

Fighting Poverty with Facts

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Putting data to work for people in Senegal

When the new mayor of Tivaouane, Senegal, took office in 2002, he was stymied by the lack of current information about his community. Thanks to city surveys, the implementation of a community-based poverty monitoring system, and the creation of an observatory of living conditions, that is no longer the case. The city's population is the clear beneficiary.

Bring your own memory stick if you have an appointment with El Hadj Malick Diop, mayor of Tivaouane, Senegal. He might be tempted to answer your questions by offering to copy reams of material from his database. Diop knows his community like few mayors in Africa.

The mayor takes great pride in being well informed before acting. But when he was elected to the top job at city hall in Tivaouane, information was sorely lacking. "How many people live in the Commune? What are the Commune borders? How many squatter settlements are there? How many households have access to city services — water, electricity, telephones?" These were just some of the questions to which he had no answers.

"Bringing decision-making closer to the concerned populations is one of the basic principles of decentralization," he says. "And the first step in making decisions is to have access to reliable, current, accurate data." The need is also national as Senegal moved toward greater decentralization in the 1990s, and then adopted a poverty reduction strategy in 2001. Implementing this strategy required a system to gather data on poverty, living conditions, and human development.

Diop set out to obtain that information soon after his election by establishing a database. But this focused mainly on city characteristics, he says, neglecting demographic data. To fill this gap, a Community-Based Monitoring System (CBMS) was introduced in 2003.



IDRC: Djibril Sy

The CBMS survey showed that women made up more than half of Tivaouane's population. More than half of the population was also unmarried, a finding that points to high poverty levels.

The arrival of this statistician at the head of one of Senegal's most important municipalities was a genuine revolution. "Our predecessors were politicians. We are technicians," he says. Not only did Diop contribute to the development of the monitoring system, he made it an indispensable management tool for his municipal administration.

In 2004, Tivaouane was selected as the site of an observatory of household living conditions. This observatory is the nucleus for gathering information on households, neighbourhoods, schooling, literacy, health care, international migration, access to basic social services, and a number of other issues. The Centre de Recherche en Économie

Appliquée at the Université Cheikh Anta Diop, in Dakar, and its former head, Momar Sylla of Senegal's Department of Planning and Statistics, collaborated in setting up the observatory.

Diop carries the CBMS data of his city on his laptop computer. "It was Sylla who introduced me to everything related to poverty," he explains. Diop had worked with Senegal's Department of Planning, and under Sylla. "I'm a statistician. I need to have a set of data to be able to manage better."

About CBMS

The Community-Based Monitoring System (CBMS) is an organized way of collecting, analyzing, and verifying information at the local level to be used by local governments, national government agencies, non-governmental organizations, and civil society for planning, budgeting, and implementing local development programs. It also serves to monitor and evaluate their performance. Piloted in the Philippines in 1994, it is now being implemented in 14 countries of Africa, Asia, and Latin America.

Implementing the CBMS

Diop points out that, when he took office, the available data was five years old. The community needed up-to-date information to implement urban development and sanitation plans. Under Diop's new administration, the urban database and CBMS data were integrated into a geographical information system. Savings were realized by concurrently establishing the database and conducting the first survey of household living conditions in 2003. A second survey was conducted in 2007.

In 2003, a small sample of households was interviewed in each locality because, says Sylla, it would have been too expensive to survey all households. The sample was selected in collaboration with the community leaders. All community leaders were also surveyed.

The surveyors were recruited from the community and chosen by the mayor or commune president. The training program included instruction, testing, and translation of parts of the questionnaires from French into local languages, and field observation.

Two questionnaires were administered: one to communities and one to households. Data processing was done electronically by locally recruited and trained personnel.

Identifying needs and actions

The data gathered painted a detailed picture of the community. The number of youth, of women, of city sections that have few urban services, of squatter settlements, the number and location of sanitation and educational facilities are now better known, says Diop.

For instance, the survey showed that 52% of Tivaouane's population was female. And as elsewhere in Senegal, most of the population was very young: 70% were under 35 years of age, and most of them were under 15. Households were large: more than 40% had at least nine members.

Some of the results astounded residents. For instance, they discovered that more than 52% of the population was unmarried, an anomaly in a very religious community. But, says Mayor Diop, this is a manifestation of poverty. "With high unemployment and crowding of two, three, and even four people in each bedroom, life as a couple is virtually impossible," he says.

The survey also revealed the low level of schooling: more than half of Tivaouane's residents had never attended school, including 61% of heads of households. But there was also more hopeful data: 74% of Tivaouane's children were attending school. Although girls enjoyed equal access to school, the survey showed that many dropped out before finishing their studies. The reasons behind the dropout rates were essentially the same everywhere — the need to work at home or outside the home, failing exams, or the breakdown of the parents' marriage.

The survey also pointed to a problem in school location. With a dozen primary schools, the municipality believed it had enough to serve the population. But when officials noted that schools were concentrated in the north of the village — and that children there were higher school achievers — they decided to build three new schools in underserved areas.

Galo Mbengue, director of the mayor's office, explains that the maps produced from the data enabled them to better understand how household well-being contributed to academic success or failure: schools with identical programs had very different graduation rates. These were directly proportional to the community's income level.

To stem the flow of children who were leaving school and the city, the municipality reintroduced professional training and trades programs.

Health data showed that during the month preceding the interviews, 19% of Tivaouane's population had been sick: 70% had used a medical service or consulted medical staff, either at the health centre or the hospital. But a great many had also self-medicated because of the costs of seeking treatment at a health centre.

Data on children's nutritional status revealed that 29% suffered from delayed growth. A greater number were significantly underweight. Almost one-quarter of children had an inadequate height-to-weight ratio or suffered from chronic malnutrition. This data led to the establishment of three nutritional enhancement programs for young children, pregnant women, and new mothers.

Tangible benefits for all

Mbengue pointed out that the survey data, combined with data from the urban database, paved the way for implementing concrete, realistic ways of managing household waste and easing overcrowding in the city centre. For example, the CBMS led to a number of improvements:

- access to a clean water supply for some of the poorest communities;
- distribution of seeds and agricultural inputs;
- identification and care of ill people; and
- the determination of transport needs and paving of alternate routes.

Findings on the need for better sanitation led to the installation of 8 km of rainwater drainage gutters. Insecticide-treated mosquito nets were also distributed, bringing coverage to 80% of residents.

According to Mbenge, the CBMS has also had another significant impact: "People who belong to associations — women's associations, associations for inclusive education, as well as others — have now realized that they have been working in an unsystematic way." Thanks to the data collected (incorporated into the database and geographic information system), these associations now have at their disposal a whole series of maps: an education map, a healthcare access map, a nutritional status map, and more, on which to base their actions.

And in Tivaouane, it's no longer the one who yells the loudest who gets noticed and obtains funding. The monitoring system and its databases serve two functions, says Diop: first, data collection and second, decision-making based on analysis of this data. "Development programs are now better shared and better accepted by the beneficiary populations that are involved in their implementation."

According to Tivaouane's mayor, the CBMS has also enabled decisions to be made more quickly.

Mbengue stresses that "The mayor pushed us to develop a single tool that combined all the various data." This system, which incorporates the CBMS, the database, and the geographic information system, has become a flexible budgeting tool. Among other things, it is gender sensitive,



Malick Diop, Mayor of Tivaouane, says that the information obtained through the survey has led to better informed planning and decision-making.

which makes it difficult to neglect the impact of programs on the well-being of girls and women.

"We can do nothing without the monitoring system," concludes Tivaouane's mayor. "We need a light survey that can be carried out quickly." His director adds: "Decisions are no longer taken based solely on policy or technical considerations. Both are needed."

Today, says Diop, municipal decisions and policies draw closely from the data provided by the CBMS. "[It] enables us to prepare and document all strategic and operational planning sessions. CBMS enables us to identify priority problems in all sectors, the lack of equipment, and needs of the most vulnerable populations so we can address them adequately."

Other communities follow suit

Sylla is justifiably proud of the success of the Tivaouane monitoring system. "I had thought about such a system," he says. "People would come and ask: do you have data on this neighbourhood, on this city? All I had was national data."

After testing the CBMS in three Senegalese communities — Guédiawaye commune in the suburbs of the capital Dakar, and the rural community of Ndangalma, in addition to Tivaouane — Sylla concluded that "Maybe this system can be the tool needed to support decentralization. In any case, that's what people are saying."

Sylla quotes Guédiawaye's mayor, Bokar Sédikh Kane: "It doesn't cost anything (two to three million CFA, which is between CA\$4400 and \$6600). We can put that in the budget."

“No local development actor now ever thinks to question the importance of accurate information in decision-making,” says Diop. “But it’s important that we now go beyond that and make the practice of gathering information before decision-making a habit of all those involved, all decision-makers.”

But, he adds, bringing about that change of behaviour will require adequate equipment, proven tools, training in data processing, functional space so the materials can be well maintained, and adequate resources. “It will also require setting up a networked databank accessible to all local development actors and to which all contribute.”

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The views expressed in this case study are those of IDRC-funded researchers and of experts in the field.



Momar Sylla (centre) of Senegal's Department of Planning and Statistics, considers that the CBMS could support the country's decentralization process.

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