



حكومة أبوظبي
GOVERNMENT OF ABU DHABI

THE WATER RESOURCES
MANAGEMENT
STRATEGY
FOR THE EMIRATE
OF ABU DHABI
2014-2018





Based on the Emirate of Abu Dhabi 2030 agenda, this strategy provides an update to Abu Dhabi's water master plan prepared in 2009 by the Environment Agency -Abu Dhabi, in collaboration with relevant stakeholders. The purpose of this strategy is to reduce the pressure on water sources in the Emirate, to improve the standard of living, and to promote economic growth.

Abu Dhabi realizes the importance of its water resources and promoting rational consumption of water for the welfare of future generations. The strategy aims to progress towards an efficient management and conservation of the three water sources; desalinated water, groundwater, and recycled water.

WHAT IS THE WATER STRATEGY FOR THE EMIRATE OF ABU DHABI?

In line with Abu Dhabi's Emirate Plan being led by the Abu Dhabi Executive Council and the UAE Vision 2021, the water strategy provides a five year roadmap for the efficient management and conservation of water resources in the Emirate of Abu Dhabi.

Overarching
Goals of the
Water Resources
Management
Strategy for the
Emirate of
Abu Dhabi
(2014-2018)

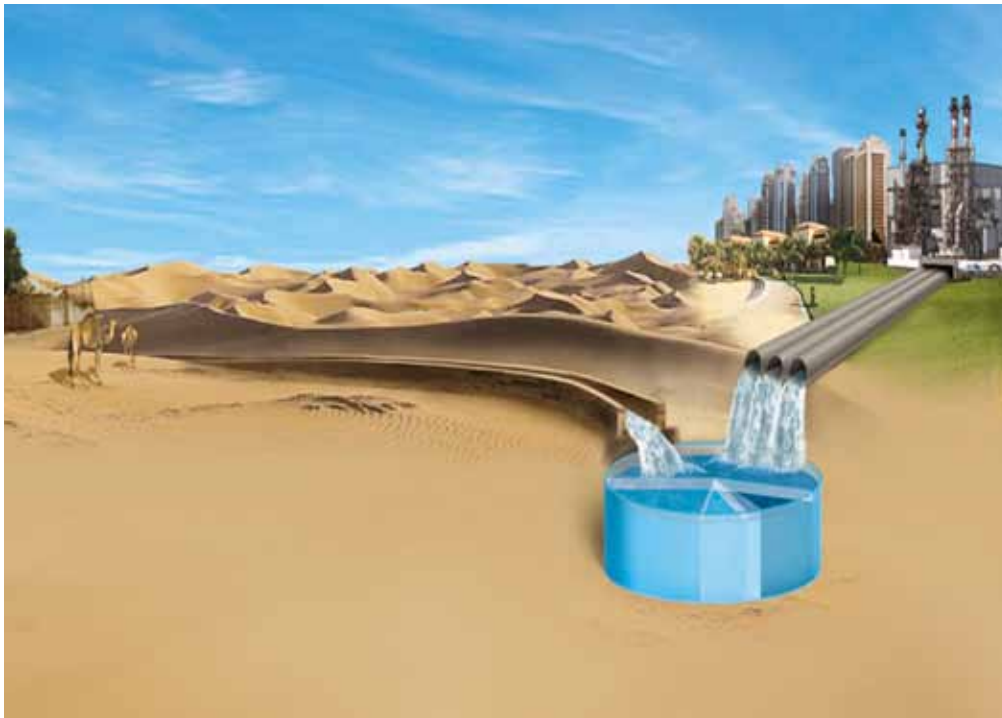
Provide overall direction to the water sector in terms of guiding principles, expected outcomes, targets and initiatives

Provide guidance to help shape each entity's individual strategies and action plans so that there is a better alignment, coordination, and complementarity

Provide a benchmark to monitor and evaluate the performance of whole of government water strategies

Inform all stakeholders from the public and private sector so that the efficient management and conservation of water resources is incorporated as a cross-cutting priority when planning, producing, transmitting, distributing and using water in Abu Dhabi

The strategy is structured to respond to the key questions of where we are today, where we want to be in 2018, and what we will do to get there.



WHO WAS INVOLVED IN DEVELOPING THE WATER STRATEGY FOR THE EMIRATE OF ABU DHABI

The development of this strategy is a result of directions set by Higher Committee for Water and Agriculture Strategies in the Emirate of Abu Dhabi. Key entities have been engaged in this exercise including government entities involved in policy-setting, regulation, enforcement and operations affecting water in the Emirate.

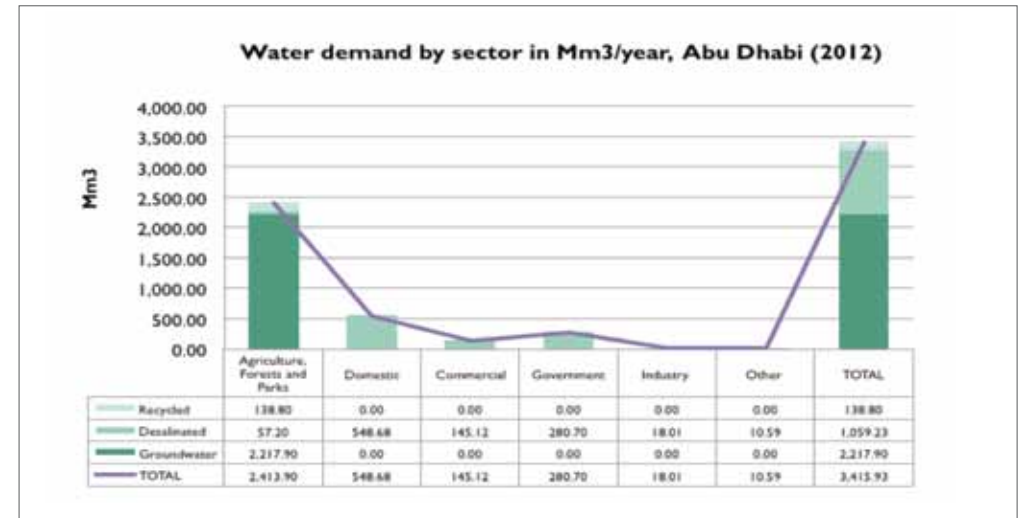
LEAD ENTITIES FOR WATER RESOURCES MANAGEMENT IN ABU DHABI

Higher Committee for Water and Agriculture Strategies in the Emirate of Abu Dhabi	Agriculture	Abu Dhabi Food Control Authority (ADFC)
	Wastewater	Abu Dhabi Sewerage Services Company (ADSSC)
	Desalinated Water	Abu Dhabi Water and Electricity Authority (ADWEA)
	Industry	Department of Economic Development (DED)
	Amenities	Department of Municipal Affairs and the Municipalities of Abu Dhabi, Al Ain, and Al Gharbiah
	Groundwater & Forestry	Environment Agency – Abu Dhabi (EAD)
	Utilities	Regulation and Supervision Bureau (RSB)
	Buildings and land use planning	Abu Dhabi Urban Planning Council (UPC)



STRATEGY PRIORITIES

Over the last decades, water demand in the Emirate of Abu Dhabi has increased rapidly. The main driving forces have been population growth, economic development and changes in lifestyle that have increased the demand for water for irrigation, human consumption or industrial processes. Currently, agriculture is the largest consumer of water in the Emirate followed by residential uses. Forecasts show that the demand for desalinated is expected to almost double by 2030. The increase in water demand will put a strain in the already scarce natural resources of the Emirate. Ensuring economic diversification whilst reducing the water intensity of commercial and industrial activities, and improving indoor and outdoor water efficiency of the built environment will continue being an overriding consideration for economic and social wellbeing of the Emirate.



In order to understand “What” needs to be done to achieve this future desired state, Abu Dhabi Environment Vision 2030 proposes the following priority area: “Efficient management and conservation of water resources”.

ABU DHABI ENVIRONMENT VISION 2030 ENVIRONMENTAL PRIORITIES, OUTCOMES AND TARGETS						
Priority Area	Priority	Outcome	Measure	Baseline 2010	Target 2018	Target 2030
Efficient management and conservation of water resources	Integrated and Efficient Use of Water Resources	Moderated average domestic indoor and outdoor water consumption	Domestic Water Consumption in L/capita/day	614	450	<340
		Maximised use of recycled water	% of Total Recycled Water Consumed	51%	100%	100%
	Sustainable Management of Groundwater Resources	Sustainable ground-water reserves	Effective Years Remaining in Usable Groundwater Reserves	<55	65	>74
		Increases in salinity in groundwater reserves within acceptable limits	Average salinity of abstracted groundwater	NA	TBD	TBD



In order to understand “How” to achieve the future desired state are articulated around eight sectors: Energy and utilities; Building and infrastructure; Industrial sectors; Transportation; Agriculture, Livestock and fisheries; Public realm, amenities and forestry; Environment sector; Waste management. The sector specific priorities, outcomes and targets to be achieved by 2030 are shown below, as well as the interim targets to be achieved by 2018 proposed by the entities consulted for this strategy.

ABU DHABI ENVIRONMENT VISION 2030 SECTOR-SPECIFIC PRIORITIES, OUTCOMES AND TARGETS					
SECTOR	IMPERATIVE	MEASURE	BASELINE 2010	TARGET 2018	TARGET 2030
Energy and utilities	Ensure proper demand side management for efficient water consumption patterns	% of 2010 water tariff rate	100%	TBD	Cost-reflective water tariffs
	Minimise water losses from desalinated water networks	% of transmission and distribution losses (out of produced desalinated water)	20%	15-17%	10%
	Minimise discharges from recycled water practices	% discharge from recycled water practices (flow discharge measurement taken for peak season)	49%	10%	10%
	Adopt innovative clean solutions for water production in light of energy plans	% of new desalinated water capacity using clean technologies (low carbon and renewables)	0%	0%	100%
	Limit the impact of desalination water practices on marine and terrestrial ecosystems	Degradation index (Marine and terrestrial degradation attributed to desalination water is minimised) (1.00=zero degradation)	TBD	TBD	1.00
Buildings and Infrastructure	Ensure high indoor water efficiency in built environment	% of reduction in water use intensity of existing and new buildings relative to 2010	0%	10%	25%
	Ensure high outdoor use water efficiency in buildings, villas and shabbiyyat	% of reduction in outdoor water use intensity of buildings, villas and shabbiyyat relative to 2010	0%	12%	30%
Industrial Sector	Encourage the establishment of water-efficiency industrial sectors	Water use intensity per industrial GDP as % of year 2010 level	100%	100%	100%
	Limit the impact of industrial activities on habitats and species	% of compliance with best-in-class standards for industrial activities to minimise terrestrial & marine degradation	TBD	TBD	100%
Agriculture and Livestock	Optimise water use including groundwater, desalinated and recycled water for Agriculture while ensuring food security	Annual groundwater abstraction in Million m ³ and % water efficiency improvement ¹	1,714 Mm ³	1,400 Mm ³	<755 Mm ³ TBD
	Minimise groundwater pollution and salinization attributed to agriculture	% measured application of fertilisers and pesticides	TBD	TBD	100%
Public Realm, Amenities and Forestry	Develop low water requirement public realm amenities and forestry sectors	% of reduction in the average water use intensity of all public realm amenities relative to 2010	0%	16%	60%
Environment Sector	Explore innovative solutions for groundwater use and conservation	% of freshwater bodies protected as strategic reserves	0%	100%	100%
Waste Management	Ensure proper waste disposal & reduce environmental impact on air and climate change, groundwater, soil and habitats	% of landfilled waste disposed of in sanitary disposal sites	0%	100%	100%



¹ Initially this imperative referred only to optimise groundwater use as stated in Abu Dhabi Environment Vision 2030. At the request of several stakeholders its scope is now wider including the imperative to optimise water use in agriculture, whether groundwater, desalinated or recycled water. The baseline and the targets for 2018 and 2030 will be expanded to include the three types of water as soon as the data about groundwater consumption is reviewed by EAD and ADFCA and validated by SCAD.

WHAT WILL WE DO TO ACHIEVE TARGETS?

