## Water woes in Senegal's holy city

With the annual festival of the Great Magal just weeks away, administrators in Touba – Senegal's second city – are gearing up for a massive influx of people and the disease they may bring with them. Felicity Thompson reports.

You can be too popular. The residents of the west-central Senegalese city of Touba, situated some 200 km from the capital Dakar, know all about that problem, having seen their "village" swell from 5000 people in the mid-1960s to around 700 000 today. Indeed officially Touba is still a "village", under the management of a rural department, but in reality it is a major conurbation with some big city problems.

Touba was founded by Cheikh Amadou Bamba, the leader of the Mourides, a large Islamic Sufi order in 1887. The city itself is built around an enormous 1960s-era mosque and the majority of the people who come here are Mouride adherents. Their leaders, known as Marabouts, are the de facto administrators of the city and they work under the guidance of Cheikh Bara Mbacké, the sixth Caliph.

So religion is a big draw here. But Touba offers two other attractions: free land and free water. "The land is free in Touba because the founder and saint, Cheikh Amadou Bamba, owned the land and founded his holy city," explains Dr Masserigne Ndiaye, Medical Director of the Diourbel region, where Touba is located. The water is free for the same reason.

It was the free land and water part of the package that got the attention of 24-year-old Ali Nguer who now lives with his family in the Omoul Khoura neighbourhood about seven kilometres from central Touba. "We came here in 2006 from Kaffrine because of the difficulties with the rain and the drought," he says. Omoul Khoura was opened up for settlement by one of the city's former Caliphs, and at that time it had no electricity, water or sanitation.

Chiekh Faye, a member of Touba's Hygiene Brigade, which seeks to encourage hygienic practices in the general population, says such conditions are not unusual in neighbourhoods surrounding Touba. "People come and settle

without sanitation or water systems," he says. "Women walk at least one kilometre to find water." Meanwhile septic tanks are a rarity. "They are too costly for most people," Faye says. "It costs about US\$ 340 (150 000 FCFA) for a septic tank and about US\$ 115 (50 000 FCFA) for a toilet."

Even in the heart of the city, waste disposal is a huge issue. "There is no sewage system," says Ndiaye, explaining the basic problem. The people who can afford to dig their own septic tanks mostly put them in the street rather than inside their compounds. They are often situated near water pipes connected to bore holes beneath the city. This is not too much of a problem when the water pipes are sound, but when they get old, or when someone botches an improvised hook-up, contamination can and does occur. "The evacuation of septic tanks is also a problem," Ndiaye says, "as there is no system set up to handle it."

These already fragile sanitation systems are overwhelmed during festivals, especially during the Magal, an annual pilgrimage during which the population swells to two million and which starts on 2 February this year. "Consider that this festival (Magal) involves a lot of eating," says Ndiaye. The resulting breakdown in sanitation leads to inevitable outbreaks of disease, including typhoid and, of course, cholera. In a city that has only one hospital, two health centres, and, according to Ndiaye "about 20 health posts" (roughly one post per 30 000 to 40 000 people, well below the World Health Organization's recommendation of one health post for every 5000 to 10 000 people) this is a major headache.

The last outbreak happened during the Magal in March 2007, when the Senegalese Ministry of Health reported a total of 2054 cases and eight deaths in the Diourbel region, including 48 cases and no deaths in Touba. Prior to that there was a severe outbreak in 2005 when, between 28 March and 3 April, there were 3475 cases of cholera including 54 deaths in the Diourbel region. Almost half



Woman fetches water from neighbour's tap.

of the cases and 16 of the deaths were reported in Touba itself.

Since then local authorities have worked hard at cleaning up the city's act, educating the people using radio and TV spots and films projected in key neighbourhoods, and raising awareness about the dangers posed by unsafe water and poor sanitation. Specific recommendations cover regular hand washing, including after numerous *Salaam Aleykum* greetings involving handshaking and hugs – a big feature of the festival; avoidance of street food, avoidance of food conservation for prolonged periods; and avoidance of water storage.

Generally the message goes over well but, where practicality comes up against tradition, arguments arise. One of the most contentious issues in the past decade was the use of large, openair basins of drinking water, an established part of the Magal. "It was a very sensitive issue," says Ndiaye. Why? Dr Moustapha Sourang, head of Touba Medical District, explains: "Culturally speaking, Touba is a very sensitive city. Some say that there can be nothing in the water because this is a holy city." In fact the cholera bacterium had been found in these basins in the past, and the basins were considered a health hazard. Fortunately, the Caliph himself lobbied for the water to be chlorinated and publicly broke his own basin as an example to others back in 2005 – not the first time the Marabouts had taken a lead in matters of hygiene. "Contrary



Moustapha Sourang

to what people think, the Marabouts have always helped us," says Ndiaye, adding that the public health authorities have even used the image of the Caliph washing his hands to promote cleanliness.

So is the message getting through? Ndiaye thinks so, he says that people are afraid of cholera. "People are now drinking water in bottles and sachets," he says. "This is becoming a trend for the pilgrims." And the statistics bear him out. In 2008, no cases of cholera were reported, including during the Magal. But, like Sourang, Ndiaye believes the city needs to change the way it handles its water supply to really move forward on this issue. No

amount of hand washing or vigilance can replace safe water and sanitation. "We should have a non-profit [organization] do a serious study of the city," Ndiaye says. "The capacity of its bore-holes and its water treatment needs, and evaluate the cost of the entire process from water production to consumption."

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"We need to maintain the pressure [to build adequate infrastructure] because Touba is growing and neighbourhoods are popping up with new houses all the time and in all directions," says Sourang. But investment in Touba's infrastructure will almost inevitably mean asking people to pay for their water, and that too is a sensitive issue. "If people paid for water here, the risk [of a cholera outbreak] would be higher because a lot of people wouldn't have access to water and would search elsewhere and use bad water," says Chiekh Faye. But until change comes, the run-up to each year's Magal instead of being a time of joy and celebration – will be a time of sombre watchfulness. "At every point nearing the Magal we are anxious and tense," says Sourang. "We are constantly preparing."



Billboard advises people to wash their hands with soap