



SOCIAL DEVELOPMENT NOTES

ENVIRONMENTALLY AND SOCIALLY SUSTAINABLE DEVELOPMENT NETWORK

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Social Assessment and the Baku Water Supply Project

The World Bank supports development that improves human welfare and reduces poverty. Achieving this goal requires sustainable economic growth; the development of physical infrastructure, human resources, and institutions; and sound environmental management. In recent years development practitioners have recognized that having stakeholders participate in project selection and design has a number of advantages: it can help reach the poor and other vulnerable groups, strengthen participants' "ownership" of the project, and improve decisionmaking. Development practitioners also recognize that systematic social analysis can help ensure that projects achieve their objectives, that they are appropriately targeted, that they are acceptable to the intended beneficiaries, and that they are institutionally feasible. Social assessment (SA) supports participation, and is a tool for incorporating social analysis into the Bank's projects and analytical work.

The Nature and Purpose of SA

SA is the systematic investigation of the social processes and factors that affect the outcomes of development projects. In project work, Bank staff use SA to identify key stakeholders and establish a framework for their participation in the project, to ensure that intended beneficiaries find the project's objectives acceptable, to assess the social impacts of a project and determine how to mitigate any adverse impacts, and to develop the institu-

tional capacity necessary for the project to succeed.

SAs involve a variety of methods for collecting and analyzing data, including both quantitative approaches, such as socioeconomic surveys, and qualitative approaches, such as beneficiary assessments. The approach used depends mainly on the complexity of the issues and the degree of participation needed.

The Bank does not restrict SA to project work. SA is an integral part of poverty assessments, and may also be pertinent to many other aspects of country economic and sector work.

The Baku Water Supply Project

As part of its efforts to make the transition from a centrally planned to a market economy, the government of Azerbaijan has asked the World Bank to help provide essential public services to the population, especially in Baku, the capital, where 2.5 million people, one-third of the country's population, live. One of the most critical needs is to improve the city's water supply system.

Objectives of the SA

The Baku Water Supply Project will be the Bank's first lending operation in Azerbaijan. As such, the Bank considers two aspects of the project to be particularly important. The first is that the project gives priority to the needs of the poor without adversely affecting other

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social groups, and the second is that the project's development impacts are sustainable. To this end, the Bank team initiated a social assessment. Its specific objectives were

- To identify key stakeholders and to propose a framework for their participation in project design and implementation
- To evaluate the project's social impact on households and to ascertain whether particular social groups might be adversely affected
- To design measures that would mitigate any adverse effects
- To help identify cost-effective interventions that could be undertaken immediately
- To ensure that the project's objectives and incentives for change are appropriate and acceptable to the diverse groups of intended beneficiaries.

Procedures

The SA used a variety of techniques and consisted of a number of components (see box 1). It simultaneously employed both sociocultural and institutional analyses, ranging from a rapid household survey to informal interviews and formal discussions. The household survey consisted of a questionnaire that was administered to some 450 households and took 8 days to complete. Given the scarcity of population data for different sectors and neighborhoods of Baku, the team considered that spatial representation was more relevant than a random sampling of the entire population. Thus the interviews took place throughout the city, with all neighborhoods receiving equal coverage.

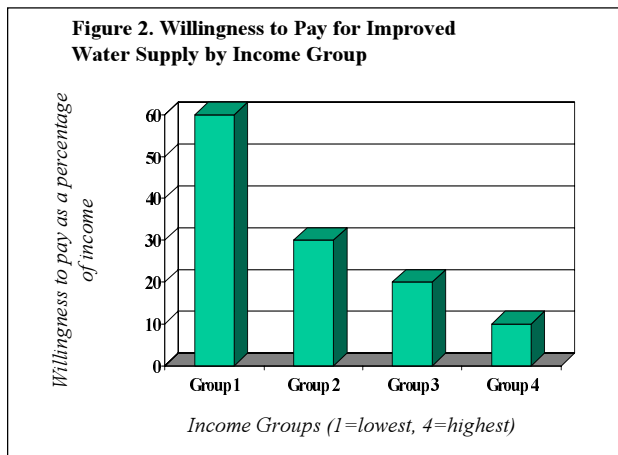
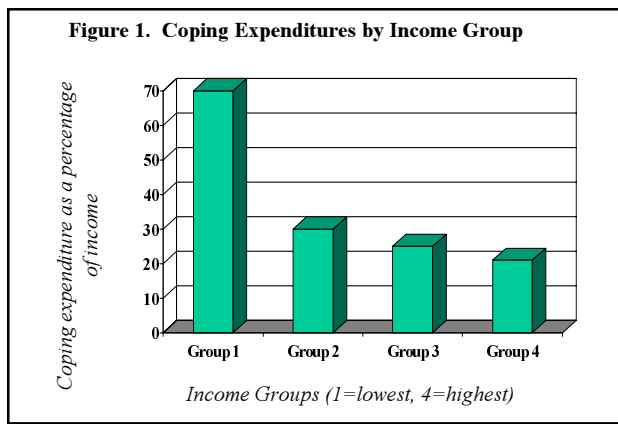
Results

The SA, especially the household survey, revealed a number of trends, namely:

- Even though almost all households in Baku are officially connected to the water supply network, on average families receive water for only 22 days per month and 11 hours per day.

Box 1. How did the Team do the SA?

- A rapid household survey, undertaken with the help of faculty and researchers from the Institute of Social Management and Political Sciences and the Institute of History at Baku University
 - Community-based discussions conducted through informal household visits and interviews, including interviews with refugee groups
 - Participatory assessment discussions with staff of nongovernmental organizations targeted at such groups as women and refugees
 - Discussions with representatives of international organizations
 - Meetings with representatives of the national and local governments
 - Informal interviews with informal and private sector providers of water and water supply equipment (such as storage tanks) to households
 - Case studies of a small subset of households from the rapid appraisal sample to identify the strategies they use to cope with shrinking incomes and acute economic difficulties
- Only 13 percent of households believe that the water they receive is clean. The high incidence of water-related diseases supports the perception that the water is unsafe.
 - The poor water supply affects Baku's entire population. Everyone suffers from unreliable, intermittent, and insufficient water service. Thus all social groups would benefit from the project, and none would be adversely affected by it.
 - The single most important cause for both the unreliable and intermittent nature of the water supply and its poor quality is insufficient water pressure. This is caused by leakages, illegal connections, and the poor condition of pumping stations. The low pressure also permits pollutants to enter the water mains more readily.
 - Water distribution and the way people deal



with the insufficient and unreliable public water supply vary with location, socioeconomic status, and type of housing. Thus interventions must be tailored to meet the needs of specific communities.

- Some 40 to 60 percent of public water is not paid for. Reasons include illegal connections, leakage, and the overall lack of metering equipment. Only public institutions and industries have water meters, but in many cases they fail to pay their bills and to repair broken meters.
- Most households have developed strategies to improve water quality, for example, by boiling tap water; to have water available when they need it, for instance, by installing storage facilities; and to find alternative sources of water, for example, by drilling private wells or buying water from vendors.
- Households incur high costs to secure nonpublic water, which normally costs about

17 times as much per month as public water: 1,680 manat as opposed to 100 manat (US\$0.10). As figure 1 shows, the poor spend a significantly higher proportion of their income (7 percent) on coping strategies than better-off households (2 percent). Thus the poor would benefit the most from an improved water supply system.

- Women, the elderly, and the poor bear the brunt of the water supply crisis. Women are primarily responsible for fetching water from alternative supply sources and for caring for those who fall ill because of contaminated water; the elderly generally cannot afford alternative supply systems, and those that can, cannot readily transport it; and the poor do not have enough money to adopt expensive coping strategies.
- Households would be willing to pay many times their current monthly water charge for better public water service. They consider the present charge to be merely symbolic. Some 84 percent would be willing to pay double the current rate of 100 manat even without any improvements, while 63 percent would be willing to pay more than 10 times the current level for improved service. As figure 2 reveals, poorer households are willing to spend a higher share of their income (6 percent) on improved service than richer families (1 percent). Although these figures seem high at first glance, they differ little from the 1,680 per month households currently spend on their coping strategies.

Impact

The SA suggested that to obtain further information about local water use and the supply situation, and ultimately to improve the public water system in Baku, a number of measures should be given priority. First, given that the SA not only indicates a widespread need for a better water infrastructure, but also a high willingness to pay for it, and clearly indicated that the poor will profit the most from any improvements, the components of the project are fully justified, and even suggest that a higher loan amount than originally planned would be appropriate. Second, environmental communication and education must

be a central project component, because several of the coping strategies households have adopted, such as drilling wells, may have adverse health and environmental impacts. Third, community participation should be stressed. To this end, a comprehensive, community-based inventory of surface maintenance problems has been launched. Fourth, water meters in public institutions and industries must be repaired as a first step toward cost recovery and acceptable payment and enforcement mechanisms implemented. Finally, the Baku Water Department should be reorganized and its institutional capacity for consumer relations and environmental communications strengthened. For the SA's policy implications see box 2.

The project will address the range of community-specific water supply problems and the variety of coping strategies Baku's populace is currently using. The SA identified these problems and revealed people's attitudes toward securing public and nonpublic water. Ordinarily this sort of essential information would not be available at such an early stage of project preparation, but the insights gained from the SA will permit project designers and other stakeholders to fine-tune the project so that it meets specific local needs and to identify priority actions.

Costs

The work described in this note cost some US\$13,000 for data collection and staff time. Field work took about eight days, and data processing and write-up took another three weeks. However, the entire process of social assessment and participation in Baku, which involves a number of separate studies and missions, will take approximately 6.5 months at a total cost of some US\$50,000.

Box 2. What Were the Policy Implications?

- The proposed Baku Water Supply Project meets one of the critical needs of the city's population and will be especially beneficial to the poor. The SA indicated that beneficiary support for the project will be substantial.
- The savings derived from the project will include not only water conservation, but also the time and energy spent in fetching and processing water; the fuel used to boil water or pump it from wells; the costs of caring for people suffering from water-related diseases; and the personal costs of illness, such as medical expenses and foregone income.
- The success of this project will improve people's faith in the government, and thereby generate public support for other components of the government's reform agenda.
- The strongly perceived need for the project and the high costs of coping strategies indicate that improving the reliability of the water supply system will create opportunities for cost recovery. However, a full picture of the potential for cost recovery requires an understanding of industrial and agricultural stakeholders' responses to the current situation. At the same time, any institutional measures adopted should include participatory elements to sustain the community-level participation achieved to date.
- The water supply system's unreliability is partly related to the unreliability of other components of the infrastructure, namely, electricity and communications (a functioning telecommunications system is a prerequisite for timely reporting of damage to the system for coordinating repair work and maintenance). Therefore, study of the interdependencies within the system is required so as to develop appropriate solutions.
- The environmental and health consequences of some of the coping strategies households have adopted need to be examined and suitable incentives to change them introduced, including developing a regulatory framework.
- The large capital investments some households have made in tapping into alternative water supply sources may reduce their participation in system improvements. In addition, some of the investments may also have an income-generating component, for example, using water to grow vegetables.
- The perceived acuteness of the unreliability of the water supply varies among communities, and suggests the need for better understanding of the problem's technical causes. As new, privatized housing development are among the worst affected, pilot community interventions would not only demonstrate the potential for systemwide improvement, but would also enhance public support for both the project and the privatization process.