

## **There will be no sustainable peace in the Middle East without a sustainable supply of water**

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Although conflicts of interests in many areas push the Palestinian and Israeli peoples apart, the water issue and its underlying hydrological interdependence will forever link them closely together - either in peace or in a struggle to death.

The water resources of Israel, the West Bank, and Gaza are highly interconnected and a resolution of the Israeli-Palestinian conflict over these restricted resources is therefore indispensable for sustainable peace. In all treaties signed from the inception of the peace talks to date, the two sides have agreed that a resolution of the conflict must be based on equitable utilization of water rights and joint management.

Equitable utilization may be a step forward. But to reach sustainable peace, the real target must be not only equitable but also adequate water supply for all people in the region - adequate for drinking, for industry and for agriculture. There is only one way to achieve this, and that is through desalination of seawater. To be able to desalinate adequate quantities of water the sun is the only sustainable power source. To import water by pipelines or tankers, for example, as is now being planned is no long-term solution - either from an economical or from a security point of view.

Present household consumption of water in Israel is approximately 75 gallons per day, which is less than in the US, but comparable to European levels. The average Palestinian household uses less than 25 gallons per day.

With present population trends, even if the Palestinians were accorded all their quotas under various treaties, and generously assuming 50 percent recycling, the water supply would still fall short of Israel's present level.

Furthermore, the Gaza's aquifer has been overdrawn for a long time and much of the water is said no longer to be suitable for human consumption or even for the irrigation of certain crops, notably citrus.

Both peoples have the same incentive not only in ensuring that a fair water-rights regime is implemented, but that all water resources in the area are protected against depletion and pollution and that the use of available resources is optimized - but above all that the supply of water is generously augmented.

Also the conflict between Israel and Syria can probably be settled if water supply is augmented. Both sides believe that control over the water in Galilee is vital to security. With an abundance of water, this conflict will die.

Desalination of seawater for extensive agriculture may still be a long-term perspective. Say, ten or twenty years. For household consumption and intensive gardening, the technology is, however, already there and it is entirely affordable. If done right, it is more economical to introduce desalination already now than to attempt to use old technologies to improve existing supply and distribution of surface or ground water.

The cost for solving the water problem is insignificant compared to the cost for continued conflict. The average cost for desalinated water is today 0.6 US cents per gallon. The lowest quoted cost is 0.2 US cents per gallon. The price is constantly pushed downwards and will soon reach levels where agricultural use will be economical.

To produce household water by desalination of sea-water at today's cost levels, at a level of 100 gallons per day per capita - many times more than the present consumption in Israel - would cost 0.2 – 0.6 US\$ per day per capita.

Let us assume the higher figure. This translates into 219 US\$ per annum. Certainly a large sum. It is around one percent of Israel's GNP per capita and around four percent of Palestine's. But not all that much for peace and prosperity.

Israel has both the technological capability and the financial ability to solve the immediate water problems through recycling, pollution control and desalination of salt water.

Both desalination and utilization of solar energy are areas that receive considerable international attention today. Developments on both these fronts also take place in Israel. But considering the potential benefits – in Israel and elsewhere - surprisingly small resources are used for the research.

As to the long-term development of both Israel and Palestine, these countries share the fate of all the countries around the Mediterranean Sea. Most of North Africa was once fertile lands. The deserts are only some thousand years old. They are essentially man made and can be made fertile again. By supplying sufficient quantities of desalinated seawater, first trees and then other plants can be cultivated. This will jump-start the natural hydraulic cycle and after a while there will again be natural rainfall.

The Northern coast of the Mediterranean is today going the same way that the Southern coast did not long ago. The coasts and at places far stretches inland in Spain, France, Italy, the Balkans, Greece and Turkey are being torched in front of our eyes and becoming more and more barren.

Here is an opportunity for the US Government to make a significant contribution to peace. Technical assistance from several US Agencies has been instrumental in developing oil-based desalination in several Arab States. Why not continue this good tradition?

Not all countries are blessed with large oil reserves. A daring and well-funded R&D-program for water development by solar desalination would therefore be well motivated. Since the EU already has institutional vehicles for co-operation between EU and non-EU Mediterranean countries, a joint effort by the US and EU, why not under the auspices of UN, would create lush vegetation where there is now barren land - around all of the Mediterranean.

Water means good life and good life will give peace a chance. Instead of endless – and probably fruitless - negotiations and mediations – make water!

*The article has been distributed in copied form in Israel*