



UNA New York

**Useful Facts about the
Worldwide Water Crisis**

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October 25, 2007

1. About 97% of the world's water is in the oceans and therefore saline (undrinkable). More than 2% of the rest of the water is frozen in glaciers, which leaves less than 1% available for human use... — **Rotary Club Report, 2007**

2. Every 15 seconds, a child dies from drinking contaminated water. — **Water Partners International, Kansas City, MO**

3. “The Northeast can anticipate substantial — and often unwelcome and dangerous — changes during the rest of this century,” concluded a report by the Union of Concerned Scientists, which examined the impact of global warming on the region...James L. McCarthy, professor at Harvard University and president-elect of the American Association for the Advancement of Science, said there could be droughts every summer in the Catskill Mountains, which supply drinking water for 9 million New Yorkers... — **New York Times, July 12, 2007**

4. The Ogallala aquifer contains enough water to fill Lake Erie not once but nine times over, and it stretches from Texas to South Dakota, from Colorado almost to Nebraska. Every year, five trillion gallons are pumped out for irrigation, and if the aquifer went dry (or, more accurately, when it goes dry), \$20 billion worth of food and fiber would disappear practically overnight. William Ashworth tells the history of the Ogallala, from its formation after the retreat of the glaciers through to its uncertain future. The most dramatic part deals with efforts to

exploit the hidden waters, (including) the invention of the center-pivot sprinkler, and on to ever more sophisticated extraction technologies.” — **W W Norton, publishers, spring 2006 catalog copy describing book, Ogallala Blue by William Ashworth.**

5. A formal draft of the report, “Cost of Pollution in China,” ...included statistical models estimating that as many as 750,000 people a year die prematurely in China, because of air and water pollution...The study found that water scarcity and water pollution resulted in more than \$21 billion a year in losses.” — **New York Times, July 5, 2007**

6. Two-thirds of the atmospheric buildup of carbon dioxide... has come in nearly equal portions from the United States and European countries, (which) are investing in windmill-powered plants that turn seawater to drinking water, in flood barriers and flodable homes, and in grains and soybeans genetically altered to flourish even in a drought. In contrast, Africa accounts for less than 3% of the global emissions of carbon dioxide from fuel burning since 1900, yet its 840 million people face some of the biggest risks from drought and disrupted water supplies...

Scientists say it has become increasingly clear that worldwide precipitation is shifting away from the equator and towards the poles. That will nourish crops in warming regions like Canada and Siberia while parching countries — like Malawi in sub-Saharan Africa — which are already prone to drought. — **New York Times, front page, April 1, 2007**

7. For more than 10 years, Jason Peltier was a paid advocate for the irrigation-dependent farmers in the Central Valley of California, several hundred landowners who each year consume more water than the city of Los Angeles does. Now Mr. Peltier works for the Bush administration, and he helps oversee the awarding of new water contracts for the people he used to represent as head of the Central Valley Project Water Users Association. The federal contracts, tying up water for a quarter century or more from the world's largest irrigation project, have the potential to bring the farmers a huge windfall if they turn around and sell the water on the open market.

...Others say the arrangement is inappropriate, and they point to contract terms that could give farmers in the Central Valley, including the ones Mr. Peltier once represented, far more federally subsidized water under their new contracts than they could ever use...Some of the farmers will pay about \$40 per acre foot of water (roughly 326,000 gallons) under the new contracts for water that could fetch up to \$200 an acre foot on the open market in dry years...“They’re basically locking up the last available water in California for 50 years, which they could then sell at a big profit made on the backs of taxpayers,” said Tom Stokely, a water policy and planning official with Trinity County in Northern California... — **New York Times**, *March 3, 2007. Front page story by Timothy Egan*

8. More than 30 nations receive more than one-third of their water from outside their borders. — **Global Trends 2015: A Dialogue About the Future with Non-government Experts** (*provided by Mercy Corps*)

9. According to the United Nations, every day 4,400 children under the age of 5 die around the world, having fallen sick because of unclean water and sanitation. In fact, five times as many children die each year of diarrhea as of HIV/AIDS...One in every six human beings has no access to clean water within a kilometer of their homes... — **Water for Life** at www.un.org/water/wfl.html

10. Access to water is mainly a crisis for the poor. More than two-thirds of those without clean water survive on less than \$2 a day...Water is also a crisis for women and children, because they bear the burden of collecting water. In some places, women have to walk nearly 10 kilometers to reach a water source...

— **Water for Life**

11. Most water use is in agriculture. Farming uses up to 70 times more water than is used for cooking and washing. Many countries have to import more than half their food needs because they do not have enough water to grow more food...

— **Water for Life**

12. Corruption makes responding to the problem of water scarcity more difficult. Up to 40 percent of water is lost to water leakages in pipes and canals, one of the main causes of which is illegal tapping. The increase in the cost of water, as a result, affects the poor more than others. But the water crisis hits cities in the rich world as well — Houston and Sydney, for example, are using more water than is replenished... — **Water for Life**

13. There are plenty of certainties in New York's water future. In 2011, the Croton filtration plant will begin operating. In 2012, the city is scheduled to open its third water tunnel — a 60-mile conduit, 50 years in the digging — and that would finally enable it to take water tunnels 1 and 2 offline for repair and cleaning. And, perhaps the greatest future certainty of all, the city will need to secure new sources of water...By the year 2020, about 9 million people will be living in New York City. They'll all want something to drink...But financially speaking, a federal directive to filter West of Hudson water "would be like a bomb going off," said James Tierney (the state assistant attorney general charged with enforcing environmental laws within the watershed). The plant would cost more than \$6 billion to build, and the cost of staffing, operation, maintenance and debt service would reach \$1 billion annually. — *New York Times*, front page, Feb. 18, 2007

14. At least 214 rivers flow through two or more countries, but no enforceable law governs the allocation and use of international waters..." — *State of the World 2005 Trends and Facts - Security Redefined*. Worldwatch Institute (provided by Mercy Corps)

15. Current financing models are largely inequitable because they employ subsidies that are upside-down; the majority of subsidies go to those who can afford to pay the full cost of service. On average, urban slum dwellers pay 12 times more for a liter of water than those connected to municipal water supply systems. (Source: World Commission of Water for the 21st Century). Micro-credit loans from reputable lenders for water connec-

tions can be repaid over time, and allow for monthly household outlays for water to decrease — often dramatically — from rates being charged by informal water vendors.

Water, sanitation and hygiene needs of the world's poor cannot be met if we continue to rely on current financing models. These models are largely not scalable because they rely on philanthropy and subsidies, rather than working within the slipstream of market forces. — **WaterPartners International**

16. A Western drought that began in 1999 has continued ...Some \$2.5 billion in water projects are planned or underway in four states, the biggest expansion in the West's quest for water in decades. Among them is a 280-mile pipeline that would direct water to Las Vegas from northern Nevada...The scramble for water is driven by the realities of population growth, political pressure and the hard truth that the Colorado River, a 1,400-mile-long silver thread of snow melt and a lifeline to more than 20 million people in seven states, is providing much less water than it did. The seven states that draw water from the Colorado River — Colorado, Wyoming, Utah, and New Mexico in the upper basin and California, Arizona and Nevada in the lower basin — and the United States Bureau of Reclamation, which manages the river, are considering what to do if the river cannot meet the demand for water, a prospect that some experts predict will occur in about five years...Farmers still take about 90% of the Colorado River's flow. More and more, the cities will need that water. — *New York Times*, front page story by Randal Archibold and Kirk Johnson. April 4, 2007

17. Florida seems to seesaw perpetually between crises related to water: either too much or too little. (In May 2007) Lake Okeechobee, a vital reservoir for millions of residents in dry times, sank to a new low. “This year is definitely a larger challenge than 2001,” said Carol Wehle, executive director of the water district. “We have drought all the way from Disney to Key West.” — **New York Times**, *May 31, 2007*

18. Africa’s “great lakes” are shrinking. Burundi is on Lake Tanganyika, which is still a vast expanse of water. But the shoreline has retreated 50 feet in the last four years, and ships can no longer reach the port...The biggest of Africa’s great lakes, Lake Victoria, was dropping by a vertical half-inch a day for much of the year...The Intergovernmental Panel on Climate Change...foresees water shortages and crop failures in much of Africa. — **New York Times**, *Nicholas Kristof, Op Ed page. June 28, 2007*

19. By 2015 nearly half the world’s population — more than 3 billion people — will live in countries that are “water-stressed” —having less than 1,700 cubic meters of water per capita per year — mostly in Africa, the Middle East, South Asia, and northern China. — **Global Trends 2015: A Dialogue About the Future** (provided by *Mercy Corps*)

20. Access to clean water should be enshrined in international law as a human right, says Mikhail Gorbachev, the former president of the Soviet Union...and chairman of the charity, Green Cross International. He is pressing the UN to adopt a convention on fresh water similar to that covering human rights. He has

written to 40 governments to seek support for his proposal and, so far, nearly 20 have responded to offer their backing... Mr. Gorbachev says water is becoming a source of ‘severe conflict’ within and between countries. “People, when they lack water, will stop at nothing to get water,” he said. — **Financial Times** story by *Fiona Harvey, June 12, 2007*

21. U.N. Predicts Urban Population Explosion. By next year, more than half the world’s population, 3.3 billion people, will for the first time live in towns and cities, and the number is expected to swell to almost five billion by 2030, according to a United Nations Population Fund report released yesterday (6/27/07) ...A billion people already live in slums, 90 percent of them in developing countries. In sub-Saharan Africa, more than 7 in 10 urban dwellers live in a slum, lacking services such as water, sanitation or legal rights to housing. — **New York Times** story by *Celia Dugger. June 28, 2007*

22. The Bush administration scaled back proposed guidelines for enforcing a key Supreme Court ruling...in June 2006...that could have brought thousands of small streams and wetlands under the protection of the Clean Water Act of 1972. The Environmental Protection Agency and the Army Corps of Engineers, charged with enforcing the Clean Water Act, finally issued new guidelines last month, which environmental and recreational groups argue will leave thousands of sensitive wetlands and streams unprotected. — **New York Times** story by *John M. Broder. July 6, 2007*

23. In September 2005, the Changzhou city government (in China) took a dramatic step. Changzhou decided to outsource the job of managing its water supply to a French company named Veolia, one of a handful of corporate giants now scrambling to take over city water systems around the planet...The water companies might be thought of collectively as Big Water. Today about 10 percent of the Earth's population is served by private water companies...

Big Water makes an argument straight out of Economics 101...If water is scarce, then raise the price, let the law of supply and demand take over! ...Veolia Water serves 108 million people in 57 countries, has 70,000 employees, and is the world's biggest water-services provider...The stakes — environmental and political — could hardly be higher. According to the International Water Management Institute (I.W.M.I.), a respected international research group, one person out of every three on the planet today lacks reliable access to freshwater, whether because the water is unsafe, unaffordable, or unavailable... — *Vanity Fair*, "The Rise of Big Water" by Charles C. Mann. May 2007

24. Trevor Field, a retired advertising executive, had done well in life and wanted to give back to his community. He noticed that in many rural villages around the eastern Cape (in South Africa), the burden of collecting water fell mainly to the women and girls of the household... exhausting and time-consuming work...Field teamed up with an inventor and came up with the 'play pump' — a children's merry-go-round that pumps clean, safe drinking water from a deep borehole every time the children

start to spin. Soup to nuts, the whole operation takes a few hours to install and costs around \$7000. Field's idea proved so inventive, so cost-efficient and so much fun for kids that the World Bank recognized it as one of the best new grassroots ideas...

— *Frontline/World*, January 7, 2007, rebroadcast of an original documentary by correspondent Amy Costello, who lives in Cape Town. To contact Trevor Field via e-mail: trevorf@roundabout.co.za

25. A cholera epidemic in northern Iraq has infected approximately 7,000 people and could reach Baghdad within weeks as the disease spreads through the country's decrepit and unsanitary water system, Iraqi health officials said...Dr. Cerko Abdulla, chief of the Sulaimaniya health directorate, said that the epidemic had begun spreading in adjacent provinces. "The water system represents the main problem," he said. "The disease can spread widely through water, and that's a very serious matter." — *New York Times*, September 12, 2007

26. Those eight daily glasses of water you're supposed to drink for good health? They will cost you about 49 cents a year, if you take it from a New York City tap. Or, city officials suggest, you could spend 2,900 times as much, roughly \$1,400 yearly, by drinking bottled water. For the extra money, they say, you get the added responsibility for piling on to the nation's waste heap and encouraging more of the industrial emissions that are heating up the planet. — *New York Times*, story by Bill Marsh, July 15, 2007

27. The Great Lakes constitute nearly 20 percent of the world's available fresh water and are a drinking-water source for millions. More than 160 invasive fish, plant and parasitic species infest the Great Lakes, and researchers discover a new invasive species every eight months...So what should be done? Michigan has taken a leading role by passing regulations preventing ocean-going vessels from discharging contaminated ballast water...But the federal government has a responsibility to fight invasive species as well. A federal court in California has held that the Clean Water Act applies to ballast water and ordered the Environmental Protection Agency to regulate discharges. The decision is under review ...” — **New York Times**, *September 4, 2007. Op Ed by Henry L. Henderson, director of the Natural Resources Defense Council's Midwest office.*

28. Earthjustice goes to court to protect people's health and the environment. It is the nation's leading nonprofit environmental law firm, representing hundreds of community groups and organizations free of charge in cases that protect our air, water, land and wildlife. Earthjustice's 2007 docket includes key clean water cases, such as preventing a mining company from dumping chemically treated mining waste into a pristine lake in Alaska. — **www.earthjustice.org** 800-584-6460

29. In the last few months, bottled water...has been increasingly portrayed as an environmental villain...The argument centers not on water, but oil. It takes 1.5 million barrels a year just to make the plastic water bottles Americans use, according to the

Earth Policy Institute in Washington, plus countless barrels to transport it from as far as Fiji and refrigerate it...Environmental groups...have been lobbying citizens to dump the bottle. — **New York Times**, *August 12, 2007*

30. Australia is suffering what some are calling its worst drought in 1,000 years, and the impact on our farmers, livestock and produce is catastrophic...Our water is slowly running out, and the effects are being felt by Australian chefs.” — **New York Times**, *July 29, 2007, Op Ed by Justin North, chef and owner of the restaurant Bécasse*

31. The problem is that the Jordan River, the Dead Sea's principal tributary, is a trickle once it reaches the sea because Israel, Jordan and Syria siphon off 95 percent of the water for drinking and for irrigation. Over the past century, the water's surface has dropped 80 feet; in the last two decades, the sea has shrunk by a third. — **New York Times**, *July 29, 2007. Op Ed, "Israel's Incredible Shrinking Sea," by Haim Watzman.*

32. Northern Alabama has become acre after acre of shriveled corn stalks, cracked red dirt for miles and days of unrelenting white heat...The region's most severe drought in over a century has farmers averting their gaze from a future that looks as bleak as their fields...There is also drought in Southern California and much of the Southwest, but the one in the Southeast...is more unusual, producing conditions not seen in more than 50 years... — **New York Times**, *front page story by Adam Nossiter, July 4, 2007*

33. A number of recent events have led political leaders and ordinary Brazilians to conclude that they are not immune to climate change. First and foremost was a disastrous, drought in the Amazon that killed crops, kindled forest fires, dried up transportation routes, caused disease and wreaked economic havoc...Brazil envisions constructing a large network of dams throughout the Amazon...but these plans depend on water flows in the region's vast rivers not drying up... — **New York Times**, *July 31, 2007*

34. Mountaintop mining is basically high-altitude strip mining. Enormous machines scrape away the ridges to get at the coal seams below. The residual rock and dirt are then dumped or carted down the mountainside into nearby valleys and streams. By one estimate, this serial decapitation of Appalachia's coal-rich hills has already buried 1,200 miles of streams... — **New York Times**, *editorial page, August 27, 2007*

35. There are 1.1 billion people, or 18% of the world's population, who lack access to safe drinking water. About 2.6 billion people, or 42% of the total, lack access to basic sanitation.
— **World Health Organization/UNICEF**, *2005*

36. "It is a curious situation that the sea, from which life first arose, should now be threatened by the activities of one form of that life. But the sea, though changed in a sinister way, will continue to exist; the threat is rather to life itself."
— **Rachel Carson**, *Preface to revised edition, The Sea Around Us (1950)*

37. If I had a hammer,
I'd hammer in the morning,
I'd hammer in the evening
All over this land.

I'd hammer out danger,
I'd hammer out a warning,
I'd hammer out love between
All my brothers and my sisters,
All over this land."

— **Pete Seeger**, *US folksinger and songwriter, 1919 - "If I Had a Hammer" (song, co-written with Lee Hays)*

Learn how you can help solve the worldwide water crisis:

CARE's Water Programs: www.careusa.org

Church World Service: www.churchworldservice.org

Citizens for Global Solutions: www.globalsolutions.org

Earthjustice: www.earthjustice.org

Global Green USA: www.globalgreen.org/programs/water/index.html

Global Water Foundation: www.globalwaterfoundation.org

H2O Africa Foundation: www.h2oafrika.org

Lifestraw: www.lifestraw.com

A personal mobile water purification tool that turns surface water into drinking water

Mercy Corps: www.mercycorps.org

Millennium Water Alliance: www.mwawater.org

Rotary Clubs: www.rotary.org

UN Water: www.unwater.org

Water Advocates: www.wateradvocates.org

Water for Life: www.un.org/waterforlifedecade

Waterkeeper Alliance: www.waterkeeper.org

WaterPartners International: www.water.org

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