



DEBATING CONSERVATION: Fred Pearce, far right, debates a point with expert panelists during the discussion on Water Reuse and Environmental Management at the SWPF on Tuesday. (AN photo by Roger Harrison)

'We must learn to value our water'

K.S. RAMKUMAR | ARAB NEWS

JEDDAH: Wastewater recycling is the best way of helping save those underground water reserves and of moderating power demands for desalination. "But beyond recycling water, we need to use all our water much more efficiently," said Fred Pearce, a scientific journalist and author, who was the moderator of the first two sessions of the Saudi Water and Power Forum (SWPF 2009) on Tuesday — the concluding day of the forum.

The sessions focused on demand management, tariff policy and consumer relations, as well as water re-use and environmental management.

There are high-tech solutions like desalination, but there are some interesting low-tech solutions, too. "First we need to get better at harvesting the rain where it falls and before it evaporates and disperses. This is catching on all over the world," said Pearce who also delivered the forum's keynote address.

Of course, that can be done in the home, where higher domestic water prices are being developed as a management strategy everywhere from China to the American West and even in parts of the Gulf.

"You have a tradition of cheap water. That may need to end," he said. Water saving is needed from industry too, and especially from agriculture, which in most countries is the largest consumer of water. "I am amazed that tens of millions of farmers worldwide still irrigate their crops by flooding their fields. Most of the water evaporates and little reaches the plants. Yet cheap, modern systems of drip irrigation — delivering water drop by drop close to the crop roots — can cut water demand by 40 to 50 percent or even in some soils 70 to 80 percent." "It is alarming that we waste water in such a way. We would never dream of wasting land in the way we waste water. And yet, water is the more critical resource now in many countries. I am both a pessimist and an optimist about water. A pessimist because we use water so wastefully. But an optimist because we could

do things so very much better. We have to learn to value our water," Pearce said. "Most religions — probably all religions — venerate

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water. They show us the way. The Qur'an notes that everything including man is made of water. And Islamic cultures have developed some of the world's most sophisticated ways of managing water," he added.

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Most importantly, we need a massive revolution in the way we use water. For one thing we need to recycle urban wastewater, especially wastewater created by expensive desalination. It should be reused for drinking. Some find that unpalatable. But Singapore

routinely adds treated sewage to its reservoirs. And I come from London, where all the water we drink has passed through numerous human bodies in every town along the River Thames before it reaches my tap. At each town, it is abstracted, drunk, excreted, collected, cleaned up and put back into the river. It is safe, I assure you.

And if drinking the stuff is not acceptable, there remains huge potential to use recycled water for irrigation. It is a much better option than pumping out underground reserves of fossil water. "I understand that only a small fraction of wastewater in Saudi Arabia is currently treated and reused. It would be a good plan to greatly increase that, partly because of the environmental problems associated with the discharge of raw or barely treated sewage — both along the coasts and around inland waste lagoons and partly because your desalinated seawater is too precious to use only once. It requires too much energy. "Right now, you are turning oil into water, and then wasting it. So recycling water could be the next major development in water management here (Saudi Arabia)," Pearce emphasized.