



What's in Your Water Bottle?

| *Thinking twice about the health benefits and costs to self and planet of using bottled water*

Introduction

You can see them pretty much anywhere that youth are gathered—those ubiquitous plastic bottles of Aquafina, Dasani, Ice Mountain, Deer Park, or any of a dozen or so other brands of bottled water. Just hearing the names of the brands can almost be enough to quench your thirst. Bottled water seems like the sensible alternative to the highly sugared and caffeinated sodas and sports drinks favored by so many kids these days. Most of us grew up hearing that we should drink eight glasses of water a day to be healthy. So it can't be anything but good for young people to choose a chilled bottle of refreshing water, right?

As it turns out, choosing to consume bottled water raises a host of questions that relate to health all right, but not just the health of the young people and adults who drink it. It's a choice that also affects the health of the environment and the health of the other inhabitants of the planet in complex and interrelated ways.

It seems counterintuitive to spend so much money on something that is abundantly available to us with the simple turn of a faucet. Last year alone, Americans spent nearly \$11 billion on a beverage that is no purer or safer than what is available to us through our public utility at a fraction of the cost.¹ The bottled water industry "takes a free liquid that falls from the sky and sells it for as much as four times what we pay for gas," Indiana University anthropology professor Richard Wilk told the *San Francisco Chronicle* in January 2007. "There's almost nowhere in America where the drinking water isn't adequate. Municipalities spend billions of dollars bringing clean, cheap water to people's homes. But many of us would still rather buy it at a store."²

Session at a Glance

ARRIVING

- Tap in-drink up (water tasting)

GATHERING

- Participate in water relays

OPENING

- Pray together
- Discuss the tap water challenge

EXPLORING

- Define uses of water
- Present scenarios

RESPONDING

- To use or not to use

CLOSING

- Explore water and our faith
- Sing a hymn

And although the bottled water industry would have us believe otherwise, bottled water is not necessarily safer or purer than tap water. In fact, anywhere from an estimated 25 to 40 percent³ of bottled water is actually just tap water in a bottle, as reading the fine print on the label of some products will reveal. If the label says "from a municipal source" or "from a community water system," it's derived from tap water. Aquafina, bottled by PepsiCo, and Dasani, bottled by Coca-Cola, are reprocessed from municipal water. So bottled water is often just tap water in a bottle with a fancy label.

“Just tap water”—that phrase illustrates how much we take our water supply for granted. Unless we live in the Southwest, where water is in short supply, or in the Southeast, where the drought of the summer of 2007 brought the value of water sharply into the consciousness of residents, most of us give little thought to our access to water. We are accustomed to running the tap until water is really cold in the summer or really hot in the winter. We take long showers, and we run the faucet while we brush our teeth. Youth, who are typically preoccupied with how they look, are likely to be prime offenders. One toilet flush alone uses as much water as many people in the developing world use in one day! In this country most tap water, subject to the regulations that govern the dispensing of municipal water, is both safe to drink and thousands of times cheaper than its bottled counterpart. If tap water in a particular locality has a distinctively unpleasant taste, a water filter that screws onto the faucet can take care of the problem relatively inexpensively. A 1999 Natural Resources Defense Council study found that tap water, which is required to be tested quarterly, can actually be of higher quality than bottled water, which is tested only annually.⁴ Yet we, who have access to high-quality water with the flick of a wrist, would rather depend on a plastic bottle of the stuff.

The Risk to Environmental Health

This bottled water habit of ours is also endangering the health of the planet itself. Like any other plastic, those small bottles from which we gulp down water are made of natural gas and petroleum, both nonrenewable resources. According to the Pacific Institute, the process of making plastic bottles consumed in the United States requires around 17 million barrels of oil a year, oil that could fuel more than 100,000 cars.⁵ The production process gives off more than 2.5 million tons of carbon dioxide.⁶ If you add in the transportation for the 25 percent of bottled water that crosses national borders, the energy used comes to the equivalent of over 50 million barrels of oil.⁷ Not only is this a poor stewardship of our energy resources, but bottled water also wastes the very resource it is marketing. Ironically, at a time when the world is facing a global water shortage by 2025, it takes three liters of water to manufacture one liter of bottled water.⁸

But the damage to the environment doesn't stop there. Although the plastic bottles are recyclable, estimates are that less than 20 percent of the single-serving bottles actually do get recycled.⁹ The rest end up tossed in the trash or as litter by the side of the road. And there they'll stay for the thousand years it will take the plastic to biodegrade.

The Risk to Personal Health

Aside from possible risks to the health of bottled water drinkers from imbibing something not as regulated as municipal water, another health concern has recently surfaced, this one about the bottle itself. The plastic used in single-use bottles (and in some reusable bottles) is #1 polyethylene terephthalate (PET or PETE). If used only once, the bottles are relatively safe. But if reused, as many commonly are, they can leach chemicals such as DEHA (a known carcinogen) and benzyl butyl phthalate (BBP), a chemical known to disrupt hormone levels.¹⁰

The health issues alone are complex, both from an individual standpoint and when taking the larger view about the health of the environment. Young people who are health conscious and who have embraced bottled water as a healthy choice can be confused and even baffled when the facts challenge their assumptions about that choice. The fact that bottled water is marketed aggressively to young people doesn't make matters any easier. Kids who are concerned about the environment also face some confusing choices. If they choose bottled water and conscientiously recycle the bottles, they still must come to terms with the implications of the amount of petroleum used to manufacture those bottles. If they purchase a reusable plastic bottle, they run the risk of being exposed to leached chemicals.

The Risk to the Health of the Developing World's People

And there is even more at stake, for bottled water can be viewed as a metaphor for the increasingly complex issues engendered by a global economy and a free market. According to every international convention, people have the right to have access to water, for water is among the most basic needs for life. We can survive for extended periods of time without food but for no more than days without water. Yet it is not enough to

assert that all people have the right to water. Amartya Sen, Nobel Prize-winning economist, suggests that it is important to go beyond declaring that all people have the right to something and to look at those conditions under which those rights can be realized. He calls these conditions “capabilities,” those things that allow people to fully claim their rights.¹¹

Historically, providing water has been considered a public service. But the rise of globalization has brought into play a key strategy, that of privatization. The idea is that private corporations can provide services more efficiently and more cheaply than the government. Bottling water for sale is one form of privatization, and here the rights and capabilities of people come up against the “right” of corporations to buy up water rights in order to make a profit. A classic example of this clash can be found in Fiji, where Fiji Water bottles millions of gallons of water for sale, while many of the island’s population lack a safe source of clean water. With globalization, multinational corporations have gained the right to access water in countries far from the places where it will be purchased and consumed. This is in the face of a World Health Organization report that estimates that one out of every six people lacks access to a reliable source of clean water.¹²

For many people of all ages, grabbing up a bottle of water from the refrigerator or purchasing it from a vending machine is a matter of convenience, something they don’t give much thought to. Some will just as mindlessly toss the empty bottle into a trash barrel or even out the window of a moving car. Others will be more aware of some of the concerns about the environment. Many may assume that the advertising about bottled water is true and purchase what they believe is better for them. But almost no one, young person or adult alike, grasps the full complexity of how our habits of consumption affect the whole of the human community.

By making water a consumer product, we are denying that water is a gift of God to the whole of humanity. By choosing bottled water over our own taken-for-granted clean, inexpensive source of water, we contribute in just one more way to using vastly more than our share of the earth’s resources. The contrast between the American teenager sipping from a bottle of Aquafina and the African teenager hauling a heavy container of water for a mile could not be sharper.

Goal for the Session

To present an opportunity for youth to explore the issues involved in using bottled water, to clarify the relationship of these issues to those who have little access to or control over their own resources, and to discern how best to respond as people of faith in a world where water resources are becoming depleted.

Preparing for the Session

- Make enough copies of the Participant Handout for every youth to have a copy. Likewise, make a copy of the scenarios at the end of this Leader’s Guide for exercise 4. One copy per group is enough in order to save paper.
- The relays require an open space. If your learning space is small, try using a long hallway or the church parking lot. You’ll need two gallon jugs filled with water for the water carry and two buckets and two empty water bottles for the bucket-filling relay (use the bottles from the tap water challenge—we’re trying to encourage less use of bottled water!). If your time is limited or you have a very small group, choose one of these activities. With a larger group, you might run both relays simultaneously, giving youth a choice of the one in which they want to participate.
- Bring a pitcher of chilled tap water and a bottle each of Dasani, Aquafina, and the most popular brand of Nestlé bottled waters where you live (Poland Spring, Nestlé Pure Life, Ice Mountain, Deer Park, Ozarka). You’ll also need cups.
- Post two sheets of newsprint with the titles “Pro” and “Con” (or “Plus” and “Minus”) and some blank sheets of newsprint.



Teaching Tip

For many youth, using bottled water is as much a part of life as text messaging or listening to an iPod. Your goal is not necessarily to instantly convert them to a new viewpoint or to completely alter their habits in one session. Rather it should be to open a dialogue into a complex issue and to move them to further reflection and possible action.

Someone may ask the logical questions, Why save water? Isn’t there plenty of water in the world? A quick, easy

answer is found on the government's EPA Web site that says, "Did you know that less than 1% of all the water on Earth can be used by people? The rest is salt water (the kind you find in the ocean) or is permanently frozen and we can't drink it, wash with it, or use it to water plants. As our population grows, more and more people are using up this limited resource. Therefore, it is important that we use our water wisely and not waste it."¹³

Arriving (5 minutes)

As youth arrive, invite them to engage in a water tasting. Blindfold them one at a time and let them taste a cup of tap water and a cup of one of the bottled waters.

Gathering (5 minutes)

Invite youth to try one or more of the following water relays:

- *Water carry:* Divide the group into teams, with half of the members of each team at either end of the space. At the signal, have the first persons in line at one end carry the gallon of water to the first persons in line at the other end. Those persons will carry it back to the other side, and so forth. The first team to finish is the winner.
- *Fill the bucket:* For each team, place an empty container at one end of the space and a filled bucket and an empty water bottle at the other. At the signal, the person next to the filled bucket will scoop up a bottleful of water, run to the empty bucket, dump in the water, and run back. His or her partner will take the bottle, and scoop up a bottleful of water from the full container, and run to the near-empty bucket to empty it. The first team to empty the full bucket wins.

If you prefer, just let young people try carrying the filled gallon jug or filling the empty container without making the activities a race.

Opening (10 minutes)

1. Pray Together

Creator God, in the beginning your face moved over the waters at the very formation of the world. We give thanks for your gift of water, given freely to the whole of creation. Make us wise stewards of this good gift, and guide us in making choices that will benefit not just ourselves but also the whole world. **Amen.**

2. Discuss the Tap Water Challenge

Ask how many youth drink bottled water. What are their favorite brands? Then invite volunteers to say how they responded to the tap water challenge. Could they tell the difference between the tap water and the bottled water? Which do they prefer to drink? Why? Say that in this session they will be exploring why bottled water may not be the best choice, either for their own health or for that of the world.

Ask volunteers to read the labels of the Dasani and Aquafina waters. Ask: what is a municipal water source? Point out that these two waters are basically tap water. Ask a volunteer to read the facts about bottled water from the Participant Handout. Is bottled water purer or safer than tap water?

Exploring (15 minutes)

3. Define Uses of Water

With a black felt-tipped marker, print "water" in the center of a sheet of newsprint. Ask the group to name as many ways we use water as they can think of and print them around the center. Then ask them to name the ways we use water that are essential or very important for living a healthy life and to circle those with one color of marker. Follow up by asking which of the uses they named are not essential but are merely recreational or life enhancing (swimming, watercolor painting, watering the lawn, playing in the sprinkler, washing cars, and so forth). Circle these with a marker of a different color.

Recall the relay activities the group engaged in. Ask: Was it hard to carry the jug of water? How heavy is a gallon of water? What if you had to carry all the water your family uses, and what if the source for the water was some distance away?

Discuss the information about water from the handout. Point out that Peter Gleick of the Pacific Institute estimates in "Basic Water Requirements for Human Activities: Meeting Basic Needs," that a *minimum* of fifty liters (about eleven gallons) is needed each day for one person just for drinking, cooking, sanitation, and bathing.¹⁴

4. Present Scenarios

Divide the group into three smaller groups or pairs. Assign one of the scenarios you have printed out from

the appendix of this Leader's Guide to each group. With a very small group, assign scenarios to individuals or choose one or two of them. Ask participants to read over their scenario and be prepared to share it with the larger group. After allowing a few minutes for groups to work, have groups present their scenario. Discuss, using some of the following questions:

- What are the issues relevant to water that are raised in your scenario?
- How, if at all, does using bottled water impact the persons affected by this scenario? Is there a direct connection or something more indirect? How do you respond to the fact that people in the United States are the greatest consumers of water on the planet?

Responding (5 minutes)

5. To Use or Not to Use

Invite the group to take a few minutes to jot down on the newsprint sheets you posted reasons for and against using bottled water. Encourage them to be honest about this—if they really think the convenience of bottled water is an important plus, they should list it.

Evaluate the lists when they are finished. Ask for a show of hands of those who use bottled water on a regular basis. Ask: have you heard anything today that changes your mind about bottled water? Then ask the group to generate a list of realistic action steps they might take. Again encourage them to be honest as well as pragmatic. If a youth drinks bottled water regularly and does not recycle the bottles, that person might commit to recycling. Another person might say she would ask a parent to purchase a water filter and would switch to a metal water bottle. If the church uses bottled water routinely, youth might ask the church's governing body to consider purchasing a filtered water dispenser or just to offer pitchers of ice water instead. Other action steps might address water conservation—turning off the tap when brushing teeth, shorter showers, and so forth.

Closing (5 minutes)

6. Exploring Water and Our Faith

Remind youth that water is essential to one of our sacraments, the sacrament of baptism. When we baptize a baby, child, or adult, we are acknowledging that God has

called that person to be a part of the whole church. Baptism is not an act done in private but rather a rite of the community, signifying a person's identity not only as a child of God but also as a part of the faith community. We use something so essential to life as a part of something so essential to our faith. Pass around a bowl of water. Invite youth to silently dip their fingers in the bowl and as they remember their baptism to reflect on God's gift of water to the whole of the human community and our responsibility to be good stewards of this gift.

7. Sing a Hymn

Close by singing a baptism hymn, such as "Creator of the Water" by Carolyn Winfrey Gillette or another from your hymnal.

Teaching Alternatives

- *Tap water challenge.* Set up a more extensive experience of sampling tap and bottled waters. From <http://www.stopcorporateabuse.org>, download "Think Outside the Bottle Campaign: Tap Water Challenge" from Corporate Accountability International. Youth can set up this challenge and involve the whole congregation.
- If you have Internet access, have the youth go to <http://www.fijigreen.com> to analyze Fiji Water's case for being environmentally responsible. How compelling is the case? What is being left out?
- Instead of having youth just present scenarios, small groups can act them out as skits. Encourage them to expand on characters and present their viewpoints. For example, they may create a Fiji Water corporate executive or a woman fetching water from the river or a child ill from drinking contaminated water.

Key Scriptures

Psalms 104:10–23

Isaiah 43:19–21

Amos 5:24

For More Information

Resources on Water from Church World Service. Go to <http://www.churchworldservice.org> and click the Resources link to download a Church World Service series on water, including "Twice as Thirsty: Women, Children & Water" and "Worship with the World: WATER."

Food and Water Watch, <http://www.foodandwaterwatch.org>.

Peter H. Gleick, "The Human Right to Water," Pacific Institute, http://www.pacinst.org/reports/human_right_may_07.pdf.

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Endnotes

1. Green Guide: Solvie Karlstrom, "Tapped Out: The True Cost of Bottled Water," *National Geographic* 121 (July/August 2007), <http://www.thegreenguide.com/doc/121/bottle>.

2. David Lazarus, "Spin the (Water) Bottle," *San Francisco Chronicle*, January 17, 2007, C1. Available at www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2007/01/17/BUG35NIVFK70.DTL.

3. Sources vary as to the percentage.

4. Green Guide.

5. "Sustainable Living: Bottled Water's Environmental Ills," Hudson Valley Media Group, 2008, <http://www.recordonline.com/apps/pbcs.dll/article?AID=/20071014/NEWS/710140325/-1/NEWS>.

6. RamonCruz, "Bottles, Bottles, Everywhere...", March 26, 2008, http://environmentaldefenseblogs.org/climate411/2008/03/26/bottled_water/?gclid=COaJz.

7. Ibid.

8. Ibid.

9. Ibid.

10. Green Guide.

11. Amartya Sen, *Development as Freedom* (New York: Anchor, 1999), 18. As quoted in Elmira Nazombe, *Globalization and Its Impact on People's Lives: 2006–2007 Mission Study with Study Guide*, Global Ministries, United Methodist Church.

12. World Health Organization, "Global Water Supply and Sanitation Assessment 2000 Report," available at http://www.who.int/docstore/water_sanitation_health/Globassessment/GlobalTOC.htm.

13. Why Save Water, <http://www.epa.gov/watersense/kids/whysave.htm>.

14. Peter H. Gleick, "Basic Water Requirements for Human Activities: Meeting Basic Needs," *Water International* 21, no. 2 (1996): 83. Available at <http://www.environmental-expert.com/files/6846/articles/4088/4088.pdf>.

Appendix: Scenarios

The Case of Fiji Water*

For over a decade, Fiji Water has used the aquifers of the Fiji Islands as a source for the water it bottles and sells in the United States, Canada, and elsewhere. In 2002, its sales were \$40 million. In exchange for granting a twenty-year lease to the corporation, a trust fund was set up that has so far provided \$300,000 in capital improvements to the villages. But only the village closest to the Fiji Water project has gotten water and sewer systems in the bargain, even though the land is owned by communal groups. Other villages are without these improvements. The company has provided jobs that enable residents to educate their children. A locally owned bottling company tried to open a bottling plant nearby using the same water source but was held up in litigation by Fiji over the trademark name. The company sells water for the local market but has been shut out of the international market by the corporation that is making millions of dollars on the islands' name.

Who owns the water of Fiji? Who is benefiting from the bottling of the water? What are the costs?

The Case of Ice Mountain Water*

Every day, Nestlé extracts 750,000 gallons of water from Sanctuary Springs, an aquifer that ultimately feeds into Lake Michigan, part of the Great Lakes, which contain almost 20 percent of the fresh water on the planet. The water is sold under the brand name Ice Mountain. In exchange for the promise of jobs for an area with high unemployment, the company got tax breaks, including a twelve-year reprieve from paying property or school taxes and the right to dig wells.

But many people question whether a corporation should have the right to buy a resource such as water. A judge recently found that Nestlé's pumping caused a two-inch drop in the stream, causing wetlands to lose almost 75 percent of their water. Local lake levels have also dropped six inches. But Nestlé appealed and was granted emergency permission to continue pumping. Other citizens are asking the governor to pursue comprehensive legislation to make it illegal to bottle fresh water without a public process to look at all aspects of the impact.

Is it a good thing or a bad thing to privatize water? Who is benefiting from the bottling of the water? What are the costs?

* Adapted from stories in *Globalization and Its Impact on People's Lives: 2006–2007 Mission Study with Study Guide*, by Elmira Nazombe. Copyright Global Ministries, United Methodist Church.

The Case of Ada and Water Shortage* *

Every morning Ada must leave at dawn to walk to the well, where she will fill water containers for her family for the day. She should be in school, but it takes several hours each day just to get enough water for the family. It's a long way to carry heavy water containers. Sometimes there are arguments at the well about who got there first. Precious time is wasted squabbling about who should be the first to draw water.

If there is a drought and the wells dry up, Ada may be forced to walk even farther to a river, where the little water available may be muddy. River water can often carry waterborne diseases, too. There is also the risk that Ada may be assaulted on her way to get the water. But she has little choice. Her family needs water for drinking, cooking, and sanitation. Tomorrow, she will again walk to the well, hoping to arrive first so she can begin the return trip before the sun is too hot.

What is the effect on Ada's life of spending so much time obtaining water for her family?

** Adapted from information in "Twice as Thirsty: Women, Children & Water," Church World Service series on water.