

March 28 2012 | Last updated 1 hour 50 minutes ago

gulfnews.com

UAE | Government

Water policies can help improve life

loading
Close [x]

Multiple usage has resulted in complex challenges facing resource management

By Samir Salama, Associate Editor

Published: 00:00 March 27, 2012

GULF NEWS



Image Credit: Abdel-Krim Kallouche/Gulf News

Audience at regional conference on Water and Food Security.

Abu Dhabi: Experts told a regional conference on Water and Food Security they are optimistic that the water problems are solvable.

“The way forward is to embrace the best of existing

practices and at the same time look beyond them for innovative solutions,' said professor Seetharam K. Easwaran, director of institute of Water policy, Lee Kuan Yew School of Public Policy.

Professor Easwaran stressed there is growing evidence that the countries that prioritised water policies in their national developmental agendas, succeeded in increasing the quality of life of their citizens, measured in terms of the human development index.

However, he argued, the management of water in many countries does not adequately acknowledge the interlinkages between water energy, agriculture, and health sectors, in terms of coordination between the policies in these key sectors for national development. "The multiple uses of water have resulted in the complexity in the challenges facing water resources management. Major policy changes in water and sectors relying on water, such as industry and agriculture, are needed in the near future to ensure a balance between growth rates of the various sectors, and to stabilise the levels of declining groundwater tables. In addition, policies across sectors need effective coordination. Professor Rogers has already covered policy insights regarding water and food security."

Article continues below

He said research highlights that the drivers of change are outside the water sector. In fact, the principal challenges are not technological, but rather the soft issues of governance, financing and institutional capacities.

Professor Peter P. Rogers, Gordon McKay Professor of Environmental Engineering, Harvard University, suggested steps to be made to enhance food, water security:

Using water saving technologies such as centre-pivots and drip can reduce water use by as much as two thirds, and double crop yields. In a given setting these

technologies have the potential to expand the water resource base by significant amounts.

As water becomes more scarce (and valuable) improving maintenance practices reduces losses, due to non-beneficial evaporation and seepage due to poor maintenance of both irrigation systems and urban systems.

Exploit advanced desalination technology.

Taking advantage of the new low cost desalination techniques enables urban areas to recycle their wastewater for potable and non-potable uses. This will relieve the pressure for new sources for urban areas leaving more water for food and ecosystem use.

Water pricing: toward full socio-economic costing. Policies need to be set in place to gradually raise the water tariffs to cover full economic costs and ultimately full economic and environmental costs. This will require major social and political efforts, but will in the long-run result in substantial savings of water. Also increased charges for water will make the newer technologies for substituting for water sources via desalination more economically attractive and will also enable utilities to implement maintenance and conservation technologies which are currently uneconomical.

One of the major ways of conserving water and increasing water and food security is by exploiting the potential for using the virtual water embedded in imported food and agricultural products. One other way is by direct importation of water.

Dr Nadim Farajallah, associate professor, department of landscape design and ecosystem management, faculty of Agriculture, American University of Beirut, said two main approaches have to be followed all within the implementation of integrated water resources management approach — by creating the enabling environment of institutional framework and updating the pertinent legislation — reduce demand and enhance supply of water through improving efficiency of desalination, incorporating treated sewage effluent as a source for uses other than landscape irrigation and bulk import of water.

Dr Farajallah also suggested having control access to groundwater, forcing the use of water saving devices in

all new developments and retrofit construction and implement metering, controlling leaks in conveyance and distribution networks to limit UFW to around 20 per cent and structuring tariffs to attain full cost recovery – introduce incremental block rates to ensure equity.

Top suggestions

Encourage the participation of the private sector with the aim of building up the capacity of the public sector, integrating water resource management into the country's and the region's development plans so that water availability controls development and not the other way round, improving agricultural practices:
Introduce new crops and plants suited to the dry and hot environment and to saline water
Focus agricultural production on cash crops
Enforce the use of efficient irrigation techniques
Consider moving away from agriculture in some areas
Rely on local scientific research for development of above —
International Centre for Biosaline Agriculture in the UAE
Make use of virtual water principle in assessing agricultural production costs
Remove subsidies on well drilling and other cultural practices