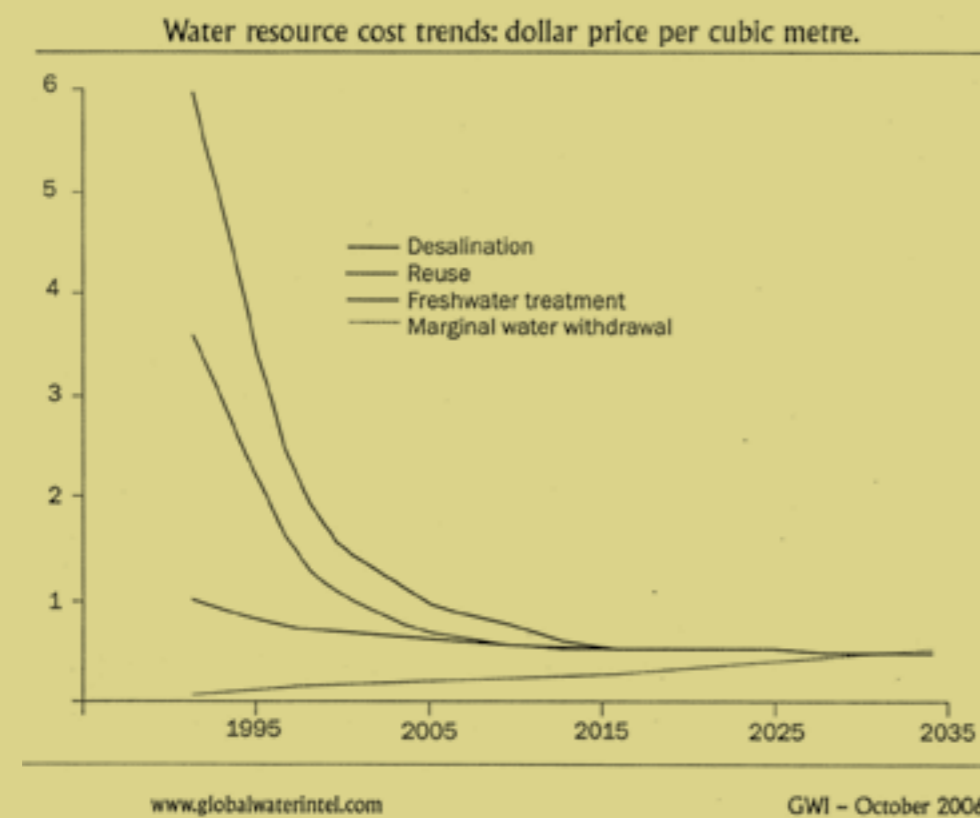




# Turning their back on the oceans

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**Ecological Management Foundation chairman Allerd Stikker argues that the institutions and NGOs concerned with the world's water challenges should take desalination more seriously.**

Remarkably, major institutions that report extensively on the world water issue, such as the World Resources Institute and the World Watch Institute in Washington, the World Wide Fund for Nature and the International Union for the Conservation of Nature (IUCN) in Geneva, the United Nations Millennium Development Goal Taskforce in New York as well as the World Water Council and the Global Water Partnership, do not take into account the potential role of desalination in water scarcity prevention.

The philosophy behind integrated water resources management is that the regional water demand from households, industry, agriculture and nature must be in tune with a coordinated withdrawal of water from resources such as rivers, lakes and underground aquifers. None of the professional IWRM presentations I have come across includes the oceans as a water resource, which I find amazing. In future IWRM projects, this resource will have to be part of the solution. Another emerging reality is that there will be a growing and substantial demand for drinking water and sanitation water for the megacities of the future. It is estimated that in 2025, between 4 and 5 billion people will be living in megacities - most of them within 50 miles of the sea. Although recycling technologies similar to desalination technologies will increasingly offer an appropriate solution, new fresh water will still be needed and could be withdrawn from water resources that are presently used for irrigation or agriculture. Also, industry may draw increasingly on these resources. City dwellers and industries are willing to pay more for water than farmers. An obvious solution to this dilemma is desalination of seawater for cities and industries, if economically and ecologically sound. The World Bank and the United Nations Environment Programme (UNEP) made a modest attempt in 2004 to call attention to the desalination option, without much success. The United Nations World Water Report No.2 (2006) devotes 1¼ pages (out of a total of 584) to some superficial comments on desalination, while the option is absent in the chapter on recommendations. The irony of the situation is that nature has already shown us the way: our planet is the largest solar powered desalination unit in the galaxy, lifting a net volume of 40,000 km<sup>3</sup> of fresh water per annum from the oceans to the continents, which makes water a renewable resource!

The common view, still very much ingrained in people's minds, is that desalination is too expensive, too fossil energy intensive, technically complicated and environmentally unfriendly. In the NGO world, it is considered a technical fix and therefore not appropriate. With policymakers, the feeling is also that after hammering

on for decades about awareness of water scarcity, opening up the enormous water resources of the world's oceans will have very counterproductive effects on water conservation practices.

What these policymakers do not seem to realise is that over the last 5 years, desalination technologies have vastly improved on costs, energy use and environmental effects, while conventional water procurement and treatment of water from rivers, lakes and underground aquifers has steadily become more expensive and environmentally harmful. Marginal conventional cost prices will cross desalination cost prices within 10 years from now.

It is the EMF's conviction that within the next decade, which covers the remaining period for reaching the Millennium Development Goals, desalination installations will increasingly and substantially deliver high quality water in an economically and ecologically better way than will be the case with conventional investments.

Presently, annual worldwide investment in desalination installations amounts to \$1.5 billion, and this is increasing by more than 10% per year. Contrary to present institutional perceptions, according to EMF, this will be stepped up considerably. Only about 3% of global drinking water needs are presently served by desalination units, so there is ample room for expansion - although this has not been noticed by policy institutions so far.

Water from the oceans is still perceived as a 'technology' solution, but desalination should be recognised as a 'policy' solution. When will the policymakers at the UN, at the multilateral banks, the major global reporting institutes, as well as mayors of megacities, to name a few, wake up to this reality?

In the real world, life goes on and desalination is firmly on the corporate agenda. Multinational companies such as Veolia, Suez, GE, Siemens, ITT and Dow Chemical are preparing for a very large market, as are specialist membrane manufacturers and other equipment suppliers. Financing large-scale desalination investments appears in practice to be less of a problem because of the joint involvement of the public sector, the private industrial sector and international and multinational banking.