

## HOW FARMERS CAN HELP

Farmers have a vital role to play to conserve groundwater and protect our farming heritage. The Abu Dhabi Farmers' Services Centre (ADFSC) recommends that the following water efficiency measures are carried out on all farms:

- **Install and use an efficient irrigation system** A well designed system will take account of the crop/plant to be irrigated, the soil characteristics, topography of the fields and the water source;
- **Regularly maintain your irrigation system** Valves, joints and connections will wear over time so carry out regular checks on your system and always replace worn or broken components;
- **Include a well maintained filtration system** Without clean filters, drippers will quickly become blocked, greatly reducing efficiency;
- **Ensure the irrigation system has backflow prevention** This is vital to prevent pollution of the water source;
- **Use fixed flow pressure compensating drippers and bubblers** This ensures that the whole field receives the same amount of water, encouraging uniform health and growth of crops;
- **Use irrigation scheduling to ensure the correct amount of water is supplied to each crop** Different crops require different amounts of water – and calculations depend on lots of factors including the individual crop and the weather.

## NOW IS THE TIME TO ACT...

### PROTECT THE FUTURE OF FARMING – SAVE GROUNDWATER NOW

For more information on water efficiency on farms, including how to use irrigation systems and scheduling, contact the ADFSC at:  
Email: [irrigation@adfsc.ae](mailto:irrigation@adfsc.ae)  
Tel: 800 555  
[www.adfsc.ae](http://www.adfsc.ae)

**The Environment Agency – Abu Dhabi** urges the farming community to use our vital groundwater resources carefully and to obey our laws governing the abstraction and use of groundwater – Law No. (6) of 2006. For help to save groundwater, contact EAD at:  
Tel: 800 555  
[www.ead.ae](http://www.ead.ae)

The Environment Agency – Abu Dhabi (EAD) was established in 1996 as a government entity responsible for protecting the environment by reducing pollution and enhancing our biodiversity. It does this through science, research, policy, regulation, environmental education and awareness.

# PROTECT THE FUTURE OF FARMING SAVE GROUNDWATER NOW



GROUNDWATER ABSTRACTION RATE IN ABU DHABI



NATURAL GROUNDWATER RECHARGE RATE

# ABU DHABI IS FACING A GROUNDWATER CRISIS

Just 50 years ago, groundwater supplied all of our water needs. Now water production and consumption in today's Abu Dhabi is on a vastly larger scale.

In 2012, the annual total demand for water in the Emirate was estimated to be 3.4 billion cubic metres. **Of this, 62% was groundwater and used mainly for agriculture, forestry and landscape irrigation.**

Driven by the demands of agriculture, the use of water intensive crops and inefficient irrigation methods, **groundwater is being used at around 25 times the rate at which it is being naturally recharged.**

Salinity is rapidly increasing too and in some places groundwater is more saline than seawater. In all almost 80% of groundwater is now saline, with less than 20% usable without desalination.

**Unauthorised well drilling and illegal sale of groundwater is compounding the problem.**

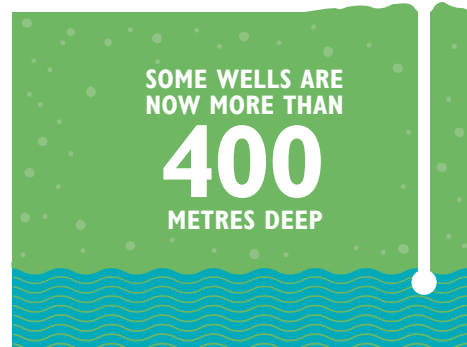
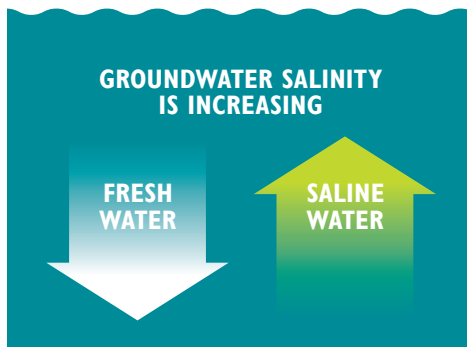
Our use is unsustainable, with aquifers being rapidly exhausted, the water table is falling by as much as five metres per year and some wells are now more than 400 metres deep.

In fact, if this continues, a vital natural resource deposited during the last Ice Age more than 10,000 years ago could soon be completely lost.

**But, by working together,** there is still time to reverse this dangerous trend and preserve our natural water supplies for future generations of farmers, their local communities and the Emirate as a whole.

IN 2012,  
**71%**  
OF ALL WATER  
USED WAS FOR  
AGRICULTURE,  
FORESTRY AND  
LANDSCAPE  
IRRIGATION

ALMOST 80% OF  
GROUNDWATER  
IS NOW SALINE,  
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USABLE  
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DESALINATION



**“ Water is more important than oil for the UAE. We have to come up with ways to meet future demand and preserve natural resources for the coming generations. ”**



**H.H. GENERAL SHEIKH MOHAMMED BIN ZAYED AL NAHYAN**  
CROWN PRINCE OF ABU DHABI, DEPUTY SUPREME COMMANDER OF THE UAE ARMED FORCES, AND CHAIRMAN OF THE ABU DHABI EXECUTIVE COUNCIL

## THE NATIONAL EFFORT TO SAVE GROUNDWATER

The Government of Abu Dhabi has taken steps to protect this vital resource for future generations. It has invested heavily in the Emirate's water supply to serve a growing population, improve living standards and develop the economy.

The Environment Agency – Abu Dhabi (EAD), The Abu Dhabi Food Control Authority (ADFCA) and The Abu Dhabi Farmers' Services Centre (ADFSC) are all working hard to safeguard the future of groundwater and farming.

However, this is a shared responsibility and the farming community has a vital role to play if all of our efforts are to be successful.

We urge farmers to take the actions listed in this leaflet and to seek advice and assistance from EAD, ADFCA and ADFSC to ensure that our groundwater is conserved.

The ADFSC's Efficient Irrigation Fund has now distributed water-saving equipment to more than 6,000 farms. Some farmers who were using 1,500 litres of water per palm tree per day have reduced that to 300 litres per tree per day – a reduction of 80%. This has produced healthier trees and improved yield of dates.

