Water and Sewerage Services in Karachi
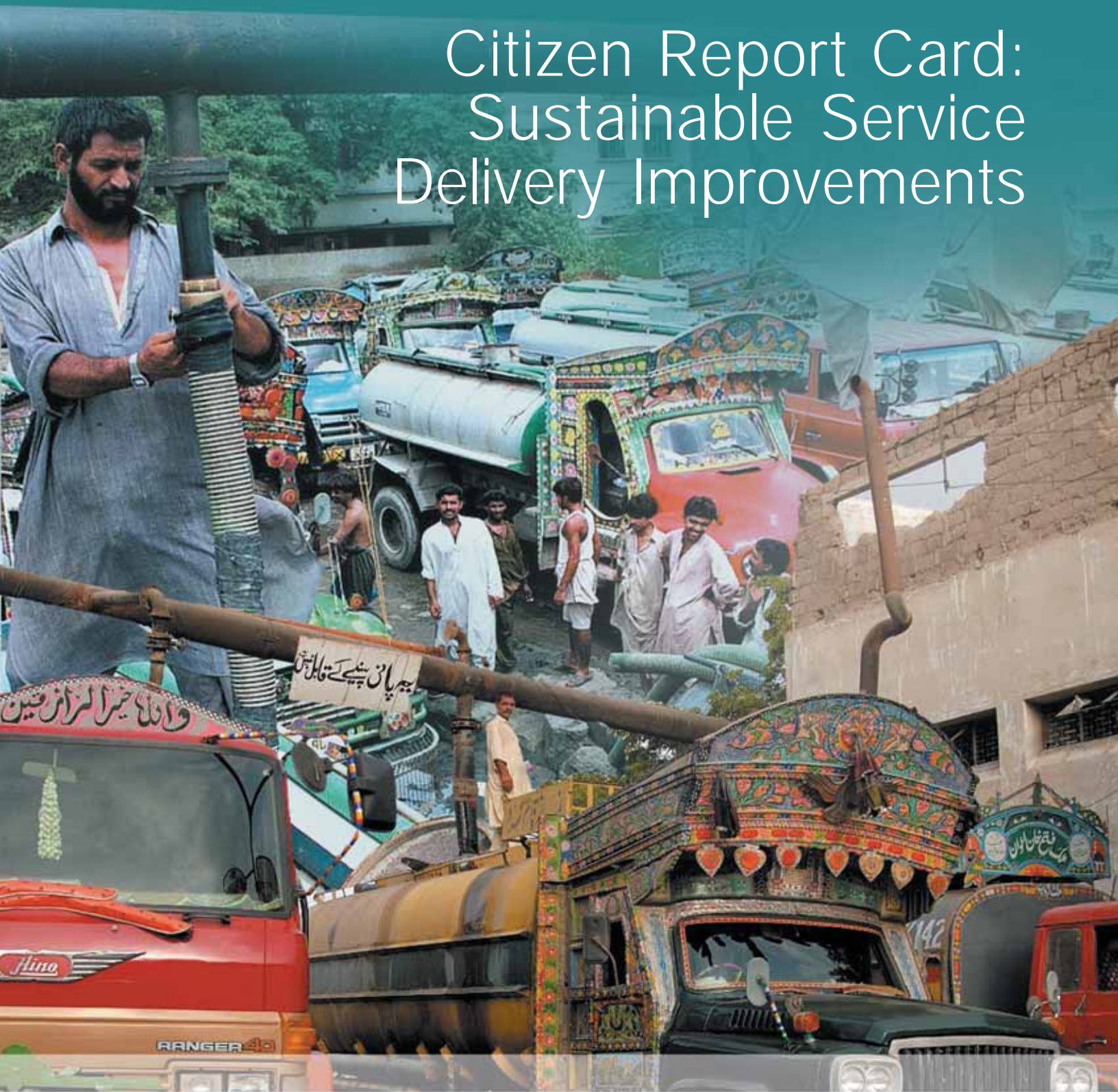
Citizen Report Card: Sustainable Service Delivery Improvements

**Water and Sewerage
Services in Karachi**

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Delivery Improvements

Contents

Foreword

Karachi is a city of over 18 million people, and the Karachi Water and Sewerage Board (KW&SB) is the only prime water utility responsible for providing water supply and sewerage services. Over a period of time, for a variety of reasons, the KW&SB's performance graph had been showing a steady decline in terms of both the level and quality of services. One of the main contributing reasons for growing customer dissatisfaction was the lack of the institutional adjustments necessary to meet the growing challenges faced by rapid and uncontrolled population growth and urbanization. However, while the need for institutional reforms can be felt in any kind of organization, public or private, reforming public sector institutions is a much more complicated task. Overcoming a public sector institution's inertia to bring about systemic and fundamental reforms by redefining policies, operating practices, and customer relations requires careful navigation of a multisectoral landscape having sensitive political, social, and financial implications. The management of the KW&SB, under the dynamic leadership of the former City Nazim and Chairman KW&SB, Mr. Mustafa Kamal, took up the challenge of institutional reforms. Through a series of interactive engagements that included site visits, consultations, and dialog with relevant stakeholders (provincial and local governments, the utility agency, and civil society), rapid assessment work, the Water and Sanitation Program (WSP) assisted the KW&SB in conceptualizing a process for institutional reform. It was realized quickly that steps would have to be taken on an urgent basis to extend the outreach of the utility among its consumers, involve them meaningfully in the decision making process, and strengthen the social accountability of the utility. This, it was felt, was critical to giving sustainability to the process of institutional reforms.

In consultations with WSP, it was decided to select the Citizen Report Card (CRC) as the tool to collect, document, and analyze user feedback. This social accountability tool was selected as its scope was not only limited to a survey exercise but offered the space for developing recommendations on sector policies, strategies, and programs to address institutional constraints and improve service delivery. We are pleased that through this exercise, pioneering of CRC in Pakistan for any public sector utility was initiated and has now been successfully conducted in nine out of 18 towns in Karachi city. The process was kept fully transparent and participatory through measures taken to disseminate information and raise public awareness under the Communication Strategy specially designed for the CRC process. The process was also firmly anchored in civil society participation through the formation of an Advisory Committee that monitored progress and provided recommendations. It is also a matter of great pride and satisfaction for us that we have now successfully institutionalized the process in the KW&SB by forming a special Cell, to be managed by a dedicated team of KW&SB officials. We can confidently recommend other utilities in Pakistan to utilize the tool of CRC for performance improvement and strengthened social accountability.

We have been greatly inspired and facilitated by the motivational leadership and guidance of our Chairman, Mr. Mustafa Kamal. It would be appropriate at this stage to also acknowledge the efforts of four former Managing Directors of the KW&SB who kept the momentum of institutional reforms going, overcoming all challenges: Brig. (Retd.) Iftikhar Haider, Mr. Ghulam Arif, Mr. Suleman Chandio, and Mr. Fazl-ur-Rehman. In the end, the KW&SB will remain greatly indebted to the commitment and professionalism of the team of WSP, Pakistan, under the wise leadership of Country Team Leader, Mr. Farhan Sami, and Ms. Maheen Zehra for their continued technical assistance, counsel and guidance and, above all, for keeping faith with the KW&SB in meeting the challenge of institutional reforms. We are hopeful and confident that this process of reform would continue and sustain and lead the KW&SB towards becoming a technically and financially viable, socially accountable water utility, one which is capable of competing with the best performing water utilities of the world.

Mr. Qutubuddin Sheikh
Managing Director, Karachi Water and Sewerage Board

Acronyms and Abbreviations

CDGK	City District Government Karachi
CRC	Citizen Report Card
CSO	Civil society organization
FGD	Focus group discussion
GoS	Government of Sindh
IRC	Interactive Resource Center
IUCN	The World Conservation Union
KMC	Karachi Metropolitan Corporation
KW&SB	Karachi Water and Sewerage Board
PAC	Public Affairs Center
SEC	Socioeconomic Classification
SITE	Sindh Industrial and Trading Estate
SLGO	Sindh Local Government Ordinance
WSP	Water and Sanitation Program

Acknowledgments

Executive Summary

This report discusses the key findings and recommendations emerging from a pilot Citizen Report Card (CRC) on water, sanitation, and sewerage services in Karachi. This initiative comes, on one hand, in the wake of deteriorating services, weakened community interfaces and accountability structures, poor revenue generation and dysfunctional governance structures and, on the other, an emergent consensus to bring in far-reaching institutional reforms that should move beyond financial and technical imperatives.

The CRC, pioneered by the Public Affairs Center (PAC), Bengaluru, is a simple but powerful tool to provide public agencies with systematic feedback from users of public services. CRC gains such feedback through sample surveys on aspects of service quality that users know best, and enable public agencies to identify strengths and weaknesses in their work.

A CRC on public services is not just one more opinion poll; it reflects the actual experiences of people with a wide range of public services. The survey on which a report card is based covers only those individuals who have had experiences in the use of specific services, and interactions with the relevant public agencies. Users possess fairly accurate information, for example, on whether a public agency actually solved their problems or whether they had to pay bribes to officials.

Key Stages in a Citizen Report Card Study

1. Assess the applicability of CRCs. Conditions which affect the outcomes of CRCs include the relevance of the political context, the extent of decentralization, the extent to which citizens can voice opinions freely, local competency to carry out surveys, and advocacy.

2. Determine the scope and plan the procedures. The next step is to identify key sectors or services to be included in the survey, map service provision structures, and identify a credible agency to conduct the survey.

3. Design the questionnaire. Focus group discussions involving both service providers and users are necessary to provide input for the design of the questionnaire. Providers of services may indicate not only what they have been mandated to provide, but also areas where feedback from clients can improve their services. Users may give their initial impressions of the service, so that areas that need attention can be determined.

4. Sampling. When carried out accurately, sampling gathers feedback from a sample group that is representative of the larger population. It is, therefore, important to determine an appropriate type of sampling design.

5. Execute the survey. First, select and train a cadre of survey personnel. Second, after a certain proportion of interviews are complete, perform random spot monitoring of question

sessions to ensure that the recording of household information is accurate. Third, upon completion of each interview, go over the information collected to identify any inconsistencies.

6. Analyze the data. Typically, respondents give information on aspects of government services on a numeric scale (say, 1 to 10). These ratings are then aggregated and averaged, and percentage measures are produced.

7. Disseminate the results. There are three important points to consider when disseminating CRC findings:

- The findings should be constructively critical and should not aim to embarrass or laud a service provider's performance.

- The media is the biggest ally for dissemination. Prepare press kits with small printable stories, media-friendly press releases, and translations of the main report into local languages.

- Following the publication of the CRC survey findings, service providers and users should meet and discuss the key issues. This not only allows for a constructive dialog, but also puts pressure on service providers to improve their performance for the next round.

8. Advocacy and service improvements. The findings of the pilot CRC survey can then be used in an advocacy program which seeks to increase public pressure, build

coalitions and partnerships, and influence key players.

The CRC methodology is primarily rooted in quantitative research but is greatly enhanced by qualitative findings obtained through group discussions and observations. Hence, in the light of the needs and objectives of this study, a two-pronged research methodology was undertaken. In the first phase a series of focus group discussions were undertaken separately for men and women groups across different socioeconomic classes. This initial phase helped to:

● Gain insights in terms of associations, perceptions, and attitudes of the respondents towards services.

● Identify local issues pertaining to water and sanitation in Karachi.

● Refine the survey questionnaire for the second phase of research—the quantitative phase.

Following this phase, a quantitative survey was conducted in nine towns of Karachi covering the North, South, Central, North East, and South West areas of the city, representing low-, middle-, and high-income groups.

The sample of 4,500 household interviews was spread across the nine towns (Table 1).

Data analysis and presentation have been carried out across the following eight themes:

● Availability, access, and use of services.

● Reliability of services.

● Perceptions on water quality.

● Costs incurred by customers.

● Interactions with Karachi Water and Sewerage Board (KW&SB).

● Transparency in service provision.[1]

● Satisfaction with services.

● Priority areas for improvement.

Key Findings

The detailed data analysis was carried out for water and sewerage services provided by the KW&SB. While key findings are provided in the subsequent sections of this report, two overarching findings of this report card study are highlighted here:

a) The KW&SB's services were found to be satisfactory and above average by 6.5 percent of the users.

b) Both users and utility staff want improvement in systems and services.

This pilot CRC exercise in Karachi has provided an insightful feedback on citizens' experiences and priorities for service improvements in water and sewerage. By assembling a set of

Table 1: Spread of survey sample		
Towns	Location	Sample size
Gadap	North Karachi	500
Bin Qasim	South West	500
Gulshan	Central	500
Orangi	North West	500
Kemari	South West	500
Saddar	South	500
Gulberg	Central	500
North Nazimabad	North East	500
SITE[a]	North East	500

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

[1] Users of main connections were probed on how 'transparent' their service provision was in terms of billing practices, and instances of corruption.

credible and objective benchmarks, the CRC has provided a forum for different stakeholders to converge around issues and explore solutions and reforms. The organizational buy-in from KW&SB and the strong linkages built between the media and civil society networks such as the Karachi Water Partnership have created many enablers for ensuring a healthy blend of 'voice' (demand side advocacy and pressures) and 'responsiveness' (supply side willingness to reform). To ensure the momentum created through this pioneering effort, CRCs need to be more comprehensive in coverage (all 18 towns) and carried out periodically.
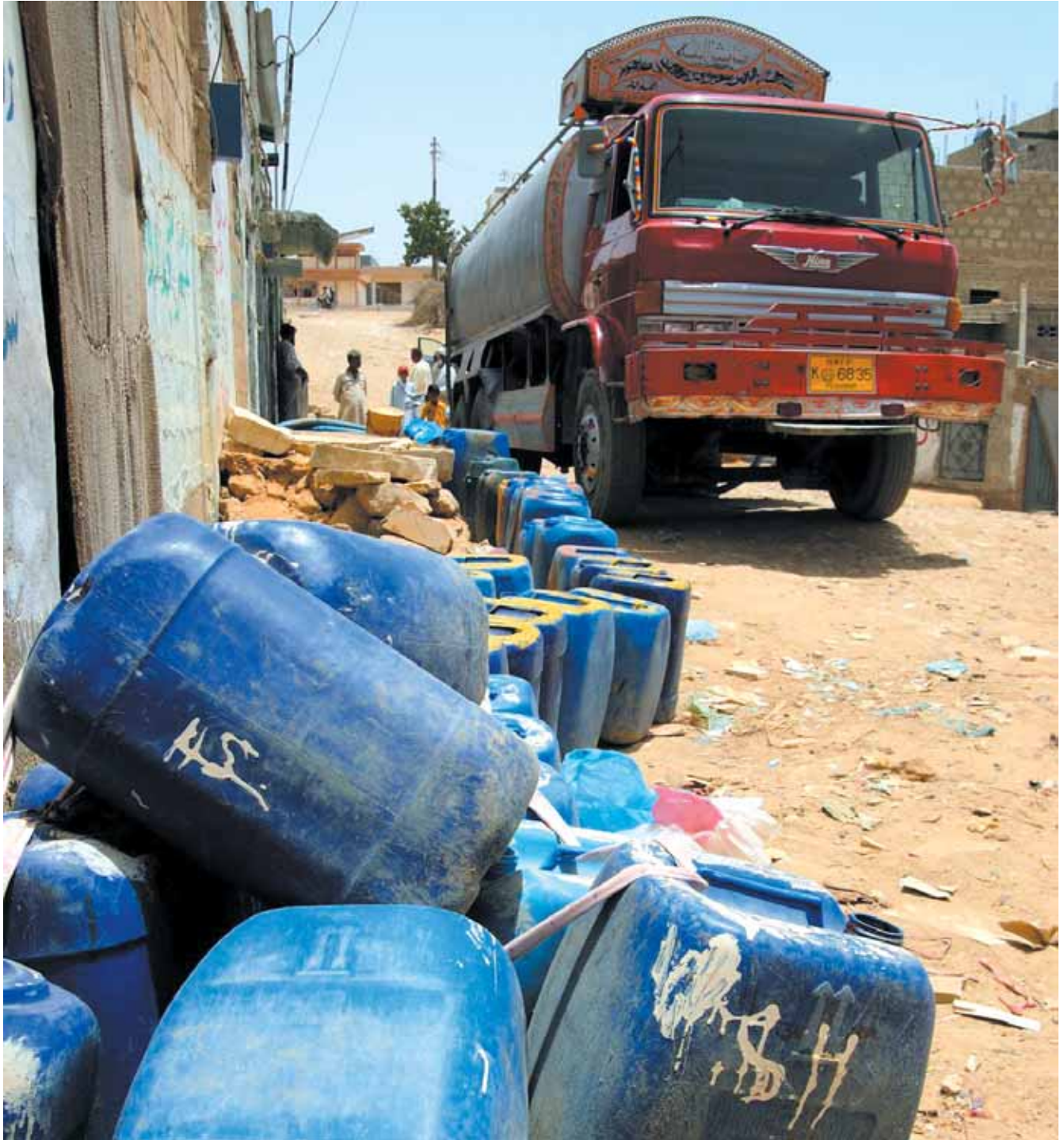
Introduction

Contextual Framework

In Pakistan, the devolution of the service delivery function of municipal services to local government, through the enactment of the Local Government Ordinance 2001, had opened up new opportunities for reform in the institutions of water supply and sanitation service delivery. The creation of three tiers of local government (district, tehsil and union councils) offered the potential for a clearer allocation of responsibilities and the potential to engender greater role separation in service delivery. Initially, the four provincial capitals (including Karachi city) were designated as 'city districts', with towns designated as the equivalent of tehsils in the other districts. The devolution process had established a supportive context for reforming the political and operational accountability processes that are at the heart of institutional challenge.

Karachi, in particular, posed a tremendous challenge. For many years now, the Karachi Water and Sewerage Board (KW&SB), the major utility agency, has remained simply as an executing agency for the city, without any significant powers to make its own investment and operational decisions. With KW&SB acting as the extended arm of the state, there had been virtually no independent and robust monitoring of its performance and no mechanism by which the organization could be held accountable. As a result, the utility was faced with a deep-rooted crisis of governance, of which some key areas of concern included:

- The KW&SB was faced with legal ambiguities, a dysfunctional governance structure, lack of technical support, tariff imbalances, and financial crisis. This predicament was compounded by lack of accountability, transparency, and operational autonomy. Lack of proper planning and investment strategy contributed to inadequate utility performance. The KW&SB's investments mostly augmented production and transmission, sometimes neglecting efficiency improvements, rehabilitation, and maintenance. Networks and facilities therefore had deteriorated, and inefficiencies and losses made operations wasteful. In addition, financial capacity constraints prevented investment planning based on an integrated view of capital expenditures, operation and maintenance, and least cost principles.

- The absence of a regulatory framework made it difficult to hold the KW&SB accountable for its performance—the utility was managed in terms of the KW&SB Act of 1996 (Government of Sindh [GoS] control). It was also functioning under the conditions of the Sindh Local Government Ordinance (SLGO) of 2001, City District Government Karachi control, which had marked implications for its place within the broader devolution process and its relative relationships with the provincial, city, and town level governments in its area of jurisdiction.

Box 1: Karachi Water and Sewerage Board: A profile

The supply and distribution of water to Karachi has been undertaken by a variety of agencies in the past. The first instance of law regarding water supply functions in the post-independence period was the Karachi Joint Water Board Ordinance 1949 that attempted to institutionalize the supply from Indus river, the source. Subsequently, the Karachi Joint Water Board, constituted in 1953, was the first entity to be assigned the task of executing the first major expansion of Karachi's water supply system from the Indus river. Project execution was later entrusted to the Karachi Development Authority (KDA) upon its establishment in 1957. Distribution and retailing of treated water remained the responsibility of the erstwhile Karachi Metropolitan Corporation (KMC), some 22 other independent agencies, and bulk users. In 1981, the Karachi Water Management Board (KWMB) was created and assigned responsibility for water distribution throughout the metropolitan area and was given enhanced powers of cost recovery. Subsequently, the Government of Sindh (GoS) enacted the Sindh Local Government (Amendment) Ordinance of January 1983, which created the Karachi Water and Sewerage Board (KW&SB) within the KMC. The KW&SB was assigned to handle the water supply and sanitation services in Karachi.

In 1996, the Karachi Water and Sewerage Board Act was enforced. Under this Act, the KW&SB was separated from the KMC and the annual budget was to be approved by the GoS. The legal framework, specification of functions as well as relevant financial guidelines and delegation of powers were provided in the Karachi Water and Sewerage Board Act 1996. In the most recent move, the SLGO 2001 directed the creation of a unified City District Government in Karachi. Civic agencies, including the KW&SB, were operationally merged into this new setup. It is to be noted that from 1953 to 1996, the water sector was controlled by the various branches of the city government.

Two noteworthy changes took place at the policy and administrative levels in 1995 and 1996 that significantly altered the face of the official service providing agency. First, in 1995, direct military interference took place when a serving brigadier was appointed as the managing director of the KW&SB. From 1995–2007, five KW&SB managing directors—all serving or retired officers with a rank of brigadier—came directly from the army. Only very recently, in March 2007, was a civilian officer nominated to head the KW&SB. Second, on April 15, 1996, the Sindh Assembly passed the Water and Sewerage Board Bill 1996, that was assented to by the Governor of Sindh province on April 23, 1996, and subsequently published as an 'Act' of the Sindh Legislature. The decision-making mandate was entirely separated from the municipality after the approval and enforcement of the KW&SB Act 1996. The 'Board' became autonomous and was controlled directly by the provincial government. The chairman and vice chairman of the Board were directly appointed by the GoS, which established its essential control, and the policy and decision-making roles were entirely confined to the provincial government. The managing director, however, continued to enjoy the status of chief executive officer of the Board, along with the usual administrative authority in running the organization.

This status persists even though the subsequently notified SLGO of 2001 devolves the roles and functions of the KW&SB, as assigned under the KW&SB Act 1996, to the City District Government Karachi and towns. The board of directors of the KW&SB, as constituted in the KW&SB Act, remains in place, and was reconstituted with the city nazim as the chairman. The KW&SB Act 1996 remains in force until further notice but the GoS "may take necessary steps to repeal or amend the KW&SB Act 1996 to ensure smooth implementation of the SLGO 2001".

(Government of Sindh Notification No. SOVIII/KW&SB/2(41)/2002.)

- The operational environment was fraught with systemic weaknesses—illegally organized routing of water to retailers was perceived as pervasive. A large number of consumers could access water only by paying illicit fees to the KW&SB frontline staff working with organized networks benefiting from illegal connections.

- The KW&SB had almost no influence over tariffs and there was no independent regulation of tariffs either. In the absence of an effective tariff structure and a process of tariff setting that considered economically rational operational factors, there was no incentive for

greater efficiency or for customers to pay.

- The KW&SB's relationship with consumers and larger civil society was almost nonexistent. Inappropriate services, lack of suitable response to consumer priorities and complaints, and ineffective communication had alienated consumers and the public in general, thus making it difficult to mobilize public support for action against illegal connections, encroachment of pipelines, and other malpractices which undermined operations. The KW&SB needed to regain control of its networks, with customers valuing, and paying for, its services.

Engagement for Reforms: Enabling the Utility to Ensure Social Accountability

Through a series of interactive engagements that included site visits, consultations, and dialog with relevant stakeholders (provincial and local governments, the utility agency, and civil society), and rapid assessment work, in 2005–06 the Water and Sanitation Program (WSP) assisted the KW&SB in conceptualizing a process for institutional reform in the water and sanitation sector in Karachi. One of the key conclusions was that the reform of the utility was dependent on the overall reform of the political and administrative sector in which it operates. While the KW&SB—as the single-largest public service agency in the water and sanitation sector in Karachi—demands specific attention in any reform process, it was considered that the technical, financial, and organizational reform of the utility has to occur within a wider framework of governance reform. To tackle such serious and deep-rooted institutional weaknesses, mobilization and support for change was desirable not only within the institutions itself but amongst the widest possible range of stakeholders. The KW&SB's recovery needed to be located within wider sector reform and a communitywide effort.

It was quickly realized that strong elements of community participation and consumer voice were central to the viability and sustainability of the reform process. In addition, given the politicized nature of water, it is important to develop ways for receiving

the voice of citizens without the 'filter' of those with vested interests. There was, thus, a requirement for developing neutral, credible, and apolitical information on consumer choices, preferences, and concerns to give the reform agenda much-needed objectivity and focus, and move the focus of consumer advocacy from anecdote to an informed debate.

Though there is an interesting array of participatory tools and approaches such as participatory expenditure tracking, community score cards,

public hearing and social audits, these have been mostly tested in the broader arena of governance. There are fewer tools that are specifically relevant to the utility sector and to the water sector in particular. One promising tool is the Citizen Report Card (CRC). Anchoring on the concept of user feedback, CRC provides a simple and widely replicable tool for improving transparency and public accountability, with useful diagnostic pointers to utility managers for planning service improvements. The 'report card' can stimulate collective citizen action and provide

organizational leaders with an opportunity to design reforms for strategic reorientation. Experiences with report cards, both national and international, have amply demonstrated their potential for demanding more public accountability and providing a credible database to facilitate proactive civil society responses.

The Citizen Report Card: A Viable Tool for Social Accountability

The CRC is a simple and credible tool to provide systematic feedback to public agencies about various quantitative and qualitative aspects of their performance.

CRC elicits information about users' awareness of, access to, use of, and satisfaction with, public services. In the context of poverty reduction programs, it often complements the expert analyses and conventional poverty monitoring indices with a 'bottom-up' assessment of pro-poor services. CRC identifies the key constraints that citizens, especially the poor and the underserved populations, face in accessing public services, their appraisals of the quality and adequacy of public services, and the quality of interactions they have with the providers of the services. The tool offers several recommendations on sector policies, strategies and programs to address these constraints, and improve service delivery.

CRC entails a random sample survey of the users of different public services (utilities), and the aggregation of the users' experiences as a basis for rating

Box 2: Lack of consumer voice in the KW&SB

Civil society groups, historically, have had little say in matters related with policy making, planning, and implementation of schemes and projects in the water sector in Karachi. The sector is not supported by any kind of cohesive regulatory framework. Issues that are crucial and important to the demand side, including tariffs and performance standards, are not adequately addressed; there is no mechanism in place for registering and addressing public concerns either on such matters. At times, such as now, when local bodies have been administered by elected representatives, an indirect avenue for gauging public concerns has existed in the form of local councils. However, documented evidence in the form of 'Council Resolutions' suggests that little priority has been given to this sector by locally elected bodies.

To ensure community participation in the provision of water and sewerage and for close liaison with the civil society, the Karachi Water and Sewerage Board (KW&SB) has recently established a Civil Society Liaison Cell. The Cell provides two-way communication between the utility and civil society. However, the Cell exists pretty much on paper and has rendered no significant contribution in facilitating any meaningful interactions between civil society or consumer groups and the service provider. Similarly, the KW&SB established a centralized Consumer Services Center at the head office of the KW&SB (100 such centers are planned for the whole city). This service, however, is only a complaint registry system and not an avenue for absorbing any concrete or substantive consumer input in matters of policy, planning, and implementation.

the services. The tool also helps to convert individual problems facing the various programs into common sectoral issues. It facilitates not only prioritization of reforms and corrective actions by drawing attention to the worst problems highlighted, but also the cross fertilization of ideas and approaches by identifying good practices.

A CRC thus provides a benchmark on quality of public services as experienced by citizens. Hence, it goes beyond the specific problems that individual citizens may face. It places each issue in the perspective of other elements of service design and delivery, and also draws comparisons with other services, so that a strategic set of actions can be initiated.

CRC studies are not merely a means of collecting feedback on existing situations from citizens. They are also a means for testing out different options that citizens wish to exercise, individually or collectively, to tackle current problems. For example, whether citizens were willing to pay more or be part of citizens' bodies made responsible for managing public water sources. CRC, thus, is also a means for **exploring citizens' alternatives** for improvements in public services.

An important aspect of the CRC is the credibility it has earned. The conclusions in a report card are not opinions of a few persons who think in a particular manner, nor the complaints of a few aggrieved
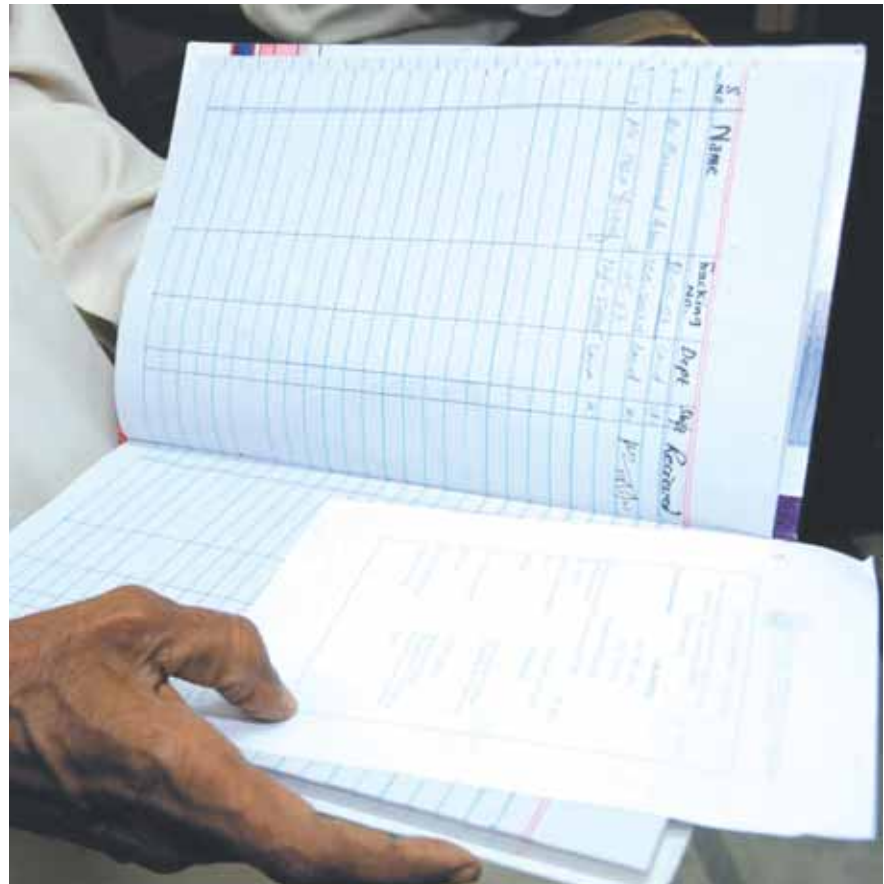
citizens. The methodology involves systematic sampling across all subsections or segments of citizens—including those who are satisfied as well as the aggrieved—and presents a picture that includes all opinions. This is possible because the methodology makes use of advanced techniques of social science research, for selecting samples, designing questionnaires, conducting interviews, and interpreting results. As a result, the report cards provide **reliable and comprehensive** representation of citizens' feedback.

Why Prepare a Citizen Report Card?

The Citizen Report Card is not a fault-finding exercise. It is, rather, an opportunity to reflect and diagnose service quality issues and provide a platform for various stakeholders to converge and explore solutions. In more practical terms, CRC gives the following strategic inputs:

a. Provides benchmarks on access, adequacy, and quality of public services as experienced by citizens: CRC goes beyond the specific

problems that individual citizens face and places each issue in the perspective of other elements of service design and delivery, as well as draws comparisons with other services or across different domains of the same service, so that a strategic set of actions can be initiated.

b. Encapsulates citizen satisfaction to prioritize corrective actions: CRC captures users' feedback in clear, simple, and unambiguous terms by indicating their level of satisfaction or dissatisfaction. When this measure of citizen satisfaction or dissatisfaction is viewed from a comparative perspective, it gives very valuable information that helps prioritize corrective actions.

c. Identifies indicators of problem areas in the delivery of public services: CRC enquires into specific aspects of interaction between the service agency and the citizen, and seeks to identify issues experienced by citizens in interfacing with the services. In more simple terms, it suggests that dissatisfaction has causes that may be related to the quality of services enjoyed by citizens (such as reliability of water supply); difficulties encountered while dealing with the agency to solve service related issues such as excess billing or complaints of water supply breakdown.

d. Suggests reliable estimates on hidden costs and forced investments: CRC provides reliable estimates not only on extra-legal costs incurred by users but also on amounts spent on forced investments such as buying water purifiers or installing storage tanks to cope with unreliable and poor quality services.

e. Indicates a mechanism to explore citizens' alternatives for improving public services: CRC goes beyond collecting feedback on existing situations from citizens. Instead, it also acts as a means of testing out different options that citizens wish to exercise, individually or collectively, for tackling various problems. For example, CRCs can provide information on whether citizens are willing to pay more for better quality of services or be part of citizens' bodies made responsible for managing garbage clearance in the locality.

Citizen Report Card: Process and Methodology

A CRC on public services is not just one more opinion poll. A report card reflects the actual experiences of people with a wide range of public services. The survey on which a report card is based covers only those individuals who have had experiences in the use of specific services, and have interacted with the relevant public agencies. Users possess fairly accurate information, for example, on whether a public agency actually solved their problems or whether they had to pay bribes to officials. The CRC methodology is primarily rooted in quantitative research but is greatly enhanced by qualitative findings obtained through group discussions and observations.

Box 3: Rationale for Citizen Report Cards

What this exercise is about…

- Capturing credible, neutral, and objective feedback on citizens' experiences while accessing and using water, sanitation, and sewerage services.

- Enabling a comparison of performances among different towns and encourage sharing of best practices.

- Analyzing, organizing, and reporting findings, conclusions, and pointers.

- Facilitating opportunities for reforms and improvements.

What this exercise is not about…

- Finding fault or pointing fingers.

- Focusing only on the gaps in service delivery.

- Claiming that user feedback captures all dimensions of service delivery.

- Providing solutions (that is, feedback should be viewed as a 'thermometer reading' and not as an 'antibiotic').

Process of Preparing the Citizen Report Card in Karachi

The CRC process in Karachi commenced with a series of discussions and workshops to build awareness among key stakeholders on the potential of the tool. Consultations were held with key stakeholders from city-based civil society organizations (CSOs), research and survey firms, media-support organizations, and the KW&SB. These key informant interviews facilitated an understanding of the state of water and sanitation services in Karachi, shed light on thematic work being done by city-based CSOs, their capacity, vibrancy, and working relationships. It also provided an understanding of likely local anchors and available resources for CRC implementation. A collective assessment exercise was also conducted to ascertain the contextual fit of CRC to the local conditions in Karachi. Political receptivity, openness of service providers to receive feedback from users, vibrancy of local CSOs and media, and freedom to collect information in an unbiased manner were some of the key indicators that were assessed. (See Appendix A for a detailed feedback on the assessment.)

Following this, a local survey firm— The Nielsen Company, Pakistan— was selected after a competitive bidding process. A multistakeholder CRC Advisory Committee was also set up to guide and review the process.

Methodology Followed

The report card methodology is primarily rooted in quantitative research but is greatly enhanced by qualitative findings obtained through group discussions and observations. Hence, keeping in mind the needs and objectives of this study, WSP planned a two-pronged research methodology—qualitative research was done in Phase 1, and a quantitative household survey was conducted in Phase 2.

Phase 1 was meant to:

- Gain insights in terms of associations, perceptions, and attitudes of the respondents towards services.

- Identify local issues pertaining to water and sanitation in Karachi.

- Refine the survey questionnaire for the second phase of research— the quantitative phase.

The qualitative phase was undertaken via focus group discussions (FGDs). This methodology allowed the participants to build on each other's views and express their thoughts and opinions in a friendly and nonthreatening manner.

Group Formation and Recruitment

Each group consisted of eight to 10 respondents who were recruited using a Recruitment Questionnaire prepared by The Nielsen Company. They were selected from the same areas in which the survey was to be conducted. The Recruitment

Questionnaire contained the following predetermined criteria:

- **Ages:** 25–50 years

- **Socioeconomic Class (SEC):** A, BC, and DE

- **Education:** SEC A

    SEC B and C

    SEC D and E

- **Men:** The men recruited were those who were the main decision makers in households when it came to basic amenities such as water, sewerage, and electricity.

- **Women:** The women recruited were those who had more say in the purchase of household goods and who were more aware of household issues pertaining to water and sewerage.

In Phase 2, a **quantitative household survey** was conducted. The findings from the FGDs were used to refine and mould the draft questionnaire provided by WSP. The survey was conducted in nine Karachi towns covering North, South, Central; North was further fine-tuned internally by the research team of The Nielsen Company, through its field and data processing service units, contextualized this questionnaire in line with CRC survey objectives for Pakistan. Particular attention was paid to

length, content, and relevance. The questionnaire was reviewed by WSP before being translated into Urdu.

Selection of Respondents

The relevant respondents for this survey were filtered through a screening questionnaire which was developed by The Nielsen Company research team, and appended to the main questionnaire. Once the relevant respondent was identified through the screener, the interview was conducted using the main questionnaire.

Socioeconomic status of respondents: The East and South West areas of the city represent the low-, middle-, and high-income groups. The sample of 4,500 household interviews was split as shown in Table 2.

The sample of 500 interviews (for each town) was statistically significant to provide representative information for the whole town.

Criteria for Town Selection

Each town had been chosen according to the following criteria:

- Land use status of the residents.
- Socioeconomic profile of the residents.

- General trends in water resource use or availability (according to available data or secondary research).

These criteria cover most of the representative features of the city of Karachi. Most importantly, they fall under the direct jurisdiction of the KW&SB, whose service provision of water and sewerage is the focal point of this survey.

The sample of 500 was further split equally over the number of union councils in each town. For instance, the town of Bin Qasim has seven union councils. In each union council, therefore, over 71 or 72 interviews were conducted.

Interview Process

Each area in a union council was allocated a certain number of 'starting points' depending on the sample for a particular union council. The starting point in an area was any landmark such as a mosque or a shopping plaza. A minimum of 10 interviews were conducted around each starting point. The sample for a certain union council was thus divided by 10 to arrive at the required number of starting points in each area. For instance, the union council Cattle Colony of Bin Qasim town was allocated 71 interviews. Therefore in each area of the union council of Cattle Colony seven (71/10) starting points were allocated.

To avoid the problem of overlapping starting points, the field supervisors made divisions of the target area

Table 2: Sample of household interviews		
Towns	**Location**	**Sample size**
Gadap	North Karachi	500
Bin Qasim	South West Karachi	500
Gulshan	Central Karachi	500
Orangi	North West Karachi	500
Kemari	South West Karachi	500
Saddar	South Karachi	500
Gulberg	Central Karachi	500
North Nazimabad	North East	500
SITE[a]	North East	500
Total sample size		4,500

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

(depending on the number of starting points) beforehand. If the number of starting points were more than the number of areas inside a union council, some areas were randomly dropped. The field team ensured that a maximum geographical coverage of an area was made certain in such instances.

Once the surveyor was inside the sample area, he or she went to the chosen starting point and selected the first household using the balloting technique to ensure randomness in the

selection of the first household. A skipping of three[2] households was done after each successful interview to avoid the neighborhood bias. The enumerators were instructed to give preference to joint interviews with both men and women heads of households. If only one of them was available, interviews were conducted with the available and willing respondent. As in Phase 1, the men and women interviewed were those who were the main decision makers in the household regarding matters and expenditure pertaining to household water and sewerage.

Substitution or Call Back

No substitution or call back was to be made in this survey. If both the respondents were either unwilling or unavailable, then the enumerators proceeded to the house on the right-hand side and asked permission for an interview from the neighboring household. The enumerator was required to keep moving to the next house on the right-hand side until he or she conducted an interview successfully. The demographic profile of the respondents is given in Appendix B.

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[2] 'Three' was chosen arbitrarily.

Water Services

Availability, Access, and Usage of Water Sources

What Sources of Water do People have Access To and Use in the Nine Towns in Karachi?
The sources of water most widely available and used were obtained based on usage, such as drinking, washing, and bathing. Besides identifying some of these indicators, the qualitative phase of the study also helped to determine the associated details.

The sources were divided into three categories:

1. Sources located within the household: These primarily include sources such as an individual or community connection from the main line, both legal and illegal. Other sources which fall within this category include individual or shared boreholes dug inside the household or the community compound.

2. Sources located outside the household: This category includes water sources such as ponds, rivers, canals, and common wells situated outside the household or the community premises. Borewells operated by hand or motor also fall within this grouping.

3. Sources which required water to be purchased or delivered: This category includes water sold by tankers, donkey or horse carts, and private individuals, as well as bottled or canned water.

As Figure 1 reveals, connections from the mains water supply sources account for the largest available source for households in Karachi; this is followed by private vendors like water tankers. This drives home the fact that the Karachi Water and Sewerage Board (KW&SB) is, by far, the most prominent provider of water to households in Karachi. However, what is disconcerting is that more than one-third (37 percent) of all mains users are reportedly using illegal means to access water. Illegal connection from the mains line was found to be a frequently occurring trend in Gadap (45 percent), Saddar (49 percent), and Sindh Industrial and Trading Estate (or SITE, with 51 percent). Half of Saddar's population relies on illegal connections from the mains line, while the other half obtains its water through vendors, boreholes, and legal connection, from the mains. Orangi reports the maximum number of legal connections.

Figure 1: Overall access to water sources
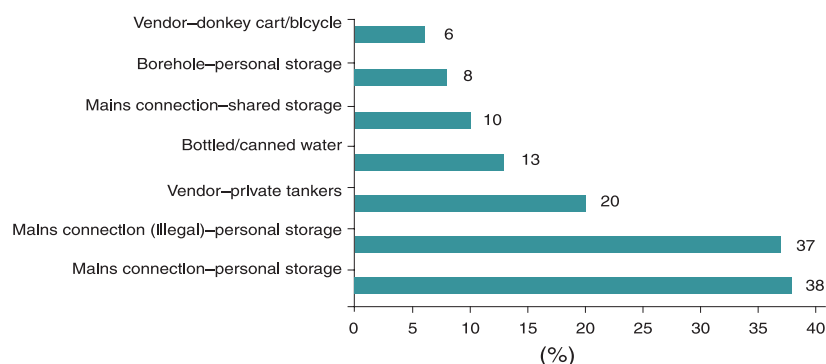
Source	(%)
Vendor—donkey cart/bicycle	6
Borehole—personal storage	8
Mains connection—shared storage	10
Bottled/canned water	13
Vendor—private tankers	20
Mains connection (illegal)—personal storage	37
Mains connection—personal storage	38

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 3: Water source profiles across towns (in %)

Source	Gadap	Bin Qasim	Gulshan	Orangi	Kemari	Saddar	Gulberg	Nazimabad	SITE[a]
Mains connection (legal)—personal storage	35	46	22	63	25	12	58	55	26
Mains connection—shared storage	0	9	25	1	3	15	11	20	2
Mains connection (illegal)—personal storage	**45**	29	30	35	37	**49**	**23**	30	**51**
Boreholes, personal storage	1	4	6	3	14	4	23	14	3
Boreholes, shared storage	0	0	5	0	1	15	5	3	10
Vendors—donkey carts or bicycles	5	16	3	1	16	8	0	0	3
Vendors—private tankers	20	18	22	**34**	16	16	7	16	28
Bottled or canned water	2	6	13	2	**30**	20	14	16	13

Note: Figures aggregated across columns exceed 100 due to multiple responses.
a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 4: Sources of water for domestic use and drinking

	Usage (%)	
Source	Domestic use	Drinking
Borewell with motor or handpump	2	3
Borehole—personal storage	7	3
Bottled or canned water	4	4
Mains connection—personal storage	**36**	**34**
Mains connection—shared storage	9	8
Mains connection (illegal)—personal storage	**34**	**34**
Vendor—bicycles or donkey carts	4	3
Water delivered by private tankers	11	7
Borehole—shared storage	4	1

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

The usage profiles also indicate that legal (36 percent) and illegal (34 percent) forms of mains connections are the most commonly used sources of water for domestic use across all the towns (see Table 4).

However, significant spatial variations have been observed. A large proportion (14 percent) of Kemari residents uses bottled or canned water for drinking. Many households in Saddar (15 percent), Gulshan (21 percent), and North Nazimabad (17 percent) use shared connections from the mains lines. This type of connection was found to be used mostly in community living environments whereby households share a common storage tank which is supplied water through a mains line connection. Gadap

(12 percent), Gulshan (12 percent), and Orangi (15 percent) purchase a significant portion of their drinking water from water tankers.

Almost similar trends were found in the profiles for water for domestic use; all the towns rely heavily on legal and illegal connections from the mains line for domestic use. However, at least 10 percent of the households in Gadap, Bin Qasim, Gulshan, Orangi, Kemari, and SITE use tankers as their main source of domestic water.

How Regular is the Supply of Water from the Mains Connection?
Almost 45 percent of respondents are supplied drinking water seven days a week from the mains connections during normal times. In Bin Qasim, nearly 81 percent of households are supplied water every day. Yet, there was wide variation in the frequency of water supply across

Table 5: Weekly supply of water from the mains connection (in %)

Days	Gadap	Bin Qasim	Gulshan	Orangi	Kemari	Saddar	Gulberg	North Nazimabad	SITE[a]
One	0.5	1.0	0.3	22.1	4.4	0.5	0.3	2.8	5.5
Two		2.9	0.3	27.9	6.1	0.5	2.8	10.8	25.1
Three	5.5	2.4	5.6	29.5	15.6	4.1	16.2	21.6	22.5
Four	5.0	4.6	13.4	7.9	11.2	8.4	12.6	13.1	12.8
Five	8.1	5.3	9.0	5.9	6.8	19.6	11.6	6.7	14.4
Six	23.4	1.9	12.0	2.3	9.8	5.4	6.7	3.0	6.8
Seven	**53.4**	**81.4**	**59.4**	**3.6**	**41.7**	**61.3**	**49.4**	**41.1**	**12.8**
Don't know	4.0	0.5		0.8	4.4		0.5	1.1	0.3

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 6: Proportion of households experiencing water scarcity across towns									
Overall (N = 2010)	Gadap (N = 187)	Bin Qasim (N = 183)	Gulshan (N = 166)	Orangi (N = 283)	Kemari (N = 221)	Saddar (N = 286)	Gulberg (N = 162)	Nazimabad (N = 219)	SITE[a] (N = 303)
44.6	37.4	36.6	33.2	56.6	44.2	**57.2**	32.4	43.8	**60.6**

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

geography. For example, only 4 percent of respondents in Orangi and 13 percent in SITE were supplied water every day. In fact, 50 percent of households in Orangi are supplied water for two days or less in a week. During times of water scarcity, frequency of water distribution falls—53 percent of households are supplied water for three days or less in a week.

Instances of Water Scarcity and Coping Mechanisms

To What Extent did Households Experience Water Scarcity During the Last One Year?
Respondents were asked about their experiences during the last year when they faced low or lack of water supply lasting for a long duration (five days or longer). It was clearly explained to the respondents that this was different from

short term stoppages and breakdowns. As Table 5 shows, seasonal water scarcity is experienced by a significant numbers of households (45 percent) of the population in the nine towns surveyed.

Wide variations are again observed across the different towns. Instances of scarcity are quite intense for households in SITE (61 percent) and Saddar (57 percent).

In Which Months do Households Experience Scarcity of Water?
As expected, summer months are the most stressful for households who reported scarcity, the peak being the month of June.

How do People Cope During Times of Scarcity?
During periods of scarcity, people are forced to resort to expensive sources of water. As Table 7 shows, vendors in the form of tankers (31.3 percent), illegal connections from the mains (16.3 percent), and bottled or canned water (15 percent) were the most widely availed sources of water during the months of water scarcity. A significant number of households in Gadap (10 percent), Bin Qasim (19 percent), Kemari (24 percent), and

Figure 2: Months in which scarcity is experienced

Seasonal water scarcity

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 7: Sources used during periods of scarcity

Source	Overall (N = 2010)	Gadap (N = 187)	Bin Qasim (N = 183)	Gulshan (N = 166)	Orangi (N = 283)	Kemari (N = 221)	Saddar (N = 286)	Gulberg (N = 162)	Nazimabad (N = 219)	SITE[a] (N = 303)
Vendors—tankers	31.3	24.6	36.6	50.6	47.0	18.1	19.6	12.3	26.5	35.6
Mains connection (illegal) —personal storage	16.3	50.3	12.6	3.6	15.9	15.4	16.8	15.4	8.2	11.6
Bottled or canned water	15.0	2.7	9.8	13.3	2.1	23.1	22.0	19.1	23.7	17.5
Vendors—bicycles or donkey carts	8.1	10.2	19.1	3.0	1.8	24.4	11.9	–	–	3.6
From relatives or neighbors	7.5	7.5	3.8	3.6	11.7	3.6	4.9	7.4	4.6	15.2
Mains connection— personal storage	6.7	1.6	3.8	5.4	9.9	2.7	4.2	16.7	15.1	3.0
Mains connection— shared storage	3.2	–	4.4	13.9	–	–	7.0	3.7	3.7	–
Borewell motors or handpumps	2.6	1.6	0.5	1.2	3.5	5.4	4.2	3.1	0.5	2.3
Boreholes dug using a drill or machinery— personal	2.6	–	4.9	2.4	–	1.4	0.7	10.5	7.3	0.3
Standposts or public taps managed by municipality	1.7	–	–	1.8	3.5	0.5	2.1	1.2	5.0	0.7
Water sold by private individuals from other residences	1.2	1.6	0.5	–	–	2.3	0.7	–	–	4.6

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Saddar (12 percent) also purchase water from vendors on donkey carts and bicycles. Moreover, during months of scarcity, households supplement their water supply from the mains connection and boreholes by borrowing from neighbors, using a community tap, and also by buying from other households in some instances.

Data were also analyzed on source-wise migration between times of normalcy and scarcity for the subset of respondents who said they experienced scarcity. In general, it was observed that households that obtain water from the mains (legally or illegally) tend to obtain water from private sources during water scarcities. In comparison, households that primarily obtain water from private or bottled sources tend to keep using the same source during water scarcities.

Citizens' Perceptions on Quality and Reliability of Services

What do Citizens Think of the Taste, Color, and Smell of Water They Use?
The data show that the vast majority of citizens find the taste, color, and smell of water acceptable, and that the water was clear; 14 percent of respondents, however, said that they found the water muddy. There was not much of a difference between sources on these counts. However, a relatively large proportion of respondents in Kemari (20 percent), Orangi (19 percent), and SITE (19 percent) found the water to be partly muddy.

How Frequent are Breakdowns and Stoppages?
Feedback from households using the mains shows very few cases (15 percent) of major stoppages or

Table 8: Shift in acquisition of drinking water (under normal conditions and during water scarcity, by source of water)

Sources during scarcity (%)	Sources during normal supply (%)				
	Mains (illegal)	Mains (individual)	Mains (shared)	Water tankers	Bottled or canned
Mains (illegal)	37	1	0	0	0
Water tankers	24	33	32	83	2
Bottled or canned	15	8	19	13	96
Donkey carts or bicycles	7	7	8	1	0
Relatives or neighbors	6	10	4	0	0
Boreholes (individual)	2	6	0	0	0
Private vendors	1	1	1	2	0
Boreholes (shared)	1	1	0	0	0
Mains (shared)	0	0	29	0	0
Mains (individual)	0	24	0	0	2

Note: This table displays the source of water that respondents turn to during water scarcity by their source of water under normal conditions. For example, 37 percent of respondents who obtain water from illegal connections to the mains obtain water from the same source during scarcities. Respondents may obtain water from multiple sources during scarcities and under normal conditions.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 9: Perceptions in quality of water (all sources taken together)				
Characteristics	Perception	Number (%)	Reasons for unacceptability of taste	Number (%)
Taste	Acceptable	96		
	Unacceptable	4	Brackish or salty	73.2
			Mixed with sewage water	23.9
	Sweet	98	It is contaminated	0.7
	Hard	2	Don't know	2.9
Color	Clear	84		
	Partly muddy	13.8		
	Muddy (brownish)	2.1		
Smell	Acceptable	94.5		
	Unacceptable	5.5		

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

breakdowns during the last one year. However, a relatively larger proportion from SITE (29 percent) and Saddar (20 percent) reported in the affirmative on this count. The two most popular alternative sources of water during such stoppages from the mains are private tankers (38 percent) and water cans (26 percent), both of which are purchased.

What are the Coping Measures Adopted by Citizens to Meet Issues of Adequacy and Quality of Water?

Though the majority of respondents expressed satisfaction with the taste, smell, and color of water they use, large numbers of households (45 percent) using the mains water report

Figure 3: Percentage of mains water users reporting storage facilities

Storage tanks in household

Region	Value
SITE	75
Nazimabad	89
Gulberg	85
Saddar	68
Kemari	71
Orangi	71
Gulshan	69
Bin Qasim	45
Gadap	75
Total	72

% Respondents with mains connection

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

median value was found to be Rs. 7,000[3]). It was also found that over 93.8 percent of households with storage tanks reside in a *pucca* (that is, stronger) household structure.

Feedback from Users of Water Sources outside Residential Premises

How Accessible and Convenient are Sources Located outside Residential Premises?

As could be expected, most respondents reporting use of sources located outside residences belong to the lower socioeconomic strata. The data show that in most cases, these sources are usually located at a distance of around 10 minutes from the residences of the users, covered mostly by foot in times of both normalcy and scarcity. The majority of the users (70 percent) report that the sources are accessible 24 hours a day. On an average day of collection of water, users have to wait for 30 minutes. The water is fetched by mostly adult men. The complaints related to this source included long queues, heckling, and quarrelling amongst the users.

Transparency in Service Provisions

Users of mains connections were queried about how transparent their service providers were in terms of billing practices and petty corruption.

How Often do Customers Get Water Bills?

A worrying finding from this survey is that large numbers of the KW&SB's

treating the water, probably due to the worry of contamination. Boiling the water was found to be the most popular form of treating water. Households were also asked whether they had storage tanks at home to cope with unreliable supply. Almost one-fourth of those with a mains connection reported having invested in storage facilities. The presence of a storage mechanism indicates the uncertainty in water supply. As can be discerned from Figure 3, except

respondents in Bin Qasim, all others report high proportions of use of storage facilities. Further analysis shows that the presence of a storage tank is positively correlated with a household's socio-economic classification (SEC). The higher the household's SEC, the higher the chances of the presence of a storage tank.

This can be explained by the high cost of constructing such a tank (the

Figure 4: Percentage of users of mains water source that reported receiving a water bill
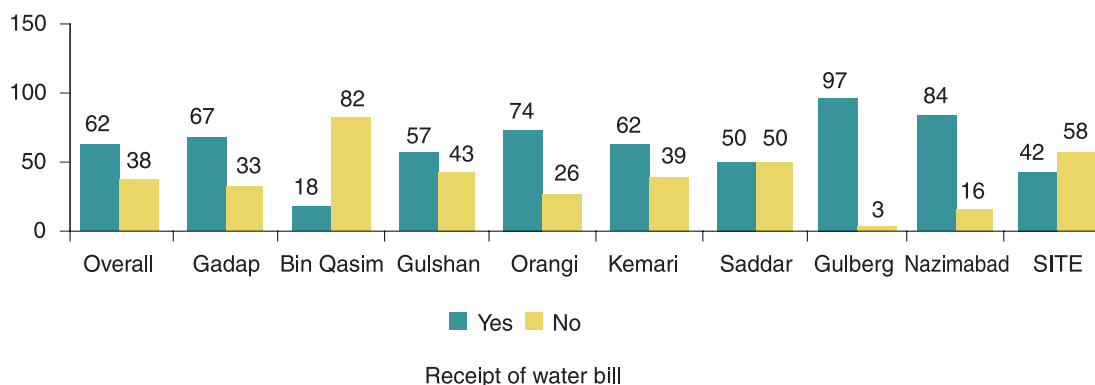
Receipt of water bill

Legend: ■ Yes ■ No

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

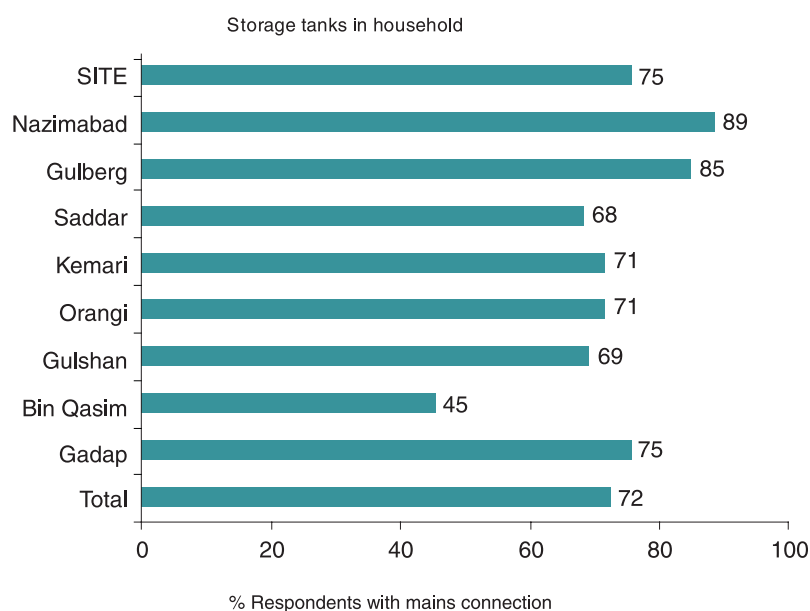legal customers (38 percent) report not receiving any bills for their consumption of water. Wide spatial variations were noticed in this context. Over 82 percent of the households with a mains connection in Bin Qasim, 50 percent in Saddar, and 58 percent in SITE reported not receiving a bill for water consumption. On the other extreme, most users (97 percent) in Gulberg reported receiving a water bill.

For those receiving water bills, the frequency of receipt is mostly on a monthly basis (87 percent); a few cases of quarterly and annual bills are also quoted. Almost one-third of the users (31 percent) in Bin Qasim who received bills report receiving annual bills.

The awareness of the KW&SB as a billing authority is quite high on an overall basis (87 percent). Extremely low awareness regarding the status of KW&SB as a billing authority was found among the households of Gadap, where a high percentage of bill recipients either quoted an incorrect agency (37 percent) or were not aware of the KW&SB at all (8 percent).

The billing charges are neither perceived to be too high or too low in most towns except SITE. In SITE, 38 percent believe that the charges for water supply from the mains are somewhat high. Most of the residents did not offer any conclusive comments as to whether the billing should be based on consumption in their opinion.

Those who firmly believed that billing should be based on consumption offered the following reasons:

● People will not waste water.
● Billing is not proportionate to the water consumption. The charges were more than what was being supplied or consumed.
● Budgeting of water bill will be possible.

Did Respondents Bribe Any Official to Get the Work Done?

No cases of bribes paid were reported in this survey, though a small proportion reported witnessing someone else paying a bribe to an official.

Did Respondents Receive Any Advance Notice from the KW&SB Regarding Stoppages?

Most respondents who reported being affected by major stoppages in water supply could not recollect seeing any advance notice about this issue from the KW&SB.

while those of SITE (77 percent), Orangi (76 percent), North Nazimabad (72 percent), and Kemari (58 percent) preferred interacting with the authorities collectively.

The issue in most towns was resolved amicably except in Bin Qasim (47 percent) and Gulshan (58 percent), where dialog was supplemented with some kind of pressure by the people.

Interactions with KW&SB officials were extremely low in most towns. Over 26 percent of the households in the nine towns did not think it would make any difference, while over 19 percent did not know where and with whom they were supposed to interact. The issues were related mostly to water stoppages (79 percent), and a majority preferred complaining in person. Over 47 percent of the households who had approached the KW&SB found its officials very inaccessible.

Incidence of Waterborne Diseases

Contamination of water has a major impact on the health of people. This survey attempted to find out instances of waterborne diseases affecting sample households in the nine towns. Respondents were asked about the most common waterborne diseases they contracted. Information was collected about the number of persons affected in the household, the average number of days of the illness (per person), and the cost incurred (per person) for the treatment of that particular disease. On an average, two persons in the households were affected by typhoid, hepatitis, cholera

Interaction with the KW&SB

Respondents who were users of the mains connection were asked a series of questions regarding their nature of interaction with the KW&SB.

Over one-third (39 percent) of the households reportedly faced problems in water supply over the past year. The incidence of problems was relatively higher in SITE (54 percent), Saddar (46 percent), Kemari (46 percent), and Orangi (42 percent).

However, over 40 percent of the households who faced some kind of a problem with water supply never interacted with the authorities; instead, political representatives like union councilors and town nazims were most commonly approached. A distressing finding from this survey was that 60 percent of the lowest SEC group (E2) never complained.

The mode of interaction also differed across different towns. The residents of Gadap (88 percent), Gulshan (82 percent), Bin Qasim (80 percent), Gulberg (77 percent), and Saddar (66 percent) strongly preferred interacting with the authorities at an individual level

Table 10: Incidence of waterborne diseases and costs incurred

Illness	No. of persons affected	Days of illness	Costs incurred/ person (Rs.)
Typhoid (N = 227)	2	22	2,000
Hepatitis (N = 119)	2	68	4,250
Cholera (N = 1144)	2	8	500
Dysentery (N = 182)	2	9	500

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

dissatisfaction; and along a numerical scale of 1–10 with 1 being the lowest and 10 being the highest. The main source of drinking water has been broken down into two distinct categories: users of mains line (illegal and legal connections) and those households who obtained water from outside sources.

The average satisfaction with drinking water distribution among households across Karachi that primarily obtained

or dysentery. Over 23 percent of the households were affected by cholera, which had affected all the nine towns surveyed. This is so despite the fact that most households thought that the water quality (in terms of its color, taste, and smell) was acceptable (see Table 9). Bin Qasim (19.4 percent) was the town which was most affected by this disease; incidentally, Bin Qasim had reported significant usage of water purchased from small-time street vendors.

Hepatitis is the most expensive disease to treat at Rs. 4,250 followed by typhoid (Rs. 2,000). Median values were used to calculate the costs to exclude the influence of outliers.

Satisfaction with Water Provision

Citizens' satisfaction is a direct measure of the overall effectiveness of a service. The households were asked to rate their satisfaction with various aspects of service delivery according to two measures—along a scale ranging from complete satisfaction and

water through mains lines (both legally and illegally) was 6.74 out of 10. Those who obtained water primarily from sources outside their domicile, such as through private water tankers, were markedly less satisfied—the average satisfaction rate with water distribution among households that obtained water primarily from outside the household was an abysmal 3.93. Gulberg reports

the highest satisfaction (7.36) amongst the nine towns and SITE the lowest (6.20) with regard to water from the mains. For sources outside residences, Saddar reports the highest satisfaction (6.05) and Orangi the lowest (2.80)

The KW&SB can take credit for this verdict, as the users of the mains connection for drinking water report a

City/town	Source	
	Main	**Outside domicile**
Karachi	6.74	3.93
Gulberg	7.36	3.60
North Nazimabad	7.13	5.23
Saddar	6.99	6.50
Bin Qasim	6.96	5.93
Kemari	6.90	3.57
Gulshan	6.49	4.06
Gadap	6.35	3.09
Orangi	6.29	2.80
SITE	6.20	3.33

Table 11: Average satisfaction levels with drinking water distribution by source of water

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 12: Areas for improvement

	Gadap	SITE	Saddar	Kemari	Orangi	Bin Qasim	Gulshan	Gulberg	North Nazimabad
First priority	Regularly available water	Regularly available water	Regularly available water	Regularly available water	Regularly available water	Regularly available water	Time taken to attend to problems	Clean water	Clean water
Second priority	Clean water/ strong pressure	Clean water	Clean water	Clean water	Strong pressure from mains	Adequate water for household	Regularly available water	Regularly available water	Regularly available water

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

higher satisfaction on an overall basis, with their coefficient of variance being on a lower side as compared to the ratings provided by users of other sources.

This finding is further reiterated by the town level analysis which shows that all the households of the nine towns rate the satisfaction with mains water higher than their counterparts who depend on outside sources.

Areas for Improvement

Most households cite the need for regular availability of water as the area the KW&SB could improve the most. When asked about the areas in which the KW&SB should prioritize any reforms, a majority of households suggested that the agency should first concentrate on providing a frequent and steady source of water. Residents of most towns suggested that the KW&SB should first prioritize water availability and then address water cleanliness. However, residents of Gulshan felt that the KW&SB should first prioritize the improvement of its grievance redress system, and households in Gulberg and North Nazimabad suggest that the KW&SB first improve the cleanliness of water in those towns.

Sewerage Services

Access to Sewerage

Where Does the Waste from the Toilet Go?

Most households surveyed (93 percent) had a sewerage connection for disposal of toilet waste. However, variations across towns are reported. Over 32 percent of the households in Bin Qasim town were reportedly using the drain outside their house for waste disposal. Some households in Kemari (7 percent) and Gadap (8 percent) were also using drains in the absence of a sewerage connection. In most instances, the absence of a sewerage connection was found in informal settlements (69 percent). Sewerage connections were also absent in newly established localities where pipelines had not been laid as yet (10 percent).

Quality and Reliability of Sewerage Maintenance

How Frequently are Sewerage Facilities Cleaned?

Almost 83 percent of households report that sewers are only cleaned when blocked. Barring Gulshan, where 15 percent of households report that sewers are generally cleaned once a month, respondents in most localities report that sewers are not cleaned regularly. When sewers are cleaned, 55 percent of households report that the work is done by official cleaners while 34 percent of households admit to hiring private cleaners. The latter practice is the most prevalent in Gulshan and Bin Qasim, where 56 percent and 47 percent of households, respectively, reported hiring a private cleaner.

Figure 5: Profiles of toilet waste disposal
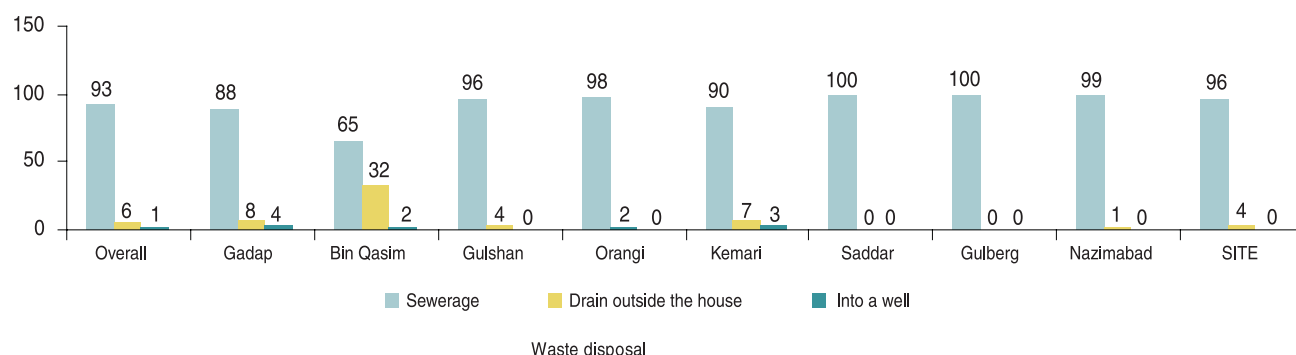
a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Costs Incurred in Maintaining Sewerage Facilities

Did Households Incur Any Expense for Cleaning and Maintenance?

Respondents also have stated that official cleaners charge households to clean gutters—67 percent of respondents in Sindh Industrial and Trading Estate (SITE) and 62 percent of respondents in Nazimabad reported that official cleaners charged to clear sewers.

On average, official cleaners charged between Rs. 20 to Rs. 50. Nearly 51 percent of households have used their own funds to maintain sewers.

On average, a household spends Rs. 500 per year to maintain its connection. Almost 12 percent of households that did spend their own funds to maintain their sewerage connections spent over Rs. 1,000 per year.

Problems Faced with Sewerage

How Many Respondents Faced a Problem with the Sewerage System?

A little under one-fourth of the households (21 percent) had experienced major sewerage problems in the past year. A high percentage of problem incidences were reported from SITE (37 percent), Saddar (29 percent), and North Nazimabad (27 percent).

Most of the major sewerage problems were related to blocked gutter lines (65 percent). Households also complained about rain water that was stagnant and had no proper drainage outlet.

Over 51 percent of the households who reported being affected by major sewerage problems had complained to the authorities. Most of these were in SITE (29 percent), Saddar (14 percent), and North Nazimabad (14 percent).

Table 13: Redress of complaints with different authorities				
	Yes	**Yes, partially**	**No**	**Total**
Union counselor	37.8	28.1	34.1	100
Town nazim	64.7	17.6	17.6	100
Union council nazim	31.7	30.4	37.9	100
Water board (N = 33)	6.1	12.1	81.8	100

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Interactions with the KW&SB on Sewerage-Related Issues

As observed in the case of water, households generally approached the officials of the City District Government Karachi; union counselors (43 percent) or the nazim (37 percent). Most complaints were communicated in person (81 percent). Other methods included telephone calls (10 percent), letters (5 percent), and complaint registers (3 percent).

However, as can be discerned from Table 13, problem resolution was

Table 14: Average satisfaction with sewerage	
City/town	**Score (maximum: 10)**
Gadap	7.23
Gulberg	7.05
Kemari	6.95
Gulshan	6.65
Orangi	6.44
Saddar	5.9
North Nazimabad	5.85
Bin Qasim	5.7
SITE[a]	5.24
Total (for Karachi)	**6.35**

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

unfortunately quite low, with over 80 percent of the households' complaints to the Water Board still pending redress. Only the town nazim seems to take immediate action on the complaints received.

Satisfaction with Sewerage System

The average satisfaction among households across Karachi towards sewerage services was 6.35 out of 10. There were, however, variations in the satisfaction of households towards sewerage services in different towns. For example, households in Gadap had an average satisfaction of 7.23 on the high end, while households in SITE had an average satisfaction of 5.24.
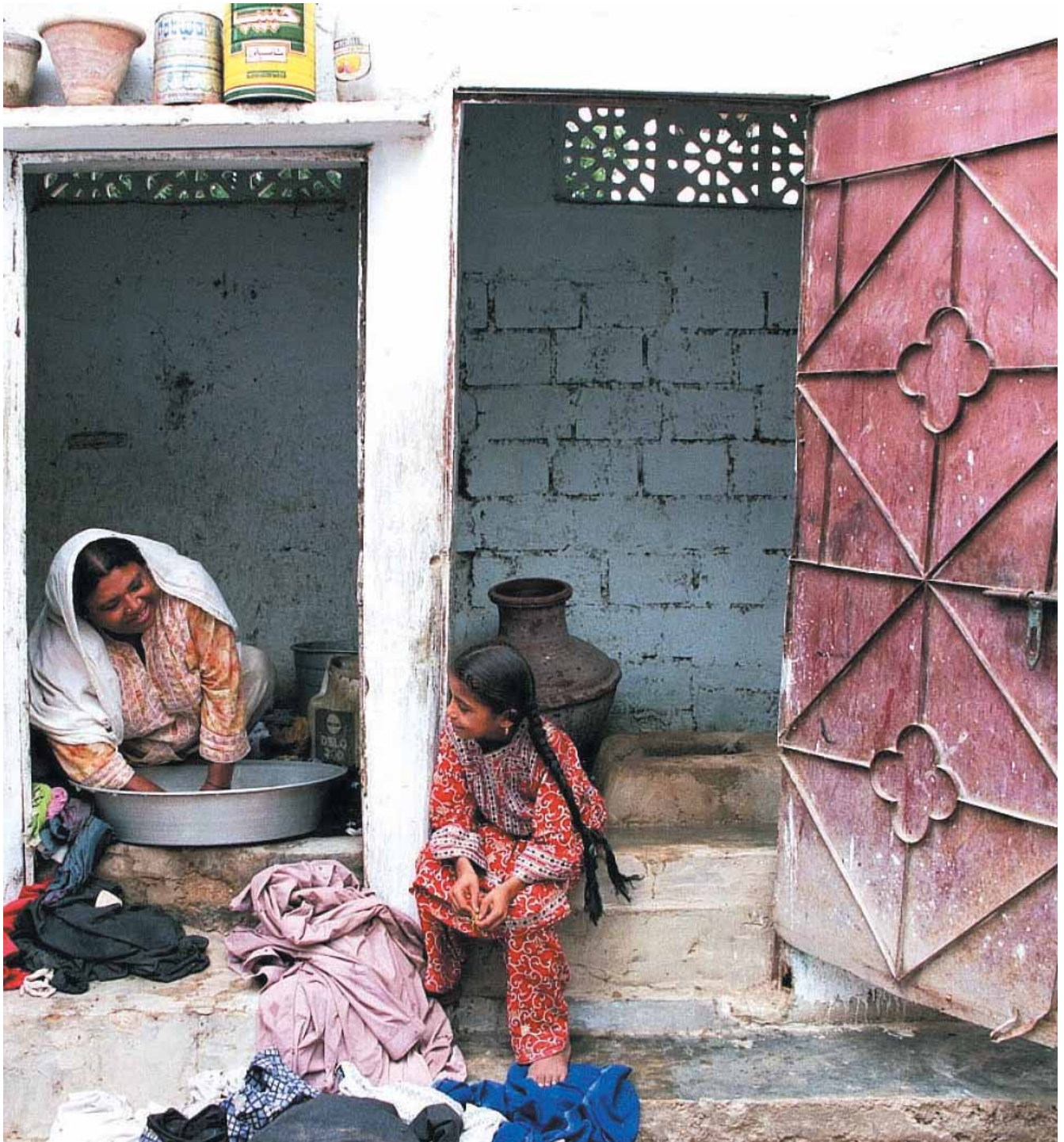
Public Toilets

Availability and Usage of Public Toilets

Public toilets are found in parks, shops, plazas, and mosques. About 1 percent of respondents categorize themselves as highly frequent users of public toilets and 10 percent of respondents categorize themselves as rare users. Over 19 percent of households in Karachi have used a public toilet. Most of the users are found in Gadap (17.7 percent), Bin Qasim (16 percent), and Kemari (16.6 percent).

Service Delivery Issues

Almost 70 percent of households found the location of toilets to be convenient and 72 percent reported that public toilets are generally safe. Sixty-five percent of respondents felt that toilets were clean either most of the time or always. Only 14 percent of respondents found that water was rarely or never available in toilets.

Forty percent of households reported that queues were present only rarely while 33 percent reported that queues were present either most of the time or always.

Satisfaction with Public Toilets

The average satisfaction among households across Karachi towards public toilets was 6.64 out of 10. Again,

| Table 15: Average satisfaction with public toilets	
Public toilets	Mean score (out of 10)
Gulshan	8.69
Gadap	6.97
Saddar	6.83
Orangi	6.75
SITE[a]	6.41
Bin Qasim	6.38
Gulberg	6.21
Kemari	5.88
North Nazimabad	5.70
Total (for Karachi)	**6.64**

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

there was great variation in satisfaction rates across towns—the average satisfaction level in Gulshan was 8.69 on the high end, while the average satisfaction in North Nazimabad was 5.70 on the low end.

General Perceptions and Opinions

Nearly 37 percent of respondents felt that water and sewerage services have improved over the last two years. Close to 29 percent felt that water and sewerage services have greatly improved while 22 percent were indifferent. Almost 49 percent of respondents were against the notion of private sector involvement in public

service delivery. Those in favor of private sector involvement cited potential improvements in service delivery, such as fewer water shortages and frequently cleaned sewers in addition to greater transparency and responsiveness. Those against the private sector's involvement in public service delivery felt that prices would

increase as a result of market forces and that government employees would lose their jobs. Over 80 percent of households felt that information should be disseminated through television. Some also wanted such information to be made public through neighborhood meetings (8 percent), newspapers (9 percent), and radio (1 percent).

Causal Factors for Complete Satisfaction

The satisfaction ratings discussed in this survey are based on self-assessment by the utility, of some selected services by various users. Since user satisfaction feedback is an important component of the assessment of public services carried out, it may be useful to explore the significance of the relationship between satisfaction levels and some critical parameters or indicators of the service. With this objective, an effort was made to identify critical parameters of services that influence complete satisfaction as expressed by relevant users.

The chi-square test is an important test among the several tests of significance developed by statisticians. The chi-square (symbolically written as χ^2) is a measure of the degree to which observed frequencies deviate from the corresponding expected frequencies. In other words, chi-square measures the magnitude of the discrepancy between expectation and observation. This test can be applied to test the goodness of fit; test the homogeneity or the significance of population variance; and test the significance of association between two attributes.

A chi-square test of association was carried out for the services probed in this Citizen Report Card to explore the strength of linkages between a set of independent variables (service parameters or attributes) and a dependent variable (complete satisfaction). The chi-square tests resulted in an interesting order of variables that impact complete satisfaction. Consolidated findings are discussed here.

Table 16: Factors of complete satisfaction with water supplied through the mains

Parameters	Chi-square values	Rank
Costs associated with it	1205.04	1
Adequacy of water during normal times of supply (that is, water available from this source is enough to meet the needs of the family)	867.22	2
Quality of maintenance (for example, of water pipes, wells, pumps, and so on)	866.72	3
Other aspects of water quality (that is, whether water is clear, has acceptable taste and smell, and so forth)	798.85	4
Regularity of water supply during normal periods of water supply	790.33	5
Behavior of staff	513.32	6

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Explaining Complete Satisfaction with Water Supplied through the Mains

While variations across towns are depicted in Table 17, Table 16 shows the chi-square values and the relative ranks based on their values. Costs (to the household) associated with accessing water, followed by adequacy of water to meet household requirements and quality of maintenance are the first three major determinants of overall satisfaction.

Table 17: Satisfaction with water supply from the mains (top three causal factors across towns)

Towns	Rank 1	Rank 2	Rank 3
Gadap	Billing system	Associated costs	Other aspects of water quality
Bin Qasim	Regularity of water supply during normal times	Regularity of water supply during scarcity times	Adequacy of water supply
Gulshan	Associated costs	Quality of maintenance	Adequacy of water supply
Orangi	Adequacy of water supply	Regularity of water supply during normal times	Quality of maintenance
Kemari	Associated costs	Billing system	Adequacy of water
Saddar	Regularity of water supply	Associated costs	Billing systems
Gulberg	Regularity of water supply	Adequacy of water supply	Associated costs
Nazimabad	Associated costs	Adequacy of water supply	Quality of maintenance
SITE[a]	Billing system	Quality of maintenance	Adequacy of water supply

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 18: Factors of complete satisfaction with sewerage connections

Parameters	Chi-square	Rank
Cleaning of sewers	6279	1
Problem resolution	6020	2
Condition of sewers	6016	3

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Explaining Complete Satisfaction with Sewerage Connections

Variations across towns are depicted in Table 19.

Thus, regular cleaning and maintenance of sewers and speedier grievance redress will improve satisfaction with sewerage connections.

Table 19: Satisfaction with sewerage connections (top three causal factors across towns)

Towns	Rank 1	Rank 2	Rank 3
Gadap	Condition of sewers	Problem resolution	Cleaning of sewers
Bin Qasim	Problem resolution	Cleaning of sewers	Condition of sewers
Gulshan	Cleaning of sewers	Problem resolution	Condition of sewers
Orangi	Condition of sewers	Problem resolution	Cleaning of sewers
Kemari	Condition of sewers	Cleaning of sewers	Problem resolution
Saddar	Cleaning of sewers	Condition of sewers	Problem resolution
Gulberg	Problem resolution	Cleaning of sewers	Condition of sewers
Nazimabad	Problem resolution	Condition of sewers	Cleaning of sewers
SITE[a]	Condition of sewers	Problem resolution	Cleaning of sewers

a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 20: Factors of complete satisfaction with public toilets

Public toilets	Chi-square	Rank
Adequacy of public toilets	898	1
Location of public toilets	808	2
Cleanliness of public toilets	780	3
Water availability in public toilets	626	4

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 21: Roadmap for service improvement

Service	Areas of improvement
Water supply	• Rationalizing cost of water
	• Ensuring adequacy of supply
	• Ensuring timely maintenance
Sewerage	• Regular cleaning and maintenance of sewers
	• Speedy grievance redress
Public toilets	• Setting up more facilities in convenient locations
	• Ensuring cleanliness

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Explaining Complete Satisfaction with Public Toilets

Increasing the number of public toilets in the towns, putting them at convenient locations, and ensuring cleanliness are indicated as the key determinants of (current) user satisfaction.

Institutionalizing Citizen Report Cards in Karachi

There are three specific possibilities that this exploratory Citizen Report Card (CRC) exercise opens up within the existing institutional framework of water and sewerage services in Karachi.

Using CRC as an Internal Change Management Tool: The Premise

The patterns of ratings and problems highlighted in the CRC can be used to diagnose the weak links in the Karachi Water and Sewerage Board's (KW&SB) operations. The objective scores and measures offer a clear indication of the severity of these weaknesses. For instance, a slightly worrying finding ensuing from this exercise is the wide variation in service quality across different towns. This clearly signals inequity in service provision. Yet another issue is that of the low resolution of complaints. Further assessment of the feedback given by users, regarding the courtesy shown by the staff or motivation of the staff, may point to specific aspects of personnel management and development that need attention.

There are multiple ways that the KW&SB can utilize the CRC findings to facilitate improvements in services. In many ways, what distinguishes a CRC from a regular survey is the postsurvey strategy to build upon the 'symptoms' provided by the CRC, and design effective and focused responses. Some of the responses that the KW&SB can consider are:

- Redesign service delivery processes.

- Respond to the unique needs of various customer strata (poor versus rich localities).

- Design back-end improvements (computerization for billing, training of staff, and so on).

- Support the creation of local fora and opportunities for increased consultation and participation from customers.

- Mobilize additional resources to change polices or improve implementation of existing policies.

- Implement spatial uniformity.

Using CRC for Internal Reforms: The Strategy

"When a physician checks the temperature and blood pressure of a patient, she is looking for the symptoms of the illness. She then uses the test results to do an expert diagnosis of the patient's condition. The remedies she prescribes are guided by the findings of her diagnosis. She will consider different options and dosages before deciding on her prescriptions."

Table 22: Exploring future possibilities

Key driver	Menu of actions	Desired outcomes
Internal review and assessment **(Diagnosis)**	• Performance monitoring • Strategizing reforms or responses	• Identifying service gaps • Improved service quality
External sharing of findings **(Accountability)**	• Public dissemination of findings • Regular customer interfaces • Consultations on specific issues	• Enhanced transparency • Better customer relations • Space for participation
Periodic/Repeat CRC **(Benchmarking)**	• Identifying service benchmarks • Reviewing benchmarks	• Tracking progress over time • Pressure on poor performers

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 23: From symptoms to reforms: Options generated to respond to specific CRC findings				
Key finding	Possible reasons	Suggested measures	Expected risks or barriers	Timeline

This medical analogy is helpful in understanding the link between a CRC and the responses or reforms required from the KW&SB. The information provided by the CRC can be a useful aid to diagnosis and a springboard for further probes into the problems identified in the service ratings. For example, the ratings of the different dimensions of a service are very similar to the symptoms that a doctor is able to read from the test results. If the KW&SB gets a low rating on 'problem resolution', it means that people are either left dissatisfied with the services or forced to explore other informal options. Here, the report card has merely signaled some 'symptoms' based on feedback from the people. But whether they reflect genuine problems or what their underlying causes are cannot be inferred from the symptoms alone. What is required is a deeper probe into the phenomena identified by the people and the factors that might have contributed to them.

The sequence of steps that can lead the KW&SB to a set of focused responses and reform options can be described as:

(1) The starting point is the CRC's ratings of the different dimensions of the KW&SB's. They provide an array of the symptoms that act as impediments to effective service delivery. An assessment of these symptoms and their severity offers the basis for moving on to the next step.

(2) Probing the causal factors underlying the symptoms is the next step. Those who engage in this diagnostic exercise need to have good domain knowledge to be able to identify these factors and their relative importance in a given context. The diagnosis should result in the identification of the gaps that need to be filled in order that the services may be improved

(3) The search for reform options that can effectively fill these gaps is the final step in this sequence. Often, a combination of reforms may be required. Domain knowledge and expertise are critical to the identification, choice, and sequencing of reforms.

Since reforms can upset the status quo and go against the interests of influential groups, it is also important to strike a balance between the ideal and the practical. Broad-based internal discussions could help to identify the set of practical reforms or responses. A model template to capture the ideas and reflections is presented in Table 23.

External Dissemination of CRC Findings

Dissemination of the CRC findings with various stakeholders is an essential step to enhance the credibility of the entire exercise. Proactive initiatives such as organizing customer meetings and open houses can be tried out in the nine towns to bring the KW&SB closer to the people. It is recommended that following the dissemination of the CRC, two rounds of public (customer) meetings be organized at each town level. The first one can be to discuss the findings from the CRC and also to publicly state the responses that the KW&SB is planning to address some of the emergent issues. Following this, a mid-year review should be organized to not only discuss progress in the reforms or responses but also to get public perceptions on the issue.

Yet another possibility is to use the feedback to realign and review existing standards and norms of services. The institutional spaces created through regular customer interfaces can also be used for customer education campaigns and programs.

It may also be worthwhile to share the critical processes and findings from this pilot initiative with other utilities such as power, and sectors such as health and education. A 'Donor Roundtable' can also be organized to disseminate the learning among partners.

Mobilizing Demand for Reform

Communication and Advocacy Strategy in Support of CRC on Water and Sanitation Services in Karachi

The information generated through a Citizen Report Card (CRC) is credible, objective, and provides useful insights into, and indicators of, citizens' views and concerns, which have been used to initiate wide-ranging processes of reform and transformation. Crucial to the success of such initiatives has been citizen participation in the reform process, not just through responses in the survey but also by using the feedback and information on gaps in service delivery to demand for qualitative improvements in services.

In this age of communication, information is the fuel that drives the media engine. Where a tool such as the CRC generates information on how citizens perceive and use public utilities, media becomes a key ally in the dissemination of this information to the larger population of citizens using these services. This dissemination helps build awareness of civic rights and responsibilities, highlights the need for reform while also identifying what reforms are required and, most importantly, helps create a constituency demanding reform and improvement.

But CRC data are typically statistical, and survey-based research is generally replete with technical terms not easily understood by a general audience. Statistical data need to be translated into action-oriented information that can create a constituency demanding reform on the one hand, and an institution committed to undertaking the reforms demanded on the other.

So, for the CRC process to become truly participatory, a need was felt to motivate the 'demand' side—by encouraging citizens to become involved and coalesce into a constituency demanding that reform be an ongoing process of improvement, of water and sanitation as well as other civic services, rather than a one-off exercise.

A strategy was developed to sensitize the media to a citizen-driven reform agenda. Through a competitive bidding process, the media advisory firm of Panos International was selected to design and implement a communication strategy, to be woven around the whole CRC process. Panos identified the participating media 'partners' through a series of engagement activities. It proposed working closely with a smaller group of print, radio, and television journalists and professionals—a core group that could be guided in developing key messages that bring about desired

outcomes in terms of awareness, knowledge, and action. By involving the media as a key stakeholder in this way, it was felt that the CRC would then become a 'breaking story', reported by the media as it unfolds, to create mass awareness among citizens and accountability in service providers. In the historical perspective of the CRC, this was a pioneering initiative.

The objectives were to be achieved primarily through the private, independent media—a combination of mainstream media such as print, television, and radio, as well as theater—through a range of activities. The activities unfolded in three phases—presurvey, survey, and dissemination—linked with the phase-wise planning of the CRC process itself.

Program Objectives

- Sensitize the media.

- Build media capacity for informed and action-oriented CRC reporting.

- CRC advocacy.

Phase I: Program Activities

Presurvey—Media Engagement and Media Visits

The first step was to build an enabling environment for the coverage of the CRC by the media. Panos conducted a series of introductory engagements and activities aimed at sensitizing the city's key media houses. Panos identified editors of newspapers and

publications, news directors of television channels, as well as proprietors of publishing houses. These media persons would then meet and interact with a CRC team comprising, where possible and available, the lead consultant Dr. Gopa Kumar Thampi, WSP CRC Coordinator Mr. Farhan Anwar, WSP Institutional Development Specialist Ms. Maheen Zehra, and Panos Country Representative Ms. Sahar Ali.

The CRC was 'sold' at these meetings like a breaking story in Karachi. Media persons were encouraged to link the CRC to other major stories—the upcoming elections, for example, or the monsoons and its impact on water and sanitation services.

This introductory round of meetings, while creating a supportive environment for CRC coverage, also helped Panos identify the key journalists (beat reporters, anchors, radio broadcasters, news editors, and so on) with whom to liaise for subsequent activities, such as the Media Mission to Bengaluru, Media Roundtables, and fellowships, among others. During most meetings with editors, they were asked to identify, and where possible introduce, the relevant beat reporters to the CRC team.

CRC Introductory Workshops

Based on the meetings with editors, Panos prepared a list of beat reporters who would be assigned any stories about the Karachi Water and Sewerage Board (KW&SB). Two informal sessions

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Box 4: Media organizations and persons visited

Print media

- Mr. Mudassir Mirza, Deputy Editor, *Jang* newspaper, Karachi

- Mr. Kamal Siddiqi, Editor Reporting, *The News*, Karachi

- Mr. Bahzad Alam, News Editor/City Editor, *Dawn*

- Mr. Fazal Qureshi, Chief Editor, Pakistan Press International news agency

Electronic media (including radio)

- Mr. Azhar Abbas, Director, News and Current Affairs, Dawn News

- Mr. Rasheed Channa, Vice President, ARY One World, Karachi

- Mr. Masoom Rizvi, Editor, News, Aaj TV, Karachi

- Mr. Mehdi Raza, Chief Executive, Karachi 107

were then held in the preparatory phase of the CRC Communication and Advocacy Strategy. Informal meetings were organized with the media. These sessions took place on October 8 and 27, 2007. WSP's CRC coordinator, Mr. Farhan Anwar, spoke to the participants on the role of the media. He also expressed the expectation that the media would not just report the CRC but popularize it among citizens and help in creating a constituency demanding reform in the KW&SB's water and sanitation services. Mr. Anwar also shared with the participants some of the developments in the project, that is, the formation of an Advisory Committee at the City District Government Karachi, which included high-ranking officials of the KW&SB and representatives from prominent civil society organizations.

Phase II: Program Activities

Survey—Mobilizing the Media
Media Mission to Bengaluru: The next step was to shortlist, from this core group of journalists, four reporters who would travel to Bengaluru and study media coverage of the CRC. Why Bengaluru? Because this was the birthplace of the CRC, where the Report Card methodology has been developed, tested, and refined over the past decade, during which time three CRCs have also been conducted.

In Bengaluru, the CRC was initiated by citizens as a campaign demanding an improvement in civic services. In order to 'institutionalize' citizen demand for reform in Karachi, it was felt necessary to study how the city's residents and

advocacy organizations have kept the pressure on utility companies and other city government institutions, particularly the role the media has played in this effort.

The Media Mission was held from February 25 to March 1, 2008, and an intensive agenda was prepared in consultation with The Public Affairs Center in Bengaluru. The group visited the offices of leading daily newspapers in the city (*The Times of India* and *Bangalore Mirror*), met with a theater troupe engaged in socially relevant theater, interacted with a politician who was dedicated to solving the civic

problems of his constituents, learnt about community radio, and discovered how sting journalism is being carried out by a local television channel, TV9.

Orientation Workshop I
Stakeholder consultative dialog: With the survey under way, Panos organized a context-setting activity for journalists to understand the wider urban context which impacts water and sanitation issues in a burgeoning metropolis such as Karachi. The workshop, titled 'Profiling the Water and Sanitation Sector in Karachi: A Stakeholder Consultative Dialog', was

held on April 18, 2008. Subject specialists from the public and private sectors made presentations on various aspects of the city's water and sanitation issues. Questions of water quantity and availability, sources, supply versus demand, water quality, the politics of distribution, pricing, conservation practices, institutional challenges such as leakage, and many others were addressed and attempted to be answered by representatives of government institutions such as the KW&SB, private organizations such as Urban Resource Center, Shehri-Citizens for Better Environment, Karachi Water Partnership, Orangi Pilot Project, Transparency International, consumer rights organizations such as The Helpline Trust and Consumers Association of Pakistan, and water experts from Water and Sanitation Program (WSP). The role of the media in reporting civic issues and the challenge of keeping citizens' concerns on the media agenda were also discussed by senior journalist and renowned columnist, Mr. Ghazi Salahuddin.

CRC Media Fellowships
In addition to a workshop for beat reporters, Panos offered fellowships to journalists from English and Urdu newspapers reporting on civic issues to produce a series of articles on water and sanitation. Freelance journalists were also included in this activity.

Fellowships were offered to five journalists to write two articles each, covering different aspects of water and sanitation. The fellowship provided a training opportunity for journalists to report more incisively on urban development. The fellows worked closely with Panos and experts on water and sanitation issues who helped refine their stories.

Prior to the commencement of the fellowship, an orientation workshop was organized where story ideas were deliberated upon and refined with inputs from Mr. Farhan Anwar, CRC Coordinator, WSP, and Mr. Shahid Saleem (ex-Deputy Managing Director, Planning, KW&SB).

This activity generated a series of vigorously researched and well-written newspaper reports and features related to water and sanitation issues, while also strengthening general journalism skills. The exercise also developed an 'elite force' of reporters on water and sanitation, who can be commissioned to write on such issues in the future.

"We got to know everything about water and sanitation at the workshop held by Panos. It was extremely informative."
*Mr. Saif Khan, Reporter, Pakistan Press International news agency*

Table 24: Citizen Report Card media fellows' published stories

Journalist	Newspaper	Dates of publication	Headline
Mr. Jamil Khan	*The Daily Times*	Monday, May 12, 2008	'KW&SB to strengthen supply network and crackdown on illegal water connections'
		Saturday, May 24, 2008	'KW&SB bill scheme goes down the drain'
Mr. Saif Ali Khan	*The Nation*	Monday, May 12, 2008	'Clean drinking water a distant dream for Karachiites'
	Business Recorder	Monday, June 2, 2008	'Civic experts fear flooding of Karachi this monsoon'
Mr. Jan Khaskheli	*The News*	Monday, May 26, 2008	'Narrowing of storm water drains causing alarm'
		Saturday, June 7, 2008	'Displaced communities await provision of water'
Ms. Zofeen T. Ebrahim	*Dawn*	Tuesday, May 20, 2008	'Water conservation: Case for a change of lifestyle'
	IPS, Dawn	Monday, May 26, 2008	'Piped water still an unfulfilled dream'
Mr. Shabina Faraz	*Jang Midweek Magazine*	Wednesday, May 28, 2008	'*Halqa-e-fikr se maindain-e-amal tak… Rah dushwaar sahi magar na-mumkin nahin*'[4]
	Jang Sunday Magazine	Sunday, June 1, 2008	'*Barrhti hui abaadi aur sehat ke masaa'il*'[5]

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

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[4] This can be translated as: 'From realm of thinking to action on the ground: The path is difficult but not impossible'.
[5] This can be translated as: 'Issues of increasing population and health'.
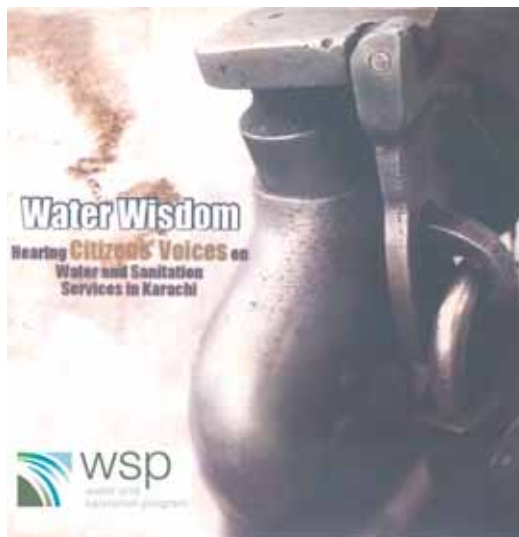
Media Toolkit

A media toolkit titled 'Water Wisdom on Tap: A Journalist's Guide to the Citizens' Report Card on Water and Sanitation Services in Karachi', was compiled, designed, and published by Panos for dissemination on the day the CRC survey findings were made public in Karachi. The toolkit contained background information developed by the Public Affairs Center on CRCs. It also included profiles of the organizations involved in the CRC survey and associated activities. A list of organizations and individuals whom the media could contact for further information on water and sanitation issues was compiled and included in the toolkit. Samples of best journalism practices in reporting water and sanitation issues were also included in the form of articles culled from print media, both national and international. A summary of the final report and a copy of the documentary, 'Water Wisdom' were also included in the toolkit.

Key documents such as CRC background material and the Executive Summary of the survey report were translated into Urdu. A book on Karachi's urban issues, *Understanding Karachi*, by renowned architect and urban planner Mr. Arif Hassan was included in the toolkit. Both Urdu and English versions of the book were distributed.

CRC Documentary

Panos commissioned a 15-minute film, 'Water Wisdom: Hearing Citizens' Voices on Water and Sewerage Services', documenting the CRC process and building a case for the need for citizen engagement with the state on civic services. The documentary also highlighted the need for greater civic responsibility on the part of citizens.

The documentary contextualized the need for reform of water and sanitation services in Karachi—it highlighted the lack of accountability and opportunities for citizens to impact public policy, while presenting the CRC as a tool to generate information from users of public services in order to improve them.

Finally, the documentary provided a visual record of the CRC process, which can also be used for advocacy purposes. It could be particularly beneficial in the long term to advocate for institutionalizing the process in the KW&SB, and also among other civic agencies in Karachi and elsewhere.

From conception to completion, the preparation of the documentary took several months. Detailed briefing sessions with the film-maker, Ms. Maheen Zia, were followed by constant facilitation in securing interviews with key stakeholders. The Panos team and the WSP CRC coordinator assisted the film-maker with questions for the interviews. Once filming was complete, the script underwent several revisions. The commentary was also edited several times and rewritten by Panos to achieve clarity, simplify language, and reduce length.

Urdu and English versions of the documentary were prepared. The English version of the documentary was screened at the CRC survey dissemination workshop, and its copies were enclosed in the media toolkit.

"The list of water and sanitation contacts in the toolkit is extremely useful—a great idea!"
Mr. Waqar-ul-Hassan, Assistant News Producer, FM 107

Phase III: Dissemination— Institutionalizing Reform and Mobilizing Citizens

CRC Findings: Public Dissemination

Once the survey was completed, the findings were disseminated to stakeholders, including the media, through a public event held in Karachi in collaboration with the Karachi Water Partnership (Member, CRC Advisory Committee) on June 5, 2008, which coincided with World Environment Day. The event was a one-day consultative seminar and partners' meeting to share the findings of the CRC and the Karachi Water Partnership. The survey results were analyzed and an executive summary of the report, as well as a copy of Dr. Gopa Kumar Thampi's analysis, were released to the media at this event in printed form, as part of the media toolkit (that is, 'Water Wisdom on Tap: A Journalists' Guide to the Citizens' Report Card on Water and Sanitation Services') as well as through a multimedia presentation summarizing the context of the survey, its methodology, and key findings.

Orientation Workshop II

The second orientation workshop, 'Understanding Citizens' Report Card: Workshop to Interpret CRC Data', was held on June 6, 2008, the day after the survey findings were made public. It focused on demystifying CRC statistics. After an initial introduction to CRC with the screening of the documentary, 'Water Wisdom: Hearing Citizens' Voices on Water and Sewerage Issues in Karachi' (which many journalists had missed seeing the previous day),

Dr. Thampi made his analytical presentation of the survey. Then the journalists were asked to share any story ideas they may have identified. These were fleshed out, and other story ideas added on to generate a list of ideas for further investigation and reporting. Stories were assigned to journalists based on their interest.

Interactive Theater Presentations

Following his participation in the Media Mission to Bengaluru, Mr. Ishtiaq Hussain of the Lahore-based Interactive Resource Center (IRC) worked with a Hyderabad-based theater group, Murk, to develop a 15-minute theater presentation on Karachi's water and sanitation issues. Other sources of information for developing the presentation were citizen interviews recorded for the documentary, story ideas prepared for media fellowships, the CRC Survey Report, and the content of focus group discussions held during the questionnaire's development.

A series of eight theater performances were organized by Panos's partner in this activity, the IRC. Performances were held in all of the surveyed towns of Karachi, except in Kemari.

The theater presentations helped disseminate CRC findings among citizens in a creative, entertaining, and participatory manner. The CRC's statistical data were brought to life on stage in a series of real-life situations highlighting citizens' problems and concerns about water supply and sanitation services.

This reminded citizens of their civic rights, helped stimulate debate among them on critical civic issues, and underscored that their involvement is necessary to improve the water supply and sanitation services they receive. A key objective of the theater presentations was to help build a constituency for demanding reform among the citizens of Karachi. This was evident in the interactions after the presentations, when a number of participants took to the stage to share their specific water and sanitation problems, and demand of local government officials (wherever they were present) to solve them. The IRC carried out the video documentation of the performances and interactions.

Table 25: Program objectives, outputs, and outcomes by activity

Proposed activity	Objective	Output	Expected outcome
Presurvey phase			
Media visits and CRC introductory workshops	Sensitize the media	Introductory write-ups, curtain-raiser articles on CRC	Media is sensitized
Survey phase			
Media Mission to Bengaluru	Sensitize the media	Mission report	Media understands CRC objectives and what it can achieve
Orientation workshop I: Profiling the water and sanitation sector in Karachi	Sensitize the media	Orientation workshop	Media understands CRC context
Media fellowships	Build media capacity for informed and action-oriented CRC reporting	Series of reports in print and electronic media	Media reporting on CRC is in-depth, accurate and investigative; advocacy for citizen-led reform and accountability mechanisms to be included in political party manifestos
Media toolkit	Build media capacity for informed and action-oriented CRC reporting	Media toolkit	Media reporting on CRC is in-depth, accurate, and investigative
CRC documentary	CRC advocacy	15-minute CRC documentary	Documentation of CRC process
Dissemination phase			
CRC findings and their public dissemination	Build media capacity for informed and action-oriented CRC reporting and CRC advocacy	Coverage of CRC survey key findings	A high-profile event which brought together civil society, citizens, the city's mayor, and KW&SB management in a constructive session where the CRC survey findings were critiqued and Karachi's water and sanitation services discussed
Orientation workshop II: Understanding CRC	Build media capacity for informed and action-oriented CRC reporting	Orientation workshop	Statistical data demystified; media's capacity built to interpret statistical data into insightful media outputs (reports and features)
Theater presentations	CRC advocacy	Theater performances	CRC data disseminated among citizens; CRC advocacy; citizen mobilization for reform of public utilities

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Lessons Learnt: Challenges and Constraints

● **Competing for media attention during a period of heightened political activity.**

One of the greatest challenges to the program was securing media attention and interest during a period of heightened political activity and turmoil in Pakistan. The transition from quasi-democratic, military-led rule to a democracy through a general election and the tensions created by the assassination of a leading political personality, created an environment where the CRC story faced stiff competition. Securing space for citizens' concerns continues to pose a challenge for organizations pursuing development activities in Pakistan.

A political event-obsessed media often ignores the wood for the trees—obsessively pursuing politicians for their statements and paying little heed to citizens' views. Keeping Karachi's water and sanitation issues on the media agenda was a constant challenge.

Recommendation: Greater engagement with editors and policy-makers of television channels is required to create space for civic issues. Panos proposed a snappy content survey followed by a series of media dialogs with editors to share the findings, building a case for prioritizing issues that affect the lives of citizens.

● **Lack of interest of TV media.**

Perhaps the biggest offender in connection with the above point was television. A disappointing lack of initiative, consistency, and interest was observed among television journalists and the channels they represented, in development stories. They were found trailing and tailing politicians and other political personalities and making reports based on their statements, without any inclination to widen the scope and horizon of media coverage by giving space to issues of public interest and relevance. Unfortunately, television channels seem to be setting the media agenda, with newspaper reporters following the lead.

Recommendation: See previous recommendation.

● **Fragmented community mobilization in a megacity with multiple political affiliations.**

The theater component faced problems related to community mobilization. In a city of 16 million, it was perhaps an unrealistic expectation from a single community-based organization to mobilize people from diverse communities across the city. Moreover, in a city like Karachi where a multiplicity of political affiliations are to be found within a community or locality, mobilization is often a feat only the politically well-connected and savvy

can achieve. In many places, witnessing a theater presentation—no matter how entertaining—was not a priority for the community that had a choice of other types of entertainment or other demands on their time and attention. To a lesser extent, the issue of suitable venues that were centrally located and accessible while also being away from the din of traffic, was another challenge for the theater component.

Recommendation: There is no 'one size fits all' in the case of community mobilization. A strategy for mobilization of communities suited to specific environments must be developed. Panos will communicate observations and experiences from this program to the IRC and possibly assist in devising a mobilization strategy which is suited to the megacity environment.

● **Managing Karachi Water and Sewerage Board's sensitivity to media criticism while refraining from 'media management'.**

Consideration of the Board's sensitivity to critical media coverage was a challenge. An understanding of how media functions, and of the nature and psyche of its reporters and desk editors is uncommon among people outside the media industry. Building bridges between these two universes—to enable outsiders to respect the media's role and responsibility—was a constant challenge in the program. It is important to point out that the concept of 'media management' is condescending. Panos Pakistan's strategy was to ensure that the media had the necessary information and tools at hand to report accurately without trying to impose a particular bias in the reporting. It must be understood that such attempts often backfire leading to unnecessarily negative reporting if one is perceived to be trying to influence the objectivity of the media.

Recommendation: There is a need to sensitize and educate institutions outside the media in the workings of the media in order to build a relationship of mutual respect and understanding.

Appendixes

Appendix A: Mapping the Context for Citizen Report Card in Karachi

In considering whether to adapt or adopt the Citizen Report Card (CRC) methodology, it is important to assess whether the local context is suitable. The Public Affairs Foundation has identified eight factors that are critical to the success of the CRC methodology.

- **Political context**—How would political institutions in Karachi react to methodologies such as CRC?

- **Decentralization**—Do utilities like the Karachi Water and Sewerage Board have reasonably high degrees of financial and policymaking power?

- **Ability to seek feedback**—Would research or survey organizations feel safe conducting public feedback exercises like the CRC?

- **Citizens' ability to voice experience**—Do citizens feel free to give honest feedback about government services?

- **Presence and activism of civil society organizations**—Are there active nongovernmental organizations or community-based organizations in Karachi? Are they independent and nonpartisan?

- **Survey and research competency**—Are there demonstrated local skills for survey and analysis?

- **Quality of media**—Is the media independent? Do media persons cover issues related to public services? Will they cover CRC findings and present them in an unbiased manner?

- **Responsiveness of service providers**—Do service providers seek consumer or user feedback? How open would they be to independent assessments on their performance?

These indicators were assessed by different sets of stakeholders at a joint evaluation workshop organized on April 18, 2007. Participants were asked to score each criterion on a scale of 1 to 10, with '1' being least favorable and '10' being most enabling (see Table 26).

Table 26: Scores from the stakeholders

Criterion	Government	Civil society organizations	Media	Research firms	Average
Political setting	7	4	5	6	5.5
Decentralization	8	8	8	3	6.8
Ability to seek feedback	5	8	8	7	7.0
Ability to voice experience	7	8	10	8	8.3
Activism of civil society organizations	4	6	6	4	5.0
Survey/analysis competency	5	5	4	8	5.5
Quality of media	5	6	8	5	6.0
Responsiveness of providers	7	4	2	6	4.8

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Appendix B: Demographic Profile of Respondents

The sample of the survey aimed to cover the vast diversity that existed among the residents of Karachi. The respondents of the survey were profiled into:

- Socioeconomic Classification (SEC);
- Household ownership profile;
- Household structure;
- Education; and
- Gender.

Each household interview was classified into a socioeconomic category based on the education and occupation of the chief wage earner of the household (the chief wage earner is the person who contributes most to the household budget). These SECs have been determined through natural incidence occurring from following a predetermined sample methodology. Table 27 demonstrates the method of determining the SEC of each household.

The survey has been able to capture the diversity in the socioeconomic categories quite successfully, obtaining a minimum of 4 percent from each category.

Figure 6 illustrates that most of the respondents fall in the SEC D category. This type includes relatively well-educated skilled workers; not so well-educated small retailers; and nonexecutive staff members. Other SECs with high frequencies in the survey were categories E2, C, and B.

Household Ownership Profiles
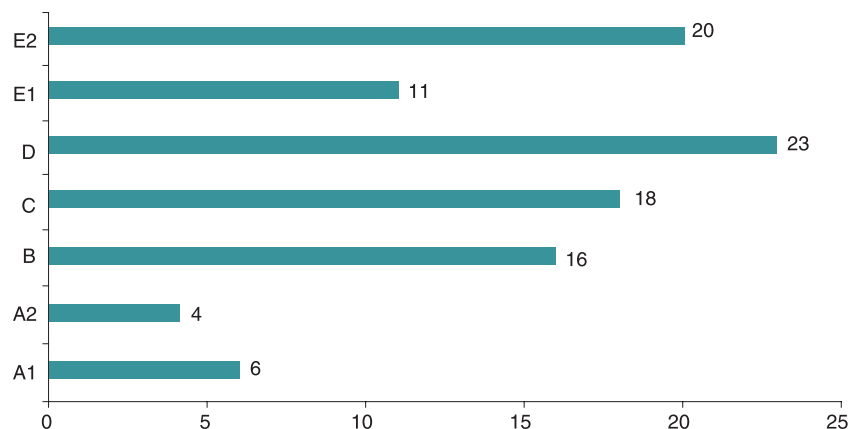Over 80 percent of the respondents resided in self-owned houses while

Table 27: Determining the socioeconomic classification for households

Occupation of chief earner	Education of chief earner						
	Illiterate	Less than Primary	School (5-9 years)	Matric	Intermediate	Graduate	Post-graduate
Unskilled worker	E-2	E-2	E-1	E-1	D	D	C
Petty trader	E-2	E-2	E-1	E-1	D	C	C
Skilled worker	E-2	E-2	E-1	D	D	C	C
Nonexecutive staff	E-2	E-2	D	D	D	C	C
Supervisory level	D	D	C	C	B	B	B
Small shopkeeper/businessmen	D	D	C	C	B	B	A-2
Lower/middle executive, officer	D	C	C	C	B	B	A-2
Self employed/employed/professional	B	B	A-2	A-2	A-2	A-1	A-1
Medium businessman	B	A-2	A-2	A-2	A-2	A-1	A-1
Senior executive/officer	B	A-2	A-2	A-2	A-1	A-1	A-1
Large businessman/factory owner	A-2	A-2	A-2	A-1	A-1	A-1	A-1

Source: Based on survey conducted by AC Nielsen Pakistan (now The Nielsen Company, Pakistan) for PAS 1998.

Figure 6: Socioeconomic classification of the respondents

E2 — 20
E1 — 11
D — 23
C — 18
B — 16
A2 — 4
A1 — 6

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Household Structure
Household structure is a very important demographic in research studies on water and sewerage. It is an essential variable in obtaining service provision trends. Figure 8 provides details of the household structure of respondents.
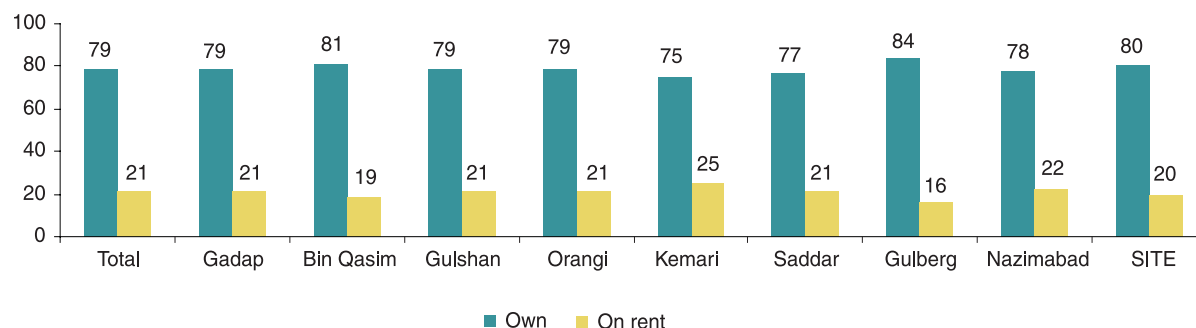
Most of the population resides in *pucca* (or stronger) houses, that is, where the roofs and walls of the houses are made of concrete and there is a toilet and kitchen in most cases.

In Bin Qasim and Gadap, a significant population of these towns is living in houses made of semi *kutcha* (temporary) or *pucca* material, where either the wall or the roof is constructed from concrete.

Gender
Like other data in the demographic profile, gender count has resulted from a natural incidence through a set and predefined sampling methodology. Table 28 gives the gender mix covered in the survey.

the remaining 20 percent were living on rent. Figure 7 delineates the overall and town-wise household ownership status. The trend of living in self-owned houses was consistently observed across almost all the chosen sample areas. A minimum of 78 percent of residents in every town were reported to be living in self-owned houses.

Figure 7: Household ownership profile

Own / On rent:
Total 79/21, Gadap 79/21, Bin Qasim 81/19, Gulshan 79/21, Orangi 79/21, Kemari 75/25, Saddar 77/21, Gulberg 84/16, Nazimabad 78/22, SITE 80/20

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Figure 8: Structure of households
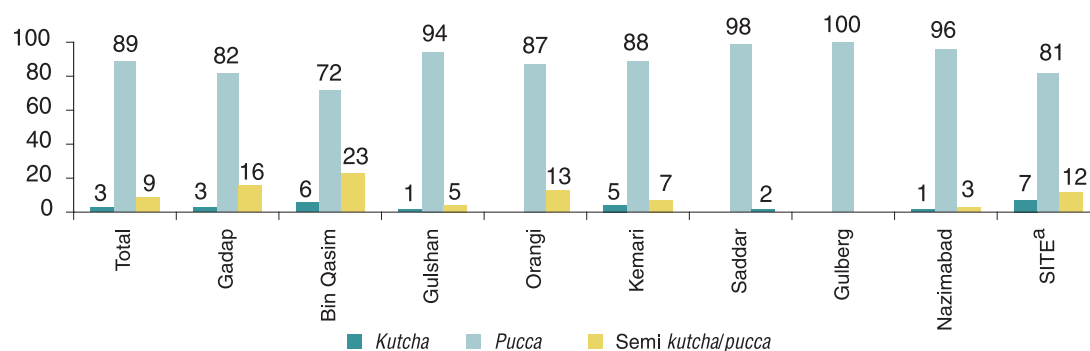
Note: 'Kutcha' means temporary; 'pucca' means more strongly built houses.
a. SITE stands for Sindh Industrial and Trading Estate.
Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 28: Gender mix

Gender	%
Men	87
Women	10
Joint interview	3

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Table 29: Educational profiles

Level of education	%
Never attended school	23
Primary level	12
Middle level	12
Matric	21
Intermediate (F.Sc./F.A.)	14
Graduate (B.A./B.Sc.)	14
Postgraduate (M.A./M.Sc.)	4

Source: Data compiled during a pilot Citizen Report Card on water, sanitation, and sewerage services in Karachi.

Educational Profiles

An analysis of the educational profiles of the respondents (see Table 29) reveals that most have never attended school. Another significant portion of the population falls in the Matriculation level category.

Appendix C: Key Stages in a Citizen Report Card Study

- **Assess the applicability of Citizen Report Cards (CRCs).** Conditions which affect the outcomes of CRCs include the receptiveness of the political context, the extent of decentralization, the extent to which citizens can voice opinions freely, local competency to carry out surveys, and advocacy.

- **Determine the scope and plan the procedures.** Next, identify key sectors or services to be included in the survey, map service provision structures, and identify a credible agency to conduct the survey.

- **Design the questionnaire.** Focus group discussions, involving both service providers and users, are necessary to provide input for the design of the questionnaire. Providers of services may indicate not only what they have been mandated to provide, but also areas where feedback from clients can improve their services. Users may give their initial impressions of the service, so that areas that need attention can be determined.

- **Sampling.** To collect feedback from the entire population would require too much time and resources. Sampling, when carried out accurately, gathers feedback from a sample group that is representative of the larger population. The appropriate type of sampling design must be determined.

- **Execute the survey.** First, select and train a cadre of survey personnel. Second, after a certain proportion of interviews are complete, perform random spot monitoring of question sessions to ensure that the recording of household information is accurate. Third, upon completion of each interview, go over the information collected to identify the inconsistencies, if any.

- **Analyze the data.** Typically, respondents give information on aspects of government services on a numeric scale (say, 1 to 10). These ratings are then aggregated and averaged, and percentage measures are produced.

- **Disseminate the results.** There are three important points to consider with regard to the dissemination of CRC findings:

- The findings should be constructively critical and should not aim to embarrass or laud a service provider's performance.

- The media is the biggest ally for dissemination. Prepare press kits with small printable stories, media-friendly press releases, and translations of the main report into local languages.

- Following the publication of the CRC survey findings, service providers and users should meet and discuss the key issues. This not only allows for a constructive dialog, but also puts pressure on service providers to improve their performance for the next round.

- **Advocacy and service improvements.** The findings of the pilot CRC survey can then be used in an advocacy program which seeks to increase public pressure, build coalitions and partnerships, and influence key players.

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By Zubeen T. Ebrahim

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By Zubeen Ebrahim

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