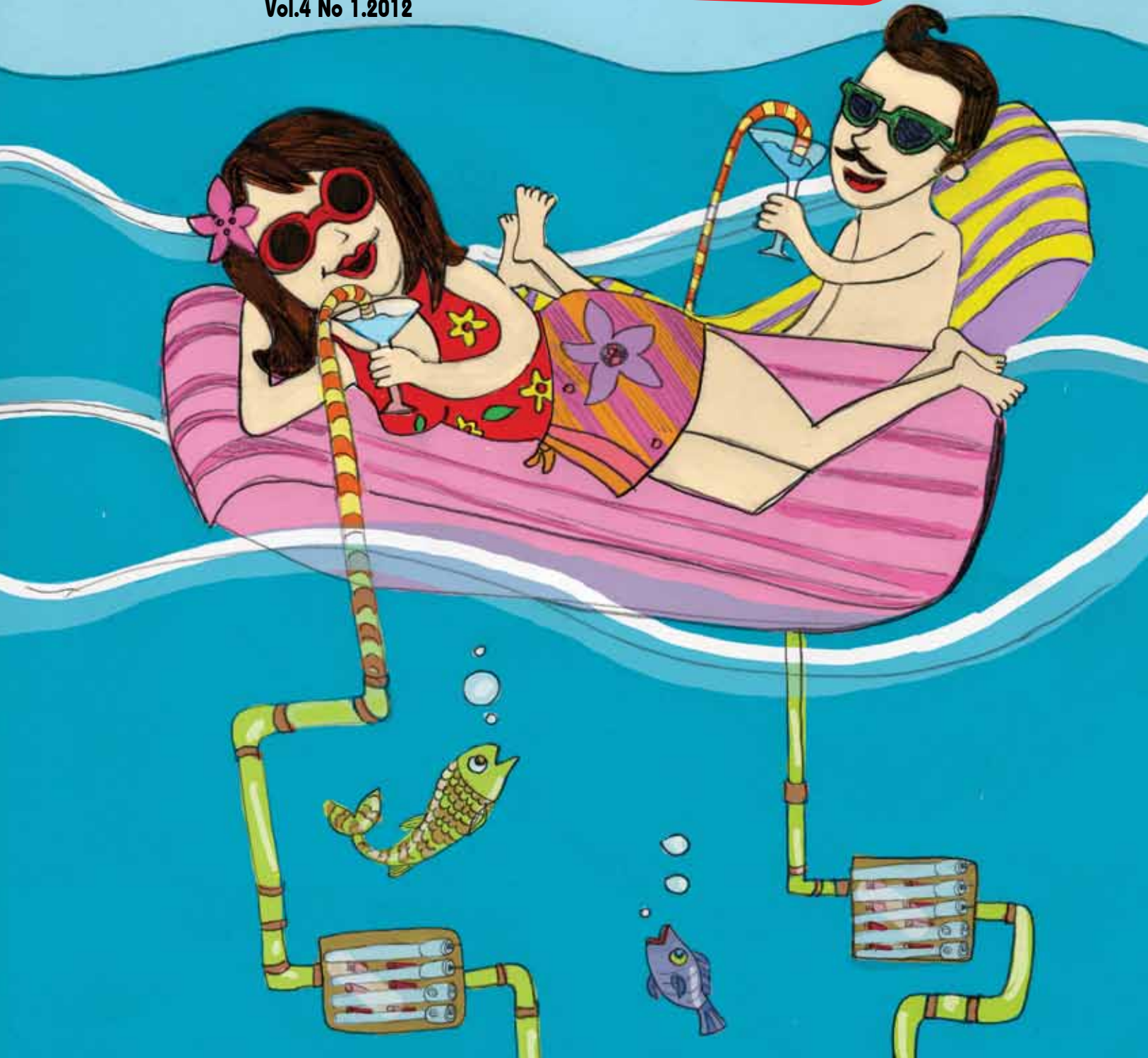


Inside: Israel's Desalination Strategy

WaterBiz

Vol.4 No 1.2012



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WORLD HEADQUARTERS:
P.O. Box 21349, Tel Aviv
61212, Israel
Tel: 972-3-6959352
Fax: 972-3-6956116
E-mail: intwater@inter.net.il

Managing Director:
Erika Cohen

Group Editor:
Amir Cohen

Editor:
Clive Lipchin

Administration:
Arik Segal

Production Director:
Nirit Haker

**Magazine Operation
and Marketing:**
Orit Kaplan



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**WaterWays Offers
Water Innovation**
WaterWays is a new Israeli water management company that focuses on innovative water technologies and financing for the water needs for the world's developing regions where high-tech and high-cost options are not suitable. Rather, the company focuses on innovation in low-cost and low-tech water solutions



**The Value of Water in the
United States**
This article shows how water is the cheapest of all basic services provided to consumers. The low value of water makes for water efficiency and conservation planning difficult as well as for raising the much needed capital to improve the management of the country's water systems and infrastructures



**Report Card on America's
Drinking and Wastewater
Infrastructure By the American
Society for Civil Engineers**
This article presents an analysis from the American Society for Civil Engineers that presents severe shortcomings in the US's ability to maintain and meet new needs in water and wastewater infrastructure. One of these shortcomings is a lack in investment in new water and wastewater systems to replace old and degraded systems

WaterWays Offers Water Innovation

Water is the prime substance for life. It's remarkable to think that so many experts, companies and technologies have been dealing with the issue of water for decades, but still as per the UN FAO - 2.8 billion people lack economic access to water infrastructure or live in areas of water scarcity. Julia Bucknall, World Bank's water chief was quoted by the Guardian Newspaper as saying: "More children die of diarrhea (*caused by dirty water or inadequate sewage systems*) than die of Aids, malaria and TB combined. I think it is unacceptable that 2.6 billion people don't have a means of separating themselves from their feces."

As a society, we first need to recognize that solving water challenges can solve many other global deficiencies

It makes one wonder, what is the reason? What are we doing wrong? How can we do it better? And most important - how can we change this? This is the question that has troubled WaterWays while we contemplated our company's vision and as we tried to find our place in this market, we recognized three main stumbling blocks: awareness of the problem, available capital and mega solutions.

Awareness of the Problem

Although we nowadays acknowledge the threat of severe global water shortage, we still haven't grasped its full weight on society and we still consider funding mammoth highway projects while people on the sidelines do not

have clean drinking water. As a society, we first need to recognize that solving water challenges can solve many other global deficiencies-as Antoine Frerot stated in his book "Water - Towards a Culture of Responsibility":

"Water is the primary issue for human development. Access to water and sanitation is not merely one millennium development goal among others. It is the most important, because without it the other goals, the struggle against poverty and hunger, protection of the environment; promotion of the role of women, etc., cannot be achieved. Water is essential for an acceptable way of life, and without it there can be no health, no education, and no development.

An additional crucial aspect where awareness is lacking is recognizing the viability and greatly missed potential of the Bottom of the Pyramid (*BOP*) market of 4 billion people. We tend to see this market solely as a donor receiving market without hope of being self-sustainable. But as we have seen in some cases in China and India, these developing countries have been able to bring themselves to self-sustainability. Other countries and communities can do the same. Today the BOP market is worth \$5 trillion in food, consumer items, energy and water.

Society, donors and "Multi-National Companies (*MNCs*) should therefore view BOP markets as an unexploited opportunity and be proactive in fulfilling the needs and wants of these low-income consumers. This should not be done with a western business model approach, but rather there is a need to develop specific products and services for these markets and they need to be differently packaged financially.

Services and products being sold to the BOP need to be available at lower cost or available with unique short and long term funding schemes. Serving BOP customers is a social imperative that can be leveraged into a profitable opportunity for corporations.



Available Capital

Unfortunately, the awareness of the problem has not been leveraged so far into sufficient capital funding, so the question which arises again is - why?

Over \$8 billion have been spent on water projects in the last year, with \$6 billion from the World Bank. On the one hand, billions of dollars have been spent on water solutions. On the other hand, according to WaterAid, water projects funding has been reduced from 8% in the 1990s, to only 5% in 2007 and 2009. This is very troublesome and again raises the question of why water issues have become less worthy?

In addition to the percentage decrease, the allocation of funding is also problematic. We find that much funding for water projects within countries are allocated to large municipal projects in the big cities, leaving rural areas to fend for themselves. The same problem exists with donor money which is allocated to middle income countries, leaving out the least developed countries.

One answer might be that the water challenges are so overwhelming, that the problems are perceived as too great and too difficult to deal with, which leads donors and investors to despair and stay away from such projects.

A second issue is our perception of the BOP market as unable to achieve self-sustainability, which again brings investors to discouragement.

Another issue is that funding for such projects has been left mainly to donor-aid funds or government money and the

private sector and investment development banks have yet to find the right investment method for water projects that will bring a proper return on investment.

Lastly, our benchmark for water projects, are those mega water projects we see around the world, this too brings on discouragement, and brings us to the third stumbling block.

An additional crucial aspect where awareness is lacking is recognizing the viability and greatly missed potential of the Bottom of the Pyramid (BOP) market of 4 billion people

The Focus on Mega Solutions

While we discuss water issues, you might have heard about the mega water projects designed in China or other massive water treatment facilities around the world. While these projects are unquestionably worthy, it is not certain whether they are appropriate for all levels and all areas.

Such projects have become our benchmark for water projects while the simple, decentralized solutions are not in the scope of discussion and are not raised enough as viable and feasible solution options for rural areas in underdeveloped countries.

Summary

- We fall short in providing proper water solutions to those rural areas in underdeveloped countries. This is not economical, not logical and unacceptable financially and ethically.
- WaterWays believes that we need to find ways to provide these solutions here and now. It is not a matter of technology, but a matter of motivation and the belief that it can make a difference. To ease the discouragement sentiment, investors and donors need to understand that even the smallest improvement in water distribution can change the lives of many people for the better and prove to be a sound investment.

Today the BOP market is worth \$5 trillion in food, consumer items, energy and water

- The focus needs to be on small, rather than large solutions. Starting with project models that need to be built by stages and pilots, but within a fully designed holistic master plan, solving one problem at a time.
- Decentralized solutions, which are usually simple and low cost, need to be considered more often. There are many examples of decentralized units for rural areas, from solar pumps to small family size wastewater treatment units which can be up scaled to village size units, water treatment containers or small desalination units, not to mention the very simple-to-use but efficient rain water harvesting. These solutions give the “first aid” desperately needed in remote areas. A full blown water treatment facility in these areas without sewage

infrastructure will not help the community - it will only deepen the despair. Decentralized units can cater to a family unit and up to a community of thousands of people. In addition, they can address sanitation as well as water reuse in one solution.

- Funding does not need to be either donor or investment, it can be based on both, providing each the outcomes they expect - donors with improvement of lives and investors with return on investment. In most of the projects, return of investment can be a factor of the output of the water reused.
- When implementing solutions in rural areas with long term sustainability in mind, there is no use in advanced technology, as most of these regions do not have electricity or long term maintenance ability.
- Focus on providing personal and specialized services to meet each client's specific needs; don't match the client to the required technological specifications.
- Always work with local partners & contractors, because in the end only they have the ability to achieve long term sustainability.
- Invest in studying the problem, but do not over study it. If you find the problem, the next stage should be looking for a solution not analyzing it.

About WaterWays

Ornit Avidar is the founder of WaterWays solutions, specializing in solutions for the growing need for clean water supply and treatment to off grid and rural areas. Waterways' mission is to assist entities to solve their water challenges, obtain clean drinking water and water reuse for additional objectives, with the understanding and desire to allow people everywhere access to clean water. WaterWays coordinates between the need, technology and capital to implement the water project desired, using cost effective solutions. ■

ornit@water-ws.com www.water-ws.com

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