

ZERO SMOG:

LESSONS LEARNED FROM THE NAVOTAS LANDFILL FIRE AND URBAN FIRES

**QUEZON CITY'S RESPONSE, RECOVERY,
AND FUTURE ENVIRONMENTAL RESILIENCE**



**QUEZON CITY DISASTER RISK REDUCTION
AND MANAGEMENT DEPARTMENT**

EMERGENCY RESPONSE TIMELINE



APRIL 10, 2026

Fire starts at Navotas Sanitary Landfill



APRIL 11, 2026

Smoke detected in nearby areas, reaches Quezon City



APRIL 11, 2026

AQI in Quezon City increases to Unhealthy for Sensitive Groups



APRIL 12, 2026

Quezon City monitoring intensified; **Inter-departmental coordination**



APRIL 12, 2026

Public health advisories issued



APRIL 13, 2026

Continuous AQI monitoring, updates, and public information



END OF INCIDENT
May 2026

Continuous AQI monitoring, updates, and public information

QUEZON CITY'S RESPONSE: WHO DID WHAT



CCESD

Climate Change & Environmental Sustainability Department

- Monitored and Analyzed Air Quality Data and trends
 - Regularly posted local Air Quality Index
 - Coordinated with City Depts and other agencies
-



QCDRRMO

Quezon City Disaster Risk Reduction and Management Office

- Incident coordination and monitoring
 - Situation reporting through Hazard Monitoring Section
 - Posting warnings and additional advisories
-



QCHD

Quezon City Health Department

- Issued health advisories
 - Monitored health facilities
 - Provided assistance on protection
-



PAISD

Public Affairs and Information Services Department

- Released public advisories through QC Main Page
 - Updated information via Media
 - Managed social media and alerts
-



BARANGAYS

- Dissemination of advisories
- Assisted vulnerable populations
- Reported community concerns

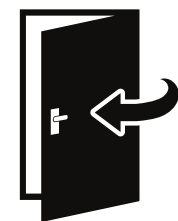
PUBLIC ADVISORIES ISSUED



Wear masks, especially outdoors



Limit outdoor activities



Keep windows and doors closed



Monitor AQI Updates



Seek medical help if symptoms develop



Protect children, elderly, and persons with respiratory conditions



Air Quality in Quezon City

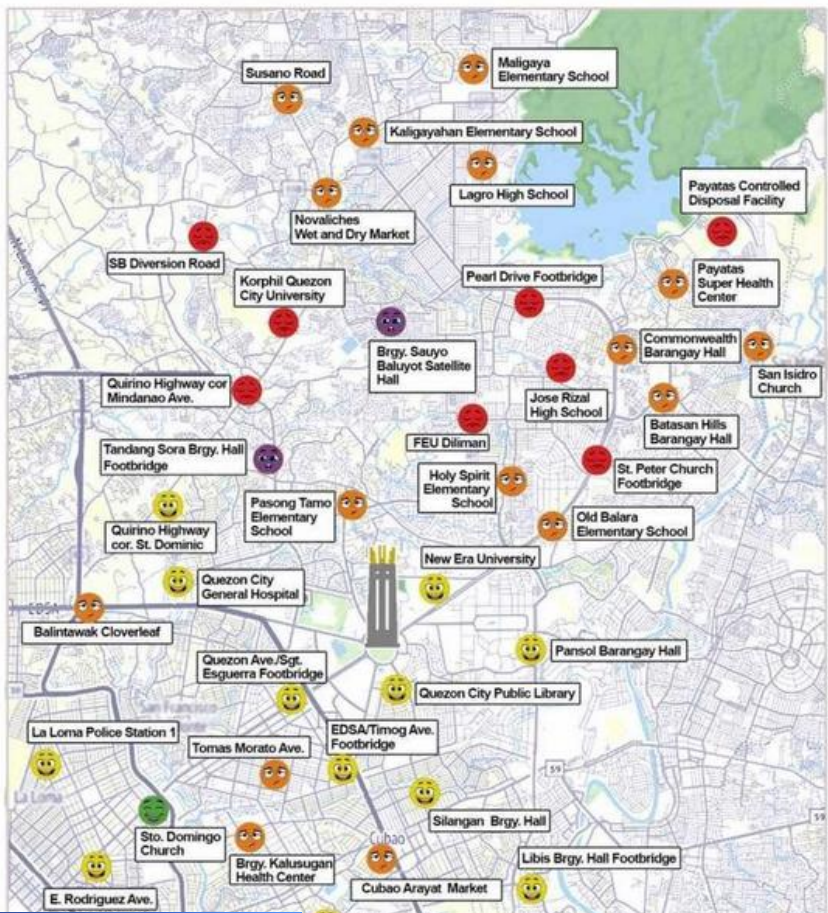
24 Hour PM_{2.5} AQI
08AM April 11 to 08AM April 12, 2026

Air Quality Index (AQI)

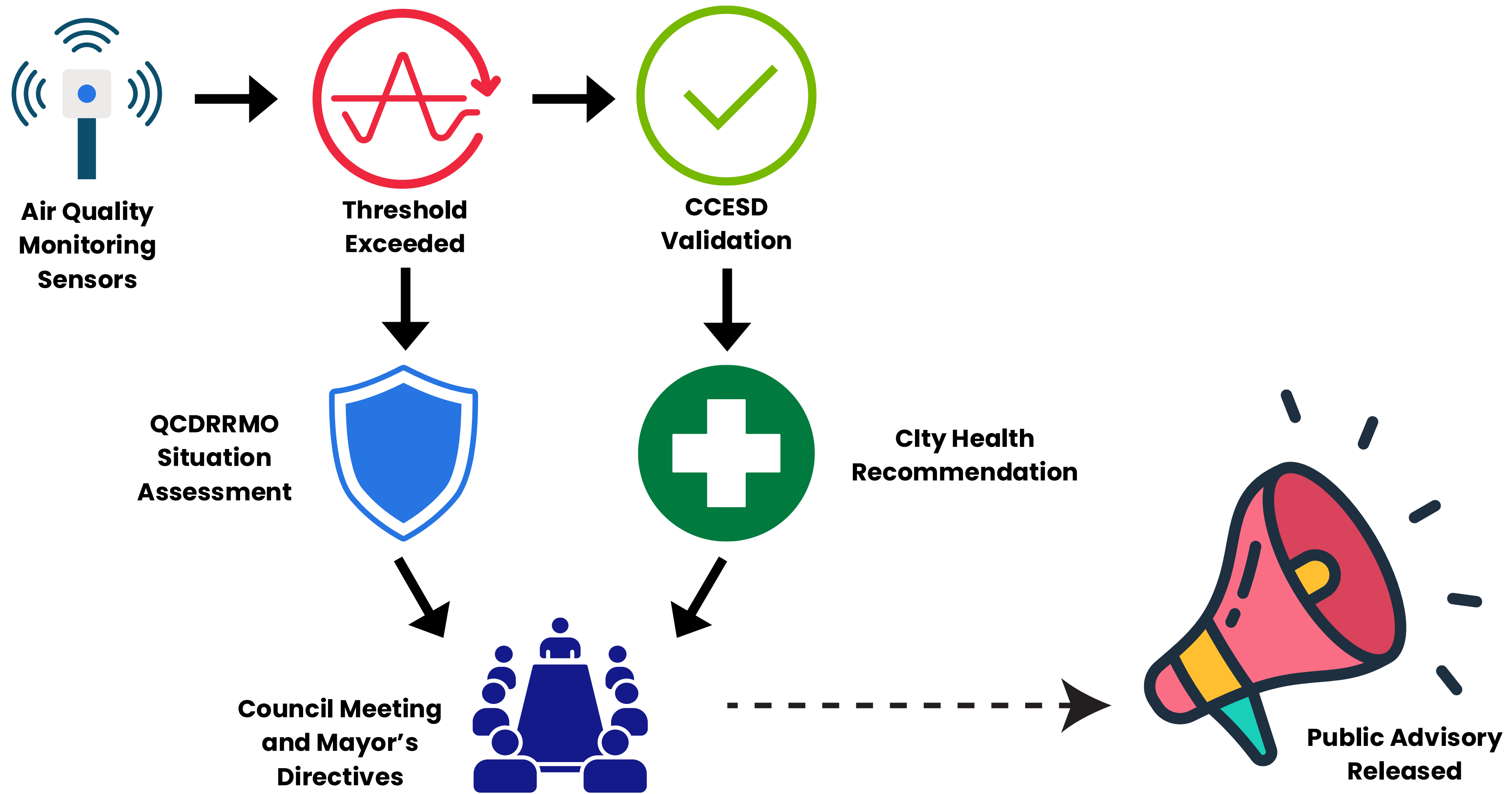
(Non-reference method for indicative measurement of ambient air quality)

Ang AQI ay ginagamit upang malaman ang air quality at mga paalala upang maiwasan ang masamang epekto na dulot nito sa kalusugan ng tao.

	Good (0 - 50)	- Walang babala.
	Fair (51 - 100)	- Walang babala.
	Unhealthy for Sensitive Groups (101 - 150)	- Iwasang lumabas kung mayroong respiratory disease tulad ng hika.
	Very Unhealthy (151 - 200)	- Iwasang lumabas ng bahay at limitahang gumamit ng sasakyan. - Iwasan ang lugar na may matinding traffic - Manatili at magpahinga sa bahay kung may heart/respiratory disease.
	Acutely Unhealthy (201 - 300)	- Iwasang lumabas ng bahay. Manatili at magpahinga kung may heart/respiratory disease. - Maaring limitahan ang paggamit ng sasakyan at bawasan ang mga gawiang pang industriya.
	Emergency (301 - 500)	- A - I - m - K - m



DECISION-MAKING AND ADVISORY PROCESS



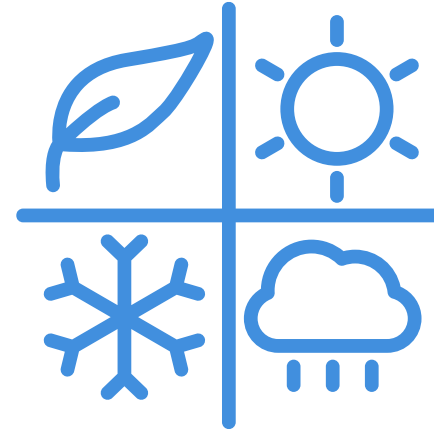
EXISTING CAPABILITIES IN QUEZON CITY



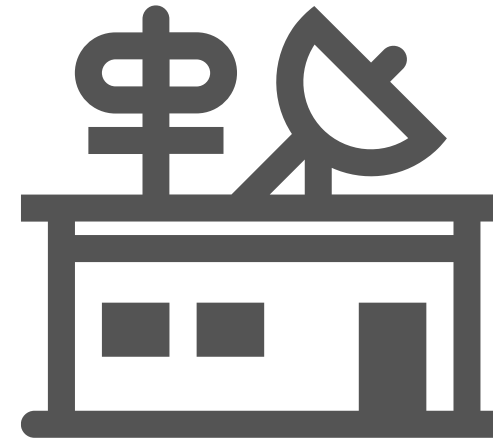
**Air Quality
Monitoring
Stations**



**GIS &
Hazard
Mapping**



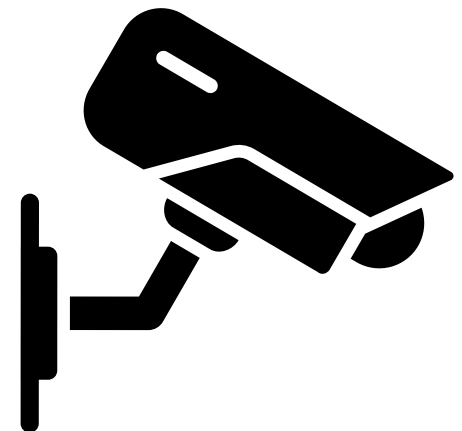
**Weather
Monitoring
System**



**Emergency
Operations
Center**



**Incident
Management
System**



**CCTV &
Traffic
Monitoring**

WHAT WE ALREADY HAVE

These systems helped QC detect, analyze, and respond to the Navotas Landfill Fire. We will continue to strengthen and integrate them further.

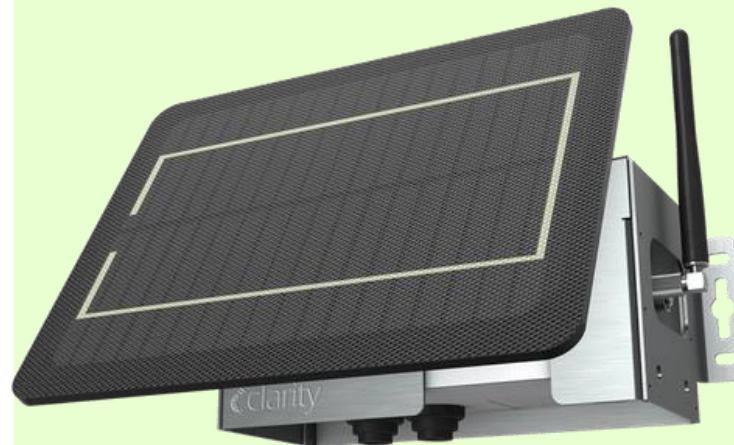
CHALLENGES IN QC'S MONITORING AND RESPONSE

-  Limited control over natural factors (e.g., temperature inversions and wind shifts) that trap and transport toxic smoke.
-  Air quality monitoring limitations, as standard monitors primarily measure particulate matter and may not detect other toxic emissions.
-  Review of policy for protocols concerning pollution episodes not within the control of the QC Government.
-  Strengthen coordination and guidance of National Government to LGUs affected by transboundary pollution episodes.

FUTURE TECHNOLOGIES FOR A SMOG-RESILIENT QUEZON CITY

DETECTION

- More IoT Air Quality Sensors
- Low-cost PM Sensors
- Mobile AQI Sensors



PREDICTION

- AI Smoke forecasting
- Weather Modeling
- Satellite monitoring



RESPONSE

- Integrated dashboard
- Real-time alerts
- Decision support system



PUBLIC INFORMATION

- Mobile AQI App
- SMS / Push Alerts
- QR Dashboard in Public Areas



RECOMMENDATIONS

CONCERNED AGENCIES

SHORT-TERM (0-1 YEAR)

- Increase permanent AQI monitoring stations
- Strengthen real-time data sharing
- Enhance public advisories and alerts

National: DENR-EMB, DOH, PIA, NDRRMC
Local: QCDDRRMO, QCCESD, PAISD

MEDIUM-TERM (1-3 YEARS)

- Develop smoke forecasting system
- Expand digital sensor network
- Integrate health and environmental data

National: DENR-EMB, DOH, DOST, Research Institutions
Local: QCDDRRMO Hazard Monitoring, QCHD, QCCESD

LONG-TERM (3+ YEARS)

- Institutionalize regional coordination
- Improve waste and landfill management
- Invest in green and resilient infrastructure

National/Regional: MMDA, DENR, DOH, DILG, NDRRMC/OCD, NSWMC, DPWH, DHSUD, DEPDev

KEY TAKEAWAYS



Urban environmental hazards extend beyond city boundaries



Air quality emergencies require coordinated action among environmental, disaster, health, and local government offices



Real-time monitoring, effective communication, and preparedness can reduce public health impacts



Investing in technology and integrated planning is essential for building more resilient cities

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