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Yemen water crisis builds

The resource's scarcity in rural areas sends migrants to swell the capital, which may run out by 2025. **October 11, 2009** Haley Sweetland Edwards

SANA, YEMEN — Aisha Sufi, a woman with tired eyes and nine children, waits for a water truck in a nation of drought.

She is one of an estimated 150,000 Yemenis who have left their villages this year bound for Sana, Yemen's capital, in search of basic needs. Water and jobs, for example, are increasingly scarce in rural regions where many populations have quadrupled since the 1980s.

"It's not good here or there, but it's better to be here," said Sufi, who lives in the Hoshaishiya neighborhood of Sana. "There, in the village, is nothing. No rain, no modern facilities, nothing to help you at all."

The migration wave -- Sana's population of 2 million is growing about 8% a year -- has overwhelmed job markets and overstretched services. The unrelenting pressure is likely to make Sana the first capital in the world to run out of drinking water -- as early as 2025, according to a recent projection by the Sana Water Basin Management Project, which is funded by the World Bank.

The water crisis, which officials say requires additional wells and water mains to service the growing city, has for the most part been lost among this nation's many other problems. Yemen has been battling Shiite Muslim rebels in the north and a separatist movement in the south and is contending with a resurgence of Al Qaeda and the scourge of piracy in the Gulf of Aden. It is the poorest Arab country, yet remains a strategic ally in the U.S. fight against terrorism.

In Hoshaishiya, most residents are recent arrivals. Rebar sprouts from the tops of buildings still under construction, and sunbleached trash is scattered over unpaved streets. Power failures are a daily occurrence.

To Sufi, her husband, and their children, who came from the village of Juban, access to clean water is the most pressing concern. The average person in Yemen survives on one-fifth of what the World Health Organization considers to be an adequate amount of water.

Like 60% to 70% of Sana residents, Sufi relies on privately owned tanker trucks, which draw water from wells around the region. There is no enforced standard for potable water and the quality varies widely.

Those who cannot afford to pay for water delivery or for jugs of clean water at corner stores, which costs 20 to 60 cents a gallon, collect free water every day from spigots outside mosques. It's not uncommon to see women navigating the labyrinthine streets of the Old City, water in their pink plastic buckets sloshing onto their black robes.

Some women collect their families' shower water and use it to wash clothes, and then recycle that same chocolate-milkcolored water for the next load.

"We have water delivered only every 10 days," one woman said, shrugging, as she poured muddy water into her kitchen sink to wash dishes.

Analysts say a rapidly expanding poor population complicates matters in that many cannot afford sufficient water for their families regardless of availability. About 45% of the people survive on less than \$2 a day, according to the United Nations Development Program.

The price of water delivered on tanker trucks, which costs about a penny a gallon, will probably climb in the next decade, said Naji Abu Hatem, a senior officer for rural development at the World Bank in Sana.

Hatem said he spends \$75 a month on water for his family of nine, and expects that to rise to \$100 per month.

"People will pay more," he said, "or they will use less and less."

Sufi said she receives help from her neighbors and charity groups. Her husband, a carpenter and herdsman, can't find work in Sana, where the unemployment rate is about 35%.

"I have one son back in the village and one son is sick with cancer. My third son cannot find work here, and I have all their wives living with me now," Sufi said, looking worn beneath her black velvet head scarf. "There are more and more people and there is only so much you can stretch what you have."

Staving off the nationwide water crisis would require that the government implement a comprehensive plan to oversee water extraction, build additional wells and water mains to service the growing capital, and reform water use in the agricultural sector, said Abdul Rahman Fadhl Iryani, minister of water resources, who gets his water delivered by private tanker.

An estimated 99% of water drilling in Yemen is unlicensed, which exacerbates the over-extraction of water, Iryani said.

"We expect many of the private wells to dry up soon. After that, we will have to find a new source, or keep drilling deeper."

Last year, the World Bank funded the drilling of 10 new government wells about two-thirds of a mile deep near Sana. Groundwater levels are dropping by 20 to 65 feet a year, and a report by the Carnegie Endowment for International Peace found that 19 of Yemen's 21 aquifers were not being replenished during the rainy season.

A decade ago, Sana's water corporation drew from 180 wells, but now draws from only 80.

Mohammad Saad Durbuh, who has been working as a plumber in Sana for 30 years, blamed government mismanagement for the water problems.

"We knew we had less and less water [per person] for a long time, and the government did nothing to prevent it," he said. "They give us false promises, but they do nothing."

Sufi used to send her daughters to a nearby well to collect water in plastic buckets, but that well has been contaminated with sewage. She waits for the next tanker truck to rumble up the unpaved street outside her house, her youngest children and grandchildren gathered around her, ranging in age from 4 to 20.

"It's terrible to wonder how your children will survive. But I ask myself, what else can I do? In the village, is there a future? No. But here, is there a future?" Sufi sighs deeply and rubs the backs of her ashen and wrinkled hands.

"I don't know. It's in God's hands."

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Edwards is a special correspondent. Times staff writer Jeffrey Fleishman in Cairo contributed to this report.