



# Water and sewage: the big question

by Aitor Iturralde

In the Western world, we seldom consciously think of running water and flush toilets as precious things in our daily lives, but when the system fails, we react, often irrationally because someone is depriving us of our rights. We never question who laid out the infrastructure, who paid for it or even how much it costs.

However, in the majority of households worldwide, obtaining water is a tedious daily task. In the developing world it is not unusual for a person to make continuous trips to the well for the family's daily needs, or to eternally wait for water supply trucks hindered by the terrible condition of roads. Houses are often located in difficult swampy areas, or on steep slopes where the introduction of infrastructure is complicated and expensive. Governments are strapped for cash and unable to afford infrastructure costs, but residents also know that, quite often, their governments are corrupt, and have more funds than they claim. The fight to meet their daily needs, and their daily fight with local governments makes water and sewage a central issue in many communities around the world. In this regard, La Esperanza is no different.

One hot morning in mid-July, the Arroyo (Creek) family was very happy to see workers arrive and dig the trenches for sewage lines in front of their house. Soon, large trenches had been excavated down the main streets. All the earth that had been removed was piled up on both sides of the ditch, making access to houses difficult. A few days of inconvenience was a small price to pay to see one of their dreams become a reality: running water and a connection to the sewage line. Or so they thought...

The families in this part of La Esperanza had been waiting for this moment for a long time. They had often felt discriminated against, as other areas in the community had been provided with services while they had been neglected because the community leader does not live here.

Two days later concrete sewage pipes and white plastic water conduits were buried under the same earth. The whole process took only three days and people in the area joked about the speed with which the work was completed: "¿Para qué demonios esperaron tanto tiempo si se podía hacer tan rápido?" (Why on earth did they wait for so long if it could be done so fast?). Now, most houses in the lower part of La Esperanza could be connected to the water lines, if only the pipes did carry water.

Three years ago, the community got excited when the work to provide them with running water started. Long discussions between the community leader and

municipal officials were necessary to decide how the costs incurred would be divided. As stated in the final agreement, the municipality would provide construction materials for the installation of the pipes and community members would, in turn, do the installation work to pay for their part. In the end, a municipal engineer decided to bring a machine to the community to dig the ditches all at once, rather than supervising the work done by the inhabitants of La Esperanza. The community now feels that the municipal government is using this as a bargaining tool for other services the community requests. "Nosotros queríamos trabajar para pagar nuestra parte pero nunca se nos permitió" (We wanted to offer our work to pay our share of the costs) mentioned the community leader. "Ahora cada vez que pedimos algo, sentimos como si nos insinuaran: no van a pagar su parte" (Now, whenever we ask for something, we feel as if the municipality is telling us that we are not paying our share).

After the lines were installed, people in La Esperanza were in charge of building a water tank to store water flowing towards the community from the main citywide network. From this tank, situated at one of the lowest points in the settlement, water was to be pumped up to a second tank situated above the colony at the elevation of eighty meters above the mean sea level; water stored there would then be distributed throughout La Esperanza by gravity. Eventually both water tanks were built (the lower one by La Esperanza dwellers, the upper one by families in a neighbouring community) and linked by a pipeline. Even though the upper tank's capacity is three times that of the lower one, water must arrive every day, or water shortages are expected to be a daily event.

At the end of July, both tanks were being expanded to accommodate the increase in capacity necessary to serve the growing number of families in the community. Some big obstacles remain unsolved. First, the community is supposed to buy a water pump that they cannot afford (the most optimistic people predict 1998 as the earliest purchase date). Second, the connection between the main citywide network and the lower water tank has not yet been built. Third, and most important, water shortages are already very common in Zihuatanejo: not to mention its suburbs. Even if all elements necessary for the system to work are in place, the volume of water available may not be enough to satisfy demand in La Esperanza.

Despite all these predicted complications, the Arroyo family feels happy today. They know that the water is not going to be flowing in tomorrow, but if water EVER arrives, the appropriate pipes have been laid

*L'installation de systèmes d'égoût et d'eau courante figure parmi les intérêts premiers de plusieurs communautés dans le monde. Dans la Esperanza, on privilégie certaines zones de la colonie à d'autres quant à l'installation de l'infrastructure, ce qui crée un climat de tension. Les travaux furent finalement complétés en vitesse à la fin de 1996. La planification de cette infrastructure fut mal conçue, mais les habitants se réjouissent qu'une partie des travaux soient réalisés, bien qu'ils ne soient pas encore en état de fonctionnement.*

*La instalación de agua corriente y el drenaje son un asunto muy importante en muchos países del mundo. En unas zonas de La Esperanza se instaló la infraestructura antes que en otras, creando tensión en la comunidad. Los trabajos de instalación de la infraestructura fueron terminados con mucha rapidez a fines del verano de 1996. Desafortunadamente la planeación de todos los elementos de la infraestructura no se hizo tan bien como se debería haber hecho. Sin embargo, los habitantes están contentos de que una parte del trabajo ha sido terminado, a pesar de que pasará mucho tiempo hasta que toda la comunidad pueda usar los servicios.*

in their neighbourhood. In the meantime, they will get their water from the truck and store it in the water tank they built on their plot. For everyone, drinking water still comes in the ever-present twenty litre bottles.

Work to build a sewerage and a water provision system was carried out simultaneously, but the sewer system did not generate as much excitement as did the anticipation of running water. Only about five families were actually connected to the sewer lines once they were installed; septic tanks or holes covered with earth are still the most common way to dispose of sewage.

Another predictable problem arises from the main pipeline in La Esperanza being wider than the main line it connects to in Agua de Correa. With the system in La Esperanza working at minimum capacity, there have not been clogging problems at the junction of both systems, but they are anticipated as more families connect their houses to the network.

One of the most spectacular results of the installation of these services is the new landscape on many of the steep streets. Some of the pipes are so close to the surface that after minor erosion from the rain, the pipes



A street in La Esperanza

Many people have made considerable financial efforts to build septic tanks and will continue to use them, because they are in no rush to pay for the connection with the main pipe, nor are they ready to build it themselves. Moreover, they may not actually be able to do so. Due to solid bedrock, when the water/sewage infrastructure was built, the pipes were installed close to the street surface. Some houses lie some meters below the street line, due to the terracing used to avoid the steep slopes, and consequently lie below the main sewerage pipe which makes the direct connection between the plot and sewage line virtually impossible. The alternatives are to connect through a neighbour's plot or to defy gravity. People would rather continue to use the current system than to deal with constantly clogged pipes.

and the manholes that link them stick well above the surface of the ground, sometimes as high as one meter. Some of these streets were never easily accessible to vehicles due to their slopes, but now, many of the streets have a row of silos erupting from the ground making circulation impossible.