

# Bolivia

## A new-fangled device arrives in the Bolivian Altiplano: the toilet

High up in the Bolivian Altiplano, nearly 4000 metres above sea level, a novelty has arrived in the village of Catavicollo: a toilet. 'We didn't have a single toilet in my community before,' says 13-year-old Nancy Nina Parina. 'We used to go up into the hills behind the school. We girls had to go further up to make sure the boys couldn't see us and laugh at us.'

Recently, two toilets – one for boys and one for girls – were installed in Nancy's school as part of a UNICEF sanitation programme extending to 38 municipalities in five of the country's departments. The school at Catavicollo is one of 219 to have benefited from these water and sanitation projects during 2007. Altogether, this multi-donor programme spent over US\$4 million last year, including US\$374,000 donated by Sweden especially for school toilet facilities.

Each local project, of which there were over 450 in 2007, is designed to fit with the local ecology – including the types of toilets, water systems, and washing and bathing facilities. Usually, the concept of a toilet along with piped water supplies, hygiene and handwashing, is introduced to families and schools at the same time. But schools often lead the way: young people more easily adopt new behaviours than their elders.

Life is hard on the Altiplano, and many people migrate elsewhere in search of better jobs and living conditions. Most communities are small, and lie scattered and exposed to harsh cold weather in the semi-desert environment. Catavicollo contains 22 families, including Nancy's, with 78 people altogether. They make only a bare subsistence living, raising llamas and alpacas and selling their wool as their main source of income. Food crops – mainly potatoes – are only grown for their own consump-



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tion since agriculture of any kind is difficult and risky: frost can devastate all the crops in one cold night.

### A very dry area

The need to conserve water has encouraged the promotion of ‘ecological sanitation’. Nancy explains: ‘The people who installed our toilets’ – an NGO called SEMDE, working in conjunction with the municipality of Challapata, the local authority under which Catavicollo falls – ‘demonstrated that these toilets don’t need water. After we have used them, we just spread some ash on top.’ This helps keep smells at bay, acts as a drying agent, and aids the biodegrading process. The students don’t use toilet paper – something unknown to them and far too expensive. ‘Sometimes we use other paper, or even rocks, for wiping.’



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Germán Cardozo, the school Principal in Catavicollo, is convinced that eco-toilets were the best sanitation option in this setting. ‘The flow of water to the community is enough for cooking and drinking, but it would not have been enough to supply flushing toilets,’ he says. ‘This is a very dry area and in some months the water level drops off noticeably.’ Water is needed for handwashing after toilet use, and students are encouraged to use the new tap – but according

to Nancy some are lazy about this part of the new sanitation and hygiene regime.

Each toilet has two pits. The number of students at the school is not high, so one pit may last for a year or even two. When full, the first pit will be sealed and the contents left to biodegrade, while the second pit is used. When that is full, the first one can be emptied and the – by now entirely inoffensive – material removed and buried.

In principle, it would be useful if the local community were able to accept the use of this biodegraded material as fertilizing compost, but as in many parts of the world, that is a difficult idea to put across in settings where people go out of their way to avoid having anything to do with faeces. And they have a point: the biodegraded material is not completely innocuous, so handling and burying needs to be done under strict guidelines. In communities in other municipalities where this idea has been introduced, most people have yet to be persuaded that this material can be used to grow crops. In the first instance, the important switch is from use of the great outdoors for the ‘daily business’, to use of a toilet. That alone is a behavioural upheaval.

### Education and awareness

The introduction of sanitation in remote communities such as Catavicollo, where people are not used to change and have used the ‘open air’ for waste disposal for centuries, is not achieved by the simple act of building facilities. The most important aspect of any sanitation intervention, in Bolivia or anywhere else, is to make people aware of the dangers of leaving faecal matter lying about and of the values of sanitation and hygiene in promoting healthy living, dignity and cleanliness. It is also important that ‘new users’ fully understand how to use the toilet properly, and that they introduce systems of keeping the toilet clean and providing for its maintenance. Also that they realise that fingers can be a means of passing on disease, and take the trouble to wash their hands.



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A recent anthropological study found that, while 70 per cent of new users in the UNICEF-assisted programme were using the new household toilets for their intended purposes (30 per cent were using them for something else, storage of grain for example,) only 21 per cent were using the ecological toilets exactly as they should be used: for example, putting faeces and urine properly in their separate ‘containers’, keeping the sanitary platforms faeces-free, and regularly ‘flushing’ with ash. Like any toilet that is incorrectly used, an eco-toilet can quickly become unpleasant.



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Often the first ‘sanitary aid’ the programme introduces is clean drinking water, piped from springs or underground aquifers to public standpipes in the villages. Even if communities may be skeptical about the benefits of sanitation, they always appreciate a reliable water supply close by their homes. This saves the women and girls hours of heavy work a day carrying water containers. In Catavicollo, a 12-tap public water system was built in 2005. At the same time a Potable Water and Sanitation Committee (CAPYS) was established in the community so that they would manage, operate and maintain this and future facilities. The following year the toilet arrived in the school, and their responsibilities were accordingly extended.

However, many local CAPYS committees are not very dynamic and do not manage to spread enthusiasm for toilets among local householders. So far, in Catavicollo, according to Nancy, no-one has adopted a toilet at home. ‘Our houses still don’t have bathrooms. Sometimes we come over to the school to use the toilets, but if I’m out in the field somewhere – well, I just look for someplace ...’. Old habits die hard, but the school is setting an example. ‘Our teacher told us that we have to use the toilets and about how important it is for us to wash our hands afterwards. We now know that using the ecological toilets keeps us healthy and keeps our community clean.’ Other sanitation lessons have been incorporated into the curriculum: for example, that water should be boiled before drinking.

But can the students be expected to persuade their parents to take up these new behaviours? The difficulties of extending the effective and regular use of toilets, together with better personal hygiene practices, from the school into the community has recently been exercising the programme designers in UNICEF and the government. It was for this reason that they conducted studies to develop an insight into how local people in different environments see this awkward subject, i.e. why they do or don’t adopt new behaviours, and then to feed the findings into new communications and awareness strategies.

### Strengthening local capacity and skills

One approach has been to try out a mobilization methodology originally developed for promoting ‘total sanitation’ in communities in Bangladesh, and now being adopted for use in countries all over the world, including Bolivia. This involves calling a village meeting, and bringing people face to face with the perils and disgust of leaving their detritus around – even walking around the ‘defecation’ sites they normally use. With the realization of the disease risks to which they are exposing themselves and their children, and profound disgust at the thought that minute particles of other people’s excrement are ending up in their mouths and digestive tracts, people are inspired to adopt toilets and make their community ‘open defecation free’. This methodology is now being adapted and will in time, as facilitators are trained, be replicated throughout the





country. Hopefully this will help increase demand for family and school toilets.

In order to spread the sanitation programme, make it more effective, and ensure that it really enters people's consciousness in a permanent way, UNICEF has devoted considerable resources to training staff and promoters at all levels. There are special college courses for staff in senior government jobs, and workshops for those in municipalities and communities. Both aspects – ensuring high technical quality of construction, and promoting hygiene and community awareness – need to be tackled for programmes to work; and different skills are needed. Up to now, performance on the technical side has run ahead of social transformation. During 2008, a new nine-month course is being launched by agreement with Nur University, to develop a cadre of 150 'community development technicians' with skills in both areas. Once they use their new skills on the ground, take-up of sanitation and hygiene is bound to improve.

All this effort is designed to enable communities to adopt toilets with understanding and interest, contribute to their construction and learn how to use them properly. The programme has found that there has up to now been some confusion in people's minds between what appear to be conflicting ideas: 'confine faeces and don't have any contact with them for health reasons'; and 'use composted faeces for growing food'. This confusion of messages, the failure to use the toilets properly, and the lack of solid health impacts has led to a revision of sanitation strategy.

From now on, eco-toilets will only be constructed in schools. For household sanitation, community mobilization against 'open defecation' will be adopted instead, both to generate community disgust about their existing practices, and to empower them to build their own toilets. There is now a wider and cheaper range of family toilets to recommend to communities who commit to 'total sanitation'.

## Building for the future

The success of the programme in schools should not be underestimated. In the past year, over 3,500 students gained from the provision of safe water, ecological toilets, and handwashing facilities, and many teachers are now advocates for cleaner and sanitary living. Once a girl such as Nancy Nina Parina has learned at school the value of toilets and their connection with good health, her behaviour will be changed for life. This means that not only she, but her own future family, will have better chances of survival and good health.

And the experience she and her peers have gained can be truly enjoyable. Just recently, another innovation came to Catavicollo school: a hot shower. Black hoses lying in a spiral shape on the bathroom roofs absorb the sunlight pouring down, heating up the water inside them. 'To use the eco-shower we take turns according to our classes. I'm in seventh grade, so I get to use it one Thursday per month,' says Nancy. 'It's really nice having a hot shower. I used to go to the river with my mum, but the water there is really cold. And because it is so public, it is impossible to wash your whole body at the same time.'

With a full complement of home improvements arriving in the Altiplano – piped water, toilets, handwashing basins and showers – family sanitation may well be on the brink of take-off in Catavicollo and the whole Challapata municipality. This expectation is enhanced by the way the Bolivian Vice-Ministry for Basic Services has recently taken up water and sanitation as an important means of improving conditions in neglected rural communities. A 'basic sanitation' strategy has been devised and is being communicated to all municipal governments during the 2008 International Year of Sanitation. These developments indicate a change of consciousness at the higher levels of government: a true example of what UNICEF advocacy and partnership can help bring about.

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