A household that is connected to the water mains and the sewage system is not commonplace in Bolivia. Better service has to be financed. This is not easy in one of South America’s poorest countries. In Oruro, the public water utility is gathering experience with Technical Cooperation that could set the whole country an example.

Petra Schmettow, text  |  Manfred Schäfer, photos

We had a huge party. The streets were decorated, and there was lots of beer and food. When somebody turned on the tap and the water poured out, everyone cheered. I had waited for this moment for 30 years.” Rojas de Frias, head of the neighbourhood council, goes into raptures when she recalls how her district in the mining town of Oruro was connected to the public drinking water mains in Bolivia’s Altiplano.

The district, situated on the western perimeter of the settlement, seems to stick to the rocky hill of Pie de Gallo – an unfavourable location for mains water supply. Ms Rojas de Frias has been living here for 30 years, and in the past she had to fetch every drop of water in buckets from the district’s public water standpipe three or four blocks away and carry the buckets up the steep, unpaved paths. And what is more, insufficient pressure in the mains only allowed for the water to flow from the public standpipe at night. “We had to wake each other up and would often quarrel about who had to get up and go. There were always queues. And in the winter, when you are waiting at an altitude of 3,700 metres, the cold really bites.” In Technical and Financial Cooperation with the municipal water utility of Oruro, one of the worst deficiencies of the infrastructure was remedied in 1997.

A problem throughout the country

However, many other settlements in Bolivia still have poor water supplies. And yet there is enough water around. Even so, only two thirds of Bolivia’s 8.2 million inhabitants have access to safe water. At least drinking water is available to 90 percent of the urban population. But in the rural communities, this share has dropped to just 39 percent. But what is wrong with the water utilities in Bolivia? The story of the Servicio Local de Acueductos y Alcantarillado (SeLA), the public utility for drinking water supply and sanitation in Oruro, vividly illustrates the problem. All the management positions of this utility, which was founded as a public enterprise in 1974, were staffed according to political criteria. Orderly accountability was lacking entirely. There were no records referring to the regular clientele. “Invoices would go out to people who were long dead,” says Fernando Zubia, SeLA’s managing director. There was no overview of costs and income. Strategic operational planning did not exist. Nobody knew what quality assurance meant. None of the inhabitants had continuous drinking water supplies. The minimum supplies were in the east of the city, which received water for just two hours a day. Owing to the large number of leaks in the mains system, losses of 50 to 60 percent had to be put up with. So not even half of production reached the users.

A dent in the finances

Towards the end of 1994, the dent in the company’s finances amounted to the equivalent of about 1.85 million euros, and the crisis reached its climax in 1995. The company was on the verge of bankruptcy. “None of the local builder’s merchants would deliver us material for repairs on credit. We could
no longer pay the wages. Everything was missing, even shovels,” Zubieta recalls. So the impetus for a radical restructuring of the company and the motivation for Technical Cooperation commissioned by the German Federal Ministry for Economic Cooperation and Development seem to have been a financial crisis rather than the declared goal of setting up a quantitatively and qualitatively satisfactory service. In mid-1996, the go-ahead was given for the first phase of the development project for the institutional enhancement of drinking water supply and sanitation in the cities of Oruro and Potosí. Technical Cooperation is integrated into the work of Bolivia’s National Association of Drinking Water and Sanitation utilities (ANESAPA). Further utilities are benefiting from the experience of Oruro and Potosí via the Servicio de Apoyo a la Sostenibilidad (SAS), the service company for enhancing sustainability.

For a long time, SeLA played a pioneering role in the framework of the project and can now pass on its know-how to other companies. Michael Rosenauer, head of the GTZ team in the PROAPAC programme, explains the complexity of the SeLA project, which above all aims at a management reform in addition to technical and financial support.

One initial important step was to install more water meters. Now that customer files have been established, consumption and rates can be worked out with the computer. These innovations have already contributed to improvements in the company’s financial situation. But the human component is what really counts. “If you consider that influential personalities try to delay or even prevent payments, it soon becomes clear that things have to change at all levels of the hierarchy,” says Rosenauer. “In such a situation, a head of department must not give in but instead has to back his team and promote the new course.” Unpaid bills are nothing special. Even the town administration had debts averaging 88,000 bolivianos, around 13,000 euros, a year, in spite of the fact that the Mayor is a member of SeLA’s directorate himself.

**Integrated throughout the country**

But success in improving local water management is not enough for Michael Rosenauer. The project is to be linked up with the administrative and legal structures throughout the country. Initial experience with the need for training is to flow into the education modules of the SAS in future. In Bolivia, a law on drinking water supply and sanitation has been in force since mid-2000 on the basis of which concessions are granted by the supervisory authority for water. The basic requirement for a concession is proof of an internal management and regulatory system and an acceptable rate structure. This may sound simple, but Bolivian administration is in fact breaking new ground here. For the first time, the different parties have to mutually negotiate a balance between autonomy and control.

Rojas de Frias has a second reason to be satisfied. Better services, moderate price increases and more intensive contact with Oruro’s population are ensuring the SeLA a comparatively secure position in the town’s power constellation. This does not go without saying in a country in which the name of the city of Cochabamba has become an emotive word as far as water rates are concerned. Cochabamba, a town of 590,000 inhabitants that is situated in the subtropical foothills of the Andes, saw severe and violent protests towards the end of 1999 following the sale of the water utility to a private operator.

As a result, water rates increased by up to 400 percent. Privatisation was reversed. Given an average monthly income of the equivalent of 80 euros, widespread poverty and extremely different levels of income, the scope for price increases is only small. This is why the utilities in Oruro have been in close contact with the neighbourhood councils, the juntas vecinales, and are campaigning for an acceptance of the price increases of up to 20 percent.
This is how they managed to get the required consent.

So far, privatisation has not been envisaged. The management regard this as a confirmation of their reform course, and managing director Fernando Zubieta has set himself the ambitious goal of turning SeLA into Bolivia’s most efficient public utility. This is not an unrealistic hope. Now, Zubieta and his four heads of department, whose positions were publicly advertised for the first time, can look back on considerable achievements. There is a register of the drinking-water mains, and over long distances, old pipes have been replaced with new ones. Water losses have now been reduced to 36 percent. New pumps have increased production, and 80 percent of all households now have a tap in their own house. By 2003, all houses are to be connected to the water mains.

“Drinking water round the clock” is what Rojas de Frias wishes for the future. According to SeLA’s plans, the entire town of Oruro is to be able to reckon with a 24-hour service by 2006. Today, water is already flowing up to nine hours a day on average, which is twice as long as it did five years ago.

Nevertheless, one sore spot remains: the municipal sewage system. Just 69 percent of the sewage is collected in the cities, and only 33 percent in the rural areas, not to mention any orderly treatment of sewage. So it comes as no surprise that there is a very high incidence of diarrhoea diseases. Even by South American standards, the administering of oral rehydration salt – an indicator of how frequently diarrhoea diseases have to be treated – among just under 50 percent of all infants below the age of five is very high. Infant mortality is still at more than 60 deaths among 1,000 children.

Since 1997, a renewal and extension of the sewers has been under way under the overall control of, and largely financed by, the Kreditanstalt für Wiederaufbau (KfW). KfW would welcome responsibility for the sewage system being transferred from the municipal administration to the Servicio Local de Acueductos y Alcantarillado. Negotiations have been in progress for some time. SeLA can boast good institutional and technical capacities and could ensure sustainable operation. However, the decision is being delayed because it has not yet been settled who is going to finance maintenance costs, to what degree the municipal administration is going to participate financially and how the new service of connecting to the sewers can be adopted in the system of rates in a socially balanced manner.

The situation is dramatic. A sewage system only exists in the town centre. Some of it dates back to 1933. Sewage from 70 percent of all house-holds still flows just about anywhere except for into the newly laid sewers. In Rojas de Frias’ district, the wastewater seeps into the ground at best. Things get worse if water polluted with drainage wastewater containing heavy metals and acids from the tin mines flows through the streets and alleys and ultimately accumulates in the street market below the district. Ordinarily sewers do little to solve the problem because they only carry the sewage to the southern perimeters of the town. Two kilometres outside the gates of the town, the domestic sewage of 240,000 inhabitants unite with the industrial wastewater in a shallow evaporation basin, forming a brown, unpleasantly smelling sludge. The wastewater is not treated. KfW has been supporting the construction of a three-level pond sewage plant that is to start operating towards the end of the year.

An appeal for hygiene

Given the precarious supply and sanitation situation, the director of health services in the Department of Oruro, Rojas, has appealed to people to observe personal hygiene as much as possible. The project is meeting his demand for better health education. Two school courses mark the beginning of a continuous sanitary education programme. However, people working hard all day to earn a minimum living, without time to supervise children playing and having to sacrifice one to two hours a day at a public standpipe for two buckets of water will have difficulty ensuring even the most necessary hygiene. Water from a tap is an indispensable prerequisite for this. However, the tap in the house and the connection to the sewers still tend to be a privilege the wealthy enjoy in Bolivia.