



مركز الإحصاء  
STATISTICS CENTRE

# Environment

in Figures 2013

Release date: August, 2014



# Environment In Figures

## Introduction

This report presents statistics on key environmental figures in the Emirate of Abu Dhabi for the year 2013, comprising statistics of climate, air quality, carbon dioxide emissions, desalinated water consumption and non-hazardous solid waste. The main sources for these statistics are the National Centre for Meteorology and Seismology, Environment Agency - Abu Dhabi, Abu Dhabi National Oil Company, Abu Dhabi Water and Electricity Authority, Abu Dhabi Water and Electricity Company , and the Centre of Waste Management - Abu Dhabi

# Climate



**Table 1: Climate by month, 2013**

**Average temperature**  
(Degrees Celsius)

18.4	19.6	23.1	27.5	33.0
------	------	------	------	------

**Average relative humidity**  
(%)

63.5	63.9	55.9	52.6	48.4
------	------	------	------	------

**Average rainfall**  
(Millimetres)

0.0	1.8	0.6	19.1	1.6
-----	-----	-----	------	-----

**Average atmospheric pressure**  
(Hectopascal)

1,018.2	1,016.5	1,013.6	1,009.2	1,006.3
---------	---------	---------	---------	---------

January

February

March

April

May

Abu Dhabi Emirate constitutes about 87% of the total area of the UAE, excluding the islands. The Tropic of Cancer runs through its southern part giving it a tropical desert climate with hot summers, moderate winters, and scanty rainfall. In 2013, average temperatures ranged between 18.4 °C in January to 36.5 °C in July. Average annual rainfall was 77.7 mm, while average relative Humidity was 57.4%. Average atmospheric pressure hovered around 1,008.7 Hectopascal.

33.9	36.8	36.5	34.4	29.4	25.2	21.1
49.8	50.5	54.8	55.3	60.2	65.3	68.0
0.0	2.6	8.9	0.6	0.5	41.9	0.1
998.4	995.3	998.9	1,004.3	1,010.4	1,015.0	1,018.7
June	July	August	September	October	November	December

Source: Statistic Centre - Abu Dhabi

# Air Quality

Air pollution affects human's health and other living organisms: therefore laws are enacted and standards are set to maintain air quality. In 2013, the annual average concentration of PM10 ranged between 115 and 147 mcg/m<sup>3</sup> in the urban areas of the Emirate while the annual average concentration of Sulphur Dioxide ranged between three and eight mcg/m<sup>3</sup>, which is below the national maximum allowable limit (60 mcg/m<sup>3</sup>).

**Table 2: Air pollutants annual average concentration in ambient air by region, 2013**  
(mcg/m<sup>3</sup>)

Indicator (maximum allowable limit)	Sulphur dioxide (60 mcg/m <sup>3</sup> )	Nitrogen dioxide	Ground level ozone	Particulate matter – PM10
<b>Abu Dhabi</b>				
Khalifa School	6	30	48	139
Bany yas School	3	31	44	147
Khalifa City	7	26	79	142
Al Maqtaa	5	31	68	124
<b>Al Ain</b>				
Al Ain School	8	29	30	115
Suwaihan	6	10	77	137
Al Tawya	10	18	75	130
<b>Al Gharbia</b>				
Bida Zayed	10	20	49	146

Source: Environment Agency - Abu Dhabi

# Carbon dioxide emissions

Studies have confirmed the impact of carbon dioxide emissions on global warming, and despite the increasing demand for energy and fossil fuels, there are attempts to find alternative renewable energy to cut down emissions of greenhouse gases. In 2013, Carbon Dioxide emissions from the two key energy sectors – oil and gas and water and electricity production – reached 56.2 million tons.

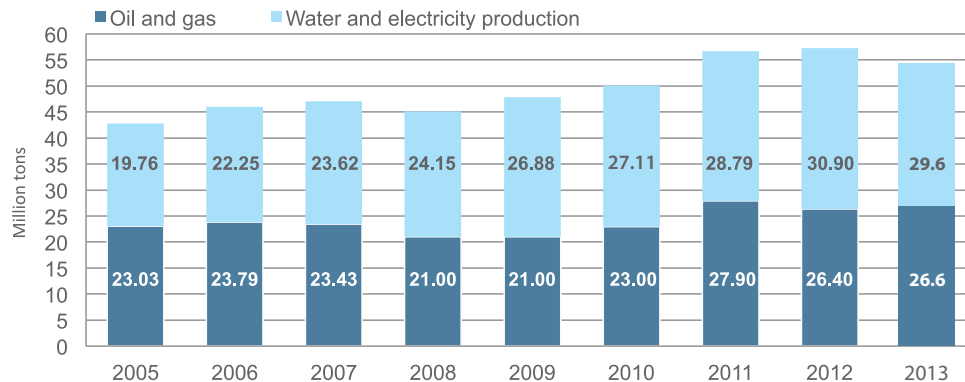
**Table 3: Carbon dioxide emissions from energy sectors**  
(Million tons)

Sector	2005	2010	2012	2013
Oil and gas	23.03	23.00	26.4	26.6
Water and electricity production	19.76	27.11	30.9	29.6
<b>Total</b>	<b>42.79</b>	<b>50.11</b>	<b>57.3</b>	<b>56.2</b>

Source: Abu Dhabi National Oil Company, Abu Dhabi Water and Electricity Authority

**Figure 1:**  
**Carbon dioxide emissions from energy sectors**

Source: Statistic Centre - Abu Dhabi



# Desalinated water Consumption



**Table 4: Desalinated water consumption**

*(Million cubic metres)*

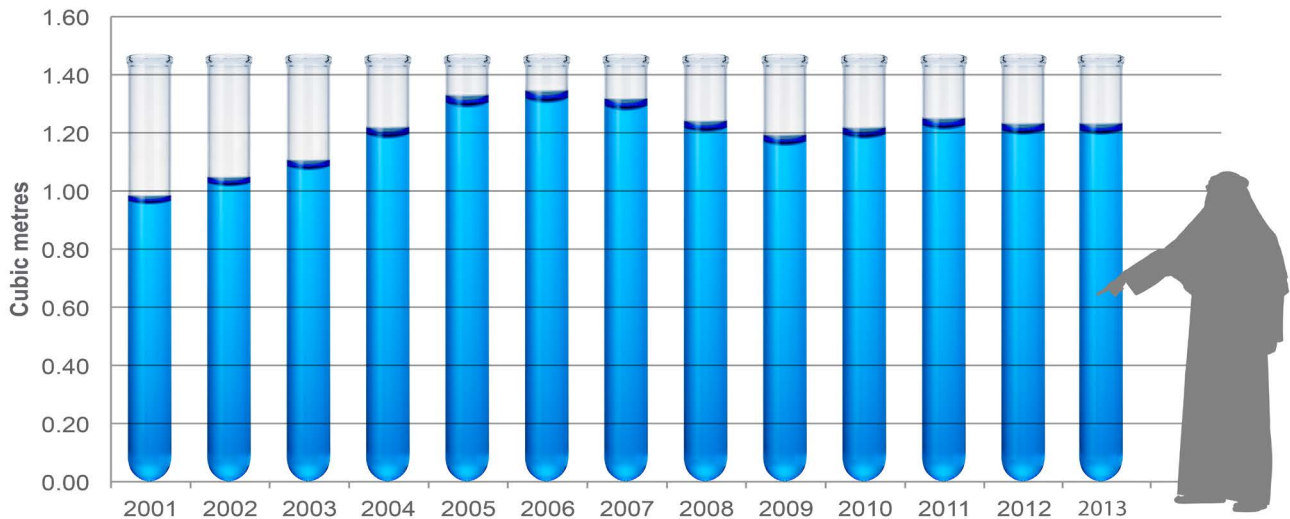
Year	Annual consumption	Average daily water consumption	Per capita average daily consumption <i>(Cubic metres)</i>
2005	667	1.83	1.33
2006	722	1.98	1.35
2007	757	2.07	1.32
2008	774	2.11	1.25
2009	790	2.16	1.19
2010	873	2.39	1.22
2011	962	2.63	1.25
2012	1,059	2.90	1.24
2013	1,083	2.96	1.21

Source: Abu Dhabi Water and Electricity Company (ADWEC) - Statistic Centre - Abu Dhabi



The Emirate of Abu Dhabi consumed about 1,082.5 MCM in 2013, with a daily average of 2.96 MCM and a per capita average daily consumption of 1.21 cubic metres. Consumption of desalinated water has increased by 62.3% since 2005 as a result of increasing demand for water from various sectors.

**Figure 2: Per capita average daily consumption of desalinated water**



Source: Statistic Centre - Abu Dhabi

# Solid waste



**Table 5: Non-hazardous solid waste generation by region and source activity, 2013 \***

(Tons)

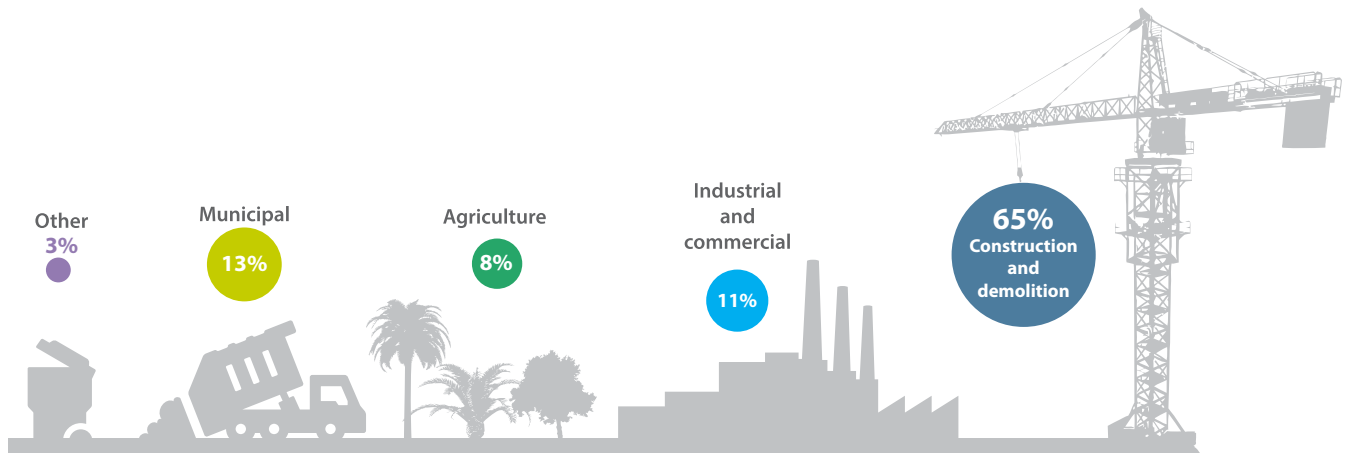
Source	Total	Abu Dhabi	Al Ain	Al Gharbia
<b>Total</b>	<b>11,825,064</b>	<b>6,819,275</b>	<b>2,605,633</b>	<b>2,400,156</b>
<b>Daily average</b>	32,397	18,683	7,139	6,576
Construction and demolition	7,692,921	4,662,356	1,386,252	1,644,313
Industrial and commercial waste	1,305,556	550,250	380,000	375,306
Agricultural waste	999,239	370,979	459,696	168,564
Municipal waste	1,528,093	991,105	327,627	209,361
Other*	299,255	244,585	52,058	2,612

Source: The Centre of Waste Management - Abu Dhabi

\*Includes sludge and oil and gas sector waste

The total amount of non-hazardous solid waste disposed in 2013 was 11.8 million tons, where construction and demolition waste constituted largest share with 65%. Commercial and industrial waste totaled to about 1.3 million tons, whereas municipal waste reached about 1.5 million during the same year.

**Figure 3: Percentage distribution of non-hazardous solid waste generation by source activity, 2013**



Source: Statistic Centre - Abu Dhabi



[www.scad.ae](http://www.scad.ae)

## Our Statistics Provide Solutions & Development

Tel: +971 2 8100000 - Fax: +971 2 8100800

P.O. Box: 6036, Abu Dhabi, U.A.E.



adstatistics