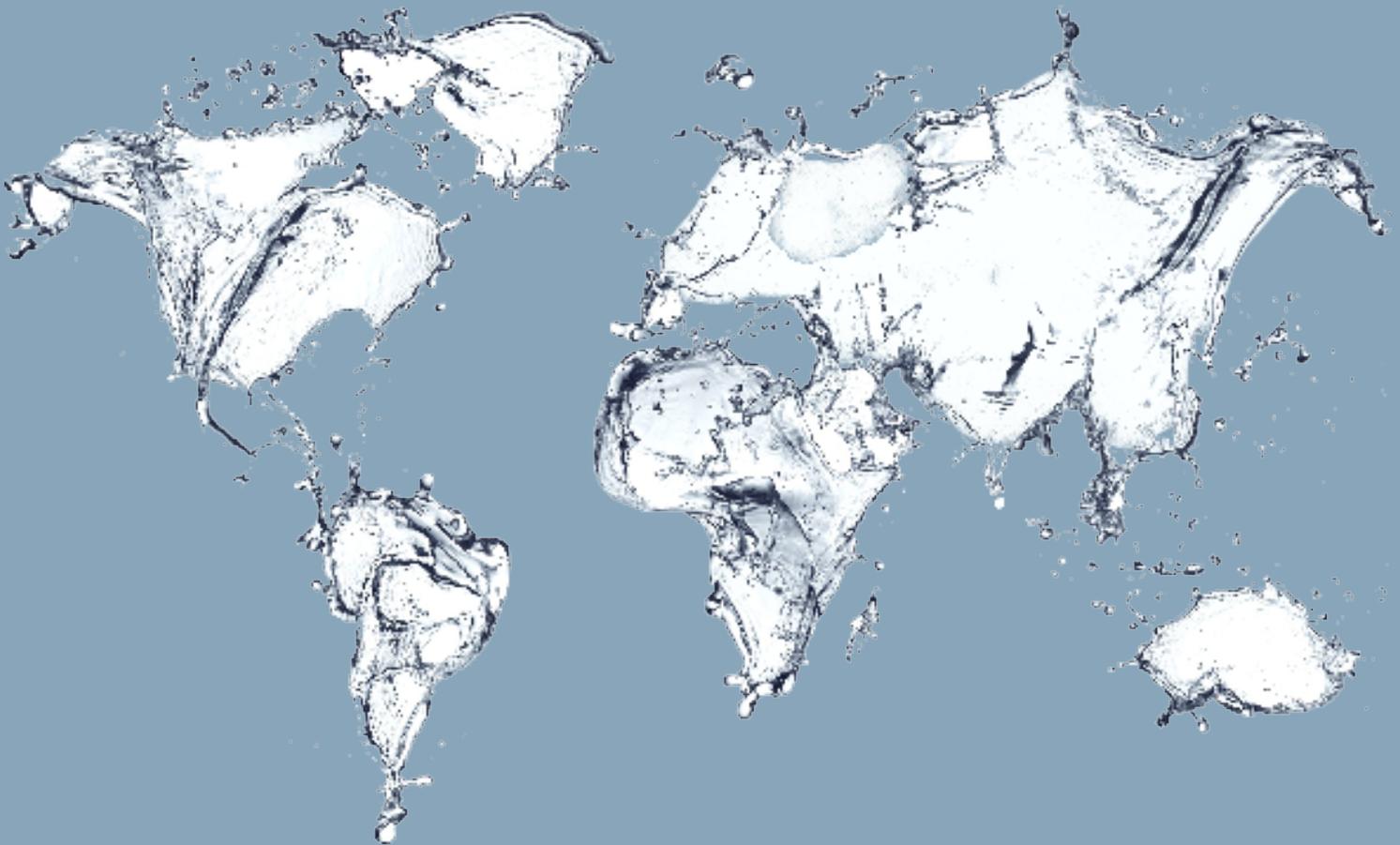


Water and the Middle East

Howard Diamond



UNIVERSITY OF CENTRAL FLORIDA

PRINCE MOHAMMAD BIN FAHD PROGRAM FOR
STRATEGIC RESEARCH AND STUDIES





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The Prince Mohammad Bin Fahd Program for Strategic Research and Studies (PMBF Program), which is supported by the Prince Mohammad Bin Fahd University Annual Fund, was formally established in 2013. The program is jointly administered by the Global Perspectives Office and the Department of Political Science in the College of Sciences at the University of Central Florida (UCF). The PMBF Program is a non-profit, non-partisan, non-ideological educational partnership which seeks to advance public knowledge and awareness about issues of interest to both U.S. and Saudi Arabian cultures, promote research and help facilitate educational ties and other mutually beneficial initiatives. Using an interdisciplinary and collaborative approach, the program aims to enhance debate, dialogue, partnership-building and scholarship in a number of fields: culture, economy, energy, education and U.S.-Saudi Relations. Most recently, the PMBF Program concluded its first full year of programming with a Conference entitled “High and Dry: addressing the Middle East Water Challenge.” This event was attended by over 30 experts from 10 nations specializing in Middle East water issues- looking at the challenge itself, possible solutions and their global applicability.

The views expressed in this publication are entirely those of the author, and do not necessarily reflect the views of the staff, officers or advisors of the University of Central Florida’s Prince Mohammad Bin Fahd Program for Strategic Research and Studies, the Global Perspectives Office or UCF’s Political Science Department.

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A word from the Director:

In May, the University of Central Florida Prince Mohammad Bin Fahd Program for Strategic Research and Studies (PMBF) and the Hollings Center for International Dialog hosted “High and Dry: Addressing the Middle East Water Challenge.” Held on Heybeliada Island off of Istanbul, this conference featured 30 renowned water experts from a variety of disciplines: scientists, academics, think tank analysts, journalists, and policy makers. The goal of this unique gathering was to raise awareness of, and explore possible solutions to, water resource issues in the broader Middle East region. In 10 sessions over three days, we held in-depth discussions on both broad and narrow issues, and looked at the situation in hardship areas such as Yemen, as well as in nations successfully addressing the water challenge – such as Saudi Arabia.

The conference itself was the first step in what PMBF hopes is an ongoing water initiative. As we move forward, we look to continue dialog and discussion about this critical issue, while also encouraging research on water-related issues. In short, while defining the problem we also want to focus on solutions.

While the Heybeliada conference itself was strictly off the record, the attached article, penned by Howard Diamond, a Washington-based Middle East expert and longtime congressional advisor, explains much of what was discussed. In writing this piece, Diamond reverts to his former role as an advisor to policy makers. He breaks down the issue into simple terms that can be easily digested, providing a clear picture of a complex subject to policy makers, most of whom are policy generalists. His approach, as it was in Congress, is to facilitate concise understanding of this critical topic – which shapes stability, economic development, and the health, safety, and food supply of most nations in the Middle East, and many others throughout the globe.



David Dumke
Director

MEMORANDUM

Date: Summer 2014

To: The Ambitious American Policymaker

Re: Thinking About Water and the Middle East

You have asked what role the United States might play in helping the Middle East with the problem of water scarcity. There is no question water is a critical issue for the region. Most countries are already short on water, the region's population is growing quickly and global climate change is likely to make a hot, dry region even hotter and even drier.

Particularly in the Middle East, water is genuinely a strategic issue, both as a source of tension between nations, but also as a constant and unavoidable constraint on national economies and government resources. Not surprisingly for such an arid region, providing sufficient water is an essential test for national governments and their ability to do so in a way that reinforces, or at least doesn't undermine, the state's authority and legitimacy, is no small task.

To gain a better understanding of the limits and possibilities for American assistance to address this issue, the Middle East water challenge needs to be considered first at the regional, then state level.

The water is the same; the problems are different;

The first point to be made about water at the regional level is, despite the fact that the Middle East is one of the hottest, most arid areas of the planet, water is not a regional problem *per se*. Water is unquestionably a problem throughout the area, but it has to be understood as a different problem in each country.

Both Yemen and the United Arab Emirates (UAE) are depleting their groundwater reserves well beyond the rate of natural replenishment. The difference is that the UAE is blessed with much greater wealth and a much smaller population. Expensive, but potentially workable solutions like desalination and engineered aquifer replenishment might work for the UAE. These same approaches, however, would be impossible for larger and poorer Yemen. Moreover, Yemen also has a unique problem with qat, an extremely water-thirsty plant grown and consumed for its narcotic effect. Qat usage in Yemen is nearly universal, and the effect on Yemen's aquifers (and its economy and national treasury) has been devastating. Clearly, though both countries have a problem, Yemen, which is expected to run out of groundwater in roughly 15 years, is facing a vastly greater problem.

Likewise, both Egypt and Syria depend on water that originates in other states. It goes without saying, however, that Cairo and Damascus have very different water problems. Even if Syria wasn't in the midst of a catastrophic civil war, the relative importance of the Nile to Egypt and the

relative strength of the upstream riparian states involved are vastly different. Similarly, Israelis, Palestinians and Jordanians are fated to share water resources. Obviously, the significant differences in their current levels of water extraction and consumption have much more to do with unresolved political problems and developmental differences than hydrology alone.

In short, assistance, if it is to be offered, and if it is to be effective, has to be tailored to the particular needs of each state. In many cases what appears to be a water problem may actually be symptomatic of a larger--and much less easily solved--problem of politics and governance.

For example, for many years, oil-rich, water-poor Saudi Arabia chose to grow wheat in one of the least hospitable wheat-growing areas on earth. The project, in the narrow sense of actually getting wheat to grow and then harvesting the grain, was a success. At any rational level, however, growing wheat in the Saudi desert is at best questionable.

But it was not done on a whim, or as a frivolous project. (The Saudis may be accused of many things, but frivolity is generally not one of them.) In fact, the wheat project was predicated on concern about food security in a state that imports almost all of its food stuffs. Like many governments, the Saudis worried about their own vulnerabilities and thought about how they could limit them. In addition to the actual wheat yield, the project also demonstrated the government's capability, provided connections to outside irrigation and agriculture expertise, and provided some employment. None of which justified the colossal waste of money and water needed to grow wheat in a desert, but the intended purposes of the effort were indisputably rational.

The point is that each country's water problem is particular to its own character and state of development, not just its hydrological conditions, or the quality of its water infrastructure. Understanding why the Saudis were growing wheat, or why Palestinian water usage is a fraction of their Israeli neighbors, requires political, not technical, analysis. It follows that understanding how to fix such problems is a job for statesmen, not just technocrats or engineers.

Oil = Money = Water = Food = Tranquility?

Possibly the strangest thing about water is its convertibility, even to the point of it having a "virtual" character. For example, a nation with natural gas resources can turn that gas into water by using it to power the desalination of seawater; into money by selling either the desalinated water or the gas; into food by using the money from the sale of desalinated water or gas to buy agricultural commodities; and potentially, even to buy peace and quiet by using those commodities to provide low-cost food stuffs to their population, or even restive neighbors.

Agricultural commodities, both animal and vegetable, can also be thought of in terms of the amount of water needed to produce them. For example, the Saudi wheat growing effort mentioned above, can be thought of in terms of the money spent on equipment, materials and labor; or in terms of energy for the oil or gas that had to be sold to provide the currency to buy the equipment, material and labor. But it's also possible to think of the Saudi wheat in terms of the virtual water cost compared with that of imported wheat. For a country like Saudi Arabia, with very limited water

resources, the value of the water used in agriculture is much higher than for a producer in Europe or North America. And if the water in Saudi Arabia came from a non-replenishable source, the virtual water cost could be even higher still. So even if the price of the Saudi wheat was comparable to imported wheat, the water cost was unquestionably much, much higher.

The convertibility of water, and its suitability to being viewed as a commodity, creates a dilemma for policymakers. On the one hand, convertibility and commoditization enables rational examination of how a nation is spending its money, and understanding of what things actually cost. On the other hand, water is an absolute necessity of life and treating it as a simple equivalent to other useful things by definition fails to comport fully with reality. A nation that has wide-spread gasoline shortages will suffer economically and may experience domestic unrest. A nation with wide-spread shortages of potable water is going to have much more serious problems.

And this dichotomy is at the crux of the many different water problems in the region: how to rationalize and price a scarce and valuable commodity that's also essential to life. Throughout the region, there is water scarcity, but the larger problem is almost always not just an insufficiency of supply. Instead, the water problem takes a variety of shapes, including overuse on inefficient agriculture; failure to resolve massive water loss in the national distribution network; failure to implement water conservation, rain harvesting, or water recycling programs; or even to charge, and collect from the population a fair portion of the cost of the water distribution system. In short, what is epidemic, is failure, in a variety of forms, to properly regulate and govern society's consumption of water, based on its scarcity and value.

Good government doesn't make water appear out of nowhere, or grow in volume, or cleanse itself of salt, or other impurities. But effective government can make scarce resources go farther; prevent or limit waste and needless loss; disincentivize inefficient or irrational usage; and can force the public to come to grips with the actual cost of a limited resource. Good government can also ensure water availability and quality for all, as well as inhibiting or preventing the corruption that inevitably pursues all public goods.

The Middle East as a region lacks many things, but one thing it is not short on is educated professionals, such as economists, or hydrologists, or engineers. The water problems in the region, apart from basic scarcity, are generally not technical, but administrative, managerial, and governmental. In the present, wealthier countries can turn money into water, or virtual water in the form of food, but increasingly, these options are going to diminish or grow in cost as more and more of the region's groundwater is depleted at rates beyond natural replenishment.

Looking forward, the water challenge facing the region will be partly systemic in order to conserve, harvest, recycle and preserve the water they do have. But the great bulk of the challenge will fall on governments to meet the dual responsibility of making sure everyone has enough, but ensuring as well that water is treated as a genuinely scarce and valuable resource.

I'm from Washington and I'm here to help you;

For any outside party looking to provide assistance, the outlook and needs of the particular governments in question are going to be much more definitive in terms of establishing what, if anything, can be done to help.

Even with that understanding, it is far from clear that the countries of the Middle East are expecting much from the United States. There are several reasons for these low expectations. First, on a day-to-day basis, these countries are coping. There are shortages and genuine problems with water loss and distribution, but living with water scarcity is a fact of life in the region. Second, while the United States and other developed countries may have technological advantages, home-grown expertise is far more available today than it once was, and will almost always be much cheaper. It also stands to reason, given the availability of local expertise, that regional governments are reasonably well-informed about the nature of their own water problems, as well as the suitability of assistance from outside to fix them.

Moreover, if there was a time when America was seen as a capable patron and generous bestower of aid, those days have surely passed. Both the governments and people of the region are well-aware of the effects of the global economic crisis that began in 2009, as well as the lingering after-effects of the long American engagement in Iraq and Afghanistan. In short, no one is expecting much from Washington and certainly nothing grand, or transformative. Finally, it should be noted that even setting aside the political legacies of America's special relationship with Israel, and the war in Iraq, the appearance of American involvement with the provision of water, one of the fundamental tasks of government, may carry unwelcome implications of local incompetence or dependency that would be unwelcome anywhere.

Nonetheless, there are regional elements to the water problem that deserve American attention. The most significant involve states that share water resources and are thus vulnerable to tensions that arise from competition for those scarce resources. The most obvious cases involve shared aquifers or rivers that flow from one state to another. Likewise, states already in conflict may seek asymmetrical advantages from jeopardizing the other, possibly stronger, state's water resources. In these cases, the American role will generally be determined more by the quality of our relationships with the states involved, and their appetite for our involvement, than by the water controversy itself.

It should be noted, however, that in any case where water is being used as a weapon against an American ally or partner, or where conflict over water may lead to actual armed conflict, the United States may feel compelled to insert itself diplomatically, or depending on the severity of the risk, in other ways as well. Identifying in advance, and then working to avoid such momentous choices is probably the highest goal for American foreign policy focused on water in the Middle East.

While American expertise or technology (e.g., remote sensing data) can help governments trying to rationalize their country's water usage, it should be remembered at all times that the keys

to problem are almost always in local hands. Providing technical advice, training or good offices to assist in the diplomatic resolution of international water disputes are all good opportunities for the United States to make a difference. Likewise, America can help with the financing of new systems for water treatment and recycling, or for preventing distribution losses. Even these "brick and mortar" projects should be carefully scrutinized to determine if the improvements they would offer are being used to cover over other failures, or to subsidize other wasteful activities, or will be sustained by local authorities.

Finally, in those countries where the governments are not confronting the reality of their water dilemma, or are simply looking for subsidization of bad practices, the better course for the United States will be focus its diplomacy on understanding the reasons behind these choices, and considering how to address them. Working behind the scenes to promote better governance and administration, or simply accepting the limits of promoting change in another state are necessary guidelines for an issue of such inherent local sensitivity and limited foreign importance.

If the motto for the environmental movement is "think globally and act locally;" the motto for U.S. water assistance programs should be the reverse, "think locally and act globally." Each country in the Middle East has a water problem which is distinct to its particular circumstances of geography, geology, history, and government. One size will not fit all.

Howard Diamond is a specialist in Middle East affairs who previously worked for more than a decade on Capitol Hill, finishing as the Democratic Staff Director for the House Foreign Affairs Subcommittee on the Middle East and South Asia. Mr. Diamond also served as both Legislative Director and Deputy Chief of Staff for Congressman Gary L. Ackerman, a 14-term Democrat from New York. Before going to work in the U.S. Congress, Mr. Diamond worked as a Senior Research Associate at the Washington-based Arms Control Association, where he focused on nuclear and ballistic missile proliferation issues, principally those concerning the Middle East. Mr. Diamond was born and raised in New Jersey, but received both his bachelor's and master's degrees from the University of Maryland, College Park. He now lives in Washington, DC.