		
e	Maintenance		
f	Monitoring		
g	Evaluation		
h	Information dissemination		
21	Who interacted with you during the above?	Yes	No
a	NGO		
b	Local Government		
c	Others		
22	What are the areas (component of project cycle) on which the executing agency/local officials sought more participation of the community, especially of the poor?		
23	Do you know that access to safe clean drinking water is a right?		
a	Yes		
b	No		
24	If yes then how do you know? Who told you?		
25	Were the project activities disseminated before hand and during the project? What was disseminated? Who did that (NGO, CBO, govt. etc)		
26	Who, according to you, are the people in the community who know less or have less access to sources of information? (ranking needs to be done)		
27	Are you a member of any user group?		
a	Yes		
b	No		

28	Does the group participate in water and sanitation activities of the project?	
a	Yes	
b	No	
29	What do you do in the group?	
30	Do you think that your point of view is considered in the group discussions?	
a	Yes	
b	No (Why)	
31	Do poor people participate actively in the group?	
a	Yes	
b	No	
32	If no, then why not?	
33	What is the problem?	

2. FGD Survey WaterAid	
Name of settlement	
Number of participants in the Group	
Number of Men	
Number of Women	
Number of Poor	
Number of Non Poor	

	Reliability, Accessibility and Quality of Water and Sanitation Services	Options	Answers	
1	The supply of water on a daily basis from the new/scheme supported or project supported water point is			
		1 Continuous throughout the day	% of households	
		2 A few hours every day	% of households	When?
		3 An hour or less every day	% of households	When?
		4 Alternate days	% of households	
		5 Others (Specify)	% of households	
2	Is the water supply timing regular each day?			
		1 Yes	% of households	
		2 No	% of households	
3	How many times does water need to be fetched in a day?			
		1 Once	% of households	
		2 Twice	% of households	
		3 Thrice	% of households	
		4 More than three times	% of households	
		5 Others (Specify)	% of households	
4	What are the different sources of water supply?			
		1 Standposts	Notes	
		2 Tubewells	Notes	
		3 Others (specify)	Notes	
5	How many tubewells, tapsstands (public/private) are there in the area?			
		1 Taps	Numbers	
		2 Tubewells	Numbers	
		3 Others (specify)	Numbers	
6	Are there any group connections?			
		Yes	Tick whichever applicable	
		No	Tick whichever applicable	
7	If yes then what percentage of community has group connections?		% of households	

8	What percentage of community uses tanker supply?			% of households	
9	Proportion of households connected to the water supply system	1	Connected	% of households	
		2	Not connected	% of households	
10	If households are unconnected, what are the reasons for not being connected	1	No need	% of households	
		2	Financial reasons	% of households	
		3	Did not know about the subproject	% of households	
		4	Social discrimination	% of households	
		5	Political discrimination	% of households	
		6	Discrimination by the officials	% of households	
		7	Others	Specify as notes	
11	How do poor people not connected to water supply manage?			Notes	
	What is water pressure like?	1	Good	% of households	
		2	Low	% of households	
12	Who goes to fetch water?	1	Men	Tick whichever applicable	(With Consensus in Community)
		2	Elderly married women	Tick whichever applicable	
		3	Young/unmarried women	Tick whichever applicable	
		4	Children	Tick whichever applicable	
		5	Others (Specify)	Tick whichever applicable	
13	Why does that particular person(s) go to fetch water?	1	Household duty of that person	Tick whichever applicable	(With Consensus in Community)
		2	Unavailability of other members	Tick whichever applicable	
		3	Wants to go	Tick whichever applicable	
		5	Water source is far	Tick whichever applicable	
		5	Others	Specify in Notes	

14	What types of problems arise due to low water quantity in the quantity of water?	1	Takes more time to collect the same amount of water	Tick whichever applicable	(With Consensus in Community)
		2	Have to walk long distances to collect the same amount	Tick whichever applicable	
		3	Inadequate water for different activities-	Tick whichever applicable	
		4	Don't know	Tick whichever applicable	
		5	Others (Specify)	Tick whichever applicable	
15	How do you adjust to these problems?	1	Use less water	Tick whichever applicable	
		2	Use other sources of water	Tick whichever applicable	
		3	Buy Water	Tick whichever applicable	
		4	Others	Specify as notes	
16	Did you receive any help while applying for private connections?	1	Yes		
		2	No		
		3	Don't Know		
17	If yes, who /which organisations helped you	1	DWSS staff	Tick whichever applicable	
		2	Local NGOs	Tick whichever applicable	
		3	Political leaders/organisations	Tick whichever applicable	
		4	Local leaders	Tick whichever applicable	
		5	Others (Specify)	Tick whichever applicable	

Environmental sanitation and hygiene

1	What proportion of households constructed a latrine under the project?			% of Households
2	Where do you and your family go to defecate now?	1	Open defecation	% of Households
		2	Hygienic household latrine	% of Households
		3	Unhygienic household latrine	% of Households
		4	Public latrines	% of Households
		5	Others	% of Households
3	Reasons for irregular use of community toilet	1	Distant	Tick applicable
		2	Dirty	Tick applicable
		3	Expensive	Tick applicable
		4	Lack of water/electricity	Tick applicable
		5	Don't want to during certain period (menstrual cycle)	Tick applicable
		6	Don't know	Tick applicable
		7	Others (specify)	Tick applicable
4	If you don't use, why not?	1	Far away	Tick applicable
		2	Embarrassment	Tick applicable
		3	Dirty	Tick applicable
		4	Expensive	Tick applicable
		5	No habit	Tick applicable
		6	Don't know	Tick applicable
		7	Others	Tick applicable
5	Is there enough and regular water supply and electricity in the toilets?			
		1	Yes	Tick applicable
		2	No	Tick applicable
6	How does the lack of sufficient water affect the functioning of the latrine?			
		1	The latrines have become totally useless	Tick applicable
		2	The latrines are extremely dirty	Tick applicable
		3	The demand of water is fulfilled by individuals/groups carrying water	Tick applicable
		4	Others (Specify)	Tick applicable
7	How are the public latrines managed?		Notes	
	Who/how benefits		Notes	
8	Are they community managed?		Yes	Tick applicable
			No	Tick applicable

9	If you do not wash your hands after defecation, why not?	1	Water is not available	Tick applicable
		2	Soap is not available	Tick applicable
		3	No need/no habit	Tick applicable
		4	Others	Tick applicable
10	Do you think that the over all hygiene of your family has improved after the implementation of the project? (percentage of households)?			
		1	Yes	% of households
		2	No	% of households
		3	Don't know	% of households
11	If yes, in what way?			
		1	Less frequency of diseases/ epidemics	Tick applicable
		2	Members are now more healthy	Tick applicable
		3	Less money spent on medicine	Tick applicable
		4	Time saved from travelling to health posts	Tick applicable
		5	Others	Specify
12	Is the garbage cleaned regularly?			Notes

Willingness to pay, capacity to pay and access to credit as a community

1	Does everyone have a water meter? (percentage)			
		1	Yes	% of Households
		2	No	% of Households
2	If yes, then are all meters functional? (percentage)			
		1	Functional	% of Households
		2	Non Functional	% of Households
3	Did the people have to pay a connection charge? If yes, then how much			Amount in Rs.
4	On an average what is the user charge per month?			Amount in Rs.
5	What is your billing cycle and who do you pay your bill to?			
6	Did most people have enough money to pay for the connection? (percentage)			% of Households
7	How many people opted for credit from the government sources? (percentage)			% of Households
8	Was the community involved in design and planning? If yes, then how?			Notes
9	Current status of tubewells/taps and latrines constructed in the community by the project?			Notes
		1	Functioning to design capacity	% of Households
		2	Functioning but in need of repair	% of Households
		3	Not functioning	% of Households
10	Is the local community group regularly consulted for feedback on the progress of the project?			
		1	Yes	
		2	No	
11	What are the 3 most difficult issues which have retarded the process of benefit-continuity?			
		1		Ranking
		2		
		3		
12	Who, according to you, are the people in the community who know less or have less access to sources of knowledge?	1		Ranking
		2		
		3		
13	Have people managed to get jobs due to the project?			Notes

3. Key Informant Interviews

To be asked from Community Leader or RWA or CBO leader

Name of Respondent

Position in the community

How well recognised was the respondent in the community

1 Water

- 1.1 The supply of water on a daily basis from ADB supported water point in the community/inside the house is
1. Continuous throughout the day
 2. A few hours every day. When?
 3. An hour or less every day. When?
 4. Alternate days
- 1.2 Is the water supply timing regular each day?
1. Yes 2. No
- If no then why?
- 1.3 Do you know if any changes may or will take place in the future?
- 4.4 Is the timing of the water supply the same as was stated during the initial project design phase or as communicated to you by the local officials?
If no then why?

2 Discrimination

- 2.1 *Do you feel there has been discrimination?*
1. Yes 2. No 3. Don't know
- 2.1.1 If yes, in what way?
1. Taps have been installed only at certain locations
 2. Only selected households are using the taps
 3. Was not informed about the project
 4. Others
- 2.2 Are there any individuals/groups who are being prohibited from utilising the public water source?
1. Yes 2. No 3. Don't know
- 2.2.1 If yes, who?
1. Dalits 2. Landless people 3. Certain diseased people (AIDS, Leprosy) 4. Religious groups 5. Others (Specify)
- 2.3 Are there any particular individuals/groups monopolising the public water source?
1. Yes 2. No 3. Don't know

- 2.3.1 If yes, then who?
1. Economically affluent 2. High caste 3. Political leaders 4. DWSS staff 5. NGO staff 6. Others

- 2.4 Are women allowed to use public water taps during their menstrual cycles?

1. Yes 2. No 3. Don't know

- 2.5 Are households without land tenure entitled to a household connection

1. Yes 2. No

(Based on Nepal team's experience, key informant interviews did not give answers to questions on discrimination, after the India field test if similar results are seen, then they may be deleted)

- 3 *School WATSAN (in case the pradhan does not know, the investigator should talk to the school teacher/principal, these questions will be addressed only if school WATSAN had been part of the project)*

- 3.1 Is there a school nearby which most students from the community go to?

- 3.2 How many children from the community go to school?

- 3.1 Were WSS facilities provided to the school by the project?

1. Yes 2. No (why)

If yes

- 3.4 Are there separate latrines for boys and girls?

- 3.5 What is the student/latrine cubicle ratio?

- 3.6 Is the latrine design appropriate for young people?

- 3.7 Is the latrine design appropriate for girl's menstruation management?

- 3.8 Do the students use the latrines?

- 3.9 Are the latrines clean?

- 3.10 Is water available in the latrines?

- 3.11 Is there an improved water source in the school?

- 1.12 Is it sufficient for the number of students?

4. Environmental Sanitation

- 4.1 How many latrines (number of seats) were there in the community before the project and how many are there in the community at present? Indicate separately for men, women and children.

- 4.2 What proportion of households constructed a latrine under the project?

4.3 How is the waste of the latrines disposed (household and public latrines)?

5. Financial and Institutional Arrangements

- 5.1 Who was involved in setting tariffs for water for the community?
- 5.2 What was the basis for the tariffs?
- 5.3 Was the community consulted when tariffs were decided or were you just informed about costs and were your points of view acted on?
- 5.4 Who informed you of payment rates?
- 5.5 Is there flexibility in making user payments i.e. smaller bill cycles?
- 5.6 Have there been disconnections due to non-payment of bills? How were you reconnected? Are there subsidized tariffs for users in poor communities?
- 5.7 If there are subsidies then what are the subsidies for the community in the project/
- 5.8 How many people or what percentage of households does not pay for water?
- 5.9 What are the actions taken against defaulters?
- 5.10 are you aware of water tax. If yes, then how much is it?

6 Sustainability

- 6.1 Current status of tubewells/taps/latrines constructed in the community by the project?
 - 1. Functioning to design capacity (percentage)
 - 2. Functioning but in need of repair (percentage)
 - 3. Not functioning (percentage)
- 6.2 Is fund available from the community sources to meet the operational and maintenance expenses? (situation)
- 6.3 What are the key benefits of the community? (probe)
 - In health: _____
 - In sanitation: _____
 - In hygiene: _____
 - In nutrition: _____
 - In education: _____
 - In income-poverty reduction: _____
- 6.4 Among the benefits of the project which were sustained and which were not? Why? What needs to be done in future design?
 - In health: _____
 - In sanitation: _____
 - In hygiene: _____
 - In nutrition: _____
 - In education: _____
 - In income-poverty reduction: _____

6.5 Can you identify 3 obstacles that have retarded the process of the project? (ranking to be done)

7. Community Management and Participation

- 7.1 What was the extent and nature of participation of the community people in the various stages of project life-cycle including participation of the poor in designing and managing the project and how?
 - Design (Planning)
 - Choice of technology
 - Location of installation
 - Day-to-day operation
 - Maintenance
 - Monitoring
 - Evaluation
 - Information dissemination
- 7.2 What are/were the areas on which participation can be treated as tokenism (that is just being informed of the decisions that have already been taken) and areas of true participation?
- 7.3 What are the areas (component of project cycle) on which the executing agency sought more participation of the community?
- 7.4 Were the project activities disseminated before hand and during the project? What was disseminated? Who did that (NGO, CBO, government etc)
- 5.5 Who all were included in the discussions? Are poor people and women adequately/ proportionately represented in the groups/ committee meetings? (poor; gender; disadvantaged)
- 5.6 Is there a WSS committee in the community? Who makes the committee and how are members selected?
- 5.7 What is your opinion regarding activeness of the group/committee? (no. of meetings in last year)
- 7.8 What is your opinion regarding group/ committee's compliance with democratic norms?
- 7.9 Have any jobs been created out of the project?

4. Trends and PLA (Participatory Learning Appraisal) Framework

Key Map/Resource Map

The key map will include information of surrounding roads and neighbourhood.

Location of community WSS facilities within community

Water

- Community Standpost (Protected/unprotected)
 - Good: Working to design capacity
 - Poor: Working but needs repair
 - Non-functional: Not working at all
 - Project supported/not supported
- Tanker Supply
 - Location of tanker
- Well (Protected/unprotected)
- Community handpump (Protected/unprotected)
- Community tubewell (Protected/unprotected)

Sanitation

- Community Toilets
 - Good: Working to design capacity
 - Poor: Working but needs repair
 - Non-functional: Not working at all
 - Project supported/not supported
- Location of Open Defecation

Garbage Disposal

- Location of community dhalaos
- Open areas of garbage disposal

Drainage

- Pucca and kuccha drains
- Blockages in drains

(Indicate project supported)

Household Mapping

Household maps will include the following data:

1. Total number of males and females (Adults)
2. Number of children (male, female) (below 18)
3. Households that have metered water supply
4. Households using various sources of supply
 - Community standpost
 - Individual house within the house
 - Protected well
 - Protected/covered spring
 - Unprotected well
 - Unprotected spring
 - Surface water such as river/ponds etc.
 - Community tubewell
 - Tubewell within the house
 - Protected handpump in the community
 - Protected handpump in the house
 - Unprotected handpump in the community
 - Unprotected handpump in the house
 - Water vendor
 - Tanker supply

(Indicate project supported)

(Options in Italics may not be relevant for India)

5. Households using various sanitation facility
 - Community toilets
 - Individual toilets
 - Mainly open defecation

(Indicate project supported)

Matrix

In the current study matrixes will be developed for the following:

1. Available water supply sources ranked as preferences by the community
2. Available sanitation facilities ranked as preferences by the community
3. Available health care facilities
4. Available waste disposal facilities
5. Sources of credit
6. Reasons for taking credit

A preliminary framework of the matrix is given below. Please rate 5 as the most preferred option and 1 as the least preferred option:

Options/ Choices Issues	A	B	C	D	E
Water supply sources	Community standpost	Tanker supply	Informal water vendor	Illegal HH extensions	Legal HH extensions
Usage					
Preference					
Capacity to pay					
Sanitation services	Community toilets	Individual toilets connected to sewerage	Individual toilets with septic tanks	Dry pit latrines	Open defecation
Usage					
Preference					
Capacity to pay					
Waste collection and disposal	Collected and disposed by municipal sweepers	Collected and disposed by private sweepers	Self disposed in municipal dhalao	Self disposed in open	Others
Usage					
Preference					
Sources of Credit	Bank	Cooperatives	Moneylenders	Self help groups	Thrift and credit society
Usage					
Preference					
Health care Facilities	Primary health centres	Government hospitals	Private clinic/ doctors	Midwives/ traditional practitioners	Others
Usage	Only if health facilities have been a part of the project				
Preference					

Discussions made during the matrix exercise will be documented as notes along with the matrix table. For eg. Reasons for preferences and use of certain facilities over others, reasons for taking loans etc.

Seasonality Diagram

Seasonality diagrams will be used in the current study to understand changes that may have occurred during the course of the project. It will also provide insights on the indirect relationship of water and sanitation issues with other aspects of community development. An indicative framework for the seasonality diagram is presented below:

Indicative Seasonality Diagram

		For the past one year											
	Time Period	1	2	3	4	5	6	7	8	9	10	11	12
1	Scarcity of water supply												
2	Poor water quality												
3	High water bills												
4	Problems with toilets												
5	Problems with garbage disposal												
6	High health problems												
7	Increased awareness on health habits												
8	Increased drainage problems												
9	Increase in time taken for water collection												
10	Decrease in income												
11	Increase in expenditure												
12	Reduced attendance in schools												
13	Increased participation of community groups in community activities												

Trends Analysis

	Before Project	Immediately After Project	Now
1. WATER			
<p>1.1 Timing of water supply</p> <p><i>FGD Q: Is the timing of the water supply the same as was stated during the initial project design phase?</i></p> <p>1.2 Time taken to fetch water (to go, wait, collect water and return)?</p> <p><i>FGD Q: Time taken to fetch water</i> <i>Dry season</i> <i>Wet season</i></p> <p>1.3 Number of taps/points in the community</p> <p>1.4 On average how many households use one tap</p> <p><i>FGD Q: Has the number of people using the same public water source in the last three years</i> <i>Decreased</i> <i>Increased</i> <i>No change</i> <i>Don't know</i></p> <p><i>FGD Q: If there has been a decrease what are the main reasons?</i> <i>More private taps/tubewells have been installed</i> <i>Migration of people to other places</i> <i>Lack of proper functioning</i> <i>Don't know</i> <i>Others (Specify)</i></p> <p><i>FGD Q: If there has been an increase, what are the main reasons?</i> <i>Population increase</i> <i>Lack of other water sources</i> <i>Proper functioning</i> <i>Don't know</i> <i>Others</i></p> <p>1.5 Do people need to illegally acquire water connections?</p> <p><i>FGDQ: Have households illegally acquired water connections to their households? (Percentage)</i></p> <p>1.6 Are there any fights/ social tension while collecting water from community water points?</p>			
2. Environmental Sanitation			
<p>2.1 Number of HH latrines</p> <p><i>FGD Q: What were the main reasons for households not constructing latrines under the project?</i></p> <p>2.2 Number of community latrine (in seats)</p> <p><i>FGD Q: How user friendly are the latrine designs for women/children/elderly/disabled people in case of community latrines?</i></p>			

<p>2.3 Has there been a change in your defecation practices after the implementation of the scheme?</p> <p><i>FGD Q: How has this changed habit affected you and your household?</i> <i>Easy to go whenever there is need</i> <i>Decrease in the frequency of diarrhoeal disease</i> <i>Change in the household status</i> <i>Foul smell surrounding the house reduced</i> <i>Cleaning problem</i> <i>Others (Specify)</i></p>			
<p>3. Public Latrines</p> <p>3.1 Are there more public latrines now at</p> <ul style="list-style-type: none"> ● Markets ● Near settlements ● Near schools ● Near Government offices ● Others <p>3.2 How far are the public latrines located from the nearest water source?</p> <ul style="list-style-type: none"> ● less than 30 meters ● more than 30 meters . ● don't know <p>3.3 Is there a reduction in the water source contamination from latrine waste?</p> <p><i>FGD Q: Has there been an increase in households using public latrines where individual latrines are not available?</i></p> <p>3.4 <i>Is anyone prohibited from using the public latrines? If so who and why?</i></p> <ul style="list-style-type: none"> ● Dalits/SC/ST ● Women during menstrual cycle ● Poor people who cannot afford ● Religious communities ● Others (Specify) <p>3.5 What are the timings of public latrines?</p> <p>3.6 Do you have to pay to use latrines and is the fee reasonable?</p> <p>3.7 Is sufficient water available in the public latrines?</p> <p>3.8 Is sufficient electricity provided in the public toilets?</p> <p>3.9 Are latrines clean?</p> <p>3.10 Who manages these latrines?</p> <p>3.11 Are they better managed?</p>			
<p>4 Health campaigns</p> <p>4.1 Have there been education programmes on health?</p> <p><i>FGD Q: Have education programmes/awareness campaigns made a difference to people's sanitation behaviour?</i></p> <p><i>FGD Q: Are these awareness campaigns/education programmes carried out by the project?</i></p> <p><i>FGD Q: Who conducts/participates in the campaigns?</i></p> <p><i>FGD Q: What are the issues that are addressed in those campaigns?</i></p> <p><i>FGD Q: Are the campaigns relevant?</i></p> <ul style="list-style-type: none"> ● Very relevant, sanitation and health issues are dealt comprehensively ● Partially relevant, sanitation and health issues are dealt superficially ● Irrelevant, campaigns are not properly conducted ● Don't know 			

5. Capacity to pay

Do people have more capacity to pay now?

FGD Q:

- *What is your billing cycle?*
- *Was the community consulted when tariffs were decided or were you just informed about costs and were your points of view acted on?*
- *Who informed you of payment rates?*
- *Is there flexibility in making user payments i.e. smaller bill cycles?*
- *Have there been disconnections due to non-payment of bills? How were you reconnected?*
- *What other actions are taken against defaulters?*
- *Are there any government schemes for borrowing? What other sources are available for credit in the community?*
- *How much do you pay as interest on the borrowed amount?*
- *Are there subsidised tariffs for users in poor communities?*

6. Sustainability

6.1 How is O&M managed?

FGD Q: Is O&M better managed now than before?

Are more community members trained on O&M now than before?

6.2 Availability of spare parts when out of order (in the last year).

6.3 Availability of labour in case of any disturbance of the supply installation (in last year)

6.4 Availability of skilled manpower in ensuring undisturbed operation of tube well/tap

6.5 Is fund available from the community sources to meet the operational and maintenance expenses? (situation)

6.6 Are there any ownership issues around community tubewells/taps/latrines?

6.7 Does the community have a sense of ownership regarding O&M of these assets?

As compared to before–project, what according to you, were the key benefits of this project for your family? (probe)

In health: _____

In sanitation: _____

In hygiene: _____

In nutrition: _____

In education: _____

In income-poverty reduction: _____

Which of the benefits have been sustained and which ones haven't? Why? What needs to be done in future design?

In health: _____

In sanitation: _____

In hygiene: _____

In nutrition: _____

In education: _____

In income-poverty reduction: _____

7. Community Participation and Management

FGD Q: Is there greater participation of the community in different stages of WSS implementation and management?

FGD Q: Extent and nature of participation of the community people in the various stages of project life-cycle including participation of the poor in designing and managing the project.

FGD Q: What are/were the areas on which participation can be treated as tokenism and areas of true participation.

FGD Q: What are the areas (component of project cycle) on which the executing agency sought more participation of the community, especially of the poor?

FGD Q: Were the project activities disseminated beforehand and during the project? What was disseminated? Who did that (NGO, CBO, government etc)

*FGD Q: Who, according to you, are the people in the community who know less or have less access to sources of knowledge?
(list and rank)*

WaterAid – Water for All

WaterAid is an International NGO, established in 1981, in response to the United Nations declaration of the Water and Sanitation Decade, 1980–90, to enable better access of poor communities to adequate, safe water. WaterAid remains the UK's only major charity dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world's poorest people. WaterAid works in 15 countries across Asia and Africa, through local organisations and communities, helping them set up low cost, sustainable projects using appropriate technology that can be managed by the community itself. WaterAid also seeks to influence the water and sanitation policies of other key organisations, such as governments, to secure and protect the right of poor people to safe, affordable water and sanitation services.

WaterAid in India

WaterAid began working in India in the latter part of the 1980s with a few small projects and has since grown in strength and coverage. Today, WaterAid works in more than 10 states with three regional offices in Bhopal, Bhubaneswar and Bangalore, in partnership with local NGOs and government departments and ministries that seek assistance in the specific areas of rural and urban water supply, sanitation and hygiene promotion. Community sustained improvement in drinking water and sanitation has been WaterAid's watchword in all its programmes.

Different models of community participation and management, of both rural and urban water supply and sanitation, alternate delivery mechanisms, school hygiene promotion programmes, water conservation and recharge measures have been demonstrated to the sector. These projects have a strong partnering component with state governments and departments and have proved to be the inspiration behind successful replications in other states. A vast array of publications, including training manuals for development workers, issue sheets and concept papers for advocacy initiatives and IEC material have been jointly developed with NGO partners and are in wide circulation.

WaterAid has participated in collaborative initiatives with the government and other agencies including the Water Supply and Sanitation Collaborative Council (WSSCC), the Water and Sanitation Programme (WSP) of the World Bank, UNICEF and DFID. Alliances are important for core programming concerns of rural and urban programming for water and sanitation, Integrated Water Resources Management and Networking with a range of government departments and government organisations, at the national and regional levels in India. WaterAid India is committed to making its own contribution to the MDG challenge and is open to exploring ways of partnering with all stakeholders for achieving water and sanitation for all.

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