

# Globalization, Water, & Health

*Resource Management in Times of Scarcity*

...prime and passion, life and death, lofty goals and squalid realities. It is a... global disparities in health and access to water are two major threats to... international contracts and corporate agreements divert water from small... wide for larger cities, from households to supply agribusiness, conflicts... al communities, national governments, and international agencies such as... the International Development Bank over the basic resources to support... book, leading anthropologists illuminate the global political inequities and... ent techniques that cause children to die and adults to sicken. Drawing... tical and ecological anthropology, the contributors challenge and deepen... of the management, sale, and conceptualization of water as it affects... gned for use by policymakers as well as researchers and students, the... plex realities in clear, accessible terms.

## Globalization, Water, & Health

...a trail of failed water policies and local responses to plans from on high... parched villages and fouled slums to the policy boardrooms of Washington... the capital cities of a dozen nations... The reader learns how precarious is... water... Most of the world's thirsty, or those obliged to drink unsafe water... read this book. It's in the interest of the rest to make sure that policy... e health of billions is at stake."

—Paul Farmer, *Partners In Health*, Harvard Medical School

...ce of scholarly work that explores a number of pressing water-related... ll be of interest to people working in a variety of scholarly and applied... ropology, environmental anthropology, international health and develop... management." —Michael Ennis-McMillan, *Skidmore College*

American Research Press

James Currey  
Oxford

[www.jamescurrey.co.uk](http://www.jamescurrey.co.uk)

American Research Advanced Seminar Series

58-1



589

ISBN 0-85255-974-7



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*Resource Management in Times of Scarcity*



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Whiteford  
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School of American Research Advanced Seminar Series

*Edited by Linda Whiteford and Scott Whiteford*

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## *Resource Management in Times of Scarcity*

*Edited by Linda Whiteford and Scott Whiteford*



**School of American Research Press**

*Santa Fe*

**James Currey**

*Oxford*

**School of American Research Press**

Post Office Box 2188  
 Santa Fe, New Mexico 87504-2188

**James Currey Ltd**

73 Botley Road  
 Oxford OX2 0BS

Director: James F. Brooks  
 Executive Editor: Catherine Cocks  
 Manuscript Editor: Kate Talbot  
 Design and Production: Cynthia Dyer  
 Proofreader: Amanda A. Morgan  
 Indexer: Jan Wright  
 Printer: Maple-Vail Book Manufacturing Group

**Library of Congress Cataloging-in-Publication Data:**

Globalization, water, and health : resource management in times of scarcity / edited by Linda Whiteford and Scott Whiteford.—1st ed.

p. ; cm. — (School of American Research advanced seminar series)  
 Includes bibliographical references and index.

ISBN 1-930618-57-3 (cloth : alk. paper) — ISBN 1-930618-58-1 (pbk. : alk. paper)

1. Water supply—Cross-cultural studies. 2. Globalization—Health aspects 3. World health. [DNLM: 1. Water Supply. 2. World Health. ] I. Whiteford, Linda M. II. Whiteford, Scott, 1942- III. Series.

RA591.G57 2005  
 363.6'1—DC22

2004030595

**British Library Cataloguing in Publication Data**

Globalization, water, & health: resource management in times of scarcity. - (School of American Research advanced seminar series)

1. Water—supply—Health aspects 2. Scarcity 3. Water resources development—Social aspects 4. Water resources development—Political aspects 5. Environmental health 6. Globalization I. Whiteford, Linda M. II. Whiteford, Scott, 1942- III. School of American Research (Santa Fe, N. M.)

333.9'12217

ISBN-10: 0-85255-979-8 ISBN-13: 978-0-85255-979-6 (James Currey cloth)

ISBN-10: 0-85255-974-7 ISBN-13: 978-0-85255-974-1 (James Currey paper)

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 Manufactured in the United States of America.

Library of Congress Catalog Card Number 2004030595

International Standard Book Numbers 1-930618-57-3 (cloth) and 1-930618-58-1 (paper). First edition 2005.

Cover illustration: Courtesy of WHO/TDR/Crump, image ID 9901821.

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## 2

### Casualties in the Globalization of Water

*A Moral Economy of Health Perspective*

**Linda Whiteford**

Health should be seen as a global public good from which we can all benefit and to which we all should contribute.—*Kelley Lee*

The first casualty of the globalization of water may be a population of millions around the world. It has been more than one hundred fifty years since Snow discovered that contaminated water spreads cholera. It has been more than twenty years since the United Nations declared the International Drinking Water Supply and Sanitation Decade (1980–1990). The UN declaration was intended to bring attention to the plight of the world's population living without access to clean water and sanitation. Even with that decade of attention and the ten years between 1990 and 2000, population growth rendered those gains almost stagnant (UNICEF 2004). Every eight seconds, a child dies from drinking contaminated water (Children's Water Fund 2004). This chapter traces how failure to address health issues when water rights are traded and sold has contributed to declining health worldwide. Using several countries in Latin America and the Caribbean as examples, this chapter shows how neoliberal trade and lending regulations increase the structural violence and burden of waterborne diseases in the daily lives of the world's disadvantaged.

In the latter half of the twentieth century, national and international policies rejected the moral obligation to safeguard public health

essentials (clean air, water, environment) in favor of protecting individual and corporate economic market interests. As a result, the valences of public policy also shifted, commodifying natural resources formerly considered a human right. As Barlow and Clarke note (Barlow with Clarke 2002:130), in the twenty-first century, corporate players such as the Global Water Corporation regard water not as a human right, but as "a rationed necessity that may be taken by force."

The "tragedy of the commons," traditionally referred to as the loss of shared productive land through uncontrolled overuse, now has new meaning. The new tragedy of the global commons is the loss of shared, publicly protected natural resources through their sale for economic gain. As clean water becomes more difficult to secure, the number of preventable deaths and disabilities due to unreliable and/or inadequate water supply increases exponentially.

As the Center for Policy Analysis on Trade and Health (CPATH 2004) notes, "health is both a universal aspiration of all peoples and governments and a mark of the egregious disparities that exist between the developed and developing worlds. In 2000, at the World Summit for Social Development in Geneva, leaders worldwide committed to attaining universal and equitable access to basic health care, sanitation and drinking water, to protect health, and to promoting preventive health programs. But too often health and a stable infrastructure of services are considered secondary to formulas for economic growth that may or may not succeed." The Free Trade Area of the Americas (FTAA) proposals, such as the North America Free Trade Agreement (NAFTA), are designed to liberalize trade by reducing tariffs and regulatory policies and thereby, according to some analysts, encourage trade. Their deregulatory stance, however, has negative implications in the areas of human rights and human health. The regulation of public health measures has been responsible for creating and assessing conditions that protect the public's health—clean water, safe housing, and a healthy environment. Again, according to CPATH (2004), "as under the foreign investment chapter (Chapter 11) of the North American Free Trade agreement (NAFTA), private companies can challenge laws and regulations adopted by democratically elected governments and officials. Any 'measure' is subject to elimination if it is shown that it is not 'necessary,' or is 'unduly burdensome to trade.... FTAA could

apply to public sectors.... No vital human service in the US would be exempted under these conditions, including health care, and water services would be subject to privatization and deregulation." The responsibility for protecting the public's health should not be for sale.

Lack of clean water and effective sanitation systems exposes between 2.4 and 3.5 billion people annually to preventable disease and death (Ahmed 2002). Parasites, such as cryptosporidiosis, are becoming common in many regions of the world, including the United States. *Cryptosporidium* has been found in drinking water, swimming pools, and streams accidentally contaminated by human feces.

An estimated two hundred million people worldwide are infected with schistosomiasis, and another two billion are at high risk of infection (WHO *World Water Day Report* 2001). Schistosomiasis, also known as "bilharziasis," is a debilitating waterborne disease most often infecting women who bathe or do the family wash in rivers where they come in contact with snails harboring the parasites (see Manderson and Huang's chapter 4 in this volume). Untreated schistosomiasis infects internal organs such as the liver, resulting in disability and ultimately death (Ahmed 2002).

Trachoma, another preventable hygiene-related disease, has blinded more than six million people, and perhaps as many as five hundred million people are at risk for blindness (World Bank 2002a; WHO 2000; WHO *World Water Day Report* 2001; Ahmed 2002). Trachoma is caused by *Chlamydia trachomatis*, a bacteria spread by physical contact and insect vectors. The World Health Organization (WHO) estimates that trachoma cases in some parts of Africa may reach as high as 40-percent prevalence in children (Ahmed 2002).

Intestinal worms infect nearly 10 percent of the population in the developing world (WHO 2000), causing malnutrition and anemia and, in the most severe cases, retarded growth. Bacterially caused diseases such as cholera, typhoid fever, and dysentery, even chronic diarrheas such as *Brainerd diarrhea*, are preventable with good hygiene, water, and sanitation. These interventions reduce diarrheal disease by 25 to 33 percent (WHO *World Water Day Report* 2001).

Even developed nations like the United States experience occasional and accidental exposures to waterborne bacteria and parasites. For less developed countries, the risks are higher and the exposures

are constant. The 1990s cholera epidemic in South America is an example of the enduring health consequences when globalization diverts political will from investments in public water and sanitation. Privatization and decentralization in Ecuador have resulted in growing global investments, but often without global responsibilities for maintenance and sustainability. Water systems installed but never maintained and sanitary systems dumping wastes into the water of neighboring communities fail to protect community health.

Globalization exists in many forms and has many definitions. In this chapter, *globalization* means the “creation of new economic, financial, political, cultural, and personal relationships through which societies and nations come into closer and novel types of contact with one another” (Waters 2001:8). Much has been written about globalization, but this chapter is concerned with how trade practices—such as the “banana wars” in Europe in the 1990s, the continuing “coffee wars,” or the current “water wars”—are decided by global trade organizations such as the World Trade Organization (WTO) and how those decisions impact community health. Health outcomes and health policies, practices and models, are intimately tied to economic and political decisions. Nowhere is that linkage more distinct than in the public health arena. The aim of this chapter is to promote cognizance of the unhealthy, unjust consequences of global neoliberal trade and to propose an approach that ties global trade to public health essentials. As the world adopts new covenants of global trade, those covenants must include the protection of public health commons: clean water and air.

The remarkable epidemiological shift that occurred in the United States and much of the developed world in the twentieth century was possible only because of an inexpensive, reliable, clean water supply and publicly underwritten sanitation. Using a political economy of health analysis, political decision makers of the late nineteenth century recognized that the maintenance of a stable, reliable workforce depended on the control of the communicable diseases ravaging large urban centers and decimating the populace. Fear of contagion was also a motivation. The burgeoning middle class, which could afford clean water and sanitary facilities, feared that it would lose its economic advantages if infected by others. The result was the creation of political and public health policies to deliver a dependable water supply and



FIGURE 2.1  
*Map of Ecuador.*

sanitation system not merely to those who could afford it, but to all members of the society.

By the 1930s, following prolonged and concerted efforts to provide water and sanitation to large urban centers, the incidence of communicable and contagious diseases—the early killers of children and the elderly, the wasting killers of those in their most productive years—dramatically decreased in many parts of the United States and Britain. Significant reductions in the disease rates among economically productive adults created the healthy, productive workforce critical to economic transformation.



In view of the social and economic gains realized by the first public-health transformation, this chapter suggests that it is now time to bring a *moral* economy of health perspective to the discussion of health costs incurred by globalization. A moral economy of health framework makes explicit a set of values that honor the obligation to protect common global resources, identify the underlying social and political structures of violence against disenfranchised populations, and defend health as a human right to be protected in global trade and lending agreements.

Most of the developed nations similarly reduced disease by offering essential basic services to protect public health. Today, however, much of the world remains without access to such basic services. In 1998 WHO, the United Nations' agency focusing on health, published a review of the first fifty years of its activities. In that report, the agency (WHO 1998) notes that even with the significant reduction of death and disease in many parts of the world, "21 million deaths—2 out of every 5 worldwide—will be among the under-50s, including those of 10 million small children who will never see their fifth birthday." By 1998 diarrhea and malaria (two water-related diseases) accounted for more than 5 million of those deaths, and more than 2.3 billion people still suffered from other diseases linked to water. To expose the structural violence of unequal access to clean water and sanitation, as well as the role played by globalization and neoliberal trade, the following case study applies a moral economy of health perspective to the Ecuadorian cholera epidemic of the 1990s.

#### A CASE STUDY: CHOLERA IN ECUADOR

Many water-related pathogens have been identified since Dr. John Snow undertook his classic experiments in London with the Bank Street pump. But the distribution of disease—and its prevention—is a social and political activity as much as a biological one. The recent cholera epidemic in Ecuador demonstrates how a moral economy of health perspective identifies the local and global, social and political factors promoting the spread and continued reinfection of a marginalized, vulnerable population.

In March 1991 the El Tor strain of *cholera vibrio* hit Ecuador. Part of a widespread epidemic in northern South America, it would progress

throughout the continent before being controlled. By the time this epidemic began to subside, in 1993, more than eighty-five thousand cases were clinically diagnosed in Ecuador, with more than one thousand fatalities. Although the epidemic hit the entire country, the majority of cases (80 percent) occurred in only twenty townships. To understand why this concentration occurred where it did, and its consequences, one must know about Ecuador's culture, history, and geography.

Ecuador is one of the smallest countries in South America, located in the northwest between its larger and more powerful neighbors, Colombia and Peru. Ecuador straddles the equator (hence, its name), situated in both the northern and southern hemispheres. Geographically limited (260,000 sq km), it encompasses both an extraordinary natural biodiversity of birds and plants and a rich cultural diversity. Indigenous cultures such as the Shuar, Chachis, and Achuar compose some of the more than fourteen distinctive ethnic groups (Perrotet 1993). Most travelers to Ecuador know the two primary cities—Quito, the Andean capital between the two cordilleras of volcanoes that create the "spine" running from the north to the south of Ecuador, and Guayaquil, the large coastal city on the Pacific side of the country. Other travelers know the Amazon in the south or the famous weaving center, Otavalo, in the north. While the cool, high mountains of the Andes attract many visitors, the lush and fascinating Amazon region draws others. Birders and hikers from around the world visit the Galapagos Islands with unlimited fascination.

As a secondary center of the Spanish Empire, Ecuador never experienced the degree of glory nor endured the hardships that Peru and Colombia did, but its customs and architecture reflect many cultural and physical inheritances from the Spanish occupation. Along with these, Ecuador adopted beliefs about European superiority, with the result that indigenous groups are among the most economically deprived in the country. They live in remote regions with limited access to resources, including water.

Cholera bacteria are transmitted through water, and cholera is a waterborne disease most commonly associated with fecal-oral contact. When the bacteria are introduced into the human system, they can cause severe constrictions in the human gut, resulting in excessive fluid discharges—extreme diarrheal crisis. That crisis can be reversed

if treated in time; otherwise, dehydration causes other system failures, ending in death. One common consequence of extreme fecal discharge is contagion, through contact with water containing the *cholera vibrio* or with feces from infected persons.

After the *vibrio* is introduced into a water system, it can be stopped by practicing basic hygiene techniques—washing hands with soap and defecating away from water supplies—or by disinfecting the water supply. Both require access to water and sanitation infrastructures. During the cholera pandemic in Ecuador, the large urban areas of Quito and Guayaquil were able to control the outbreaks within eleven months. In the twenty townships in the rural Andes, however, it took almost three years.

To understand this unequal distribution of disease, we must ask why the spread of the disease was controlled first in the large urban areas and only much later in the rural, indigenous areas. We may also ask, what does the moral economy of health perspective tell us that helps illuminate the situation? How does a focus on the social, cultural, and political mechanisms underlying and reinforcing unequal patterns of disease provide insight into this case, and what are the moral concomitants of these mechanisms?

First, we must know something about the twenty townships where the epidemic continued to rage. They are in five states, two along the coast and three inland. The two coastal states or *provincias* (Esmeraldas and El Oro) were characterized as populated areas with inadequate access to water and sanitation, as well as continued ingress of international travelers. The three mountain states (Chimborazo, Cotopaxi, and Imbabura) have the largest concentration of Indians. These are states rich in traditions, festivals, rituals, and indigenous cultural beliefs and practices. All five states share high levels of poverty and the structural violence maintained by distance, both geographic and social, from power. The three mountainous states suffered also because their population was predominately indigenous, rendering them targets for prejudice and further isolating them from access to resources.

In 1994–1995, as the US medical anthropologist, I worked closely for twelve months with a team of two Ecuadorians—an epidemiologist/physician and a community educator. We were brought together by the Ecuadorian government with the assistance of the US Agency for

International Development. The team, directed by the United States-based Environmental Health Project (EHP), was to conduct an in-depth investigation into why cholera persisted in the states of Chimborazo and Cotopaxi. In the third high-incidence state, Imbabura, the Harvard diarrhea project was conducting a study/intervention, so Imbabura was omitted from the EHP scope.

The EHP team was charged with (1) identifying cholera-related adult behaviors in high-risk communities, with the objective of isolating behaviors and beliefs associated with potential increased risk of cholera, (2) gathering and analyzing data on environmental and domestic health behaviors, (3) developing and implementing interventions to change high-risk behaviors, (4) setting up a monitoring system, and (5) training local people to continue the monitoring and to document activity results. We developed a health intervention model, the Community-Based Participatory Intervention (CPI). We trained fifty-five individuals in community education techniques and leadership skills, conducted ethnographic and epidemiological research, and designed and led community-based interventions (L. Whiteford with Laspina and Torres 1996). Following the intervention phase, a second project was conducted to evaluate the outcomes and the sustainability of the CPI model, documenting a successful and sustained change in behaviors that resulted in the control of the cholera epidemic in the study sites (L. Whiteford with Laspina and Torres 1996).

The project successfully identified detrimental beliefs and behaviors and brought about the sustained reduction of cholera in the two project states. Directly and indirectly implicated in the spread of cholera were several actions: defecation in fields or other areas close to living and eating activities; substandard hygiene related to water; food preparation by street vendors, as well as the conditions in which they served food; food preparation and distribution during religious and community festivals; and contact with migrants returning from endemically infected coastal areas. In addition, we identified contributing factors of environmental and political conditions, such as the disposal of hospital waste in open canals from which downstream residents drew their drinking water.

The behaviors contributing to the spread of cholera reflected information commonly available in the extant literature. What was too



often neglected in the same literature, but is pertinent here, was the larger political arena that fostered the spread of waterborne diseases in some communities but not in others. In both Chimborazo and Cotopaxi, water is abundant, flowing from the slopes of numerous volcanoes throughout the area. But the conditions under which the water is transferred from source to ingestion are unprotected and easily contaminated by waste—human, animal, and hospital. Usually, the water is not piped into homes but is collected and stored by families. This means that water is a scarce commodity in the home, even though abundant at its source. Too often, piped water (in those communities where the infrastructure exists) is not chlorinated because the local community cannot pay water taxes necessary to buy disinfectants. Therefore, even if the water is piped, it may not be potable, a distinction typically unrecognized in local communities. We discovered that the provision of water was inadequate and often unsafe.

Like many other countries in South America in the early 1990s, Ecuador adopted neoliberal economic reforms that resulted in decentralization of economic responsibilities. In some cases, the central government promised economic resources to local agencies. That monetary transfer, however, was often inadequate or never occurred. The burden of paying for chlorination fell to the communities; they, in turn, levied a water tax. Members of those communities with piped water systems responded, “Why should we pay to buy chlorine for our water when we already have water that comes into our homes without paying?” Unfortunately, the water transported to their homes was unprotected from the wastes emptied into the system upstream. During the continuing economic crisis that Ecuador has experienced since the late 1990s, few families have had either the resources or the inclination to pay for something (chlorination) that appears to be unnecessary.

The globalization of trade further shifted the economic valences in the two states, increasing privation in the rural communities. Particularly hard hit were ethnic communities already marginalized from the global economy. In both Chimborazo and Cotopaxi, more men migrated to coastal communities where demand for temporary manual labor is constant and where cholera is endemic. Several times a year, the men returned to participate in communal rituals, sharing

their food and drink. In several study communities, the incidence of cholera spiked following these migrants’ participation in communal festivals. In this way, cholera continued to be re-introduced into the rural, indigenous communities.

As national governments turn their attention to global trade, they further exclude the marginalized, rural, indigenous communities from basic services. Placing the responsibility on local communities to provide the necessary resources for developing or maintaining infrastructure makes adequate water and sanitation—basic human rights, according to the moral economy of health perspective—impossible for the poor.

In the case of the cholera epidemic in Ecuador, the beliefs and behaviors of individuals in the most highly affected communities were relatively easy to identify. People recognized ways to change their own behaviors to reduce the likelihood of cholera, provided they could pay for soap, chlorine, and household water-storage tanks. With resources made available through project funds, five target communities were successful in controlling cholera and sustaining the reduction. But the larger problems remain: how to protect all the other communities at risk for waterborne, water-washed, and water-related diseases (see chapter 1) and how to encourage local, regional, national, and global powers to support basic water and sanitary systems for communities.

A moral economy of health analysis would propose that in order to achieve the second epidemiological transition—reduction of morbidity and mortality due to infectious disease—countries like Ecuador should obligate global trade partners in exchange for natural resources and labor. For instance, as part of trade agreements, Texaco and other companies would provide water and sanitation infrastructure to the communities where they extract resources. In such agreements, trade partners would commit to providing materials and technology to increase access to the public health “commons” in exchange for trade concessions. This argument is neither new nor novel and has most recently been articulated by Evelyne Hong (2000).

#### GLOBALIZATION AND HEALTH DISPARITIES

Evelyne Hong, in her powerful indictment of global trade (Hong 2000), embeds her discussion in a historical framework starting with the colonial experience and slavery. She then moves to postcolonial

public health infrastructure, provide low-cost medical care, and create and maintain potable water and sanitation systems.

Decentralization and privatization of government services—two basic tenets of neoliberal reform—have intensified disparities and inequities experienced by the poor as their access to affordable health care diminishes (see S. Whiteford and Cortez's chapter 11, Johnston's chapter 7, and Guillet's chapter 9 in this volume). In Bolivia, particularly in the rural areas, decentralization translated into a loss of services. In 1997 externally mandated and internally executed decentralization plans meant that local communities had greater decision-making opportunities. Community groups met to discuss and identify local health needs. To compensate for the loss of services from the central government, they designed local, low-cost health care strategies to reduce water-related diseases. But rural communities often did not receive enough financial support from the national government in La Paz to carry out their plans. Decentralization, for them, became responsibility without resources (L. Whiteford et al. 1999).

The privatization of health care has had similar disastrous consequences. While the government concentrates on creating a health care system designed to recover costs, the poor are turned away because they cannot pay user fees. Because government health services must attract paying clients, the system has to aim at serving the upper and middle classes. In South America, it is not uncommon to have multiple health systems, each servicing a specific social group. The Dominican Republic, for instance, has four health systems: a publicly funded, low-cost public system serving the poor, a private health-care system serving the middle and upper classes, a social security health-care system funded jointly by the government and employers, and a health-care delivery system for the military and their families (L. Whiteford 1997, 1998, 2000). The public health delivery system, always underfunded and overutilized, received even less state funding when the World Bank encouraged the Dominican Republic to develop a free-market public health system through the use of SAPs. In this free-market model, health is no longer considered an inalienable right: it is a private good (L. Whiteford with Laspina and Torres 1996:29). As health care becomes a commodity, state welfare systems are disintegrating.

As the public infrastructure deteriorates, governments give less

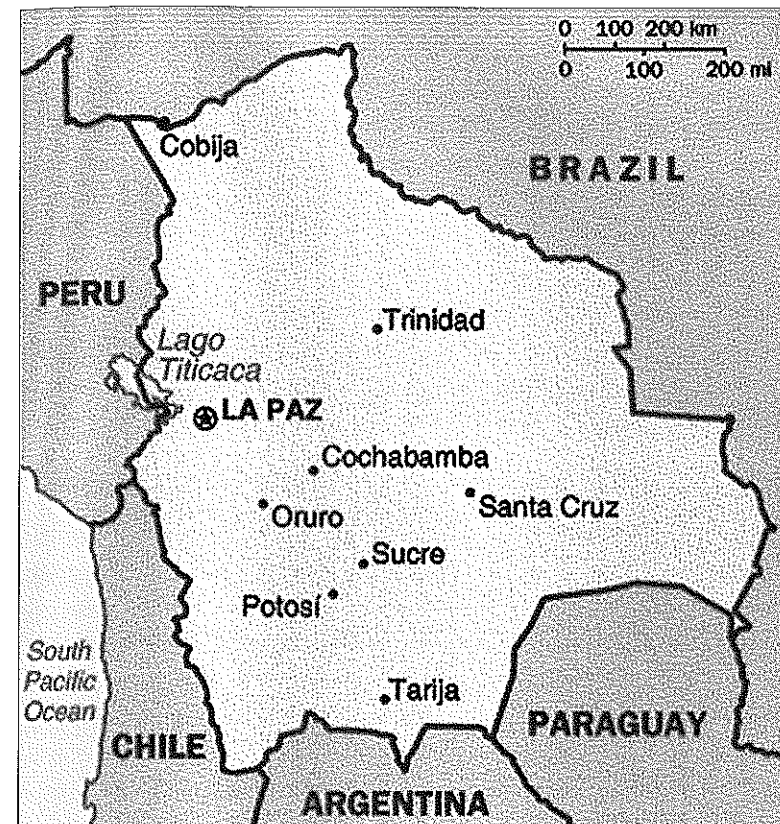


FIGURE 2.2  
*Map of Bolivia.*

attention and funding to the provision of water and sanitation systems. SAPs, and other mechanisms used to protect global lending systems, are penalizing the poor (Kawachi and Kennedy 2002). Middle- and upper-class families can afford private systems. The poor, such as families in Guayaquil, Ecuador, may be forced to pay more than their monthly wage to have potable water delivered in tank trucks (Hong 2000; L. Whiteford with Laspina and Torres 1996).

Fully a third of the world's population lives without a safe water supply, exposed to dangerous bacteria, viruses, protozoa, and helminths (R. Reid 1998); the most vulnerable are children. In the years between 1965 and 1990, almost five million children under the age of five in Latin America and the Caribbean died of diarrheal diseases, and

uncounted millions suffer continued morbidity from water-related diseases (UNEP 1997:23). According to the UN "Global State of the Environment Report," in the early 1990s some sixty thousand children under five years of age in Latin America and the Caribbean died of preventable diarrheal diseases. And that number may well be underrepresented by 20–40 percent. Even then, that represents a loss due to preventable mortality of perhaps 15 percent of that age cohort (UNEP 1997).

Debt servicing and the structural adjustment policies that often accompany it impact the middle class negatively as well. In September 1999 Ecuador announced its inability to make its interest payments on international loans (Lane 2003:122). In the years immediately preceding this announcement, more than 41 percent of government expenditures had gone to servicing the foreign debt, reducing the money the Ecuadorian government spent on health by 50 percent in the three years between 1995 and 1998. In an attempt to stabilize the government and reduce inflation and as part of a two-billion-dollar loan package negotiated with the International Monetary Fund, the World Bank, and the Andean Development Corporation, in 2000 Ecuador was allowed to reschedule its debts with foreign lenders (Lane 2003:126). This arrangement, however, carried with it mandated structural adjustments such as increased privatization (that is, privatizing the national petroleum industry). This involved sales to international companies, the elimination of subsidies for many essential services, higher taxes, and the loss of the  *sucre*, the national currency, which was replaced by the US dollar.

Rather than immediately reduce inflation, the move to the US dollar led to a continued increase in prices as people unaccustomed to US coins rounded prices up to the next dollar value. In 2000 the average increase in the consumer price index was 90 percent, with food costs increasing by 107 percent and health costs by 102 percent (Lane 2003:132). At the same time, salaries for government employees remained unchanged. By the new millennium, health care was beyond the reach of the poor, and food was barely attainable. The middle class also felt the sting, particularly because its bank accounts and savings accounts had been frozen by the government the year before and were still unavailable.

As a result, middle-class families lost the resources to pay private physicians, and poor families became even more dependent on the ever-dwindling, state-provided health services. Health programs designed to provide households with potable water through home chlorination were discontinued, and the cost of bottled water rose.

Water shortages not only result in high rates of waterborne and water-washed diseases, but also are directly implicated in the spread of vectorborne diseases such as dengue fever and malaria (Gubler with Kund 1997; L. Whiteford 1997). Dengue fever has been endemic in Southeast Asia for many years, but its more recent spread into the Americas and the Caribbean is linked with lack of reliable water systems. Household water storage creates a breeding ground for the mosquito vectors. Families store water for future use, use less water for basic hygiene, reuse water, and repeatedly expose themselves to infections. Without basic sanitation systems, people defecate in streams, fields, and household areas, exposing their family and neighbors to diseases.

Globalization has eviscerated public health infrastructures by emphasizing export industries, reduced state subsidies by adopting structural adjustment policies, and commodified basic human necessities. It is time to reintroduce health into the global discussion.

#### CONCLUSION: WATER AND THE MORAL ECONOMY OF HEALTH

As the process of globalization has empowered multinational banks and trade partners, the force and effectiveness of the World Health Organization has dwindled. In 1978 WHO presented the Alma Ata Declaration, with its slogan "Health for All." The slogan came to epitomize the world's concern with health, particularly that of the most vulnerable—the poor, the very young, and the very old. Along with the ideal of health for all came the primary health-care (PHC) model and later the selective primary health-care (SPHC) initiatives. In 1978 WHO introduced the Action Programs on Essential Drugs, in 1981 the WHO Assembly passed the International Code of Marketing Breast Milk Substitute, and in 1988 WHO approved a list of ethical criteria for medicinal drug promotion. The purpose of each initiative was to protect vulnerable populations from intrusions aimed at creating or

controlling markets. The International Code of Marketing Breast Milk Substitute, for instance, was a response to the increase of infant mortality when women switched from breastfeeding to using powdered milk formulas requiring the addition of water. Lacking a secure and safe water supply, women were forced to put contaminated water in the powdered milk for their babies, many of whom became sick and died. Since the development of the WTO in 1995, many protections of the world's most vulnerable populations have vanished. Health is no longer a basic human right (Hong 2000:30).

WTO agreements not only guide trade but also determine, directly and indirectly, quality of health. The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS), for instance, claims to protect the rights of humans, plants, and animals if adequate, conclusive, scientific evidence of risk exists (Hong 2000:34). The WTO, however, has not recognized any specific standard or code describing what should be considered risk, thereby emasculating any potentially protective measures. The result is ambiguity that favors the commercial interests of the developed world at the cost of health for the underprivileged (Hong 2000:34). "Given that the overarching aim of the WTO is to facilitate trade, the guiding principles for food safety measures [are] towards 'downward harmonization' of health and environmental standards, risks assessments supported by scientific evidence and equivalence" (Hong 2000:35). That is, health and other social issues become secondary to trade interests. As Hong points out, the contradiction in the WTO aims to facilitate trade but also develop health and food safety standards pits powerful commercial interests (for example, tobacco producers and manufacturers) against a small, dispersed group of public health advocates.

Another WTO agreement, the Agreement on Technical Barriers to Trade (mentioned earlier), addresses elements associated with food and product labeling and "with claims relating to health and nutrition, which are made for food products" (Hong 2000:36). The WTO Agreement of Trade Related Aspects of Intellectual Property (TRIPS) affects patents, copyrights, and trademarks, among other elements. In terms of health, this agreement has direct implications for "knowledge-based" property and "intellectual property" affecting indigenous groups and third world countries where little time and effort has tra-

ditionally been given to formally legitimating ownership claims to ideas (through patents or copyrights) and/or products such as pharmaceuticals or transgenic crops (Hong 2000:36). The power differential cannot be ignored and should be brought forward and addressed.

The moral economy of health perspective argues that health must be on the agenda of any discussion concerning global trade. Just as protection of human health and the environment should be a factor in water agreements, it should also be part of debt-restructuring negotiations. High-tech medical innovations, the medicalization of health, and the diminution of the global public health "commons" conspire to silence the discussion of health at the trade table.

The moral economy of health perspective identifies immunizations, secure and reliable water, and sanitation as basic human rights that governments should work together to ensure for all. To counteract the "globalization of disease" and enhance the "globalization of health," health for all—public health—must become a priority in the consideration of multilateral trade negotiations and structural adjustment policies, setting structural conditions for global trade and linking them explicitly to improvements in basic human health conditions (K. Lee 2000; Hong 2000; Farmer 2003).

How can the moral economy of health perspective gain the support necessary to change global health conditions? First, the decision to bring health to the negotiating table must be made. WHO must be strengthened; it needs to approach the bargaining table with policies to protect the environment, health, social well-being, and vulnerable populations. WTO can monitor inequities by reviewing trade agreements and their impacts on social, environmental, and health policies and pinpoint those issues affecting basic human rights, public health, and welfare (Hong 2000).

In the past twenty years, much of medical anthropology, particularly what has come to be called "critical medical anthropology" or the "political economy of health," has focused on the social and political conditions underlying health disparities (Baer with Singer and Susser 1997; Baer and Singer 1995; Farmer 1992, 2003; Kim et al. 2000). Much has been written using epidemiological patterns to describe the determinants and distribution of disease. Those numbers paint only part of the picture, however. Power, prejudice, racism, and what Paul

Farmer (2003:231) refers to as “pernicious moral relativism” complete the picture. This is not a hopeful picture, but rather one where the most vulnerable are ravaged. It is time to change the models of engagement, the paradigms of provision, and to require accountability in the global distribution of basic human resources. It is immoral to block approved loans for clean water, education, and health care to countries such as Haiti in order to make a political point, inflicting suffering on those least able to effect change. It is ethically unjustifiable to permit the pollution of drinking water by allowing pesticides from nearby fields to contaminate a community’s streams and rivers.

Protecting the most vulnerable requires a global approach to eliminating the resource inequities that result in billions of deaths each year. Working together, the World Health Organization and the World Trade Organization can globally foster the civil and economic well-being of an informed, healthy populace in which the burden of disease does not rest on the least advantaged. Physicians, anthropologists, economists, public health officials, politicians, and policy makers have the data necessary for world trade negotiators to make informed decisions about health issues. As Farmer (2003:238) reminds us, it is time to “make health and healing the symbolic core of the agenda.” To do less is to fail the future.

# 3

## Water Reform, Gender, and HIV/AIDS

### *Perspectives from Malawi*

Anne Ferguson

At the World Summit on Sustainable Development in Johannesburg in September 2002, water emerged as a powerful symbol of what President Mbeki and others called “global water apartheid”—a world divided between those who have access to safe water and those who do not. In many ways, those of us who study the water resource policies of the World Bank and other multilateral lending institutions were surprised at the attention clean drinking water and sanitation received at the summit. The paradigm shift in water management over the past decade has directed attention away from supply-side concerns with potable water and sanitation to demand-oriented approaches focused on watershed and river basin management, use of water for productive purposes, pricing, and stakeholder participation. The demand management-based strategies adopted by major lenders and many governments place emphasis on cost recovery and water as an economic good.

At the same time, however, this approach is being challenged. Organizations, scholars, and activists who advocate the moral economy of health perspective (see L. Whiteford, chapter 2 in this volume)