

Environment Agency - Abu Dhabi

Air Quality Data Analytics

Presentation Team:

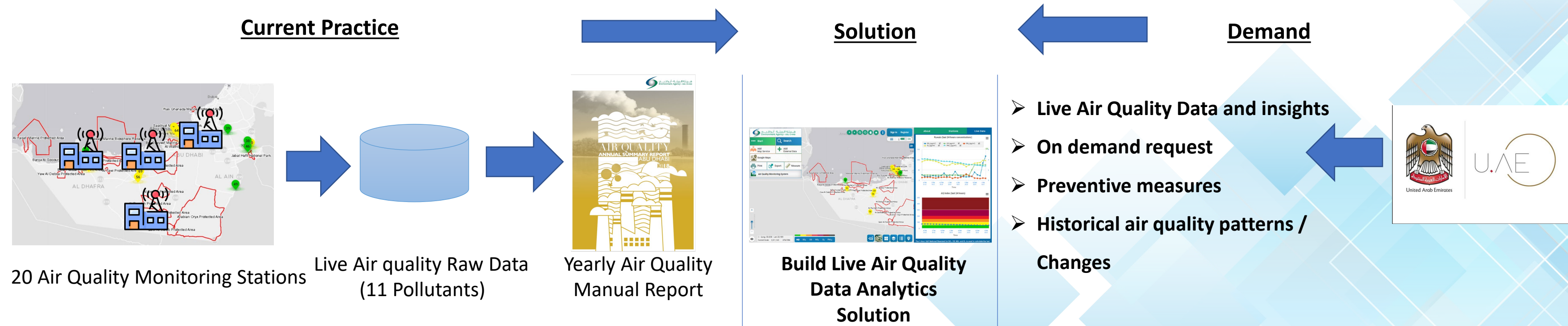
Hamad Mohamed Al Ansari , Senior Analyst – GIS, EAD

Anil Kumar - Section Manager - GIS Analysis, EAD

Ravi Krishna - Team Lead - Environmental Database, EAD

Vattem Narendra Babu – GIS Consultant, iSpatialTec

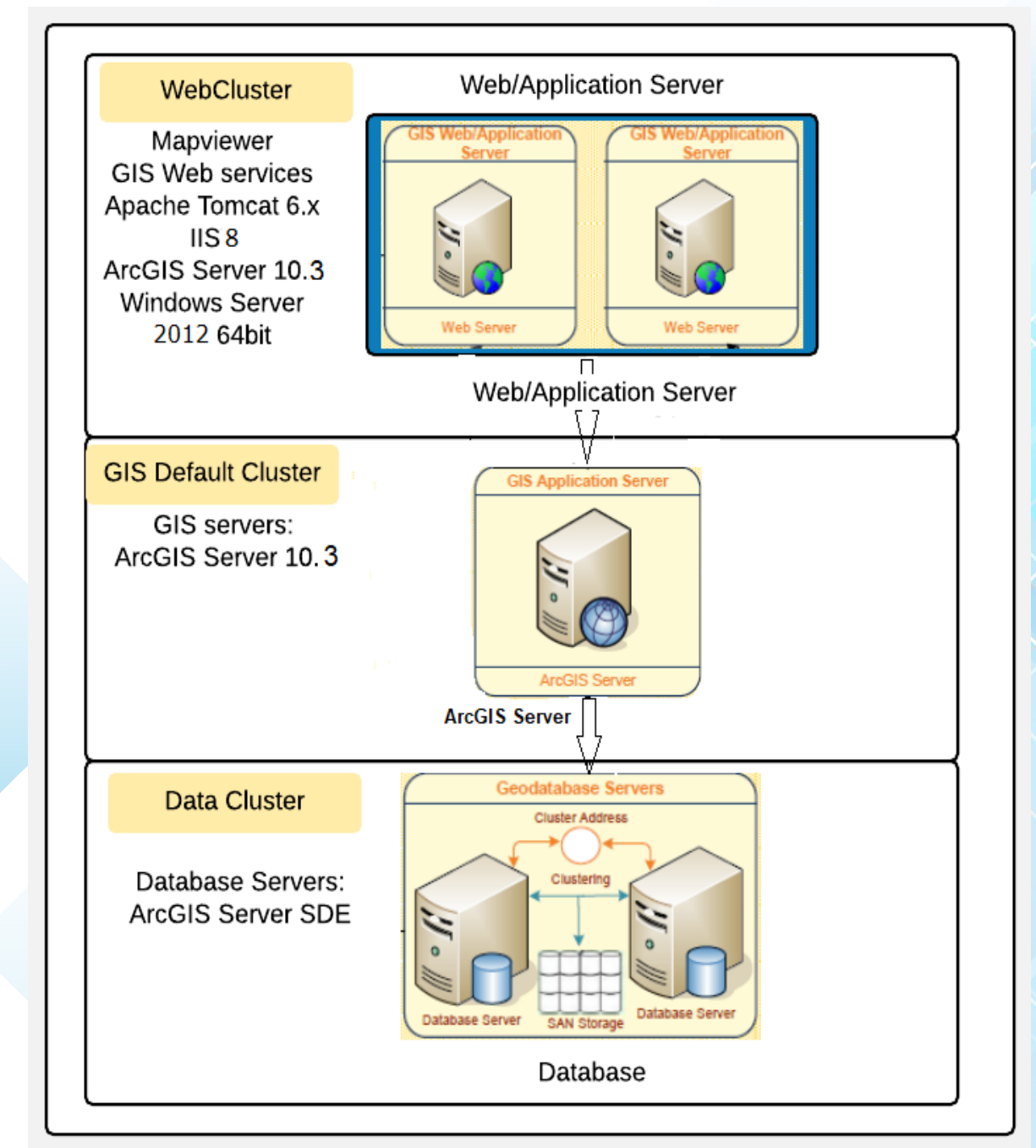
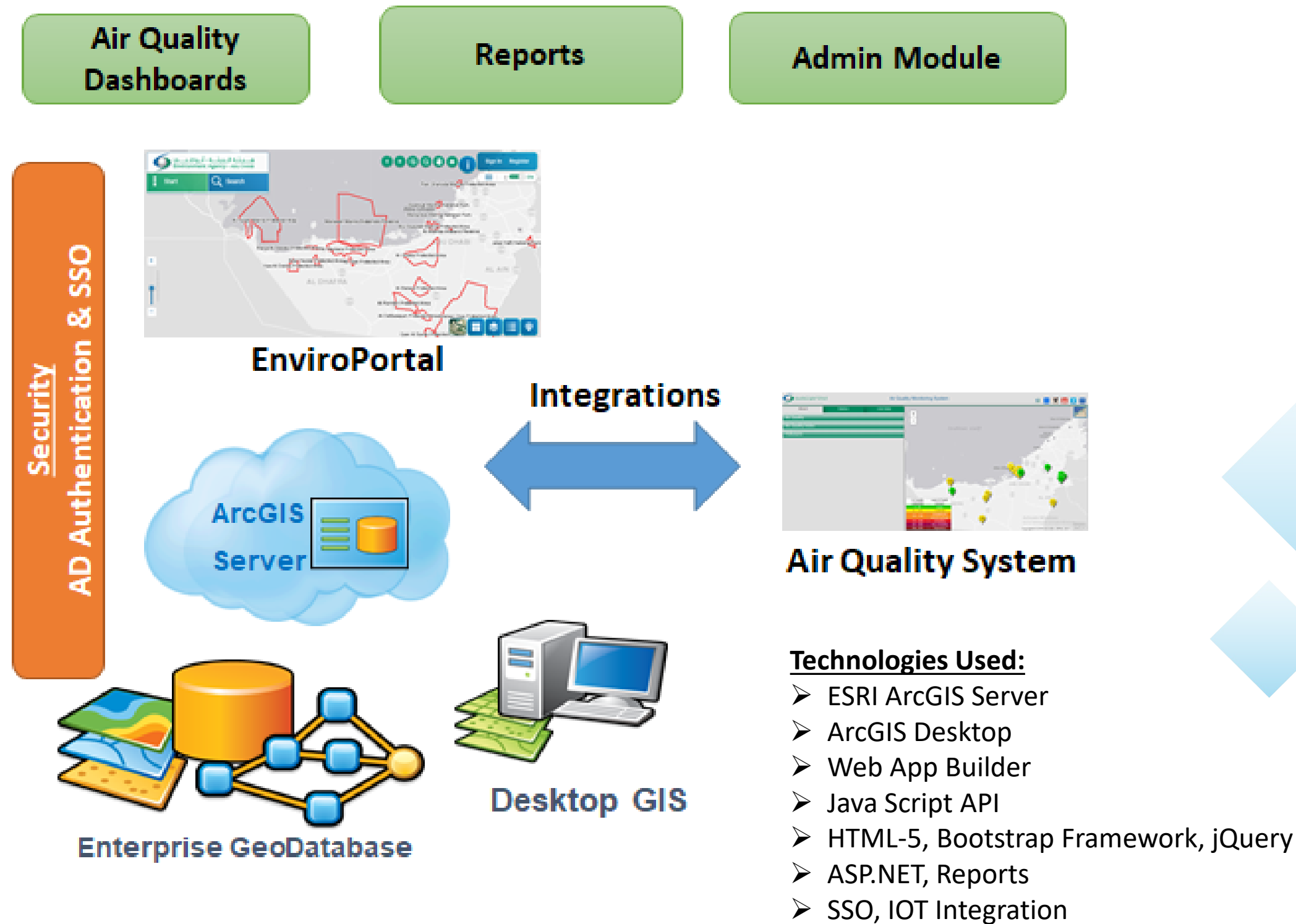


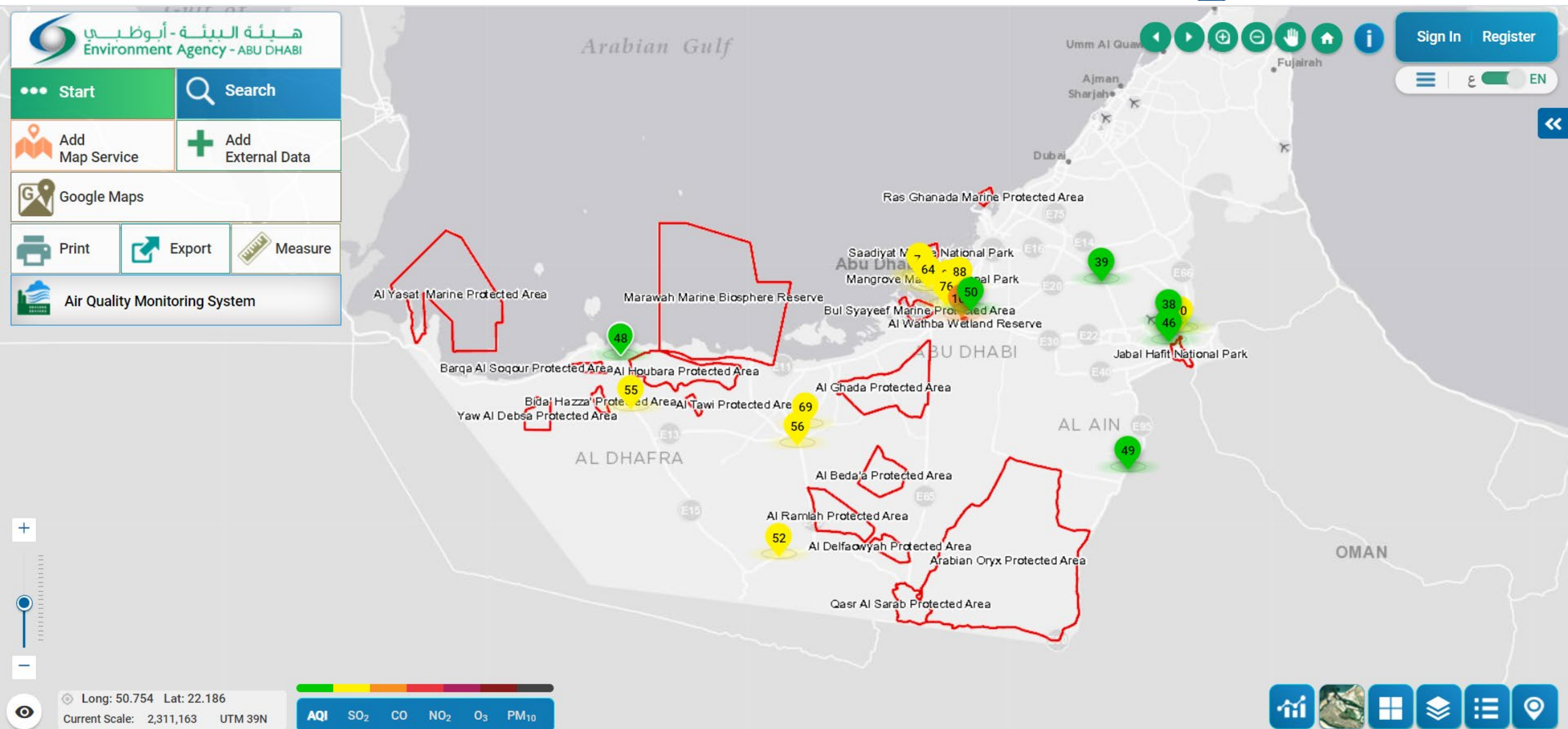


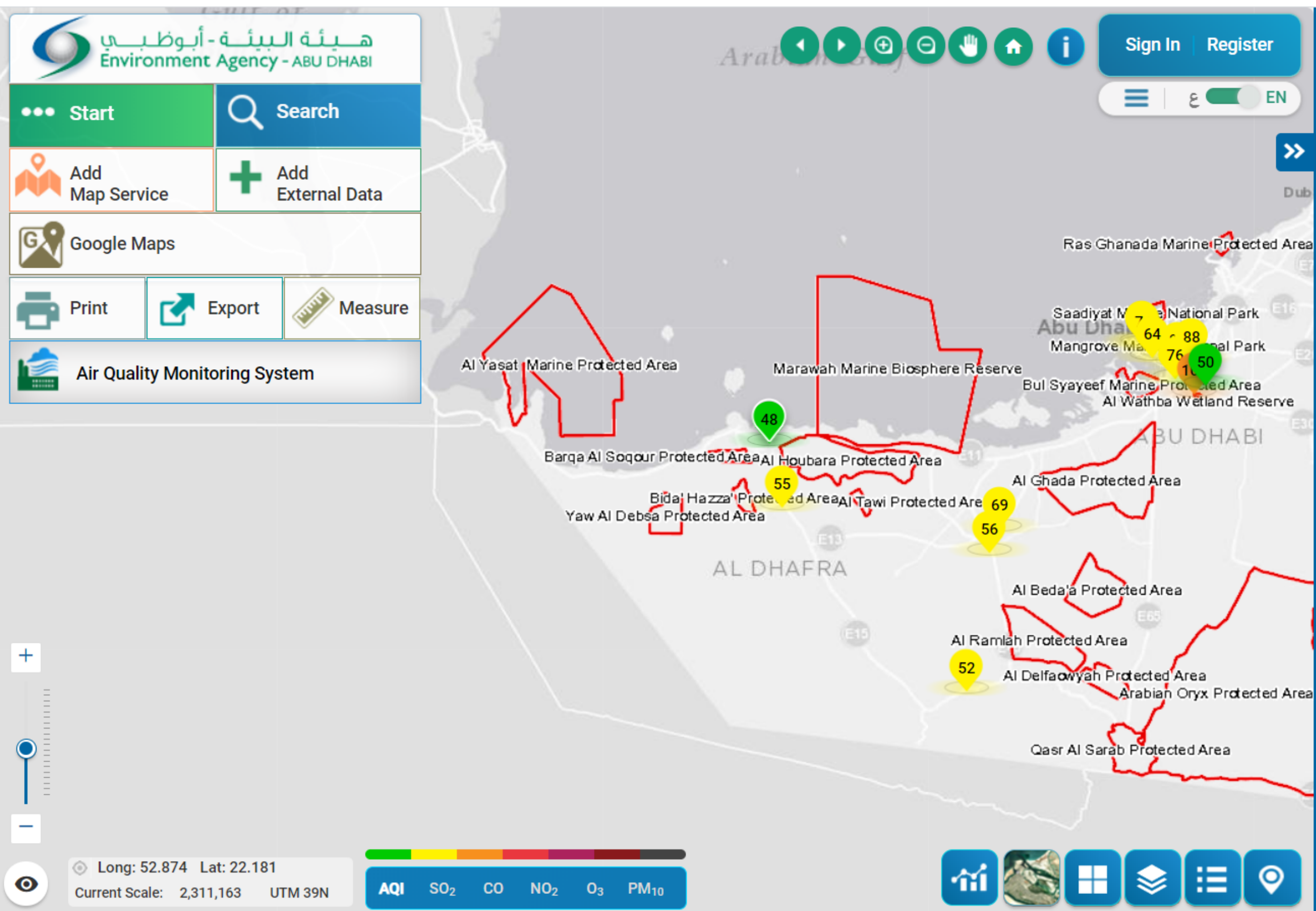
The Solution Value Proposition

- ✓ Live Location enabled Air Quality Data for citizens
- ✓ Air Quality Indices and pollutants trends for stakeholders
- ✓ Interactive charts module from international air quality scientists
- ✓ Flexible data analytics module with multiple filters for the user to define criteria
- ✓ Detailed Analysis Module includes yearly trends of each parameter at each location
- ✓ Air quality regulations from UAE and WHO standards are applied
- ✓ Secured Data download mechanisms to lessen manual intervention









About

Stations

Live Data

Air Quality

Improving public health by reducing air pollution and improving air quality is one of the Environment Agency – Abu Dhabi's (EAD) strategic priorities. Air pollution has both natural and man-made sources. The following information provides an overview of criteria air pollutants, their man-made sources, and the main health effects that are associated with their elevated levels.

WE ARE FULLY COMMITTED TO PLAYING OUR PART TO MITIGATE POLLUTION BY:

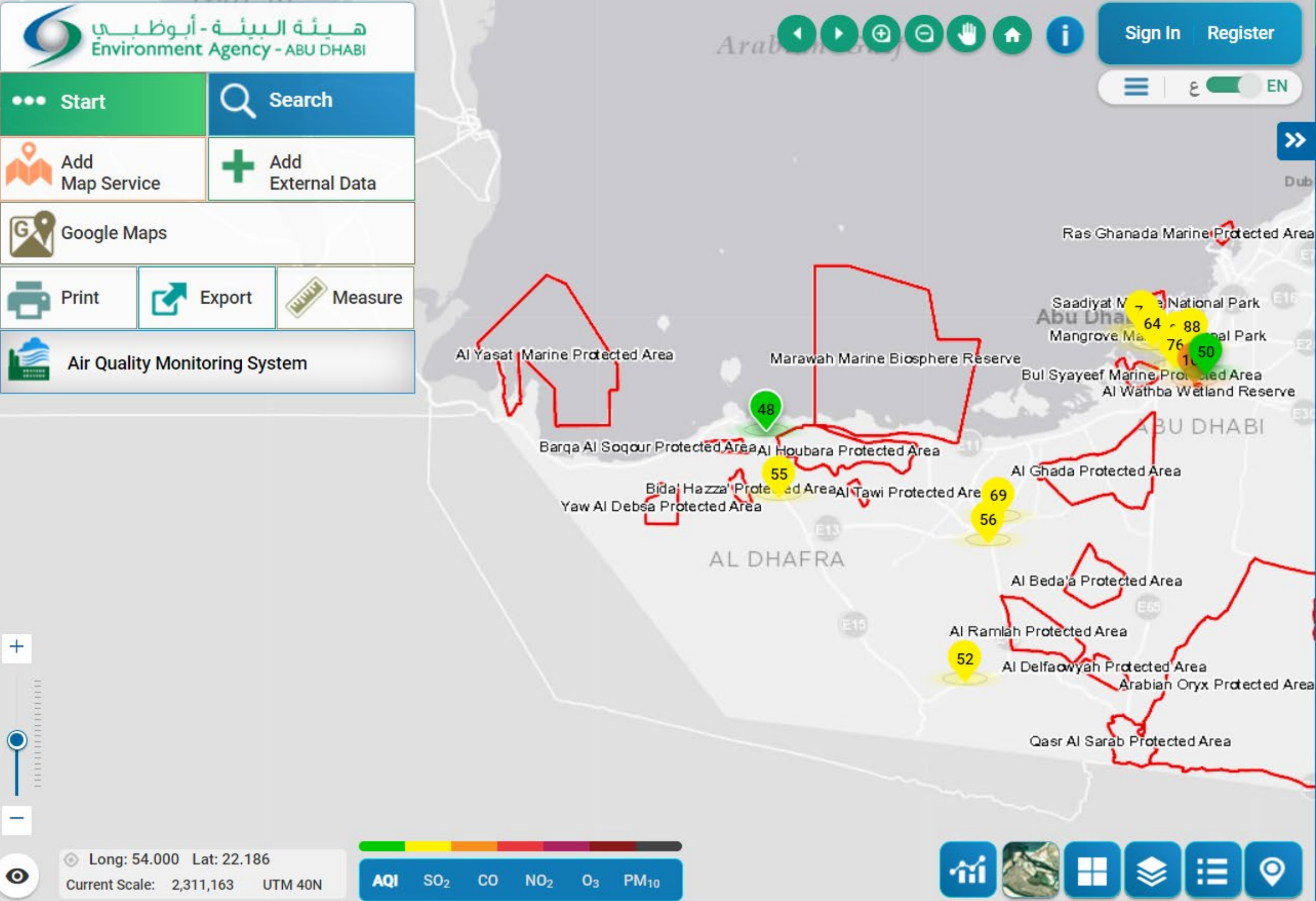
- Operating a network of 20 air quality monitoring stations spread out around Abu Dhabi Emirate;
- E-linking with other entities' air quality monitoring networks and exchanging data to help us manage air quality better;
- Upgrading techniques for analyzing, modelling and reporting the information from monitoring stations;
- Strengthening the legal, regulatory and enforcement framework for air quality and noise;
- Conducting scientific research to improve our knowledge on air quality;
- Promoting the use of the best available technologies and best environmental practices in all sectors (power plants, oil and gas, transport, industry, etc.);
- Raising awareness and informing the public about the air quality status;

HOW YOU CAN PLAY YOUR PART:

- Understand how air quality is measured, how it can affect your health and how to combat its effects;
- Reduce the use of energy at home, insulate your home effectively and make rational use of your air conditioning system;
- Use energy-efficient light bulbs and turn off the lights when you don't need them: You'll reduce your electricity consumption and have lower bills too!

Air Quality Index

Pollutants



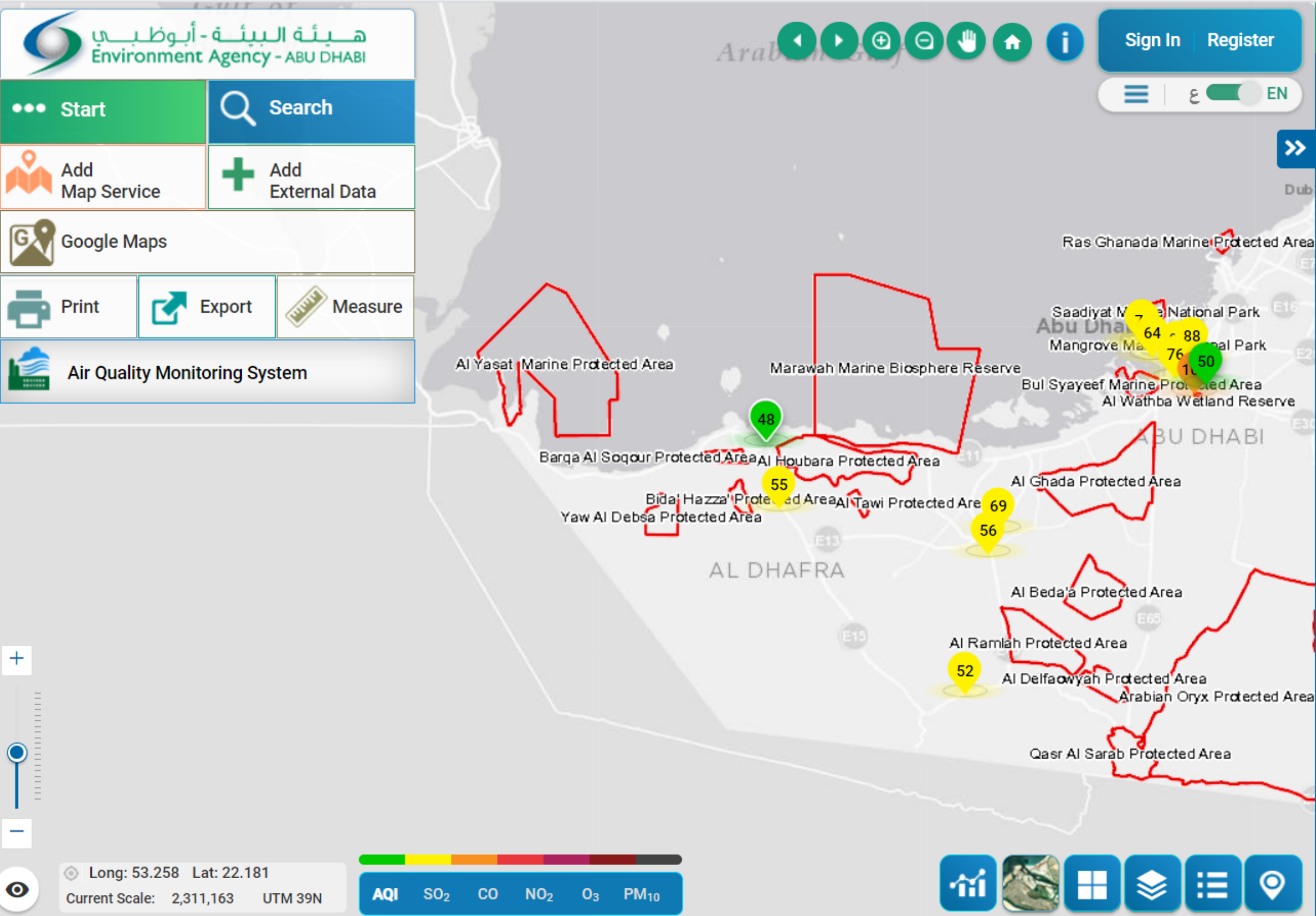
Navigation tabs: About, Stations, Live Data

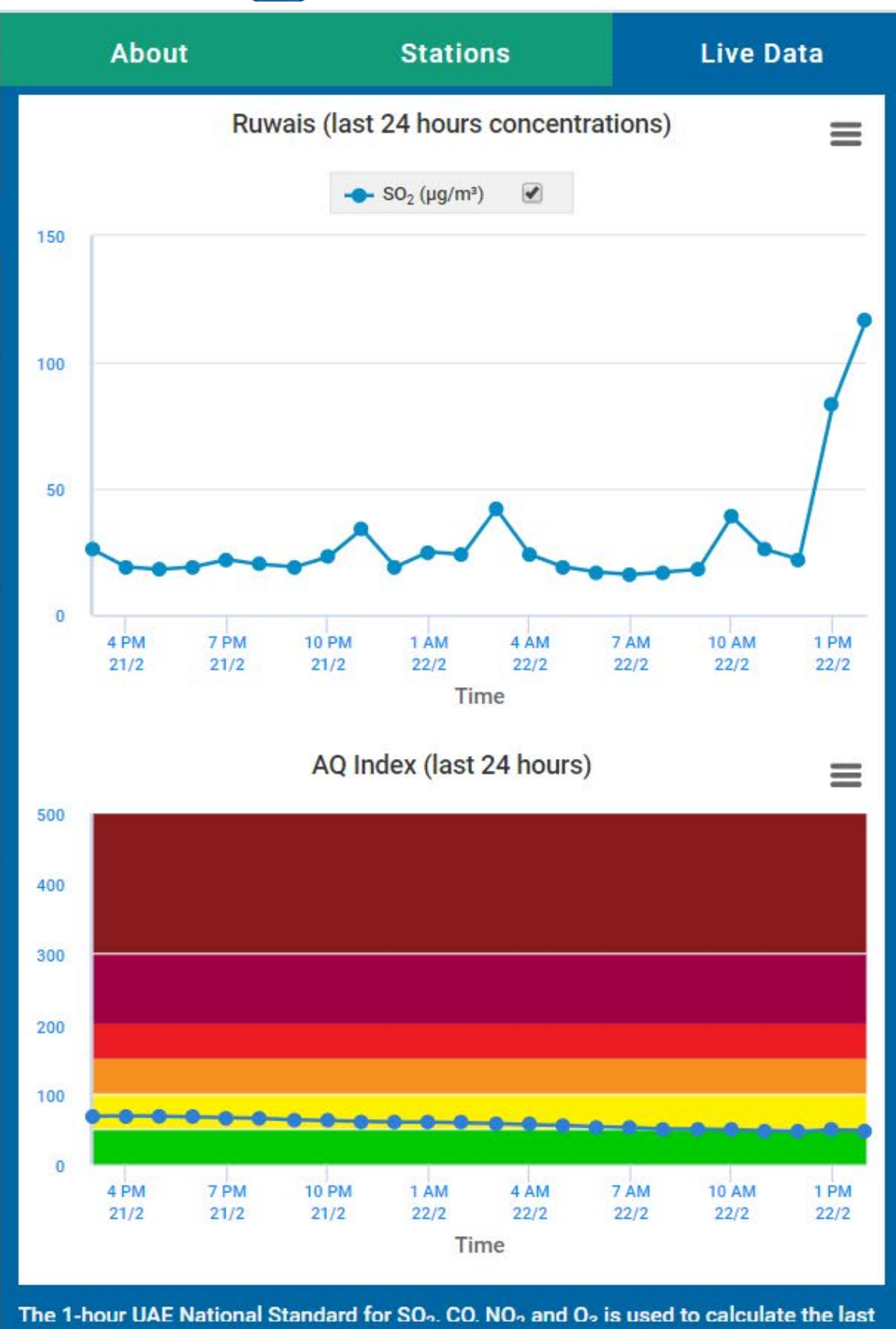
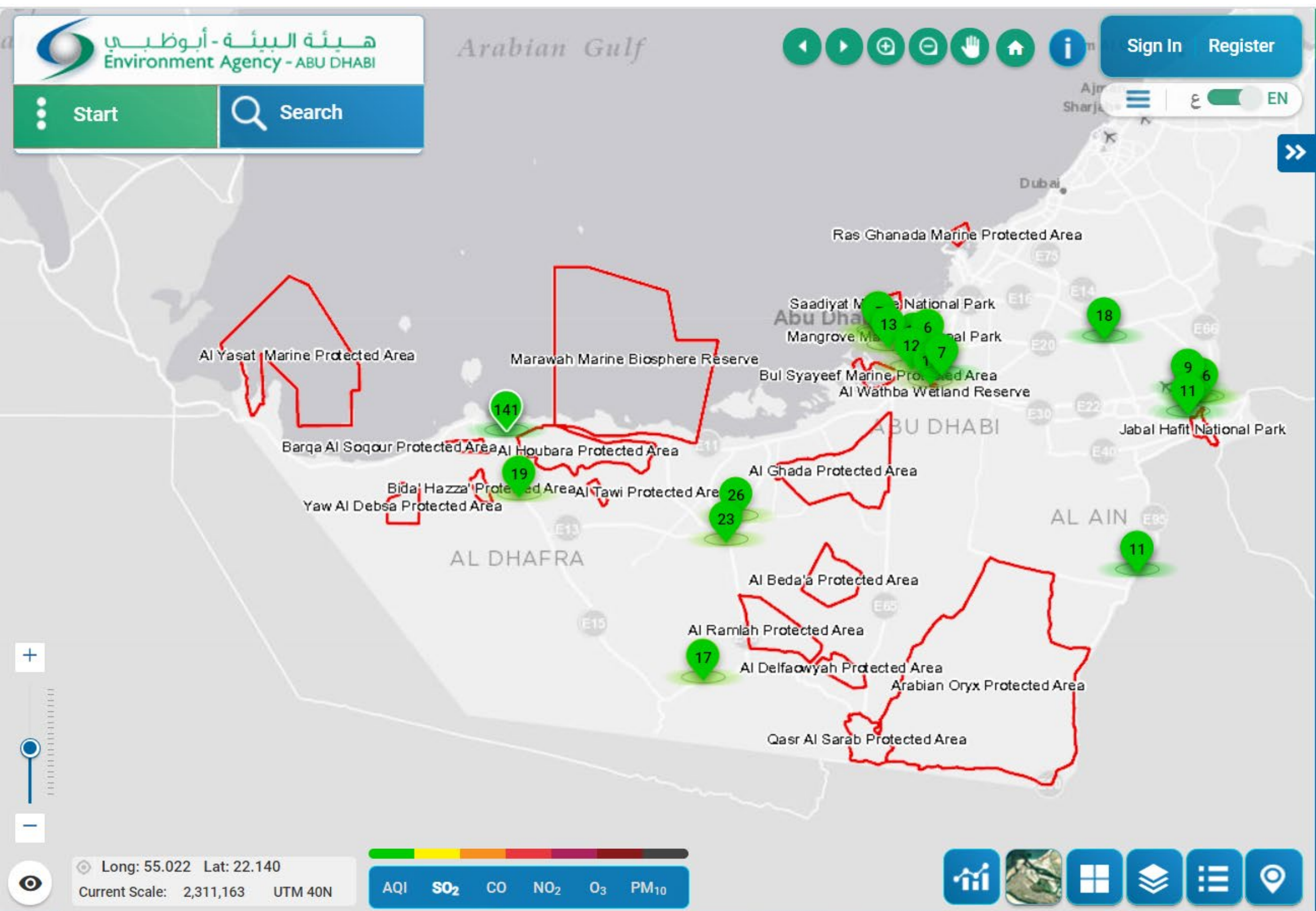
Ruwais



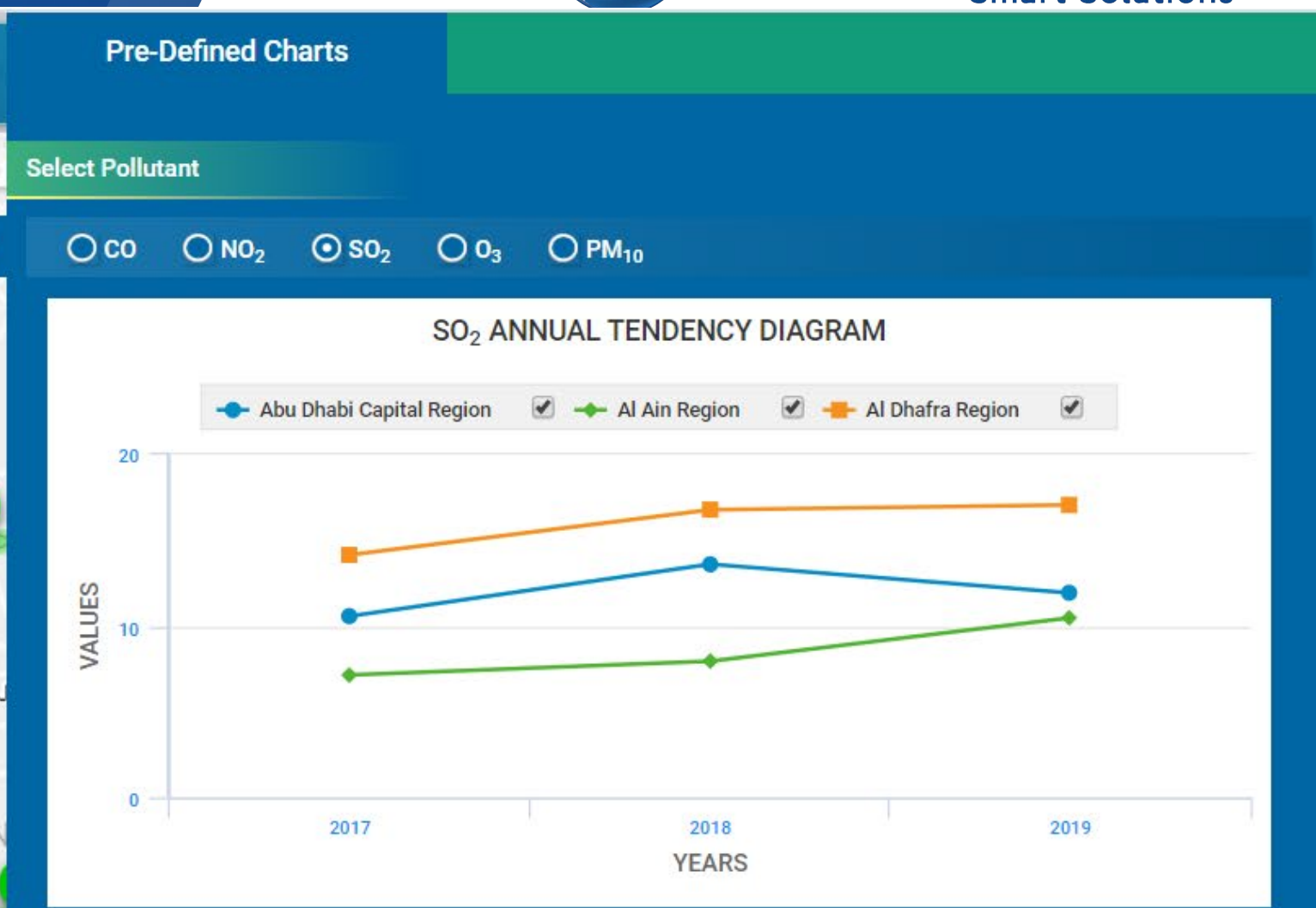
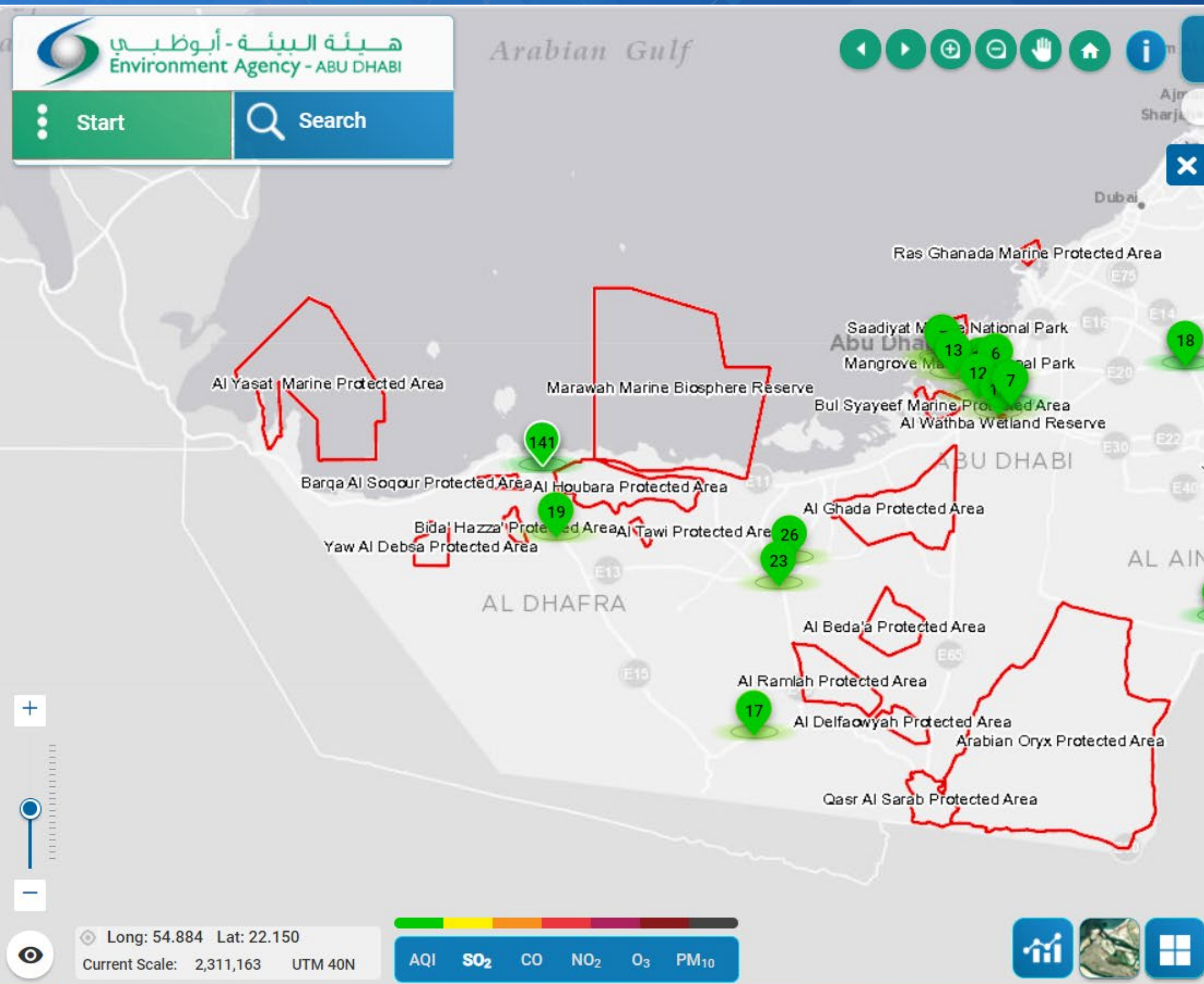
Regional Rural Background

Parameters measured - PM₁₀, PM_{2.5}, NO₂, O₃, SO₂, H₂S, CO, THC, MET, NOISE

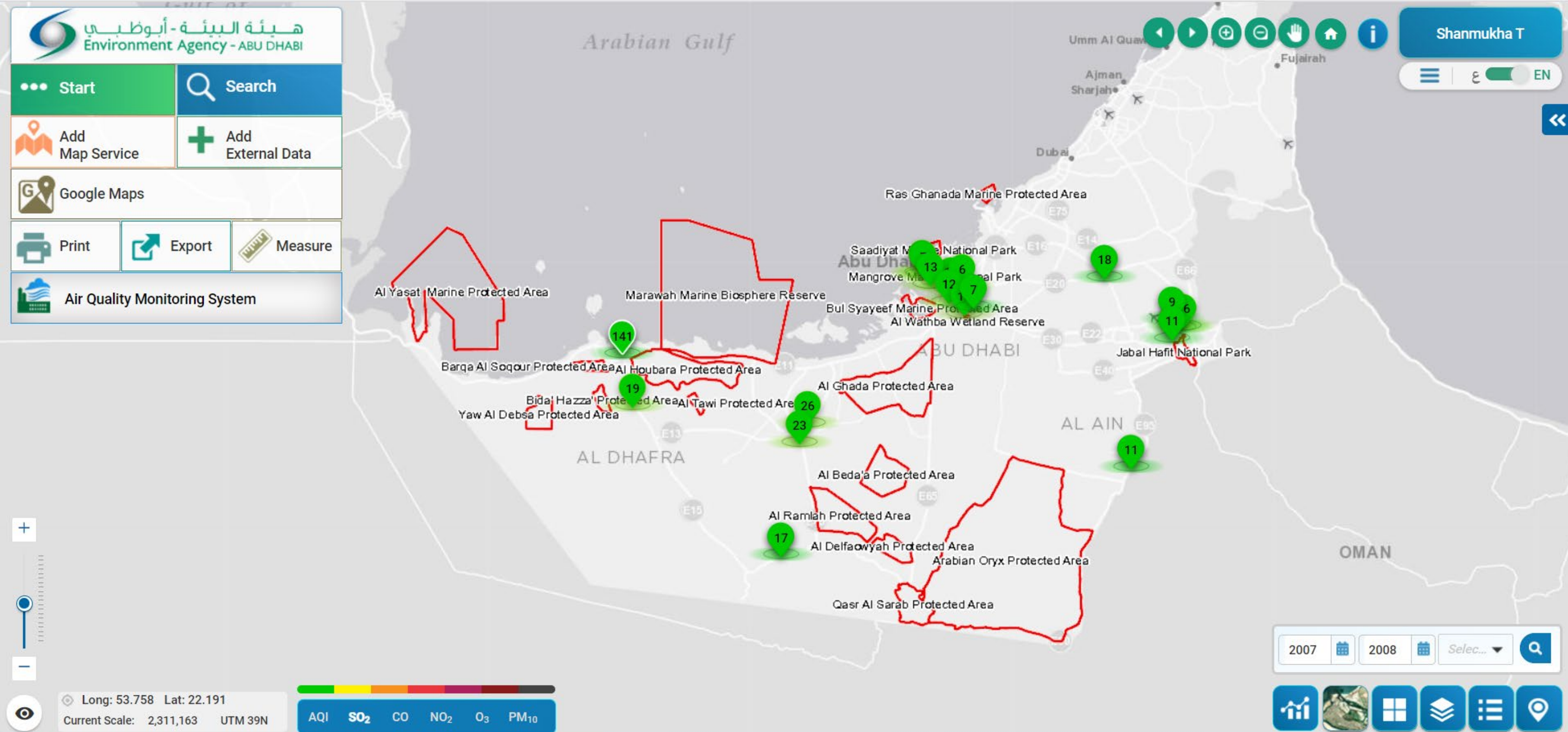




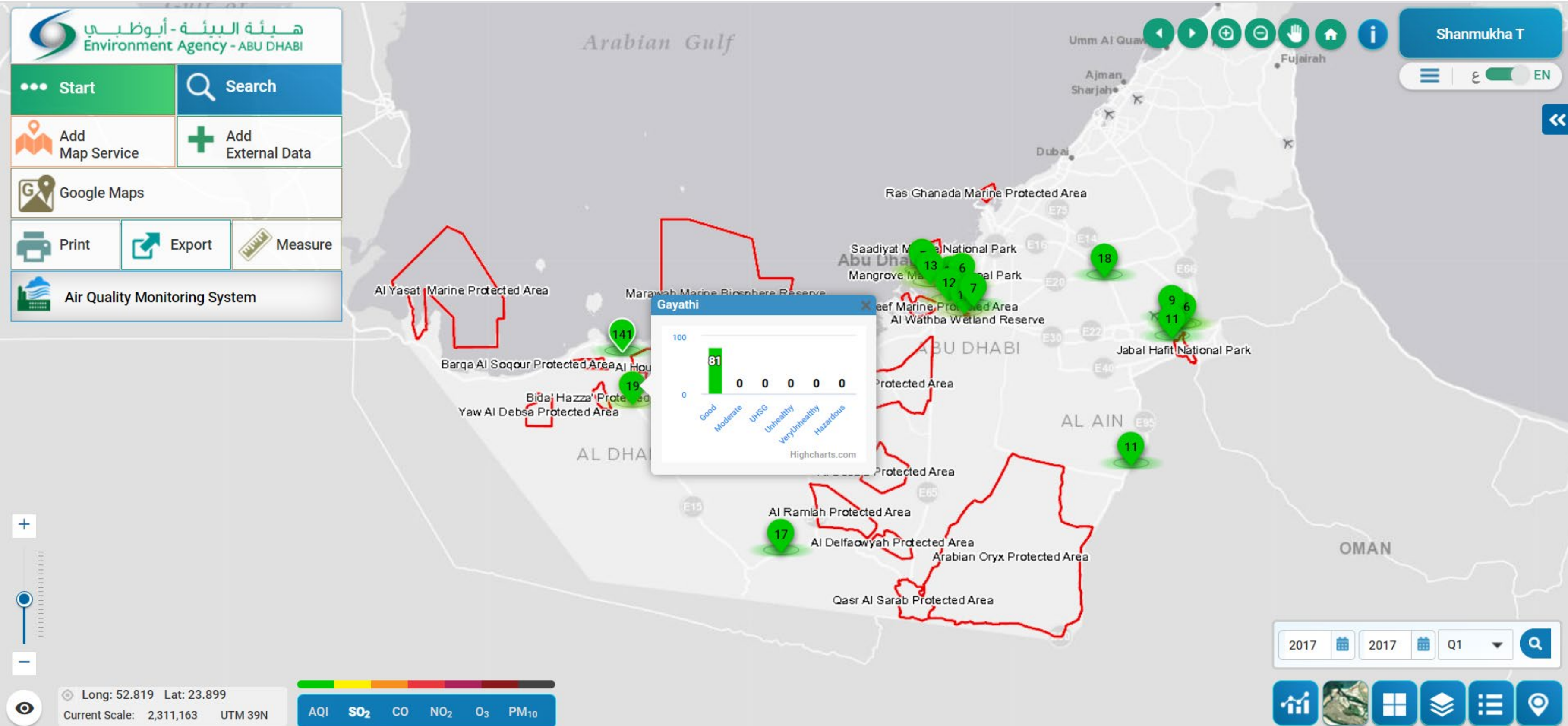
Analytics Section- Predefined Charts

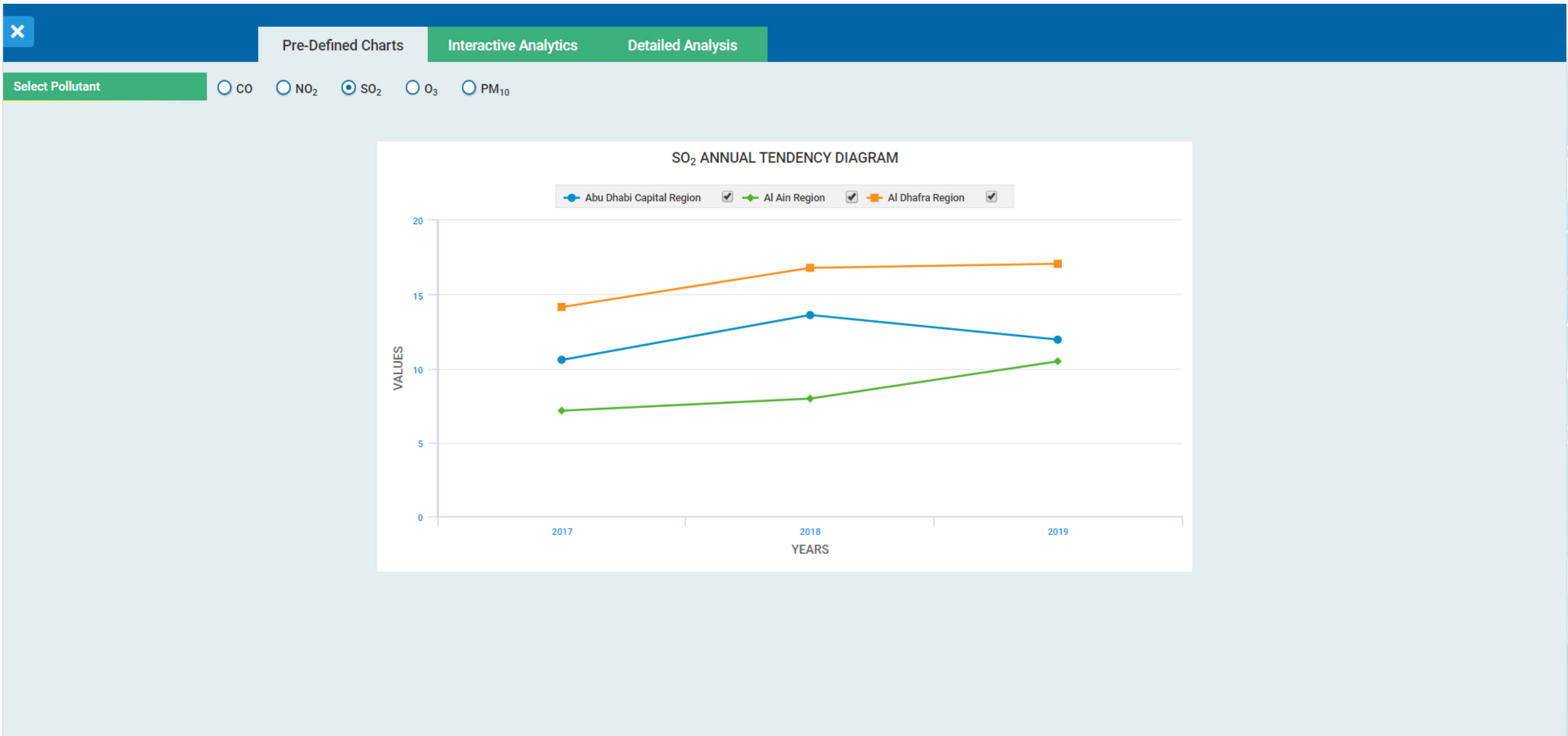


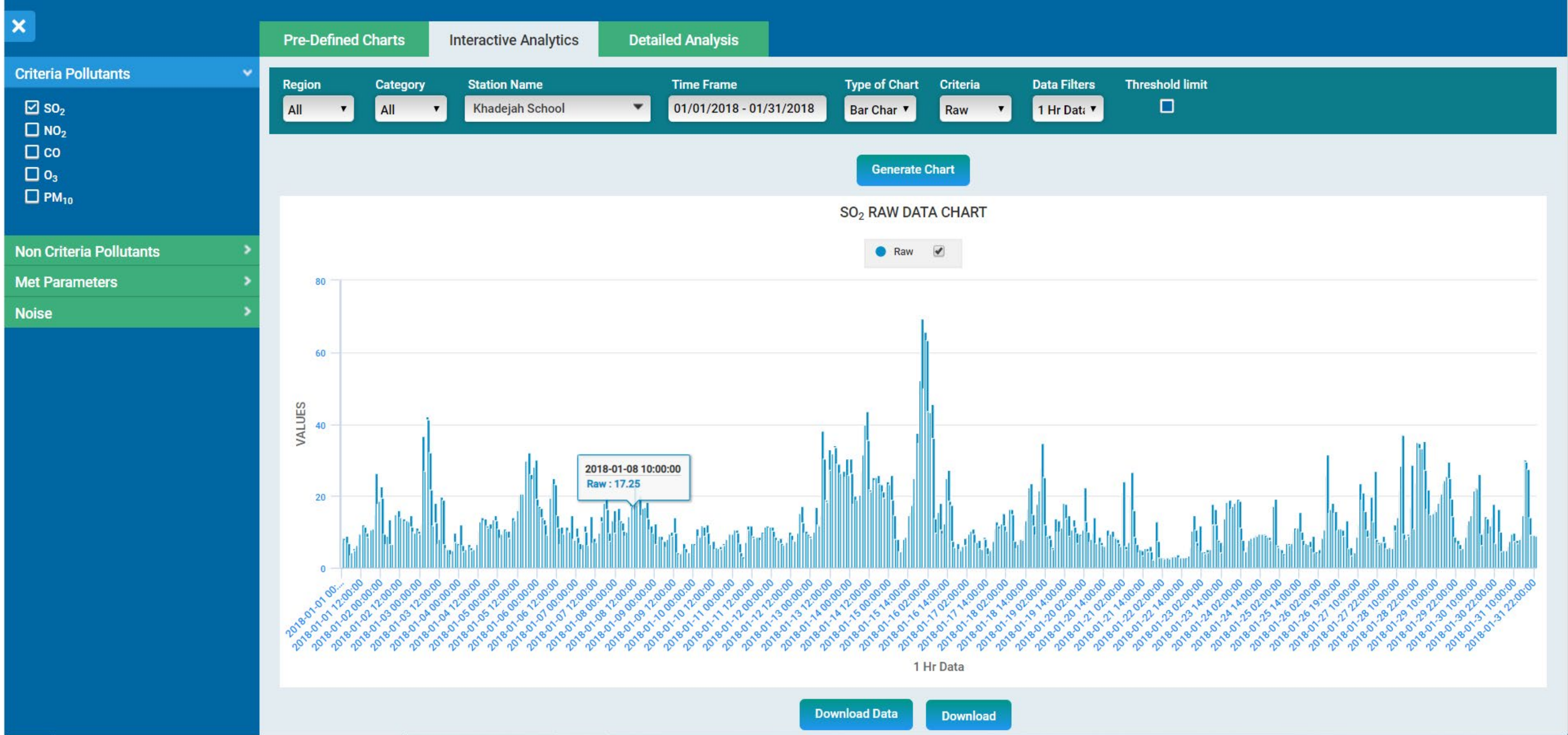
Quarterly/Yearly Compliance



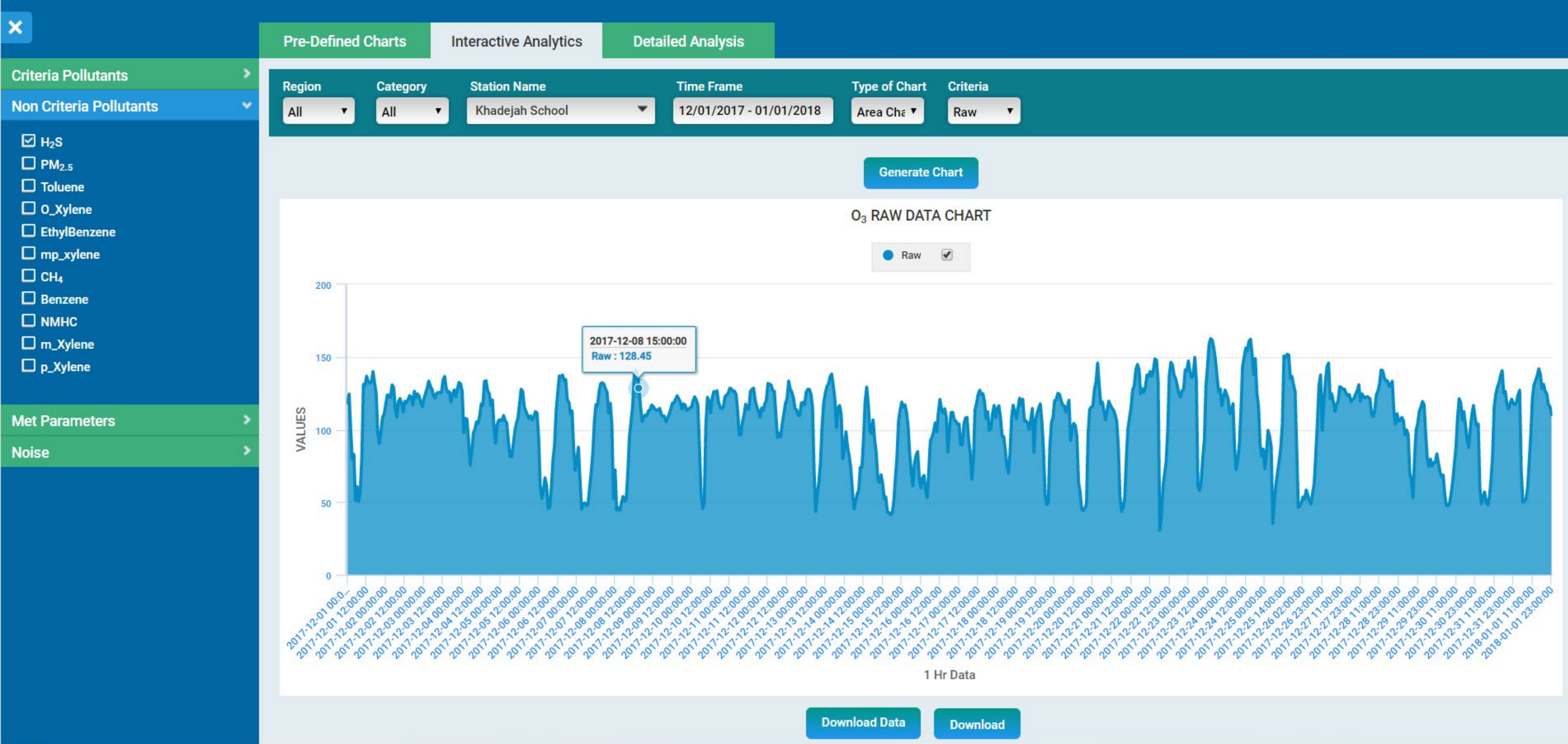
Quarterly/Yearly Compliance











X

Criteria Pollutants

Non Criteria Pollutants

Met Parameters

☐ Lower Ambient Temperature

☐ Upper Ambient Temperature

☐ Barometric Pressure

☐ Net Radiation

☐ Relative Humidity

☒ Wind Direction

☐ Wind Speed

☐ Precipitation

Noise

Pre-Defined Charts

Interactive Analytics

Detailed Analysis

Region

Category

Station Name

Time Frame

All

All

Khadejah School

12/01/2017 - 01/01/2018

Generate Chart

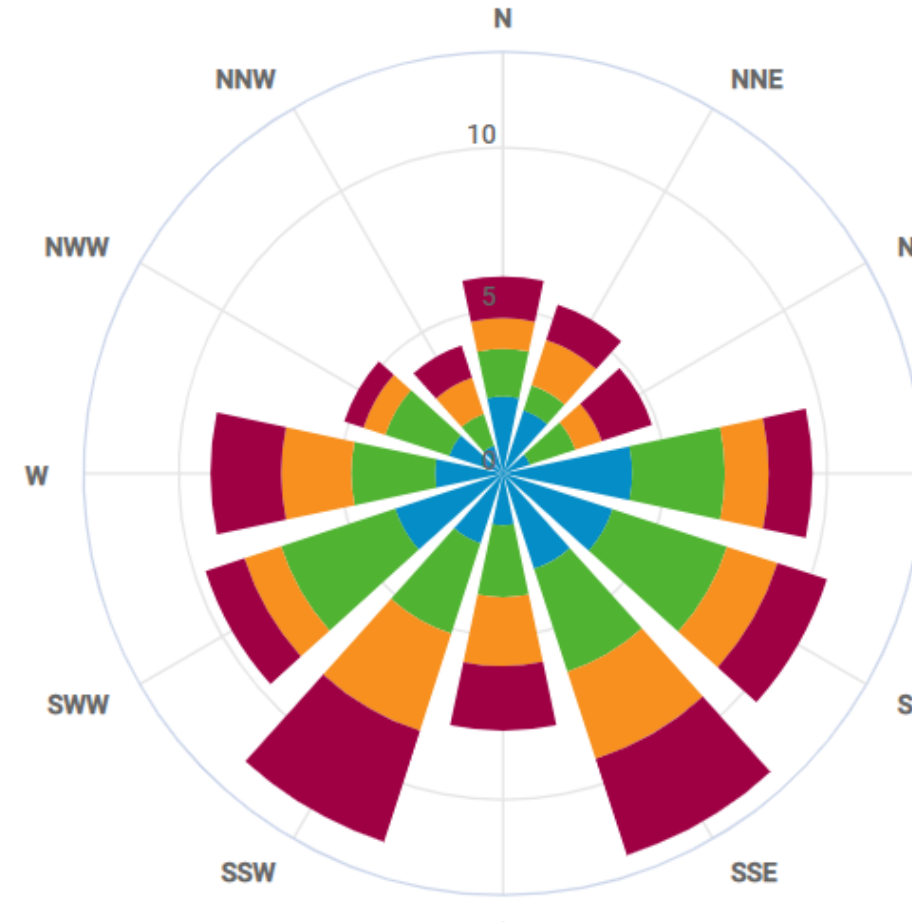
WIND DIRECTION AT KHADEJAH SCHOOL

0.0 < windspeed <= 2.0

2.1 < windspeed <= 4.0

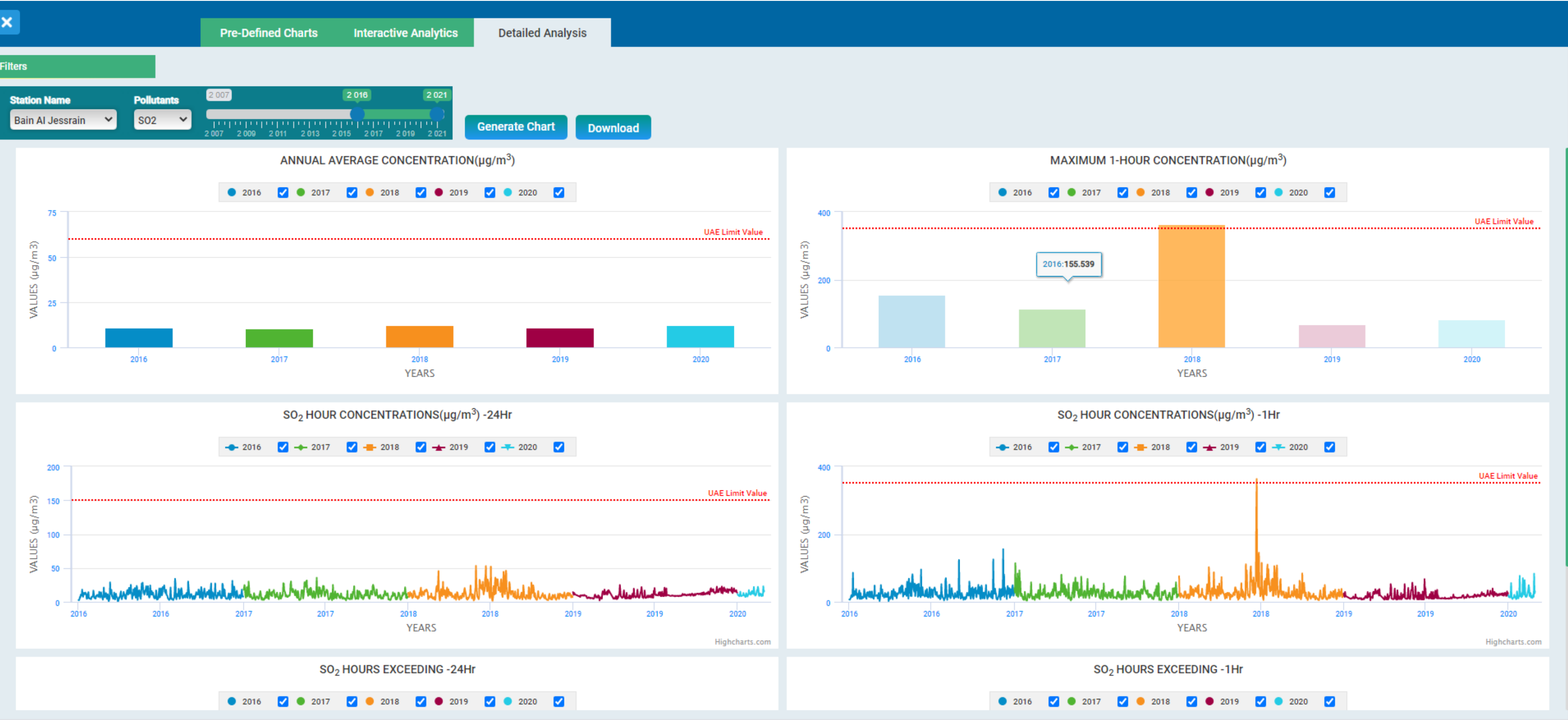
4.1 < windspeed <= 6.0

6.1 < windspeed <= 30



Download Data

Download





هيئة البيئة - أبوظبي
Environment Agency - ABU DHABI

Start

Search

Sign In Register

EN

 Data Request Form

Your Name:	
Your Email:	
Organization	
Contact Number	
Job Designation	
Data Type	Air Quality Data
Description:	

Cancel

Send

+

0 1 2 3 4 5 6 7 8 9 10

-

Long: 56.878 Lat: 25.456
Current Scale: 2,311,163 UTM 40N









EnviroPortal Admin

Welcome Sai Phaneendra

Users & Groups

Portal Configuration

1 # of pending users approval

0 # of pending feedbacks

17 # of maps

54 # of queries

Viewer Analytics

City Country Operating Systems Browser

Web browsers analysis

Recent Feedbacks

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EnviroPortal Admin

Welcome Sai Phaneendra

Manage Download Data Logs

Download Data Logs

User Name From Date To Date

Submit Clear

Show 10 entries

UserID	FirstName	LastName	JobTitle	Email	Organization	Criteria	Region	StationName	TimeFrame
50556	Praveena	Chilukuri				Mean	ALL	All stations	01/01/2018 to .
50556	Praveena	Chilukuri				Mean	ALL	All stations	01/01/2018 to .
50556	Praveena	Chilukuri				MeanTimeseries	ALL	Bain Al Jessrai...	01/01/2018 to .
50556	Praveena	Chilukuri				MeanTimeseries	ALL	All stations	01/01/2018 to .
50558	Sai	Phaneendra		phaneev@ispa...		Mean	ALL	Baniyas School	01/01/2018 to .
50558	Sai	Phaneendra		phaneev@ispa...		Mean	Al Dhafra Region		01/01/2018 to .
43	Anil	Kumar				Mean	ALL	All stations	01/01/2018 to .

- Geo Enablement of live Air Quality Analytics
- Smooth data flow from AQMS station to the data insights
- Modular / Scalable Design
- Responsive design / Latest UI trends / Reports
- Admin Module to handle the configuration and Application usage Reports
- Data sharing process
- Compliance with international Weather monitoring standards
- Dynamic reports and charts with multiple functions



Technologies Used:

- ESRI ArcGIS Server
- Java Script API
- ArcGIS Desktop
- HTML-5, Bootstrap Framework, jQuery
- Web App Builder
- ASP.NET, Reports

THANK YOU

LET'S JOIN
TOGETHER &
MOVE FORWARD
FOR **SUCCESS.**



iSpatial Techno Solutions
www.ispatialtec.com



USA UAE INDIA



+1 858 522 9799



Ispatialtec_uae



+971 501436068



connectus@ispatialtec.com

