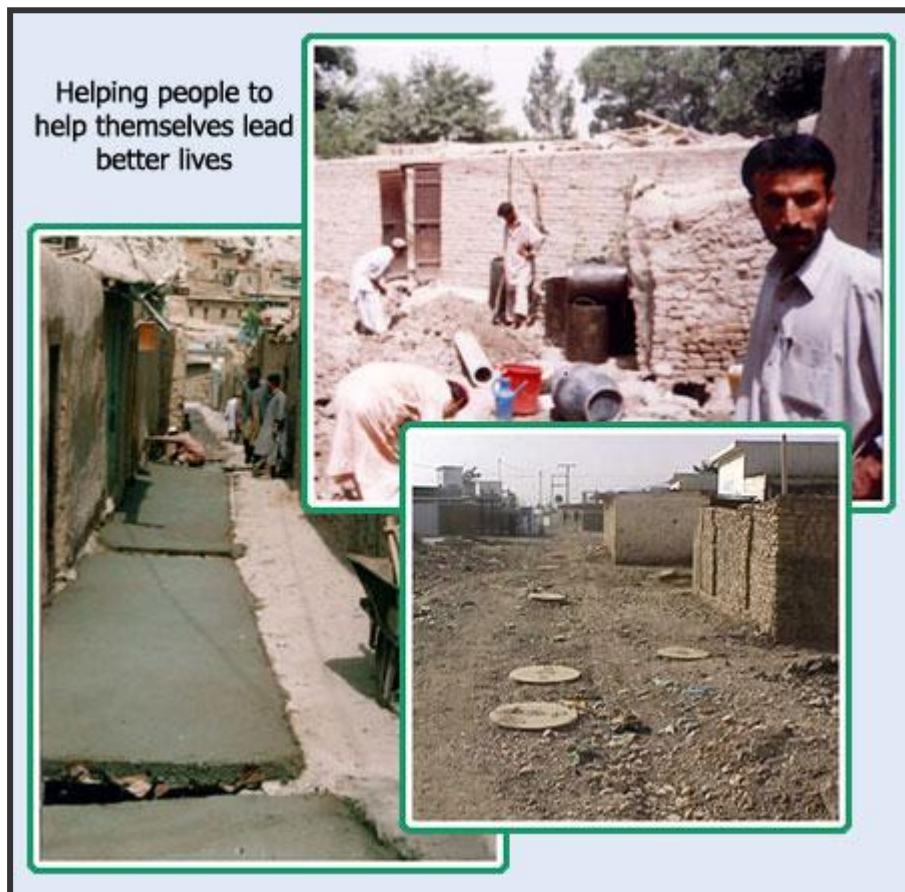


**Submitted to:
Royal Netherlands Embassy
Development Section**

**Final Report
Quetta Katchi Abadies Environmental
Management Programme (QKAEMP),
BALOCHISTAN, PAKISTAN
November 1997 - December 2003**



Islamabad, October 15, 2004
PAKISTAN INSTITUTE FOR ENVIRONMENT- DEVELOPMENT ACTION RESEARCH

PIEDAR

Table of contents

List of abbreviations and acronyms used	4
EXECUTIVE SUMMARY	5
FINAL REPORT	10
1. Introduction	10
2. Context	10
2.1 Objectives of the Programme	12
2.2 Framework for Programme Delivery	12
2.3 Project Approach	16
2.4 Institutional Set-up.....	17
2.5 Programme Components	18
2.6 Financial Arrangements.....	18
2.7 Project Staff	19
3 External Monitoring Missions	20
3.1 Mid Term Review Mission (From March 28 to April 11, 2000).....	20
3.2 First Monitoring Mission (From January 22 to February 06, 2001)	20
3.3 Final Evaluation Mission (From September 15 to October 06, 2003).....	21
4. Achievements	23
4.1 Institutional development and networking	23
4.2 Capacity Building and Training.....	25
4.3 Empowerment of the Project Management Committee and IP Forum	26
4.4 Women in QKAEMP.....	27
4.5 Solid Waste Management	28
4.6 Collaboration with CDGQ	28
5. The Effects and Impacts of QKAEMP	29
5.1 Effects and Impacts on Partner Organisations	29
5.2 Effects and Impacts on Communities.....	30
5.3 Health and Hygiene Impacts.....	30
5.4 Wider Effects and Impacts	31
6. Lessons Learnt.....	31

List of tables, figures and highlights (in order of appearance)

Figure 1: Technical design of sanitation system	14
Table 2.5: QKAEMP programme components and targets	18
Table 2.7: Staffing schedule of the Implementation Partners	19
Table 4.1: An overview of the achievements of QKAEMP	23
Box-1: Mobilisation, Relapse and Re-awakening in Masjid-e-Kausar Lane	24
Table 4.2: QKAEMP training portfolio	25

Annexure

Annex-1: Project: Quetta Katchi Abadies Environmental Management Programme.	35
Annex 2: Governance and Management Institutions (QKAEMP)	36
Annex 3: Memorandum of Understanding signed between IPs, FM & TA	37
Annex 4: Community Participation Agreement signed between IPs and LOs	41
Annex 5: Identification of Katchi Abadies	43
Annex 6: Map showing 47 identified Katchi Abadies for QKAEMP Implementation ..	44
Annex 7: Guidelines for Social Mobilization.....	46
Annex 8: Guidelines for Technical Assistance	48
Annex 9: QKAEMP's beneficiaries, achievements and financial contributions.....	53
Annex 10: Physical and Financial Progress for SWM.....	62
Annex 11: Impact Assessment Survey form and results	63
Annex 12: List of TA Fixed Assets	65
Annex 13: TA Consolidated Expenditure Statement, Jan-1998 to Dec-2003	66

List of pictures (in order of appearance)

Page 11

Pictures P1, P2 and P3 depict the lane conditions of the target areas in November 1997 - i.e. before the Quetta Katchi Abadies Environmental Management Programme community based interventions.

Page 17

These pictures illustrate stages in the construction phase where all labour was part of the community contribution to the work. The pictures were taken in Qaiser Colony #1 (EFB area)

Page 20

RNE External Monitoring Missions: Ms. Lane Hoffman seen here inspecting the target areas and talking to community members - Gharibabad, Quetta; April 2000.

Page 21 and 22

Pictures recording visits to QKAEMP by dignitaries

Page 26

Examples of capacity building: (left to right) training imparted in the use of equipment followed by classroom style lectures

Page 27

Pictures P-W1 and P-W2 show the involvement of women as trainers and as trainees. The project pro-actively sought women-led NGOs as IPs and women team leaders

Page 28

Pictures P-SW1 and P-SW2 illustrate the polluted state of affairs caused by the uncontrolled dumping of solid waste.

Page 30

The QKAEMP initiative provided a much-needed window to introduce basic hygiene concepts such as the use of soap and a little water in washing hands

List of abbreviations and acronyms used

ASC	Annual Stakeholder Convention (of all QKAEMP stakeholders)
AWP	Annual Work Plan
BEST/C	Balochistan Environmental Sanitation Training Centre (a city-based NGO and IP)
B-WASA	Balochistan Water and Sanitation Agency (GoB)
CDGQ	City District Government, Quetta
CPA	Community Participation Agreement
EFB	Environment Foundation Balochistan (a city-based NGO and IP)
EPA	Environment Protection Agency (Balochistan)
FM	Ferguson Associates (Private) Limited as Fund Manager
GoB	Government of Balochistan
GoN	Government of The Netherlands
GoP	Government of Pakistan
IPs	Implementing Partners (of QKAEMP)
LO	Lane Organisation
MinE	Ministry of Environment
MoU	Memorandum of Understanding (between TA, FM and IPs)
NGO	Non Government Organisation
NWSQ	National Welfare Society Quetta (a city-based NGO and IP)
OCD	Organisation for Community Development (a city-based NGO and IP)
PFL	Pour Flush Latrine
PIDS	Participatory Integrated Development Society (a city-based NGO and IP)
PIEDAR	Pakistan Institute for Environment-Development Action Research; see also Technical Advisor
PMC	Project Management Committee (TA, FM, and IPs)
PPDS	Pak Public Development Society (a city-based NGO and IP)
PSC	Project Steering Committee (RNE, TA, FM)
QMC	Quetta Municipal Corporation (defunct)
QKAEMP	Quetta Katchi Abadies Environmental Management Programme
QWSEIP	Quetta Water Supply & Environmental Improvement Programme
RNE	Royal Netherlands Embassy in Islamabad
SWS	Salamti Welfare Society (a city-based NGO and IP)
SEA	Society for Environmental Awareness (a city-based NGO and IP)
SWM	Solid Waste Management
TA	Technical Advisor, QKAEMP (PIEDAR)
TMA	Town Municipal Administration (Zarghoon and Chiltan) of CDGQ
UBS	Urban Basic Services Cell of former QMC, subsequently of TMA Zarghoon
WHO	World Health Organisation
WLO	Women Lane Organisation

EXECUTIVE SUMMARY

The Royal Netherlands Embassy (RNE) in Islamabad executed the Quetta Katchi Abadies Environmental Management Programme (QKAEMP) from November 1997 to December 2003 through two contracts with PIEDAR as technical advisor (TA) and M/s Ferguson Associates (Pvt) Limited as fund manager (FM). Subsidiary memorandums of understanding established the working arrangements between TA, FM, and defunct Quetta Municipal Corporation (QMC), its successor City District Government Quetta (CDGQ), and Quetta-based NGOs as implementing partners (IPs). Community Participation Agreements (CPA) between the IPs and communities living in the Katchi Abadies of Quetta governed local construction and management.

A project document entitled "Quetta Katchi Abadies Environmental Management Programme (QKAEMP, May 1997)" was formulated after two years of consultations in Quetta and exposure of the stakeholders to best practices across the country. It envisaged environmental management at the community level, mobilized by a number of catalytic organizations sharing a common programme approach. A system of matching grants was adopted to support the effort. The IPs felt that a pure self-help approach would be too great a departure from the institutional climate in Balochistan, where government and NGOs had been heavily subsidizing capital and running costs.

After processing and approval of the document, QKAEMP was launched on November 20, 1997 with the following development objectives:

- To contribute toward a process of sustainable urbanization in Quetta, by creating an enabling institutional framework for promoting local organizations in low-income areas to undertake internal development; and
- To institutionalise a partnership between Local Government, local NGOs, CBOs and Lane Organizations for better environmental management by promoting technical capacities and democratic decision-making among stakeholders for carrying out development work.

The systematic approach was adopted to implement QKAEMP. A four-tier governance system was set up. Annual Stakeholders Conventions were open forums for critique, suggestions and feedback from all stakeholders. The Implementing Partners Forum served as the platform for sharing of information, mutual support and coordination at Quetta. The Project Management Committee (PMC) at Quetta acted as a supervisory body for taking major operational decisions, monitoring and reviewing physical progress. A Policy Steering Committee (PSC) at Islamabad worked during the initial years for policy and strategic decision-making, till some of the functions were devolved to the PMC, while others reverted to the RNE.

During QKAEMP, four Annual Stakeholders Conventions (ASCs) were held in the main auditorium and lawns of the CDGQ, traditionally in the second week of March before the start of the construction season. On each occasion, 150-400 men and women shared their sanitation experiences with provincial health, local government and environment ministers. The IP Forum met 22 times to make arrangements for common events, to share ideas and experiences, and where possible, to support each other's field activities in different KAs. The PMC met 28 times to discuss technical and social issues facing the IPs in their work. It became the forum for organizational and project policy issues also. A designated IP recorded

the minutes, while progress was monitored every subsequent meeting. The PSC met 16 times at Islamabad and Quetta to address policy and financial matters and issues arising from external monitoring, till it was wound up after August 2001.

Before the start of field activities, the technical advisor, fund manager and implementing partners jointly developed the Plan of Operation (POO) for 1997-2002. It specified the administrative arrangements, the physical targets for five years, and the schedule of activities for 1998. An Annual Work Plan (AWP) was prepared for each subsequent year in the same manner. The AWP's were submitted to RNE before October 15 of the previous year, so that RNE could respond to the proposed plans and release allocated budgets. RNE extended the programme for a sixth year on the basis of substantial progress and vast unmet needs.

City government had a list of officially declared Katchi Abadies, but they in fact comprised a range of habitation types and standards. The TA prepared a map showing all 47 target Katchi Abadies and developed criteria for categorizing them. Each IP selected six to eight working areas on the basis of their past outreach and/or community interest. They were demarcated on the map to avoid jurisdictional disputes and to ensure focus on the poorest areas¹. By its conclusion, QKAEMP had disseminated its approach in all 47 KAs, achieved physical results in 42 KAs, and also supported lane sanitation in five middle-income areas on a no-subsidy basis².

The TA prepared a training calendar for each year for the male and female staffs of IPs, and office bearers of CBOs, lane organizations (LO) and women lane organizations (WLO). The cold season from December to February was suitable for training in social mobilization and technical skills. The purpose was to enable the trainees to plan, implement, manage, monitor and evaluate. The services of 17 specialists were hired to deliver 36 training courses that reached out to 720 participants. Post-training follow up was undertaken in a practical manner, assessing the performance of the trainees during field activities.

The choice of a sanitation system for a locality depends on cultural, social, economic and technical variables. At Quetta, a hard non-porous soil, relatively high population densities and availability of nearby ravines for disposal of the effluent led in most cases to the selection of a system in which solids are retained on site while the liquid is transported off-site through a small-bore sewer. A manual, "Seven Technical Steps" was shared with each IP. It laid out the steps for planning, designing, estimating the costs of a sewerage scheme, and constructing and maintaining it.

Communities were eager to know in advance exactly how much money would be spent on the scheme since the households' savings target depended on it. A simple, user-friendly computer programme was developed by PIEDAR to optimise the design of lane sewers and to generate transparent quantities and costs. All the IPs used this software throughout the programme period.

Social mobilization played a key role in the programme. A guideline was developed to streamline the process. The manual that became commonly known as the "Seven Steps for Social Mobilization" was shared with all IPs and their staffs were periodically oriented on its

¹ There were a few KAs where two IPs worked but at different locations within it.

² During 1998 – 2000, QKAEMP also worked in Chamb Lines, where civilian employees of the Armed Forces reside, under a one-off arrangement with the military authorities.

use. Social Organizers initially mobilized communities around hygiene & environmental issues and assessed the willingness of each community or CBO to undertake QKAEMP. After a positive response, a social survey was undertaken jointly with the lane residents.

The other key steps were the formation of LO and WLO, the signing of CPA between IP and each LO, a technical survey to prepare area and ground profiles, detailed designs and cost estimates, and the opening of the LO's Bank Account. The estimates were the basis on which the LO was asked to raise 50 percent of the cost of the lane sewer. The cheque for the matching grant was released through the IP to the LO account. Six hardware items were given to each household for the construction of a pour flush latrine, while the household was entirely responsible for the superstructure. LOs executed the works with the technical assistance of the IP's engineer.

Given the benchmark situation of women's exclusion from most decision-making outside plinth of their houses, Women Lane Organizations were a major innovation for Quetta. The idea was introduced alongside health and hygiene training. Under QKAEMP, 181 WLOs were formed in 42 KAs. The WLOs played an effective role in raising savings and motivating the men to supervise the laying of lane sewers and installing of latrines. QKAEMP succeeded because of its dedicated female social organizers, and because women worked at all levels in QKAEMP, some as team leaders, in other teams as supervisors, trainers, finance managers, accountants, as well as extension workers³.

An internal monitoring system was established. The TA in Islamabad comprised an Institutional Development Specialist and Environmental Engineer. They backstopped the programme and made periodic visits to each IP's office and field sites, and gave advice and instructions whenever required. TA-Quetta comprised a Training Organiser and a Programme Anthropologist. TA-Quetta approved work sites in KAs that met the selection criteria, assessed the social mobilization processes of IPs and observed the formation of LO/WLOs. TA-Quetta also monitored physical works and conducted impact assessments in intervention and control streets, organized practical training and Orientation Sessions for IP staffs and LO/WLO members; and arranged the PSC and PMC meetings at Quetta. RNE separately arranged external monitoring missions. WASTE Consultants, the Netherlands was the external monitor. They fielded three missions in April 2000 (Mid Term Review), February 2001 (Monitoring Mission) and October 2003 (Final Evaluation Mission).

QKAEMP networked vigorously beyond the frame of formal institutional arrangements. The highlights include the field visit of Federal Minister for Environment, late Umar Asghar Khan and his appreciation of the project (May 2001); participation in the Urban Roundtable of the World Bank Water and Sanitation Programme (October 2000); and briefings to the Corps Commander, Quetta (1998), the Army Monitoring Team (2001), District Nazim, CDGQ and Managing Director, Balochistan-Water and Sanitation Agency (periodically).

The TA and IPs introduced the concept of solid waste management (SWM) in those lanes where sewer lines had been laid. A monthly contribution from the community meets all the running costs, including the salaries of supervisors and sanitary workers. Around 41 persons are employed in these schemes and the prospects for sustainability are good because in many cases the management has been localized.

³ Seven of the eight intermediate organization working on QKAEMP had female professional staffs on key posts.

The CDGQ played a pivotal role in the programme. First, it made available the staff and resources of the UBS Cell, though the project provided only 20 percent of the basic salaries of the core staff. Second, it supported the operations of all the IPs in various ways, such as secondary collection of garbage and supply of water tankers to test sewer lines. It allowed the use of its auditorium for the ASCs. The CDGQ paved 140 streets from its own budget after QKAEMP laid sewer lines in them. CDGQ estimated outlay is Rs.26 million; a contribution much in excess of the initial commitment of the defunct QMC to contribute Rs.5 million. Street pavements have secured the manholes and sewers lines from clogging up.

The initial physical targets were to lay 93,000 running feet of sewer lines, install 2,900 pour flush latrines, construct of 45,000 running feet of open drains, and install local water supply schemes in areas where Hindu and Christian minorities reside, and construct six solid waste depots. Open drains and depots are not the best options for sanitation. So they were replaced with additional targets for sewers, latrines and solid waste management. QKAEMP met or exceeded all its targets. It accomplished 162,184 running feet (around 49 kilometres) of lane sewers, distributed 5,073 latrine items for installation (of which 75 percent have been verified as working), commissioned two local water supply and public toilet schemes in Shantinagar, and supported 14 local solid waste collection schemes that continue to be operational. In total, 5,273 households contributed Rs.23 million to QKAEMP (around 1000 years of the average per capita income in Pakistan). In turn, the 55,000 persons living in these households were the direct beneficiaries of the project.

QKAEMP was designed to improve the institutional capacity of the city based NGOs and a unit of local Government. They entered the programme with vary levels of organizational maturity. QKAEMP guided them on ways to upgrade their governance, management and skills for sanitation and social mobilization. The partner organisations that persisted with the programme have emerged stronger with marketable skills. All the five NGOs and UBS Cell that stayed with QKAEMP are using its computer model for designing low-cost sanitation schemes and preparing cost estimates. One IP is using this model outside Quetta in Killa Abdullah. The Balochistan Water and Sanitation Agency is taking help from another IP for designing small schemes. This model has also been adopted elsewhere in Pakistan.

PIEDAR has conducted a post-project survey of 158 mothers with at least one child less than 2 years of age. Mothers in the intervention areas were interviewed at their homes, as were the mothers in the unimproved KAs. Nearly 59% of children in the control areas suffered from diarrhoea in the pervious three months compared to 32% of children in the intervention areas. Hand washing with soap is an even more strongly related with a reduction in the incidence of diarrhoea to 23%.

The six-year experience of QKAEMP has many lessons for all stakeholders. Undoubtedly it is a model that will be emulated, and we focus on areas for future improvement. An output budgeting system (OBS) may allow supervisory arrangements that are even more light and cost-effective. More focus on institutional development and organisational strengthening (ID/OS) may further strengthen the partner organisations and improve relations among them. An ID/OS approach can promote a chain that builds capacities down to the grassroots. The IPs, for example, should share with the local CBOs, not just skills for solid waste management, but also the techniques for social mobilisation and computerised modelling for the design of lane sewers. Communities should be enabled to explore areas of common interest other than sanitation and solid waste management. Enabling communities to explore multiple interests can make a social mobilisation process more complex and risky, but may

yield more robust local organisations. At the macro-level, advocacy for clarity and consistency in Federal and provincial policies on sanitation is crucial and future programmes should invest more in policy advocacy, highlighting the importance of behavioural change communication for total sanitation. The project was an experiment in a public-private and civil society partnership for a pro-poor intervention. Among the various types of public-private partnerships (PPP), it fell in the category of Management Contract, where the whole service is contracted out to a Company and NGO on fixed prices. There are other types of PPPs, such as Concession, Joint Venture, and Build-Operate-Transfer, where the profits and risks are shared in different, perhaps more equitable and/or efficiency enhancing, ways. If the needs of the more than 40 million poor in Pakistan are to be addressed effectively and efficiently, these other models should be tested and the successful ones disseminated.

FINAL REPORT

NAME OF PROGRAMME	Quetta Katchi Abadies Environmental Management Programme (QKAEMP)
IMPLEMENTATION AREA	Katchi Abadies of Quetta City, Balochistan Province, Pakistan
ACTIVITY NUMBER	PK012001 = KBE 747
DURATION	November 20, 1997 to December 31, 2003
FUNDED BY	Royal Netherlands Embassy, Islamabad
CONTRACTORS	PIEDAR, as Technical Advisor Islamabad M/s Ferguson Associates as Fund Manager, Karachi
IMPLEMENTING PARTNERS	Five Local NGOs and UBS Cell of CDG, Quetta
PROGRAMME BENEFICIARIES	Low Income Communities of Quetta Katchi Abadies.

1. Introduction

This End Report has been prepared with reference to Para 4 of Article VI (Reporting) in the agreement made between the Royal Netherlands Embassy and PIEDAR in November 1997 for the implementation of an environment management programme (QKAEMP) in the low-income wards of Quetta city, Balochistan province, Pakistan. The purpose is to provide a self-contained picture of the programme as actually implemented from 1997 to 2003.

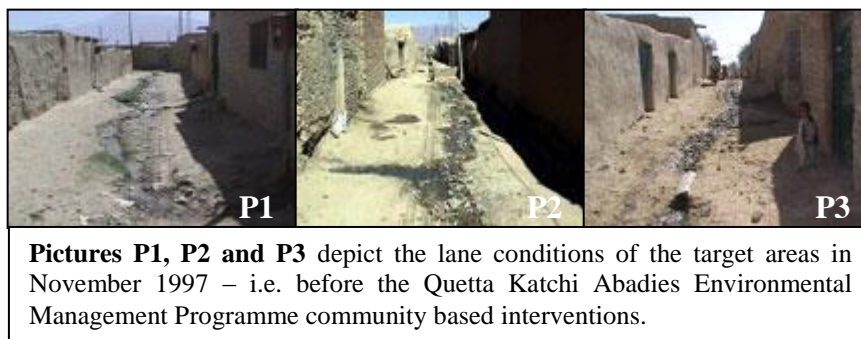
QKAEMP was based on the principles of self-help environmental management by communities. The residents of low-income settlements were mobilised by a number of support organisations that shared a common methodology but worked independently in different Katchi Abadies of the city. This report presents the significant design features, outcomes and effects of the programme, and lessons learnt. It is intended as a record for the project stakeholders. It has been written to be comprehensible also by a wider audience of specialised and general readers that may be interested in initiatives that link community development endeavours with public-private partnerships.

The report is structured in six main sections. Following this Introduction, Section 2 provides the context and framework of the programme. Section 3 presents a summary of external monitoring and evaluation and Section 4 documents the achievements of QKAEMP. Section 5 provides an assessment of the effects and impacts of the programme. Section 6 draws out some the lessons that PIEDAR has learnt from its implementation.

2. Context

Quetta, the headquarter of Balochistan Province, is the twelfth most populous city of Pakistan (700,000 persons according to the 1998 census). Owing rapid population growth and inadequate institutional capacities to plan and provide services, nearly half its people live in informal settlements, locally called Katchi Abadies (KAs). The settlements have grown organically, making the provision of infrastructure a challenge for local government and

communities. Most of the KAs have been officially incorporated within the jurisdiction of City District Government (CDG) Quetta, and many have been provided with piped water. However CDG has not been able to provide sanitation infrastructure to these KAs. Because of the increase in population and the use of water per capita, the volume of effluent has also increased without any provision for its management. This poses severe health hazards from water and sanitation borne diseases as is evident from the following pictures.



Pictures P1, P2 and P3 depict the lane conditions of the target areas in November 1997 – i.e. before the Quetta Katchi Abadies Environmental Management Programme community based interventions.

The Royal Netherlands Embassy (RNE) in Pakistan has been an active partner in development with the Government of Balochistan for many years. The experience of working with Government line agencies during early Nineties yielded a range of results. RNE assistance to B-WASA for the Quetta Sewage and Sanitation Project (QSSP) was prematurely terminated in June 1994 with approximately Rs.400 million un-disbursed owing to perceived project failure, both in terms of approach and management. Only the Low Cost Sanitation (LCS) component of QSSP was deemed a relative success. It achieved around 40% of its physical targets for installation of pour-flush latrines in low-income households. However the LCS was implemented by one agency with little effective community involvement.

A year after the closure of QSSP, it was evident that the pool of technical skills generated during the LCS had dissipated. The spin-off was a single NGO working largely by itself and not making much progress. In fact, its programme was essentially one of total, though hidden, subsidy. RNE sought a sanitation initiative based on the principles of inclusive, participatory, local institutional development. PIEDAR, a national NGO with experience in environmental sanitation, was asked to initiate consultations with the stakeholders in August 1995. The purpose was to assess the degree of success of the LCS and to define a new initiative. A programme preparation workshop (April 1996) identified the hierarchy of problems and options for an environmental sanitation programme in Quetta. Two batches of community activists were taken to Orangi Pilot Project, Karachi and YCHR, Lahore for exposure to best practices. They appreciated the projects, but felt that the pure self-help approach would be a great departure from the institutional climate in Balochistan, where government and NGOs had been heavily subsidising capital and running costs.

The project document entitled " Quetta Katchi Abadies Environmental Management Programme (QKAEMP, May 1997)" was based on the experiential learning from these consultations. It relied on the principles of self-help environmental management at the community level, mobilized by a number of catalytic organisations, sharing a common programme approach but working independently in separate KAs. Local Government was envisaged mainly as concentrating on the trunk infrastructure, but its UBS Cell was included

in ground implementation as a model for future public-sector interventions. Pragmatic considerations about the capacities of catalytic organisations in Quetta resulted in the inclusion of a partial close-ended starter subsidy.

RNE decided to involve a professional fund manager in the project to ensure clean and transparent accounts and flow of funds. Three leading national firms of chartered accountants were given a joint briefing on QKAEMP at Islamabad and Quetta, and invited to submit technical and financial proposals. The technical proposals were evaluated and M/s Ferguson Associates (Private) Limited were selected on that basis.

QKAEMP was launched in November 20, 1997. The services of PIEDAR as Technical Advisor (TA) and M/s Ferguson Associates (Private) Limited as Fund Manager (FM) were hired under separate contracts with the RNE. A network comprising the UBS Cell of Quetta Municipal Corporation and five city-based NGOs was envisaged for the implementation of the programme. However, the implementation arrangements for the component with Government did not materialise until 1999.

2.1 Objectives of the Programme

The key objectives were:

Development Objective:

To contribute toward a process of sustainable urbanization in Quetta, by creating an enabling institutional framework for promoting local organizations in low-income areas to undertake internal development.

Programme Objective:

To institutionalise a partnership between Local Government, local NGOs, CBOs and Lane Organizations for better environmental management by promoting technical capacities and democratic decision-making among stakeholders for carrying out the development work.

The logical framework for QKAEMP is attached at Annex-1. The implementation plan to meet the above objectives was set out in the five-year Plan of Operation (February 1998).

2.2 Framework for Programme Delivery

None of existing institutions in Quetta had the capacity to implement QKAEMP on their own in 1996, yet neither it was desirable to create new organisations for the duration of the intervention. It was felt especially important to avoid the creation of local monopolies. To ensure adherence to programme principles and a smooth transfer of responsibilities as local capacities emerged, a framework for governance was evolved before programme launch with major contributions from RNE desk officer, Technical Advisor (PIEDAR) and Fund Manager (Ferguson Associates). A four-tier governance system was envisaged:

- An Annual Stakeholders Convention (ASC) to act as an open forum for critique, suggestions and feedback from all stakeholders on QKAEMP implementation;
- An Implementation Partners (IPs) Forum comprising all six IPs to serve as platform for sharing of information, mutual support and coordination amongst the IPs;

- A Project Management Committee (PMC) comprising the IPs, TA, and FM to act as supervisory body for taking major operational decisions, monitoring and reviewing the physical progress of the programme;
- A Policy Steering Committee (PSC) comprising RNE, TA and FM to act as policy making authority for policy/strategic level decision, giving technical and financial approval and for monitoring of the programme.

The structures, frequency of meetings, roles and responsibilities of these institutions is shown at Annex-2.

Standard formats were prepared for the agreements between different partners. They included:

- Note of Commitment from local CBO that it was willing to work with catalytic NGO;
- Logical Framework signed by IP, specifying objective, purpose, expected results, activities, objectively verifiable indicators, sources of verification and assumptions at each level;
- Memorandum of Understanding (MoU) between Implementing Partners (IPs), TA and FM. It describes the roles and responsibilities of the partners and business arrangements for implementation (Annex-3); and
- Community Participation Agreement (CPA) between an Implementing Partner and a Lane Organization (LO). It describes the roles and responsibilities of the IP and LO for construction work (Annex-4).

Two contracts were signed between RNE on the one part and PIEDAR and Ferguson Associates on November 20, 1997. Nine MoUs were signed with the following IPs:

- With EFB and SWS (that were actively involved in the 1995-96 consultation process) on December 03, 1997. The contract with SWS was terminated on February 24, 1999 owing mismanagement of funds;
- With OCD on July 15, 1998 after a process of inviting proposals and conducting interviews with a number of interested NGOs;
- With SEA and BEST/C on February 25, 1999 after a further process of inviting proposals and conducting interviews;
- With UBS Cell of the then QMC on September 20, 1999 after securing approval of the GoB. Though approval of the Additional Chief Secretary (Development) had been secured at the start and the Chief Environment, P&D participated in the consultation process during 1996, the particular individuals had been transferred out by November 1997 and the approvals had to be obtained afresh;
- With NWSQ on December 16, 1999 after seeking expressions of interest and evaluating responses from city-based NGOs;

- With PIDS on March 01, 2000 to replace BEST/C. The contract with BEST/C was terminated in February 2000 owing a management crisis in the organisation.
- With PPDS on June 21, 2002 after the PMC collectively interviewed and ranked five short-listed city-based NGOs among the 11 that responded to a public notice. This addition to the IPs became necessary after the contract with OCD was terminated on May 14, 2002 owing deviation from the social mobilisation process, sub-standard work, and later on, conflicts among its Board members and staff.

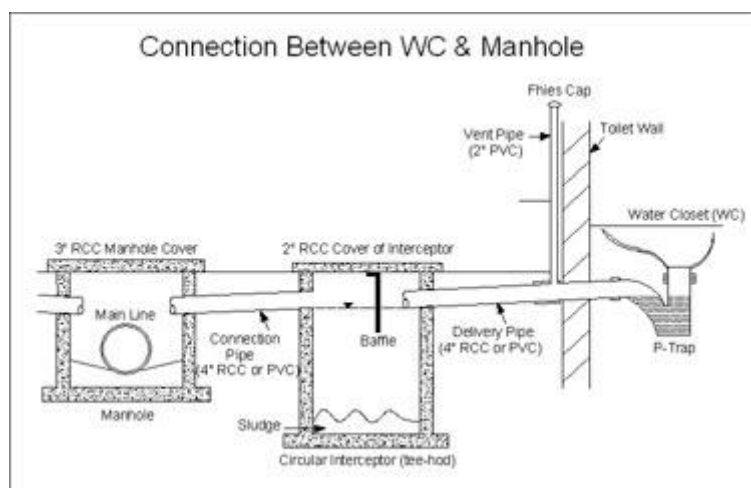
The IPs were required to dedicate offices, employ staff as per their approved budget, acquire equipment, prepare work-plans, and list their targeted KAs on a map.

TA, FM and IPs prepared the Plan of Operation (POO) for 1997-2002 jointly. It specified the administrative arrangements, the physical targets for five years, and the schedule of activities for 1998. An Annual Work Plan (AWP) was prepared for each subsequent year in the same manner. Any new initiative during the year, resources and time required, foreseen risks, work plan and budgets were incorporated. The AWP's were submitted to RNE before October 15 of the previous year, so that RNE could respond to the proposed plans and release budgets.

The QMC provided an overall list of officially declared Katchi Abadies, but they comprise a range of habitation types and standards. The TA developed indicators for categorising Katchi Abadies (Annex-5.1). The IPs proposed working areas on the basis of their past outreach experiences and/or community interest from within the QMC KA list. The TA team at Quetta checked proposed working areas against the indicators to ensure that poor settlements (Category C and D) were selected along with a few that were marginally in Category B (see Annex 5.2).

A map was prepared showing the 47 target Katchi Abadies. The purpose was to demarcate the working areas of each IP. There were a few KAs where two IPs worked but at different locations within it. The map is attached at Annex - 6.

Figure 1: Technical design of sanitation system



A training calendar was implemented each year for the male and female staffs of IPs, and office bearers of CBOs, LOs and women lane organisations. The period from December to February was suitable for training and social mobilization. The purpose was to enhance technical, social mobilization, financial, managerial and monitoring skills to enable the

trainees to plan, implement, manage, monitor and evaluate. Post-training follow up was undertaken in a practical manner, assessing the performance of the trainees during field activities.

The choice of a sanitation system for a locality depends on cultural, social, economic and technical variables. At Quetta, a hard non-porous soil, relatively high population densities and availability of nearby ravines for disposal of the effluent led in most cases to the selection of a system in which solids are retained on site while the liquid is transported off-site through a small-bore sewer. A small diameter pipe is laid at shallow depth and low gradient. The overall system is shown in the figure above with the following components:

- Connection from the house to Tee-hodi;
- Interceptor tank or Tee-hodi where floatable and settleable materials are removed after settling while foul gases are emitted by a vent pipe installed at the entrance of the interceptor;
- Service line normally 4-inch diameter RCC or PVC pipe-- connecting the interceptor to the manhole;
- Circular manholes are provided at major junctions for maintenance. These are connected to collector main--normally a 6 to 15 inch diameter RCC pipe--which takes the effluent by gravity to the receiving body or trunk sewer. The depth at which the main is laid varies as a function of external street loads and environmental conditions.

Guidelines were developed to streamline the social mobilization process. The manual that became commonly known as the "Seven Steps for Social Mobilisation" (Annex-7) was shared with all IPs and their staffs were periodically oriented on its use. During initial meetings, Social Organisers were to assess the willingness of the community or CBO to undertake QKAEMP. After a positive response, the social survey was to be undertaken jointly with lane residents. The other key steps were the formation of LO and WLO, signing of CPA and the opening of the LO's Bank Account. Women Lane Organisations were a major innovation for Quetta and were introduced with reference to health and hygiene training. In fact, as noted below, women contributed in many ways to the success of the programme.

Technical design standards and specifications are linked to field conditions, and to performance, uniformity and durability requirements for infrastructure. Common standards and specifications can help ensure that the infrastructure is cost-effective and affordable, and that there is a balance between capital and recurrent costs. A manual, "Seven Technical Steps" was given to each IP (Annex-8). It systematically lays out the steps for planning, designing, and estimating the costs of a sewerage scheme, and constructing and maintaining it. The purpose was to promote a uniform procedure with similar results.

Communities were eager to know in advance exactly how much money would be spent on the scheme since the households' savings target depended on it. Accurate cost estimates became important as households were generally suspicious of and resented a second round of fund raising. A simple, user-friendly computer programme was developed by PIEDAR to optimise the design of lane sewers and to generate transparent quantities and costs. It was tested and handed over to partner organisations for their use. Any computer-literate person can easily operate the software, which is based on a simple Excel spreadsheet. All the IPs used this software throughout the programme period.

An internal monitoring system was established. The TA in Islamabad comprised an Institutional Development Specialist and Environmental Engineer. They backstopped the programme and made periodic visits to each IP's office and field sites, and gave advice and instructions whenever required. TA-Quetta comprised a Training Organiser and a Programme Anthropologist. They regularly monitored and reported progress to the Islamabad office. TA-Quetta had a series of tasks that included:

- Approving work sites in KAs that met the selection criteria;
- Assessing the social mobilization processes of IPs;
- Making field visit to observe the formation of LO/WLOs;
- Monitoring the physical works carried out at the field sites;
- Conducting impact assessments in intervention and control streets;
- Organizing practical training for IP staffs and LO/WLO membership;
- Holding Orientation Sessions with IPs and LOs on QKAEMP objective & processes; and
- Arranging the PSC and PMC meetings at Quetta.

PIEDAR's Finance Manager also delivered training on a computerised accounting package.

2.3 Project Approach

There were few precedents for a self-help project in Quetta in the 1990s. While the jargon may have been adopted, there was certainly little actual practice and limited local capacities for facilitating environmental sanitation. QKAEMP established a number of milestones to ensure the active participation of the beneficiary communities. The measures included:

- Social mobilization around community hygiene & environmental issues by mid-level NGOs and UBS Cell, backstopped by TA;
- Indicators for widespread awareness of the germ theory of disease and of the best hygiene practices among the key measures of success (for example, 85% of children aged 5+ wash hands with soap after defecation was an indicator for results in the logframe of UBS);
- Joint surveys by the IP staff and lane residents to prepare the area and ground profiles that were used in planning and designs;
- Formation of lane organizations (LO) and women lane organizations (WLO) with three elected office bearers (Lane Manager, Lane Secretary & Lane Accountant) prior to implementation of the programme;
- Sharing detailed designs and cost estimates with LOs and WLOs. These estimates were the basis on which the LO was asked to raise 50% cost of the lane sewer;
- Signing of a Community Participation Agreement (CPA) between the IP and each LO to formalise their respective roles and responsibilities;
- The cheque for the matching grant was made to the bank account of the LO upon accumulation of requisite community savings in it;
- Technical assistance to the LO for hiring of masons and skilled labourers, for procurement of materials, and in the construction of the lane sewer;
- Execution of work by LO with own labour and with funds from own bank account;
- Promotion of community-based arrangements for solid waste collection and disposal in those areas where sewers had been laid;



These pictures illustrate stages in the construction phase where all labour was part of the community contribution to the work. The pictures were taken in Qaiser Colony #1 (EFB area)

- Training LO/WLO office bearers and other active members of the community in health and hygiene, lane sewer maintenance, financial management and record keeping, improving local capacities to maintain the system without external assistance.

2.4 Institutional Set-up

QKAEMP envisaged full-blown capacity building of the IPs, that is the UBS Cell and city based NGOs. The effort also extended to strengthening the capacities of their partner CBOs, LOs and WLOs for the maintenance of sanitation infrastructure.

The services of PIEDAR as Technical Advisor and M/s Ferguson Associates as Fund Manager were retained under separate contracts with the Royal Netherlands Embassy. The TA and FM agreed to provide a consolidated progress report to RNE every six months. The Programme Steering Committee (PSC) comprising RNE, TA and FM was the key policy-making forum during the first three years of the project. The task of the PSC was to review & monitor progress, to give policy guidelines, to resolve major matters, and to approve any special financial releases.

Programme Management Committee (PMC) comprising of TA, FM and IPs deliberated on the various issues related to programme implementation. During the last two years of QKAEMP, policy making and future planning functions were also transferred to the PMC.

The purpose of the IP Forum was to share knowledge, experiences and learning among the Implementing Partners. It also acted as a common platform for QKAEMP at water and sanitation forums and events of Government, donor agencies and civil society.

Annual Stakeholders Conventions were held to seek feedback from the beneficiaries and to inform Government, Local Government and other stakeholders of progress. ASCs were high profile events that shared the strengths and weaknesses of the programme with Ministers, local politicians, and the media. The arrangements for the Conventions were always a joint effort of all QKAEMP partners, including lane organisations and women lane organisations. IPs, TA, and FM pooled together the funds for hosting the conventions. Quetta Municipal Corporation and subsequently City District Government Quetta provided their municipal hall and lawns free of charge for the events.

2.5 Programme Components

The programme components and the targets for each component were:

Table 2.5: QKAEMP Programme components and targets

No.	Programme Component	Planned Targets
1	Organisational Strengthening and Institutional Development	Five local NGOs and UBS of City District Government, Quetta strengthened
2	Identification of Katchi Abadies	50-60 Katchi Abadies identified on a map
3	Identification of CBOs in the target areas	Contacts established with CBOs willing to help in forming lane organisations for improving environmental conditions
4	Mobilization of households to form LOs & WLOs	WLOs and LOs formed with dedicated bank account, savings targets achieved, and proper quality materials procured
5	Laying of lane sewers by LOs	93,000 Rft. sewer lines laid
6	Installation of pour flush latrines	2,900 pour flush latrines installed
7	Construction of open lane drains	45,000 Rft. Open lane drains constructed
8	Local water supply schemes	Water supply in Minority Slums
9	Solid waste management	Six solid waste depots constructed by UBS
10	Local financial contribution	Rs.30 million invested by beneficiaries, and Rs.5 million contributed by QMC

2.6 Financial Arrangements

The financial contributions for a five-year period from November 20, 1997 were envisaged as follows:

RNE	Rs.66 Million (65%)
QMC	Rs.05 Million (5%)
Beneficiaries communities	Rs.30 Million (30%)

RNE gave a one-year budget neutral extension for expenditure of the amount committed by it. The extension till December 31, 2003 was based on the following reasons:

- Enough scope for work in the sanitation sector in low income areas of Quetta city;
- Low-income communities had understood the benefits of the programme and were participating with confidence in QKAEMP process;

- The programme had achieved 88% physical targets with proper maintenance since inception;
- Substantial savings in the programme budget owing cost-effective interventions.

2.7 Project Staff

Staffing patterns for QKAEMP were designed to meet fieldwork needs with a light supervisory structure. Field staff recruitment was delegated to the IPs within the agreed categories of posts. The IPs largely recruited staffs through a search process, though they were encouraged to advertise posts, conduct written tests, and establish clear job descriptions. In general, educated and progressive young men and women were hired by the IPs. A total of 64 persons worked full or part-time for QKAEMP.

The list of TA and FM staff is given below:

PIEDAR:

- Institutional Development Specialist (36 days/year);
- Low-cost Sanitation Expert (72 days/year);
- Anthropologist/Sociologist (female, 36 days/year, but in fact worked full time);
- Training Organiser (male, 60 days/year, but in fact worked full time);
- Accountant (part time for PIEDAR accounts of the project).

Fund Manager:

- Project Director (part-time);
- Team Leader (part-time);
- Two team members for technical audit and system design (part-time).

All the staffs of the Implementing Partners (with the exception of two of the Team Leaders) were expected to work full time and exclusively for QKAEMP. An engineer, one male and one female social organiser were essential for project work. Within a fixed overall budget for salaries, staffing for the other posts was settled by agreement between TA/FM and the concerned IP at the time of its induction to QKAEMP. The staff schedules of the IPs are presented below:

Table 2.7: Staffing schedule of the Implementation Partners

Name of IP	EFB	SEA	UBS	PIDS	NWS	PPDS	Six IPs
Team Leader	1	1	1	1	1	1	6
Engineer	2	1	2	1	1	1	8
Male social organizers	2	2	3	2	1	1	11
Female Social organizer	2	1	4	1	1	1	10
Accountant	1	1	1	1	1	1	6
Computer operator	1	1	1	1	1	1	6
Driver	2	1	2	1	1	1	8
Total	11	8	14	8	7	7	55

3 External Monitoring Missions

3.1 Mid Term Review Mission (From March 28 to April 11, 2000)

The MTR Mission was commissioned to review the project, re-visit its objective, methodology, implementation and outcomes, obtain the viewpoints of project partners and beneficiaries as well as locate bottlenecks and/or constraints, and propose improvements. The main findings and recommendations of the Mission are summarized below:

- The philosophy of a matching subsidy was upheld in the larger interest of the project;
- The communities where the LCS has been laid accept it as their common asset and derive a sense of pride in it as a project to which they have contributed;
- The efforts to integrate gender in the project and the sensitivity of male and female SO staff to the time constraints and other specific needs of women were noted;
- The Mission recommended renewed emphasis on capacity building and a community based O & M system at lane level, based on a process-oriented institutional development approach;
- The PSC should be abolished and PMC must acquire the status of main decision making body; the role of TA and FM should continue as envisaged;
- Linkages should be established with Government agencies and line departments, especially B-WASA, PHED and QMC for water and SWM related activities;
- Enhanced training inputs for old and new IPs as well as for LOs/WLOs;
- The private sector should be encouraged to provide quality materials and services;
- The participation of communities in planning and design should be increased; and
- The Mission emphasized strengthening and promoting a greater role for women.



RNE External Monitoring Missions: Ms. Lane Hoffman seen here inspecting the target areas and talking to community members - Gharibabad, Quetta; April 2000.

3.2 First Monitoring Mission (From January 22 to February 06, 2001)

The aim and objective of the First Monitoring Mission was to assess the progress of the QKAEMP partners in implementing the recommendations and improvements proposed by the Mid-Term Review Mission (MTRM) and also to assess and monitor the ongoing plans and performance of the programme.

The Monitoring Team noted some positive improvement that had taken place since the MTRM, such as better backstopping of IPs field staff by TA-Quetta, improvements in social mobilisation procedures and training contents, improved engineering skills, and a gender

sensitive approach adopted by some IPs. It noted that the TA was providing technical assistance for the SWM components.

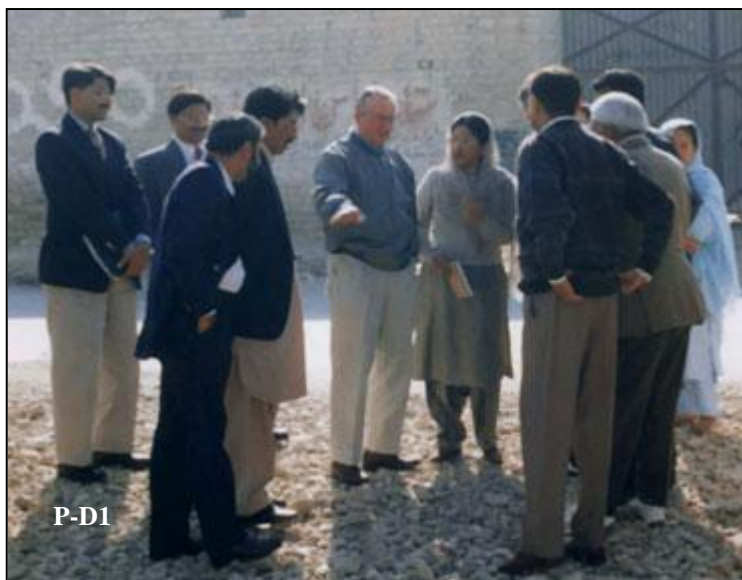
A number of recommendations had not been implemented. The Mission recommended several changes in the implementation mechanism and more institutional networking. It reiterated the need for FM to appoint an anchor representative at Quetta. It called for explicit staff and human resource policies to improve the management climate in IPs, and for improvements in the quality of training given by IPs to LOs. It also recommended better documentation of the achievements of QKAEMP in reaching the poor and the social acceptance of the programme. It called for a review of the appropriateness of the KA selection criteria, of gender aspects, and of quality in the achievements of physical targets.

3.3 Final Evaluation Mission (From September 15 to October 06, 2003)

The objective of the Final Evaluation Mission was to assess the results of the programme in correspondence with the resources made available and the activities carried out. It undertook this task by reviewing project and other documents, holding meetings with RNE, TA, FM, IPs and related government officials in Quetta, and through site visits to examine physical works and meet men and women lane organisations.

The Final Evaluation Mission noted that engineering training proved to be effective and that social mobilisation outcomes were generally satisfactory. It noted that the project had made several efforts to involve the public sector. Almost all the implementing partners had surpassed physical targets, and design and estimation procedures were satisfactory and responsive to contextual conditions.

However, cooperative spirit had not developed among the implementing partners owing mutual competition, the anticipated role of elected representatives in policymaking related to urban environmental sanitation was not evident, and the poorest could not benefit from the programme. The mission recommended a number of measures for promoting the replication of QKAEMP, such as using the media to share its experiences with a wider audience.



Over the years a number of dignitaries have also paid a visits to QKAEMP target sites. These visits are recorded in pictures (P-D1 to P-D5).



Picture P-D1: Mr. Wim van der Kevie, Head Development Section (at the time), and Mrs. Yasmin Jawed, Programme Officer conducting a field visit. Also seen in the picture are members of the various Implementation Partners (undated file photo)

Picture P-D2: Mr. Emile Kengen, First Secretary – Environment, Royal Netherlands Embassy, Islamabad inaugurating the Masjid-e-Kausar lane (July 16, 1998)

Picture P-D3: Mr. Aart van der Horst, First Secretary – Environment, Royal Netherlands Embassy, Islamabad inspecting developments in the Masjid-e-Kausar lane (May 5, 1999)

Picture P-D4: The late Mr. Omar Asghar Khan, Federal Minister of Environment, Government of Pakistan conducting a review of the QKAEMP target areas (May 12, 2001)

Picture P-D5: His Excellency Marcel Kurpershoek, Ambassador, the Royal Netherlands Embassy, and Mrs. Kurpershoek seen here talking to community members that have benefited from the QKAEMP (February 28, 2003)

4. Achievements

Table 4.1: An overview of the achievements of QKAEMP

No.	Project Component and Planned Target	Achievements
1	Organisational Strengthening and Institutional Development; five local NGOs and UBS of City District Government, Quetta strengthened	Demonstrated capacities in five local NGOs and UBS to mobilise communities, to design cost-effective lane sanitation system, and to facilitate implementation
2	50-60 Katchi Abadies identified on a map	47 low-income KAs identified
3	Identification of CBOs in target areas to help in making lane organisations	Contacts established with 20 CBOs that were helpful in mobilising communities
4	Mobilization of households to form LOs & WLOs	241 LOs formed, 238 CPAs signed, of which 187 CPAs were fully implemented
5	93,000 Rft. sewer lines laid	162,184 Rft. sewer lines laid in 42 KAs
6	Installation of pour flush latrines: 2,900 pour flush latrines installed	Six hardware items for 5,073 PFLs distributed, of which 75% installed and functional as per post-project surveys
7	Construction of open lane drains:	Open drains in lanes are not an appropriate sanitation solution. UBS was able to convince QMC to use this budget for sewers and PFLs. UBS achieved the following with the resources:
	45,000 Rft. open lane drains constructed	<ul style="list-style-type: none"> 936 PFLs distributed in 13 Kas;
		<ul style="list-style-type: none"> 6 communal toilets (3 for men, 3 for women) constructed and sewer lines laid in Shantinagar, where a poor community of Hindus and Christians resides.
8	Local water supply schemes in Minority Slums	Two community managed water supply schemes operational in Shantinagar, and 317 households benefited
9	Solid waste management: Six solid waste depots constructed by UBS	Solid waste management system functioning in 14 localities, 41 people employed
10	Local financial contribution: Rs.30 million invested by beneficiaries Rs.5 million contributed by QMC	Rs.23 million invested by beneficiaries communities Rs.26 million invested by CDGQ in street pavements

More detailed documentation on these achievements is at Annex-9.

4.1 Institutional development and networking

QKAEMP provided an opportunity for the Implementing Partners to obtain hands-on experience in participatory planning and management. For example, it was a tradition that the participants developed the agenda of the PMC jointly, and its minutes were recorded by rotation by one of the IPs. The various forums had different and changing roles over the course of the project:

- The PSC met 16 times at Islamabad and Quetta to address policy and financial matters and issues arising from monitoring. The PSC met for the last time in August 2001. It was wound up with a view to delegate decision-making on all matters to the PMC. The transition was a part of project design. The Mid Term Review Mission of March 2000 reinforced the need to transfer responsibilities from the PSC to the PMC at Quetta.

- The PMC met 28 times at Quetta to discuss current technical and social issues facing the IPs in their work. It became the forum to discuss organisational and project policy issues also. The team leader from each IP and another technical staff usually attended, with special invitations to the Board members of an IP, as and when required. The designated IP recorded the minutes and progress was monitored in every subsequent meeting. The PMC deliberated the post-QKAEMP scenario at length during 2002 and 2003, but concrete proposals were left to the implementing partners forum to crystallize.

Box-1: Mobilisation, Relapse and Re-awakening in Masjid-e-Kausar Lane

The period it took a community to think about and make the decision to invest in a common lane sewer varied from a few weeks to several months in the QKAEMP experience. A quick process of consultations by well-connected community activists and leadership in a lane could achieve the requisite savings, but not always the durable cohesion to maintain the infrastructure, as demonstrated by the history of sanitation at the Masjid-e-Kausar Lane.

It was the first street where a sewer was laid under QKAEMP. The 57 households living in the street represent ten distinct ethnic groups, so it is a heterogeneous community. A local CBO Anjuman-e-Falah-o-Bahbood took the lead in social mobilisation. The EFB team noted the tension between the diverse groups and the lack of interaction among their women, nevertheless, a LO and a WLO were formed with all requisite registers and records of meetings. The CPA was signed in August 1998 and the savings were raised from all households in a month. The physical work started in September and was accomplished by October. During inauguration of the lane sewer, the residents requested the Administrator QMC for street pavement to which they committed to provide labour. The street was duly metalled, but tensions between its groups continued.

When PIEDAR conducted a follow-up inspection in 2000, it found the infrastructure in rather bad shape. Some manholes and tee-hodies were broken and there were complaints about blockages in the line. Men and women from each house were asked to renew their commitment and make the repairs on their own.

During its assessment in December 2002, PIEDAR found that the sewer was functioning well, with all manholes and tee-hodies intact. Asked the reason, the residents responded that they had realised it was their own lane, to be managed and repaired by themselves. QKAEMP had twice provided the platform for an ignition process. The second time around the community had learnt how to manage and maintain common infrastructure in a self-reliant and cost-effective manner.

- The IP Forum met 22 times to make arrangements for common events, to share ideas and experiences, and where possible, to support each other's field activities in different KAs. The Forum materialised slowly, with only one meeting in 1999 and a second meeting towards the end of 2000, but picked up pace with eight meetings in 2003. The Forum also deliberated on the creation of a Water Environment and Sanitation Network for Balochistan, and on a joint application to the B-WASA Quetta Water Supply and Environmental Improvement Project (QWSEIP).

- Four Annual Stakeholders Conventions (ASCs) were held in the main auditorium and lawns of the CDGQ, traditionally in the second week of March before the start of the construction season. The main purpose of the conventions was to listen to the experiences and suggestions of the activists from partners CBOs, lane organisations and women organisations, and to amplify their voices through the media. The conventions were also occasions for advocacy of the self-help approach with the provincial ministers, who were invited as chief guests. In particular, the conventions became occasions for women from the KAs to speak about their experiences in sanitation and hygiene, and their hopes for the future. Skits on community hygiene by children from the KAs were another memorable feature. The IPs took responsibility for the arrangements and for dissemination of the proceedings.
- QKAEMP networked vigorously beyond the frame of these formal institutional arrangements. The highlights include the field visit of Federal Minister for Environment, late Umar Asghar Khan and his appreciation of the project (May 2001); participation in the Urban Roundtable of the World Bank Water and Sanitation Programme (October 2000); and briefings to Corps Commander, Quetta (1998), the Army Monitoring Team (2001), District Nazim, CDGQ and Managing Director, B-WASA (periodically).

4.2 Capacity Building and Training

Orientation Sessions for new IPs and staff were a regular and built-in feature of the TA programme. TA staff at Quetta delivered ten such sessions between 1998 and 2003.

More specifically, a variety of training courses were delivered to upgrade the capacities of the IPs and LOs and WLOs. Most of the training courses were delivered during the Years 2000 and 2001, when the full complement of six IPs were on board and operational. PIEDAR obtained the services of 17 specialist trainers for delivering 29 of the following courses at its office and seven elsewhere at Quetta:

Table 4.2: QKAEMP Training portfolio

S#	Course Title	No. of Courses delivered
1	Social Organization Training	6
2	Technical Training in Planning, Surveying, Designing, Estimation, and Construction Management	4
3	Health and Hygiene Education Training for Social Organisers/WLOs	6
4	Solid Waste Management Training	2
5	Community Mobilization Skills Training	3
6	Gender Sensitisation Training	1
7	Experience Sharing Training	1
8	Participatory Rural Appraisal (PRA) Training	1
9	Institutional Development and Organizational Strengthening Training	4
10	Power Structure Analysis Training	1
11	Leadership Management Training	1
12	Communication Skills & Conflict Resolution Training	1
13	Financial Management Training	1
14	Accountants Training	1

S#	Course Title	No. of Courses delivered
15	Training for Community Based Organisations	3
	Total	36

The total outreach in Quetta added up to 720 participants, with attendance mostly in the range of 15-25 persons per workshop that is ideal for adult education and values sharing. In addition, two IP staff members were sent to Kandy, Sri Lanka for a three-weeks long training course (October 2001) in hygiene education and promotion delivered by the International Water and Sanitation Centre, the Netherlands.

The TA and FM followed up on the training courses during subsequent field and office visits, observing improvements in the practices and, where necessary, pointing out the need to further internalise the training. The training created a pool of managers, engineers, male and female social organisers, and accountants, masons and labourers with the skills and practical experience of implementing a community-based sanitation project.



Examples of capacity building: (left to right) training imparted in the use of equipment followed by classroom style lectures

4.3 Empowerment of the Project Management Committee and IP Forum

A systematic process was envisaged for enhancing the capacities of the local stakeholders and transferring responsibilities to them. The PSC was phased out. The PMC and IP Forum played increasingly responsible roles during the final three years of QKAEMP. They became the authorized bodies even for the disciplining and removal of their own membership and for the induction of fresh members. Both these powers were actually exercised as demonstrated by the process of terminating the partnership of OCD and in selecting PPDS as a replacement.

The RNE and TA selected the Organization for Community Development (OCD) as a QKAEMP partner in July 1998 after interviews and evaluation of their proposal. In the initial years, OCD stuck to the procedures laid down for social mobilization and for enabling democratic decisions by communities, and performed rather well. It secured an assignment from another donor on the basis of this reputation, but then started to shortcut processes. A community in Shadanai KA complained about the quality of their work. The field investigations by TA in May 2001 confirmed the need for an enquiry. The matter was tabled at the IP Forum, which constituted a three-person committee to make the enquiry. The committee found that OCD had made serious mistakes in its the approach as well as in financial matters such as unauthorized handling of LO funds. The IP Forum immediately called a meeting and suspended the partnership of OCD.

The PMC considered the findings and action recommended by the IP Forum in June 2001. It decided to give the OCD Board another chance, subject to certain conditions. These included changing the team leader and finance manager for the project, correcting the defective works, and returning the money wrongly spent. OCD complied with these conditions, and continued to work with QKAEMP for another year. The PMC terminated the MoU with OCD in May 2002 owing continued infighting among OCD Board members.

The RNE and TA selected IPs on the basis of technical merit during the early years of QKAEMP. By 2002, the PMC became fully self-governing body as demonstrated by the process of selecting the last IP to join the partnership. Ten organizations responded to the invitation circulated to reputable local NGOs. Five were short listed in the light of the criteria established by the PMC. They were individually interviewed by the PMC acting as selection board. Each member independently ranked the applicants. Pak Public Development Society (PPDS) secured the most marks and was inducted into QKAEMP.



4.4 Women in QKAEMP

It was a notable innovation to involve the women of the KAs of Quetta in the process of sanitation implementation, given the benchmark situation of their exclusion from most decision-making outside plinth of their houses. In the event, 181 WLOs were formed in 42 KAs. They provided a new social space to women to negotiate and make the programme more responsive to their needs. Many WLOs played an effective role in raising savings and

motivating the men of the community to supervise the laying of lane sewers and installation of PFLs. Women were also actively involved in solid waste management component of QKAEMP.

Some of the success may be attributed to a gender-sensitive project design. Women worked at all levels in QKAEMP as team leaders, supervisors, trainers, finance managers, accountants, and as extension workers. The project pro-actively sought women-led NGOs as IPs and women team leaders. It reserved posts for women social organisers and ensured their mobility. The selected entry point, sensitisation and training in health & personal hygiene, enhanced the role of women and increased the acceptability of the intervention among men. It is regrettable that the overall situation of women's rights has not improved in Quetta. Rather, it has regressed in the tenure of the current MMA provincial government.

4.5 Solid Waste Management

Solid waste that is not properly managed can choke sewer lines. The IPs were given funds to introduce the SWM concept in those lanes where sewer lines had been laid. It was a modest amount to purchase trolleys, gloves, uniforms and shoes for the collectors. The monthly contribution from the community was to meet all the running costs, including the salaries of supervisors and sanitary workers. The SWM scheme is continuing in 14 KAs and at least 41 persons are earning a modest income as collectors. The prospects for sustainability are good because in many cases the arrangements have been localised. A CBO has taken over SWM in its locality after the idea of an organised, trustworthy and reliable service was introduced by the city-level NGO. The details of the outreach of this component of QKAEMP are at Annex-10.



4.6 Collaboration with CDGQ

CDGQ has played a pivotal role in the programme since its inception. First, it made available the staff and resources of the UBS Cell, though the project provided only 20 percent of the basic salaries of the core staff. Second, it supported the operations of all the IPs in various ways, such as secondary collection of garbage from the KAs, supply of water tankers to test sewer lines in various KAs, and allowing the use of the its auditorium for ASCs.

CDGQ has paved 140 streets from its own budget after QKAEMP laid sewer lines there. The estimated cost is Rs.26 million. This contribution is much in excess of the initial commitment of the defunct QMC to contribute Rs.5 million toward the programme. Street pavements have secured the manholes and sewers lines. CDGQ should now take the next steps to replicate the approach in other areas, while B-WASA installs trunk sewers.

5. The Effects and Impacts of QKAEMP

QKAEMP was designed to contribute to a process of institutional development characterised by working partnerships between local government, mid-level NGOs, local area committees, and lane organisations for local environmental management (Project Document, 1997, POO/AWP, 1998). The organisational indicators included rules and records of partnerships, while the key physical indicator was improved sanitation conditions in up to 50 neighbourhoods in the KAs of Quetta. As such, its impact should be assessed along both organisational and environmental health dimensions.

5.1 *Effects and Impacts on Partner Organisations*

QKAEMP was implemented by partner organizations (city-based NGOs and a unit of Local Government). They entered the programme with varying levels of organisational maturity, as indicated by clarity of mission, strategy, structure, and systems and staff resources.

QKAEMP guided them on ways to upgrade their governance, management and skills for sanitation and social mobilisation. What is the post-project status of the IPs?

- PIDS has projects in different sectors such as drought relief, skill development training, and water, sanitation and hygiene education with the assistance of UNICEF, Pakistan Poverty Alleviation Fund (PPAF) and Mercy Corps International (MCI);
- NWSQ and PPDS are working in the health and education sectors as they were doing before entering the QKAEMP partnership;
- EFB is playing a role in the WESNet as resource centre with the assistance of IUCN, Balochistan;
- SEA is working to improve sanitation in a refugee area with the help of UNICEF;
- UBS Cell has emerged as a strong technical unit of CDGQ assisting both Town Municipal Administrations of Zarghoon and Chiltan in laying of sewers and for solid waste management;
- OCD with a new Board of Governors is working on a project with the support of the Trust for Voluntary Organisations (TVO);
- SWS and BEST/C have closed down.

The partner organisations that persisted with the programme have emerged stronger with marketable skills. All the five NGOs and UBS Cell that stayed with QKAEMP are using its computer model for designing low-cost sanitation schemes and preparing their cost estimates. For example, PIDS is using this model in its Killa Abdullah project funded by PPAF. An engineer in B-WASA is taking help from EFB for designing and estimating the cost of small schemes.

5.2 Effects and Impacts on Communities

During the initial years, most LOs would not start physical work until the matching grants was received in their bank accounts. Over time, the sound reputation of QKAEMP became established, and communities started construction work with the confidence that the matching grant would be made available shortly.

Communities of poor people contributed more than Rs.23 million for self-help development under QKAEMP. Interviews conducted by independent evaluators confirm that people feel proud of the investment and are maintaining the infrastructure by themselves. Most sewers are functioning well and are expected to complete their economic life in an operational state.

Some lanes that did not fall under the criteria of a Katchi Abadi of Class B, C or D category, laid sewer lines with 100% own contribution. With the assistance of IPs engineers and using their shuttering, such communities laid 6,332 running feet of sewers in five localities.

The arrangements for solid waste collection continue to function well in 14 KAs. Households in these localities contribute as much as Rs.250 000 each month to ensure timely and safe garbage collection.

5.3 Health and Hygiene Impacts

PIEDAR has conducted a post-project survey of 158 mothers with at least one child less than 2 years of age. Around 80% of the mothers were from households in the QKAEMP intervention areas selected on the basis of stratified random sampling, with strata for the IPs. The balance 20% comprised mothers from randomly selected households in control areas. The protocols for the experimental design RXO/RO that is random post-test only and control group measurements have been strictly followed. Mothers in the intervention areas were interviewed at their homes, as were the mothers in the unimproved KAs. A common Knowledge, Attitude, Practice (KAP) measuring instrument (survey form) was applied to both sets of mothers (Annex-11). The survey returns have been entered in a SPSS+ software that allows elimination of confounding variables, (i.e. education level of the mother), and that ascribes weights to possible intervening process variables (e.g. hand-washing by children after defecation). The survey was started and completed in May 2004 when temperatures were high and diarrhoea was widespread.



The QKAEMP initiative provided the much-needed window to introduce basic hygiene concepts such as the use of soap and little water in washing hands

The difference is clear. Nearly 59% of children in the control areas suffered from diarrhoea in the previous three months compared to 32% of children in the intervention areas. The difference is statistically significant with a chi-square value of 7.34, significant at the < 0.01

level. Hand washing with soap is an even more strongly related with a reduction in the incidence of diarrhoea to 23% among the sub-set (chi-square 11.01; sign <0.004).

5.4 Wider Effects and Impacts

B-WASA has replicated key elements of its procedures in the design of QWSEIP that aims to reach five times as many low-income households. The model has also been demonstrated to communities and NGOs in NWFP.

A pool of trained engineers, social organizers, masons and skilled labourers are available in the Quetta city for providing assistance in self-help sanitation. The partner IPs have retained around 30% of staff after the project, but most have joined other organisations on better salaries.

6. Lessons Learnt

Before the World Summit on Sustainable Development (2002), it was novel to have public, private and NGO sector partnerships. QKAEMP was a partnership between Local Government, a chartered accountancy consulting firm, a number of NGOs and civil society in Quetta. In the 1990s, it was an innovation for low-cost sanitation programmes anywhere in Pakistan to establish women lane organisations. Owing to these and other novel features, the six-year experience of QKAEMP has provided many lessons to all stakeholders. Some of the salient lessons that are particularly rich in implications for policy and programme design are:

- QKAEMP was based on input budgeting system, which focused attention on the quality of staff and other resources assembled by the IPs to undertake the activities to implement the programme. This was felt as an intrusion by the IPs in their internal affairs. It also diverted attention from the real issues of quality in social mobilisation and physical implementation. The programme should have been based on an output budgeting system (OBS). A focus on measurable social and physical achievements would have resulted in more cooperative partnerships. It is possible that an OBS may have facilitated supervisory arrangements that were more light and cost-effective.
- Direct assistance to target communities has the charm of tangible results in a defined time frame. This leads many development support agencies to repeat a common error that is one-sided focus on project objectives. It means that not enough attention is given to requirements of the implementing organisations and to their operational context. The risk of project results not being sustained is high. QKAEMP largely avoided this is common error, yet it could not entirely escape the dynamics of a physical programme. For some stakeholders, the achievements in terms of running feet of sewers became the leading indicator. The primary focus should have been on institutional development and organisational strengthening (ID/OS). This implies more focus on building the capacities of the involved organisations, on the relations between organisations, and embedding of specific project activities within these organisations.
- While intermediate organisations would have been the primary focus of an ID/OS approach, this does not imply distancing the programme from the target community residing in the KAs of Quetta. Rather ID/OS promotes a chain that builds replication

capacities down to the grassroots. In the case of QKAEMP, this implies that the IPs, for example, would have been required to share with local CBOs, not just skills for solid waste management, but also the techniques for social mobilisation and computer-based modelling for designing lane sewers.

- Communities could not explore areas of common interest under QKAEMP other than sanitation and solid waste management. As such, most Lane Organisations and Women Lane Organisations are dormant except when periodic cleaning of the sewers is required. Enabling communities to explore multiple interests at the start of the programme would have made the social mobilisation process more complex and risky, but it may have yielded more robust local organisations.
- QKAEMP avoided addressing the issue of water supply in Quetta except at a pilot scale in a minority community. The provision of water was felt to be a human right and a responsibility that Government could not delegate. The success with the pilot project at Shantinagar indicates that a more assertive approach could have yielded positive results for more low- income communities in Quetta.
- Government of Balochistan took two years to allow Local Government in Quetta to participate in the programme. The P&D Department claimed it had misplaced the files allowing the participation of the UBS Cell in the programme. With Government, it is important to re-validate every agreement as soon as there is the transfer of a key person.
- Despite repeated advocacy over its closing years, QKAEMP failed to convince the leadership at CDGQ that substantial demonstration had been achieved and it was appropriate time to reduce and eliminate the direct subsidy. The District Nazim, in fact, continued to argue that the subsidy should be increased to 75 percent. The massive Federally-funded QWSEIP has strengthened his line of argument. Till clarity and consistency is achieved in Federal and provincial policies on sanitation, the sector will continue to lag in Pakistan.
- The project was an experiment in a public-private and civil society partnership for a pro-poor intervention. Among the various types of public-private partnerships (PPP), it fell in the category of Management Contract, where the whole service is contracted out to company and NGO on fixed prices. There are other types of PPPs, such as Concession, Joint Venture, and Build-Operate-Transfer, where the profits and risks are shared in different, perhaps more equitable and/or efficiency enhancing, ways. If the needs of the more than 40 million poor in Pakistan are to be addressed effectively and efficiently, these other models should be tested and successes disseminated.
- The research by the Water Supply and Sanitation Collaborative Council, Geneva (WSSCC) and the London School of Hygiene and Tropical Medicine (LSHTM) that establishes the relative benefits of investments in safe water, improved sanitation, and better hygiene practices was not available to QKAEMP proponents in 1997. It is now known that regular washing of hands with soap can halve the incidence of diarrhoea. Future projects should promote the total sanitation concept with a focus on mothers and children as the leaders in behaviour change communication of best sanitation and hygiene practices.

ANNEXURE

**Annex-1: Project: Quetta Katchi Abadies Environmental Management Programme.
Implementation Phase: November 20, 1997 to November 19, 2002**

Project Elements	Objectively Verifiable Indicators	Sources of Verification	Assumptions
<p>Objective: To institutionalise a model of partnership between local government, mid level NGOs, local area committees and lane organizations for environmental management by promoting democratic decision-making among stakeholders at all levels.</p>	<ul style="list-style-type: none"> - Improved environmental conditions in around 50-60 neighbourhoods within the Katchi abadies of Quetta. - Working arrangements for local collaboration in environmental development and management are established. 	<p>Reports of established Institutions.</p> <ul style="list-style-type: none"> - Reports of annual conventions of stakeholders. 	
<p>Project purpose: By year 2002, to improve environmental conditions in the KAs through participatory development and management.</p>	<p>50% of LO continue to meet regularly, their savings continue to increase and they invest in related development such as street pavement primary health programs.</p>	<ul style="list-style-type: none"> - Mid-term and phase accomplishment reports. - Evaluation surveys such as Impact Assessment by TA team. 	<p>Political representative and councillors will tolerate a parallel system of local development and management based on lane-level participation.</p>
<p>Expected results: R1. Partnership between local institutions. R2. Identification of Katchi Abadies (KA) for environmental development. R3. Formation of LOs in KA through CBOs to implement the program. R4. Safe disposal of excreta and grey effluent for increasing prevalence of hygiene practices. R5. Pool of trained engineers, masons and matured leadership for internal development.</p>	<ul style="list-style-type: none"> - Functioning of mid-level institutions including UBS Cell with mobilized local resources for participatory development. - 50-60 KAs identified within low-income area of Quetta. - At least 50 LOs formed and continue to meet regularly. - 87000 Rft sewer lines, 45000 Rft open drains and 12000 Rft water supply lines will be laid, 2500 Pour Flush or VIP latrines will be constructed and 6 filth depots will be in place and functional in these KA. - Annual training program for IPs in Social, Technical and Financial management. 	<ul style="list-style-type: none"> - Minutes of meeting. - Evaluation survey. - Six monthly and annual reports. - Mid-term and final evaluation. - Bank statement for LOs. - Monitoring physical and financial progress. - Training schedules and reports 	<p>Joint stakeholders' formulation will provide better results. Practical demonstration will generate positive vision for the identification of KAs. Gender and social barriers to extending home hygiene to lanes can be overcome.</p> <p>Better household hygiene practices, sanitation and solid waste investments will be accompanied by democratic and effective local management.</p> <p>Self reliance will develop to implement program without involving contractors.</p>
<p>Activities: A1. Program orientation A2. Social mobilization A3. Formation of mohalla committee (male and female) A4. Participatory surveys and planning. A5. Technical design & its approval. A6. Joint oversight. A7. Training staff A8. Training (partners)</p>	<p>Means: - Five mid level NGOs for providing technical and social assistance to implement the program; - Existing UBS staff and facilities will work as 6th IP; - Pool of trained engineers and social organizers.</p> <p>- Technical Assistance (TA) by PIEDAR. - Fund Management (FM) by M/s Ferguson Associates;</p>	<p>Costs: Total RNE outlay over five years is envisaged NLG 3 Million which includes - Support to 6 local institutions including UBS Cell. - Matching grants to achieve physical target. - Financial support to FM and TA. QMC's estimated contribution is Rs.5/- million, and; Beneficiary's estimated contribution is Rs.30/- million as saving.</p>	<p>Low level of female education will not impede acceptance of health messages. Joint events will accelerate interest group formation. Participatory planning will yield implementable technical options. Mohalla committees will raise savings democratically. Drains, sewers, and solid waste depots constructed without involving contractors will work well.</p>

Annex 2: Governance and management Institutions (QKAEMP)

Name of Forum	Constituents	Frequency/ Place	Functions
Programme Steering Committee (PSC)	RNE, PIEDAR & Fund Manager (Ferguson Associates)	Quarterly at Islamabad & Quetta	To review programme; To take policy/strategic decision; To accord major technical and financial approval; To monitor the programme performance.
Programme Management Committee (PMC)	RNE, PIEDAR, FM, NGOs, UBS	Quarterly at Quetta	To implement & supervise the operational framework; To recommend technical and financial issues to PSC; To review physical progress.
Forum Of Implementing Partners (IPs)	All IPs	Monthly at Quetta	To share programme experience; To coordinate the operational framework; To assist each other in implementation.
Stakeholders Convention	LOs, WLOs, CBOs, NGOs, TA, FM, RNE	Annually at Quetta	To evaluate the programme in a participatory manner; To review the strategy and approach; To provide a platform for new initiatives.

Annex 3: Memorandum of Understanding signed between IPs, FM & TA**QUETTA KATCHI ABADIES ENVIRONMENTAL MANAGEMENT
PROGRAMME (QKAEMP)****MEMORENDUM OF UNDERSTANDING**

This memorandum of understanding (MOU) is executed this third day of December, 1997 by and between

1. Pakistan Institute For Environment Development Action Research (hereinafter referred to as PIEDAR) with its address at 2 Floor, Yasin Plaza, 74-W, Blue Area Islamabad, Technical Advisor to the QKAEMP under contract with the Royal Netherlands Embassy in Islamabad.
2. Ferguson Associates (Pvt) Limited (hereinafter referred to as Ferguson) with their address at 1-B, State Life Square, I.I. Chundrigar Road, Karachi, Fund Manager for the QKAEMP under contract with the Royal Netherlands Embassy in Islamabad.
3. Urban Basic Services Cell, Municipal Corporation, Quetta (hereinafter referred to as UBS) as partner in project implementation.
4. Salamti Welfare Society (Regd), 1 Nasim Plaza, Arbab Town, Samungli Road, Quetta as partner in project implementation.
5. Environment Foundation Balochistan, 2-B, 2 Floor, Firdusi Building, Jinnah Road Quetta, as partner in project implementation.

Whereas PIEDAR, Ferguson, UBS, Salamti Welfare Society, and Environment Foundation Balochistan, Implementing partners as listed above, hereby mutually agree to collaborate in the implementation of the Quetta Katchi Abadies Environmental Management Programme (funded by the Royal Netherlands Embassy) together with other NGOs/CBOs who may subsequently join as partner NGOs or CBOs, as applicable, under terms of this MOU.

Whereas there is need to specify the collaboration arrangements among the above parties, which shall apply equally to other NGOs/CBOs who may subsequently join as partner NGOs or CBOs in presently unallocated sections of the project area concerning their involvement in QKAEMP to ensure its successful completion.

Whereas there is need to confirm the agreed cost-sharing arrangement between certain of the above parties.

Now therefore and in confirmation of the foregoing premises, the above parties do agree to the following undertakings and responsibilities.

1. The Technical Advisor shall backstop the forum of QMC and the implementing partners with the provision of conceptual resources and will monitor the implementation of the project. More specifically the Technical Advisor will:

- (i) Review and validate the components to POOs prepared by IPs, and consolidate an umbrella Five Year Plan of Operations (technical sections)
 - (ii) Review and validate the component Annual Work Plans Prepared by IPs and consolidate an umbrella AWP for all partners (technical sections)
 - (iii) Promote institutional and technical development of IPs, identification of new IPs for serving unallocated portions of the project area, subject to ratification by the Project Steering Committee
 - (iv) Prepare technical training needs assessment plan for partners
 - (v) Monitor the Policy and Technical aspects of QKAEMP
 - (vi) Prepare TORs for and supervise impact assessment
 - (vii) Review overall progress of the project
2. The Fund Manager will basically ensure that the maximum value for money is obtained for all monies expending from the project budget and in this respect shall act as:
- (i) Custodian for all donor funds
 - (ii) Conduit for channelizing resources in accordance with the approved Project Budget
 - (iii) An agency for designing and implementing systems of internal control for management of Project resources and investments
 - (iv) Monitoring of the projects financial progress
 - (v) Specialists on matters related to local taxation
 - (vi) “Value for Money” auditors to the project
 - (vii) Training partners in respect of accounting and financial management
3. The selected implementing Partners/CBOs will facilitate and promote social mobilization and organization at grass-root-levels. This will include assessment of the ground situation, assessment of local needs and priorities, facilitate consensus on community leadership and organization forms, promoting and accumulation of community savings, and project implementation support at local level. In this regard, the NGOs/CBOs will:
- (i) Prepare communications material
 - (ii) Conduct door-to-door awareness campaigns
 - (iii) Conduct local area workshops, walk-a-cause etc.
 - (iv) Carry out participatory surveys and prepare area maps impart training from mohalla community participation agreement committees and lane organizations and execute community participation agreements with lane organizations for construction management supervision and financial top up support under QKAEMP
 - (v) Provide technical support for laying drains, sewer and installing pour flush latrines
 - (vi) Jointly with the communities, oversee the quality of the construction work
 - (vii) Promote project experiences for vertical and lateral scaling up of the community based environment management program
4. Financial support from Project funds provided by the Royal Netherlands Embassy in Pakistan will be channelized by the Fund Manager in terms of the approved Project Budget and Community Participation Agreements executed by the NGOs/CBOs with Lane Organizations. Disbursement guidelines and procedures in this respect will be prescribed by Fund Manager and approved by the Project Steering Committee.

5. It is understood and affirmed that sums committed and provided by the Royal Netherlands Embassy will be used by the project partners only for the purpose for which they are intended.
6. The planning implementation and control of the QKAEMP will be entrusted to the following inter-agency coordinating and decision-making units:
 - Project steering committee (PSC) comprising nominees from the Royal Netherlands Embassy in Pakistan, the Technical Advisor (PIEDAR) and Fund Manager (Ferguson). The PSC shall be the apex body for the QKAEMP and shall take all strategic decisions, accord major technical and financial approvals, and monitor the Projects' performance. The PSC shall meet at least quarterly.
 - Project Management Committee (PMC) will comprise nominees of RNE, Technical Advisor, Fund Manager, and Implementation Partners. The PMC will be responsible for supervising implementation of the operational framework of QKAEMP including quarterly performance reviews, financial appraisals and issues, and compilation of the Project Bi-annual Report. The PMC shall meet before proceedings of the project Steering Committee or earlier if needed.
 - The Agents' Forum (AF) comprising Implementing Partners, shall meet biannually to promote experience exchange, and training and exchange visits. It will basically serve as a forum for promoting creativity and deliberating on on-site technical issues.
 - The annual partners' meeting comprising members of PSC, PMC, AF, and representatives of lane organizations, shall provide a platform for open consultations and debate on issues related to the Project in general.
7. All project partners shall be under obligation to diligently prepare prescribed periodic reports and statements of accounts, and maintain backup records for this purpose as specified by the Technical Advisor and Fund Manager. The prescribed report shall be prepared and submitted in the format and the time period specified by the Technical Advisor/Fund Manager.
8. All project partners shall at all times respect and follow applicable federal, provincial and local laws.
9. All project partners shall extend full cooperation to one another in the implementation of QKAEMP and shall diligently carry out their respective duties as stipulated by this MOU
10. All procurement for investments and construction material and labor shall be made following procurement guidelines as specified by the Fund Manager and prescribed by the Project Steering Committee.
11. All local disputes/issues arising out of or relating to the construction work shall be the responsibility of the CBO/Lane Organization to resolve. Necessary assistance in dispute resolution shall be made available if needed and requested.
12. The Implementing partners shall nominate personnel for training as required by Technical Advisor/Fund Manager. Once training has been imparted, the respective NGOs/CBOs shall ensure full utilization of the services of such trained personnel on 'pay for service' basis if required and upon availability of additional budget.

13. It is expressly agreed that Lane Organizations' request for participation in QKAEMP shall be entertained and treated on 'first-come-first-served' basis. Failure to raise community funds by dates agreed in the Community Participation Agreement shall render the Community Participation Agreement liable to cancellation or extension of the date suggested by the IPs at the absolute discretion of the Steering Committee.
14. Funds raised by the Lane Organization and funds provided to NGOs/CBOs from the Project Budget shall be maintained in PLS bank accounts with the nearest branch of banks authorized by Fund Manager. Banking guidelines issued in this respect by Fund Manager will be followed by all project partners.
15. Donor funds for Lane Organization will be released by the fund Manager only by way of top-up support and only after verification of evidence of accumulation and banking of the target level of community contribution. Such funds shall be released through the Implementing Partners on the understanding that Implementing Partners possess adequate financial management capabilities.
16. Cost over-runs, if any, shall be met from QKAEMP funds and additional community contribution in the same ratio as agreed for PFLs and Lane Sanitation.
17. Project partners shall promptly inform the PSC, PMC Or AF as applicable, of any conflict, lapses, disputes, complaints or concerns relating to the project, which, in their opinion, could leave an adverse impact on the progress, financing, or end-result of the Project.
18. All project partners shall assume full responsibility for their respective tax liabilities, which may arise as a consequence of any operations undertaken under this MOU.

In witness whereof the subscribers to this MOU hereto cause their signatures to be affixed to this MOU on this third day of December 1997 at Quetta

1. For and on behalf of PIEDAR, Islamabad	
2. For and on behalf of Ferguson Associates (Pvt) Ltd, Karachi	
3. For and on behalf of Urban Basic Services Cell Quetta Municipal Corporation, Quetta	
4. For and on behalf of Environment Foundation Balochistan, Quetta	
5. For and on behalf of Salamti Welfare Society, Quetta	
Witnessed by: Mr. Wim van der Kevie, Counsellor Royal Netherlands Embassy and Mr. Yunas Khan Mandokhail, Additional Chief Secretary, Government of Balochistan	

Please note: The ORIGINAL SIGNED DOCUMENT is part of the PIEDAR QKAEMP Archives and can be made available on request.

Annex 4: Community Participation Agreement signed between IPs and Los

QUETTA KATCHI ABADIES ENVIRONMENTAL MANAGEMENT PROGRAMME (QKAEMP) COMMUNITY PARTICIPATION AGREEMENT (TO BE TRANSLATED IN URDU)

This community participation agreement is executed and entered into this _____ day of _____, 199__ between (Name of CBO) a project partner CBO of the Quetta Katchi Abadies Environmental Management Programme managed by the Royal Netherlands Embassy in Pakistan, and _____ lane organization representing residents of lane number _____ in _____ (full address), Quetta.

Whereas the above-mentioned CBO has cosigned an understanding of collaboration (UoC) for technical and financial support under QKAEMP for supplementing community based efforts for upgrading of selected Katchi Abadies in Quetta and intends to offer such support to the above-mentioned Lane Organization in terms of the said MOU and UoC.

Whereas the Lane Organization mentioned-above has agreed to mobilize community resources for environmental upgrading through construction of Pour Flush Latrines in the dwelling units of its members and a common sewer in the common lane to the extent of Rs _____ being _____ % of cost of PFL's and _____ % of cost of the lane sewer.

Whereas the Lane Organization has applied and the project partner has accepted the application for technical know-how and top-up financial support for construction of PFLs and a Lane sewer up-to maximum to Rs _____ and Rs _____ respectively.

Whereas there is a need to establish an agreement for the participation arrangements for the upgrading work referred to above.

Now therefore the CBO and LO hereby agree as follows:

1. The CBO shall extend full cooperation to the LO in the design and implementation of the upgrading work.
2. The CBO shall recommend to the IP to depute personnel to mobilize community organization, promote awareness of local environmental hazards, guide, facilitate, plan, supervise and inspect upgrading work.
3. The CBO shall apply to their IP for release of top up financial support from the project budget in the ratio of 20% of cost of PFLs and 50% of cost of the lane sewer.
4. The CBO shall inspect and certify completion of work at intervals specified by the technical advisor of QKAEMP. A copy of such certificate(s) shall be provided to the LO and fund manager.
5. The CBO shall assist the LO in follow-up on activities completed by the LO and assist in planning and management of the operation and maintenance, including financing of such O&M, of the completed works.

6. The CBO shall be entitled to recommend to IP's to defer or terminate commitment to recommend top-up support from QKAEMP funds in case the LO is unable to demonstrate, within the time specified, accumulation of community savings sufficient to cover their share of program costs.
7. The LO reaffirms commitment to mobilize community savings to the extent programmed and within the time frame specified hereunder:

80% of cost of Pour Flush Latrines for a total of _____ dwelling units at an estimated cost of Rs _____ per unit within _____ weeks of execution of this agreement	Rs.
50% of cost of lane sewer @ Rs _____ per dwelling unit within _____ weeks of execution of this agreement	Rs.
Total Community Saving	Rs.

8. The LO reaffirms commitment to raise funds sufficient to cover its share of cost-over runs, if any.
9. The LO shall carry out the physical work in accordance with specifications, drawings and rates provided by the IP (on advice from Technical Advisor). Any work considered by the IP to be at variance from specifications or drawings shall, where so directed by the IP in writing, be demolished and redone at the risk and cost of the LO.
10. The LO shall complete the physical work within _____ calendar days of this agreement, or such extended period as may be agreed to by the CBO in writing to IPs and copied both to Technical Advisor and Fund Manager.
11. The LO reaffirms commitment to meet the full operation and maintenance costs of the PFLs by the individual lane members, and for the lane sewer by the LO collectively from pool funds.
12. The LO affirms commitment to maintain accounts of the LO and funds received from QKAEMP in the manner prescribed by the QKAEMP Fund Manager, and to submit periodic progress reports as specified by the Technical Advisor and Fund Manager.
13. The LO affirms commitment to pursuit of common community goals through the local organization established under QKAEMP.

In witness thereof the parties to this Agreement hereto cause their signatures to be affixed to this Agreement on this _____ day of _____ at _____.

Signed by:

1. For and on behalf of CBO (Authorized Representatives)
2. For and on behalf of LO (Authorized Representatives)

AND witnessed by: two people each favouring one party.

Annex 5: Identification of Katchi Abadies

Table A5.1: Indicators applied in the identification of Katchi Abadies

Indicators		A	B	C	D
1	Basic Facilities	All available	Partially available	Only one available	None
I	Water supply	Tube well supply	Own well/Hand pump	Tanker supply/ Storage tank	No storage tank
ii	Sewerage System	Sewerage system	Pucca open drain	Katcha open drain	None
iii	Basic Health Unit	Govt. unit	Own arrangement	Temporary arrangement	None
iv	Basic Education system	Commercial school	Govt. school	Informal system	None
v	Road structure	Pucca road	Katcha road	Pot-holed katcha road	
vi	Utilities	Elect, Gas, Phone	Two utilities available	One utility available	None
2	Land Status	Owner	Owner/Tenant	Owner/ Rent free	Rent free
3	Street Condition	Paved street	Unpaved graded street	Unpaved & ungraded street	No street system
4	House Condition	Mostly Pucca	Partially pucca	Partially katcha	Mostly katcha
I	Walls	All walls pucca	Partially pucca walls	External wall pucca	All walls katcha
ii	Court-yard	Paved	Partially pucca	Partially katcha	All katcha
iii	Floors	Pucca with carpeting	Pucca with matting	Katcha with matting	Katcha
iv	Latrine	Flush latrine	PF/VIP latrine	Pit latrine	Place for women only
v	Water storage facility	Overhead water tank	Concrete tank	Tank	Water drum
5	Economic Condition; (Household income/month)	> Rs.4000	Rs.3000-4000	Rs.2000-3000	< Rs.2000

* **A** is not a katchi abadi.

* **B** Could be katchi abadi.

* **C** Likely katchi abadi.

* **D** is a katchi abadi.

Recommended By IP

Verified and Approved by TA

Table A5.2: Distribution of Katchi Abadies by IP and Category of area

S#	Name of IP	Total CPA Accomplished	Categories of Katchi Abadies			
			A	B	C	D
1	EFB	25	0	8	10	7
2	SEA	42	0	10	24	8
3	UBS Cell	27	0	4	18	5
4	PIDS	34	0	5	27	2
5	NWSQ	19	0	0	9	10
6	PPDS	8	0	0	7	1
7	OCD	27	0	0	21	6
8	BEST-C	3	0	0	3	0
9	SWS	2	0	0	1	1
TOTAL		187	0	27	120	40

Annex 6: Map showing 47 identified Katchi Abadies for QKAEMP Implementation

I have left this blank page intentionally so that the page numbering can be maintained in the simplest manner

Upon final printing you should replace it with the GIS map of Quetta

Annex 7: Guidelines for Social Mobilization

* GUIDELINES FOR SOCIAL MOBILIZATION *

STEP – 1

INTRODUCTION & ESTABLISHMENT

- Contact with communities or existing CBO (if available in identified area);
- Organize local area workshop if necessary for awareness regarding QKAEM programme, its objective and process for implementation;
- Obtain willingness of the concerned communities to initiate the process of LO formation.

STEP – 2

PREPARATION OF AREA & ASSESSMENT OF PRIORITIES

Social organizer should observe the willingness of the CBO/community and thereafter-necessary social survey is initiated with the participation of community member. Please note that community at this stage must be cleared about program objective and process of implementation.

- Base line survey regarding health and environmental condition of the area;
- Existing situation of the street such as economic condition, No. of houses & population, availability & location of latrine, source of drinking water, size & condition of street, sanitation condition, and underground structure like water, gas, telephone and electric lines;
- Compilation and presentation of base line data to community/CBO for verification & information;
- Assessment of local priorities with the consent of communities;
- Demonstration and dissemination of experience of neighbouring communities;

STEP – 3

INSTITUTIONAL DEVELOPMENT

During social survey, a guideline is given to community/CBO about the formation process of lane organization and women organization. Since fund would be made available to LO only therefore LO must be formed with the full participation of people residing in the street.

- Formation of LO in the presence of male community members of the street;
- Give them a suitable name to LO and elect President, General Secretary and Finance Secretary etc. by all the community members;
- Once again Social organizer briefs the LO about QKAEM program, its process and their responsibility for running the organization & implementation of QKAEMP;
- Signing of Community Participation Agreement (CPA) with LO/CBO in the presence of lane dwellers;
- Impart office bearers training about their roles and responsibility, accounting procedure, procurement guidelines and record keeping;
- Open a joint Bank account in any nearby Bank for LO. The responsibility of LO to collect saving from each household and put it into the bank and also keep record for auditing;
- Provide Bank statement after completing their shares to IP for taking the matching grant.

- Commitment is required from community to construct PF latrine. For which six hardware items are given to each household for the construction of superstructure of latrine;
- Impart health and hygiene training to members of the LO/WLO after laying sewer lines.

It is possible that CBO does not exist therefore a long process would be required for the formation of CBO.

STEP – 4

ESTIMATION

Estimation is carried out for all the items involved in the sewer line such as Manhole, Tee-hodi, pipelines, excavation, materials & labors etc by the IP. All engineering items are shared with LO/community so that they must understand the whole process of sewerage system, as they are the one who will maintain the system.

Training on fund management and O&M is given to the community to guide the maintaining process for PF latrine and sewer line as well as solid waste management system in the area.

STEP – 5

PROCUREMENT OF MATERIAL

- Specification and quality of the material is considered during procurement with the help of IP's engineer for pipes, cement, sand, crush & six PFL items etc;
- Lane organization is involved for all kinds of procurement to make the system transparent.

STEP – 6

CONSTRUCTION AND MANAGEMENT

LO is responsible to provide store for the material procured and supervise the construction work. A practical training for the construction of sewer line is given to every LO so that they must understand the process of laying sewers. This would be helpful during maintenance. Curing is done with the help of residents to improve the quality of the system.

STEP – 7

OPERATION AND MAINTENANCE

Community is guided for proper O & M, Preparation of MH cover, repair of joints and other connection etc so that;

- Manhole and Tee hodi should not be used for garbage storage;
- Tee-hodies must be cleaned as and when required;
- Sewer line may be checked and washed once in a year;
- Follow-up visit and guidance whenever needed

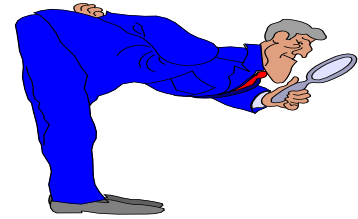
Annex 8: Guidelines for Technical Assistance

STEP – 1

PRELIMINARY INVESTIGATION

Profile of the target area/katchi abadi;

(PERFORMA ATTACHED TO COLLECT NECESSARY DATA AT STREET AND KA LEVEL)



STEP – 2

PREPARATION OF AREA MAPS & GROUND PROFILES

Street map showing the number of houses, location of latrine, direction of water flow, size of street, and underground structure like water, gas and electric lines etc;

Engineering survey showing the ground slope, manhole location, sewer slope, and level of disposal drain along with its size;



STEP – 3

DESIGNING WORK FOR LANE SEWER

Prepare a tabulation form to record the data and steps in the computations for each section of sewer between manholes (tabulation Form for computation is attached). Apply hydraulic design equation (Manning equation is commonly used in sewer design) and lines graph;

STEP – 4

ESTIMATIONS

- Estimation is carried out for all the items involved in the sewer line Such as Manhole, Tee-hodi, Pipelines, Excavation, materials & labours etc;
- A soft ware for cost estimation has been loaded on the IP's computer;

STEP – 5

PROCUREMENT OF MATERIALS

- Specification and quality of the material is considered during procurement for pipes, cement, sand crush & six items of PFL etc;
- Lane organization is involved for all kinds of procurement;
- Lane organization is responsible for providing store for the material and distribution of six PFL items in the presence of lane members and IP.

STEP – 6**CONSTRUCTION & MANAGEMENT**

- Mark the tee-hodi & manhole locations and the centre line of the street on which sewer pipe will be laid;
- Excavation may be carried out by the skilled labour;
- Survey equipment (level) may be used during construction for checking the correct level of the pipe and base of the man-hole/tee-hodi;
- Each time ratio of concrete mix may be assessed precisely;
- Curing should be done continuously;
- Cover for Manhole and tee-hodi may be made separately and placed in a water tank at least for a period of 10 days for curing;
- Sewer line may be tested before back filling to check the joint and connection with tee-hodi and manhole;
- Back filling may be carried out in layers with proper compaction;

**STEP – 7****OPERATION & MAINTENANCE**

- Community is guided for proper O & M, preparation of MH cover, repair of joints and other connection etc;
- Manhole and Tee hodi may not be used for garbage storage;
- Tee-hodies may be cleaned as and when required;
- Sewer line may be checked and washed once in a year;



PROFILE OF KATCHI ABADI, QUETTA, BALOCHISTAN

Name of katchi abadi	
Total population and %age of females in the area	
Land status (with/without dejure security)	
Number of houses	
Number of streets	
Source of water and supply system	
Wastewater generation rate in litre/capita/day	
Sanitation system (wastewater and solid waste disposal arrangement)	
Electricity and Sui-gas services	
Educational services for boys and girls	
Health and related services (Government or non-government)	
Socio-economic profile (working pattern of the community such as businessman, farmer, trader, etc.)	
Average income per month	
Social status (any form of town committee, CBO, Women Organisations,) and their activities such as industrial home etc.	
Map of the KA showing natural drain, street/road, commercial centre and housing pattern	
Any other activities	

BENCHMARK INFORMATION AT STREET LEVEL (QKAEMP)

Name of street and area	
Number of houses in the street	
Number of people in the street	
Source of water and storage arrangement	
Water consumption litre/capita/day (l/c/d)	
Sanitation system (wastewater and solid waste disposal arrangement)	
Latrine type and its location in the house (nos., by type)	
Economic condition (random samples of at least 5 houses): <ul style="list-style-type: none"> • Income/month • Amount of electricity bill • Amount of gas bill • Amount of telephone bill 	
Map of the street showing: <ul style="list-style-type: none"> • Length and width of the street • Nos. of houses facing the street, and • Level and size of the disposal drain 	
Street condition (paved/unpaved)	
Any other activities	
Submitted by (from any IP)	Approved by PIEDAR Team, Quetta

COMPUTATION TABLE FOR DESIGN OF SHALLOW SEWER

Parameter		Unit of measurement	Item	Sewer-1	Sewer-2	Sewer-n
Location	<i>From</i>		1			
	<i>To</i>		2			
Distance	<i>b/t MH</i>	m	3			
Population		Nos.	4			
	<i>Av.flow</i>	I/c/d	5			
Domestic Flow	<i>Flow</i>	I/d	6			
	<i>P.F.</i>		7			
	<i>C.Flow</i>	I/d	8			
Infiltration	<i>Allow</i>	%	9			
	<i>Flow</i>	I/d	10			
Design flow		Cum/d	11			
		Cum/sec	12			
Sewer design	<i>Dia</i>	mm	13			
	<i>Slope</i>	m/m	14			
	<i>Qfull</i>	cum/m	15			
	<i>Vfull</i>	m/s	16			
Partly full conditions	<i>q/Q</i>		17			
	<i>Vact</i>		18			
	<i>d/D</i>		19			
Sewer layout (m)	<i>Gr. Elevation</i>	Upper	20			
		Lower	21			
	<i>Invert elevat.</i>	Upper	22			
		Lower	23			

Annex 9: QKAEMP's beneficiaries, achievements and financial contributions

Annex 10: Physical and Financial progress for of SWM

Name of IPs	SWM Area	Starting date for SWM	Registered houses	Monthly Community Contribution			QKAEMP Contribution
				Average Rate/house	Total amount / month	No. of Paid Staff / month	Tools for SWM
EFB	Qaiser Colony	Oct-01	85	20	1700	1	5 Trolleys, uniforms, shoes, gloves, Jacket and stationary items.
	Kusaer Lane	Dec-02	60	20	1200	1	
	Chamb Line	Jan-03	184	SWM by Cantonment board+ community			
	Akka Khail	Jan-03	40	SWM on self help basis			
	Zhob Lane	Dec-02	95	25	2375	1	
SEA	Marriabad	Jan-00	1650	30	49500	7	8 Trolleys, uniforms, shoes, gloves and stationary items
	Hazara Town	Jan-00	4814	30	144420	10	
NWSQ	Essa Nagri	Oct-01	50	16	800	1	1 Trolley, uniform, shoes, gloves and stationary items
PIDS	Mominabad	Nov-01	130	30	3900	2	5 Trolleys, uniform, shoes, gloves and stationary items
	Kharotabad	Jun-02	142	30	4260	1	
UBS Cell	Killi Ghariabad	Mar-01	650	30	19500	6	12 Trolleys, uniform, shoes, gloves, stationary items and distribution of 200 dustbins to each KA.
	Tirkha Lane	Jan-03	200	30	6000	2	
	Shaldara	Jan-03	200	30	6000	2	
	Pashtoonabad	Mar-02	700	30	21000	7	
Total	14		9000		260655	41	31 Trolleys, uniform, shoes, gloves, stationary items, Jacket and 800 dustbins

Annex 11: Impact Assessment Survey form

QKAEMP Impact Assessment Questionnaire

Respondent – Married female with at least one child under 2 years

Interviewer Name			
Date			
Questionnaire Number			
I. Identification			
<i>Katchi Abadi Name:</i>			
<i>Sewered: (Y/N)</i>			
<i>Lane Name:</i>			
<i>Husband Name:</i>			
II. What type of toilet facility does your household have? (Please circle one)	1. Open field	2. Pit / Bucket	3. Pour Flush to soak pit
	4. Pour flush to lane sewer	5. Flush system	6. Other
III. Personal information about respondent.	Age of respondent: (Establish with reference to age at major events, Zia plane crash 1988)		
<i>1. Your education level (Please circle one)</i>	No education	Primary	Middle
	Secondary	High	
<i>2. How long have you been married?</i>	Years:	Months:	
<i>3. How many alive children do you have?</i>	Boys:	Girls:	
IV. Did any of your children fall ill in the last three months?	Yes	No	
V. Do you wash your hands after using the toilet?	Yes	No	
<i>Do you wash your hands with or without soap?</i>	With	Without	
<i>How many children of yours use the toilet?</i>			
<i>Do they wash their hands after toilet?</i>	Yes	No	
<i>Do they wash their hands with or without soap?</i>	With	Without	
<i>Did any of your children suffer from diarrhoea in the past three months?</i>	Yes	No	

Table A-11.1: Correlation between Lane Sewer and Incidence of Diarrhoea

		Children had diarrhoea		Total (%)
		Yes (%)	No (%)	
Lane Sewered	Yes	41 (31.8)	88 (68.2)	129 (100)
	No	17 (58.6)	12 (41.4)	29 (100)
	Total	58 (36.7)	100 (63.3)	158 (100)

Results of Chi-Square Tests between Lane Sewer and Diarrhoea

Tests	Value	Df	Significance
Pearson Chi-Square	7.34	1	0.007
Likelihood Ratio	7.09	1	0.008
Fischer's Exact Test			0.01

Table A-11.2: Correlation between Mother Washing Hands with Soap and Diarrhoea

		Children had diarrhoea		Total (%)
		Yes (%)	No (%)	
Mother washes hands with Soap	Yes	15 (23.1)	50 (76.9)	65 (100)
	No	42 (47.2)	47 (52.8)	89 (100)
	No response	1 (100)		1 (100)
	Total	58 (37.4)	97 (62.6)	155 (100)

Results of Chi-Square Tests between Mother Washing Hands with Soap and Diarrhoea

Tests	Value	Df	Significance
Pearson Chi-Square	11.01	2	0.004
Likelihood Ratio	11.63	2	0.003

Table A-11.3: Correlation Child Washing Hands with Soap after Toilet and Diarrhoea

		Children had diarrhoea		Total (%)
		Yes (%)	No (%)	
Children wash hands with Soap after toilet	Yes	16 (24.6)	49 (75.4)	65 (100)
	No	40 (44.9)	49 (55.1)	89 (100)
	Total	56 (36.4)	98 (63.6)	154 (100)

Results of Chi-Square Tests Child Washing Hands with Soap after Toilet and Diarrhoea

Tests	Value	Df	Significance
Pearson Chi-Square	6.708	1	0.01
Likelihood Ratio	6.871	1	0.008
Fischer's Exact Test			0.01

Annex 12: List of TA QKAEMP Fixed Assets

S#	Asset Purchased	Auxiliary Items	Code No.	Year of Purchase	Capital Outlay (NLGs)	Location
1	New Photocopier	Xerox 5614 (14 cm Trade in)	mainqka-tradein 98-04-oe	1998	7,000	Islamabad
2	Office Furniture	Tables , Chairs	main-qka-98-40-oe	1998	1,152	Quetta
3	Suzuki Bolan	Carry	main-qka-98-43-oe	1998	15,250	Quetta
4	Printer	Cannon Bubble BJC 210 SP	main-qka-99-53-oe	1999	288	Quetta
5	Computer	Pentium-III	main-qka-2001-54-oe	2002	1,750	Islamabad
6	Fax Machine	Panasonic	main-qka-1010-oe	1998	975	Quetta
7	Camera	Yashica	main -qka-yashica-oe	1998	85	Quetta
8	OHP	3m 9080	main-qka-9080-3m-oe	1998	1,850	Quetta
9	Burner		main-qka-oe	1998	38	Quetta
10	Camera	Yashica	Lost	1998	85	Quetta
11	Heaters (2)	Corona	main-qka-oe	1998	240	Quetta
12	White board, Notice board, wall clock		main-qka-oe	1998	125	Quetta
Total					28,838	

Annex 13: TA QKAEMP Consolidated Expenditure Statement, Jan-1998 to Dec-2003

Cost	Account	Budget (BGT)		Expenditure (EXP)						Total (NLGs)	EXP-BGT
Codes	Titles	Original	Revised	1998	1999	2000	2001	2002	2003	1998-2003	Variance
9300	Personnel:										
9310	Institutional dev. specialist	90,000	107,816	20,000	18,000	18,000	16,656	15,312	21,499	109,467	-1,651
9311	Low cost sanitation expert	81,000	82,325	8,610	8,254	10,450	19,816	18,995	25,538	91,663	-9,338
9312	Anthropologist/Sociologist	40,500	34,746	1,900	6,138	5,710	5,539	6,358	7,731	33,376	1,370
9313	Project Accountant	30,000	26,248	3,025	3,302	3,662	5,067	2,193	4,813	22,062	4,186
9314	Training organiser	63,000	55,820	6,038	8,323	8,596	8,070	9,194	10,862	51,083	4,737
	Medical Transfer			0	0	0	0	8,848	0	8,848	-8,848
	Sub Total:	304,500	306,955	39,573	44,017	46,418	55,148	60,900	70,443	316,499	-9,544
9400	Investments:										
9421	Colour plotter	12,750	12,813	0	0	0	0	0	0	0	12,813
9422	Computer	0	0	3,398	0	0	0	1,750	0	5,148	-5,148
9423	Photocopier	0	0	7,000	0	0	0	0	0	7,000	-7,000
9424	Office furniture	0	0	1,152	0	0	0	0	0	1,152	-1,152
9425	Suzuki pick-up	0	0	15,250	0	0	0	0	0	15,250	-15,250
9426	Printer	0	0	0	288	0	0	0	0	288	-288
	Sub Total:	12,750	12,813	26,800	288	0	0	1,750	0	28,838	-16,025
9500	Operational Costs:										
9510	Office rent	15,000	46,776	6,275	7,664	7,787	8,203	8,910	11,896	50,735	-3,959
9520	O & M for Computer	3,000	5,464	321	0	1,985	1,344	414	482	4,546	918
9530	O & M for Transport	3,750	15,136	573	2,034	4,927	2,227	2,574	3,842	16,177	-1,041
9540	Operational costs office	12,000	27,244	4,627	2,701	3,925	6,491	5,900	9,114	32,758	-5,514
9545	Op. cost communication	7,500	13,814	1,161	2,076	2,842	4,481	1,754	1,376	13,690	124
9571	Travel costs	33,375	42,097	6,412	6,379	5,953	10,461	6,216	4,198	39,619	2,478
9572	per diems	81,540	71,729	11,216	8,678	11,214	9,515	7,837	3,328	51,788	19,941
	Sub Total:	156,165	222,260	30,585	29,532	38,633	42,722	33,605	34,236	209,314	12,946
9600	Training & Courses										
9640	Courses and Workshops	12,500	12,893	857	2,423	2,406	2,697	2,010	2,750	13,143	-250
	Sub Total:	12,500	12,893	857	2,423	2,406	2,697	2,010	2,750	13,143	-250
9800	Contingencies*	24,296	9,296	0	51	0	2,825	1,048	1,445	5,369	3,927
	Grand Total:	510,211	564,217	97,815	76,311	87,457	103,392	99,313	108,874	573,163	-8,946