Utilities Panel Session

June 20-21, 2008   -   Growing Inclusive Markets Forum   -   Halifax, Nova Scotia, Canada

Public Goods from Private Infrastructure Projects in Poor Neighborhoods of the Buenos Aires Metropolitan Region
Greater Buenos Aires area Context

The greater Buenos Aires area went through a process of fast expansion that began during the post-war era, between 1947 and 1960, the population of the localities bordering the city grew by more than two million inhabitants, but in a more or less chaotic manner, without any sort of plan for organizing and distributing land.

That is how what we call the “loteos populares” appeared as the urban form that permitted the working class, who lacked access to credit, to become property owners.

The residents have been the primary builders of the neighborhoods, as developers have not taken on the task of investing in infrastructure or services. The state has been slow to react to the situation, making the minimum contributions possible.
The problem of infrastructure deficit is generally accompanied by other problems of a social nature, leading to critical areas that require integral programs to improve the neighborhoods. In our most recent studies, by using neighborhoods as our unit of analysis, we have demonstrated that there exists a strong correlation (0.72) between neighborhoods with problems related to well-being (health, education, land titling, employment, savings capacity) and neighborhoods with infrastructure deficit (running water, sewers, natural gas, and paved roads). \(^1\) In the Región Metropolitana de Buenos Aires, there are more than two million inhabitants who live in neighborhoods that suffer from both problems.

Difficulties in Uniting Supply with Demand

The problem is not that these sectors are completely deprived of resources. Rather, it is an issue of inequality and immobility. The alternatives available for other social groups to improve their living conditions are missing here. The absence of credit and failure of external businesses to penetrate into the zone set the standard for this area—a standard of deficit and deprivation.

There exists a definite demand for goods and services. These sectors possess an income, made visible, for example, in the investment realized in housing. However, there is no supply to match its counterpart. The source of this problem can be found in, among other things, the absence of conditions used to create and enforce reliability in the relationship between suppliers and their potential clients. More specifically, what is missing is the rule of law, the presence of which regulates potential conflict and breaches of contract, and consequently, makes alternative markets viable.

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<th>Deciles</th>
<th>Income (AR $) (Poverty line = $790)</th>
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<tbody>
<tr>
<td>1</td>
<td>162</td>
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<tr>
<td>2</td>
<td>468</td>
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<td>3</td>
<td>661</td>
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<td>8</td>
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<td>9</td>
<td>2239</td>
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<td>3612</td>
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The Mobilizing Event

Infrastructure development projects act as a catalyst, or **mobilizing event**, for lower-income families, as they stimulate both the families’ resources as well as their capacity for saving. In this model, gas installations act as the instrument through which supply is united with demand.

In addition to the actual works, this methodology also **establishes an imbedded potential for further increases in social capital**, following the regeneration of trust between neighbors (bonding social capital) and between the parties that control supply (linking social capital). For this to occur, new instruments are required to organize supply (**the Fideicomiso, or trust fund**) and demand (**neighborhood committees**).
Since 2000, we have embarked on a new program of development focusing on five communities in the Cuartel V area of Moreno, where we have focused on the extension of gas networks and the installation of corresponding fixtures in individual homes.

The plan relies on the communities’ management of trust funds financed by FONCAP and the World Bank. Repayment is made possible by the savings generated by the communities’ change in fuels. Using a net investment of 5,300,000 pesos (1.7 million USD), the program has already reached some 3,600 families.

The construction company that made the lines created 100 new employments in the area during the works.

The distribution company, Gas Natural Ban, charged the cost of the works to the beneficiaries through their system.
Likely the most important development to come out of this project has been creation of **Comunidad Organizada**. In this absence of trust and social capital, the promotion of FRS could only be considered trustworthy when coming from a fellow neighbor (refer to the table indicating levels of trust). Also, the neighborhood organizers were extremely useful in covering post-sale services, such as the distribution of bills to houses and customer service/support, as the distributing company has not yet developed the processes needed to attend to this type of demand.

<table>
<thead>
<tr>
<th>Confianza</th>
<th>Mucho</th>
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<tbody>
<tr>
<td>¿Cuál es su nivel de confianza en su familia?</td>
<td>77,37%</td>
</tr>
<tr>
<td>¿Y en los vecinos de su manzana?</td>
<td>16,16%</td>
</tr>
<tr>
<td>¿Y en Comunidad Organizada?</td>
<td>14,83%</td>
</tr>
<tr>
<td>¿Y en las asociaciones de su barrio?</td>
<td>12,00%</td>
</tr>
<tr>
<td>¿Y en la policía?</td>
<td>7,36%</td>
</tr>
<tr>
<td>¿Y en el Municipio?</td>
<td>6,95%</td>
</tr>
</tbody>
</table>

What started as a group of neighbors became a formal organization working for the development of the area.
The organization of demand allows for the realization of two fundamental goals: in the first place, to obtain a greater level of adherence to the program in a shorter period of time in order to quickly pay off the initial investment; and secondly, to guarantee the existence of an entity to monitor the maintenance of the gas lines, collect on defaulted loans, and reinforce the retention of participants within the system.

We estimate that there are at least 30,000 potential clients in the Gas Natural Ban area alone that require the development of these sales methodologies in order to be incorporated into the market as clients.
The clear and transparent management of resources is a fundamental issue. The decision was made to create a “Fideicomiso” (similar in translation to “foundation” or “trust fund”), which in Argentina are primarily applied to real-estate developments. This structure permitted the community members who were beneficiaries to appropriate the funds and the surplus, leaving open the possibility that the neighbors could utilize the Fideicomiso again for future development projects in the area.
Organization of Supply

In order to guarantee the quality of home installations, we created a Technical Office to supervise the management of accounts and budgets, the hiring of registered gas workers, the execution of project plans, the purchase of supplies and the presentation of forms to Gas Natural BAN.

We are currently working to transfer management of the Technical Office to Ferrum/FV, a leader in bathroom and kitchen fixtures in Argentina. Additionally, we are planning to develop, in conjunction with Ferrum/FV, a new program to provide home improvements to low-income households.

The organization of supply allows for the certification of work quality and establishes economies of scale, which lower the cost of domestic installations by 30%.

The use of financial instruments such as the trust fund ensures transparency in the administration of resources.
Results of FRS

As of today, we have constructed 70,000 meters of external gas lines and 2600 internal connections to serve in total **almost 3,000 families that have gas at their home.**

The savings brought about by the change in fuels have caused the capital invested in the network to quadruple. Whereas each family previously paid $620 per year on gas, they now pay only $141.50.

1000 families already finished their payments to the fideicomiso. Calculations indicate that the resultant **savings will increase the real income of each family by 7%, with an overall income of $1,500,000 per year for the community as a whole.**

Nevertheless there still remain some 30 percent of the neighbors without connections, but many of them require state subsidies in order to be able to manage the costs of the network.
Measuring Impact – The Community Development Observatory

In order to measure impact we teamed up with the University Torcuato Di Tella’s Masters in Urban Economics program, and as a result, we able to obtain the first set of data quantifying that impact of our projects. More than 800 residents of the zone were interviewed, representing 10 percent of the target population. They were divided into treatment and control groups. Some of the results were presented at the World Bank, last year.

Amongst families who have been incorporated into the gas network, one can clearly see a positive impact on health, with a 30 percent decrease in the likelihood of contracting respiratory ailments.

We noted also an increase of property value, raising asking price by 10 percent (more than invested in the gas lines).

The project have also made an important impact on businesses, Gas Natural Ban, for example, has now recognized these sectors for incorporation into their distribution network.

Finally, there is a marked change in the perception of the residents. They also gain a better understanding of their prior situation, recognizing the negative event of marginalization and social inertia, along with their own ability to effect change.
Challenges: Growing to Scale

The foundation is currently working to acquire the financing necessary to be able to provide gas to some **ten thousand families over the next four years**. To that end we have been working from the beginning with the gas distribution company, whose president and commercial department have guaranteed the financing of the external lines. They now consider our model as a way to augment their client base, which despite the relatively low profit margin remains a good deal for the company.

The main challenge consists of finding a way to also involve a commercial bank in this type of project.
Challenges: Achieving Integration with Local Development

The second challenge for FPVS has to do with moving from the current “mobilizing event”, which in this case has been gas, to an overall plan of integrated participation with multiple mobilizing events that takes into account all of the needs of these neighborhoods and areas: water lines, sewers, garbage services, public spaces, paved roads and sidewalks, along with improvements in health, education, and business opportunities. This task cannot be accomplished without the active participation of the state, (at all levels of government) local and national businesses, and the taking into account of the resources of the neighbors themselves.

According to what we have seen so far, there are more than two million people who live in areas similar to the ones in which the foundation works. Solving this problem may seem impossible; however, we must also note that over 70 percent of that number are concentrated in fifteen critical areas around the second outer belt of Buenos Aires. Therefore, the possibility of creating twelve agencies with a focus on uniting supply and demand similar to that of FPVS could be part of the solution.
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