

# **WATER WARS**

## **Privatization, Pollution and Profit**

**by Vandana Shiva**



Pluto Press  
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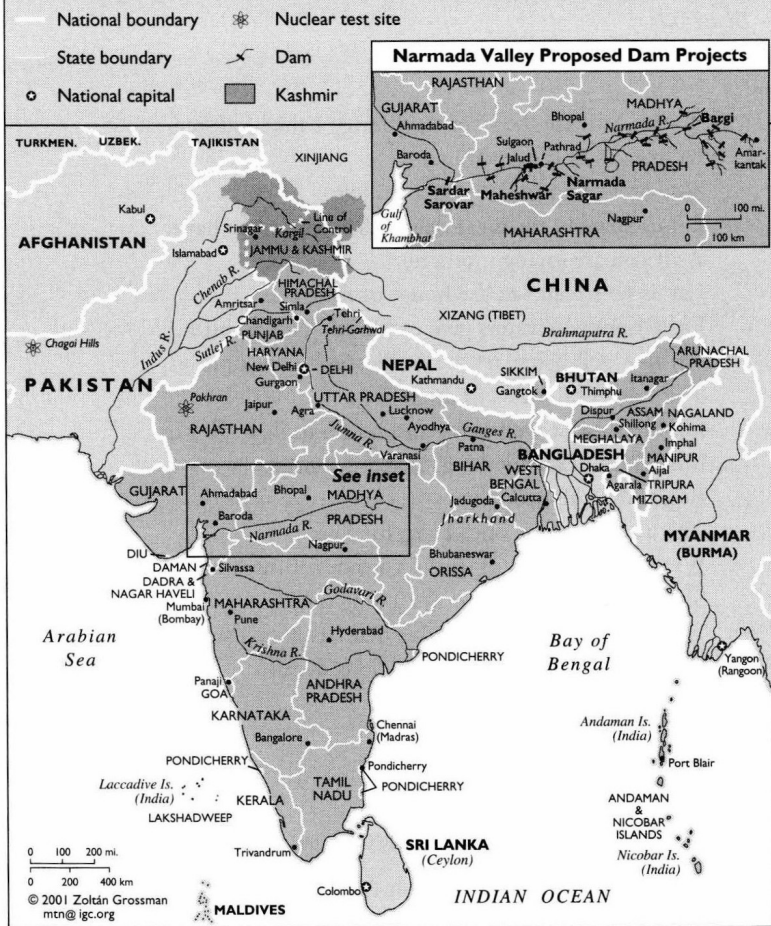
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*This book is dedicated to the people of Tehri and Bhagirathi Valley, whose homes are being drowned by Tehri Dam, which is also reversing the penance of Bhagirath.*

Waters, you are the ones that bring us the life force.  
Help us to find nourishment,  
So that we may look upon great joy.  
Let us share in the most delicious sap that you have,  
As if you are loving mothers,  
Let us go straight to the house of the one,  
For whom you waters give us life and give us birth.  
For our well-being, let the goddesses be an aid to us,  
The waters be for us to drink.  
Let them cause well-being and health to flow over us.  
Mistresses of all the things that are chosen,  
Rulers over all peoples,  
The waters are the ones I beg for a cure.  
Waters—yield your cure as an armor for my body,  
So that I may see the sun for a long time.  
Waters—carry away all of this that has gone bad in me.  
Either that I have done in malicious deceit,  
Or whatever lie I have sworn to,  
I here sort the waters today.  
We have joined with their sap,  
Oh Agni, full of moisture,  
Come and flood me with splendor!

—The Ancient Rig Veda Hymn, *Water of Life*

# INDIA AND THE NARMADA VALLEY



## Preface

# WATER WARS

In 1995, Ismail Serageldin, vice president of the World Bank, made a much-quoted prediction about the future of war: "If the wars of this century were fought over oil, the wars of the next century will be fought over water." Many of the signs suggest that Serageldin is on target. Stories of water shortages in Israel, India, China, Bolivia, Canada, Mexico, Ghana, and the United States are making headlines in major newspapers, magazines, and academic journals.<sup>1</sup> On April 16, 2001, the *New York Times* featured a front-page story on water scarcity in Texas. Like Serageldin, the paper forecasted, "For Texas Now, Water, Not Oil, is Liquid Gold."<sup>2</sup>

While the *New York Times* and Serageldin are correct about water's importance in future conflicts, water wars are not a thing of the future. They already surround us, although they are not always easily recognizable as water wars. These wars are both paradigm wars—conflicts over how we perceive and experience water—and traditional wars, fought with guns and grenades. These clashes of water cultures are taking place in every society. Recently, when I was traveling to Rajasthan's capital, Jaipur, in western India, for a public hearing on drought and famine, I experienced the clash of these two cultures of water. On the train from Delhi to Jaipur, we were served bottled water, where Pepsi's water line Aquafina was the brand of choice. On the streets of

Jaipur, there was another culture of water. At the peak of drought, small thatched huts called *Jal Mandirs* (water temples) were put up to give water from earthen water pots as a free gift to the thirsty. *Jal Mandirs* are a part of an ancient tradition of setting up *Piyaos*, free water stands in public areas. This was a clash between two cultures: a culture that sees water as sacred and treats its provision as a duty for the preservation of life and another that sees water as a commodity, and its ownership and trade as fundamental corporate rights. The culture of commodification is at war with diverse cultures of sharing, of receiving and giving water as a free gift. The unsustainable, nonrenewable, and polluting plastic culture is at war with civilizations based on soil and mud and the cultures of renewal and rejuvenation. Imagine a billion Indians abandoning the practice of water giving at *Piyaos* and quenching their thirst from water in plastic bottles. How many mountains of plastic waste will it create? How much water will that dumped plastic destroy?

Paradigm wars over water are taking place in every society, East and West, North and South. In this sense, water wars are global wars, with diverse cultures and ecosystems, sharing the universal ethic of water as an ecological necessity, pitted against a corporate culture of privatization, greed, and enclosures of the water commons. On one side of these ecological contests and paradigm wars are millions of species and billions of people seeking enough water for sustenance. On the other side are a handful of global corporations, dominated by Suez Lyonnaise des Eaux, Vivendi Environment, and Bechtel and assisted by global institutions like the World Bank, the World Trade Organization (WTO), the International Monetary Fund (IMF), and G-7 governments.

Alongside these paradigm wars are actual wars over water between regions, within countries, and within communities. Whether it is in Punjab or in Palestine, political violence often arises from conflicts over scarce but vital water resources. In

some conflicts, the role of water is explicit, as is the case with Syria and Turkey, or with Egypt and Ethiopia.<sup>3</sup>

But many political conflicts over resources are hidden or suppressed. Those who control power prefer to mask water wars as ethnic and religious conflicts. Such camouflaging is easy because regions along rivers are inhabited by pluralistic societies with diverse groups, languages, and practices. It is always possible to color water conflicts in such regions as conflicts amongst regions, religions, and ethnicities. In Punjab, an important component of conflicts that led to more than 15,000 deaths during the 1980s was an ongoing discord over the sharing of river waters. However, the conflict, which centered on development disagreements including strategies of the use and distribution of Punjab's rivers, was characterized as an issue of Sikh separatism. A water war was presented as a religious war. Such misrepresentations of water wars divert much-needed political energy from sustainable and just solutions to water sharing. Something similar has happened with the land and water conflicts between the Palestinians and Israelis. Conflicts over natural resources have been presented as primarily religious conflicts between Muslims and Jews.

Over the past two decades, I have witnessed conflicts over development and conflicts over natural resources mutate into communal conflicts, culminating in extremism and terrorism. My book *Violence of the Green Revolution* was an attempt to understand the ecology of terrorism. The lessons I have drawn from the growing but diverse expressions of fundamentalism and terrorism are the following:

1. Nondemocratic economic systems that centralize control over decision making and resources and displace people from productive employment and livelihoods create a culture of insecurity. Every policy decision is translated into the politics of "we" and "they." "We" have been unjustly treated, while "they" have gained privileges.



2. Destruction of resource rights and erosion of democratic control of natural resources, the economy, and means of production undermine cultural identity. With identity no longer coming from the positive experience of being a farmer, a craftsman, a teacher, or a nurse, culture is reduced to a negative shell where one identity is in competition with the “other” over scarce resources that define economic and political power.

3. Centralized economic systems also erode the democratic base of politics. In a democracy, the economic agenda is the political agenda. When the former is hijacked by the World Bank, the IMF, or the WTO, democracy is decimated. The only cards left in the hands of politicians eager to garner votes are those of race, religion, and ethnicity, which subsequently give rise to fundamentalism. And fundamentalism effectively fills the vacuum left by a decaying democracy. Economic globalization is fueling economic insecurity, eroding cultural diversity and identity, and assaulting the political freedoms of citizens. It is providing fertile ground for the cultivation of fundamentalism and terrorism. Instead of integrating people, corporate globalization is tearing apart communities.

The survival of people and democracy are contingent on a response to the double fascism of globalization—the economic fascism that destroys people’s rights to resources and the fundamentalist fascism that feeds on people’s displacement, dispossession, economic insecurities, and fears. On September 11, 2001, the tragic terrorist attacks on the World Trade Center and at the Pentagon unleashed a “war against terrorism” promulgated by the US government under George W. Bush. Despite the rhetoric, this war will not contain terrorism because it fails to address the roots of terrorism—economic insecurity, cultural subordination, and ecological dispossession. The new war is in fact creating a chain reaction of violence and spreading the virus of hate. And the magnitude of the damage to the earth caused by “smart” bombs and carpet bombing remains to be seen.

## The Ecology of Peace

On September 18, 2001, I joined millions of people around the world to observe two minutes of silence in remembrance of the thousands of people who lost their lives in the September 11 assault on the World Trade Center and the Pentagon. But I also thought of the millions who are victims of other terrorist actions and other forms of violence. And I renewed my commitment to resist violence in all its forms. That morning, I was with three women, Laxmi, Raibari, and Suranam, in Jhodia Sahi village in Orissa. Laxmi's husband, Ghabi Jhodia, was among the 20 tribals who have recently died of starvation. In the same village, Subarna Jhodia had also died. Later on that day, we met Singari in Bilamal village who had lost her husband Sadha, elder son Surat, younger son Paila, and daughter-in-law Sulami. World Bank-imposed policies had weakened the food economy and left these villagers vulnerable to famine.

Giant mining companies such as Hydro of Norway, Alcan of Canada, and Indico and Balco/Sterlite of India have joined the pulp industry to unleash a new wave of terror. They have their sights set on the bauxite resting in the majestic hills of Kashipur. Bauxite is used for aluminum and aluminum is used for Coca Cola cans, rapidly displacing India's water culture, and for fighter planes, like those that are carpet-bombing Afghanistan as I write this. In 1993, we stopped the ecological terrorism of the mining industry in my home, the Doon Valley. The Indian Supreme Court closed the mines, ruling that commerce that threatens life must be stopped. But our ecological victories of the 1980s were undone with the environmental deregulation accompanying globalization policies. The aluminum companies want the homelands of the Kashipur tribals, and a major battle has ensued between residents and corporations.

This forced apportion of resources from people is a form of terrorism—corporate terrorism. I had gone to offer solidarity to victims of this corporate terrorism, which was not only threatening

to rob 200 villages of their survival base but had already robbed many of their residents of their lives when they were shot and killed by the police on December 16, 2000. The 50 million Indian tribals who have been flooded out of their homes by dams over the past four decades were also victims of terrorism—they have faced the terror of technology and destructive development. The thirty thousand people who died in the Orissa Supercyclone and the millions who will die when flood and drought and cyclones become more severe are also enduring terrorism by climate change and fossil fuel pollution.

Destruction of water resources and of forest catchments and aquifers is a form of terrorism. Denying poor people access to water by privatizing water distribution or polluting wells and rivers is also terrorism. In the ecological context of water wars, terrorists are not just those hiding in the caves of Afghanistan. Some are hiding in corporate boardrooms and behind the free trade rules of the WTO, North American Free Trade Agreement (NAFTA), and Free Trade Area of the Americas (FTAA). They are hiding behind the privatization conditionalities of the IMF and World Bank. By refusing to sign the Kyoto protocol, President Bush is committing an act of ecological terrorism on numerous communities who may very well be wiped off the earth by global warming. In Seattle, the WTO was dubbed the “World Terrorist Organization” by protestors because its rules are denying millions the right to a sustainable livelihood.

Greed and appropriation of other people's share of the planet's precious resources are at the root of conflicts, and the root of terrorism. When President Bush and Prime Minister Tony Blair announced that the goal of the global war on terrorism is the defense of the American and European “way of life,” they are declaring a war against the planet—its oil, its water, its biodiversity. A way of life for the 20 percent of the earth's people who use 80 percent of the planet's resources will dispossess 80 percent of its people of their just share of resources and eventu-

ally destroy the planet. We cannot survive as a species if greed is privileged and protected and the economics of the greedy set the rules for how we live and die.

The ecology of terror shows us the path to peace. Peace lies in nourishing ecological and economic democracy and nurturing diversity. Democracy is not merely an electoral ritual but the power of people to shape their destiny, determine how their natural resources are owned and utilized, how their thirst is quenched, how their food is produced and distributed, and what health and education systems they have.

As we remember the victims of September 11, 2001 in the United States, let us also strengthen our solidarity with the millions of invisible victims of other forms of terrorism and violence that threaten the very possibility of our future on this planet. We can turn this tragic and brutal historical moment into building cultures of peace. Creating peace requires us to resolve water wars, wars over food, wars over biodiversity, and wars over the atmosphere. As Gandhi once said, "The earth has enough for the needs of all, but not the greed of a few." The water cycle connects us all and from water we can learn the path of peace and the way of freedom. We can learn how to transcend water wars created by greed, waste and injustice, which create scarcity in our water-abundant planet. We can work with the water cycle to reclaim water abundance. We can work together to create water democracies. And if we build democracy, we will build peace.

- 1** For articles on the water crisis featured in major publications in 2001 see Sandra L. Postel and Aaron T. Wolf, "Dehydrating Conflict," *Foreign Policy*, September/November 2001, p. 60; "Crazed by Thirst: Canadians are in Lather Over Water Exports," *The Economist*, September 15, 2001, p.34; Nicholas George, "Billions Face Threat of Water Shortage," *Financial Times*, August 14, 2001, p. 6; "Water in China: In Deep," *The Economist*, August 18, 2001; "Low Water," *Financial Times*, August 14, 2001, p. 12.
- 2** Jim Yardley, "For Texas Now, Water, Not Oil, Is Liquid Gold," *New York Times*, April 16, 2001, A1.
- 3** See chapter 3 of this book for a more detailed discussion of the water conflicts in these countries.

## Praise for the Author

“Shiva...has devoted her life to fighting for the rights of the ordinary people of India...her fierce intellect and her disarmingly friendly, accessible manner have made her a valuable advocate for people all over the developing world.”

—*Ms. Magazine*

“A leading thinker who has eloquently blended her views on the environment, agriculture, spirituality, and women’s rights into a powerful philosophy.”

—*Utne Reader*

“Shiva is a burst of creative energy and intellectual power.”

—*The Progressive*

“One of the world’s most prominent radical scientists.”

—*The Guardian*

## Praise for Books by the Author

### **Stolen Harvest: The Hijacking of the Global Food Supply**

“Stolen Harvest is recommended reading for all who are interested in genetic engineering and commercial agriculture and the role they should have in feeding the world. Shiva’s claims are well-documented and call for careful consideration by all.”

—*Sustainable Communities Review*

“An important contribution to ongoing debates about...timely and contentious issues. The book will be of interest to a diverse audience, including those concerned with development and food security issues, the trade-environment conflict, and North-South relations in a globalizing era.”

—*Progress in Development Studies*

“More than a searing indictment of the growing corporatizing of agriculture, Shiva’s book is a call to arms. She encourages readers to join the growing food fight and...profiles a number of citizen groups who are doing just that, successfully.”

—*LA Times Syndicate*

“Stolen Harvest is a passionate, articulate, highly recommended wake up call to the public.”

—*Wisconsin Bookwatch*

## **Biopiracy: The Plunder of Nature and Knowledge**

Named a “Break-Through Book” on Intellectual Property by *Lingua Franca*.

“A path-breaking work on one of the most important issues of the coming century... Vandana Shiva’s inspiring book is a clarion call...[that] should be widely read and discussed by everyone concerned with the fate of the Earth.”

—Jeremy Rifkin, author of

*The Biotech Century: Harnessing the Gene and Remaking the World*

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# CONVERTING ABUNDANCE INTO SCARCITY

**W**ater is the matrix of culture, the basis of life. In Arabic, Urdu, and Hindustani it is called *ab*. *Abad raho* is a greeting for prosperity and abundance. The name India itself is derived from the great river Indus, and India was called the land beyond the Indus.<sup>1</sup> Water has been central to the material and cultural well-being of societies all over the world. Unfortunately, this precious resource is under threat. Although two-thirds of our planet is water, we face an acute water shortage.

The water crisis is the most pervasive, most severe, and most invisible dimension of the ecological devastation of the earth. In 1998, 28 countries experienced water stress or scarcity.<sup>2</sup> This number is expected to rise to 56 by 2025. Between 1990 and 2025 the number of people living in countries without adequate water is projected to rise from 131 million to 817 million.<sup>3</sup> India is supposed to fall into the water stress category long before 2025.<sup>4</sup>

A country is said to be facing a serious water crisis when available water is lower than 1,000 cubic meters per person per year. Below this point, the health and economic development of a nation are considerably hampered. When the annual water availability per person drops below 500 cubic meters, people's survival is grievously compromised. In 1951, the average water availability in India was 3,450 cubic meters per person per year.