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Blue Covenant: The Global Water Crisis and the Fight for the Right to Water

BLUE FUTURE

PROTECTING WATER
FOR PEOPLE AND THE
PLANET FOREVER

MAUDE
BARLOW



ANANSI

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To Miguel d'Escoto Brockmann and Pablo Solón,
who never lost the belief that we could make
the right to water real

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*Our world in stupor lies;
Yet, dotted everywhere,
Ironic points of light
Flash out wherever the Just
Exchange their messages*

— W. H. Auden, “September 1, 1939”

INTRODUCTION

ON JULY 28, 2010, the United Nations General Assembly adopted an historic resolution recognizing the human right to safe and clean drinking water and sanitation as “essential for the full enjoyment of the right to life.” For those of us in the balcony of the General Assembly that day, the air was tense. A number of powerful countries had lined up to oppose it, so it had to be put to a vote. The Bolivian ambassador to the UN, Pablo Solón, introduced the resolution by reminding the assembly that humans are composed of about two-thirds water and that our blood flows like a network of rivers to transport nutrients and energy through our bodies. “Water is life,” he said.

Then he laid out the story of the number of people around the world who were dying from lack of access to clean water and quoted a new World Health Organization study on diarrhea showing that, every three and a half seconds in the developing world, a child dies of waterborne disease. Ambassador Solón then quietly snapped his fingers three times and held his small finger up for a half-second. The General Assembly of the United Nations fell silent. Moments later, it voted overwhelmingly to recognize the human rights to water and sanitation. The floor erupted in cheers.

The recognition by the General Assembly of these rights represented a breakthrough in the struggle for water justice in the world.

It followed years of hard work and was a key platform of our global water justice movement for at least two decades. For me personally, it was the culmination of many years of work, and I was proud and grateful to all who had helped make it happen.

But our work is far from over. Recognizing a right is simply the first step in making it a reality for the millions who are living in the shadow of the greatest crisis of our era. With our insatiable demand for water, we are creating the perfect storm for an unprecedented world water crisis: a rising population and an unrelenting demand for water by industry, agriculture, and the developed world; over-extraction of water from the world's finite water stock; climate change, spreading drought; and income disparity between and within countries, with the greatest burden of the race for water falling on the poor.

"Suddenly it is so clear: the world is running out of fresh water." These were the opening words of my 2002 book, *Blue Gold: The Battle Against Corporate Theft of the World's Water* (co-written with Tony Clarke), which warned of a mighty contest brewing over the world's dwindling freshwater supplies. As water became the oil of the twenty-first century, we predicted, a water cartel would emerge to lay claim to the planet's freshwater resources. This has come true. But so has our prediction that a global water justice movement would emerge to challenge the "lords of water."

In my 2007 book, *Blue Covenant: The Global Water Crisis and the Coming Battle for the Right to Water*, I described the growing water cartel and its relentless drive to find ways to take control of the world's water supplies. I also reported on the amazing work of the environmentalists, human rights activists, indigenous and women's groups, small farmers, peasants, and thousands of grassroots communities that make up the global water justice movement fighting for the right to water and to keep water under public and democratic control.

In the six years since *Blue Covenant* was published, much has been accomplished. Reports on the crisis are commonplace in mainstream media and the classroom. Books, films, and music move millions to action. The United Nations, other global institutions, and many universities are also sounding the alarm. A movement has coalesced to provide water and sanitation to the urban and rural poor, with mixed, but hopeful, results.

Yet in those same years the water crisis dramatically deepened. It is now accepted that, with the unexpected growth in both population and new consumer classes in almost every country, global demand for water in 2030 will outstrip supply by 40 percent. A report from the U.S. global intelligence agencies warns that one-third of the world's people will live in basins where the deficit is more than 50 percent. Five hundred scientists from around the world met in Bonn in May 2013 at the invitation of UN Secretary-General Ban Ki-moon and sent out a warning that our abuse of water has caused the planet to enter a "new geologic age." They likened this "planetary transformation" to the retreat of the glaciers more than 11,000 years ago. Within the space of two generations, the majority of people on the planet will face serious water shortages and the world's water systems will reach a tipping point that could trigger irreversible change, with potentially catastrophic consequences. Already, the world-renowned scientists said, a majority of the world's people live within 50 kilometres of an impaired water source — one that is running dry or polluted.

The stage is being set for drought on an unprecedented scale, for mass starvation and the migration of millions of water refugees leaving parched lands to look for water. All the justice and awareness in the world cannot stave off this future if the water is not there.

Open any textbook on water and you will see the numbers: how many children die every day; where the water tables have dried up; how aquifers are being depleted. Yet we continue to extract from our

precious rivers and lakes and pump our groundwater, using the last of a finite supply of water that will be needed if future generations and other species are to survive.

Amazingly, most of our political leaders ignore the water crisis and create policy decisions as if there were no end to water supplies. They continue to be captives of an economic framework that promotes unlimited growth, unregulated trade, and bigger and more powerful (and increasingly self-governing) transnational corporations, all of which hasten the destruction of our supplies of fresh water. Somewhere between the hard truths about the world's water crisis and this perplexing denial on the part of political and corporate leaders, millions — soon to be billions — struggle to deal with disappearing watersheds.

The story does not need to end in tragedy. There are solutions to our water crisis and a path to a just and water-secure world. To get to this place, however, we must establish principles to guide us and help us create policies, laws, and international agreements to protect water and water justice, now and forever.

This book puts forward four principles for a water-secure future. Principle one, "Water Is a Human Right," addresses the current reality of water inequality and lays out a road map to fixing the problem. Principle two, "Water Is a Common Heritage," argues that water is not like running shoes or cars and must not be allowed to become a commodity to be bought and sold on the open market. Principle three, "Water Has Rights Too," makes the case for protection of source water and watershed governance and the need to make our human laws compatible with those of nature if we are to survive. The fourth principle, "Water Can Teach Us How to Live Together," is a cry from the heart to come together around a common threat — the end of clean water — and find a way to live more lightly on this planet.

The grab for the planet's dwindling resources is the defining issue of our time. Water is not a resource put here solely for our

convenience, pleasure, and profit; it is the source of all life. It is urgent that we clarify the values and principles needed to protect the planet's fresh water. I offer this book as a guide.

PRINCIPLE ONE

WATER IS A HUMAN RIGHT

This principle recognizes that denying people or communities access to drinking water and sanitation is a violation of their human rights. In our world today, wealthy people and corporations have access to all the water they want while millions go without because they cannot pay for it or do not have access to it. The right to water is not free for all, allowing anyone to use all they want for any purpose; rather, it guarantees clean, accessible drinking water and sanitation for personal and domestic use for all. The human right to water places the onus on governments to provide water and sanitation to their people and to prevent harm to the source waters that supply it. Most essentially, the human right to water is an issue of justice, not charity. It requires a challenge to the current power structures that support unequal access to the world's dwindling freshwater supplies.

1

THE CASE FOR THE RIGHT TO WATER

Small battles are being won around the world, but I think people are losing. I do see the present and the future of our children as very dark. But I trust the people's capacity for reflection, rage and rebellion. —Oscar Olivera, leader of the Cochabamba water revolution¹

EVERY YEAR, MORE PEOPLE die from unsafe water than from all forms of violence, including war.

Some 3.6 million people, 1.5 million of whom are children, die every year from water-related diseases, including diarrhea, typhoid, cholera, and dysentery. One billion people still defecate in the open, and 2.5 billion live without basic sanitation services. By 2030 more than 5 billion people — nearly 70 percent of the world's population — may be without adequate sanitation.

Living without clean water and sanitation has enormous ramifications for both families and societies. It is always hardest on the women and children. The United Nations reports that women spend about 40 billion hours collecting water every year. In many countries, women spend as much as five or six hours a day fetching

water, and their female children accompany them, thereby losing the opportunity to go to school. According to the 2012 UN report on the Millennium Development Goals, women in sub-Saharan Africa spend a collective average of 200 million hours per day gathering water, and more than two-thirds of the burden for water and sanitation falls on women and girls.

Many girls also do not attend school because there are no private toilet facilities for them to use. Amnesty International says that the right to sanitation

means that people should not be left with no option but to defecate in the open, or into a bucket or a plastic bag. Women and girls should not have to choose between going to a public toilet or risking sexual violence. They should not—due to lack of toilets in schools—be forced to choose between education and dignity. Children should not be in a situation where lack of an adequate toilet or lack of information about safe hygiene puts them at risk of death from diarrhoea.²

WATER INJUSTICE

In every case, if these families had the means, their children would not be dying and would be attending school. The lack of access to clean water and sanitation, in terms of sheer numbers affected, is arguably the single most urgent human rights issue of our time.

Most in danger are those living in slums or impoverished rural communities in Latin America, Asia, and Africa. Peri-urban slums ring most of the developing world's cities, where climate and food refugees are arriving in relentless numbers. Unable to access their traditional sources of water because they have disappeared or been polluted, and unable to afford the high rates set by newly privatized

water services, these refugees must rely on drinking water sources contaminated by their own untreated human waste as well as industrial poisons.

The growing commodification of the world's water has made it increasingly inaccessible to those without money. Many poor countries have been strongly encouraged by the World Bank to contract water services to private for-profit utilities, a practice that has spawned fierce resistance by the millions left out because of poverty. Other struggles are taking place with bottled-water companies that drain local water supplies. There are "land grabs" in which countries and investment funds buy up massive amounts of land in the Global South for access to the water and soil at a future time.

Some countries actually auction off water to global interests such as mining companies, which now literally own the water that used to belong to everyone. And many countries are introducing water markets and water trading, whereby water licences — often owned by private companies or industrial agribusiness — are allowed to be hoarded, bought, sold, and traded, sometimes on the international open market, to those that can afford to buy it. In all of these cases, water becomes the private property of those with the means to buy it and is increasingly denied to those without. All over the world, private citizens, small farmers, peasants, indigenous people, and the poor have found themselves unable to stand up to these corporate interests.

The victims are more likely to come from developing countries. By every measurement, global income disparities are the severest they have been in almost a century, with a small percentage of the world's elite owning the vast majority of its assets. In a January 2013 report, Oxfam International says that the explosion in extreme wealth and income is exacerbating inequality and hindering the world's ability to tackle poverty. The \$240 billion net 2012 income of the hundred richest billionaires would be enough to make extreme

poverty history four times over. The richest 1 percent has increased its income by 60 percent in the past twenty years, reports Oxfam, with the financial crisis accelerating rather than slowing the process.

Oxfam warns that extreme wealth and income are economically inefficient, politically corrosive, socially divisive, and environmentally destructive. “Concentration of resources in the hands of the top one per cent depresses economic activity and makes life harder for everyone else — particularly those at the bottom of the economic ladder,” says executive director Jeremy Hobbs. “In a world where even basic resources such as land and water are increasingly scarce, we cannot afford to concentrate assets in the hands of a few and leave the many to struggle over what’s left,” he adds.³

And yet asset concentration is real. Billions around the world live in poverty amongst great wealth, and this negatively affects their access to water. A child born in the northern hemisphere consumes thirty to fifty times as much water as one in the southern. Per capita daily water use in North America and Japan is 350 litres, in Europe it is 200 litres, and in sub-Saharan Africa it is 10 to 20 litres. An estimated 90 percent of the three billion people expected to be added to the population by 2050 will be from the developing world.⁴

But the crisis is not limited to people who live in the Global South. As we see deepening income inequality in the countries of the First World, water cut-offs are now happening to the poor there too. Tens of thousands of inner-city residents in Detroit, Michigan, have no running water because they cannot afford the rising tariffs. Unemployment in the affected communities runs at about 50 percent. Residents are forced to run hoses from neighbouring homes or take water canisters to public washrooms for fill-ups. Social services have removed children from some homes, citing lack of running water. Cut-offs are also taking place in Europe, where recent austerity measures are driving the cost of basic necessities beyond the ability of many to pay.

Nor is all the water wealth in the rich countries of the North. Renowned Indian movie director Shekhar Kapur fears for the future of his beloved country, in which such extremes of wealth and poverty coexist. He writes:

In Mumbai. Just across the road from Juhu Vile Parle Scheme, all the beautiful people and film stars live opposite a slum called Nehru Nagar. Once a day, or maybe even less, water arrives in tankers run by the local “water mafia” and their goons. Women and children wait in line for a bucket of water, and fights break out as the tankers begin to run dry.

Yet, literally across the road, the “stars” after their workouts in the gym or a day on a film set can stay in the shower for hours. The water will not stop flowing. Often at less than half the cost that the slum dwellers pay for a single bucket of water.⁵

In many countries the rich can access all the water that money can buy, while the poor — usually women and children — walk kilometres to find water that may or may not be clean enough to drink. In many poor countries, tourists and the wealthy have preferential access to clean water for resorts, golf courses, and spas while local slums have no running water. Millions live in “informal settlements” unrecognized by governments, which consequently do not provide basic services to their inhabitants.

RUNNING OUT

As a rule, poverty and class divisions are at the root of lack of access to clean water. But increasingly the crisis is due as well to a decline in local water sources that in turn forces people to become refugees. Over-extraction of water for industrial food production, so-called

economic development, and water-reliant natural resource extraction is taking a terrible toll on the world's finite freshwater supplies.

The lesson we all learned as children — that we cannot run out of water because of the endless workings of the hydrologic cycle — is simply not true. While the water is still on the planet somewhere, because of our engineering of the world's water supplies to promote industrial development, it is not drinkable or in the right place. As a result, many communities are running out of accessible clean water. We humans are polluting, mismanaging, and displacing water at an alarming rate.

Global water withdrawals have risen 50 percent in the past several decades and are still increasing dramatically. Using bore-well technology that did not exist a hundred years ago, humans are now relentlessly mining groundwater. Worldwide pumping of groundwater more than doubled between 1960 and 2000 and is responsible for about 25 percent of the rise in sea levels.⁶ By 2030 it is expected that demand will outstrip supply by 40 percent and almost half the world's population will be living in areas of high water stress. By 2075 the number affected could be as high as seven billion.⁷

This increase in demand is due to a combination of industrialization, exponential population growth, and more people leading a water-intensive consumer lifestyle. The demand for water is insatiable on a planet whose population is approaching 9 or 10 billion people by 2050. To house its population, in the next two decades China alone is planning to build 500 new cities with more than 100,000 people each. India will add 600 million people to its population by 2050, giving it the highest population in the world. Pakistan will be approaching 300 million, Nigeria 290 million, and Uganda 93 million. Malawi even now cannot feed its population of 13 million; by 2050 an estimated 32 million people will be living there.⁸

Peter Gleick, an American scientist who founded the Pacific Institute, which does pioneering research on water and climate, reminds us that, while the population is growing, the amount of

accessible water is finite. In 1950 the population of the United States was 150 million; it is more than 315 million today. Jordan had a million people in 1960; it has 6 million today. Iraq had around 7 million in 1960, and today its population exceeds 31 million. All these new populations must share finite water supplies that were being consumed by much smaller populations decades ago.⁹

In their book *Out of Water*, Colin Chartres and Samyuktha Varma estimate the growth in our per capita use of water globally in relation to population growth. If we include the water used to grow our food (known as virtual water), then a person who consumes 2,500 calories per day will consume 2,500 litres of water. Multiplied by 365 days per year, this totals almost 100 million litres — one megalitre — per person. If the population grows to 9 billion by 2050 (most figures predict it will be higher), the water needed will equal the capacity of at least another twenty-five to fifty enormous dams similar to the Aswan High Dam on the Nile River in Egypt. The authors point out that these vast amounts of water are simply not available, or at least not available in the areas where we need them to produce food.¹⁰

A study from the University of Twente in the Netherlands puts the average global footprint much higher. Virtual water expert Professor Arjen Hoekstra reports that if all the water used for our daily lives is factored in, the average per person daily water consumption is 4,000 litres.¹¹

Of course, the way we live determines how much water we use and abuse. Almost half the world's population is still living on the land, much as in previous generations, sustainably using and caring for local water sources. That means the rest are using far more than their share. For instance, global meat production is predicted to double by 2050, using 70 percent of all agricultural land and consuming one-third of the world's grain. The rich consume most of this: people in the wealthy North consume three times as much meat and four times as much milk as people in the South.

Writer and journalist George Monbiot wrote in the *Guardian* that the economy is growing much faster than the rate of population and that economic growth is the real threat. Global consumption will increase so much that by the end of the twenty-first century we will have used sixteen times more economic resources than humans have consumed since we “came down from the trees,” says Monbiot.¹² Yet it is the mantra of governments almost everywhere to “grow” their way to prosperity, putting the world’s water supplies at grave risk.

Already we are seeing the results of overexploitation. The world’s rivers — the single largest renewable water resource and a crucible of aquatic biodiversity — are in crisis from pollution and over-extraction. About 1.4 billion people live in river basins where all the blue water (fresh surface and groundwater) is already committed or overcommitted. The journal *Nature* reports that nearly 80 percent of the world’s human population lives in areas where river waters are highly threatened, posing a major threat to human water activity.¹³

Desertification is advancing rapidly in more than a hundred countries, through over-extraction of rivers and groundwater and the advance of climate change, sending millions of refugees in search of safe haven. The Earth Policy Institute’s Lester Brown, an influential American writer and environmentalist who founded the Worldwatch Institute, reports that the Sahara Desert is expanding in every direction, squeezing the populations of Tunisia, Morocco, and Algeria. The Sahelian swath of savannah that separates the southern Sahara from the tropical rainforests of central Africa is shrinking and the desert is moving south, invading populous Nigeria. Lake Chad, once the sixth largest lake in the world, is 90 percent gone, putting the lives and livelihoods of 30 million West Africans in danger.¹⁴

Some 600,000 square kilometres of land are now desert in Brazil, and Mexico is forced to abandon 250,000 square kilometres of farmland to desert every year. Their rural refugees gravitate to the slums of Buenos Aires, São Paulo, and Mexico City. Dr. Kevin Trenberth,

who is with the World Climate Research Programme of the United Nations, projects that by 2055, between 80 and 170 million people in Latin America will likely have insufficient water for their basic needs.¹⁵

Hundreds of thousands of “environmental refugees” have had to flee their homes in central Asia as the Aral Sea, once the fourth largest lake in the world, dies because of massive cotton irrigation during the years of the Soviet Union. Iran’s Lake Urmia, the largest lake in the Middle East and the third largest salt lake in the world, is 60 percent gone and may dry up completely. The lake used to provide crop irrigation and fish for the tens of millions who live within a few hundred kilometres of the lake, but drought has increased its salinity to levels too high to provide either anymore.

Over the past half-century, some 24,000 villages in northern and western China have been abandoned entirely or partially because of desert expansion. (An additional 450 “cancer villages” have been identified for evacuation.) Lester Brown says that China is heading for a “dust bowl” that could force migration that might number in the tens of millions.¹⁶

These conditions are not limited to countries in the south. During the heat-scorched summer of 2012 in eastern Canada and the United States, a new study by a group of American scientists, published in the journal *Nature Geoscience*, stated that the drought experienced by western North America during the past decade is the worst in eight hundred years. The situation will decline steadily, say the authors, and the droughts we are experiencing now will likely be seen as the “wet” end of a drier hydroclimate predicted for the rest of the twenty-first century.¹⁷

The Ogallala Aquifer, the once mighty underground lake that runs from the eastern slope of the Rockies to the Texas Panhandle and has provided water for America’s breadbasket, is running out. “The Ogallala supply is going to run out and the Plains will become

uneconomical to farm,” says David Brauer of the Ogallala Research Service, an agency of the U.S. government’s agriculture department. “That is beyond reasonable argument. Our goal now is to engineer a soft landing. That’s all we can do.”¹⁸

If water takings from the Great Lakes of North America are similar to those of global groundwater takings, the Great Lakes could be bone-dry in eighty years, says Marc Bierkens, professor of hydrology at Utrecht University and principal author of a groundbreaking 2010 global study on groundwater takings. He says the size of the global groundwater footprint — the area required to sustain groundwater use and groundwater-dependent ecosystem services — is currently 3.5 times the actual area of aquifers, and that about 1.7 billion people live in areas where groundwater resources and/or groundwater-dependent ecosystems are under threat.¹⁹

The 2011 and 2012 droughts in Europe were the worst in a hundred years, with withered crops and shrinking rivers and lakes becoming commonplace. The Mediterranean is particularly hard hit. Groundwater has fallen 80 percent in Italy’s Milan district, and in Turkey, Lake Akşehir — once three times the size of Washington, DC — has disappeared. The World Wildlife Fund reports that more than 50 percent of the wetlands of the Mediterranean have dried up and that a land area the size of the United Kingdom is under threat of desertification.²⁰

WATER REFUGEES

While the North American and European crises may not produce as many internal water refugees as some other parts of the world, these regions will be asked to open their doors to water refugees. They will be seen as destinations for millions, possibly billions, of water refugees from the Global South. A UN conference on desertification in

Tunisia projected that by 2020 up to 60 million people might have migrated from sub-Saharan Africa to North Africa and Europe. Another United Nations study predicts that 2.2 million migrants will arrive in the rich world every year, from now till 2050. Britain's population will rise by almost 16 million, almost all from migration. The UN's population division says this migration will bring about an upheaval without parallel in human history.²¹

Some experts say the population bomb will peak and will not necessarily lead to environmental devastation. The UN's prediction of 9 or 10 billion by 2050 likely represents the end of population growth, says British environmental writer Fred Pearce. In his book *The Coming Population Crash*, Pearce documents the fact that women almost everywhere are having fewer children: half the number their mothers did, in fact. He attributes this trend to education and the empowerment of women. Within the next two generations, he says, this will lead to lowered world fertility rates and a return to more sustainable populations. Pearce agrees that there will be an increase in migration rates, but he says they will be largely for the good. Countries with low birth rates need young people and new workers, and migration can be a win-win situation if planned and done sustainably.²²

While this is good news, it is crucial to preserve the earth's resources through this period of intense growth in demand and to share them more equitably. No place on earth will be free from the consequences of the water crisis now unfolding. Even if we start to slow the damage we have created, by challenging the growth imperative and adopting water conservation practices and source-water protection, it is crucial that we set rules of fairness and justice around the issue of access. Otherwise we will increasingly see a world deeply divided between those with access to clean water and those without — literally a world divided by the right to live.