

PREFACE

About ten years ago, I was asked to give a speech on whether water is the “new oil.” I thought the analogy was wrong then and still do today. Petroleum is a finite resource, while water is a renewable and sustainable resource if managed properly. Petroleum production and use are inherently harmful to the environment, while water sustains us and all other living things. Private companies produce oil and make a lot of money doing so, while municipalities and other public entities deliver most water, and few businesses have ever “struck it big” on water. Water is assuredly not the “new oil,” nor will it ever be.

My speech, however, got me interested in why the private sector does not play a larger role in freshwater management. I knew that the private sector was involved to a limited extent in the water sector. In the late twentieth century, I had briefly looked at the efforts of several large international corporations to “privatize” domestic water supply systems in the United States and globally (an effort that did not appreciably increase the number of private US water providers). I also have long studied and written about private water markets in the western United States, Australia, and Chile. Yet as I looked more closely at the water field, I found that private involvement in water management was more sizable than I realized, and growing.

In the meantime, I became increasingly interested in the growing freshwater crisis facing the world and, more importantly, in how we might

solve that crisis. Climate change, urbanization, unsustainable groundwater pumping, water pollution, long-ignored infrastructure needs, and other factors are threatening freshwater resources. Although it is easy to diagnose the problem and criticize current water management, it is more difficult to figure out how to solve those problems. The world will need a mix of rules, norms, new technologies, funding, and improved management and policies.

My separate interests in freshwater solutions and the private water sector came together in 2014 when the Brookings Institute asked me to give a presentation at a joint Brookings-Stanford water conference on how the United States can promote new technological solutions to the nation's water challenges. The paper that I prepared for the conference, co-written with Newsha Ajami and David Victor, found that even though new technological innovations are critical to improving freshwater management, the United States suffers from an "innovation deficit" in the water field. The paper identified problems that private technology firms face in the water sector and recommended public policies that can promote greater innovation.

I became hooked at that point on the question of what role the private sector might play in solving the world's growing freshwater crisis. Because water management can affect the human right to water and environmental concerns, this question is more difficult than it might seem at first glance. The question is not simply how the private sector is contributing or might contribute to effective solutions but also what risks a greater private role presents and how society can address those risks. Because the water sector is highly conservative and political and is dominated by public agencies, there is also the question of how easily private organizations can function in that sector.

To investigate these issues, I organized a class at Stanford in 2016 on "The Business of Water." Originally, I expected that the class would draw less than a dozen students (the cross section, I figured, of those interested in *both* water *and* business). I seriously underestimated student interest. The class, which is now in its sixth year, has proven enormously popular among law students, business students, engineering students, and other graduate students at Stanford, all of whom want to know how the private sector can help improve water management. The business executives who have visited the class have been passionate about their efforts to address water problems, and their ideas have been consistently creative and interesting.

I also have become more involved in the private sector myself in recent years. In my practice at O'Melveny, I have counseled private companies on how they can use their acumen to solve water challenges and better steward water resources. I also am a member of the Technical Advisory Committee of the Sustainable Water Impact Fund, an investment fund described in Chapter 5 that seeks to improve the environment through water-related investments.

This book is the result of the lessons that I have learned from working and researching in the water field for over four decades and teaching about the business of water. While the book focuses on the special value that the private sector offers, the book provides a broad look at the current water crisis and the actions needed to solve that crisis. The book also seeks to present a balanced picture of the roles of both government and the private sector in water management. Public water officials work hard to provide everyone with safe, reliable, and affordable water and to protect the environment, but they can accomplish even more if they actively find ways to partner with the private sector. While the private sector has much to offer, its involvement in water management can also raise concerns and challenges that public policy must address.

The book has multiple goals. One is to explore the freshwater challenges facing the United States and the world today and what will be needed to solve them. Another is to look at the roles that the private sector is playing, could play, and sometimes must play in addressing the challenges, particularly in partnership with government. A final goal is to engage with the difficult policy issues raised by the private sector's involvement with water issues.

I have written this book for both experts and generalists. Those with little if any fluency in water and business should find it readable, interesting, and informative. Most chapters begin with a story that illustrates the chapter's topic and introduces key themes and issues. Water experts, however, will not find the analysis lacking in detail or nuance.

Luna Leopold, who was the first chief hydrologist of the US Geological Survey, observed decades ago that "Water is the most critical resource issue of our lifetime and our children's lifetime." This book examines whether and how the private sector, working often in concert with government, can help ensure a sustainable water future.

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