

## Dam shame: Tokyo and Kansai flush with water

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By Inoue Yuichi

Worried for years about a water shortage, the vast Tokyo metropolitan area is now overflowing in the stuff.

Water-saving appliances, bottled drinking water and good old-fashioned conservation have helped the average Tokyo household in fiscal 2004 use 6 percent less tap water than six years earlier.

If only local governments could celebrate.

Instead, they find themselves faced with a budget shortfall. Overprojected, overenthusiastic deals with dam developers across the country have stuck many local governments with huge water bills they cannot afford.

To pay off the dams, many have had to actually raise consumer water prices--an ironic reward for citizens' conservation efforts.

Kanagawa Prefecture will be the latest to hike water charges when it raises them by almost 20 percent in April. Conservation, it appears, doesn't pay.

Oyama Fumio, head of planning at the prefectural water bureau, explains the dilemma with a sigh.

"There are measures to deal with water shortages during summer, and we have, in the

past, asked people in the prefecture to conserve water," Oyama says. "So although it can be said that there is a water surplus, we can't very well say that we want people to use more."

The problem is that as water usage drops, so does government revenue.

Between fiscal 1998 and fiscal 2004, the water bureau's income from households has fallen by 1.45 billion yen, even as the population continues to increase.

Monthly household usage has fallen by 10 percent, from 21.55 to 19.29 cubic meters. That is equivalent to 10 fewer baths per household per month.

The situation is similar in Tokyo and Chiba prefectures. Although total water use has risen slightly as the number of households has grown, actual per-household demand has fallen in Tokyo by 6 percent and in Chiba by a whopping 9 percent.

"Water volume usage is dropping everywhere," said Arita Kazuhiko, a commentator on water issues. "Increasing water charges is not just a Kanagawa phenomenon, but a nationwide trend."

Across the country, daily per-capita water use of all types, from residential to industrial, has fallen from 391 liters in fiscal 1995 to 363 liters in fiscal 2003, according to the Japan Water Works Association, a group of about 1,500 water companies nationwide.

"Demand for water has peaked as a result of growth in water conservation and

reutilization," says an association official. "Particularly striking is the movement away from water in urban areas such as the Tokyo metropolitan area and the Kansai region."

Tokyo and Chiba are holding off on hiking rates, but in Kanagawa Prefecture, where water charges have been comparatively low, the decision has been made to charge more. The problem lies with what now seems like an unwisely overprojected arrangement with the Miyagase Dam, which opened in western Kanagawa Prefecture in 2001.



1. The Miyagase Dam

The prefectural government is stuck with about 6 billion yen in annual water purchases from the dam.

Other cities, including Fukushima and Tsuruoka, Yamagata Prefecture, have also had to hike prices to pay off dams.

"This is a result of continuing to build unnecessary dams based upon excessive demand forecasts that projected continued periods of high growth," says Arita.

"In the 1970s, flush toilets required more than 20 liters each time they were flushed, but that has now fallen to around 10 liters," he notes.



2. Water-saving appliances

"In the current era, in which water is not wasted even if users are not consciously conserving it, authorities need to become more switched on."

Home appliances are one of the main factors behind falling household water usage. Manufacturers of washing machines and dishwashers are competing to one-up each other with their claims.

One firm says its dishwasher uses only 11 liters to wash a load of dishes that, by hand, would take 150. Another claims its drum-type washing machines use only half the volume of water of previous types.

"Recently, products that make claims about water and electricity conservation are the first to sell," notes a public relations officer at Matsushita Electric Industrial Co.

Appliance sales are soaring. According to the Japan Electrical Manufacturers' Association, 465,000 drum-type washing machines were shipped during fiscal 2004, and so were 927,000 dishwashers--a quadrupling of the 228,000 shipped in fiscal 1995.

Inax Corp. of Tokoname, Aichi Prefecture, has also developed a new toilet that cuts water use approximately in half. It claims that a four-person household can expect to save the

equivalent of a bathful of water every two days.

"We are now in an era where it is essential to approach new product development from a water-conservation perspective," says the firm's head of marketing PR, Morioka Tadafumi.

That is not idle guesswork. Sixty-six percent of people in major urban areas said they conserved or reused water, according to a 2005 survey on 600 people by Mizkan Group Co., a vinegar manufacturer based in Handa, Aichi Prefecture.

People have also been moving away from tap water for drinking, and toward bottled water.

According to the Japan Soft Drink Association, bottled water production increased from 392,000 kiloliters in 1996 to 1,319,000 kiloliters in 2005.

Niimi Toshiyuki, director of the Mizkan Center for Water Culture, says it all comes down to conservation.

"The percentage of people is increasing who are using water conservation measures, such as reusing hot water taken from the bath in the washing machine or in cleaning, or quickly shutting off showers," Niimi said.

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