

Public Private Partnerships
and the Poor

Series Editor: M. Sohail

Public Private Partnerships *and the Poor*

Experiences with water provision in four low-income barrios in Buenos Aires

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About this series

The purpose of the project *Public Private Partnerships and the Poor in Water and Sanitation* is to determine workable processes whereby the needs of the poor are promoted in strategies which encourage public-private partnerships (PPP) in the provision of water supply and sanitation services. One of the key objectives is to fill some of the gaps which exist in evidence-based reporting of the facts and issues around the impacts of PPP on poor consumers. This series of reports present the interim findings and case studies of an analysis of both the pre-contract and operational phases of a number of PPP contracts. A broad view of PPPs has been taken and situations where the public sector is in partnership either with formal private sector companies, or with small scale local entrepreneurs, or with NGOs employed in a private sector capacity have been included.

M. Sohail
Series Editor

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Executive Summary

Large private enterprises are playing a growing role in providing urban water services (and to a lesser extent sanitation). Many development assistance agencies, whose principal mandate is to reduce poverty, have supported this trend. The concession for water and sanitation services in Buenos Aires was one of the first of the recent wave of ‘public-private partnerships’, and remains one of the largest. The experience in Buenos Aires provides numerous insights into the opportunities for, and obstacles to harnessing the private sector to provide better services.

This report is concerned with the provision of water and sanitation to low-income areas within the Buenos Aires concession. It is based on case studies of four barrios where local governments, the private utility (Aguas Argentinas) and civil society organisations collaborated to improve the provision of water and sanitation. It draws heavily on the accounts of local leaders and residents, whose perspectives are often missing from the debates on privatisation. The purpose of the case studies is not to evaluate the overall success of the improvement efforts, but to learn from them.

In the preparations for the original concession agreement, signed in 1992, the goal of improving services for low-income households lost out to that of creating a concession that would attract private bidders. The agreement was negotiated without representation from either local government or civil society groups. Two of the examples of the agreement’s shortcomings to address the water problems of low-income residents were that it:

- Did not extend to residents living in settlements without clear land rights
- Was based on connection fees of about \$600 for water and \$1000 for sewerage (for which households would be liable whether or not they used the services)

These provisions effectively placed a large share of the urban poor outside of the area to be served, and burdened those living in newly serviced areas with a debt they could ill afford. (The contract was subsequently renegotiated, and in 1997 the connection fees were replaced with charges to the bimonthly bills of all consumers and much smaller connection fees with payments spread out over 5 years.)

Aguas Argentinas nevertheless began to collaborate on improving the provision of water and sanitation in a small number of low-income settlements with insecure tenure, starting in 1995 with one of the four barrios examined in this report. Aguas Argentinas was not the

prime motive force behind the projects. Without pressure from civil society organisations and support from local government, the projects would not have come to be. Aguas Argentinas did, however, become a willing collaborator, and has since been more actively involved in a number of similar projects.

From the perspective of the communities involved, getting reliable and convenient water supplies was a major achievement, and in virtually every interview and focus group, residents and local leaders expressed pride in their new water systems and the collective achievement they represented. (Sanitation became a priority once piped water was readily available.) No other community initiatives in these settlements had involved the same level of commitment and effort.

Residents were generally aware that the utility had become private, but were only concerned with how this may have affected their ability to obtain improved services. Similarly, they tended to value the tri-sector collaboration in terms of its outcome, rather than for its own sake.

Multi-sector collaboration was viewed by most of the residents as the only means through which they could have gained access to water and sanitation services, given their lack of land titles and the infrastructure charges normally imposed by the utility.

The collaboration took a similar form in each of the barrios, with:

- **residents** providing labour and some financial contributions
- **local government** sanctioning the project (despite unresolved land issues) and in several cases providing materials and more active support
- **civil society groups** first negotiating for the project and then acting as a mediator between the residents and the other parties, as well as organising the residents' contributions
- **Aguas Argentinas** connecting the local networks to their systems and taking various degrees of responsibility for the construction of the local networks.

The specific experiences and organisational approaches varied considerably among the four barrios. Most notably, in two barrios the lead civil society organisation was a community based organisation, while in the other two it was an NGO (to which the authors of this report are attached). Where the community based organisations took a lead role, the projects were strongly influenced by the character and style of the local leaders, and also became closely linked to local politics and electioneering. Where the NGO was involved, the projects were less locally driven, but also less influenced by political clientelism.

There were also other differences in the approaches taken in the different barrios. Thus, for example, in one barrio the local labour was paid, while in the other three it was voluntary. In some areas residents worked collectively, while in others the residents' contributions were largely restricted to their own streets or even frontages. As the detailed accounts make

clear, these were not random differences, but were rooted in the particular circumstances of the individual barrios (which were different in significant ways, despite their close proximity to one another).

The results indicate considerable potential for engaging private utilities in improvement efforts, but also demonstrate that switching to a private utility does not in itself solve the problem of improving water and sanitation in low-income areas.

When it took on the concession, Aguas Argentinas had no experience of working in barrios such as those studied in this report, and had little immediate incentive to learn. The pre-existing public utility, from which Aguas Argentinas inherited most of its staff, had not been engaged in supplying low-income settlements. Lyonnaise des Eaux (the multinational partner within Aguas Argentinas) brought technical expertise and access to finance, but had limited experience coping with the problems of supplying water and sanitation to the more deprived neighbourhoods of Buenos Aires.

As indicated above, however, Aguas Argentinas did become engaged in servicing a number of low-income areas, including some where land ownership issues were still unresolved. Viewed from a narrow project-accounting perspective, these initiatives may not have provided Aguas Argentinas with normal profits. They provided important indirect benefits, however. Especially where the informal settlements are located near serviced settlement, the choice is often between providing some form of legal connections, or having to cope with illegal connections and the water losses and piped water contamination they typically bring. Moreover, simply ignoring the plight of the urban poor brings its own political and public relations problems, and would have gone against the image the company was trying to project. Finally, many of the difficulties encountered reflect a lack of experience rather than inherent costs associated with serving low-income areas.

Extending water and sanitation to low-income areas has proved to be a long learning experience, and even now, almost ten years after the concession was granted, all of the parties still have a lot to learn. The experiences of the four barrios examined in this report may not be typical. Indeed, they were sufficiently different to suggest the need for a flexible approach – one capable of adapting to the specific characteristics of the area in question. Nevertheless, there are also some more general lessons that can be drawn from the experiences of these four barrios.

Some of the lessons go against the conventional wisdom in the water and sanitation sector. Thus, for example:

- **Piped water and sanitation provision can contribute to (rather than await) housing security**

Utilities, whether private or public, are understandably unwilling to extend networks to informal settlements without authorisation from the government. It is often assumed that land regularisation must precede authorisation. In all of the barrios studied, the local government authorised connecting the networks without resolving the land issues.

Residents interpreted this as giving them more legality and tenure security, which in turn helped to motivate further improvements. This suggests that, in the right circumstances, water and sanitation provision can be an important first step in conferring land rights to residents of informal settlements.

- **Privatisation does not, in itself, depoliticise water and sanitation provision**

It is often assumed that creating a private concession for a city's water and sanitation system will prevent politicians and political parties from manipulating provision and pricing to achieve their short-term goals. This was not the case in any of the barrios studied. Electioneering and political clientelism were central to the local government's support for the projects, especially in the barrios where the leaders of community based organisations were representing the communities. And even in one of the barrios where the NGO was involved, the water started to flow just two days before the elections. Political manipulation undoubtedly has its costs, but it should be kept in mind that without any political pressure the projects might well not have come to be.

- **Civil society organisations can help to make 'public-private partnerships' work for the poor**

It is often assumed that the problems in the water and sanitation sector can be resolved through a partnership between the public and private sectors. However, all of the projects in the barrios studied involved collaboration with a community-based organisation or a non-governmental organisation playing a key role in both initiating and implementing the projects. The obstacles that the civil society organisations were required to address in these settlements are obstacles likely to be present in many low-income settlements, suggesting this collaboration may often be appropriate.

- **Pro-poor negotiations are important after as well as before the concession agreement has been signed**

It is often assumed that the concession agreement determines how the water and sanitation system will develop over the concession period (in this case 30 years, with reviews every 5 years). While the concession agreement is undoubtedly important, the experience of these four barrios illustrates that the utility, the local government and the communities may all have reasons for negotiating after the agreement, and have something to bring to the table.

For example:

- the local government was not only in the position to authorise connections to the informal settlements, but also to allow a wastewater processing plant to be sited in the district.
- The communities, through the civil society organisations, could contribute labour, and at least potentially could reduce vandalism and threats to utility staff, and could offer political support to local politicians.

- The private utility could offer the connections, their expertise and lower connection charges.

A more poverty-oriented agreement could undoubtedly have facilitated later negotiations, and quite likely have led to outcomes more favourable to the residents. Excluding the concerns of the poor from the original agreement (in order to attract private capital) has left a legacy that is proving to be very costly. The importance of post-agreement negotiation should not be underestimated, however.

- **Providing water and sanitation connections is not sufficient to ensure a sustainable supply of water to low-income residents**

It is often assumed that once the connections are in place, the need for multi-party collaboration is over, and the residents will simply become customers of the utility (at least provided the tariff is appropriate). The experience in the four barrios suggests otherwise. Organising the billing procedures and the payments proved contentious (collective billing, for example, led to problems), non-payment was common, residents were inclined to attempt to undertake repairs themselves rather than contact the utility, and generally the utility and the residents found it difficult to develop a sustainable relationship. In effect, the narrow focus on collaborating to create the water and sanitation systems was insufficient, and left a number of issues unresolved.

In most respects, the experiences of these communities are very encouraging for multi-sectoral collaboration. Through such collaboration, each of the major parties achieved important goals:

- residents received reliable and convenient water supplies
- the utility expanded its system at a low cost
- the local government enhanced its authority and gained local support
- the civil society organisations served the local communities and gained credibility

This was accomplished in the face of:

- the low-income residents' considerable mistrust of politicians and of offers of 'assistance'
- the utility's profit orientation and lack of experience in low-income areas
- the local government's persistent clientelism and lack of local accountability
- the civil society organisations' own accountability problems, and lack of experience with water and sanitation projects

On the other hand, there are evident limitations to the approaches taken in all four barrios. While the water and most of the sanitation systems are in place and functioning, the procedures for maintenance, billing and collecting payments have not been adequately developed. Non-payment is a particular problem. Aguas Argentinas has little incentive to disconnect residents, since this would harm public relations and incur legal costs. However, in order to ensure the long-term viability of the water and sanitation provision, and even more to provide the basis for extending provision to the majority of low-income residents, such problems must be solved.

In short, 'private-public partnerships' at best provide part of the means to improve water and sanitation provision in low-income urban settlements. Collaboration with civil societies can, in the right circumstances, play an important role. As the details of the case studies that follow make clear, extending water and sanitation to deprived urban settlements is likely to remain a major challenge. On the other hand, when the right means are found, it can make an enormous difference to the current welfare and the future prospects of those involved.

1.

Introduction

Better collaboration between the public and private sectors is often portrayed as a key to more successful development initiatives in the South. In the water and sanitation sector, the last decade has seen a wave of ‘public-private partnerships’ between government agencies and large private service providers. The private concession for water and sanitation provision in Buenos Aires, regulated by an agency with combined representation from the national, provincial and city governments, was one of the earliest and largest of these recent ‘partnerships’.

There is concern that low-income groups are often not as well served as they should be by these new arrangements. Various ways of ensuring better provision to low-income settlements are being debated internationally. One approach is to engage in collaborations,¹ involving not only government agencies and private enterprises, but also non-governmental organisations (NGOs) and/or community based organisations (CBOs). Here too, Buenos Aires has taken an early lead – though on a much smaller scale.

While a variety of collaborative approaches to water and sanitation provision are widely debated, most of the debate centres on contractual and regulatory details, abstract principles and aggregate statistics. Comparatively little attention is given to how these collaborative arrangements will actually operate in low-income areas, where relations to the public sector are often strained and relations to formal service providers are poorly developed at best. Moreover, the views of low-income communities – the intended beneficiaries of many development initiatives – are rarely heard.

This report is based on case studies of four low-income settlements in Buenos Aires where local government, a private utility and civil society organisations worked collaboratively to improve the provision of water and sanitation. The case studies were undertaken by researchers with long term practical experience working in low-income areas. They were designed to ascertain the perceptions and opinions of residents, and to provide a local perspective on how these collaborative arrangements operate.

While the local government and the same private utility collaborated in all four settlements, the civil society organisations varied. In all four cases CBOs were involved, but in two an NGO took a lead role.

¹ The report uses the term collaboration rather than partnership to refer to cross-sectoral co-operative arrangements, except when referring to current phraseology. ‘Partnership’ does not seem to be the proper term for a relationship among parties who have had many overlapping but also distinct interests, and rarely collaborate as equals. Indeed, effective collaboration is likely to require recognising the sometimes conflicting goals and unequal powers of the collaborators, so that appropriate checks and balances can be agreed upon.

These collaborations provided the means for the water utility to extend household connections to informal settlements in Buenos Aires Metropolitan Area for the first time. Each party achieved its primary goal: communities received a reliable water supply, the utility expanded its system at a low cost, local government invigorated its authority, and the NGO/CBOs visibly helped to improve living conditions. From this perspective the water projects could be described as ‘win-win-win-win’.

According to residents, the collaborative arrangements enabled them to overcome the two main constraints to obtaining piped water connections: high infrastructure costs/charges and the lack of land ownership. The contribution of labour on the part of the communities and of building materials on the part of local government or the NGO helped to overcome the first constraint. The participation of local government was indispensable for convincing the utility to provide services despite unresolved land tenure issues. Community residents and leaders believe that without this type of collaboration, they would not have been able to gain access to a permanent potable water supply system.

From another perspective, however, the experiences also demonstrate the limitations of collaborative action, especially when it aims to extend the water network, but does not ensure that the service provision to low-income settlements is sustainable. Sustainable provision requires systems of maintenance, billing and payments, which were not adequately addressed by the tri-sector collaborations. This suggests the need to broaden the scope of the collaboration if it is to provide a replicable and sustainable model for service provision in low-income settlements.

This report seeks to achieve a difficult balance between recounting the views of community residents and leaders, and providing the researchers’ own interpretations. Every effort has been made to avoid misrepresenting or over-interpreting local views, but this has inevitably been a challenge, especially as regards the views of local leaders. The challenge has been compounded by the fact that some of the researchers were linked to two of the projects, as staff of the collaborating NGO – IIED-AL.

The report is organised in three chapters plus conclusions. This first chapter describes methodology, the general context of the case-studies, the parties involved and their previous relationships. The second chapter summarises the four case-studies. The third chapter focuses on the evolution of relationships, and provides an integrated analysis of the cases, an assessment of the collaborations from the perspective of the communities, and an assessment of the response by the utility from the perspective of IIED-AL.

1.1 Methodology

This research study was carried out using qualitative methods including a literature review, focus group interviews with residents, semi-structured interviews with community leaders, and a workshop for the validation of results.

The literature review centred on public-private partnerships. It was designed to help provide a framework for analysing collaborative relationships between government

agencies, private enterprises and civil society organisations, with an emphasis on purposeful collaboration in the provision of services to low-income areas. The review also provided useful information on other partnerships and collaborative initiatives in the field of water and sanitation. It is worth noting, however, that despite the expansion of studies on this subject, it was not possible to find any literature based on the perspectives of the local residents themselves.

The focus group interviews with low-income residents were designed to elicit the views of residents directly involved in the implementation of projects, or indirectly involved through the representation of their community leaders. Meetings of two focus groups were held in each of the four communities, with about 80 community residents consulted over the course of the study.

In the study-design, the two focus groups in each community were meant to be distinguished by the participants' degree of involvement in the projects. The intention was for one of the focus groups to include participants who were involved in developing the initiatives, and the other to include participants who were only involved in later stages (e.g. construction). This was based on the assumption that the opinions of those involved in the decision-making process would differ from the opinions of those who were only involved in implementation. However, very few of the residents present at the group interviews were directly involved in the early stages of the projects. (Only a few community leaders had taken part in the key meetings and decisions leading up to the projects, and most of these community leaders were being interviewed separately in any case.) As such, it was not possible to create a focus group of participants who had been involved from the start in any of the communities. As a result, while two focus group interviews were held in each community, the findings from the different groups are combined.

The focus group interviews were structured in thematic blocks according to a chronological sequence, divided in three phases: before, during and after the construction of networks. The themes discussed regarding the first phase focused on the process of building collaboration among stakeholders, and included the planning process, fundraising, liaisons and negotiations with a range of actors such as government officials, water company employees, and contractors. The construction of the network was approached through questions about the organisation of labour and the roles and responsibilities taken on by each party. The debates about the third phase, the 'in service' period, focused on the quality of the service, operation and maintenance, billing and payments.

The interviews undertaken at the two settlements where the IIED-AL had been involved in the water projects were conducted by an external researcher, in order to avoid biases in the inquiry and responses. However, because of the time span between planning and implementation of the projects, the participation of researchers who had taken part in those projects was an essential primary source for this study. In fact, it was even necessary to prepare unbiased fact sheets in order to remind some groups of the history lived by the communities, especially in the first phase, as a way of stimulating residents to voice their perceptions and opinions about these processes.

The interviews with community leaders were structured in the same way as the focus group interviews, on the basis of a thematic and chronological sequence. In this case, the leaders' perceptions and opinions about the relationship, conflicts and collaborations with government, private company, and their own communities were emphasised.

Being a qualitative study, all interviews were based on open, semi-structured questions intended to induce discussion and encourage debate. The role and attitude of the researchers in charge of interviews was to guide discussions on a number of subjects, without influencing people's memory and visions. What was important for this study was people's recollections, perceptions, and judgements on certain facts, rather than their accurate reconstruction of the facts themselves.

In the final stage of the study, a workshop was held in order to inform communities about the results of the research, and to validate them. Following the same structure used for the study, the researchers' interpretations were presented back to residents and community leaders (who by and large corroborated the findings). Managers from the water company and local government officials attended the second part of the workshop, when results were presented and models for intervention in low-income settlements were discussed.

The interviews and meetings were recorded and transcribed verbatim. This time-consuming activity was justified in order to minimise the extent to which the researchers' own views influenced their interpretation of the perspectives of the participants. Quotations were not included in the final presentation of findings, in part because many of them would have lost their original meanings in the translation to English. However, every effort has been made to ensure that the presentation is consistent with the original material.

1.2 The General Context

Argentina's political history has been plagued by military coups, with military dictatorships alternating with weak elected governments. Between 1930 and 1989 only two governments completed their terms. Constant political change has meant that policies have been erratic even within the span of a single government. This lack of democratic continuity has prevented the development of strong civic institutions, and strained relationships between civil society, the private sector, and the government.

Argentina's largest concentrations of poverty are within Buenos Aires Metropolitan Area, which consists of a central core (the City or Federal District) and 31 surrounding districts of the Province of Buenos Aires. According to the 1991 census, the Buenos Aires Metropolitan Area had a population of 10.9 million inhabitants at that time. About 29% or 3.3 million lived in households with incomes below the poverty line.² By way of contrast, only 5% of the 3.0 million people in the City of Buenos Aires lived below the poverty line.

² *La Pobreza en el Area Metropolitana de Buenos Aires. Una visión de sus características y su evolución.* Instituto Internacional de Medio Ambiente y Desarrollo, IIED – América Latina. Fundación MAPFRE América. Diciembre de 1994.

Buenos Aires is situated beside the Rio de la Plata and has an easily tapped, ample supply of relatively clean raw water. Despite this, in the years preceding its replacement in 1993, the state owned water utility (Obras Sanitarias de la Nación) provided limited and poor quality services. The dominant share of the utility's budget, funded by transfers from the national treasury, was being spent on operating costs.

With very low levels of investment, the utility was unable to expand connections to poorer areas on the periphery of the city. The existing network was also deteriorating due to poor maintenance. Low pressure, turbidity and bacterial contamination were common. Losses were estimated at 45% of the total volume supplied. The utility was widely regarded as unresponsive to customer complaints with a backlog of breakages awaiting repair. In short, potable water had become artificially scarce due to inappropriate policies and mismanagement.

The shortfall of water and sanitation services was concentrated almost exclusively in the poorer, suburban areas outside of the Federal District, where only 55% of the 5.9 million inhabitants in the concession area had water connections and 35% sewerage connections. By contrast almost all the 3 million people in the city centre were connected to both systems. Most of the population without connections relied on well water. The groundwater was contaminated with industrial wastes and raw sewage seeping from the cesspools of unsewered households. The latter almost certainly contributed to the high prevalence of water-borne disease in unconnected areas.

Water and sanitation provision was also a fiscal drain on the government. Revenues had shrunk, partly because the tariff was declining in real terms (until shortly before the privatisation). The state owned utility did not even cover operating costs for three of the five years leading up to privatisation.

Simultaneously, the political and economic climate was changing. In 1989, Argentina had a rapidly deteriorating economy and spiralling hyperinflation. The newly elected government was able to take advantage of a consensus on the need for reform and to introduce wide ranging economic measures, including the decentralisation of the state and the privatisation of inefficient public utilities, including the water industry. In December 1992, a 30-year concession contract for water and sanitation provision in most of the Buenos Aires Metropolitan Area was awarded to a private sector consortium who assumed responsibility for operations in May 1993. It remains the largest concession in the world held by a single operator.

1.3 The Parties

This study focuses on collaborative initiatives to provide water supply and sewerage services to four informal settlements in the western side of San Fernando district, in the periphery of the Buenos Aires Metropolitan Area. The collaborators included Aguas Argentinas (the private utility), local government, CBOs, an NGO (for two of the settlements) and, in practice, a number of the local residents. The communities are

described briefly in the next section. This is followed by descriptions of the three collaborators from outside the communities.

The settlements and their communities

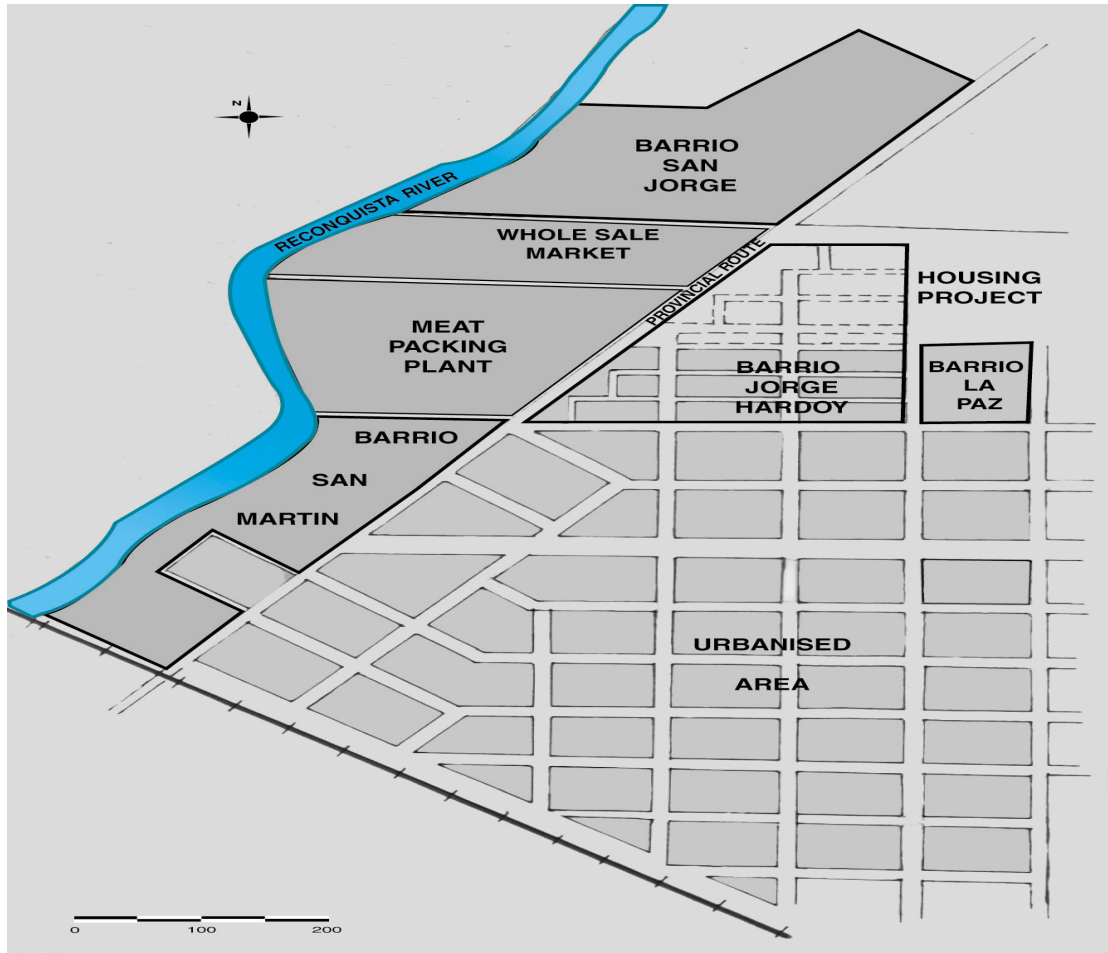
The four low-income settlements chosen for this study, Barrio San Jorge, Barrio La Paz, Barrio San Martín and Barrio Jorge Hardoy, are located on the outskirts of an urbanised area (See Figure 1, Map of Case Study Area). Distances of only about 300 meters separate the barrios, and they have many features in common. Nevertheless, some of their characteristics differ substantially, with implications for the collaborative arrangements that were adopted to supply water and sanitation. Their main features are summarised in Table 1.

Table 1. Main features of the settlements

	Barrio San Jorge	Barrio La Paz	Barrio San Martin	Barrio Jorge Hardoy
Date of origin	1962 1978 (new section)	1990	1990	1996
Settlement	Gradual spontaneous settlement Relocation (new area)	Gradual spontaneous settlement	Gradual spontaneous settlement	Planned
Population	1750 inhabitants	700 inhabitants	1400 inhabitants	600 inhabitants (+ 700 expected)
Area	7 hectares	1 hectare	7 hectares	7 hectares
Land tenure status	Provincial land	Municipal land	In dispute between private owner and municipality	Awarded to CBO by municipality, but legal procedures unfinished
Layout	Mostly regular plots, with alleyways in the old section and streets in the new one	More irregular plots, surrounded by streets, and with alleyways inside.	Mostly regular plots, with streets and alleyways.	Regular plots and streets; materials subject to planning restrictions
Facilities	Crèche, kindergarten, school, health care centre, church, community centre	Chapel	Chapel	Share facilities with San Jorge
Community organisation at the time of water project	Weak Co-op	Neighbourhood committee run by acknowledged leader	Neighbourhood committee run by acknowledged leaders (a couple)	Settlers must be members of the Co-op of San Jorge

All four communities settled on public land or disputed land subject to lawsuit between the private owner and local government, so none of their inhabitants had land titles. These land issues remain by and large unresolved.

Figure 1: Map of Case Study Barrios



When the water and sanitation projects were being initiated, the poverty of these communities was evident in the residents' incomes and in the quality of their built environment. Average household income has been roughly US\$400 a month in recent years (IIED-AL estimate), and has not changed substantially in real terms since the projects began. Given the increasing unemployment in the 1990s, most households did not have stable incomes and depended on earnings in cash and in kind from outside the formal sector.

The housing conditions in the settlements were particularly poor, reflecting not only the low-incomes but also the lack of land tenure. Without housing security, the inhabitants could not be sure they would not be evicted, and had little incentive to invest in improving their homes.

The environmental conditions around the settlements were also very precarious. The settlements were located in an area with vacant land, garbage dumps, and contaminated soil, and in the vicinity of polluting factories, such as a meat-packing plant and a chemical

plant. The Reconquista River, which marks the northern boundary of Barrio San Jorge and Barrio San Martín, was polluted by untreated industrial and household wastes. The settlements had neither sewers, drains nor pavements. Garbage was only collected intermittently. The smell from the factories around, the stagnant dirty waters, the rubbish, and the constant presence of insects and rodents were sources of discomfort, disease and injury.

Despite these unfavourable conditions, the settlements had a few advantages. The risk of eviction was low, given the poor quality of the sites and the reluctance of democratic governments to expel communities settled on public land. Public transport was available, with good connections to other districts in the metropolitan area. In addition, the presence of a well-served area nearby made it easier for residents to avail themselves of services not formally provided to their own settlements.

The origins of Barrio San Jorge, Barrio La Paz, and Barrio San Martín were similar. They were settled gradually and spontaneously by households who had problems where they lived, such as unaffordable rents or difficulties living with relatives in small houses. Most of these households had originally migrated from diverse poor rural areas in the north of Argentina, expecting to improve their living conditions. Their different origins and expectations (as regards to the length of time they planned to stay in the settlements) challenged the cohesion of the communities.

In all the three settlements there were residents, informally recognised by local politicians, with the authority to approve or reject incoming households and allocate plots. This role was played by a priest in Barrio San Jorge and by some of the first settlers in Barrio La Paz and Barrio San Martín. They would play decisive roles in further community initiatives.

Existing community based organisations stem from groups of neighbours involved in initiatives for settlement improvement. Their leaders were approached by local politicians and asked to legally formalise their organisations in order to manage governmental programmes. The three organisations turned their efforts to land regularisation at about the same time. None received land titles, however, and although 7 hectares adjoining Barrio San Jorge was earmarked to become Barrio Jorge Hardoy (housing people relocated from land in San Jorge where a street was planned) even this process was never finalised.

The local government of San Fernando

The local government of San Fernando is responsible for implementing the policies of the provincial and national governments, as well as its own. Since the return to democratic rule, San Fernando has had two different management models under the same political regime. From 1983 to 1994 the Municipality of San Fernando was led by a charismatic mayor, who was re-elected twice, and remained in office for almost three terms. Under his rule, the municipal staff consisted principally of politicians and politically appointed civil servants, with few technically-skilled staff. The style of governance was strongly clientelist, with 'favours' and financial or programme support granted in return for political and personal allegiance.

In 1994 the mayor and his cabinet were forced to resign, under suspicion of corruption. An interim mayor was appointed. The interim mayor – previously the head of the San Fernando legislative body – had close contacts with a local politician and senator from the Province of Buenos Aires at that time. This senator ran in and won the mayoral elections in May 1995, and took office in December 1995.

As a result of the decentralisation of national policies, initiated in 1989 by the newly elected central government, responsibilities had started to shift from national government to provincial and local governments, giving municipalities more scope for developing their own policies. The new municipal government took advantage of this context, and adopted a model that combined assistance-based policies with development-oriented ones. After restructuring its administration and putting its financial situation in order, the municipal government has recently attempted to create opportunities for community participation. Alongside these initiatives, traditional-style policies have also been implemented, such as healthcare and food assistance (throughout the 1990s most programmes and projects in low-income settlements were built around food assistance).

The International Institute for Environment and Development - América Latina

The International Institute for Environment and Development (IIED) -América Latina was established in Argentina in 1979 as the regional office of the London-based International Institute for Environment and Development. In 1988, it became an independent, non-profit institution. The two institutions continue to collaborate, however, and have a joint Human Settlements Programme with staff in London and in Buenos Aires.

The mission of IIED-América Latina is to contribute to the development of societies that are more just, participatory, democratic and ecologically sustainable. To achieve this, it has established a line of work based on the implementation, promotion and dissemination of projects of research, direct action, technical assistance and capacity building on the themes of environment, socio-economic development and urbanisation. In particular, the institution's work programme focuses on improving living conditions and increasing the decision-making powers of the poorest and most vulnerable groups in Latin America and the Caribbean- and seeking to influence the economic, social and environmental policies of the countries in the region.

IIED-AL's experience in San Fernando dates from 1987, when it started to support community projects in Barrio San Jorge, which later would become the Integrated Improvement Programme for Barrio San Jorge and Barrio Jorge Hardoy.

This programme consisted of supporting community initiatives on several different fronts, including housing improvements, access roads, land regularisation, provision for water and sanitation and for child health and development. It also involved efforts to engage and coordinate the participation of a range of national and international actors from public, private and civic sectors. Most of the work in low-income settlements has been orientated towards

improving living conditions and developing representative community organisations³. In recent years, IIED-AL's work has spread into other low-income settlements in the area and other districts.

Aguas Argentinas⁴

In December 1992, a 30-year concession contract was awarded to a private company to operate the water and sewerage services in most of the Buenos Aires Metropolitan Area. The concession was awarded to the consortium that offered the largest tariff reduction. The winner was Aguas Argentinas, a consortium led by Lyonnaise des Eaux-Dumez, which took over in May 1993. The concession's service area coincided approximately with the area run by Obras Sanitarias de la Nación, comprising originally the city of Buenos Aires and thirteen districts which surrounded the city (see map in Figure 2 below).⁵ Preference was given to a concession format (over a management or lease contract) because national government wanted the private investor to take responsibility for the large-scale investments needed to expand the system.

The original contract obligations specified an expansion of water supply from 70% coverage at the start to 100% at the end of the concession, and for the sewerage system from 58% coverage to 85%. Since as noted above most unconnected households lived in low-income areas, this agreement at least superficially seemed to favour the poor. Many assumed that the contract ensured that Aguas Argentinas would overcome the obstacles to providing low-income residents with water and, to a large extent, sanitation.

In practice, however, the agreement left two of the most critical obstacles to providing services to low-income areas unresolved: insecure land tenure and difficulties in financing connections.

First, the contract did not oblige the utility to provide services in areas where land ownership was not regularised. This excluded a large share of existing low-income settlements, where land tenure is highly contentious. It implicitly encouraged Aguas Argentinas to prioritise expansion in more affluent areas, which were more economically attractive in any case.

Second, under the terms of the original contract, expansion was to be financed through an "infrastructure charge" on new consumers costing around US\$600 for water and US\$1000 for sewerage. Under Argentinian law, dwellers must pay for a network laid in front of their premises, whether they use the service or not. This meant that the operator could install networks without dwellers' consent, and without ascertaining their willingness to pay for

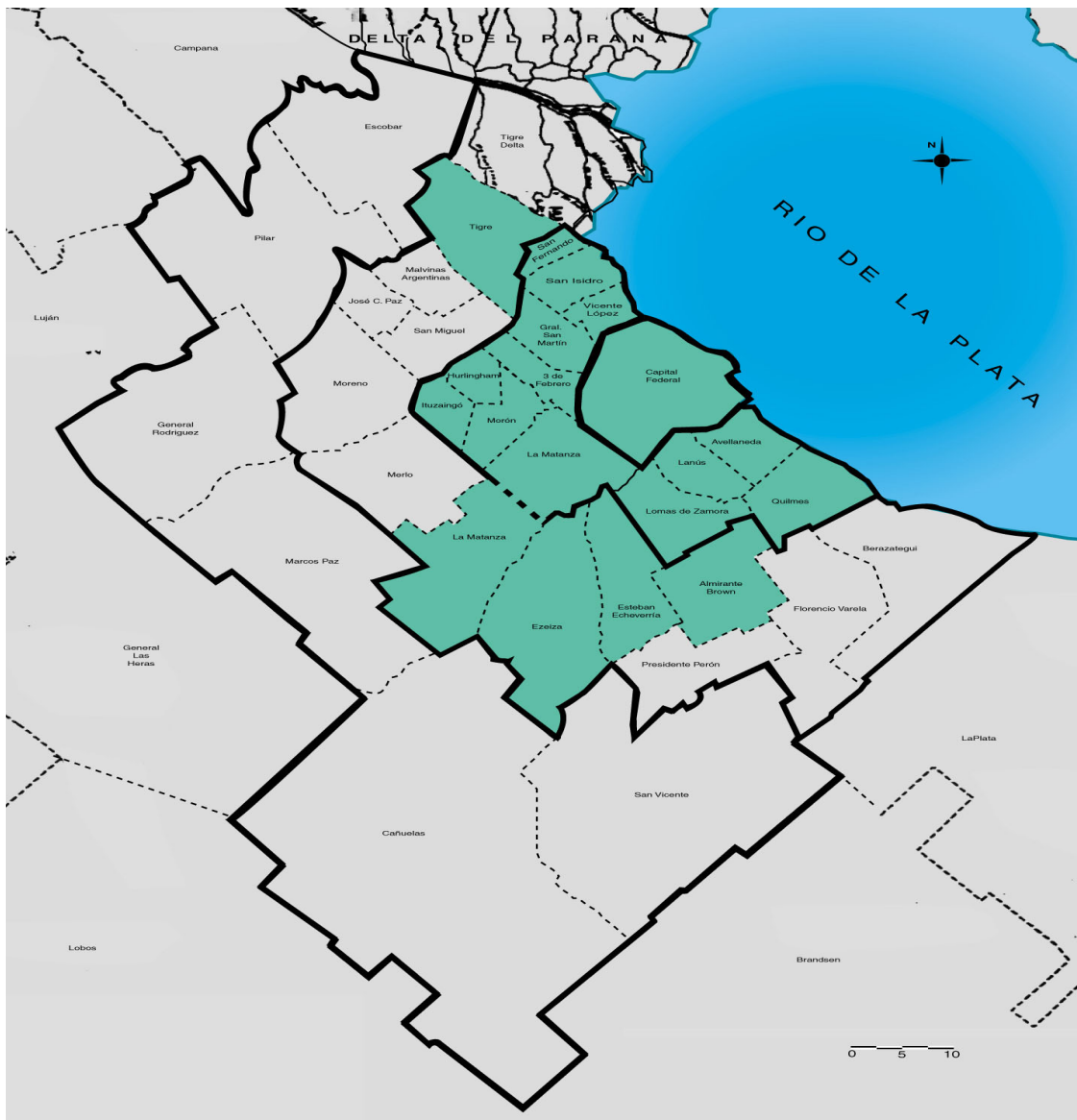
³ For further details see: Schusterman, R. & A. Hardoy; (1996). *Reconstructing social capital in a poor urban settlement: the integrated improvement programme, Barrio San Jorge*, IIED América Latina, IIED Paper Series on Poverty Reduction in Urban Areas, IIED, London.

⁴ This section draws heavily on Brocklehurst, C.; (2000). *The Private Sector Serving the Poor. The Buenos Aires Concession*; mimeo.

⁵ Another district was incorporated into the concession in 1995 and two were subdivided, resulting in a concession area which comprises the city of Buenos Aires and seventeen districts located in the Province of Buenos Aires. The vast majority of the Buenos Aires Metropolitan Area's population is concentrated in the concession area.

services. Such charges were simply not affordable to a large share of low-income residents, and an increasing number of people refused to pay them, often on the grounds they were not even using the services. By the end of 1996 arrears had reached US\$30 million, forcing the concessionaire to suspend service expansion to poor areas and leading to a renegotiation of the contract.

Figure 2: Map of Buenos Aires Concession (Shaded)



The renegotiation, agreed in August 1997, replaced the infrastructure charge for new users with a bimonthly Universal Service and Environmental Improvement fee (SUMA) payable by all consumers, irrespective of the date of the connection. Part of the charge was to replace the revenue loss of the concessionaire and part was to fund environmental improvements that were not included in the original contract. Connection charges were

reduced to US\$ 133 for water or sanitation, repayable over 5 years in instalments averaging US\$ 4.42 every two months.

Regarding its organisational structure, Aguas Argentinas had no specific unit to deal with service provision to low-income settlements until 1997. Previously there was an expressed commitment from the Aguas Argentinas' board of directors to deal with the question, but this commitment was not translated into clear directives to regional and district directors, who in response to requests for maximising profits usually prioritised work with wealthier clients. Especially during the early years Aguas Argentinas was attempting to re-orient staff, most of whom had previously worked for the public utility, towards profit-maximising goals and behaviours. Already having trouble with this adjustment, many of the staff found it difficult to know how they were expected to respond to seemingly contradictory social goals and responsibilities.

1.4 Relations between the Parties

Prior to the collaboration, the parties had relationships that formed the background for the joint work they were to carry out.

Relations between low-income communities and other parties

Low-income communities and local government

The settlements were located on disputed land, the inhabitants did not pay taxes, and their relations to local government were not guided by the normal rules and procedures designed to establish citizens' rights and obligations.

The residents did, however, relate personally with local politicians and civil servants in order to pursue their basic needs. Local politicians, in turn, developed contacts in low-income communities in order to gain their support at elections. As such, their relationships often consisted in exchanges of personal favours.

Politicians have tended to relate with low-income communities through their leaders. Community leaders have typically been residents with locally recognised positions of authority in community affairs. When community organisations are formalised, these positions are legitimised by elections. Politicians sometimes approach local leaders in order to gain political support, and in return help the local leaders get appointed to a post in the municipal government. They might then continue to work in their communities, but on a paid basis. This double affiliation – as community leaders and political operators – can pose difficulties when the interests of the community and those of the politicians or the local government do not coincide.

The residents of the low-income communities generally mistrust politicians. A long history of rhetorical speeches and unfulfilled promises has created considerable scepticism. Also, local authorities have been reluctant to enter into formal agreements with explicit conditions and timeframes. Indeed, local authorities have not had the legal framework and financial autonomy to engage directly in dialogue with low-income communities and design development initiatives. Recent policies of decentralisation have improved this to

some degree, but by and large the mistrust still extends to most politicians and government representatives.

Low-income communities and IIED-AL

By and large, the relationship between low-income communities and IIED-AL is limited to Barrio San Jorge and more recently Barrio Jorge Hardoy (named after IIED-AL's previous director). In the mid 1980s, Cáritas, a Catholic charity, approached IIED-AL's leader to help in the construction of a community building. This engagement provided the basis for a relationship that persists to this day. Since 1987, a team of four people from IIED-AL has worked with the community continuously on a range of development projects.

NGOs generally try to respond to initiatives proposed by community organisations. In this case, given the lack of active local organisations, IIED-AL has played a lead role in community organisation, fundraising, and project planning and implementation. Hence, IIED-AL appears to Barrio San Jorge's residents as another provider – very different from politicians and the church, but a provider all the same.

The continuity of IIED-AL's work in Barrio San Jorge also distinguishes it from many NGO engagements. Residents have appreciated IIED-AL's long term commitment, even though not all of the initiatives have been successful. Over such an extended period, an NGO can contribute decisively to the improvement of the settlement and gain a reservoir of trust. The work undertaken in Barrio San Jorge spread on to other settlements in the area, including Barrio La Paz, Barrio San Martín, and Barrio Jorge Hardoy.

Low-income communities and water companies

For many years and through a succession of governments, the state owned water utility, Obras Sanitarias de la Nación, did not provide services in informal settlements where residents (or their landlords) did not have land rights. They claimed that if a state owned company were to provide services this would be de facto recognition of property rights for tenants over the land they were settled on. Given the costs involved, they also had a financial incentive to avoid extending the water and sanitation infrastructure.

However, when democracy returned to Argentina, Obras Sanitarias de la Nación supported a programme to provide piped water to public taps to low-income areas, with the costs to be borne by local government. In most settlements, the neighbours located close to the taps connected their houses to the piped system. There was little maintenance, and some systems soon broke down, while some others are still operational.

When Aguas Argentinas began to operate water and sanitation systems in Buenos Aires, requests from low-income settlements to the private utility's district offices continued to be routinely ignored on the basis of land use irregularities. Also, while top managers within the utility expressed the desire to work with low-income communities, the regional and district managers were inevitably more concerned with solving day-to-day problems and achieving positive turnovers, as requested by their directors.

When relationships between low-income residents and water companies (public and private) did develop, these were usually mediated not only by community leaders, but also by local government officials and NGOs, who facilitated contacts and negotiations.

Relations between Other Actors

Local government and Aguas Argentinas

Aguas Argentinas took over from a national company, and the contract was negotiated and agreed upon by the national government and the private utility. The involvement of other levels of government was only acknowledged through the representation of the provincial and city governments of Buenos Aires on the board of directors of the regulatory agency. Thus, local governments were not explicitly acknowledged parties in the relationship between the state and Aguas Argentinas until the renegotiations for the second five years period (1999–2003). At this point, the local governments organised as a forum and decisively influenced the goals for future expansion (PMES).⁶

In practice, local governments already influenced Aguas Argentinas' actions, by prioritising areas for expansion, suggesting contractors, levying local taxes, providing permits and the like. In San Fernando the local authorities were in a privileged position, because the utility wished to locate a metropolitan sewage treatment plant in the district, and required permission from the local government. The local government requested that in return the expansion of water and sanitation services in the district should proceed faster than originally planned. It was not clear, however, whether low-income settlements were included in these negotiations.

Local government and IIED-AL

The relationship between IIED-AL and the local government goes back to the end of the 1980s, when IIED-AL started to work in Barrio San Jorge. In 1990, an agreement of collaboration was signed by the local government, the provincial government, IIED-AL and the community to implement an Integrated Plan of Improvement for Barrio San Jorge. Up to 1995 (when the local authorities changed hands) the local government expressed interest in supporting the work, but their support was largely restricted to verbal backing and some key endorsements of requests for funds from international donors. Little real collaboration took place.

The relationship also involved considerable mistrust. Local government officials were wary of an independent organisation over which could not exert control: collaborating with civil society organisations did not really conform with their idea of how government affairs should be conducted. Similarly, NGO staff were wary lest their independence be compromised, and they were more inclined to see the government as part of the problem than part of the solution. The local government let IIED-AL operate locally in the hope that their work would increase social stability. Moreover, IIED-AL worked in the largest low-income settlement in the district, located in the western extreme – ‘on the margins of

⁶ The PMES (Improvement and expansion of the service plan) was approved in January 2001, following long discussions with the local government, and a public audience where consumers associations as well as the Municipalities Forum participated. By this time, two of the five years covered by the plan had already elapsed.

marginality’, as described by a local politician – where local government preferred not to become engaged. Close collaboration was not a realistic aspiration.

The relationship improved when the new local government took over. The collaboration came to have an economic dimension. Public resources were transferred to settlements where IIED-AL has been involved. Partnership may still be too strong a term, but the relationship began to take on a different form, opening the possibility for more active collaboration on the water and sanitation provision.

IIED-AL and water companies

Prior to the collaborative water and sanitation initiatives described in this report, the relationship between IIED-AL and the water companies (both public and private) was limited by the fact that the utilities would not provide services to Barrio San Jorge as long as the land issues remained unresolved. After starting to collaborate with Aguas Argentinas in Barrio San Jorge, however, IIED-AL also did some work for Aguas Argentinas, conducting research into housing characteristics and service demand in low-income areas, building the capacity for regional and district managers to work in low-income settlements, and assisting in environmental impact assessments.

2.

Case Studies

2.1 Water Supply and Sanitation before Private Sector Participation

Most areas of Buenos Aires that are not served by the utility rely on wells to obtain water, and on cess-pools (soakaways) and septic tanks to dispose of effluents. That was not the case in the west of San Fernando, however, where groundwater is saline and not acceptable for drinking. Many households had cess-pools and septic tanks, but since the water-table was very high these systems did not work properly, and the effluents quickly found their way into the groundwater.

As shown in Table 2, individuals and groups within the communities have engaged in numerous initiatives to gain better access to potable water and, more recently, improved sanitation. The early initiatives involved a range actors from civil society (residents, CBOs, NGOs, and the church), the public sector (national and local governments, public water utility, and the army), and the private sector (a meat-packing plant). Most of the larger initiatives were based on collaborative action or some form of partnership among those actors.

These initiatives achieved different results in terms of the quality of water (fresh/salt, potable/non-potable), the quantity obtained, and the type of service (e.g. public tap, household connections, tanks). Prior to the Aguas Argentinas connections, however, they almost all had a number of features in common. First, they tended to be either local attempts to cope or externally driven initiatives involving little or no public participation in their planning and implementation. Second, few provisions were made for operation and maintenance, even when they were clearly needed. Third, the resulting services were below the socially accepted norms for Buenos Aires.

Before piped water services were introduced, all of the settlements relied predominantly on fetching water (especially from the nearby meat-packing plant in the 1990s) and water deliveries from a municipal truck. Looking back, the residents had many complaints about these water sources.

Women and children reportedly spent a great deal of time (some four hours daily) fetching water, and often suffered back pains and injuries as a result. Two women described falling as they tried to carry water along on the muddy roads while pregnant.

The municipal truck delivered water up to three times per week, depending on the repair of the truck and the state of the roads. The service was reportedly irregular. In one case, the politician in charge of the truck arranged for it not to deliver water to a community that failed to support him. The truck driver prioritised customers who bribed him. The overall amount of water delivered was insufficient. As a result, obtaining water from the truck

became the source of frequent disputes among neighbours. In addition, households had to ensure that someone was in the settlement at the time the truck arrived to secure deliveries.

As described in the following sections, this all changed with the water projects undertaken in collaboration with Aguas Argentinas.

2.2 Barrio San Jorge and Barrio Jorge Hardoy

The communities of Barrio San Jorge and Barrio Jorge Hardoy are intimately related to each other. Indeed, Barrio Jorge Hardoy occupies land adjoining Barrio San Jorge, awarded through a project for the settlement of displaced residents. All current residents of Barrio Jorge Hardoy come from Barrio San Jorge, and the water and sanitation initiatives in both settlements were managed by the same community based organisation and the same NGO.

There were also critical differences between the two settlements, however, and these differences came to be reflected in their experiences with water and sanitation provision. Barrio Jorge Hardoy was a planned settlement, while Barrio San Jorge was not. At the start of the collaboration on water and sanitation, Barrio San Jorge was a long established settlement, whereas Barrio Jorge Hardoy was mostly unsettled. Both physically and institutionally, the challenges were very different.

Barrio San Jorge was the first informal settlement serviced by Aguas Argentinas. At the time, the level of interaction between civil society organisations, local government and the private utility was low. By the time local government had been approached and the utility persuaded to connect the settlement to the water system, the construction of the local water and sanitation network was complete. Hence, the tripartite collaboration principally involved connecting this local network to the utility's system.

Barrio San Jorge has been a precedent for many collaborations for extending water supplies to low-income settlements in the Buenos Aires concession, including Barrio Jorge Hardoy. In these more recent partnerships, the parties have interacted more intensely than in Barrio San Jorge, with all parties involved from the start. A distinctive feature of Barrio Jorge Hardoy case was that residents had to pay a fee relating to the construction of the water and sanitation network as a condition to obtain the plots. This implied to future residents that they were being awarded a site that would be serviced by the utility.

Barrio San Jorge

A process of overcoming mistrust and rekindling hopes

In Barrio San Jorge, most of the initiative to improve water supply and provide sewerage was undertaken by IIED-AL, the local Co-op, and residents. A heavy legacy of mistrust and passivity, fed by 35 years of autocratic leadership, unfulfilled promises, and disappointments, posed a serious challenge for any attempt to engage the community in a collective effort to improve service provision. The process of overcoming mistrust and rekindling hopes, with an external organisation (IIED-AL) playing a central role, has been an important aspect of this collaboration

TABLE 2 . Initiatives for accessing water (actors involved)

Barrio San Jorge	Barrio La Paz	Barrio San Martin	Barrio Jorge Hardoy
<p>Fetching water, 1960–1995 (mainly women and children)</p> <p>Reservoir, 1965–1967 (local government)</p> <p>Public tank and tap, 1975–1995 (local priest and the army)</p> <p>Public taps fed from nearby factory, 1987–1989 (state water utility, NGO, residents, and private meat packing plant)</p> <p>Public tap, 1990–1995 (via municipal sports ground)</p> <p>Water truck, 1992–1995 (local government)</p> <p>Public tank and tap fed from municipal sports ground, 1992–1993 (community organisation and NGO)</p> <p>Household sewerage and water connections – pilot project involving fresh water from meat-packing plant and salt water from ground, 1993 (23 families, Co-op, IIED-AL and meat packing plant)</p> <p>Unfinished connections 1994 (local and national governments)</p> <p>325 household water connections,*</p> <p>1995–present (Coop and IIED-AL, local government and Aguas Argentinas).</p>	<p>Fetching water, 1990–1996 (mainly women and children)</p> <p>Water truck, 1992–1996 (local government)</p> <p>Household water connections,*</p> <p>1996–present (community, Aguas Argentinas and local government)</p>	<p>Fetching water 1990–1995 (mainly women and children)</p> <p>Public taps fed from nearby factory, 1990–1993 (private meat packing plant and local residents)</p> <p>Municipal water truck, 1992–1995 (local government)</p> <p>Public taps fed from Aguas Argentinas, 1995–1997 (community organisation and local government)</p> <p>Household water connections,*</p> <p>1997–present (Community, Aguas Argentinas and local government)</p>	<p>Temporary household connections to pioneers, 1996–1999 (community organisation, NGO, local government, Aguas Argentinas)</p> <p>Fetching water, 1996–1999 (mainly women and children)</p> <p>Illegal extensions to households, 1997–1999 (individual households)</p> <p>Household water and sewerage connections, 1998–present (Coop, Aguas Argentinas, local government, national government, and IIED-AL)**</p>

* Sewerage was not incorporated in the utility's system because it is not a conventional system.

** As of May 2001, this extension has not been formalised, although water is being provided.

The residents and leaders who took part in focus groups and interviews claimed that Barrio San Jorge gained access to water and sewerage mainly thanks to IIED-AL and its leader. IIED-AL was identified as the broker of the community initiatives, and later on the broker and co-ordinator of the collaboration.

Contrary to conventional wisdom, by which NGOs should lend support to community-driven initiatives, IIED-AL was seen to be taking the lead in Barrio San Jorge, accompanied by the community organisation. One explanation given for why residents placed their trust in a politically independent and external organisation was their lack of confidence in either local government or their own community. It should also be kept in mind that by the time of the water and sanitation initiative, IIED-AL had been working in the community for four years and had been engaged in several development projects.

The beginning of the project

Over the previous three decades, Barrio San Jorge had experienced at least ten different initiatives to gain access to water (see Table 2). No initiative had ensured a reliable provision of water, in terms of quality, quantity, and frequency of service. The lack of adequate water had become a chronic problem that residents had learned to live with. Expectations, initiatives, and demands for improvement were oriented towards partial short term ‘solutions’.

While there was a general consensus that water supplies needed to be improved, residents said that there was less agreement on the need for sewerage. Most residents used cesspits, some used latrines, and some others just let the effluent pour into the streets. The perceived need for sewerage was related to the frequency with which cesspits overflowed, which varied depending on the groundwater levels in the different parts of the settlement. Some residents had to empty their cesspits every fortnight, while others had not emptied them for years. In the opinion of one of the women first connected to the sewerage network, many neighbours did not perceive the need for sewerage because they did not appreciate the fact that there would be so much more liquid to dispose of once they had water connections.

Efforts to provide piped household water and sanitation date back to 1992, when the IIED-AL and the Co-op decided to invest a small fund in the construction of a double water line and a sewerage line for 25 households⁷. This provided a pilot test for both the technological and organisational aspects of introducing piped systems, and set the basis for extending networks to the rest of the settlement.

In response to the local physical and economic conditions, non-conventional technologies were applied. Given the lack of any reliable source of potable water locally, the decision was taken to construct two water lines, one fed with the scarce fresh water provided by a nearby meat-packing plant, and the other drawing on unlimited but saline groundwater. A shallow sewerage system was selected, because of the short height differential between the levels of Barrio San Jorge’s ground and the

⁷ The initiative was part of the project ‘Habitat and health in Latin America’, funded by the International Development Research Centre. The project was approved soon after the start of a new cholera epidemic in Latin America.

river's peak (effluents were to be drained into the river) as well as the high groundwater levels.⁸

According to a man who had participated in the pilot test, IIED-AL and the 23 households (2 had rejected the proposal) agreed on a division of responsibilities. IIED-AL would provide the technical assistance and building materials, and plan and direct the construction,. The households would provide free labour, pay \$50 per household to cover the hire of skilled labour, maintain the system, and use fresh water only for drinking and cooking.

The project provided a number of lessons. The new technologies worked adequately. However, the way the construction was organised, with each household responsible for digging the trench in front of their own plot, made it difficult to co-ordinate the installation of pipes. In addition, it was hard to find volunteers to work on common sections, such as the crossroads. As it rained on many Saturdays, the only day of the week set aside for work, the project took more than six months to complete.

The use of salt water became a controversial issue. Many of the Barrio San Jorge residents had been using salty groundwater for two decades for domestic and personal hygiene, but viewed it as far inferior to the standard piped water, and unsuitable for cooking and drinking. However, an interviewed woman commented that many neighbours who had not benefited from the pilot test started to fetch and use salt water from her connection, thereby reducing their own workload fetching fresh water from the meat packing plant.

The extension of the project

In 1993, IIED-AL contacted Misereor (a German funding agency associated with the Catholic Church) in order to obtain funds for an environmental improvement project in Barrio San Jorge.⁹ Members of the Co-op can still recall discussing the various alternatives suggested by the funding agency, and the joint decision of the Co-op and IIED-AL to request support for extending the water and sanitation systems to the rest of the settlement. On the basis of the pilot test, IIED-AL negotiated with Misereor and obtained a fund to extend services to most of Barrio San Jorge. In the framework of the agreement to implement an Integrated Plan of Improvement for Barrio San Jorge signed in 1990, the local government endorsed the proposal and backed the negotiations.

The interviewed leaders clearly recalled that the funds were awarded, and that they were insufficient to extend services to the remaining 425 households. They were not very clear, however, on the nature of funding agencies involved in Barrio San Jorge, and their relations to specific projects.

⁸ The system was based on the separation of solids, which were retained in septic tanks at each plot, and the effluent, which drained through sewers. Given the lack of solids, pipes diameters and gradients could be reduced which, together with the savings on trench construction, greatly reduced the investment costs.

⁹ The approach to Misereor and other donors resulted from a planning process carried out by community representatives, IIED-AL staff, and members of local and provincial government. The process was facilitated by staff from the German development assistance agency – GTZ – and the ZOPP methodology was applied.

There were also some recollections of events that almost derailed the project right at the start. In mid-1994, when IIED-AL was making the final preparations for implementation, a private building contractor appeared in Barrio San Jorge and started to build a water network, a cistern, and a tank. As one woman described it, one day a bulldozer suddenly appeared and installed some pipes. Neither the residents, nor the Co-op, nor IIED-AL had been advised of this project. Yet this construction was promoted by national government, supported by local government, and was part of a programme that was meant to carry out similar work in 115 settlements. Taking this as evidence that there were no real possibilities for co-operation with the local government, IIED-AL formally withdrew from the agreement of co-operation signed in 1990. Four months later, it became evident that the contractor's water network would remain unfinished.¹⁰

At this time two events occurred that were to have a great influence on the project. The first was that the mayor and his cabinet had to resign as a result of allegations of corruption, and an interim mayor assumed power and gave support to the water project promoted by IIED-AL and the Co-op. The second was that Aguas Argentinas began extending the potable water network to an urbanised area some 400 meters from Barrio San Jorge. As a result of this, and with the support of the interim mayor, IIED-AL exerted increasing pressure on the utility to extend its system to Barrio San Jorge.

Expanding the network

Although there was no response from Aguas Argentinas, the construction of the network was launched. Since the funds were insufficient to lay the network throughout the settlement, IIED-AL and the Co-op decided to exclude some 80 households located on the privately owned land portion, which had less possibility of being transferred legally to the tenants. These households were to be relocated to a nearby empty plot, donated in 1992 by local government to the Co-op of Barrio San Jorge (to become Barrio Jorge Hardoy). In order to secure funds to assure water and sanitation services for all residents (actual ones in Barrio San Jorge and future ones in Barrio Jorge Hardoy), a payment of \$110 in cash or \$150 in instalments was requested of every household who joined the project.

Residents recounted that there were four sets of actors with distinct roles in the construction: IIED-AL provided the technical design and building materials, did the planning, and directed the construction; the Co-op acted as intermediary, disseminating information from IIED-AL to residents, and also organising delegates to collect the charges; the residents contributed their labour and paid the charges; and a contractor was responsible for building the main lines.

The organisational structure of the construction was divided between the 'common sections' (the sections that consisted of the outer ring and the central axes of the settlement), which were the contractor's responsibility, and 'the streets sections' which were the residents' responsibilities. Residents recalled that every street had chosen a delegate to lead the work, and who was responsible for: organising the work; helping

¹⁰ This was confirmed by a staff of the contractor, who stated that only 5 of the 115 projects were finished. In the other 110 projects, like Barrio San Jorge, the construction was abandoned due to a dispute between the firm and government.

with technical assistance; communicating between the residents of their street and the Co-op and IIED-AL; collecting instalments; and reporting on breakages.¹¹

After much cajoling from the Co-op and IIED-AL, one street took the lead. It took a month to get that first street building their line. Although they had seen the pilot test area in service, the hundreds of pipes stored in the settlement, and the contractor building the mains, residents were hesitant about participating in the construction. It was as if the recent interruption of the national programme led them to distrust the original proposal. According to the residents' accounts, there was another critical factor: IIED-AL and Co-op were unable to say whether people would receive fresh or salt water. If the connection to Aguas Argentinas did not come through, only salt water could be provided.

The delegates played a pivotal role in the project's implementation. According to (ex)delegates, the construction and collection of instalments depended on their perseverance. They recalled great difficulties persuading enough of their neighbours to join in, so as to reach the minimum quorum required to dig the trench.

IIED and the Co-op had stipulated that no street would be allowed to start work until 70 percent of its residents agreed to take part. This condition was imposed as a result of the experience of the pilot test, where work was disrupted when some residents did not dig their share of the trench. It was anticipated that with at least 70 percent of the residents involved, those participating could still complete the task in a timely fashion.

The delegates expressed their own motivations for persevering largely in instrumental terms. Most delegates indicated they had taken on that role in order to meet their individual needs, 'making others work in order to obtain what I want'. One went so far as to say that he had never wanted to commit himself to community initiatives, but agreed to be a delegate because he needed water. Some ex-delegates and residents, on the other hand, stressed the collective need, 'working together in order to obtain what we want'.

The participation of residents proceeded differently on each street, depending very much on the pre-existing relations between the neighbours, and the delegate's capacity for persuasion. Comments went from 'everybody worked' to 'nobody wanted to dig'. On some streets, residents decided to hire a bulldozer to make the trenches. In some cases the residents encountered difficulties due to buried remains, such as car parts, refrigerators, washing machines, and the like. Other comments from participants related to the need to make decisions about, for example, who would perform the specialised labour, or where the cross-piece for the household connections would be positioned.

¹¹ The organisation based on street's delegates had been used to form the committee that brought the Co-op into being. This organisational structure ensured the representation of all neighbourhoods. Residents' accounts confused the election of delegates to represent each street on the committee, which had taken place three years before, with the selection of delegates to work for the water project. For some streets the original elected delegates became delegates for the water project, while for other streets new delegates had to be appointed.

Some of the residents interviewed expressed appreciation for the fact that IIED-AL staff engaged in physical work, contributing to the digging of trenches and fixing pipes. As expressed by one delegate, seeing staff from the NGO working alongside residents helped them to believe in the project.

By the beginning of 1995 most of the construction was finished, but a key question remained unresolved: what would be the water source. Although IIED-AL believed it had made a convincing case to Aguas Argentinas on why the connection to the piped water system should be made, the utility did not respond the request.¹²

IIED-AL eventually decided to make a borehole and install a pump to feed the network with saline groundwater. As one woman recalled, in response to IIED-AL's plan to provide salt water to Barrio San Jorge, a group of women met the interim mayor to ask for the fresh water. She recounted that he, as a paediatrician, told them fresh water was important for a community with so many children, and that he would do his best to help. Residents also recall that during the following weeks, the Co-op, IIED-AL, local government and Aguas Argentinas held meetings in an attempt to solve the problem.

Undoubtedly the forthcoming local elections helped to create the momentum for the local government to come together with the Co-op and IIED-AL and convince the private utility to provide water to an unregularised low-income settlement for the first time. Fresh water first ran from the household taps in Barrio San Jorge two days before the elections.

In service

Once the construction was finished, Aguas Argentinas became the operator, and took over responsibility for the maintenance and repair of the water network. Sewerage remained under community management, since it was a non-conventional system, and Aguas Argentinas could not manage it according to the terms of their contract.

Residents were pleased with the quantity and quality of the piped water. This was how they judged the success of the project. It was also clear from their discussions, however, that the project meant more to them than just a means to meet their basic water needs.

They appreciated the fact that they, together with the other parties to the collaboration, had been able to make a difference to their settlement. Residents portrayed the water project as a defining moment in the settlement's development, because through its implementation people came to realise that they could work together to improve their living conditions. Prior to the project, according to one of the delegates, residents did not want to upgrade their homes for fear of being evicted. Getting piped water gave them trust in the permanence of their community, and confidence in their future. As

¹² The arguments were two: firstly, that Aguas Argentinas would gain 1750 customers at no cost to the company, since the network was already constructed; and secondly, that making the connection would enable Aguas Argentinas to incorporate two large customers (a meat-packing plant and a large wholesale fruit and vegetable market) which were on the route to Barrio San Jorge.

perceived by one woman, water access effectively transformed Barrio San Jorge's from an illegal to a legal settlement.¹³

Furthermore, residents pointed out how difficult it had been to build and maintain their homes without water, and how access to water facilitated housing improvements - especially bathrooms and kitchens. They also claimed that access to water brought changes in their attitudes and habits. They learned to expect and strive for better living conditions, and adapted their practices accordingly. For this, the residents took full responsibility, with no formal support from any of the other parties involved in the project.

Not all of the developments following on from the project were positive, however. For example, mistrust (in this case, directed at IIED-AL's leader) revived after the construction was completed. Delegates continued collecting payments to be invested in Barrio Jorge Hardoy, provoking many comments and refusals (focus group participants believed that many people paid only two out of six instalments, which was the requirement for receiving a prefabricated septic tank). From the residents' perspective, the management of the funds was unclear and suspect. Many residents were not aware that the subsidy was insufficient to extend services to all households. They could not understand why the Co-op and IIED-AL had decided to charge a fee to cover part of the costs of the project. It was assumed that as the project had received external funds, there should be no need for recovering costs from within the community. In short, the management of funds was an extremely sensitive issue for the residents, even after the project succeeded in bringing water to the community, suggesting the need for regular and understandable information.

Various issues were also raised in relation to the functioning of the service, repairs, and payments. In discussing these issues the residents revealed some dubious practices of their own, as well as some uncertainties concerning their own rights and obligations as users of the service provided by Aguas Argentinas.

It was generally felt that the new system was such an improvement that any remaining deficiencies were comparatively insignificant. Residents noted, however, that in the summer months water pressure tends to be very low during the day. They said they did not complain to Aguas Argentinas because this has been happening for the last 2–3 years and was a district-wide problem not specific to their area.

More generally, claims on the utility were perceived as a right only for those who paid for the service. Some residents believed nobody in Barrio San Jorge paid for their water, so they concluded that this explained why nobody made claims on the utility. Others remembered having requested the utility's assistance and obtaining a response through the Co-op – specifically through its current president.¹⁴

¹³ This is, of course, precisely why local authorities are often very hesitant about providing water to settlements that do not have legal rights to the land. What Barrio San Jorge clearly illustrates, however, is that water provision can be the first step in a process of regularisation, and need not await land titling.

¹⁴ The current president of the Co-op is acknowledged by Aguas Argentinas as the appropriate intermediary for questions related to Barrio San Jorge, including calls for repairs and payments issues.

A woman said a large leak was repaired by local residents when Aguas Argentinas did not respond. She said as it was a substandard repair, and that polluted ground water infiltrated into the pipes when there was low pressure in the service.

Regarding the billing system, residents remember a meeting with Aguas Argentinas' officers in which the utility proposed collective billing. The residents refused this: based on past experience with electricity, they feared that the collective water bill would not get paid, and that individual bills would at least ensure that those who did pay would not be cut off from the service. After several meetings with representatives of local government, the Co-op and IIED-AL, Aguas Argentinas agreed to bill individually on the condition that the Co-op register all the residents' names and addresses. The utility also requested that they be allowed to send all the bills to a single location, where the residents would collect them.

High rates of non-payment occurred nevertheless, as was confirmed by the woman at the community's billing location. She said many people did not even collect their bills, and they had to be thrown away. Residents felt that a culture of non-payment was encouraged by defaulters, who viewed those who paid as dupes, since those who did not pay still received water.

Regarding the sewerage network, there was no organisation to take responsibility for managing the system, and no maintenance was undertaken. Repairs were done on a street-by-street basis, depending on the initiative of the ex-delegate or a concerned resident. Most of the time, repairs were carried out by those affected by a blockage, while others failed to assist on the grounds that it was not their problem.

IIED-AL provided some advice on sewerage connections and on the use of the system to each house, but this was not felt to be enough. There was an overwhelming consensus on the part of the residents that the small diameter of pipes used for sewage was a technical mistake that brought about frequent blockages. Only some delegates remembered the reasons for the choice of small diameter pipes, and attributed blockages to incorrect connection, misuse, and lack of maintenance.

Barrio Jorge Hardoy

‘Thanks to water we’ve gained access to a job’
(...rather than thanks to our work we’ve gained access to water)

The collaboration that brought water and sanitation services to Barrio Jorge Hardoy grew out of four years of negotiation and construction, and the settlements unique origins. An additional factor was the decision of local government to develop the west of the district, where Barrio Jorge Hardoy and the other three settlements were located, as ‘the new face of San Fernando’.

Barrio Jorge Hardoy is very unusual for a low-income area in Greater Buenos Aires, not only because it was a planned settlement, but also because the residents had access to water and sanitation right from the start, rather than after a protracted struggle. The first six pioneer houses were built with temporary connections, and many of the next group

of 46 households arranged clandestine extensions from these pioneer houses.¹⁵ From then on nobody was allowed to move to the new site if they did not build a solid house. They also had to sign an agreement with the Co-op, endorsed by a representative of the local government and IIED-AL, stating that on moving they would pay US\$110 towards the cost of the water and sanitation.

IIED-AL was eager to help develop a water and sanitation project for Barrio Jorge Hardoy, and had received funds from the national government for that purpose. Moreover, the local government's revised development plans also provided for progressive improvements in the quality of the settlement, and stipulated provision of water and sewerage services as a condition for allowing the plots to be occupied. Thus those wishing to move to Barrio Jorge Hardoy exerted pressure on the Co-op and IIED-AL to arrange the provision of services so that they would be allowed to move in. The actual convenience of water and sanitation services was a secondary concern, since there were already opportunities to access water via existing connections.

The residents and leaders saw water and sanitation as part of the 'deal' they were being offered along with the plots. Their comments in the focus groups and interviews indicated that they assumed they were meant to receive serviced plots. This assumption seems to have been rooted in the agreement that each of them signed with the Co-op, which established conditions for the grantees to receive a plot. Among the conditions, it was stated that residents should pay \$110 towards water and sanitation construction. As no reference was made to other contributions they assumed that this charge covered the service connections. In fact, it had been calculated to cover only a share of the costs.

The beginning of the project

IIED-AL and Co-op saw the provision of water and sanitation services to Barrio Jorge Hardoy as a natural complement to the plans to provide these services in Barrio San Jorge.¹⁶ The link between the Barrio San Jorge and Barrio Jorge Hardoy projects was recognised by interviewed residents, who identified two staff members from IIED-AL (its leader and an architect) as the brokers of the proposal.

In contrast to Barrio San Jorge's experience, the local government and Aguas Argentinas were involved in Barrio Jorge Hardoy from the outset. It was envisaged that the local government would be responsible for filling the plot, initially some 1.5 metres below the level of the streets, with soil. Aguas Argentinas provided the first technical plans and estimated the budget for the construction of the water systems. These were then used by IIED-AL in the request of funds.

Barrio Jorge Hardoy's residents were not aware of the details of negotiations among the parties for the water and sanitation supply. Local leaders vaguely recalled that IIED-AL obtained funds from the national government to finance the project. One leader recalled

¹⁵ Six families moved in 1993 to prevent illegal occupancy of the land by settlers that were not part of the Integral Project of Barrio San Jorge. The next group moved in June 1996 and consisted of eleven families illegally occupying part of the land and about 35 families from a part of San Jorge subject to frequent floods.

¹⁶ At the time the project was first proposed, it was envisaged that only about 100 households would move to Barrio Jorge Hardoy, but by the time the project was launched this figure had grown to 260 households.

the public event at Barrio Jorge Hardoy, at which local and national dignitaries announced their support for the project. According to the agreement signed by both parties (IIED-AL and the national government) in 1996, the national government would fund building materials and technical assistance, while the community would provide voluntary labour and finance specialised labour with funds recovered from Barrio San Jorge's project.

Aguas Argentinas' technical proposal for Barrio Jorge Hardoy set down the same standards as they apply in the rest of the concession area. IIED-AL's advisor argued that the proposed pipe diameters were larger than required, resulting in unnecessary costs. None of the residents mentioned the request from IIED-AL to Aguas Argentinas to reduce diameters, which was subsequently approved by the company.

The planned division of labour, agreed upon by IIED-AL and the Co-op at the outset, failed to materialise. As in Barrio San Jorge, residents were expected to provide voluntary labour. When IIED-AL and local leaders called for these contributions, there was little response. Only 80 meters of piping were laid in the first three months of work.

As noted above, there was some confusion over the \$110 contribution, and what it was meant to cover. Also, according to an interviewed leader, the plan failed because there were only a few households settled down at Barrio Jorge Hardoy – some 48 families were living there at the time – and it was difficult to organise the contribution of those who were still waiting to move. Others pointed out that as plots had been assigned but not awarded (because the local government would not award the plots until the network was constructed), '...nobody would work for something that was not yet theirs'.¹⁷ Still others were of the opinion that the future residents were hoping to free-ride on the work of existing settlers.

In effect, there was a dilemma as a result of the lack of trust (and historically untrustworthy behaviour) between the local government and the residents. Local government did not want to allow people to move because the plots had no services. Services could not be provided until people provided unpaid labour. People did not want to provide labour until they had guarantees that they would obtain the plots. And the only true guarantee people would accept was permission to move.

The lack of voluntary labour was eventually solved through a national government programme for generating employment, which provided funds for paying people to work on community improvement initiatives. With the endorsement of local government, IIED-AL obtained funds for 45 positions for a six month period.

Residents recalled that both the Co-op and IIED-AL were involved in the recruitment process. More than 150 applications were submitted for the positions,

¹⁷ Insecurity about obtaining the plots was fed by rumours that local government would go back on their agreement to grant the land to the Co-op. Those comments became a reality in mid 2000, when having obtained funds from provincial government for a housing project, local authorities planned to develop the project on the vacant portion of Barrio Jorge Hardoy. This plan was successfully resisted by the collaborative efforts of IIED-AL and the Co-op.

and 27 men and 18 women were hired. Most of them attended a training session conducted by Aguas Argentinas' staff, which was recalled with appreciation by the workers who took part.

The construction of the network

The organisation of work was divided between women and men. Women were responsible for the preparation of the metallic frames for the sewer's inspection chambers, while men were assigned to dig trenches and lay pipes.

The construction of the network was very difficult due to the condition of the site. As the plot has been filled with debris (such as blocks of concrete, car chassis, and trees) digging trenches by hand was a very hard work. Thus, the pace of work was slower than anticipated. In addition, rain prevented work for many days – in total, one month of paid labour was lost.

IIED-AL found its role as intermediary between the national government funds and the workers difficult to reconcile with the role it was accustomed to playing in the community. It affected how IIED-AL was seen by community, and how the community interacted with IIED-AL. IIED-AL had no direct control over the funds, and salaries were paid at the national bank directly to workers. Nevertheless, IIED-AL came to be seen as an employer, and the staff managing the construction came to be seen as bosses. In turn, residents who usually volunteered for community initiatives became 'workers'. This inevitably undermined IIED-AL's historical relationship with community members.

Neither this shift nor the difficulty of the work was remarked upon by those who had worked on the project. On the contrary, they all agreed on the virtues of the experience. Apparently, access to a paid job more than counterbalanced the exhausting work and any tensions arising from IIED-AL staff demands that they work harder. All residents remarked that the organisation of work and paid labour was the best way to build the network, because it not only enabled them to gain access to water and sanitation, but also – and more important – to a paid job.¹⁸

Before the end of the programme, Aguas Argentinas announced to IIED-AL that Barrio Jorge Hardoy could be linked to the sewerage system leading to the newly inaugurated treatment plant. Thus, the design proposed by the company had to be changed, and the early piping laid by voluntary labour had to be re-installed. While in retrospect things might have been done differently, for the most part such adaptations reflect the combination of long lead times and rapidly changing conditions that the project was forced to cope with.

By April 1998, when the programme ended, half of the settlements' network had been built. Pipes had been laid at the section where some 80 households had already settled.

¹⁸ Underemployment continues to be a major problem, and many of the residents who were hired as paid labour expected to be contracted again for other community initiatives. When invited for the focus groups, for example, some of the residents mistook this as an opportunity for paid work.

The rest of the plots had yet to be prepared (i.e. filled with soil up to street level) by local government, and hence remained unoccupied.

IIED-AL and the Co-op decided not to request Aguas Argentinas to connect the water and sanitation services to these 80 households because most had not paid the \$110, requested as a partial cost recovery. As in Barrio San Jorge, money proved to be a sensitive issue, open to misunderstandings. (Members of a focus group questioned why there was a charge for the network when there had been a subsidy to fund it.) Residents did not complain about the postponing of piped service operation, however. Instead, they went on using the available informal water systems, and did not pay. Over time, they began to make their own connections to the sewerage system, even though IIED-AL and the Co-op had advised them not to.

IIED-AL and the Co-op asked Aguas Argentinas to disconnect the unofficial water supply systems on the grounds that otherwise the residents had little incentive to obtain formal water and sanitation connections. Aguas Argentinas refused for fear that it would bring them bad publicity. From IIED-AL and the Co-op's perspective, this implied that Aguas Argentinas was more concerned with their image than with collaborating seriously on the project, and working towards cost recovery.

In contrast, the local government did collaborate with the Co-op and IIED-AL, by not allowing new residents to move to Barrio Jorge Hardoy until the charge was paid. Since permission to move could be granted as soon as the charge was paid, the residents were not being asked to trust the local government (as had been the case with the requirement to provide free labour before being granted permission to move). Focus group members also suggested that the support of local government, demonstrated by the presence of a municipal officer at every Co-op meeting, legitimised this measure. As a result, the number of payments grew significantly.

As the progress of the project halted again, IIED-AL and the Co-op asked Aguas Argentinas to do the required tests in order to put the network in service. Although it was not formally taken on by the utility, water service has been provided since mid 1999.

By September 2000, when the remainder of the plots had been prepared, IIED-AL and the Co-op decided to build the rest of the network. A building contractor was hired in order to finish the network faster and cheaper, with the assistance of a bulldozer. The contractor was paid with the fund collected from neighbours' payments, but this was not clear to residents.

The residents and leaders were dissatisfied with the contractor's performance. They claimed that the contractor's section had more leaks than in the one constructed by local paid labour. Some residents claimed that the leaks in the contractors' work were the result of heavy machines and trucks passing over the pipes. Others, including especially the local paid labourers, claimed that their work was better executed than the contractor's.

By the time the final tests were undertaken by Aguas Argentinas, many leaks had to be repaired in both sections. Residents explained the leaks in their section in terms of the long delay between the time the work was finished and the testing was done.

A local worker was appointed by IIED-AL and Co-op to make repairs. As residents saw him shutting off the services to do work, he gained a reputation as the technical contact for the operation and maintenance of the water network. His neighbours began to call him for assistance with water problems.

Current situation

After several requests by Aguas Argentinas' current staff to modify the construction – that had actually been approved by their former colleagues – IIED-AL was recently informed that the network would be taken on by the utility.

Aguas Argentinas' staff expressed surprise when the local sewerage network functioned correctly. The utility's regional manager, for example, had believed that communities could take charge of specialised labour for water, but not for sewerage networks.

Most of the residents consulted were pleased with the performance of the sewerage network. They approved of the fact that in Barrio Jorge Hardoy the pipe diameters were larger than in Barrio San Jorge, where 'the experiment had not worked', as one resident testified. A resident explained larger diameters were used because there were more funds than in Barrio San Jorge. Some residents questioned whether it would continue to work well when the whole settlement was inhabited and all connections were in use.

From the debates in the focus groups, it is evident that residents received contradictory messages, causing some confusion and at times resentment. They could not understand, for example, why sewerage could not be used at the same time that they were allowed to use the water system. Moreover, some residents felt they had been misled, since others who had not paid for the services were enjoying the benefits, with no sanctions.

Interviewed residents were somewhat confused about the implications of having the utility take charge of the network – the transfer had not yet taken place at the time of the study. They have had the benefits of free water and sanitation services for more than a year, and have little awareness of their future rights and responsibilities as customers. They were not all aware, for example, that they were expected to pay a service charge in the future, and were inclined to confuse the service charge with the fee they had already paid in partial payment for the construction. A number of practical issues, such as how bills will be distributed and who in the community would act as intermediaries with the utility, remain unresolved. These findings suggest that unless awareness training is undertaken within the community, the relationship between the utility and Barrio Jorge Hardoy's residents may be put at risk. It also seems likely that the utility staff will need to be trained to help them understand how to work with a community such as Barrio Jorge Hardoy.

2.3 Barrio La Paz (Holy Beto) and Barrio San Martín (A leader's struggle for water)

The collaborative arrangements through which household piped water services were provided to Barrio La Paz and Barrio San Martín were sufficiently similar to allow a joint description possible in this section. In both cases a political agreement between the community leaders and a mayoral candidate (and later mayor) provided the basis for collaboration between the community, local government, and Aguas Argentinas. The roles and responsibilities of the different collaborators were similar.

The nature of the relationship between the community leaders and the mayoral candidate, and the qualities of the collaborations differed, however. In Barrio La Paz, gaining access to running water has been perceived by residents and leaders as a smooth and 'natural' process. In Barrio San Martín, on the other hand, the process has been more turbulent, and the local leaders present their efforts to achieve better access to water as a personal struggle, fraught with conflict and intrigue.

The leaders

The interviewed residents from both settlements agreed that they have access to running water 'thanks to God' and their community leaders. Many testimonies refer to all that has been achieved for the communities as a result of their efforts. A number of residents feel that their leaders have brought light (electricity) and water to their lives.

Beto was president of the neighbourhood committee of Barrio La Paz from before the start of the water initiative until he was replaced two years ago (he passed away in early 2000, following a long disease). All of the residents consulted remembered him affectionately, and praised his humanity, his charisma, and his ability to deal with politicians. They said: 'he was born to help others'; 'he had a special way of doing and making others do'; 'he knew a lot, he made good business, he used to bring the ideas'; 'we used to leave everything to him, because Beto would do it right'; 'when Beto was alive things were very different, and when he died there was no more solidarity to work here'.

Beto in Barrio La Paz and Juan in Barrio San Martín were community leaders who had regular contacts with officers and politicians from local government relating to the improvement of their settlements. Before the elections for mayor, they were apparently approached by the candidate, who asked them to be political operatives and lead the political campaign in their communities. At some point, they were formally recruited by the local government and started to receive a salary as municipal employees.

The president of the neighbourhood committee of Barrio San Martín was Elisa, Juan's wife. She tells of how, when the committee was formed, nobody wanted to be the president as they had no time; so Juan nominated her and she was elected. Elisa and Juan's style of leadership differs from Beto's. They are more forceful and prone to take a confrontational approach to problems. This was evident both from their own accounts and from those of other residents. They are seen as responsible for most of the improvements in the settlement, but are not viewed with much affection.

Water networks approach the communities and they approach the politicians

By the end of 1994, Aguas Argentinas' water network had reached a formal settlement contiguous to both Barrio San Martín and Barrio La Paz. A resident recalled that some people were expecting the expanding network to reach them, but this did not happen because their settlement had no land titles. While the inhabitants of the formal settlement across the road had a reliable service, they still had to rely on a water truck and fetching water from nearby taps.

In the absence of a formal extension, there was little to prevent residents from connecting their houses to Aguas Argentinas' network illegally, especially in Barrio La Paz which was only separated from the serviced area by an unpaved street (Barrio San Martín was separated by a paved route, which made connections more difficult). Even for the residents, however, illegal connections were not an ideal solution.

Both communities requested access to the utility's services. In Barrio La Paz, Beto reportedly had the idea of linking the settlement to the water network. Leaders in Barrio La Paz said that Beto presented the request to a local government office that had dealings with Aguas Argentinas. In Barrio San Martín, on the other hand, the proposal came from the neighbours to their leaders, who took it to the utility. Given the lack of response from the water company, they decided to seek the support of politicians.

In Barrio San Martín, this was not the first time residents asked Elisa to intervene on their behalf to secure water supplies. Elisa recalls that one of her first actions as president of the neighbourhood committee was to denounce the nearby meat-packing plant for burning animal remains, creating an unpleasant smell and risking the residents' health. As a response, the company interrupted the provision of water to public taps of Barrio San Martín. Blamed by her own neighbours for depriving the community of water, Elisa visited the interim mayor and persuaded him to send the water truck to the Barrio San Martín.

In both settlements, the starting point for the more recent collaboration on water and sanitation was an informal agreement between the mayoral candidate and the community leaders. The terms of the agreements were that the leaders would work in support of the election of the candidate, and in return he would lead the negotiations with Aguas Argentinas to bring water to the settlements. The agreements were described by the interviewed leaders. In the focus groups, residents made reference to the political circumstances and the relationship their leaders had with politicians, but no one explicitly mentioned an agreement.

Residents had a vague recollection of the candidate visiting their communities and promising to extend water and sanitation to their settlements. This event is clearly narrated by Elisa, who explains how that event was the beginning of a vibrant relationship with the politician, which cut across the wider relationship of the parties for serving Barrio San Martín with piped water.

In Christmas 1994, the senator was invited to a meeting at the settlement. In his speech he promised he would bring the running water to Barrio San Martín, and obtain funds

from a provincial agency to fund it. She resented his attitude at that meeting, saying he was invited as a senator, and behaved as a politician on campaign. When the senator had previously contacted the couple in order to get their support for the forthcoming mayoral elections, Elisa and Juan had already asked the candidate for his support in the request to Aguas Argentinas. In her complaints, Elisa distinguished between legitimate political support for improving living conditions in a low-income settlement, and the senator's political manipulation of the water issue.

When asked whether representatives from the community, the government, and the utility had actually sat down together to negotiate the way forward, she recalled that the politicians said the local authorities would take the lead, and community leaders had to back them. As a result, the community leaders did not take an active part in the negotiations with Aguas Argentinas.

In both settlements, the participation of residents in events prior to the network construction was very limited. Having voted for their leaders, they felt that they had delegated the responsibility for taking the initiatives forward. This attitude is consistent with a very personal style of leadership in most CBOs. Residents and current leaders from Barrio La Paz and Barrio San Martín agreed that Beto, Elisa and Juan personally undertook all of the negotiations.

In Barrio San Martín, the residents' recollections of how the collaboration developed were limited to the information they were given by leaders. Very few events were mentioned; one was that all neighbours agreed on signing a request for accessing the service.

In Barrio La Paz, on the other hand, residents remember that many meetings were held in order to inform the community of the progress of the negotiations. The leaders said that the committee used to organise meetings every two weeks.

Although residents did not follow the negotiations closely, they recalled that the construction did not actually start until long after the initiative was first discussed in the community. In both settlements residents associated this delay with obstacles raised by the local government. In fact, Barrio La Paz had to wait one year to have household connections, while Barrio San Martín had to wait almost two years from the time the candidate promised the service. As already indicated, the main difference between the two experiences arose from the character of their leaders and their relations with the mayoral candidate (see Box 1).

Aguas Argentinas enters the picture

Elisa described a meeting at Aguas Argentinas, where community leaders from Barrio San Martín, Barrio La Paz and Barrio Presidente Perón (a settlement adjacent to Barrio San Martín) were invited to meet together with local politicians to talk about the extension of piped services. Aguas Argentinas presented a budget for the construction of the networks in each settlement, divided into three items: technical assistance, building materials, and labour. The utility could take responsibility for the first item,

Box 1. ' Politics are like war movies, where blank cartridges are used'

The interruption of water truck service to Barrio San Martín triggered a conflict between Elisa and the mayoral candidate, with each exerting pressure on the other through various means. Barrio San Martín had supported the mayoral candidate back when he was competing in the internal elections of his political party, on his way to becoming mayor of San Fernando district. Unfortunately, it was the losing candidate who had control over the truck that delivered water to Barrio San Martín, and he decided to punish the settlement by stopping their water delivery.

Juan recounts that while they were suffering the resulting lack of water, Aguas Argentinas and the local government were launching the water network in a neighbouring formal settlement. As a hydrant had been installed, Barrio San Martín's residents started to get water from there. In this way they found an alternative to the truck.

The conflict escalated when the local government tried to prevent their use of the hydrant. In response to Elisa's complaints, the candidate send a political operator from another settlement to appease her, offering to install a container that would be continuously refilled with water, but at the same time threatening to revoke the community organisation's permit if she did not calm down.

She replied by inviting local politicians to see her on the TV, where she would show the solution they were forced to adopt due to the lack of local governmental support. She stated that she would not tolerate any pressure and refused the water container.

Elisa and Juan recall the pressure this put on their own relationship. Following Elisa's reply, Juan was approached by two important politicians who asked him to tell her that she was acting illegally. He decided, however, 'to side with her'. He refused to act as the intermediary between the candidate and the community, telling the candidate he had the same needs as his neighbours and could not vote for the politician if his need of water was not met. In this way, Juan tried to differentiate his role as community leader from that of political operator.

The next day Elisa met the candidate by chance, refused his attempt to hug her (Argentine politicians are often very effusive when political interests are involved), and told him not to send political operators to press her anymore. He replayed saying 'politics are like war movies, where blank cartridges are used'. She told him that such weapons might be fine to use with politicians, but not with the community.

The general elections created the opportunity to exert more pressure. Elisa recounts that 3 days before the general election she called on the candidate and compelled him to come to the settlement, threatening that if he did not come they would not only vote against him but would block the route on the day of the election. She threatened to distribute t-shirts bearing the face of the candidate to the people who would block the route (her husband had received the t-shirts during the campaign). They would then claim that the candidate himself had asked them to block the route.

Since the residents backed Elisa, in the end the candidate had to agree to provide water through public taps along the edge of the route and to ensure that this was done before the election.

The intensity of all these events, which took place during the first four months of 1995, contrast with the twenty two months Barrio San Martín had to wait to have access to a network and household connections. During those months Barrio San Martín had access to the taps. Despite the candidate's warnings, the neighbour committee extended the five taps to taps within the settlement, from which the residents could connect hoses to their houses in order to fill water containers. The fact that the election was over and the temporary measures had solved the worst of the community's water problems, presumably explain the more relaxed relations between community leaders and the (new) mayor.

including training for specialised labour, and proposed that the community provide the labour and look for ways to obtain the materials (e.g. from the local government).

Barrio La Paz started building the network much sooner than Barrio San Martín. There are several possible explanations for this. First, Beto had a much better relationship with the politicians than Elisa did. Second, Barrio La Paz was smaller, and required less investment from local government, which was co-financing a network in a low-income settlement for the first time. Third, the neighbourhood committee of Barrio La Paz had some money to contribute to fund the materials.

The Barrio La Paz committee had been organising festivals and selling food in order to collect money for community initiatives. They decided to use some of this money to help fund the materials. In contrast, Barrio San Martín's leaders preferred not to ask any money from their neighbours, as they felt that managing community funds might compromise their positions (as they would experience later on).

According to Elisa, when she asked the local government for the funds, she received evasive responses and the prospective mayor refused to meet her. Once again, she found a way to exert pressure on the candidate. She sent a message to him saying that a politician from the opposition had approached them saying that he would obtain the awarded funds from the provincial entity, supposedly undelivered because of bureaucratic procedures. She recalled that the same afternoon the cheque appeared, and the following day the materials were delivered to Barrio San Martín.

The construction of the network

The distribution of roles and responsibilities for network construction was similar in Barrio La Paz and Barrio San Martín: Aguas Argentinas designed the project, trained specialised labour, supervised construction, and finally connected the network to Aguas Argentinas' system; local government provided building materials; and communities provided voluntary labour (except specialised labour in Barrio San Martín, which was paid for by the provincial government).

In both cases some people were sceptical, and doubted that the project would succeed. Residents recall that the delivery of the pipes represented a turning point, providing evidence that the construction really was going to start.

The construction work was organised by Beto in Barrio La Paz and Juan in Barrio San Martín. Most residents dug the trenches in front of their homes, though there were reportedly some streets where people worked collectively. In the fronts of plots owned by women or men who could not work, the leaders sought out neighbours to take on the task. In San Martín, specialised work was done by Juan and some relatives who received training from Aguas Argentinas, while in Barrio La Paz it was done by two residents who had worked on water and sanitation projects previously.

All those interviewed were pleased with the way the network was built and the results obtained. They especially valued the speed with which the work was completed, and the fact that the entire community had been involved. A spirit of solidarity seems to have

prevailed in both communities, throughout the constructions – a spirit which people said had not been present in other community improvement initiatives. Residents were also pleased to have a network of the same quality as those in higher income settlements.

When asked about the differences between a project built through collaboration and more conventional projects, the answer invariably focused on the financial aspect: by collaborating the residents had managed to avoid paying the infrastructure cost of US\$ 600–700, which they could not afford (along with thousands of other low and middle-income households). In other words, the most critical advantage of the collaboration was that it allowed them to exchange their effort for the infrastructure charge being waived.

In service

When the networks went into service, each neighbourhood committee signed an agreement (community contract) with Aguas Argentinas that set out the conditions and responsibilities of the parties for the provision of services. The utility took on the operation, maintenance, and repair of the system. This implied a dramatic change in the residents' approach to public services. Up until then they had learned to fix things by themselves. The idea that the utility would be available to deal with problems took some getting used to.

The community leaders helped to provide a 'transition period', on the way to the residents becoming conventional customers of Aguas Argentinas. Even after the system was tested, Beto and Juan kept spanners that would allow them to cut off the service if necessary. Many residents initially turned to them for assistance. Only more recently have most people started to call Aguas Argentinas, and there are still people attempting to make repairs on their own.

Apparently, the 'do-it-yourself' approach arises either when the utility does not respond quickly, or when the residents have not paid their service charge and do not think they have the right to demand repairs. A woman said Aguas Argentinas responded in one week, giving this as proof of their 'diligence'. Others, however, said they had to wait for a month or more. The interventions of the leaders or a municipal officer were cited as potential shortcuts. Nobody mentioned the possibility of going to the regulatory agency – the body formally responsible for addressing claims not attended to by the company.

Local leaders are not only used by residents wanting to communicate with Aguas Argentinas, but also by Aguas Argentinas when it wishes to work in the communities. Male leaders are usually contacted in advance in order to accompany the utility's crews when they come to make repairs. This helps protect them from being robbed or from suffering the occasional aggression.

As for billing, the agreement set a collective bill for each settlement over eight bimonthly periods. Beto and Juan/Elisa received the bills and charged every house a proportional fee – some \$3–4 in both settlements. According to Elisa, the utility had established the collective bill with a guarantee from the neighbourhood committees to pay for the service.

In Barrio La Paz, residents believe Beto paid the first bill, drawing on his own funds to cover those who did not pay. As defaulters suffered no penalty, others stopped paying. As one woman put it: 'if you do not pay, why should I have to?' Eventually, Beto could not cover the entire bill and ceased payments (Aguas Argentinas did not accept partial payments).

In Barrio San Martín, the leaders said that the overwhelming majority of households paid the first bill. A few did not pay the second bill, and by the third some 15 percent households were not paying. According to Elisa, these households were inciting protests, on the grounds that she and Juan were retaining the collected money. Again, she decided to act decisively: she asked her husband to cut off the service to the whole settlement, and sat down in the front of her house to wait for the claims.

When a large group had gathered, she presented them with the list of defaulters. A group of residents went to see each defaulter and compelled them to pay – as she had decided not to re-open the water until all of the debt was collected. This initiative had two results. On the one hand, local politicians and Aguas Argentinas' officers complained to the couple, arguing that what they were doing was not allowed. Their response was, as usual, direct: they told the politicians this was not the time to get involved, seeing as they had never become involved when the settlement lacked water; and to the utility, they said that it was a 'community problem' and that they were only paving the way to fulfil the agreement the committee had signed.

Another significant difference between both cases was that in Barrio San Martín people went to pay to Juan and Elisa's, whereas in Barrio La Paz the leaders went around to the residents to collect the payment. Also, in Barrio San Martín defaulters were visited by a group of people, not only by the leaders, as it was in Barrio La Paz. Interestingly, residents made only a few and vague references to this struggle.

The change to individual billing took more time in Barrio La Paz than in Barrio San Martín. In Barrio La Paz, even after Beto retired, the new authorities of the neighbourhood committee had problems with the collective bill: it took time to collect the money; some residents were unwilling to pay; some residents suspected that the community's funds were being mismanaged; and they had to find the means to meet the shortfalls.

The shift to individual bills took place against the resistance of the local government and Aguas Argentinas. The local government did not agree to individual bills, on the grounds that this would amount to de facto recognition of the settlers' property rights. The leaders decided to take the problem directly to Aguas Argentinas, and enlisted the help of a lawyer. At first, the utility made it a condition that the existing debt be paid off. But in the face of growing demands by residents, they eventually decided to write-off the debt and implement individual bills. Aguas Argentinas did impose the condition that the leaders should not reveal that the debt was being written-off, so as not to encourage further non-payment.

Those interviewed generally approved of the shift to individual bills, although it was accompanied by higher rates, provoking some complaints. The individual billing has not been without its problems, however. Most houses in Barrio La Paz and Barrio San Martín' are not on designated streets and do not have numbers identifying them. Moreover, postal workers fear aggression or assault. As a result, letters (including the bills) are not generally delivered directly to the residents. They are given to a community leader, such as the president of the committee in Barrio La Paz. The letters are usually delivered, but not always in a timely fashion. Residents feel they cannot complain when the bills arrive near or after they are due, since this delivery is perceived to be voluntarily. Nevertheless, residents rarely collect the letters themselves.

Residents and leaders from both settlements agreed that despite these difficulties non-payment is uncommon. The evidence they gave was largely circumstantial, however. The leader in Barrio La Paz noted that letters demanding late payment were not sent to the settlement anymore. Others deduced that people pay since they did not know anybody who has been cut off – there is the widespread perception that people who do not pay will be disconnected. It was noted, however, that many households have connections that cannot be turned off individually at the street level, making it impossible for Aguas Argentinas to disconnect just them.¹⁹

Now that water is available, the need for sewerage has been expressed in both settlements. For most households the provision of a sewerage network is now the top priority. Because of the high groundwater level, grey water (i.e. waste water not containing faecal material) is released in open drains, leading to accumulations of stagnant water. Barrio La Paz has access to a network on its perimeter, but it has not been extended internally as this would interfere with an ongoing effort to lower the housing density and widen the alleyways. In Barrio San Martín, Juan and Elisa, in their usual dramatic style, revealed at one of the focus group discussions that Aguas Argentinas has agreed to build a sewerage network in return for their good behaviour.

¹⁹ In addition to the reasons raised in the focus groups, two other reasons strongly discourage disconnections. Firstly, neither the government nor the utility wish to bear the political costs of leaving a household without water. Secondly, the cost of the legal procedures required by the regulator to enforce the disconnection – some US\$800 – acts as a disincentive, especially in informal settlements where people might re-connect illegally and property cannot be seized since residents do not own the land.

3.

Integrated Analysis of the Case Studies

The analysis in this chapter focuses on the pre-existing situation of the settlements and the process of building collaboration, the construction of the networks, and the issues that arose since services began to operate. Finally, it includes an assessment of the experiences by community residents and leaders, and a review of Aguas Argentinas responses. A summary of common features of communities and water projects can be seen in Box 2.

Box 2. Eleven common features

1. Prior to the project, the lack of water was causing severe problems, ranging from infectious diseases, to a heavy workload (even for pregnant women), to disputes among neighbours.
2. The residents' low-incomes and lack of land ownership gave the water utility little incentive to provide services, and the local government had to lend support in order to involve the utility.
3. Either staff from an NGO or charismatic and individualistic community leaders were crucial in the negotiations with the utility and local government.
4. In each settlement, the water utility provided some technical expertise and undertook a share of the work, the local government provided political support and in some cases financial resources, and the civil society organisations helped to organise the contributions of the residents.
5. Local residents, including women, participated in the construction of the network.
6. Residents have had to negotiate the difficult transition from being the opportunistic users of local water systems to customers of a multinational water company. Making this transition effectively has required considerable adjustment, including new attitudes to leakages and repairs, as well as to billing and payments.
7. The management of collective funds by leaders was a source of mistrust.
8. Individual bills were preferred over a collective one, even if this involved higher fees.
9. The postal services have not ensured the effective distribution of bills to every household.
10. The rate of payment of the bills is low and there is no effective strategy to reverse it.
11. Access to water (and sewerage) has been highly appreciated by residents.

3.1 The Construction of Collaboration

Before the projects started, all four settlements faced serious water-related problems, and prospects for improvement were poor. In all of the settlements, water supplies were irregular, insufficient and unsafe, creating health risks and local disputes over water, and requiring residents to spend a great deal of time fetching water. The public utility had never provided services to informal settlements, as they did not want to be seen to recognise the settlers right of abode. When the concession was awarded to Aguas

Argentinas, the initial agreement did not require them to serve informal settlements. Moreover, and despite some rhetoric to the contrary, the private utility was not seriously committed to serving low-income areas, since the risks were high and the potential profits were less than in more affluent areas.

Collaboration proved to be a suitable means for developing water networks and connecting the four settlements. Residents and local leaders were generally favourable to the collaboration, but it would be misleading to claim they viewed Aguas Argentinas, the local government or IIED-LA as partners. By and large, they were not concerned with such niceties as the distinction between collaboration and partnership. They were, however, concerned with who could be trusted to do what, and levels of trust in external agencies were generally low. Visible, difficult-to-reverse actions such as the delivery of piping by the local government or the provision of training by Aguas Argentinas were generally accepted as evidence of collaborative intent. Idealistic speeches on the part of politicians and behind-the-scenes negotiations with Aguas Argentinas (of which most residents were only vaguely aware) were not.

The collaboration was initiated and driven somewhat differently in the different settlements. To a first approximation, one could say that the initiatives in Barrio San Jorge and Barrio Jorge Hardoy were externally driven (by IIED-AL) while those in Barrio La Paz and Barrio San Martín were locally driven (by community-based organisations). The local or demand-driven approach is advocated by the World Bank, and generally favoured in the international policy literature. On the other hand, without any encouragement, it seems unlikely that Barrio San Jorge would have had the initiative to seek out collaborators – after all, for several decades every attempt to demand service improvements had gone unanswered. Moreover, the externally-driven approach in Barrio San Jorge may well have been what stimulated the community-driven initiatives in the nearby barrios of La Paz and San Martín.

In all four cases members of a civil society organisation helped to broker the collaborative arrangements, and this may have been more important than whether the role was played by an internal or external agency. Aguas Argentinas had not shown any inclination to become engaged in low-income areas. Local politicians were seeking out opportunities to trade projects for votes, but without some organised pressure from the grassroots it seems unlikely that the local government would have initiated any improvements.

There were also a number of common factors that helped give impetus to the water and sanitation initiatives. Recent cholera outbreaks were focusing both international and national attention on water and sanitary conditions in low-income neighbourhoods (some of the international funds made available for Barrio San Jorge had been made available to fight cholera). The arrival of piped water to the west of San Fernando made the extension technically feasible and financially affordable. The interim mayor was more responsive than his predecessors, and one of the candidates in the forthcoming election was willing to commit to water projects in exchange for political support. Also important, there was an innovative manager at the water company's district office,

willing to work to persuade the utility to extend services to low-income settlements for the first time.

The collaboration in Barrio San Martín and Barrio La Paz was closely linked to an electoral campaign. According to community leaders, informal political agreements provided the starting point. Such agreements, wherein a politician agrees to bring government assistance to the community if the community members back the politician politically, depend on continued good relations between the politician and the leaders. Neither side can guarantee their side of the agreement, since the outcomes are not fully under their control. Even when the intentions are good, delays are common, and compliance is problematic. It is very difficult too for either side to determine whether the other is sincerely attempting to fulfil their side of the bargain.

In Barrio San Martín and Barrio La Paz, local government officials dissuaded community representatives from participating in the negotiations with Aguas Argentinas. The collaboration was built around bilateral relationships, with local government mediating between community leaders and the utility. Only once did the three parties gather around the same table, and that was not for negotiations, but for Aguas Argentinas to announce that it had agreed to connect the settlements on condition that the communities provide labour and find a way to obtain building materials.

The collaborative arrangements in Barrio San Jorge and Barrio Jorge Hardoy were not grounded on that type of political agreement, and relationships among the parties were not dependent on the mediation of local government. To at least some degree, IIED-AL's involvement helped to neutralise clientelism and top down politics, enabling more open and participatory negotiations. The politics were not tied to electoral competition, or the individual interests of aspiring politicians and community leaders.

In contrast with the other three cases, the active involvement of local government in Barrio San Jorge's project only began after the water and sanitation network had been built. In the early years, local government commitments were so unreliable and intermittent that IIED-AL eventually decided to carry out the water project without them. Subsequently, however, when the more responsive interim mayor came to power, the local government was successfully approached to persuade Aguas Argentinas to serve Barrio San Jorge. Without this support from the local government, Aguas Argentinas would not have been willing to provide services to an informal settlement, perhaps even risking a lawsuit from the private or public landowners.

In all cases, one of the most fundamental challenges for the water projects was to gain the trust of the community residents. In order to be willing to contribute their own time and money to the projects, residents had to believe that projects would succeed. Most public leaders, at community and government levels, have been strongly associated with corruption over recent decades. In all the settlements, there were groups inclined to believe that water services would not reach their settlements, and the projects would become more unfulfilled promises by politicians and community leaders. In Barrio San Jorge, the presence of an independent organisation with a history of working in the area (IIED/AL) helped to overcome some of the passivity, scepticism and distrust that

surrounded local politics. More generally, however, it was tangible evidence of commitments to the project, such as the delivery of pipes to the settlement, that made the critical difference.

3.2 The Construction of Networks and Service Provision

When the construction of the water and sewerage networks began, the involvement of the residents inevitably became stronger, and the interaction among the parties changed. This was the phase most clearly recalled by residents in the focus groups.

The residents' contributed labour through a number of different organisational arrangements: neighbours working individually on their own frontages and groups working collectively; co-ordination centralised by the community leaders (Barrio La Paz and Barrio San Martín) or IED-AL (Barrio Jorge Hardoy), and decentralised by streets and delegates; specialised labour provided by a contractor (Barrio San Jorge) and by local residents; voluntary labour and paid labour (Barrio Jorge Hardoy and partially Barrio San Martín).

The experiences suggest that organisational arrangements have to be customised to the particular conditions of each settlement, and cannot simply be transferred from settlement to settlement. Locally organised work units in Barrio San Jorge had to be small, and centre on close neighbours, to overcome the high degree of mistrust and the lack of leadership. On the other hand, central management was possible in Barrio San Martín, where local leadership was strong. Alternatively, a voluntary labour scheme functioned in Barrio San Jorge and then failed in Barrio Jorge Hardoy, where it had to be replaced with a paid labour scheme (still involving local residents).

During the construction phase, local government officials were less prominent, while technical staff from Aguas Argentinas started to have their first direct contacts with low-income groups, training residents to provide specialised labour and supervising project construction. During construction, some neighbours were acknowledged as technical contacts. Some of them were community leaders prior to construction, and through the construction they consolidated leadership. Others just remained contacts in case of repairs. All of them are currently identified by neighbours as well as Aguas Argentinas' staff as the technical contacts.

When the service started to operate, it led to fundamental changes for residents of the four settlements. The most evident – and intended – change was that residents had continuous and convenient access to sufficient potable water in their homes. The focus groups emphasised how this brought about changes in people's daily organisation, health and housing.

An important but less visible change was that the residents went from being users of informal water systems to customers of a water utility. Such a transformation requires adaptation, and no need for facilitation had been envisaged. Newly connected residents did not know their duties and rights as customers of Aguas Argentinas - how to make internal connections, how to deal with leakages and breakdowns, how to organise the payment of bills, or generally how to make the best use of the services.

Similarly, Aguas Argentinas was not accustomed to serving low-income communities. They had no standard operating procedures for serving streets or alleys without names and houses without identification numbers, for servicing valves covered by soil (rather than accessible as in paved sidewalks), or for coping with gangs threatening its crews.

Given the inexperience of both local residents and Aguas Argentinas, it is not surprising that a number of difficulties arose. Most notable were the problems related to maintenance, billing, and service payments.

During the early years, residents often made repairs by themselves, since this was what they had done previously with the informal water systems. The utility sometimes accepted this practice and in a few cases even requested neighbours to dig and find the leak in order to facilitate repair. Some users are still unclear on who bears responsibility for repairs.

Collective billing was new to the company, and appeared to have the advantage of transferring the responsibility for collecting payments to local leaders and reducing costs. Managing the collected funds proved to be a source of mistrust and conflict, however, and residents generally expressed a preference for individual bills, even if this system resulted in higher fees. In contrast, local government disliked individual bills in Barrio La Paz, because it appeared to legitimise the settlements. Again, it has taken considerable time to sort through these issues.

Even with individual billing, Aguas Argentinas reports that many residents are not paying their bills. Residents claimed that if there is no penalty for those who fail to pay, non-payment is bound to remain a problem. And unless payment rates can be improved, the viability of serving low-income areas through a private company is likely to be undermined.

These difficulties indicate that collaborative arrangements should not be restricted to constructing the networks, but should extend to its sustainable use. The form of collaboration may not be the same as that employed to construct the network, but need to be considered at an early date.

3.3 Assessment

Assessment by low-income communities

In virtually every interview, residents and leaders expressed pride in their new water systems, and the collective achievement they represent. No other community initiatives have involved the same level of commitment and effort. Having reliable and convenient water supplies is viewed as a major accomplishment.

Collaboration is perceived as the only means through which they could have gained access to water services, given their lack of land titles and the infrastructure charges normally imposed by the utility. Interviewed residents and leaders considered the division of work (labour by community, technical assistance by Aguas Argentinas and/or IIED-AL, supply of building materials by IIED-AL or local government, and co-ordination of parties by IIED-AL and /or CBOs) as a fair arrangement.

Most focus groups awarded the projects top marks, when asked for a quantitative assessment. They also made it clear, however, that what they appreciated was the benefits provided by the water, and that they were indifferent to whether the provider was public or private, or what sort of collaboration was involved. Other collaborators were also assessed primarily from this perspective.

Leaders and residents knew that Aguas Argentinas had taken over responsibility for providing water and sewerage services in Buenos Aires from the public utility. All of them recognised Aguas Argentinas as the operator of the service in their settlements. Some credited the company with overcoming conflicts the state owned company had with a contractor, and thereby enabling water networks to be extended to the west of San Fernando.

Residents were generally satisfied with Aguas Argentinas' overall performance, particularly in comparison to the previous state of affairs, when they had no regular or reliable services. In the summer residents spend long hours with no water because low pressures, but this was not seen as objectionable since it affects the entire district. Residents appreciated the training received from Aguas Argentinas to install the pipes, but were somewhat dissatisfied with the company's delays or failure to respond to calls for repair.

When local government's participation in the water projects was assessed, the discussion focused on party politics and particular politicians, whom residents often perceived to be unresponsive to requests from the community. All consulted community leaders, including those who worked for politicians, criticised the way politicians relate to communities, especially the tie of dependency politicians seek to create through clientelism. Leaders know that the political pressure can make a critical difference, and refer to the pre-election period as 'the' moment to exert constructive pressure on politicians.

Despite their criticisms, residents and leaders agreed that the involvement of local government was indispensable to getting services provided to low-income settlements. Local government legitimised the collaborations, and at the same, political decisions could help to overcome such constraints as the lack of land ownership. Residents also appreciated it when they did have access to decision makers – such as the interim mayor – especially when the result was concrete improvements in their living conditions.

When residents assessed the involvement of community leaders and IIED-AL, doubts were expressed about the use of funds. The management of funds for community projects by leaders and by IIED-AL was a very sensitive issue. Public figures are widely believed to be corrupt, and rumours and accusations are difficult to counter. Residents argued for more detailed accountability and transparency on the part of community organisations and the non-governmental organisation, but also indicated that the collective management of funds should be avoided whenever possible.

The dual roles played by Beto (in Barrio La Paz) and Juan (in Barrio San Martín) – as political operators and community leaders – were considered by consulted residents to

be a practical means for carrying community initiatives forward. While residents were very wary of politics, they felt that close contacts between their leaders and politicians were necessary to gain government support for improvements for their settlements.

Responsiveness of Aguas Argentinas to the poor, as seen by IIED-AL

There was no obvious reason for Aguas Argentinas to extend services to informal and low-income settlements. Aguas Argentinas is a for-profit company, and its success ultimately depends on keeping revenues up and costs down. Moreover, when offering the concession the government tried to create an attractive business proposition in order to attract private bidders. Serving low-income settlements in Buenos Aires was assumed to be comparatively uneconomical, and the concession contract effectively relieved Aguas Argentinas from having to provide services in low-income areas by exempting settlements without regularised land ownership. Given these circumstances, the question is why did Aguas Argentinas become involved in the four case studies' settlements?

In Barrio San Jorge, the first illegal settlement connected, Aguas Argentinas appeared to respond to pressure from the local government, and indirectly from IIED-AL and the community itself. This pressure would probably not have been effective, however, were it not for several other contributory factors. Aguas Argentinas had recently extended water and sanitation to nearby communities, meaning that their network was nearby. IIED-AL had invested US\$175.000 (with funds from Misereor) in Barrio San Jorge's water and sewerage networks. The 1750 inhabitants of Barrio San Jorge were potential new customers, and by connecting their water system to Barrio San Jorge, Aguas Argentinas could also reach two more sizeable customers – a meat packing plant and a wholesale market. In any case, when official connections are not provided, low-income residents are likely to connect to nearby networks illegally.

Difficulties with clandestine connections are endemic when water is provided to areas adjoining informal settlements, but the network is not extended into the low-income areas. The focus groups in Barrio La Paz and Barrio San Martín, for example, made it clear that without formal connections, some residents would soon have made clandestine connections to the newly installed system across the road. Illegal connections often cause leakage and infiltration of polluted waters, making it difficult to provide an adequate service to connected areas. Aguas Argentinas was potentially liable to penalties if the water in connected areas did not reach the standards set in the contract. It needed either to improve relations with the low-income communities or to find a more confrontational means of preventing illegal connections. Aguas Argentinas received little support from the government to enforce disconnections. The legal procedures involved in disconnecting households were so complex and costly that the utility rarely put them into practice. This would have made the alternative, of developing better working relations with low-income settlements, more attractive.

In effect, after many efforts negotiating with higher levels of national government, Aguas Argentinas recognised the value of developing good relations with the 18 local governments of its concession area and the population they represented. In the west of San Fernando the utility decided to avoid illegal connections by providing legal connections. This was consistent with maximising overall profits, even if it was not

contractually required, and even if profits were not made directly from the low-income customers.

Serving the poor was also benefited public relations. It helped create the image of a socially responsible company. The initiatives in Buenos Aires have even been presented internationally by Lyonnaise des Eaux (the parent company) as a new form of 'partnership', demonstrating that privatisation, at least with a socially responsible company like Lyonnaise des Eaux, need not be heartless.

It remains unclear, however, whether these experiences represent a long-term solution to the water and sanitation problems in low-income areas, even within Buenos Aires. Affordability does not seem to be a major problem: for the 'average' low-income household the charges for water and sanitation would amount to less than 2–3 percent of monthly income. There are technical problems, but none that could not be solved given good relations between Aguas Argentinas and the local residents. The sustainability of services has been challenged on other fronts, however. The approach to repairs remains problematic, with residents sometimes carrying out repairs, leading to technical problems and confusion over responsibilities. More seriously, there is still a high level of non-payment, and no system for penalising those who fail to pay. Moreover, violence and vandalism in low-income settlements still prevents Aguas Argentinas' crews from working effectively. The strategy adopted by the utility's local managers has been to identify community leaders who pave the way for Aguas Argentinas' staff. However, such arrangements depend on personal relationships, and their sustainability is vulnerable to changes in the staff and/or in the overall relationship between Aguas Argentinas and the communities.

4.

Conclusions

As a result of the collaboration involving community groups, IIED-AL, local government, and Aguas Argentinas, 4500 residents of the case study settlements gained access to water supply services, and 2400 of these residents gained access to sewerage. No other initiative in these settlements has ever achieved the same widespread support and participation from the residents. They testified that access to water represented the most cherished collective experience for the four communities, and it brought about fundamental improvements in their living conditions. After decades of organising their daily routines around getting water, and still suffering from ill health due to its insufficiency and low quality, the inhabitants of four low-income settlements in the west of San Fernando have what they perceive to be a permanent supply of potable water.

Collaboration among civil, business, government and users provided the means by which these services reached informal settlements in Buenos Aires Metropolitan Area for the first time. No other low-income settlements had ever been served by any public nor private utility, ensuring an adequate water supply. The lack of land ownership by low-income dwellers prevented them from accessing a number of goods, including reliable water services.

The participation of local government – a third party to the conventional two party relationship between utility and customer – was indispensable to overcome the obstacles related to the lack of land ownership. Without the agreement of the local authorities, the company would have been potentially liable to a lawsuit from the private or public landowner for having provided services without their consent.

In two of the settlements, local authorities are mediating between communities and the utility. In so doing, they reproduced traditional party politics, and reinforced traditional relations of dependency. This goes against the conventional assumption that private sector participation de-politicises water management. Rather, the case studies indicate that in a context of weak civic institutions, privatisation of public services represents a new window of opportunity for party politics and clientelism.

The participation of a politically independent institution such as IIED-AL, has, in two of the cases, helped to produce a more participatory process and helped to depoliticise – and to some degree depersonalise – the process. The contribution of IIED-AL suggests that there is scope for NGOs to play a key role in keeping collaborative action accountable, as well as motivating and helping in the social organisation of communities.

The response of Aguas Argentinas to the request for serving these low-income settlements has resulted from constructive pressure from communities, IIED-AL, and local government. In addition, the company realised its need to learn from a direct involvement in informal settlements, because illegal connections by low-income groups were a significant source of losses – potentially increasing with the expansion of the networks.

The experiences have yielded valuable lessons about providing services in informal settlements for all the parties involved. All of them still have a lot to learn from each other, especially with regard to better and more sustainable services for low-income areas.

The goal of collaboration was to build the water and sewerage networks, not to provide and sustain a good water service. By the time the service began to operate, several problems arose, with regard to maintenance, billing, and payments. These problems challenged the reliability of the service and its sustainability, and the utility has not yet found a strategy to solve them. Occasionally, the utility has attempted to collaborate with community organisations or local government, but it has never sought to establish a formal and longer joint strategy to cope with these problems.

The collaboration was possible because some actors from each of the parties changed the way they used to work: an interim mayor responsive to the poor, an Aguas Argentinas manager who dared to take his company into an informal settlement, an NGO which shifted to working on community scale projects, and community residents and leaders who contributed their time and effort. The four cases drew the attention of other communities, local government, and Aguas Argentinas towards finding new ways of servicing the poor.

The collaborative experiences in San Fernando were the seed for further tri-sector collaborative projects by which thousands of low-income residents gained access to water supply. New schemes involving new actors, such as the provincial and national government, were devised in order to address the need of water for the poor. Local governments, consumers associations, and community based organisations are presently being consulted at renegotiations of Aguas Argentinas' expansion plans. Progress is evident in the fact that the utility has recently agreed to reimburse (in the long term) the costs to communities that are going to build water networks in their settlements – a previously unheard of arrangement.

While the need to provide adequate water to poor settlements is increasingly recognised by the utility and the governments, its realisation still depends very much on their good will. The new initiatives for responding to the poor have not been institutionalised - the collaborative experiences of San Fernando and elsewhere have not brought the concerns of the poor into the mainstream of Aguas Argentinas' agenda. It is difficult to envisage how the water needs of more than one million dwellers of informal settlements are going to be met without a broader pro-poor policy and strategy.

The original concession agreement was made more attractive to private capital by including high mandatory connection fees and omitting any obligations to serve informal settlements. However, this lack of attention to the concerns of the poor also constituted a heavy burden on future governments. Renegotiation is not competitive – the concession holder already holds the monopoly on supplying water and does not have to worry about being underbid. This places the public 'partner' at a disadvantage. As usual, however, the greatest risk is borne by the low-income residents themselves, who will not be receiving reliable water supplies unless the remaining obstacles can be overcome.