

The City grows by 358% in the 38 years of universal provision of sanitation services

The municipality of Unai in Minas Gerais treats 100% of the consumed water and 100% of the collected sewage. Unai invests continuously with tariff resources to mirror the steep growth of the urban area. In 10 years, the infant mortality rate has been reduced by 50% in the municipality.

Between 1967 and 2005, the urban population of the municipality of Unai grew by 358%. The great challenge for the municipality and the municipal autonomous sanitation service was to follow this steep urban population growth of 4% per year, which is double the average national growth rate, and at the same time, provide high quality public services.

This challenge was met. Despite the growth, Unai achieved universal water supply and collection and treatment of sanitary sewage. This is reflected by the falling infant mortality rate

(number of annual infants deaths per 1000 live births) in the municipality of Unai, from 32.8 in 1991, to 16 in 2000.

Even though the per capita income has increased in Unai over the last decade, and the Human Development Index (HDI) reached 0.812, meaning that the municipality demonstrates high human development patterns according to the United Nations Development Program (UNDP), the Gini Index that measures income inequality, has increased over the same period.

The population growth and the residential expansion were slower in recent years, facilitating the maintenance of service indexes in high levels and thus, allowing SAAE to intervene with improvement projects, network expansion, losses control and consumption monitoring.

In the municipality water supply became universal in 1996, with sewage collection and treatment becoming universal in 2003. In other districts serviced by SAAE (Ruralminas, Boa Vista and Garapuava) water supply coverage reached 100%.

Order n° 518 /2004 of the Ministry of Health established that ideal parameters of potable water had been followed regarding both the physiochemical and bacteriological indicators. The Autonomous Service regularly forwards the results of the analyses to the Municipal Secretary of Health.

At the end of 2004, a survey revealed that 54.30% of Unai's population felt they were properly served by SAAE. More than half of the population (51.10%) considered the tariffs fair.

Unai, Minas Gerais

Population estimate, 2005: 75,299 / Urban population 54,440 / Index of urban water assistance: 100% / Index of urban sewage assistance: 82% / Colliforms outside the limit: 3.6% / Total cost of the service per m³ invoiced: R\$ 0.60 / Average tariff charged: R\$ 0.60 per m³ / Invoice revenue loss Index: 22.6% / Productivity Index: 2.4 workers per thousand water and sewer connections / Gross annual operational revenue (direct and indirect): R\$ 3,658,027.41 / Annual cost of the service: R\$ 3,289,911.49 / Annual utilisation cost: R\$ 2,584,373.72 /

Source: SNIS 2003, IBGE 2000

One of the problems resulting from the expansion of the municipality was the formation of various slums and the occupation of huge areas, facts that obstructed SAAE's performance. The situation improved after signing the Term of Conduct Adjustment (TAC) with the Public Ministry, aiming to organise water supply by installing connections in slums.

The TAC limited SAAE's service to invaded areas, irregular settlements and occupations in environmental preservation areas. The results have been satisfactory, since the limits of SAAE were finally defined.

The Autonomous Service recently expanded its responsibilities by assuming the public system of urban drainage. The statute of SAAE was modified in July 2005, to adapt to this expansion.

SAAE was created by FSESP through funding from IDB

Unai is the only municipality in Minas Gerais bordering the Federal District, and is located around 600 kilometres from Belo Horizonte.

In the 60s, Unai was not any different from hundreds of other cities in the interior of Brazil. The lack of basic sanitation was the main problem faced by the municipal authorities. There was a need to install water supply and sanitary sewage collection systems in order to alleviate the harsh living conditions of the residents in a rapidly growing city. The water consumed by the population was collected in cisterns and the sanitary sewage disposal was unregulated.

The solution came with the inclusion of Unai's Municipality in the "Water Supply for Small Communities" Programme, which was implemented in 1966, through a contract signed between the Brazilian Government and the Inter-American Development Bank (IDB). The Programme targeted the installation of water supply systems in municipalities between 5,000 to 40,000 residents.

The Foundation of Public Health Services (FSesp) brokered and executed the programme, through the contractual agreement administered by Unai's SAAE, until the repayment of the US\$ 38,000 loan, which was met in 20 years using tariff resources. The Autonomous Service of Water and Sewage (SAAE) was created by Municipal Order n° 504, of November 27, 1967, as part of this process.

After repayment of the loan in 1987, FSesp administered the Autonomous Service until 1991, when the administration was transferred to the National Health Foundation (FUNASA), which had already incorporated FSesp's patrimony. FUNASA unilaterally called off the administration agreement at the end of 1998.

The administrative transition from FUNASA to city hall did not cause significant changes in the management of the services since the Autonomous Service was already well structured.

The dedication of its managers and other employees guaranteed this smooth transition. The Municipal City Hall, which had always been a great partner for SAAE, became more involved after calling off the administration agreement with FUNASA.

The Municipal Sanitation Fund's exclusive role is investments

The tariff system is based on historic values, in other words, those respected by SAAE since its foundation. Periodically, the Autonomous Service requests the authorisation for readjustments from the Executive Authority, always considering the operational needs and investment strategies of SAAE.

Frequently, the technical calculation of the values based on the expenses and investments strategies of the Autonomous Service, do not match the ones defined on political grounds. Occasionally, during the 38 years of SAAE's existence such a situation would cause the loss of the actual value of the tariffs.

There is control and a legitimate pressure by the population, represented by the Local Executive Authority, to keep tariffs stable. This is evident by the fact that the increase of the inequality index in the municipality did not have an impact on the index of failure to pay off bills, which has remained between 3% and 5%. The tariffs applied by the Autonomous Service represent 3% to 4% of the minimum wage.

The necessary investments and high quality services were always achieved. Tariffs have been the main revenue source for the execution of such works. The historic percentage of tariff revenues directed to investments has remained constant at around 20%.

The Municipal Sanitation Fund was created in order to define how much of the revenue would be directed exclusively to sanitation investments or expansion works.

The universal provision of sanitary sewage treatment was reached with investments in the order of R\$ 3 million, with non-onerous resources of the General Budget of the Union (OGU), obtained through the Ministry of Environment. SAAE participated in the construction of emissaries, the expansion of the Sewage Treatment Plant project and the counterpart funding required.

The municipal Master Plan

The municipality of Unai has an Urban Development Master Plan. Even before its approval in 2003, SAAE had already achieved universal provision of water supply and sanitary sewage services.

Due to the accelerated growth of the city in the last 30 years, SAAE had to quickly adapt itself, even before the approval of the Plan.

The planning for the expansion of sanitation supply was always strengthened by the participation of various sectors of the population.

The Municipality has water sufficiency

Water supply is secured for the years to come. The main source of water is the Preto River which supplies 95% of the urban population of Unai.

On average, 200 litres of water per second are collected from this river, which is well below the critical flow rate of 5,000 litres per second that is used to calculate the maximum collection rate from the spring.

SAAE has been guaranteed a collection rate of 396 litres per second until 2019. The other collection points of the municipality, administered by SAAE, also have a defined collection rate and are capable of supplying the system for at least 10 years.

There are no conflicts over the use of water in the springs where the collection takes place, or in other systems managed by SAAE.

SAAE participates in the Committee of the Paracatu River Basin, tributary of the Sao Francisco River, occupying two positions: alternative member of the Users' Representative Body and the Vice President's chair.

Investing in human resources and capacity building

A survey involving the employees is carried out periodically to evaluate the "organisation's atmosphere", through which their opinion is taken regarding the conditions in SAAE related to various factors. The employees

have an excellent opinion regarding the institution. They are satisfied and feel proud to be part of SAAE's team. Once certain discomforts are identified, management tries to assess them and alleviate them to the best possible extent in order to create a better working environment.

Institutionally, SAAE has a Planning and Coordination Nucleus. Recently, a calendar of intersectorial meetings was developed; aiming to disseminate information and decide demands related to activities. All directors and managers participate in this process.

Some of SAAE's employees, mainly managers and directors, have already participated in courses on Total Quality, but the programme has not been fully implemented yet. However, the implementation of the programme has been discussed by the directors. As Geraldo Antonio de Oliveira, Director of SAAE, affirms, "we have some proposals to address, after the ISO 9001 certification, regarding the administration of total quality. Until we can implement them, we are trying to improve personnel training programmes and regularise and standardise the processes. We have already implemented a POP, Standard Operational Procedure, in the Water and Sewage Treatment Plants".

The school community is the target of environmental education

The Autonomous Service has been collaborating with the Municipal Secretary of Environment on environmental education initiatives, focused on basic education.

There is also a partnership sponsored by the Public Ministry, between SAAE, the NGO Association of Friends of the Environment (AAMA) and the Municipal Secretary of Environment, for the implementation of a project on the recovery of the forest surrounding the Canabrava spring, which was carried out by SAAE.

Social Control

The Environment and Health Councils are really active in Unai. SAAE participates more actively in the Municipal Health Council. Around three years ago, the municipality hosted the Municipal Health Conference where SAAE participated. The Autonomous Service recently participated in the Conference of the Cities, whose regional component took place in Unai. Subsequently, SAAE participated at the 'state level' stage of the Conference, which was held in Belo Horizonte in September 2005.