



WORLDWIDE

Air Quality Report **2024**

This report analyzes global air quality trend in 2024 by highlighting the continents, countries and cities in the world with the highest AQI levels.



Table of Contents

About this report	03
Executive Summary	04
Data Presentation	05
2024 Country Ranking	06
2024 City Ranking	07
Continental AQI Analysis 2024	08
Asia	09
Bangladesh	10
Pakistan	11
Peshawar	12
India	13
New Delhi	15
China	16
Kashgar	18
Mongolia	19
South Korea	21
Turkey	23
Iran	25
UAE	27
Thailand	29
Laos	31
Indonesia	33
Africa	35
Uganda	36
Nigeria	38
South Africa	40
Europe	42
Serbia	43
Bosnia & Herzegovina	45
Russia	47
South America	49
Chile	50
Colombia	52
North America	54
Mexico	55
United States	57
Oceania	59
Disclaimer	60
What to do now?	61
What Can Individuals Do?	62



About this report



Worldwide Air Quality Report 2024

The World Air Quality Report 2024 by AQI aims to highlight the global air quality trends in 2024 to support the progress on environmental actions globally. Thus, the report focuses on the PM2.5 concentrations and AQI (Air Quality Index) across countries and cities. To offer a comprehensive air pollution view, both real-time and historical data from AQI.in have been collected and utilized.

The report analyzes the AQI and PM2.5 levels in the air across 5,750 cities in 140 countries and regions. The data for this report was collected from more than 15,432 air quality monitoring stations operated by governmental bodies, research institutions, universities, and other organizations.

Data Methodology

The data used in the following report was sourced from AQI.in, which monitors and collects real-time air quality. This report categorizes the data by countries, regions and cities and also includes city-wise and country-wise rankings. The Asia region has more extensive data coverage because of a higher number of air quality monitoring stations in the area.

Data Metrics

The report utilizes AQI and PM2.5 metrics to understand the air pollution risk globally.

- AQI: Calculated based on the U.S. standardized measurement system.
- PM2.5 Data: Reported in $\mu\text{g}/\text{m}^3$ (micrograms per cubic meter), adhering to the latest World Health Organization (WHO) guidelines for PM2.5 levels.
- Cigarette data is based on PM2.5 levels using Berkeley's rule:
 $1 \text{ cigarette} = 22 \mu\text{g}/\text{m}^3$

Executive Summary

The World Air Quality Report 2024 by AQI.IN offers a detailed analysis of global air quality trends. The ranking in this report is derived from **AQI (US standard)** and **PM2.5 levels**. It represents the air quality trends for the year 2024 with countries' values calculated based on the data collected from cities and locations within each country.

This report analyzes AQI and PM2.5 levels across **5,750 cities** in 140 countries with data from over 15,432 air quality monitoring stations operated by governmental agencies, research institutions, and other organizations. The rankings highlight the countries and cities exceeding the safe limit of AQI levels. As per the report, Bangladesh, Pakistan, and India emerged as the top three nations with the highest air quality levels in 2024. Here is the summary of the key findings of the report:

Key Findings

Continental Overview:

Asia recorded the highest AQI levels in the world, with **68%** of cities recorded AQI levels above the “Good” category in 2024. Out of 39 top countries, 31 countries recorded high AQI levels. South and Central Asian countries recorded high air quality levels in the world. Oceania ranked as the least polluted continent globally as a total of 156 cities means 100% recorded “Good” AQI levels.

Countries with the highest AQI levels:

Bangladesh, Pakistan and **India** rank among the countries with the highest AQI levels globally. Bangladesh recorded no good month for air quality throughout the year. Similarly, Pakistan also recorded no good month of air quality in 2024 and the annual average remained in the “Poor” category. Only 10 cities in India achieved the ‘Good’ AQI annual average.

Cities with the highest AQI levels:

The top 10 cities in the world with the highest AQI levels are all in India. **New Delhi** secured the top rank. Then **Dhaka** of Bangladesh and **Peshawar** of Pakistan ranked simultaneously after Indian cities. Out of the top 100 cities with the highest AQI levels in the World, 92 are in India. Highlighting the air pollution conditions in the country. China ranks the second Country in the number of cities with high AQI levels.

WHO Compliance:

Only 11.7% of cities around the world met the **WHO annual guidelines for PM2.5**. The lowest 0% and 2.3% Cities in Africa and Asia respectively met the WHO annual guidelines for PM2.5. Asia leads in air pollution in 2024, with 97.7% (2250 out of 2,309) of its cities exceeding the WHO guideline for PM2.5 ($5\mu\text{g}/\text{m}^3$). Only 2.3% in Asia met the WHO annual guideline for PM2.5. Oceania recorded the cleanest air among other continents as 54.5% of cities met the WHO annual guidelines of PM2.5.

Data Presentation



The AQI.in report uses the AQI US (United States Air Quality Index) framework. Alongside, this also includes the WHO (World Health Organization) annual PM2.5 guidelines levels for illustration. Through this, the data can be simplified into a clear and consistent representation of the air quality levels of each area to understand the potential health impacts.

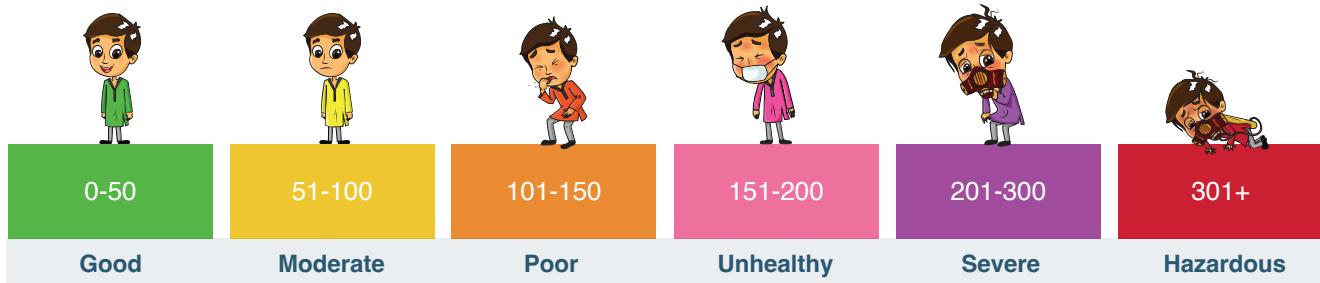
To enhance the data visualization, here is a Six-color coding system used to make the report. This system distinguishes the areas with different air pollution levels and highlights the concerning areas. Each colour here shows the difference between a specific range and its impacts on residents.

PM2.5 data is used to identify cities meeting the (World Health Organization) **WHO's recommended guidelines for PM2.5 exposure limit of $5\mu\text{g}/\text{m}^3$ (annual average)**. This data highlights the air pollution impact on cities and countries by equating PM2.5 levels with smoking cigarettes for better relatability.

AQI data is utilized in the report to underline the effects of air pollution in each country and city. This data emphasizes year-to-year changes and provides a better view of air pollution trends over the past five years.

Cigarette data is based on PM2.5 levels using Berkeley's rule:
1 cigarette = $22 \mu\text{g}/\text{m}^3$

AQI-US



World Air Quality Country Ranking 2024

The world air quality country ranking calculated with the annual average AQI of cities across each country.

Countries	AQI	Countries	AQI	Countries	AQI
1. Bangladesh	140	48. Saudi Arabia	58	95. Lithuania	38
2. Pakistan	115	49. Gambia	57	96. Curacao	37
3. India	111	50. Israel	57	97. Japan	37
4. Bahrain	103	51. South Korea	57	98. Russia	37
5. Nepal	100	52. Sudan	57	99. Belarus	36
6. Egypt	92	53. Colombia	56	100. Costa Rica	36
7. United Arab Emirates	90	54. Kenya	55	101. French Guiana	36
8. Kuwait	89	55. Liberia	55	102. Monaco	36
9. Tajikistan	89	56. Algeria	54	103. Spain	36
10. Kyrgyzstan	87	57. Georgia	54	104. Bulgaria	35
11. Rwanda	87	58. Chile	53	105. Germany	35
12. Cameroon	86	59. Taiwan	53	106. Argentina	34
13. China	86	60. Zambia	53	107. Bolivia	34
14. Laos	84	61. Ecuador	52	108. France	34
15. Uzbekistan	82	62. Chad	51	109. Luxembourg	34
16. Congo Kinshasa	80	63. El Salvador	51	110. Netherlands	34
17. Nigeria	80	64. Cyprus	50	111. Belgium	33
18. Uganda	80	65. Mali	50	112. Moldova	33
19. Mongolia	79	66. South Africa	50	113. Portugal	33
20. Burma	75	67. Venezuela	50	114. Andorra	32
21. Ethiopia	75	68. Cambodia	49	115. Gibraltar	32
22. Armenia	74	69. Czechia	49	116. United States	32
23. Iran	74	70. Kosovo	48	117. Austria	31
24. Iraq	74	71. Slovakia	48	118. Guadeloupe	31
25. Turkmenistan	72	72. Slovenia	48	119. United Kingdom	31
26. Bosnia and Herzegovina	70	73. Guinea	47	120. Reunion	30
27. Gabon	70	74. Malta	47	121. Grenada	29
28. Kazakhstan	70	75. Singapore	47	122. Ireland	29
29. Thailand	70	76. Botswana	46	123. Jersey	29
30. North Korea	69	77. Cabo Verde	46	124. New Zealand	28
31. Sri Lanka	67	78. Poland	46	125. Norway	28
32. Cote Divoire	65	79. Brazil	44	126. Canada	27
33. Lebanon	63	80. Greece	44	127. Estonia	27
34. Senegal	63	81. Hungary	44	128. Puerto Rico	27
35. Azerbaijan	62	82. Burkina Faso	43	129. Denmark	26
36. Benin	62	83. Romania	43	130. Latvia	26
37. Ghana	62	84. Trinidad And Tobago	43	131. Switzerland	26
38. Madagascar	62	85. Croatia	42	132. Liechtenstein	25
39. Macedonia	60	86. Philippines	42	133. Sweden	25
40. Peru	60	87. Angola	41	134. Malaysia	24
41. Turkey	60	88. Ukraine	41	135. New Caledonia	22
42. Vietnam	60	89. Albania	40	136. Australia	21
43. Mexico	59	90. Italy	40	137. Finland	21
44. Montenegro	59	91. Jordan	40	138. Iceland	21
45. Serbia	59	92. Namibia	40	139. Brunei	17
46. Guatemala	58	93. San Marino	40	140. Greenland	09
47. Indonesia	58	94. Togo	40		

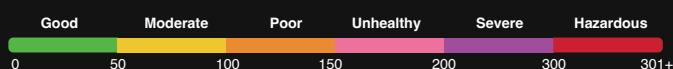
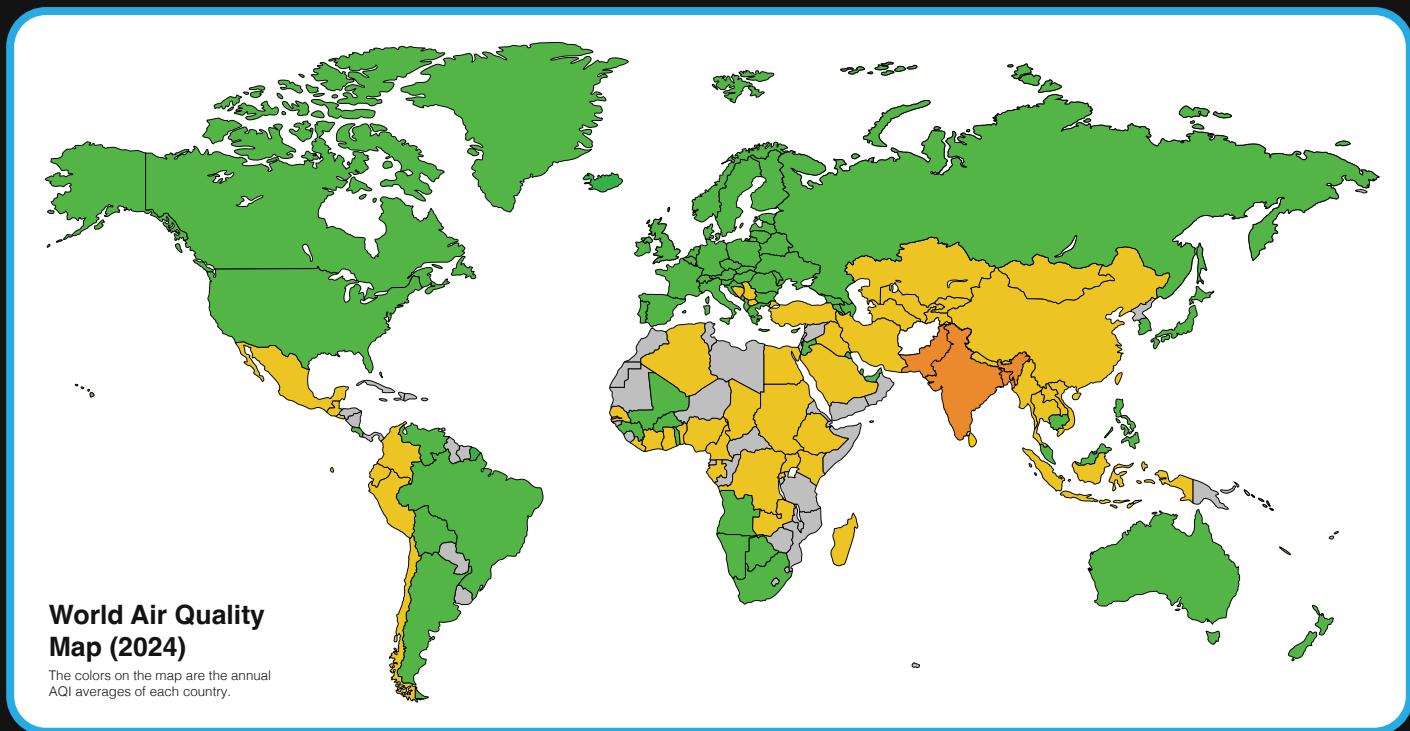
World Air Quality City Ranking 2024

The world air quality city ranking calculated with the annual average AQI of each monitoring station within the city.

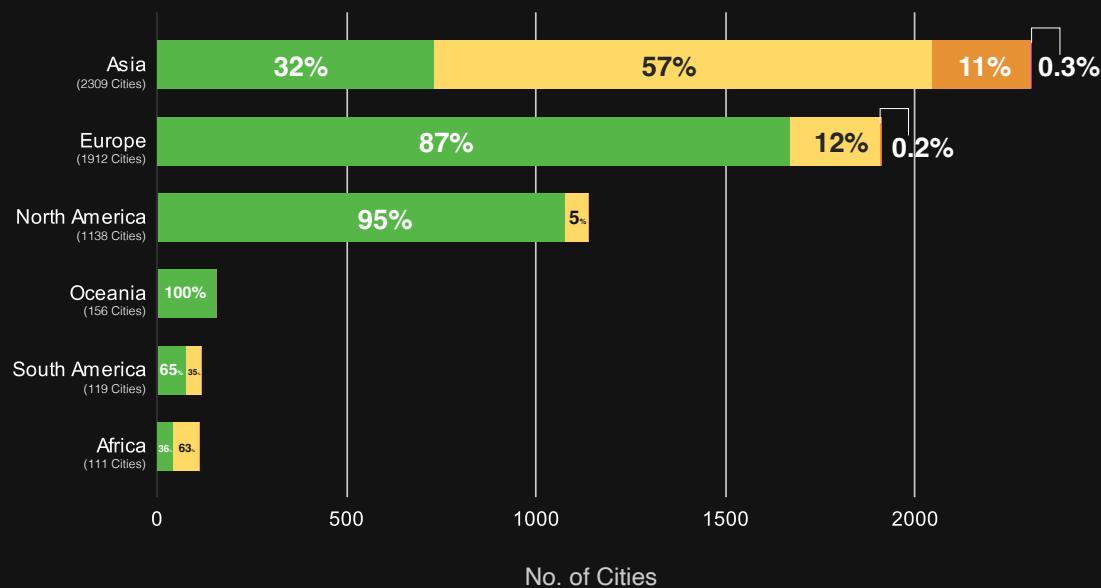
Cities	AQI	Cities	AQI	Cities	AQI	Cities	AQI
1. New Delhi, India	169	38. Kashgar, China	126	75. Bansberia, India	120	112. Haldia, India	115
2. Greater Noida, India	166	39. Lahore, Pakistan	126	76. Dholka, India	120	113. Hebi, China	115
3. Noida, India	161	40. Ludhiana, India	126	77. Jaipur, India	120	114. Ramgundam, India	115
4. Ghaziabad, India	159	41. Barddhaman, India	125	78. Jaynagar Majilpur, India	120	115. Xinxiang, China	115
5. Faridabad, India	154	42. Howrah, India	125	79. Kota, India	120	116. Fyzabad, India	114
6. Gurgaon, India	154	43. Mauli, India	125	80. Krishnanagar, India	120	117. Islamabad, Pakistan	114
7. Bhiwadi, India	153	44. Patiala, India	125	81. Medinipur, India	120	118. Khem Karan, India	114
8. Patna, India	145	45. Chandigarh, India	124	82. Sirsa, India	120	119. Malaut, India	114
9. Sonipat, India	145	46. Gorakhpur, India	124	83. Ahmedabad, India	119	120. Mancherial, India	114
10. Muzaffarnagar, India	144	47. Bali, India	123	84. Churu, India	119	121. Mandamari, India	114
11. Rohtak, India	144	48. Faizabad, India	123	85. Khambhat, India	119	122. Nandod, India	114
12. Bhiwani, India	143	49. Kamarhati, India	123	86. Rajgir, India	119	123. Sambhal, India	114
13. Dhaka, Bangladesh	140	50. Khardah, India	123	87. Ambala, India	118	124. Sikar, India	114
14. Kairana, India	139	51. Panihati, India	123	88. Bangaon, India	118	125. Jaisalmer, India	113
15. Saharsa, India	139	52. Rampur, India	123	89. English Bazar, India	118	126. Khed, India	113
16. Bulandshahr, India	136	53. Rishra, India	123	90. Fatehpur, India	118	127. Luohe, China	113
17. Hapur, India	136	54. Shrirampur, India	123	91. Godhra, India	118	128. Moradabad, India	113
18. Peshawar, Pakistan	136	55. Titagarh, India	123	92. Kanpur, India	118	129. Pingdingshan, China	113
19. Bankura, India	135	56. Uluberiya, India	123	93. Kolkata, India	118	130. Barasat, India	112
20. Lucknow, India	135	57. Bhadreswar, India	122	94. Pali, India	118	131. Bhavnagar, India	112
21. Meerut, India	135	58. Chandannagar, India	122	95. Purnea, India	118	132. Birganj, Nepal	112
22. Panipat, India	135	59. Jalandhar, India	122	96. Tonk, India	118	133. Jiangjiafan, China	112
23. Durgapur, India	134	60. Sitapur, India	122	97. Alwar, India	117	134. Jiaozuo, China	112
24. Asansol, India	133	61. Bhatpara, India	121	98. Gaya, India	117	135. Sihor, India	112
25. Jamuria, India	133	62. Champdani, India	121	99. Aksu, China	116	136. Surat, India	112
26. Kulti, India	132	63. Habra, India	121	100. Basirhat, India	116	137. Adilabad, India	111
27. Muzaffarpur, India	131	64. Halisahar, India	121	101. Belampalli, India	116	138. Bhilwara, India	111
28. Saharanpur, India	131	65. Hugli, India	121	102. Bikaner, India	116	139. Cuttack, India	111
29. Begusarai, India	130	66. Kalyani, India	121	103. Dum Dum, India	116	140. Diu, India	111
30. Bhagalpur, India	130	67. Kanchrapara, India	121	104. Jodhpur, India	116	141. Gwalior, India	111
31. Hisar, India	130	68. Kharagpur, India	121	105. Luoyang, China	116	142. Navsari, India	111
32. Khurja, India	130	69. Kothapet, India	121	106. Rajmahal, India	116	143. Panauti, Nepal	111
33. Baharampur, India	129	70. Madhyamgram, India	121	107. Vadodara, India	116	144. Shuangqiao, China	111
34. Karnal, India	129	71. Mahadipur, India	121	108. Abohar, India	115	145. Xiangyang, China	111
35. Amritsar, India	127	72. Nabadwip, India	121	109. Bishkek, Kyrgyzstan	115	Check Ranking for more cities here :	
36. Tachov, Czechia	127	73. Naihati, India	121	110. Chinchwad, India	115	www.aqi.in/world-most-polluted-cities	
37. Agartala, India	126	74. Shantipur, India	121	111. Dengtal, China	115		

Continental AQI Analysis 2024

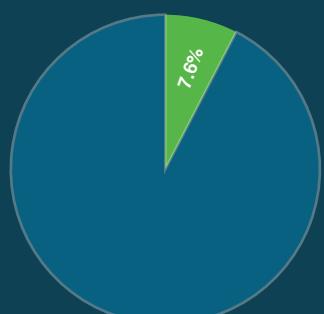
Global air quality is alarmingly poor, with only 7.6% of cities meeting WHO standards. This exposes billions to dangerous pollution levels, impacting health and well-being. Urgent action is needed to improve air quality worldwide. The 2024 Continental AQI Analysis highlights critical disparities and the need for targeted interventions.



CONTINENT AIR QUALITY vs NO. OF CITIES - 2024



Only 7.6% Cities in the world met WHO annual PM_{2.5} guideline of 5 $\mu\text{g}/\text{m}^3$



Asia

1st Ranked Continent for the Highest AQI by Countries.

In 2024, **Asia** ranked as the top continent for the highest AQI levels globally as with 31 countries facing Moderate to Poor air quality levels annually. Besides, out of 2309 Cities, only 2.3% of cities met the WHO Annual PM_{2.5} guidelines of 5µg/m³. Bangladesh recorded the highest AQI levels than other nations.



ASIAN COUNTRIES AQI RANKING

Countries	2024 Avg.	Countries	2024 Avg.	Countries	2024 Avg.
1. Bangladesh	140	14. Burma	75	27. Indonesia	58
2. Pakistan	115	15. Armenia	74	28. Saudi Arabia	58
3. India	111	16. Iran	74	29. Israel	57
4. Bahrain	103	17. Iraq	74	30. South Korea	57
5. Nepal	100	18. Turkmenistan	72	31. Taiwan	53
6. United Arab Emirates	90	19. Kazakhstan	70	32. Cyprus	50
7. Kuwait	89	20. Thailand	70	33. Cambodia	49
8. Tajikistan	89	21. North Korea	69	34. Singapore	47
9. Kyrgyzstan	87	22. Sri Lanka	67	35. Philippines	42
10. China	86	23. Lebanon	63	36. Jordan	40
11. Laos	84	24. Azerbaijan	62	37. Japan	37
12. Uzbekistan	82	25. Turkey	60	38. Malaysia	24
13. Mongolia	79	26. Vietnam	60	39. Brunei	17

ASIAN CITIES WITH THE HIGHEST AQI LEVELS

The top 10 cities in different regions of Asia recorded high air quality levels. Major cities with the highest air quality levels reported in South, Central, and East Asia as in India and China. Indian cities dominated the ranking as recording the highest AQI levels in 2024 among all Asian Countries.

South and Central Asia		East Asia		Western Asia (Middle East)		Southeast Asia	
1. New Delhi, India	169	1. Kashgar, China	126	1. Kahramanmaraş, Turkey	125	1. Thanh Xuan District, Vietnam	102
2. Greater Noida, India	166	2. Aksu, China	116	2. Et Tira, Israel	110	2. Sainyabuli, Laos	100
3. Noida, India	161	3. Luoyang, China	116	3. Manama, Bahrain	103	3. Dan Chu, Vietnam	94
4. Ghaziabad, India	159	4. Dengtalü, China	115	4. Abu Dhabi, UAE	101	4. Chiang Mai, Thailand	91
5. Faridabad, India	154	5. Hebi, China	115	5. Ahvaz, Iran	101	5. Mae Sai district, Thailand	91
6. Gurgaon, India	154	6. Xinxiang, China	115	6. Behbahan, Iran	99	6. Jakarta, Indonesia	90
7. Bhiwadi, India	153	7. Luohe, China	113	7. Qarchak, Iran	98	7. Luang Prabang, Laos	89
8. Patna, India	145	8. Pingdingshan, China	113	8. Baghdad, Iraq	96	8. Paksane District, Laos	89
9. Sonipat, India	145	9. Jiangjiafan, China	112	9. Khorramshahr, Iran	96	9. Amphoe Mueang Lampang, Thailand	88
10. Muzaffarnagar, India	144	10. Jiaozuo, China	112	10. Ramhormoz, Iran	96	10. Sing Buri, Thailand	87

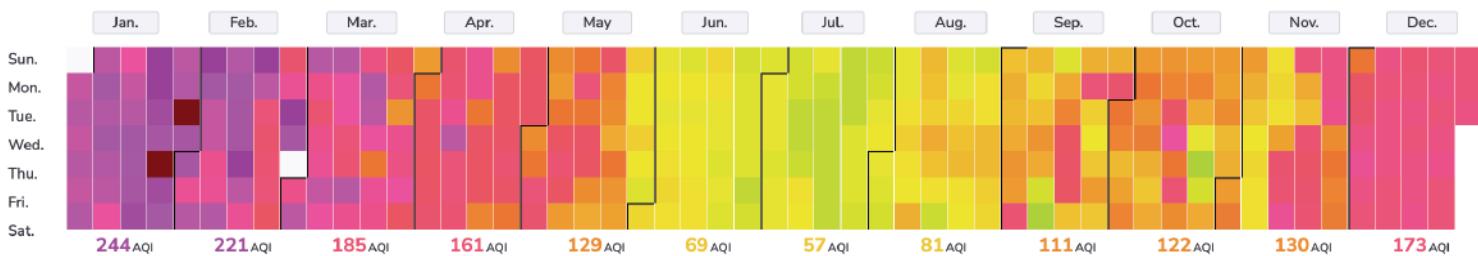
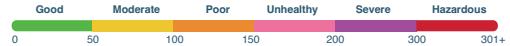
BANGLADESH

In 2024, **Bangladesh** ranked as the 1st country globally for the highest AQI levels. The major air pollution sources in Bangladesh are **vehicle emissions** and **brick kilns**. Many other factors affect the country's air quality levels such as industries, factories and households. As compared to 2023, AQI levels decreased in 2024 and were higher than in other Asian countries.



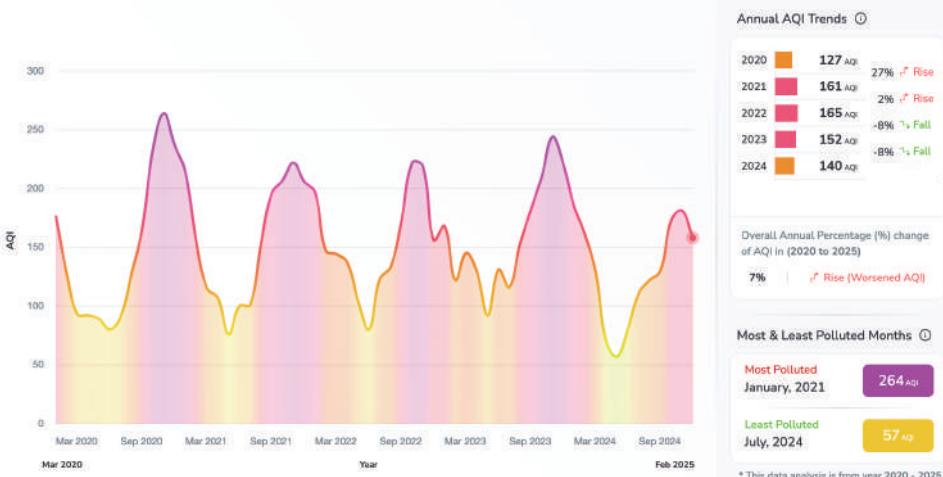
BANGLADESH - 2024 AQI TRENDS

Bangladesh's annual average air quality levels in 2024 ranged between Poor to Severe levels. From December to April, AQI recorded the highest levels, falling under the Unhealthy to Severe categories.

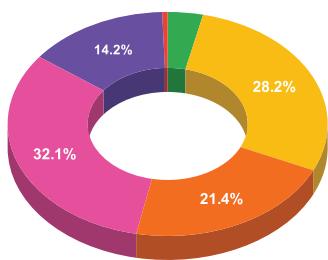


DHAKA : CAPITAL CITY

ANNUAL AIR QUALITY CHANGES



NO. OF DAYS OF 2024 BY AQI CATEGORY IN DHAKA



Good	13 Days
Moderate	103 Days
Poor	78 Days
Unhealthy	117 Days
Severe	52 Days
Hazardous	02 Days

In 2024, Dhaka experienced Good air quality levels Only for **13 days** out of **365**. The AQI levels for the rest of the year remained in high categories.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Dhaka's annual average PM_{2.5} concentration (75 µg/m³) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

1244 cigarettes.



PAKISTAN

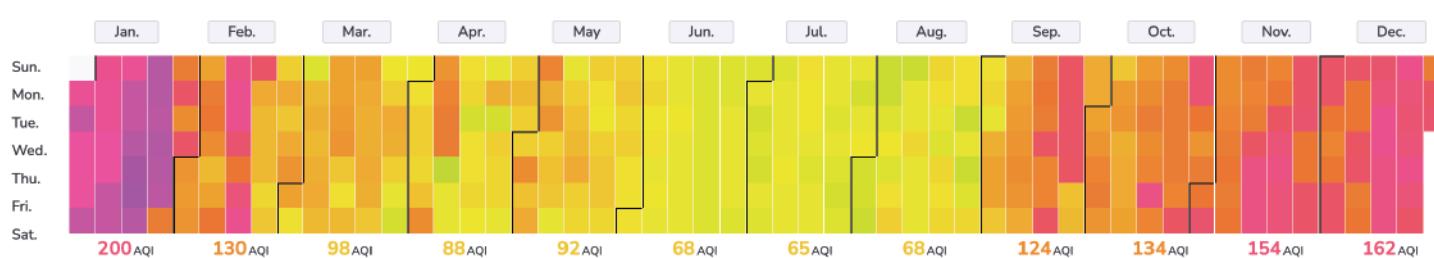
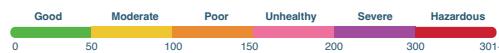
02nd
worldwide

In 2024, **Pakistan** ranked as the 3rd country for the highest AQI levels globally, following Bangladesh. The annual AQI level in Pakistan was recorded at 115 in the "Poor" category. This represented an 8.5% increase in AQI levels as compared to 2023. Peshawar, Lahore, Islamabad, and Karachi reported some of the highest AQI levels during the year. The major contributors to air pollution in Pakistan included crop burning, vehicular emissions, and industrial pollution.



PAKISTAN - 2024 AQI TRENDS

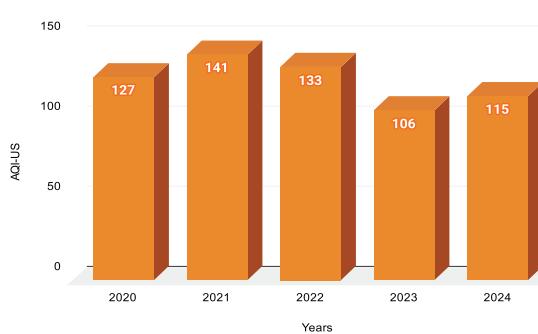
In 2024, Pakistan's annual average AQI remained between Moderate to Poor Air Quality. November to January recorded Unhealthy AQI levels, making it the second top country for high AQI levels in the world.



PAKISTAN'S CITIES WITH THE HIGH AQI LEVELS IN 2024

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Peshawar	136	296	159	131	106	112	91	64	86	136	148	137	166	142
2. Lahore	126	202	142	104	101	101	57	67	68	143	163	184	178	121
3. Islamabad	114	214	141	96	79	90	72	61	64	108	123	147	169	96
4. Shakargarh	108	117	-	42	29	89	72	66	73	83	155	168	146	43
5. Karachi	105	161	127	112	91	77	71	70	74	78	105	127	152	107
6. Murree	66	155	38	26	25	42	65	57	41	58	92	107	112	46

PAKISTAN'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



2021 was recorded as the most polluted year in the last 5 years in Pakistan. However, 2024 saw a significant rise in air pollution levels breaking the trend of the previous two years of moderate AQI.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, **Pakistan's** annual average *PM2.5 concentration (55 µg/m³)* was equivalent to each individual inhaling the air pollution over the year, similar to smoking

913 cigarettes.

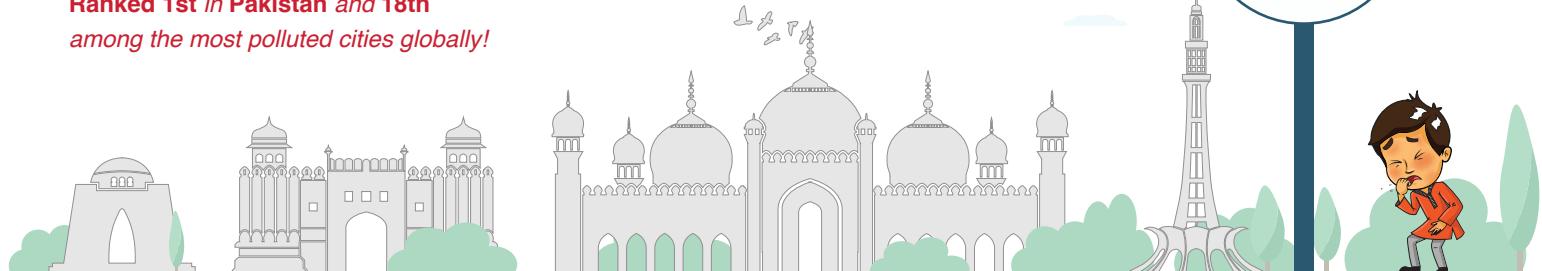
Source: Berkeley Earth



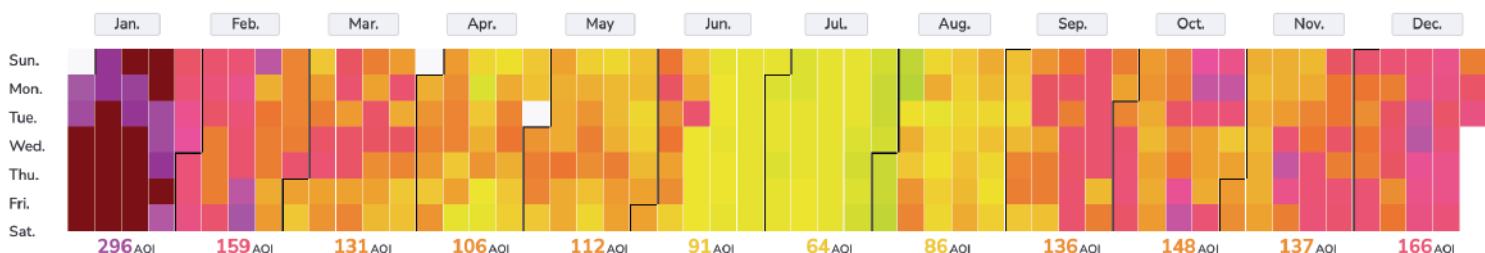
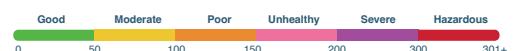
Peshawar

KHYBER PAKHTUNKHWA, PAKISTAN

Ranked 1st in Pakistan and 18th among the most polluted cities globally!



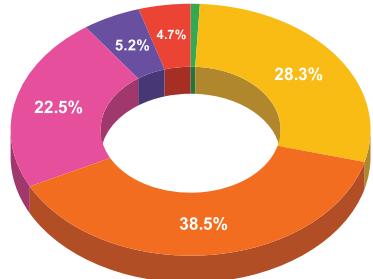
In 2024, Peshawar's air pollution remained critical, especially during winter months from November to February. Only June to August, AQI levels recorded in the Moderate category. Compared to 2023, Peshawar's AQI level falls by 4% highlighting a slight shift in air quality trends.



ANNUAL AIR QUALITY CHANGES



NO. OF DAYS OF 2024 BY AQI CATEGORY



Total number of days with different AQI categories in last 366 days in 2024.

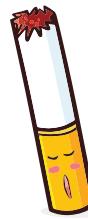
Good	3 Days	Moderate	103 Days
Poor	140 Days	Unhealthy	82 Days
Severe	19 Days	Hazardous	17 Days

Source: Berkeley Earth

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Peshawar's annual average **PM2.5 concentration** ($74 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

1228 cigarettes.



FACTORS AFFECTING AIR QUALITY IN THE PESHAWAR

The primary contributor of air pollution in Peshawar is PM2.5 pollution which peaks during winter due to the following sources.



Vehicular Emissions



Industrial Pollution



Stubble Burning



Construction Activities



Weather Conditions



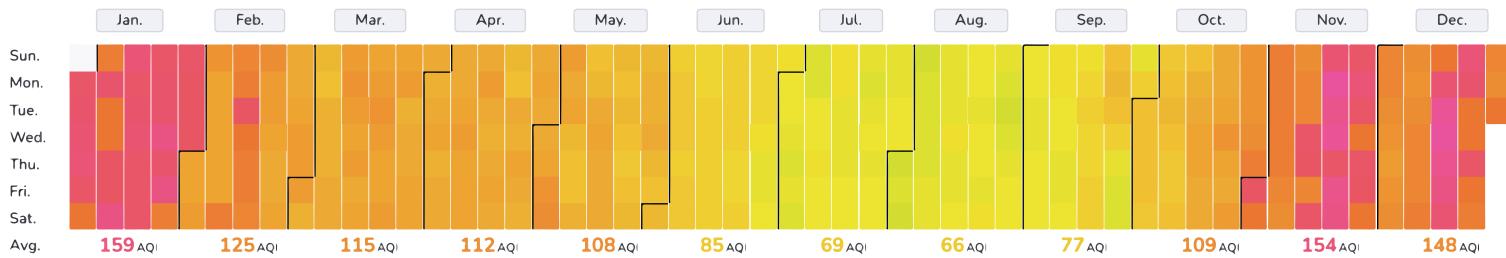
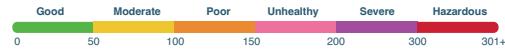
In 2024, **India** ranked the 3rd country globally for the highest AQI levels. The Annual AQI average recorded 111 in the “Poor” category. As compared to 2023 AQI levels, no change has recorded in 2024, and the air quality remained a concern throughout the year. Northern Indian cities experienced notable spikes in air pollution contributing to the presence of several Indian cities in the list of the top 100 most polluted cities globally.

Ranks
03rd
worldwide



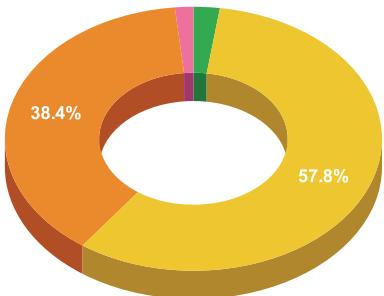
INDIA - 2024 AQI TRENDS

Throughout 2024, AQI levels in India remained in the **Moderate to Poor** air quality categories. November to January witnessed the highest pollution levels as more unhealthy air quality days.



DISTRIBUTION OF INDIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In 2024, only 1 cities achieved **Good** air quality in India, while the remaining 365 cities recorded AQI levels in the **Moderate, Poor and Unhealthy** categories.



Good	10
Moderate	257
Poor	171
Unhealthy	07
Severe	-
Hazardous	-

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

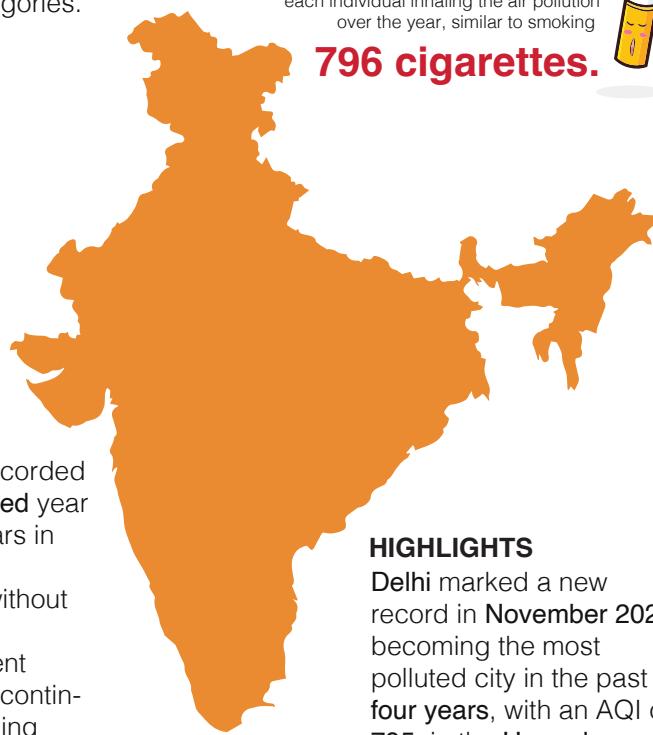
In 2024, **India's** annual average **PM2.5 concentration** ($48 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking



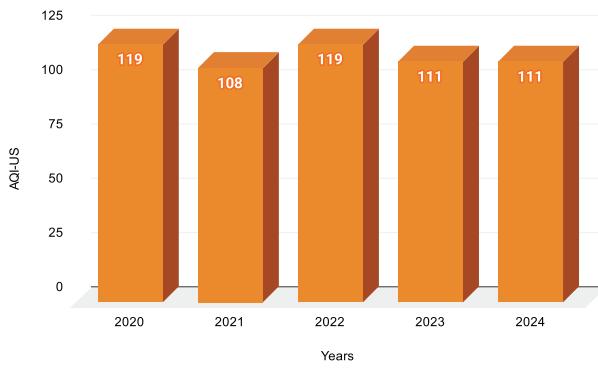
796 cigarettes.

Source: Berkeley Earth

Note : The India map used is for reference purpose only.



INDIA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



2022 and 2020 recorded as the **most polluted year** in the last five years in India. While 2024 remained same without any improvement compared to recent years, AQI levels continued to be a pressing issue, affecting millions of residents.

HIGHLIGHTS

Delhi marked a new record in **November 2024**, becoming the **most polluted city** in the past four years, with an AQI of 795, in the **Hazardous** category.

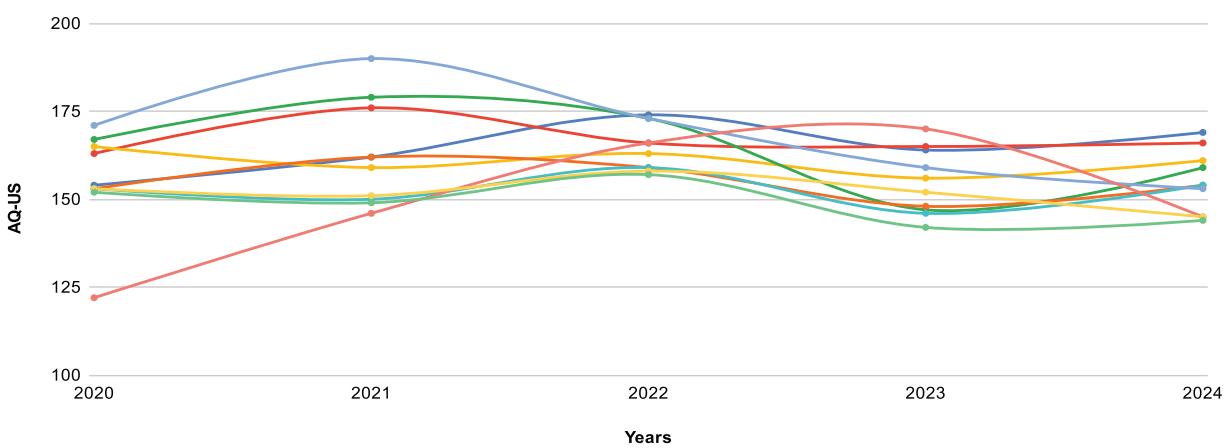
INDIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 most polluted cities of 2024, both in India and globally based on the AQI levels:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. New Delhi	169	263	176	155	151	172	130	98	78	104	174	285	247	164
2. Greater Noida	166	272	192	160	164	199	147	104	86	113	167	211	179	165
3. Noida	161	262	189	145	141	184	133	83	81	105	170	231	209	156
4. Ghaziabad	159	252	172	139	137	157	119	91	78	106	176	261	222	147
5. Faridabad	154	252	176	164	167	182	123	105	86	100	139	190	169	148
6. Gurgaon	154	234	167	154	168	163	123	102	93	102	149	210	190	146
7. Bhiwadi	153	242	175	153	150	175	128	106	93	104	159	190	157	159
8. Patna	145	194	163	148	182	149	128	78	89	106	136	188	177	170
9. Sonipat	145	240	167	130	121	151	116	89	75	91	154	229	179	152
10. Muzaffarnagar	144	217	159	140	137	161	120	97	91	107	157	184	154	142

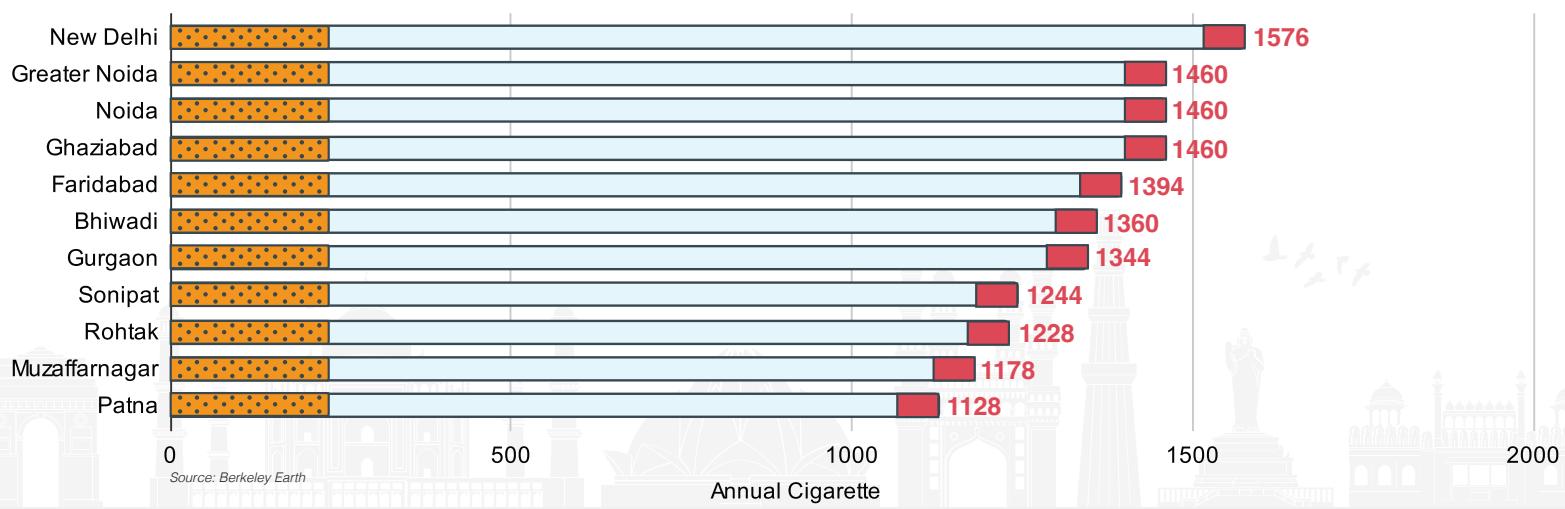
ANNUAL AQI COMPARISON OF TOP CITIES 2024

● New Delhi ● Greater Noida ● Noida ● Ghaziabad ● Faridabad ● Gurgaon ● Bhiwadi ● Patna ● Sonipat
● Muzaffarnagar



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of India in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



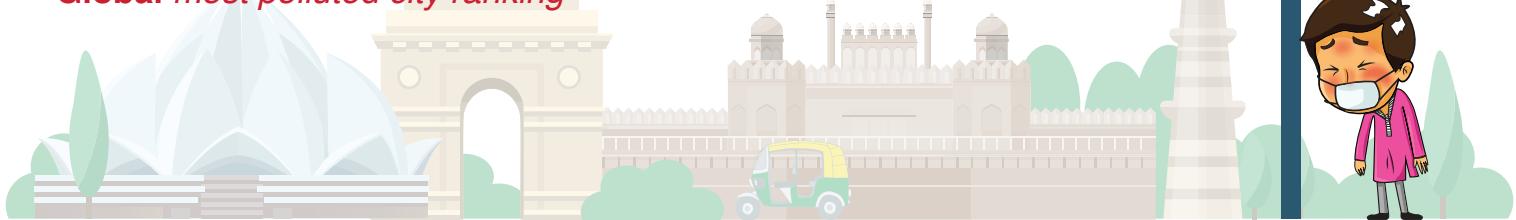
METRO CITIES OF INDIA 2024

New Delhi	169	Unhealthy
Kolkata	118	Poor
Ahmedabad	119	Poor
Pune	105	Poor
Mumbai	101	Poor
Hyderabad	85	Moderate
Chennai	83	Moderate
Bangalore	73	Moderate

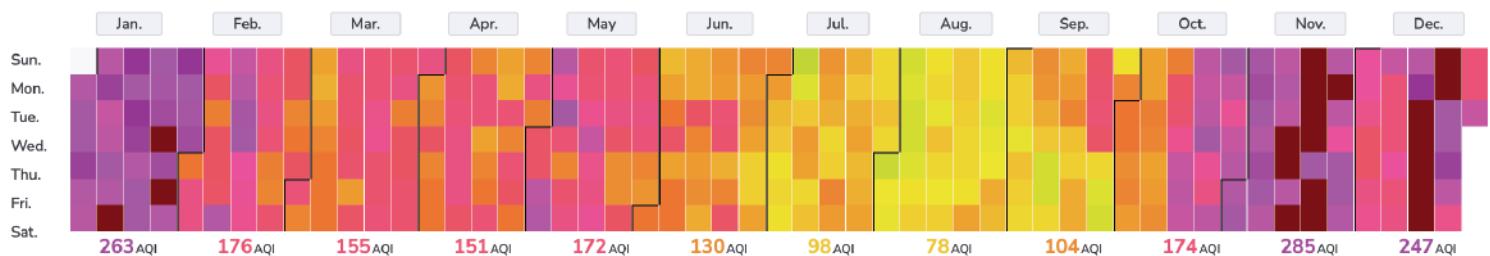
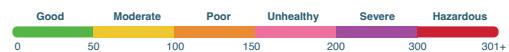
New Delhi

DELHI, INDIA

Ranked 1st among both India and Global most polluted city ranking



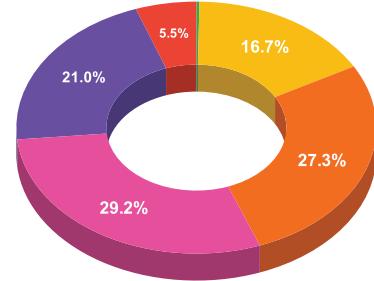
In 2024, New Delhi ranked as the most polluted city in the world and in India too, with an annual AQI average of 169, in the "Unhealthy" category. Only two months of the year reported Moderate AQI levels, and for the rest of the year, AQI remains a serious risk. Nov. to Jan. were the most polluted months as AQI levels reached the **Hazardous** category for 43 days.



ANNUAL AIR QUALITY CHANGES



NO. OF DAYS OF 2024 BY AQI CATEGORY



Total number of days with different AQI categories in last 366 days in 2024.

Good	1 Day	Moderate	61 Days
Poor	100 Days	Unhealthy	107 Days
Severe	77 Days	Hazardous	20 Days

Source: Berkeley Earth

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, New Delhi's annual average **PM2.5 concentration** ($95 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

1576 cigarettes.



FACTORS AFFECTING AIR QUALITY IN THE NEW DELHI

Various factors contribute to the poor air quality levels in New Delhi throughout the year and here are some of the major possible factors:



Vehicular Emissions



Industrial Pollution



Stubble Burning



Construction Activities



Weather Conditions

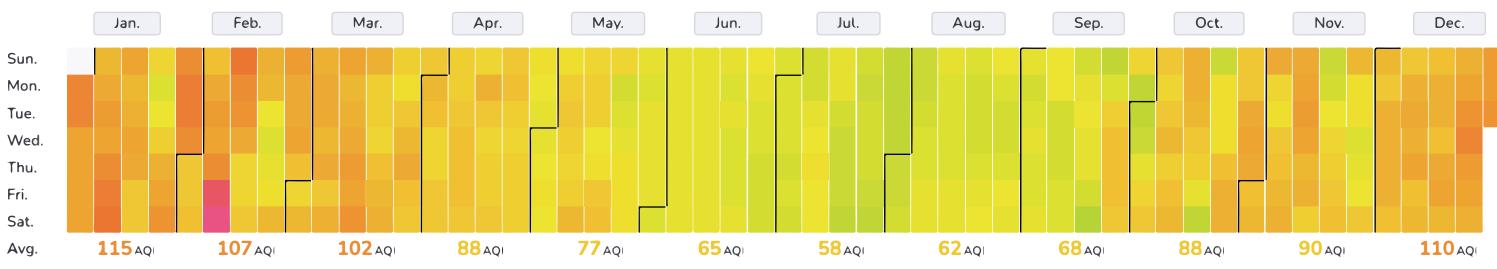
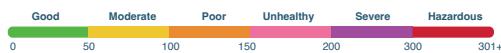
CHINA

In 2024, China was ranked the 13th country globally for the highest AQI levels. The annual AQI level in China was recorded at 86 in the "Moderate" category. This represented a 3.4% decrease in AQI levels as compared to 2023. Cities like Kashgar, Chengguan, Aksu and Luoyang top the cities ranking for high AQI levels in 2024.



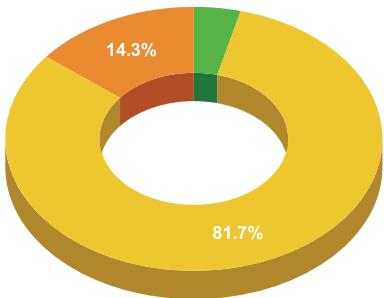
CHINA - 2024 AQI TRENDS

China's annual average AQI levels in 2024 predominantly stayed in the Moderate category. Only December to March recorded AQI levels in the "Poor" category, highlighting the seasonal spike in pollution levels.



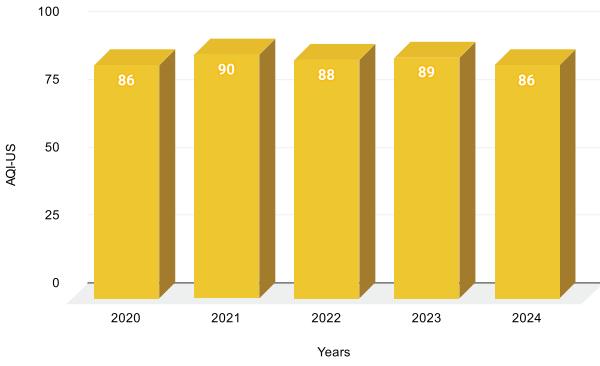
DISTRIBUTION OF CHINESE CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In China, 96% of cities in 2024 reported Moderate to Poor air quality levels. Only 19 cities achieved the "Good" AQI levels.

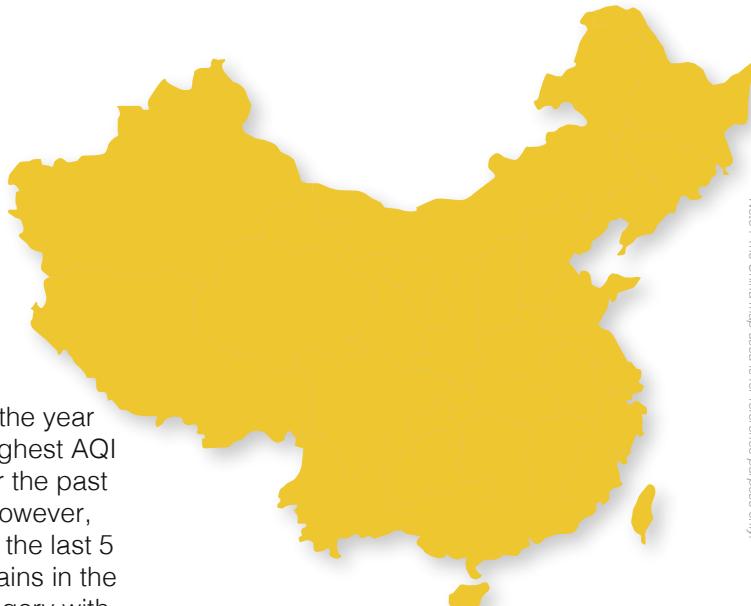


Good	19
Moderate	388
Poor	68
Unhealthy	-
Severe	-
Hazardous	-

CHINA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



2021 was the year with the highest AQI levels over the past 5 years. However, AQI levels the last 5 years remains in the same category with slight changes.



AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, China's annual average PM2.5 concentration ($31 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking 514 cigarettes.



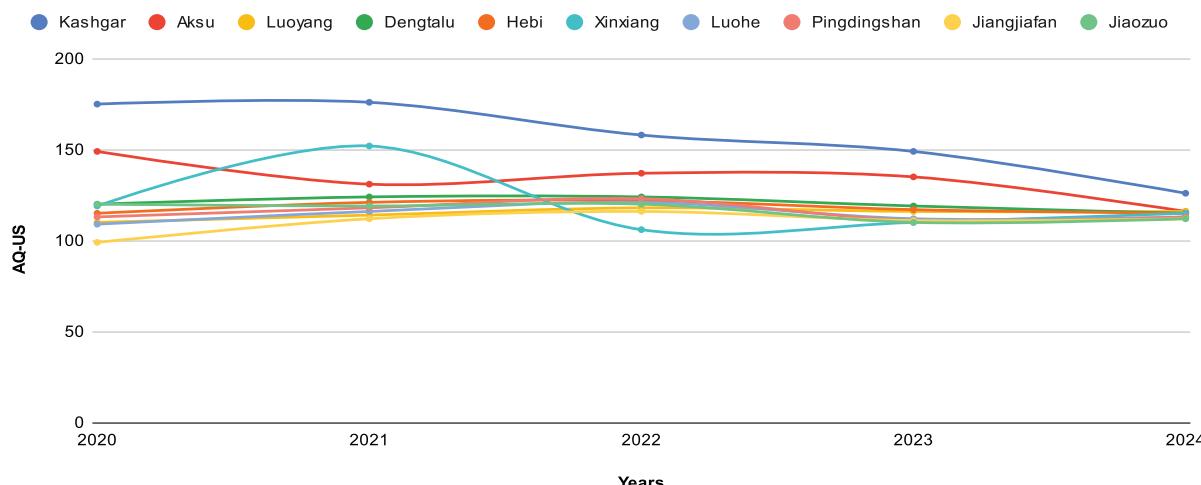
Note : The China map used is for reference purpose only.

CHINA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in China:

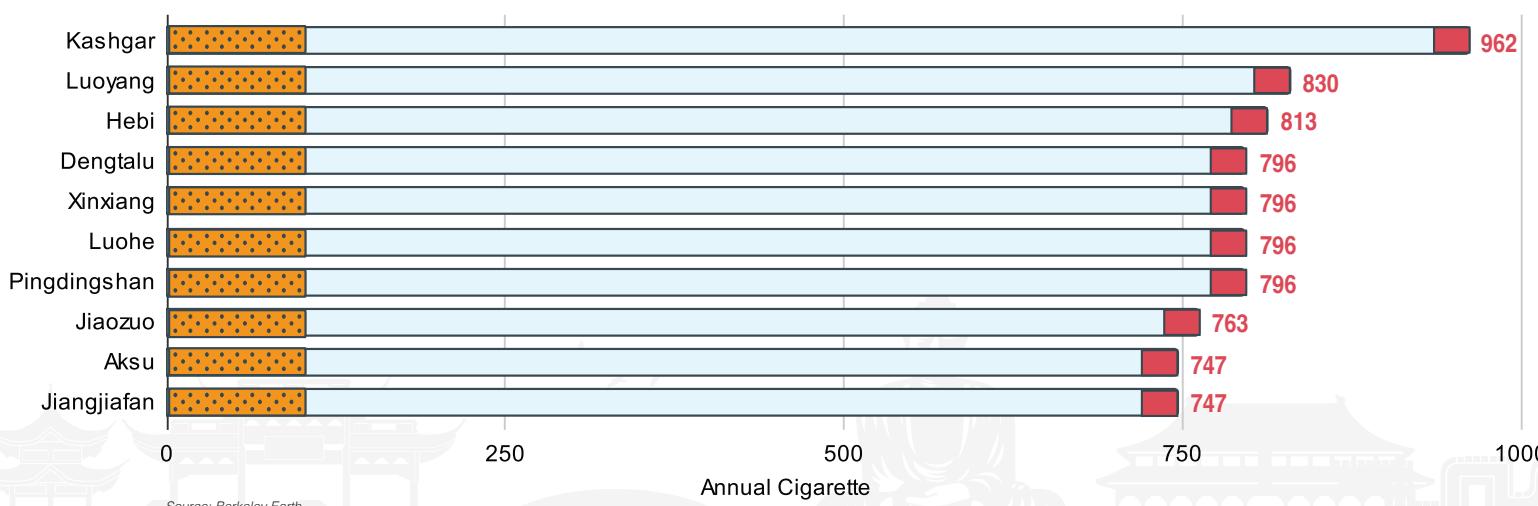
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Kashgar	126	163	212	169	155	118	68	73	86	130	105	102	138	149
2. Aksu	116	149	208	142	144	131	76	60	79	97	90	87	132	135
3. Luoyang	116	152	153	139	121	109	92	74	70	90	134	132	131	116
4. Dengtalu	115	156	152	132	111	108	89	80	77	87	137	124	124	119
5. Hebi	115	156	148	131	126	110	98	86	69	86	131	121	124	117
6. Xinxiang	115	153	158	126	111	101	88	82	72	91	140	126	129	110
7. Luohe	113	164	140	136	111	109	83	56	63	85	138	128	141	112
8. Pingdingshan	113	161	146	128	110	111	91	62	68	87	133	128	136	111
9. Jiangjiafan	112	158	139	138	120	109	83	56	66	95	114	125	143	111
10. Jiaozuo	112	148	144	129	119	103	82	72	71	92	134	127	126	110

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of China in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



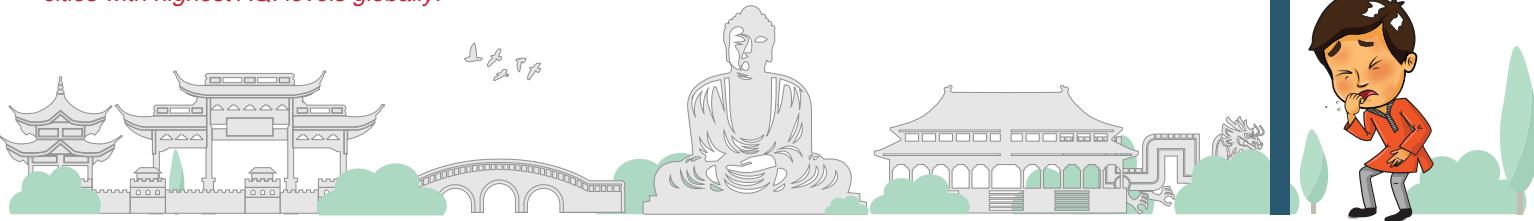
METRO CITIES OF CHINA 2024



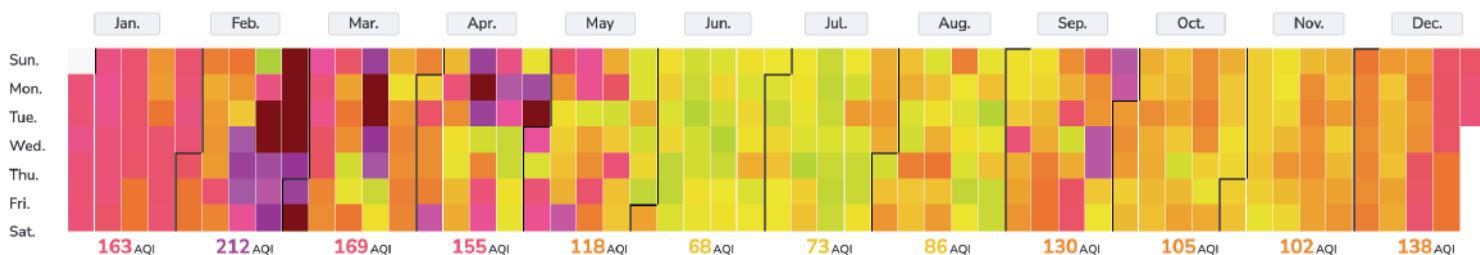
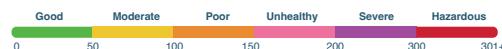
Kashgar

XINJIANG, CHINA

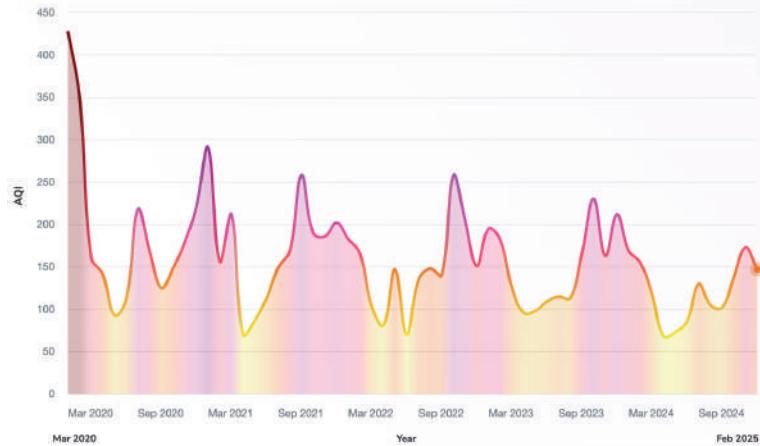
Ranked 1st in China and 38th among the cities with highest AQI levels globally!



In 2024, Kashgar was ranked for highest AQI levels in China, with an annual AQI average of 126 in the “Poor” category. Throughout the year, air quality levels fluctuated between the “Moderate,” “Poor,” and “Unhealthy” categories, reflecting harmful pollution levels. Alarmingly, only 11 days in the year recorded Good AQI levels.



ANNUAL AIR QUALITY CHANGES

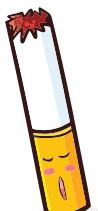


Source: Berkeley Earth

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Kashgar's annual average PM_{2.5} concentration (58 µg/m³) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

962 cigarettes.



Annual AQI Trends

2020	175 AQI	0.57% ↗ Rise
2021	176 AQI	-10% ↘ Fall
2022	158 AQI	-6% ↘ Fall
2023	149 AQI	+15% ↗ Fall
2024	126 AQI	+22% ↗ Fall

Overall Annual Percentage (%) change of AQI in (2020 to 2025)

0% | No Change

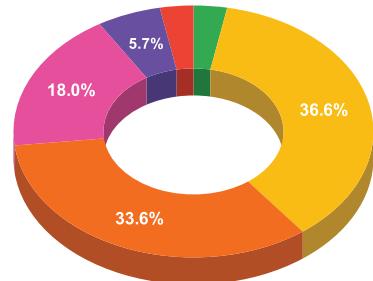
Most & Least Polluted Months

Most Polluted: March, 2020 (428 AQI)

Least Polluted: June, 2024 (68 AQI)

* This data analysis is from year 2020 - 2025

NO. OF DAYS OF 2024 BY AQI CATEGORY



Total number of days with different AQI categories in last 366 days in 2024.

Good 11 Days Moderate 134 Days

Poor 123 Days Unhealthy 66 Days

Severe 21 Days Hazardous 11 Days

FACTORS AFFECTING AIR QUALITY IN THE KASHGAR

Kashgar's high AQI levels in 2024 were driven by several factors and the major is the natural sources as frequent dust storms:



Rapid Erosion



Dust Storms



Rapid Industrialization



Vehicle fumes



Burning of Wood

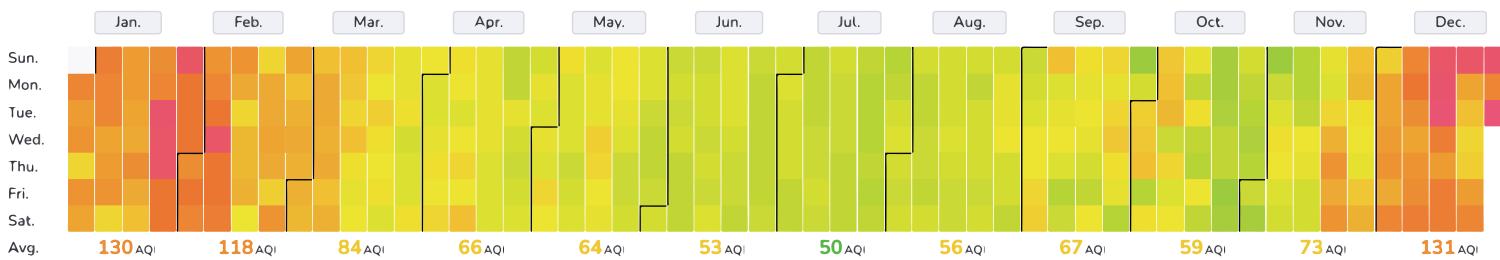
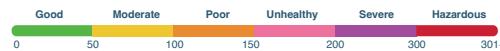
MONGOLIA

In 2024, **Mongolia** was ranked as the 19th country for the highest AQI levels in the world. The annual AQI average of 79, placing it in the "Moderate" category. This represented a 2.6% increase in AQI levels compared to 2023. Mongolia faces significant air pollution due to a combination of natural and human-made factors, such as desertification and deforestation that heavily influence air quality levels.



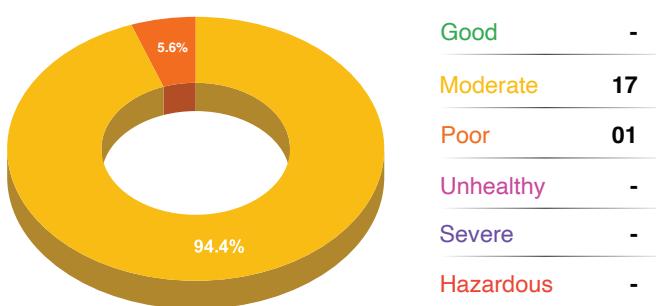
MONGOLIA - 2024 AQI TRENDS

Mongolia experienced "Poor" AQI levels from December to February 2024. For the rest of the year, air quality mostly ranged from Good to Moderate according to the year's annual average.



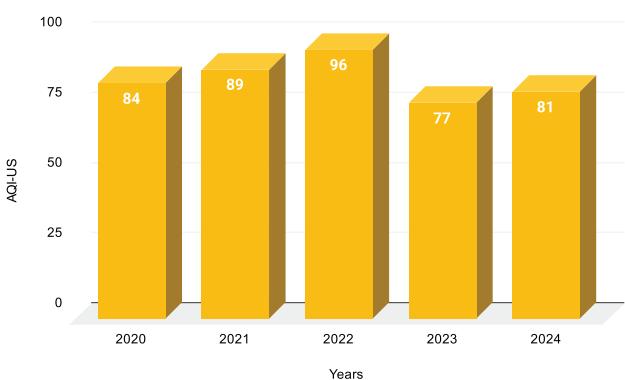
DISTRIBUTION OF MONGOLIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In 2024, no city achieved "Good" AQI levels, and the majority of the cities recorded "Moderate" AQI levels in Mongolia.



Note: The Mongolia map used is for reference purpose only.

MONGOLIA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, 2022 was the year with the highest AQI levels, 2024's AQI levels showed a continued increase, reversing earlier progress.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Mongolia's annual average PM2.5 concentration ($31 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

514 cigarettes.

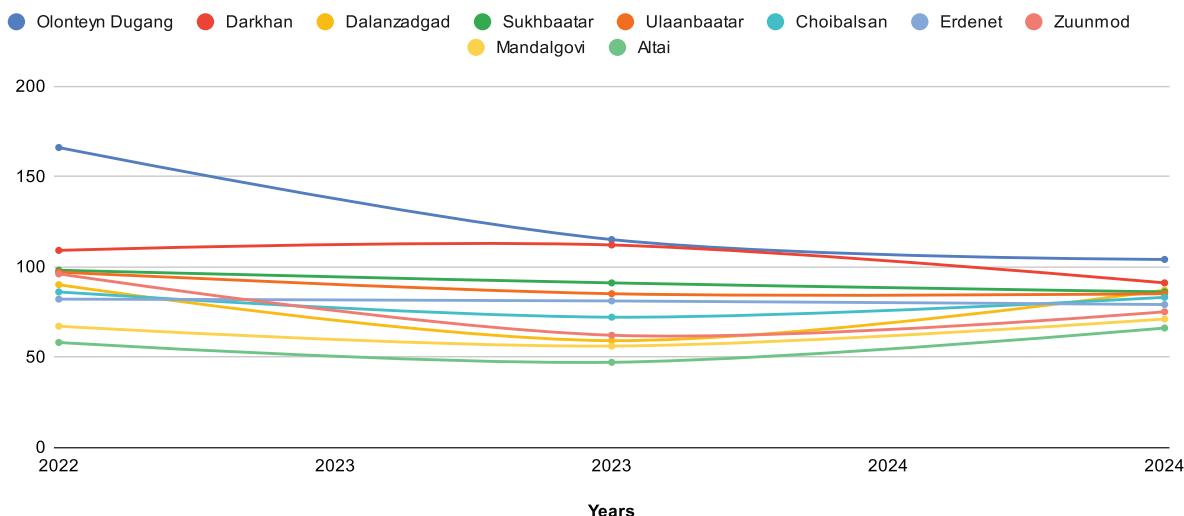


MONGOLIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Mongolia:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Olonteyn Dugang	104	228	198	119	68	50	52	55	57	43	46	90	153	115
2. Darkhan	91	180	153	100	73	60	45	47	50	52	56	103	141	112
3. Dalanzadgad	87	171	131	86	79	80	50	54	63	59	33	67	115	59
4. Sukhbaatar	86	173	151	93	64	51	46	48	49	51	40	90	139	91
5. Ulaanbaatar	85	135	116	87	77	74	64	51	59	67	66	83	142	85
6. Choibalsan	83	92	92	96	74	69	69	96	100	129	37	52	106	72
7. Erdenet	79	151	-	93	72	52	41	45	53	60	38	83	160	81
8. Zuunmod	75	157	127	125	40	36	36	42	43	26	38	65	124	62
9. Mandalgovi	71	119	123	73	44	26	43	47	46	41	36	78	125	56
10. Altai	66	102	108	81	40	78	45	43	43	44	21	46	96	47

ANNUAL AQI COMPARISON OF TOP CITIES 2024



MONGOLIA'S METRO CITIES



Ulaanbaatar
85
Moderate

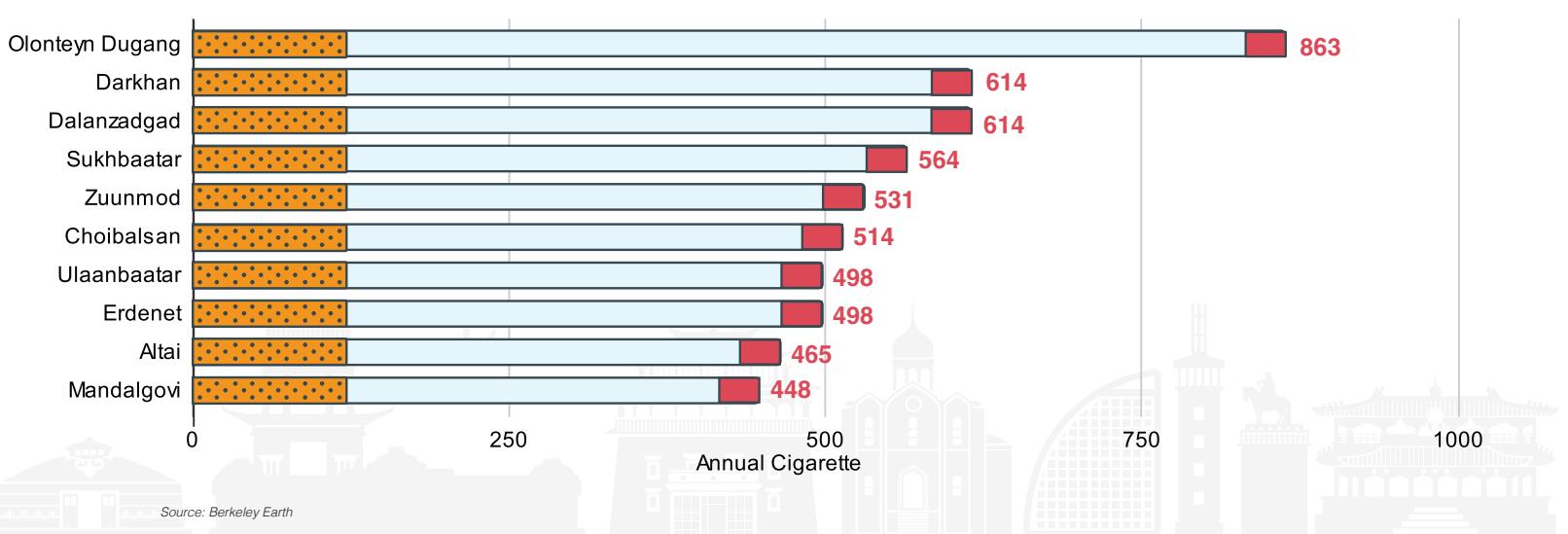


Erdenet
79
Moderate

The annual AQI trends reveal contrasting stories among the top cities with high AQI levels. While **Olonteyn Dugang** shines as a beacon of progress with a steady decline in pollution levels, other cities facing troubles in maintaining the low AQI levels, peaking in 2024.

ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Mongolia in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



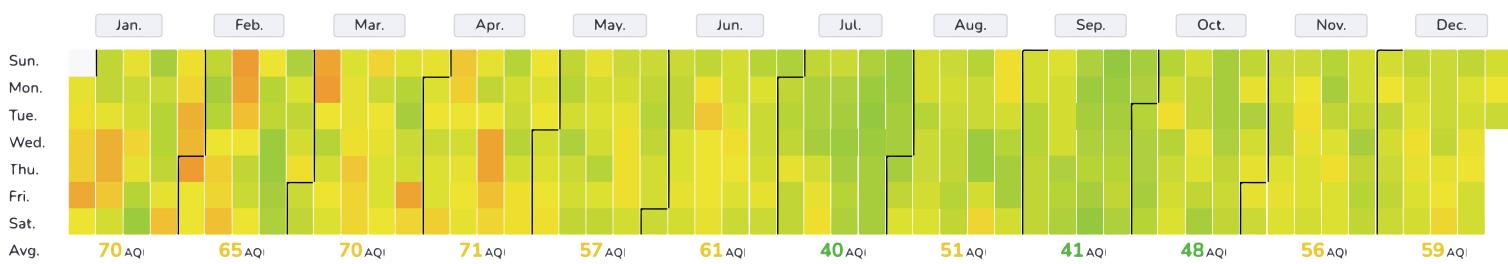
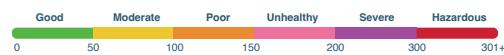
SOUTH KOREA

South Korea in 2024 ranked **51st** globally for highest air quality levels. With an annual average of 57, placing it in the “Moderate” category, the country sees a **9.5% decrease** as compared to the 2023 annual average. The major contributors to air pollution in South Korea include **vehicular emissions** and **dust blown from China**.



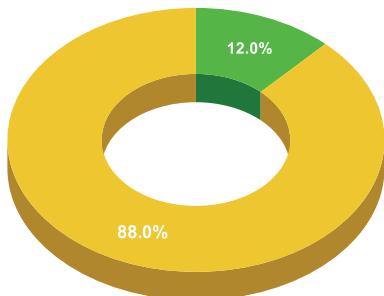
SOUTH KOREA - 2024 AQI TRENDS

2024 annual average AQI levels in South Korea mostly fell in the “Good” to “Moderate” categories. The highest AQI levels were recorded in January with an average AQI of 70.



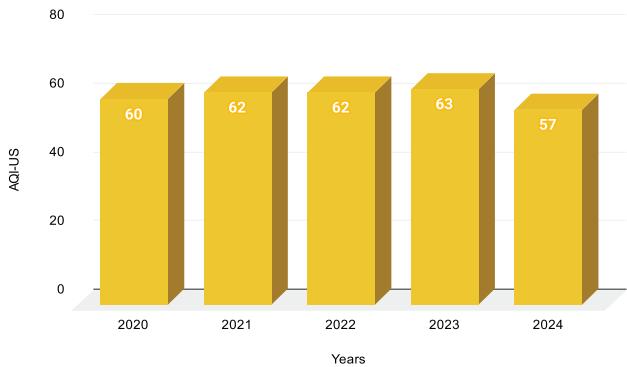
DISTRIBUTION OF SOUTH KOREAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

Out of 83 cities in South Korea, **73 cities** reported AQI levels in the “Moderate” category in 2024. Only **10 cities** achieved “Good” air quality levels in the same year.



Good	10
Moderate	73
Poor	-
Unhealthy	-
Severe	-
Hazardous	-

KOREA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, 2024 recorded the lowest AQI levels in South Korea. AQI levels shows slight changes in the last five years.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, **South Korea's** annual average **PM2.5 concentration** ($16 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

265 cigarettes.



Source: Berkeley Earth

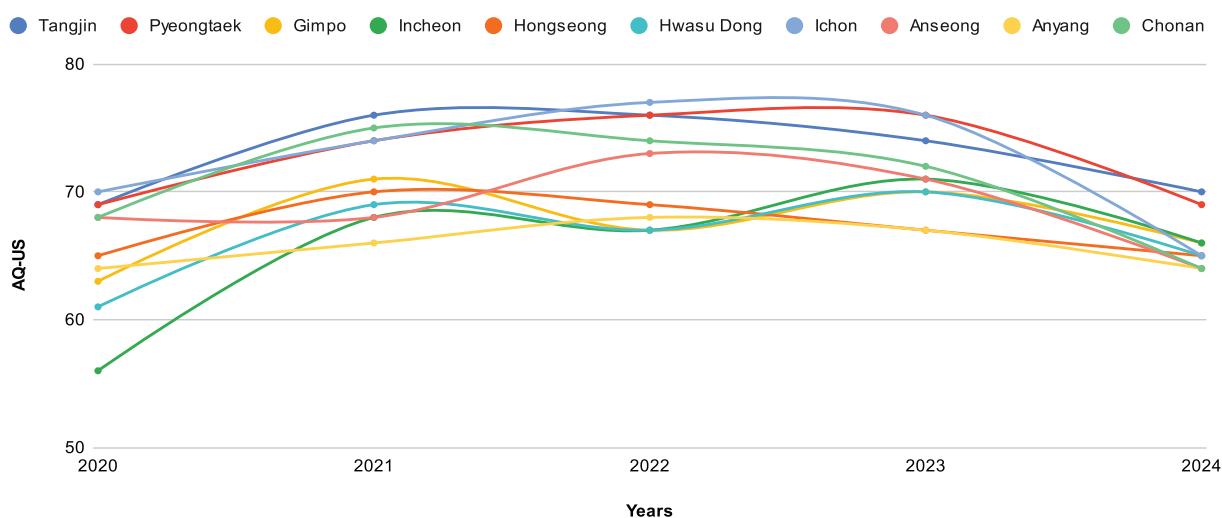
Note : The South Korea map used is for reference purpose only.

SOUTH KOREA'S TOP CITIES WITH HIGH AQI LEVELS 2024 METRO CITIES

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in South Korea:

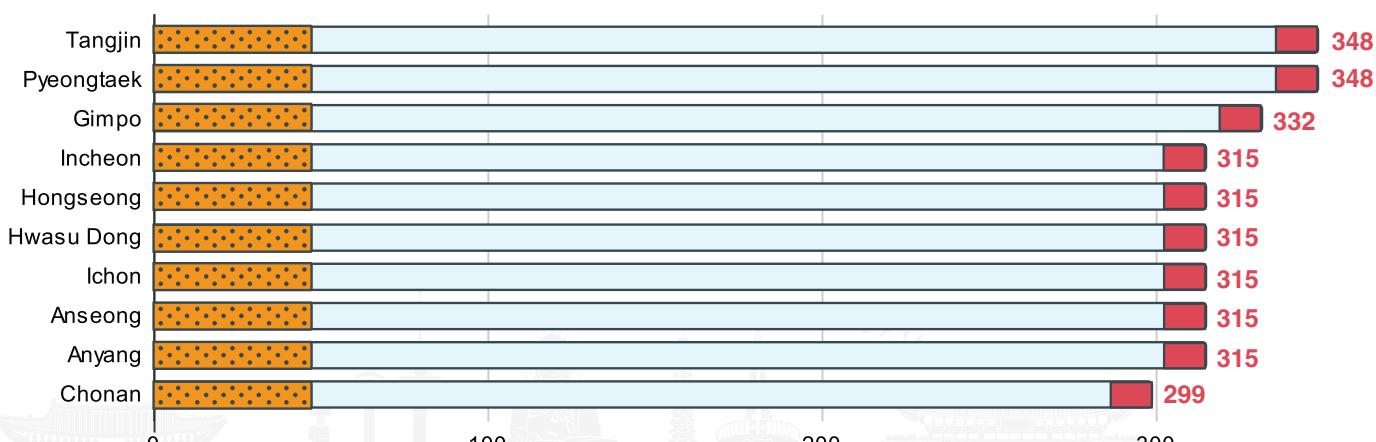
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Tangjin	70	84	80	84	89	68	70	49	61	48	70	74	67	74
2. Pyeongtaek	69	84	81	85	86	70	72	52	62	46	58	66	67	76
3. Gimpo	66	81	78	79	78	64	66	50	62	45	60	65	65	70
4. Incheon	66	81	77	77	78	61	66	51	64	48	61	64	63	71
5. Hongseong	65	82	79	78	78	64	64	43	57	44	58	69	60	67
6. Hwasu Dong	65	77	73	76	76	60	67	49	61	48	62	64	62	70
7. Ichon	65	88	79	83	80	63	70	42	52	40	52	65	70	76
8. Anseong	64	82	77	80	78	61	65	42	53	42	52	65	71	71
9. Anyang	64	75	71	75	77	65	68	47	60	47	58	61	64	67
10. Chonan	64	83	78	76	76	65	65	42	56	44	54	65	64	72

ANNUAL AQI COMPARISON OF TOP CITIES 2024



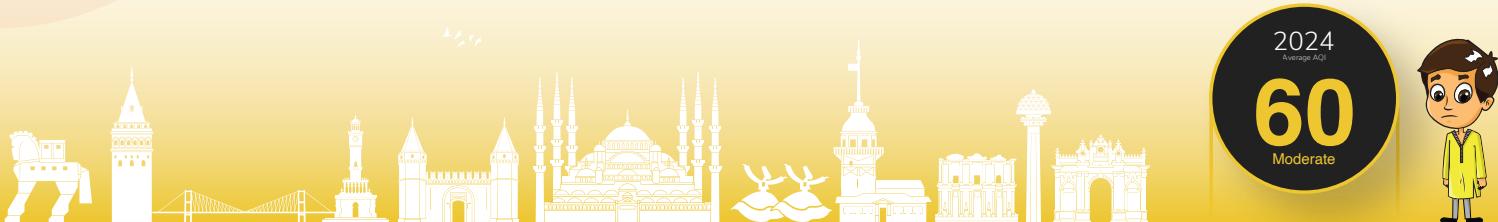
ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of South Korea in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



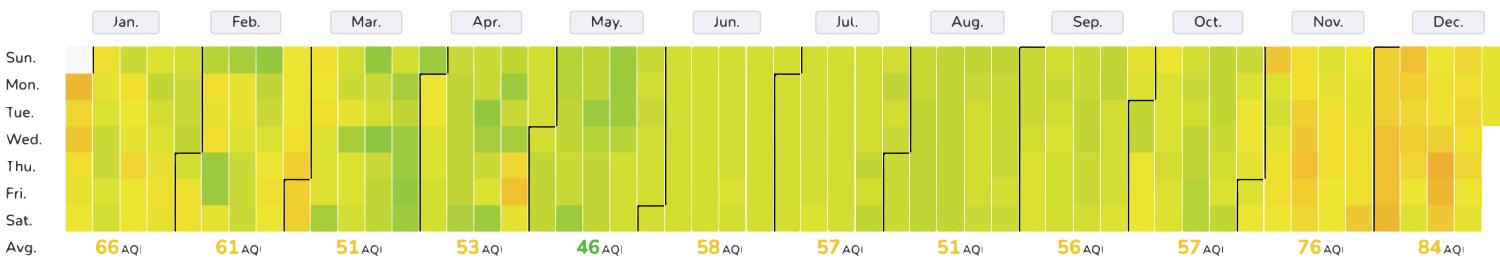
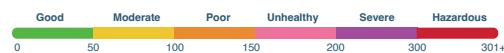
TURKEY

Turkey ranked 41st for the highest air quality levels in the world in 2024. With an annual average of 60 in the “Moderate” category, the country marked a 1.6% decrease as compared to the 2023 annual average. The rapid development, vehicular emission and other factors affect the air quality in Turkey.



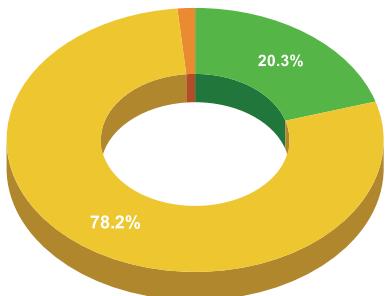
TURKEY - 2024 AQI TRENDS

In 2024, the annual average air quality levels in Turkey remained in the “Moderate” category throughout the year. Only May month reported the “Good” AQI levels in the same year.



DISTRIBUTION OF TURKISH CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

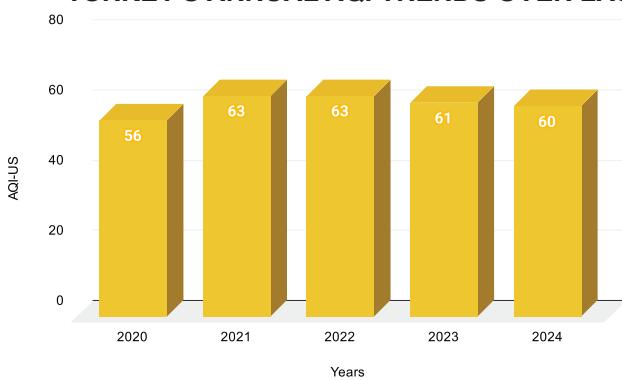
104 cities of Turkey reported “Moderate” AQI levels in 2024. Meanwhile, 27 cities managed to achieve “Good” Air quality levels in the same year.



Good	27
Moderate	104
Poor	02
Unhealthy	-
Severe	-
Hazardous	-



TURKEY'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the last 5 years, 2020 recorded the lowest AQI levels, and 2024 saw the a slight decrease in the AQI levels.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Turkey's annual average PM_{2.5} concentration (18 µg/m³) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

299 cigarettes.

Note : The Turkey map used is for reference purpose only.

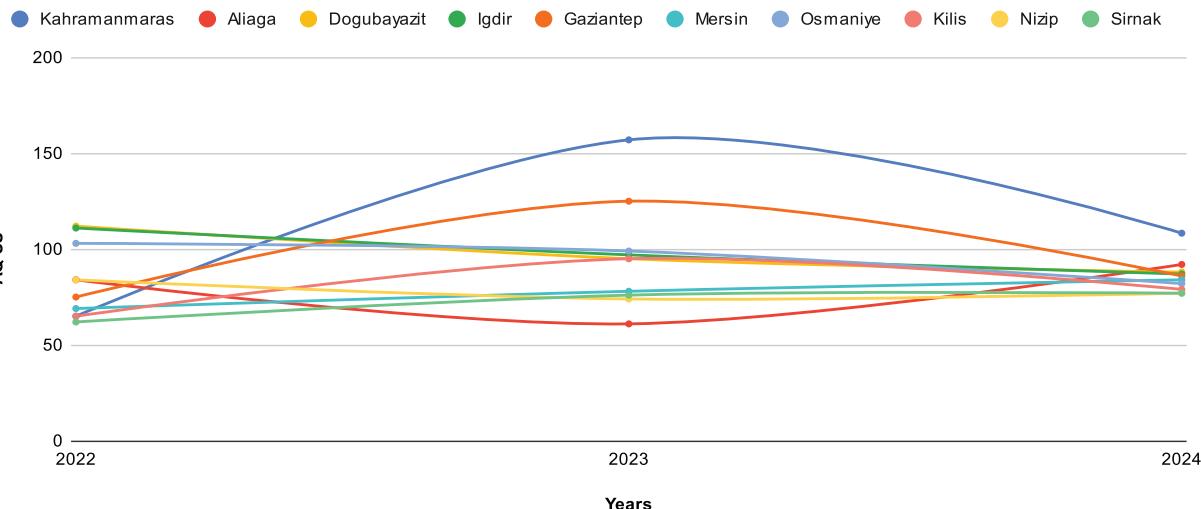


TURKEY'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Turkey:

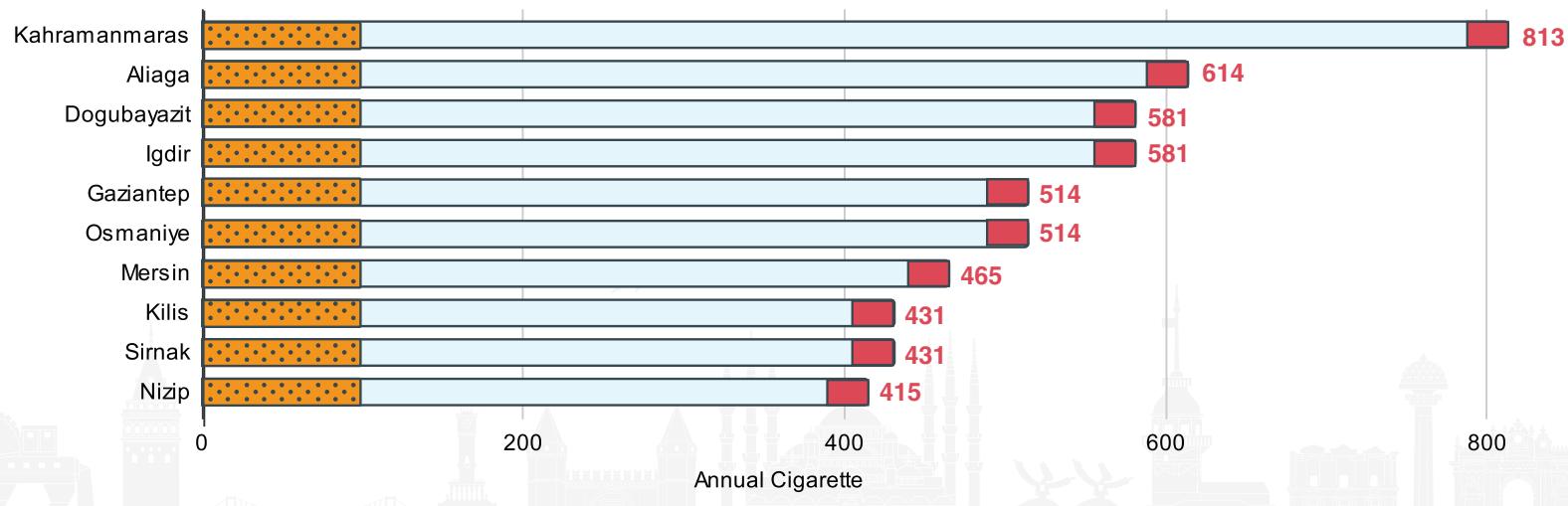
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Kahramanmaraş	108	150	156	153	156	57	61	64	83	92	92	117	133	155
2. Aliaga	92	165	165	164	167	114	55	52	56	59	53	62	68	61
3. Dogubayazit	88	131	119	99	66	46	62	61	58	60	54	118	165	95
4. İgdir	87	139	122	96	60	43	62	60	59	60	61	112	174	97
5. Gaziantep	86	135	133	89	67	52	62	65	63	59	62	100	146	125
6. Mersin	84	117	117	78	73	59	61	60	67	104	102	94	79	78
7. Osmaniye	82	143	124	62	53	48	63	64	68	62	80	89	119	99
8. Kilis	79	125	89	51	49	52	63	65	60	58	62	109	146	95
9. Nizip	77	94	95	67	66	56	63	65	64	66	69	100	116	74
10. Sırnak	77	92	92	75	83	71	64	66	67	70	62	84	105	76

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Turkey in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



TURKEY'S METRO CITIES



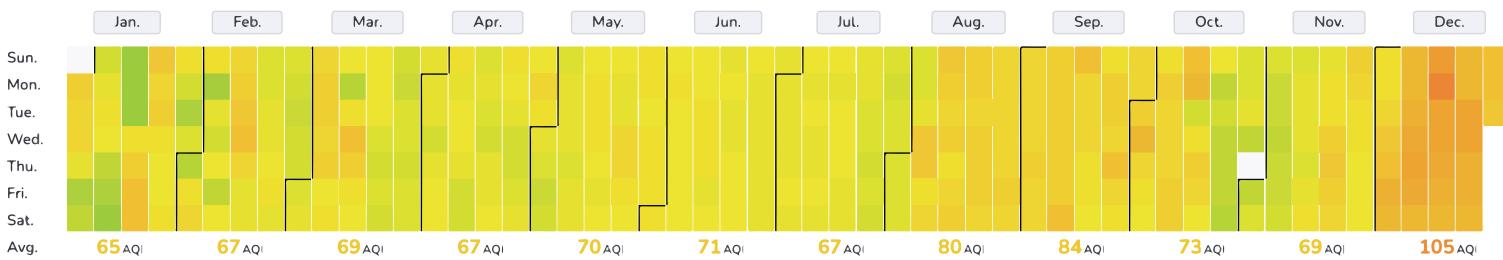
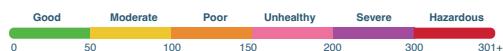
IRAN

Iran ranked 23rd for highest AQI levels in the world in 2024. With an annual average of 74 in the “Moderate” category, showed no change as compared to the 2023 annual average. Notably, Ahvaz city reported “Poor” air quality levels throughout the year.



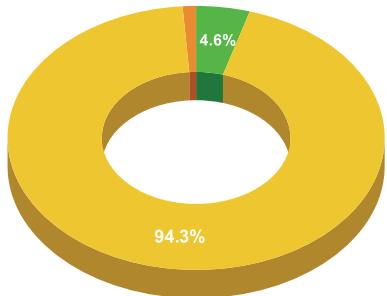
IRAN- 2024 AQI TRENDS

Iran annual average AQI levels in 2024 remained in the “Moderate” category. December recorded the high pollution in 2024 as falling into the “Poor” category.



DISTRIBUTION OF IRANIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

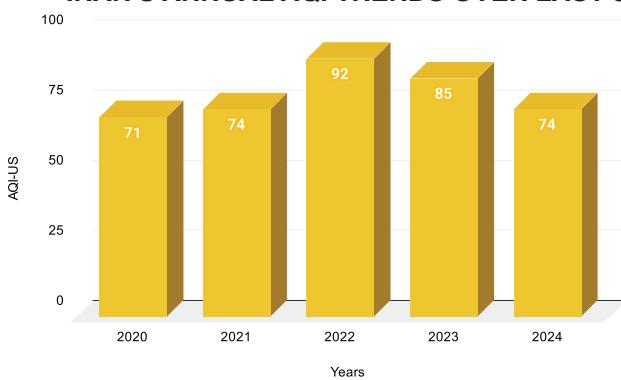
In 2024, only 4 Iranian cities reported the AQI levels in the “Good” category. A majority of 82 cities in Iran were categorized under the “Moderate” air quality levels in the same year.



Good	04
Moderate	82
Poor	01
Unhealthy	-
Severe	-
Hazardous	-



IRAN'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, AQI in Iran remained in the “Moderate” category. 2024 showed a decline in AQI levels compared to 2022 and 2023.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Iran's annual average PM_{2.5} concentration ($24 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

398 cigarettes.

Note : The Iran map used is for reference purpose only.

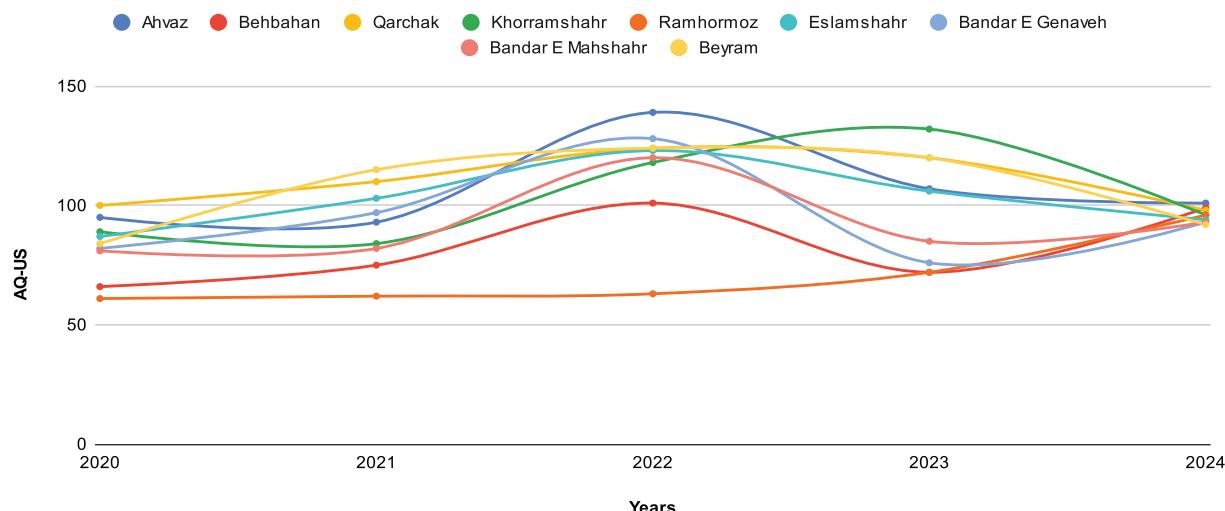


IRAN'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Iran:

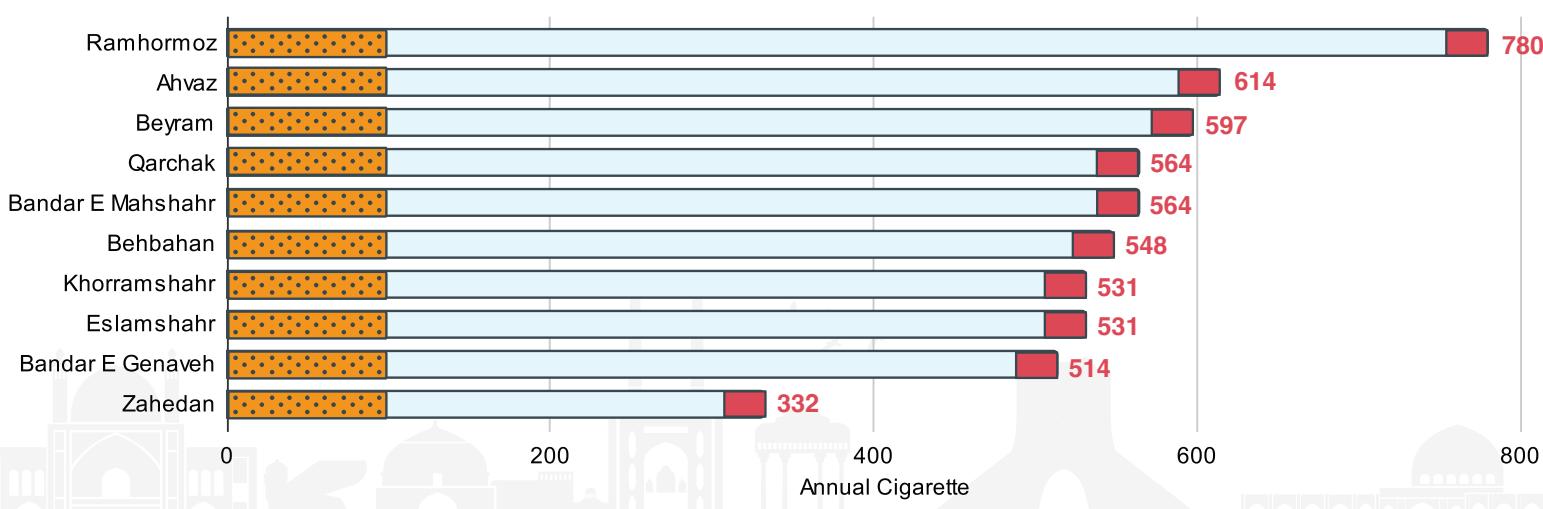
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Ahvaz	101	119	87	85	94	108	82	71	92	101	120	103	144	107
2. Behbahan	99	106	148	70	101	106	72	68	84	80	133	95	128	72
3. Qarchak	98	113	113	100	103	85	70	67	91	99	124	89	136	120
4. Khorramshahr	96	108	84	81	100	89	77	72	95	108	116	99	130	132
5. Ramhormoz	96	76	58	59	64	77	83	69	106	178	119	120	134	72
6. Eslamshahr	94	112	110	104	82	94	77	67	90	83	90	82	134	106
7. Bandar E Genaveh	93	61	42	-	53	95	74	70	87	94	113	106	128	76
8. Bandar E Mahshahr	93	91	69	86	91	90	83	70	93	96	102	102	138	85
9. Beyram	92	79	124	103	126	96	72	70	105	83	71	71	102	120
10. Zahedan	89	63	88	93	87	109	84	66	95	138	88	66	91	122

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Iran in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



IRAN'S METRO CITIES

Tehran		85	Moderate
Karaj		77	Moderate
Mashhad		75	Moderate
Hamadan		62	Moderate
Tabriz		62	Moderate
Shiraz		58	Moderate

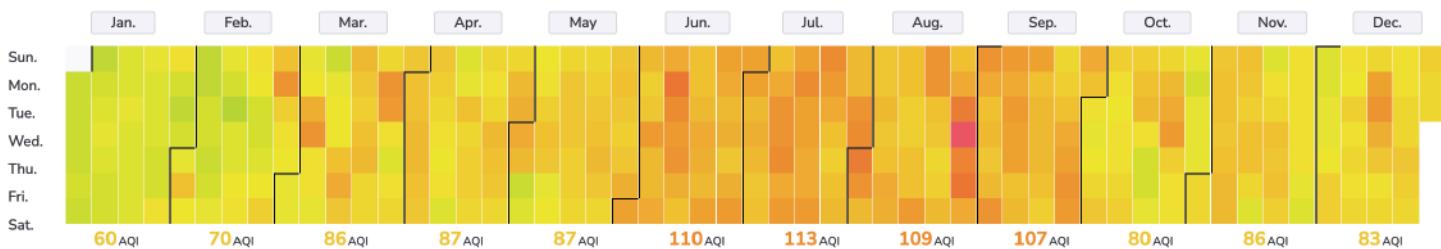
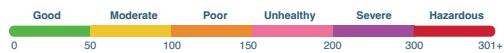
UNITED ARAB EMIRATES

In 2024, UAE ranked as the **Seventh country** for the highest AQI levels in the world. The Annual AQI average recorded 90 in the “Moderate” category. As compared to 2023 AQI levels, 2024 recorded a **18.4% increase**, and the air quality remained a concern throughout the year. Emissions from **industrial sites and vehicles** affected the air quality of the country.



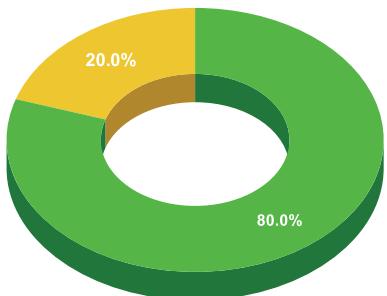
UNITED ARAB EMIRATES - 2024 AQI TRENDS

UAE's annual average AQI in 2024 remained in the “Moderate” category. June to September recorded the high pollution in 2024 as falling into the “Poor” category.



DISTRIBUTION OF UAE'S CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

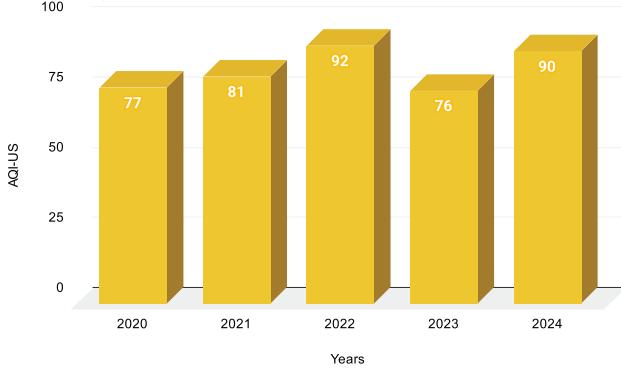
In 2024, 4 out of 5 UAE cities reported “Moderate” air quality levels.



Good	04
Moderate	01
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



UNITED ARAB EMIRATES'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, AQI in UAE remained in the “Moderate” category. 2024 showed a surge in AQI levels compared to 2023.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, UAE's annual average PM2.5 concentration ($31 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

514 cigarettes.



UAE'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in UAE:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Abu Dhabi	101	64	73	92	100	95	118	120	130	130	104	100	82	84
2. Al Ayn	89	54	74	89	88	89	112	130	106	102	67	77	78	71
3. Dubai	84	80	67	81	86	87	109	67	65	113	81	90	89	101
4. Madinat Zayid	84	52	63	79	75	78	107	115	113	90	71	81	82	62
5. Al Fujayrah	78	75	-	70	95	95	73	72	84	95	61	70	99	108

UAE'S METRO CITIES



Abu Dhabi
101
Poor

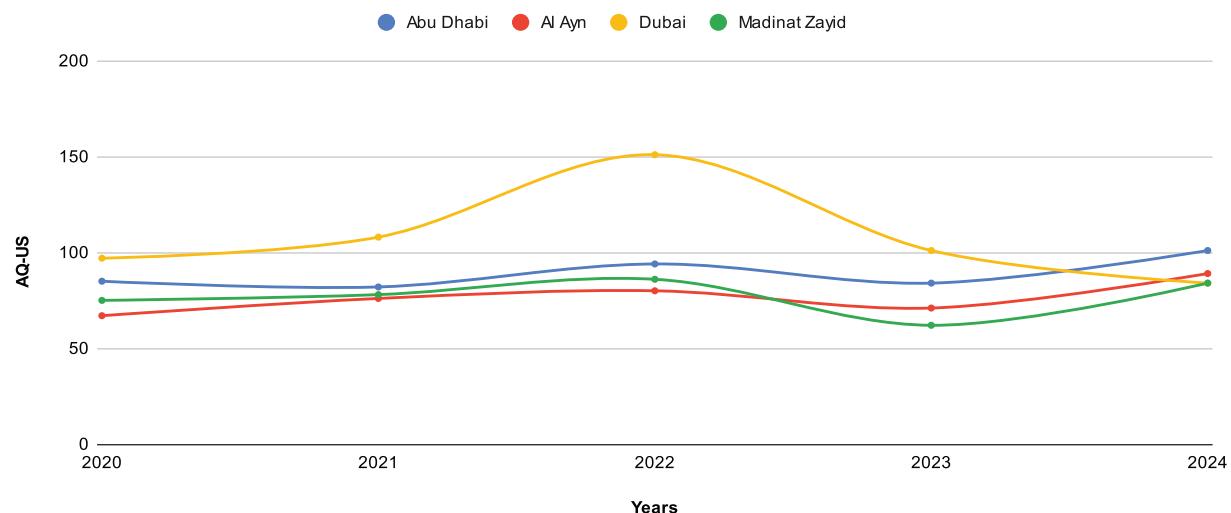


Al Ayn
89
Moderate



Dubai
84
Moderate

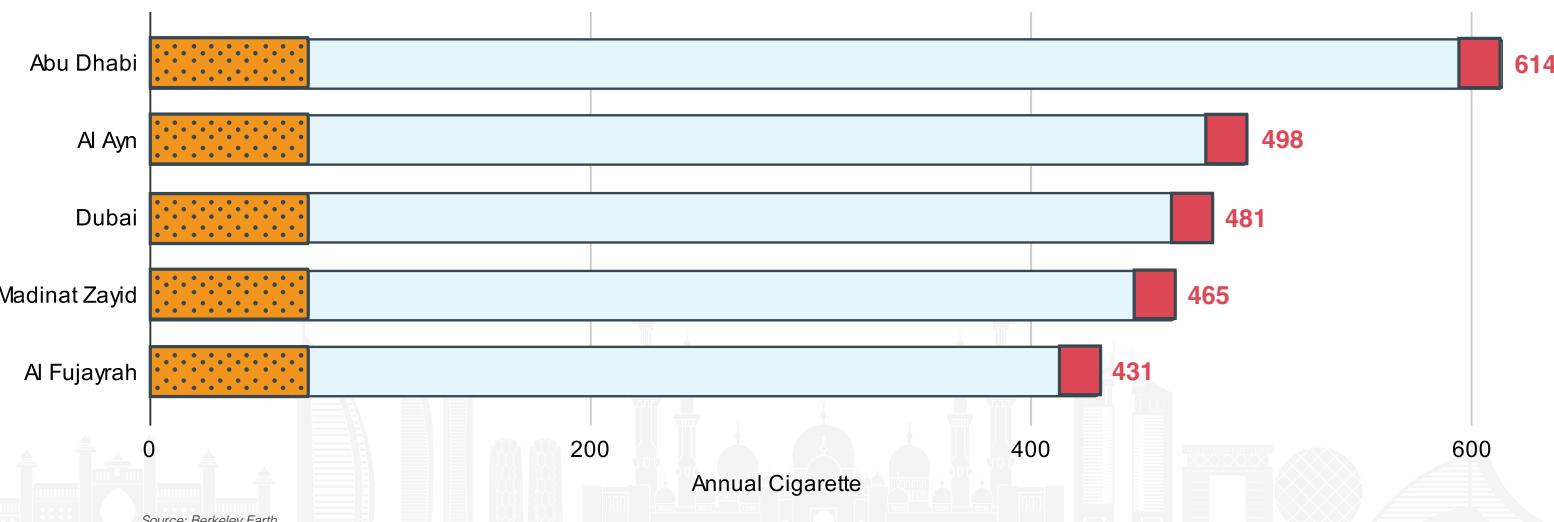
ANNUAL AQI COMPARISON OF TOP CITIES 2024



AQI levels in Dubai peaked in 2022 but improved till 2024. Abu Dhabi and Al Ayn increased steadily over the past 3 years. Meanwhile, Madinat Zayid following the same trend as Abu Dhabi.

ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of UAE in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



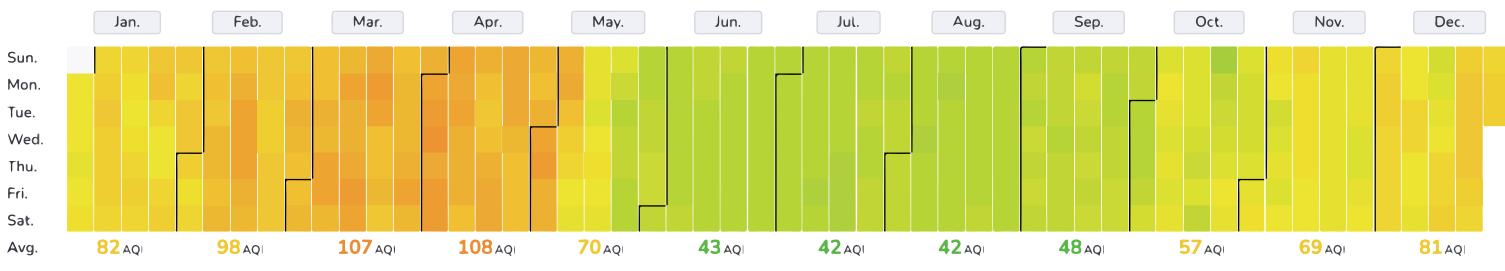
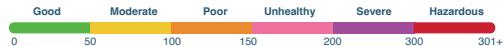
THAILAND

Thailand ranked 29th for the highest AQI levels in the world in 2024. With an annual average of 70 in the “Moderate” category, and as compared to the 2023 annual average, 2024 levels shows no change. Major cities in Thailand recorded the “Moderate” category air quality levels.



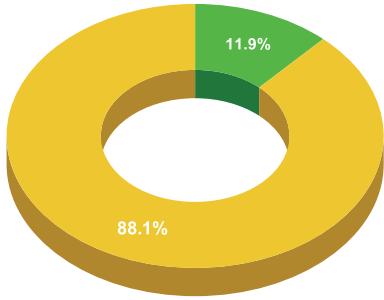
THAILAND - 2024 AQI TRENDS

In 2024, The annual average AQI of Thailand recorded “Moderate” AQI levels from October to May. Only 4 months in the same year reported the “Good” air quality levels.



DISTRIBUTION OF THAILAND'S CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

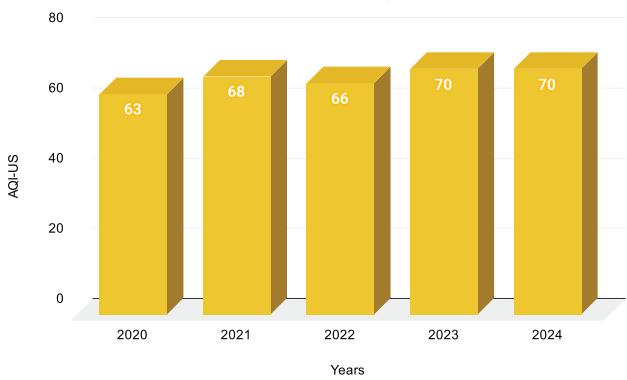
In 2024, Only 24 cities in Thailand reported “Good” air quality levels. Meanwhile, 178 cities reported the “Moderate” AQI levels.



Good	24
Moderate	178
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



THAILAND'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, the lowest AQI levels were recorded in 2020 and the highest in 2024 and 2023 as remaining at the same level.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Thailand's annual average PM_{2.5} concentration (24 µg/m³) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

398 cigarettes.



Note : The Thailand map used is for reference purpose only.

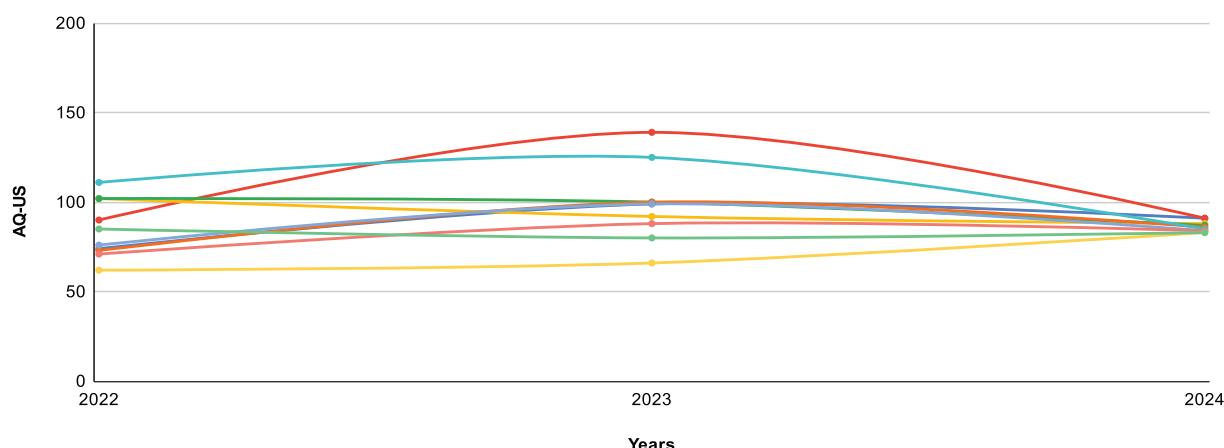
THAILAND'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Thailand:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Chiang Mai	91	107	124	163	163	104	46	47	55	54	66	78	85	97
2. Mae Sai district	91	99	125	203	183	100	41	31	23	30	49	56	80	139
3. Amphoe Mueang	88	116	143	163	145	82	31	37	32	36	57	64	86	92
4. Sing Buri	87	144	167	99	138	99	49	53	54	48	76	77	87	100
5. Ban Ton Pao	86	111	125	136	132	97	48	46	58	46	66	78	87	100
6. Pa Daet Subdistrict	85	110	120	182	161	102	53	49	61	67	77	80	88	125
7. Mae Sai	84	99	124	178	163	91	40	34	35	49	52	58	80	99
8. Phayao	84	99	115	146	154	84	43	41	39	73	66	65	81	88
9. Kanchanaburi	83	93	114	113	113	71	52	65	46	78	77	84	87	66
10. Nan	83	78	132	149	144	75	39	42	45	59	71	74	87	80

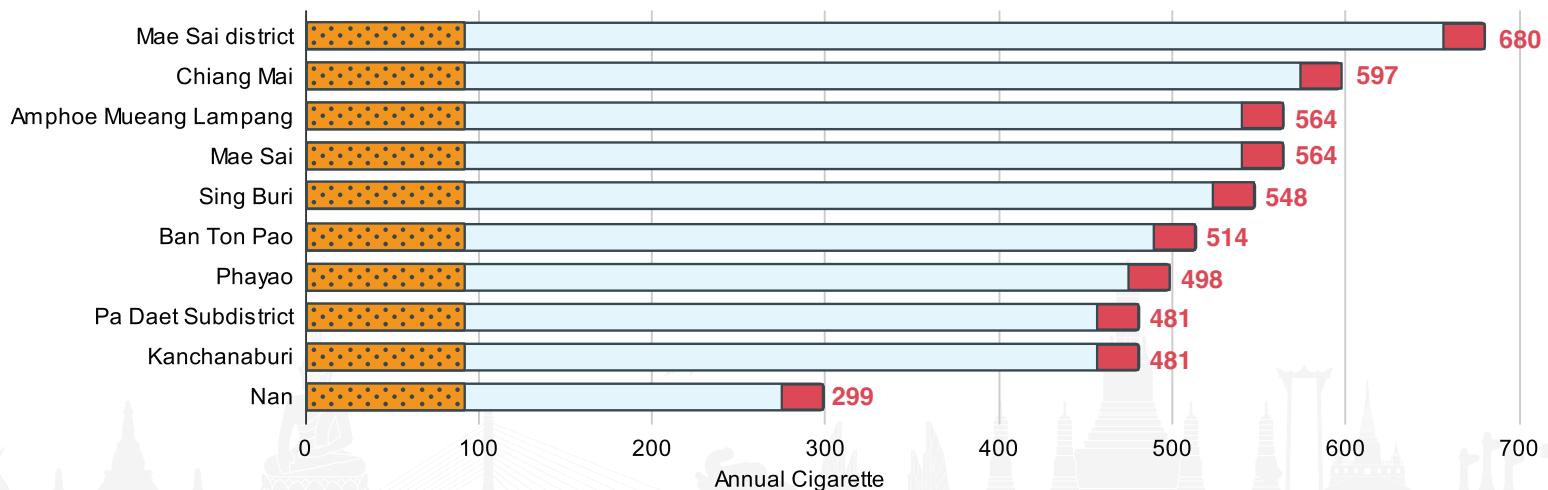
ANNUAL AQI COMPARISON OF TOP CITIES 2024

● Chiang Mai ● Mae Sai district ● Amphoe Mueang Lampang ● Sing Buri ● Ban Ton Pao ● Pa Daet Subdistrict ● Mae Sai
 ● Phayao ● Kanchanaburi ● Nan



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Thailand in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



Source: Berkeley Earth

THAILAND'S METRO CITIES



Mueang
Chiang Rai
83
Moderate



Phra Nakhon
Si Ayutthaya
77
Moderate



Bangkok
76
Moderate



Phuket
60
Moderate



Hua Hin
43
Good

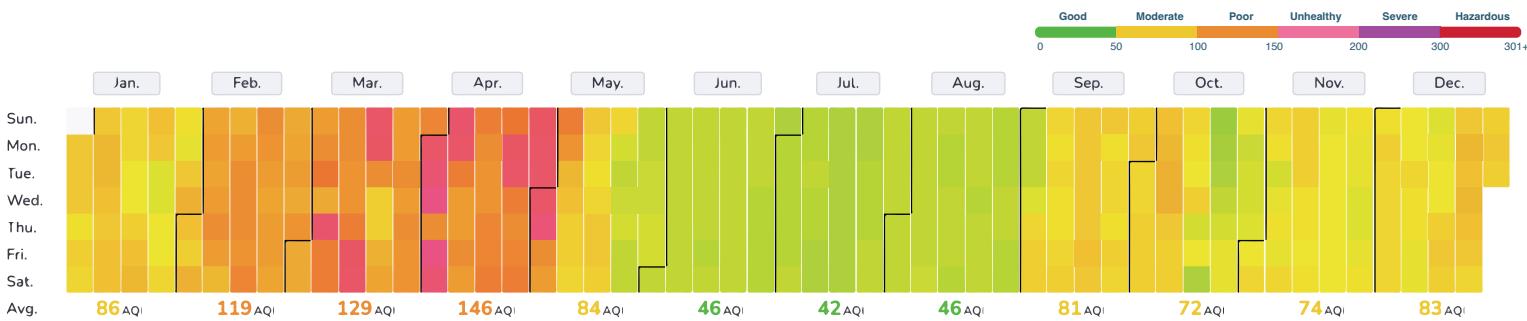
LAOS

Laos ranked 14th for the highest air quality levels in the world in 2024. With an annual average of 84 in the “Moderate” category, and as compared to the 2023 annual average, 2024 levels recorded a 3.4% decrease. The major pollution sources in Laos include forest fires, and vehicular and industrial emissions.



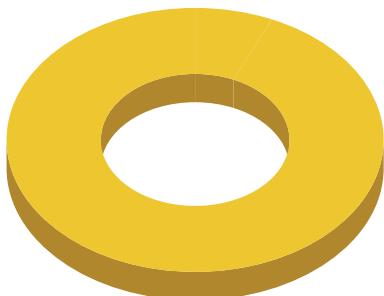
LAOS - 2024 AQI TRENDS

In 2024, The annual average AQI of Laos recorded “Poor” AQI levels in March and April and rest of the months recorded “Moderate” AQI levels. Only 3 months in the same year reported the “Good” air quality levels.



DISTRIBUTION OF LAOS'S CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

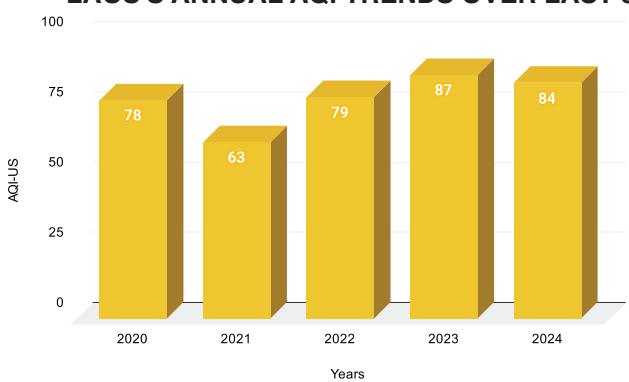
In 2024, All 21 cities reported the “Moderate” AQI levels with no city in the “Good” Category.



Good	-
Moderate	21
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



LAOS'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, the **lowest** AQI levels in Laos recorded in 2021. AQI levels in 2024 slightly decreased to 2023 levels.

AIR POLLUTION'S IMPACT: EQUIVALENT TO SMOKING DAILY

In 2024, Laos's annual average PM2.5 concentration ($31 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking 514 cigarettes.

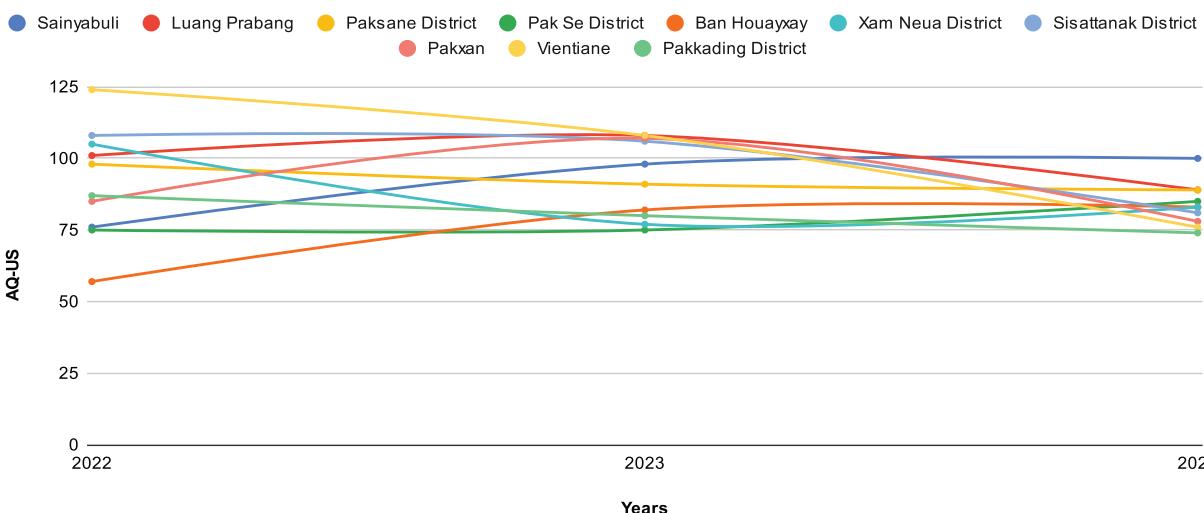


LAOS' TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Laos:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Sainyabuli	100	81	113	151	157	98	83	82	82	86	85	82	97	98
2. Luang Prabang	89	95	119	144	166	75	41	42	46	47	73	82	84	108
3. Paksane District	89	87	133	140	165	90	48	47	47	44	50	76	84	91
4. Pak Se District	85	107	143	147	151	56	50	48	39	39	33	56	71	75
5. Ban Houayxay	83	93	105	146	153	95	39	34	42	47	49	64	81	82
6. Xam Neua District	83	80	106	121	177	92	50	45	43	89	31	60	85	77
7. Sisattanak District	81	102	128	136	160	93	13	1	36	39	52	83	82	106
8. Pakxan	78	65	118	106	140	85	42	38	38	44	50	77	84	107
9. Vientiane	76	100	135	84	94	60	52	49	45	39	64	83	82	108
10. Pakkading District	74	67	139	70	104	72	48	46	43	41	50	79	83	80

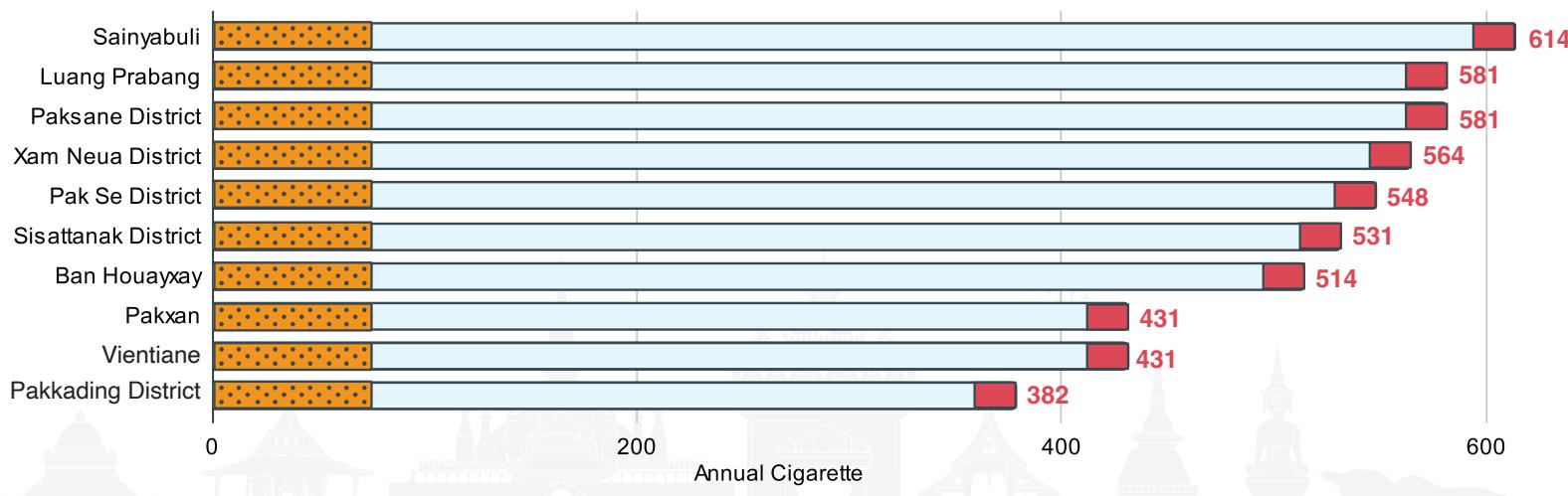
ANNUAL AQI COMPARISON OF TOP CITIES 2024



AQI levels in Luang Prabang peaked in 2023 but improved till 2024. Nakhon Phanom reported the lowest AQI levels in 2022-23 but increased in 2024. Only Sainyabuli's AQI levels increased steadily over the past 3 years.

ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Laos in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



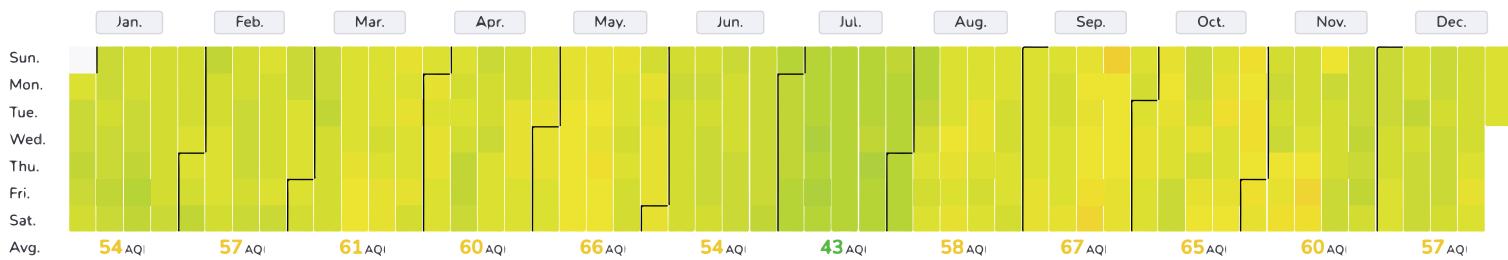
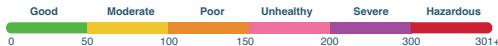
INDONESIA

Indonesia ranked 47th for the highest air quality levels in the world in 2024. With an annual average of 58 in the “Moderate” category, and as compared to the 2023 annual average, 2024 levels recorded an 13.4% decrease. The major contributor of air pollution includes household, transport and construction emission.



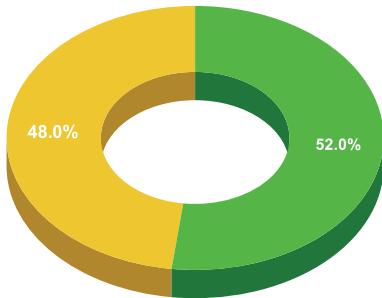
INDONESIA - 2024 AQI TRENDS

In 2024, the annual average AQI in Indonesia recorded ‘Moderate’ AQI levels throughout the year. Only 1 month in the same year reported the “Good” air quality levels.



DISTRIBUTION OF INDONESIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

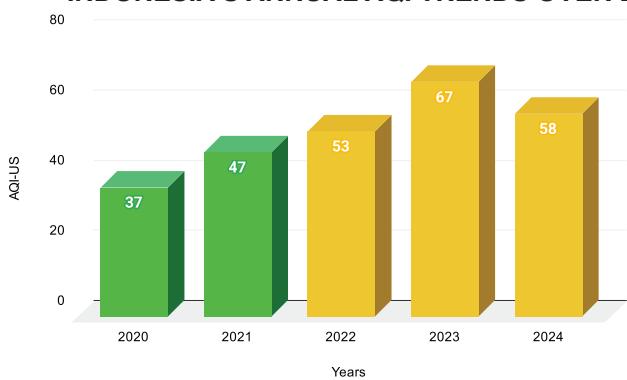
In 2024, Around 13 Indonesian cities reported “Good” air quality levels. Meanwhile, other 12 cities reported the “Moderate” AQI levels.



Good	13
Moderate	12
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



INDONESIA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Indonesia's AQI levels Over the past 5 years showed an increasing trend till 2023. 2024 reported a slight decrease in AQI levels.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, Indonesia's annual average PM_{2.5} concentration ($18 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

299 cigarettes.

Note : The Indonesia map used is for reference purpose only.

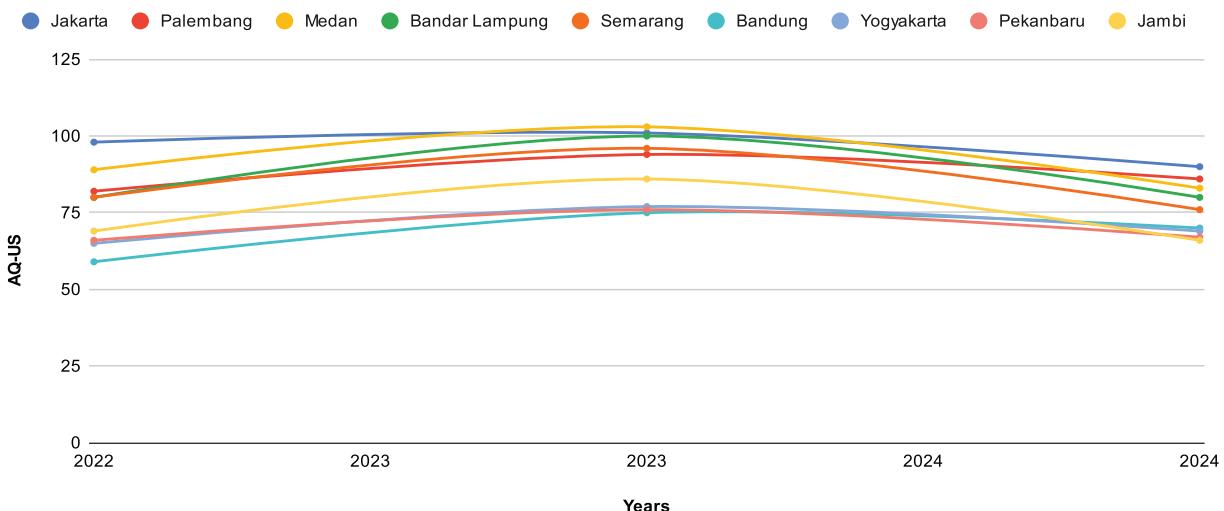


INDONESIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Indonesia:

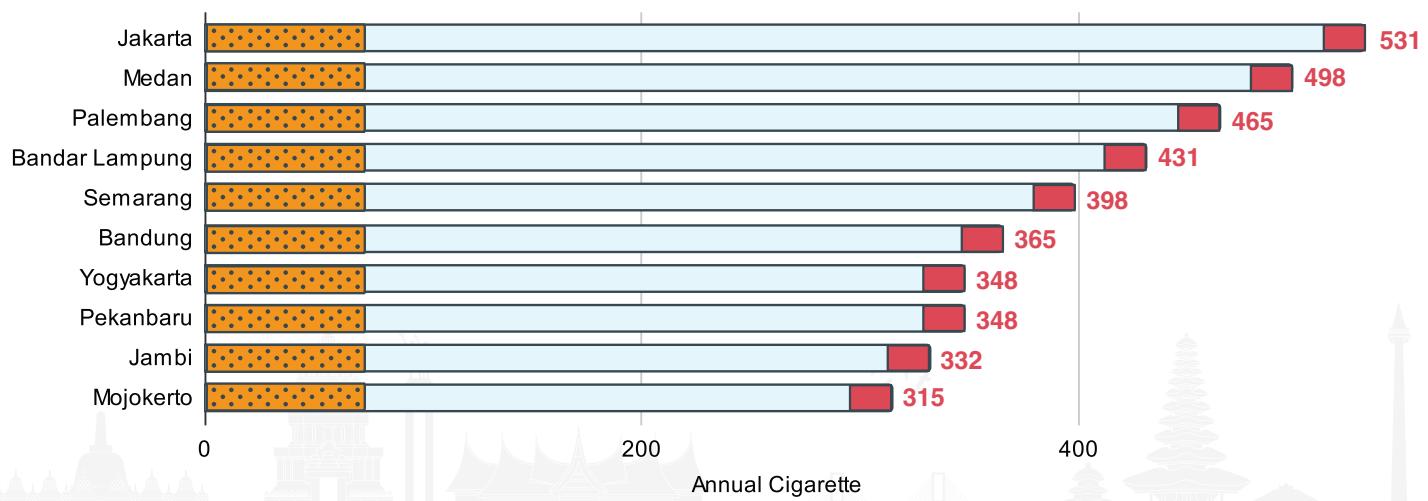
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Jakarta	90	65	65	71	88	112	105	77	109	118	115	93	64	101
2. Palembang	86	105	129	132	125	100	53	53	59	70	74	75	63	94
3. Medan	83	106	116	119	108	94	57	56	83	85	66	44	67	103
4. Bandar Lampung	80	64	68	81	90	114	56	51	90	92	91	92	65	100
5. Semarang	76	76	78	79	75	113	56	33	91	90	84	80	59	96
6. Bandung	70	75	78	70	74	80	49	37	72	87	74	77	68	75
7. Yogyakarta	69	63	68	62	72	114	52	33	72	83	72	77	58	77
8. Pekanbaru	67	66	84	90	73	64	52	51	74	82	63	48	55	76
9. Jambi	66	63	70	76	63	73	57	56	81	81	68	41	61	86
10. Mojokerto	66	78	68	48	67	69	52	33	57	110	82	74	55	74

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Indonesia in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



Source: Berkeley Earth

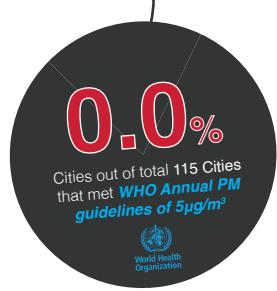
INDONESIA'S METRO CITIES



Africa

2nd Ranked Continent for the Highest AQI By Countries.

In 2024, **Africa** was ranked as the **Second** continent for the highest AQI levels in the world. Out of a total of **115** cities, **0%** met the WHO annual PM2.5 guideline of **5µg/m³**. The top 20 countries recorded "Moderate" AQI levels in 2024.



AFRICA COUNTRIES AQI RANKING

Countries	2024 Avg.	Countries	2024 Avg.	Countries	2024 Avg.
1. Egypt	92	11. Benin	62	21. Mali	50
2. Rwanda	87	12. Ghana	62	22. South Africa	50
3. Cameroon	86	13. Madagascar	62	23. Guinea	47
4. Congo Kinshasa	80	14. Gambia	57	24. Botswana	46
5. Nigeria	80	15. Sudan	57	25. Cabo Verde	46
6. Uganda	80	16. Kenya	55	26. Burkina Faso	43
7. Ethiopia	75	17. Liberia	55	27. Angola	41
8. Gabon	70	18. Algeria	54	28. Namibia	40
9. Cote Divoire	65	19. Zambia	53	29. Togo	40
10. Senegal	63	20. Chad	51	30. Reunion	30

AFRICAN CITIES WITH THE HIGHEST AQI LEVELS

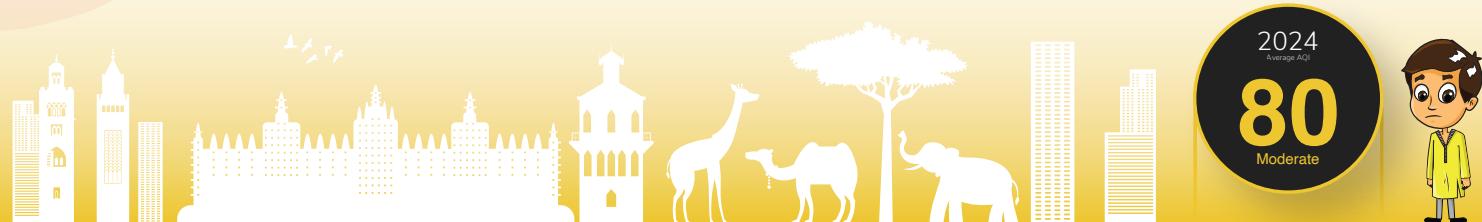
List of cities in the **African continent** for air quality levels ranking in 2024. **67 cities** in different countries reported the annual average AQI in the "Moderate" category and the rest of the cities in the "Good" category.

1. Abu Qir, Egypt	102	24. Mubende, Uganda	70	47. Bududa, Uganda	60	70. Lodwar, Kenya	50
2. Kabale, Uganda	89	25. Osogbo, Nigeria	70	48. Kaolack, Senegal	60	71. Matam, Senegal	50
3. Abuja, Nigeria	88	26. Kasese, Uganda	69	49. Koforidua, Ghana	60	72. Middelburg, South Africa	50
4. Kigali, Rwanda	86	27. Ilorin, Nigeria	68	50. Rustenburg, South Africa	60	73. Nairobi, Kenya	50
5. Fayanga, Chad	84	28. Libreville, Gabon	67	51. Vanderbijlpark, South Africa	60	74. Mmabatho, South Africa	49
6. Calabar, Nigeria	82	29. Lebowakgomo, South Africa	66	52. Kumasi, Ghana	59	75. Polokwane, South Africa	48
7. Benin City, Nigeria	81	30. Roodepoort, South Africa	66	53. East London, South Africa	58	76. Volksrust, South Africa	48
8. Port Harcourt, Nigeria	81	31. Randburg, South Africa	64	54. Gulu, Uganda	58	77. Potchefstroom, South Africa	47
9. Warri, Nigeria	81	32. Abidjan, Cote Divoire	63	55. Centurion, South Africa	57	78. Ziguinchor, Senegal	47
10. Douala, Cameroon	80	33. Alberton, South Africa	63	56. Lusaka, Zambia	57	79. Durban, South Africa	46
11. Kano, Nigeria	76	34. Jinja, Uganda	63	57. Springs, South Africa	55	80. Luanda, Angola	46
12. Lagos, Nigeria	76	35. Accra, Ghana	62	58. Algiers, Algeria	54	81. Mahalapye, Botswana	46
13. Addis Ababa, Ethiopia	75	36. Cotonou, Benin	62	59. Bethal, South Africa	54	82. Espargos, Cabo Verde	44
14. Birnin Kebbi, Nigeria	74	37. Dakar, Senegal	62	60. Kanifing, Gambia	54	83. Sao Filipe, Cabo Verde	44
15. Wakiso, Uganda	73	38. Iganga, Uganda	62	61. Kiambu, Kenya	54	84. Lubango, Angola	43
16. Zongo, Congo Kinshasa	72	39. Kisumu, Kenya	62	62. Brits, South Africa	53	85. Mindelo, Cabo Verde	43
17. Cairo, Egypt	71	40. Luuka Town, Uganda	62	63. Vereeniging, South Africa	53	86. Porto Novo, Cabo Verde	43
18. Kampala, Uganda	71	41. Sandton, South Africa	62	64. Bloemfontein, South Africa	52	87. Praia, Cabo Verde	43
19. Masaka, Uganda	71	42. Antananarivo, Madagascar	61	65. Monrovia, Liberia	52	88. Sal Rei, Cabo Verde	43
20. Mityana, Uganda	71	43. Johannesburg, South Africa	61	66. Pretoria, South Africa	52	89. Cape Town, South Africa	42
21. Mukono, Uganda	71	44. Pietermaritzburg, South Africa	61	67. Standerton, South Africa	52	90. Luanshya, Zambia	42
22. Fort Portal, Uganda	70	45. Toamasina, Madagascar	61	68. Khartoum, Sudan	50	91. Phalaborwa, South Africa	42
23. Kinshasa, Congo Kinshasa	70	46. Tororo, Uganda	61	69. Klerksdorp, South Africa	50	92. Port Elizabeth, South Africa	42



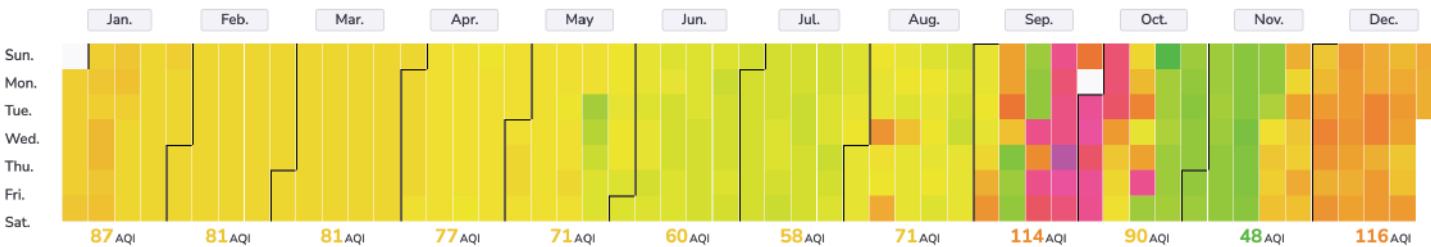
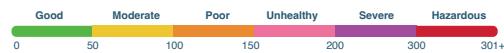
UGANDA

In 2024, **Uganda** ranked **18th** for the highest AQI levels levels worldwide. With an annual average of **80** in the “Moderate” category, and as compared to the 2023 annual average, 2024 levels recorded a **12.1% decrease**. In the overall Africa, Uganda is the seventh country for the highest AQI levels.



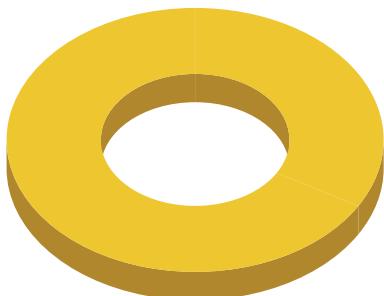
UGANDA - 2024 AQI TRENDS

In 2024, AQI in Uganda mostly remained in the “Moderate” category. Increased in September and December as recorded the “Poor” levels. Only November in the same year reported “Good” air quality levels.



DISTRIBUTION OF UGANDA'S CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

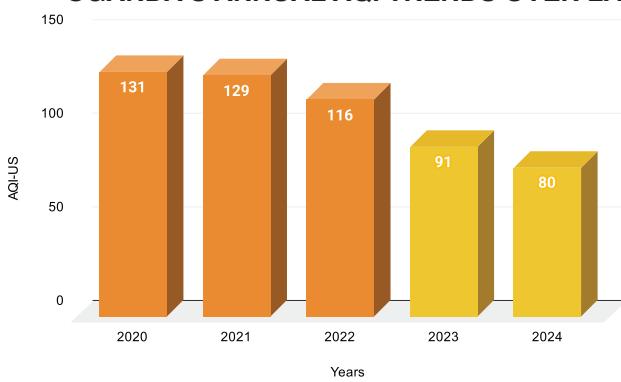
In 2024, All 15 cities in Uganda reported “Moderate” AQI levels with no city in the “Good” category.



Good	-
Moderate	15
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



UGANDA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



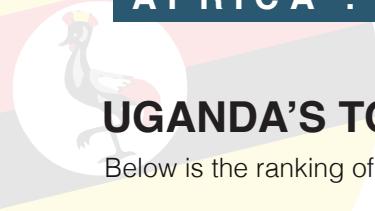
Over the past 5 years, AQI levels in Uganda showing the trend of declining as the highest AQI recorded in 2020 and the lowest recorded in 2024.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **Uganda's** annual average **PM2.5 concentration** ($29 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

481 cigarettes.



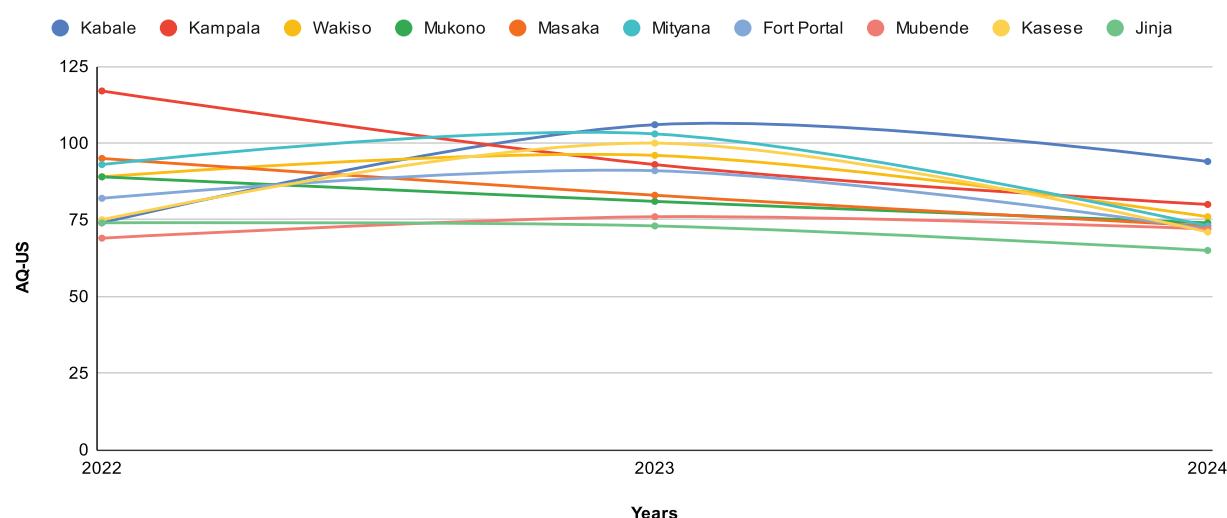


UGANDA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Uganda:

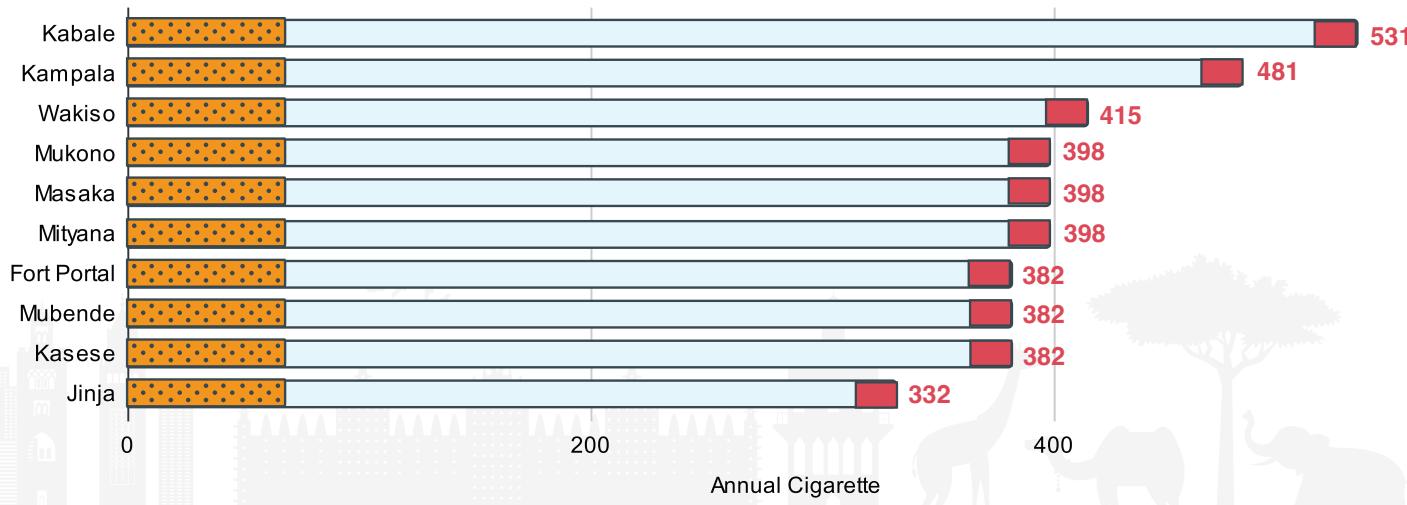
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Kabale	94	142	142	142	142	114	57	57	68	59	27	40	79	106
2. Kampala	80	89	81	80	74	70	60	58	71	114	90	49	120	93
3. Wakiso	76	89	86	86	89	79	60	58	67	69	24	48	119	96
4. Mukono	74	82	82	82	84	76	60	59	68	70	24	49	120	81
5. Masaka	73	89	87	87	81	71	60	58	62	72	27	48	107	83
6. Mityana	73	87	84	84	80	73	61	59	67	69	27	48	109	103
7. Fort Portal	72	84	84	84	84	76	59	58	68	71	27	47	102	91
8. Mubende	72	89	87	87	81	70	59	58	61	72	27	47	106	76
9. Kasese	71	84	84	84	84	74	58	57	63	57	34	49	96	100
10. Jinja	65	62	62	62	62	61	60	58	66	69	24	48	120	73

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Uganda in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



UGANDA'S METRO CITIES



Kampala
80
Moderate



Mukono
74
Moderate



Masaka
73
Moderate



Kasese
71
Moderate



Jinja
65
Moderate

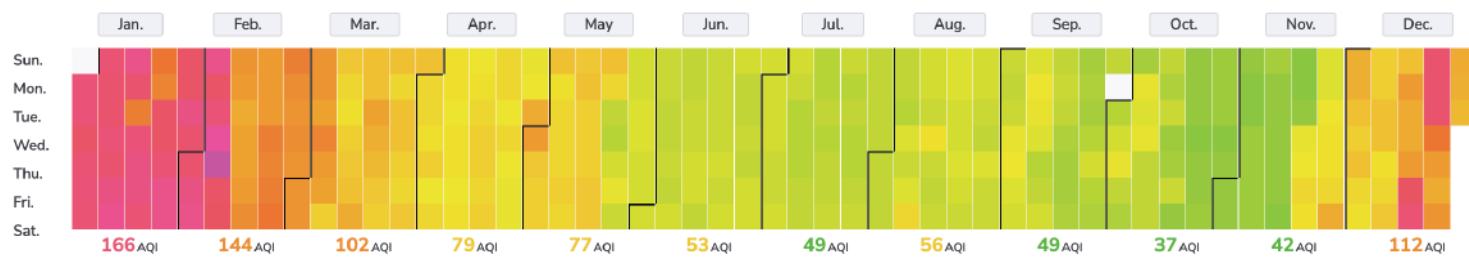
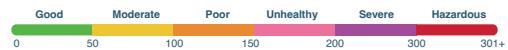
NIGERIA

In 2024, **Nigeria** ranked as the Seventeenth country globally for the highest AQI levels. The Annual AQI average recorded **80** in the “Moderate” category. As compared to 2023 AQI levels, 2024 recorded a **20% decrease**, and the air quality remained a concern throughout the year. In Africa, Nigeria **ranked 4th** for the high AQI levels.



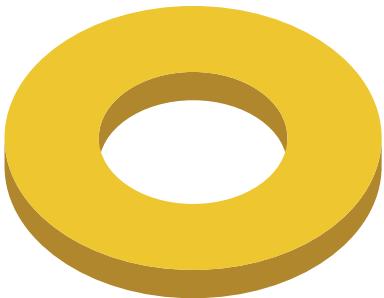
NIGERIA - 2024 AQI TRENDS

In 2024, January was reported as the most polluted month in Nigeria with AQI in the “Unhealthy” category. Three months were also recorded in the “Poor” category as per the annual average AQI.



DISTRIBUTION OF NIGERIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In 2024, all 10 cities in Nigeria reported “Moderate” air quality levels.

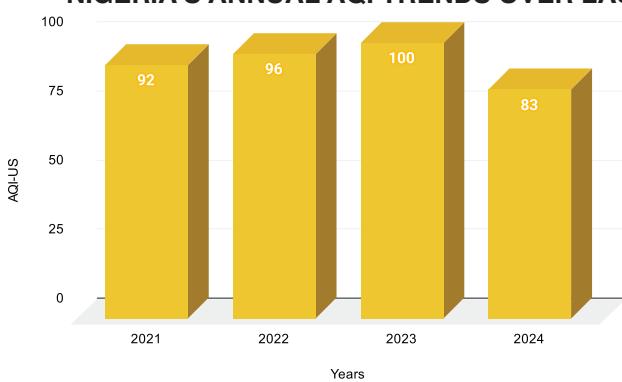


Good	-
Moderate	10
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



Note: The Nigerian map used is for reference purpose only.

NIGERIA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, the lowest AQI levels recorded in 2024. And the highest AQI levels reported in 2023 with steady increasing trend.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, Nigeria's annual average PM2.5 concentration ($33 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

548 cigarettes.

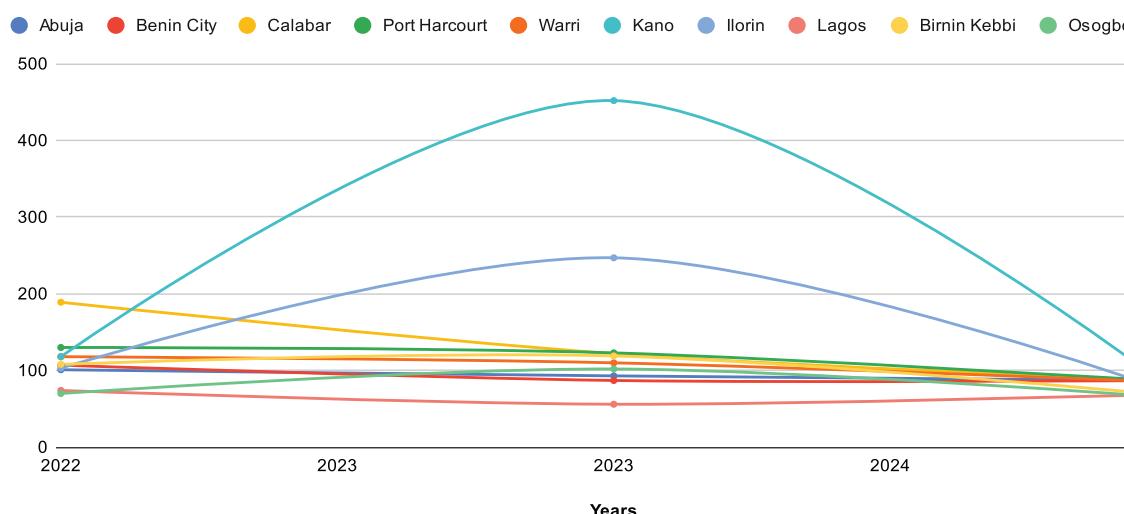


NIGERIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Nigeria:

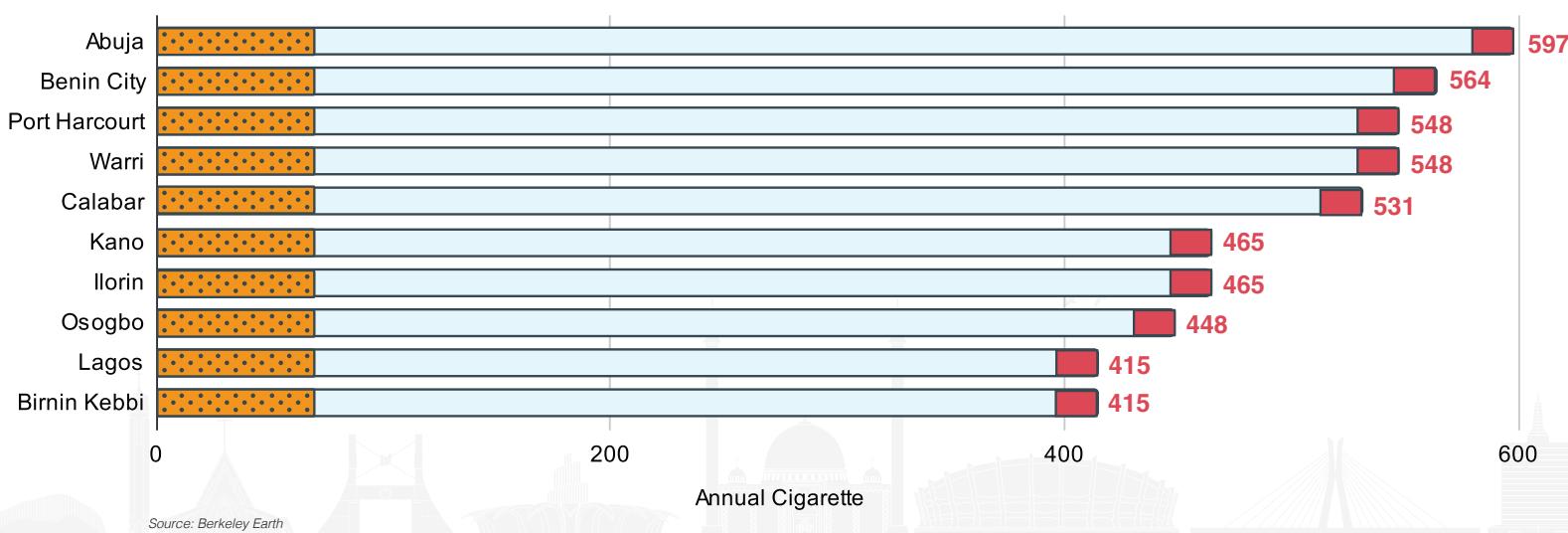
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Abuja	87	181	166	64	78	79	72	50	65	72	51	56	116	93
2. Benin City	87	146	136	108	86	94	53	50	72	59	19	40	113	87
3. Calabar	87	162	151	122	91	83	52	49	47	44	24	45	112	122
4. Port Harcourt	86	167	154	122	86	85	50	48	45	42	19	39	113	123
5. Warri	85	170	152	116	83	85	50	48	46	45	19	39	113	110
6. Kano	80	137	122	99	90	77	56	48	52	50	17	49	114	452
7. Ilorin	74	189	-	101	75	73	54	48	51	52	17	41	110	247
8. Lagos	69	181	-	178	101	79	50	49	46	44	37	37	113	56
9. Birnin Kebbi	68	138	183	92	58	57	48	45	47	47	17	41	109	119
10. Osogbo	65	256	106	68	29	20	46	48	48	36	17	40	109	102

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Nigeria in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



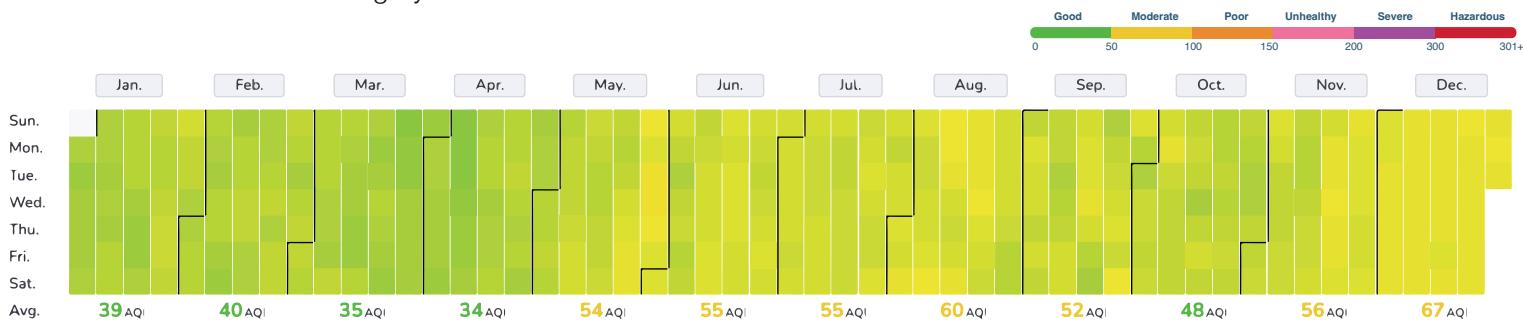
SOUTH AFRICA

In 2024, **South Africa** ranked 66th for the highest AQI levels worldwide. With an annual average of 50 in the “Good” category, and as compared to the 2023 annual average, 2024 levels recorded a 4.2% increase. In overall Africa, South Africa *ranked as the 22nd* country for the highest AQI levels.



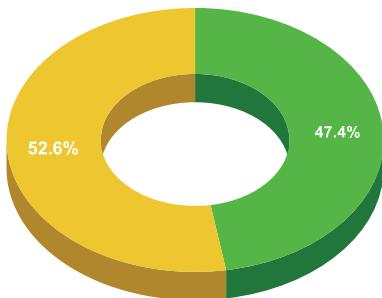
SOUTH AFRICA - 2024 AQI TRENDS

In 2024, the annual average AQI in South Africa mostly remained in the “Moderate” category for seven months and other months in the “Good” category.



DISTRIBUTION OF SOUTH AFRICAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

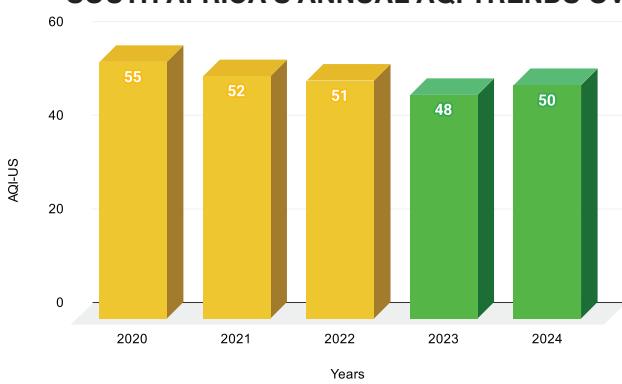
In 2024, Around 18 cities in South Africa reported “Good” air quality levels. Meanwhile, the rest of the 20 cities reported “Moderate” AQI levels.



Good	18
Moderate	20
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



SOUTH AFRICA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, AQI from 2020 to 2022 reported in the “Moderate” category. AQI in 2023 and 2024 declined and recorded in the “Good” category.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **South Africa's** annual average PM2.5 concentration ($16 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

265 cigarettes.

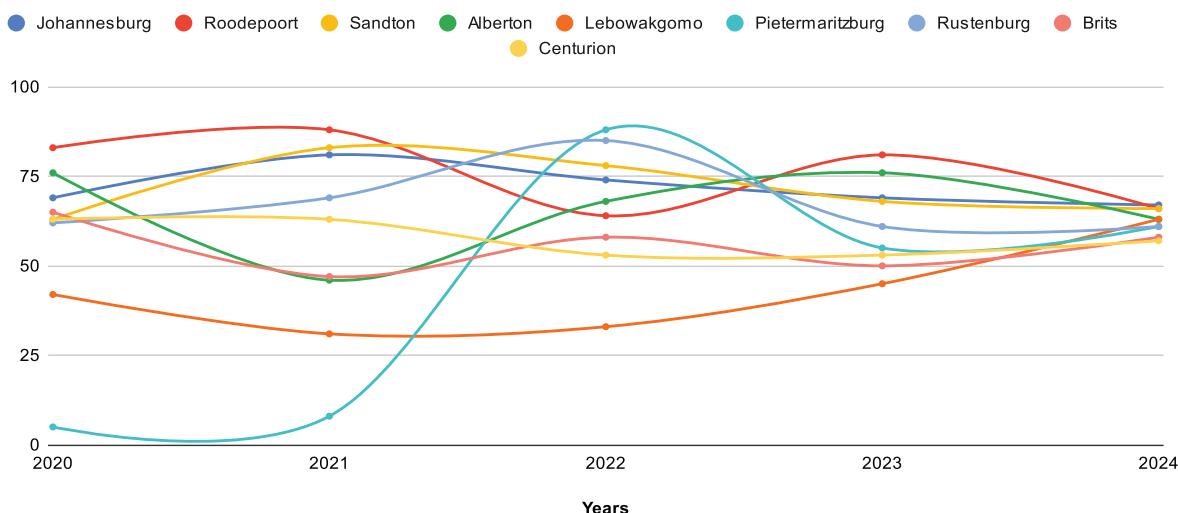


SOUTH AFRICA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in South Africa:

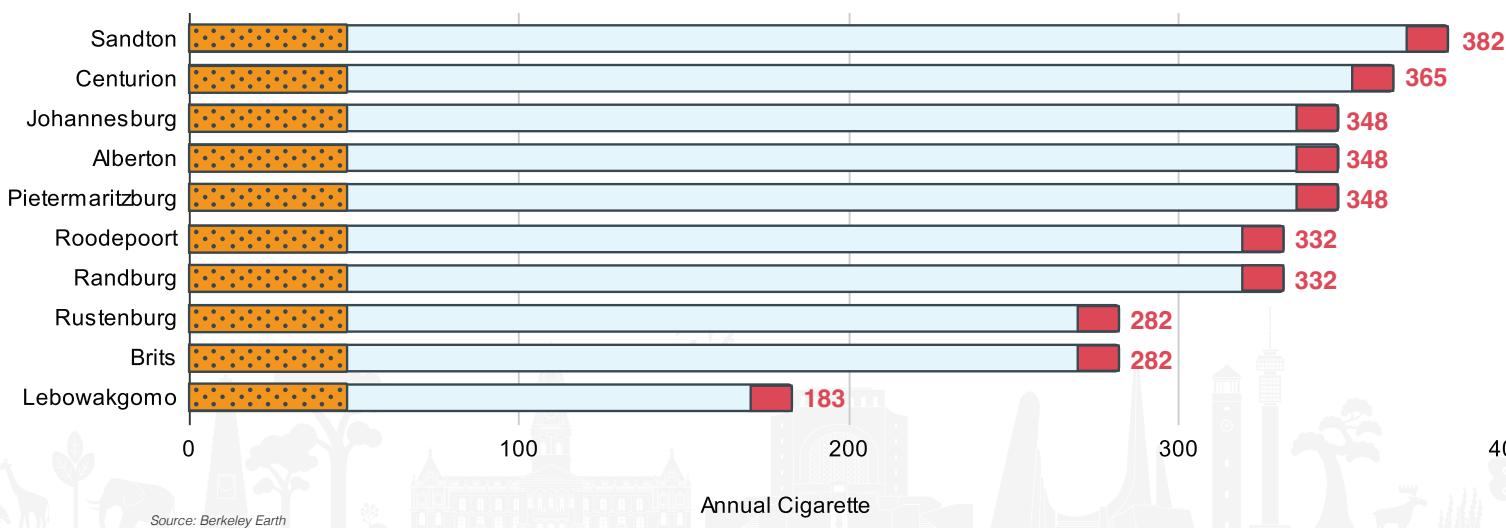
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Johannesburg	67	49	56	60	-	73	56	57	70	73	69	89	84	69
2. Roodepoort	66	70	63	58	51	79	57	57	79	76	64	73	63	81
3. Sandton	66	48	52	42	36	72	56	58	72	74	71	88	84	68
4. Randburg	64	55	43	44	44	77	77	66	72	67	71	84	70	62
5. Alberton	63	61	50	51	49	77	56	58	72	73	60	65	77	76
6. Lebowakgomo	63	123	135	60	26	46	51	57	62	51	47	46	66	45
7. Pietermaritzburg	61	49	62	63	59	58	53	55	47	38	71	84	99	55
8. Rustenburg	61	40	70	56	59	89	61	64	62	52	48	68	62	61
9. Brits	58	41	42	51	-	66	55	57	63	58	54	83	71	50
10. Centurion	57	48	34	47	55	57	50	51	57	36	77	91	84	53

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of South Africa in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



SOUTH AFRICA'S METRO CITIES



Europe

3rd Ranked Continent for the Highest AQI by Countries.

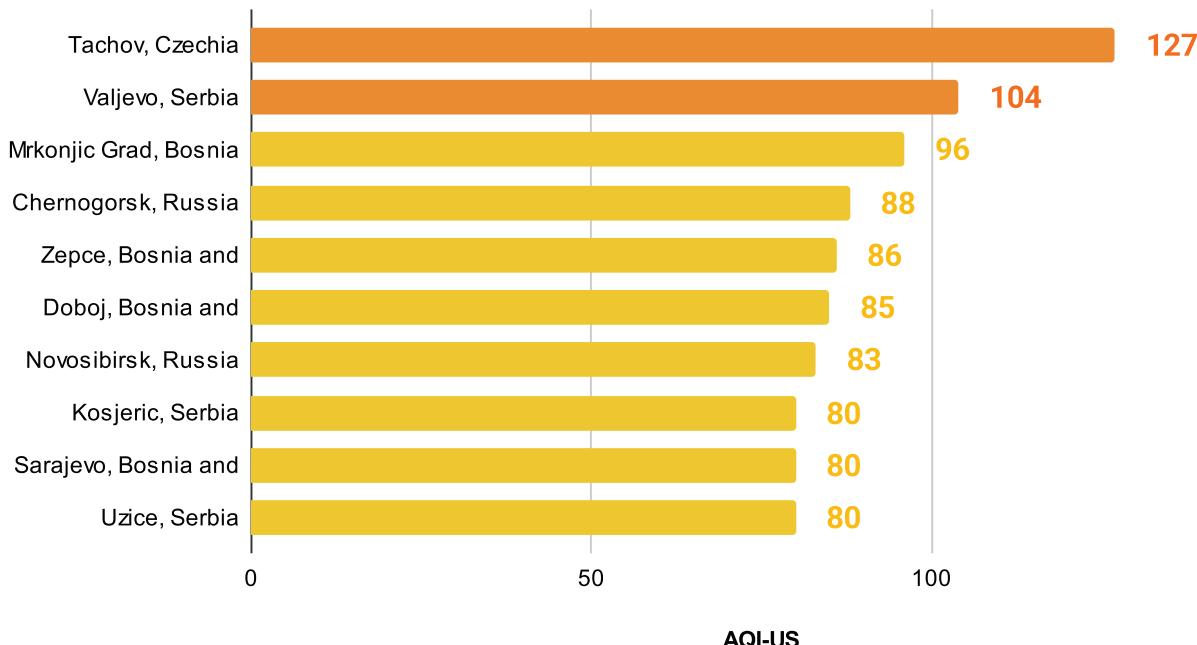
In 2024, **Europe** was ranked as the Third continent for highest AQI levels in the world. Out of a total of 1,912 cities, only 7.1% met the WHO annual PM_{2.5} guideline of 5 µg/m³. Bosnia and Herzegovina, Serbia, and Macedonia ranked for top countries with high AQI levels in Europe, recording Moderate AQI levels throughout the year.



EUROPEAN COUNTRIES AQI RANKING

Countries	2024 Avg.	Countries	2024 Avg.	Countries	2024 Avg.
1. Bosnia and Herzegovina	70	17. Albania	40	33. Andorra	32
2. Macedonia	60	18. Italy	40	34. Gibraltar	32
3. Montenegro	59	19. San Marino	40	35. Austria	31
4. Serbia	59	20. Lithuania	38	36. United Kingdom	31
5. Georgia	54	21. Russia	37	37. Ireland	29
6. Czechia	49	22. Belarus	36	38. Jersey	29
7. Kosovo	48	23. Monaco	36	39. Norway	28
8. Slovakia	48	24. Spain	36	40. Estonia	27
9. Slovenia	48	25. Bulgaria	35	41. Denmark	26
10. Malta	47	26. Germany	35	42. Latvia	26
11. Poland	46	27. France	34	43. Switzerland	26
12. Greece	44	28. Luxembourg	34	44. Liechtenstein	25
13. Hungary	44	29. Netherlands	34	45. Sweden	25
14. Romania	43	30. Belgium	33	46. Finland	21
15. Croatia	42	31. Moldova	33	47. Iceland	21
16. Ukraine	41	32. Portugal	33	48. Greenland	09

EUROPEAN CITIES WITH THE HIGHEST AQI LEVELS



HIGHLIGHTS

Only Czechia's Tachov and Serbia's Valjevo tops the list with high AQI levels in the "Poor" category in Europe. Followed by Mrkonjić Grad, Bosnia and other cities in "Moderate" air quality levels highlighting significant pollution issues in these regions.

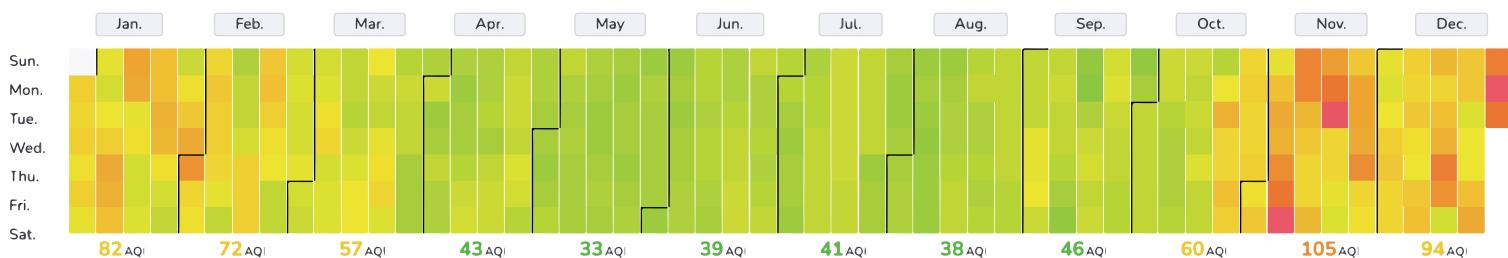
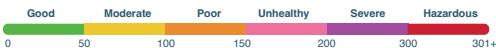
SERBIA

In 2024, **Serbia** ranked 45th for the highest air quality levels in the world. With an annual average of 59 in the “Moderate” category, and as compared to the 2023 annual average, 2024 levels recorded a **18% increase**. In the overall Europe, Serbia is the **second most polluted** country. Major factors like coal-fuelled power stations and soild fuels burning impact the air quality.



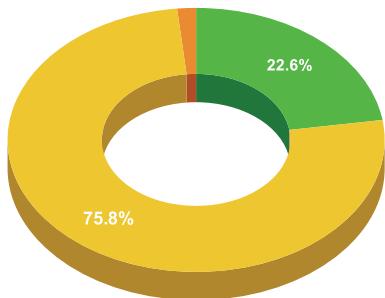
SERBIA - 2024 AQI TRENDS

In 2024, the annual average AQI of Serbia increased in November as recorded the “Poor” levels. From April to September of the same year reported “Good” air quality levels.



DISTRIBUTION OF SERBIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

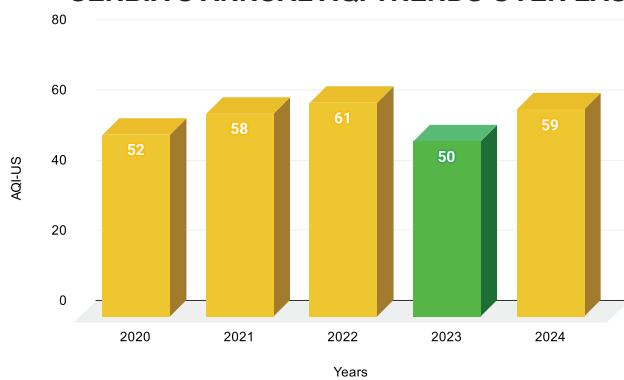
In 2024, Around 14 cities in Serbia reported “Good” air quality levels. Meanwhile, the rest of the 48 cities in Serbia reported “Moderate” AQI levels.



Good	14
Moderate	47
Poor	01
Unhealthy	-
Severe	-
Hazardous	-



SERBIA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, the highest AQI levels in Serbia were recorded in 2022. It showed an increasing AQI trend for over 3 years till 2022.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **Serbia's** annual average **PM2.5 concentration** ($20 \mu\text{g/m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

332 cigarettes.



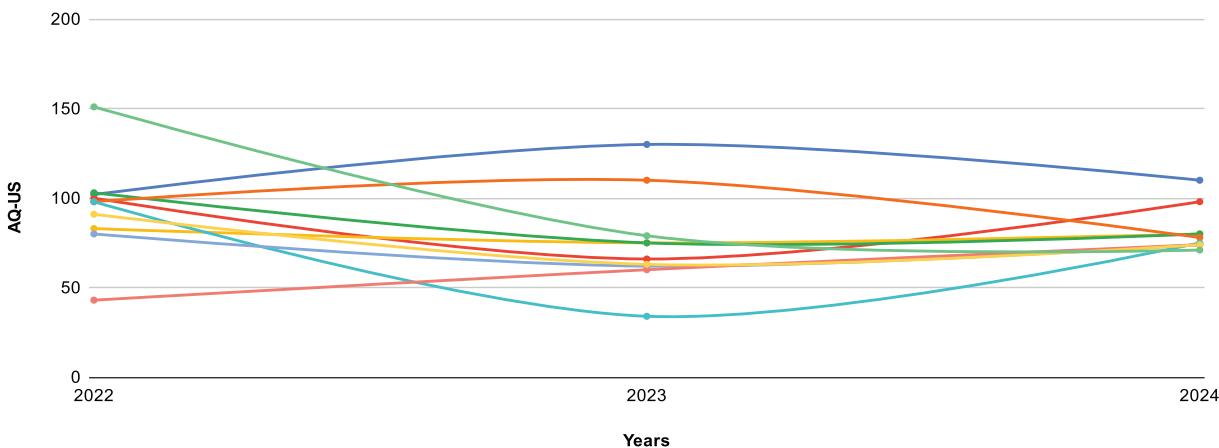
SERBIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Serbia:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Pozarevac	110	183	222	225	222	73	48	44	37	47	77	114	93	130
2. Valjevo	98	119	115	103	193	103	46	48	43	50	101	129	119	66
3. Kosjeric	80	135	117	86	61	48	48	48	54	55	80	122	110	75
4. Uzice	80	126	104	85	58	57	56	56	53	57	80	122	111	75
5. Veliko Gradiste	78	69	35	156	154	55	45	43	38	48	77	109	78	110
6. Novi Pazar	75	121	93	71	61	49	50	52	53	56	60	106	129	62
7. Borca	74	101	-	105	70	38	49	46	47	60	103	111	105	60
8. Lajkovac	74	71	111	77	86	39	49	46	47	59	105	118	109	57
9. Prijepolje	74	108	-	57	17	32	43	46	50	56	81	119	107	63
10. Leskovac	71	112	101	80	44	26	42	44	37	53	45	107	94	77

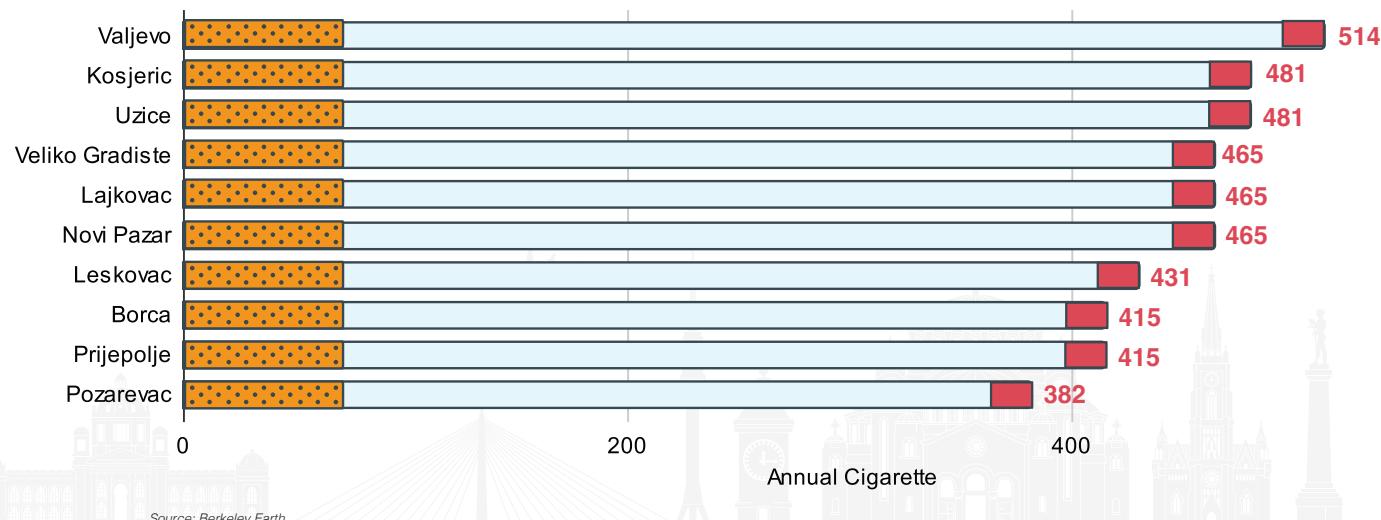
ANNUAL AQI COMPARISON OF TOP CITIES 2024

● Pozarevac ● Valjevo ● Kosjeric ● Uzice ● Veliko Gradiste ● Novi Pazar ● Borca ● Lajkovac ● Prijepolje
● Leskovac



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Serbia in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



SERBIA'S METRO CITIES



Belgrade
61
Moderate



Kraljevo
61
Moderate



Nis
60
Moderate



Novi Sad
51
Moderate



Kragujevac
51
Moderate



Subotica
40
Good

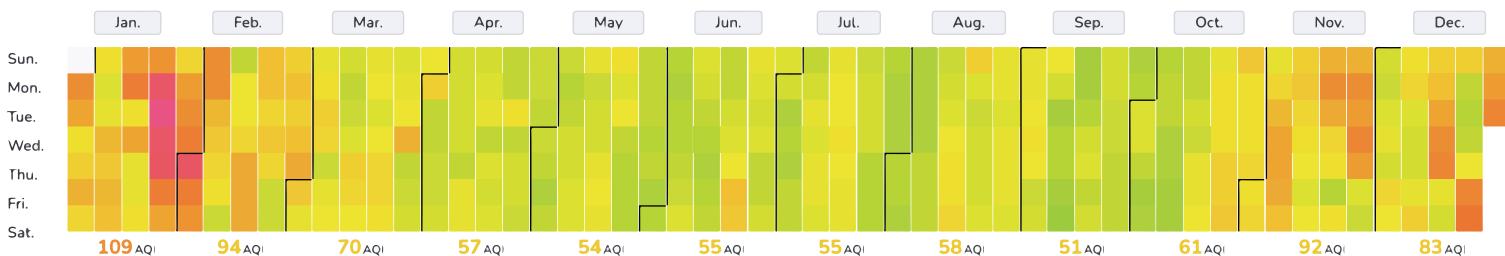
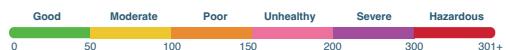
BOSNIA & HERZEGOVINA

In 2024, **Bosnia & Herzegovina** ranked 26th country globally for the highest AQI levels. With an annual AQI average of 70, placing it in the “Moderate” category. Compared to the 2023 annual average, 2024 levels recorded an **7.9% decrease**. Despite this, Bosnia & Herzegovina continuously recorded the high AQI levels in Europe among other countries in 2024.



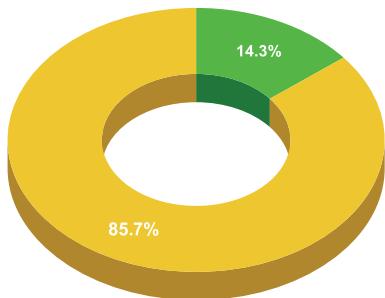
BOSNIA AND HERZEGOVINA - 2024 AQI TRENDS

In 2024, the annual average AQI of Bosnia increased in January as recorded the “Poor” levels. The rest of the months of 2024 reported “Moderate” air quality levels.



DISTRIBUTION OF BOSNIA AND HERZEGOVINA'S CITIES ACC.TO THE AVERAGE AQI STATUS FOR 2024

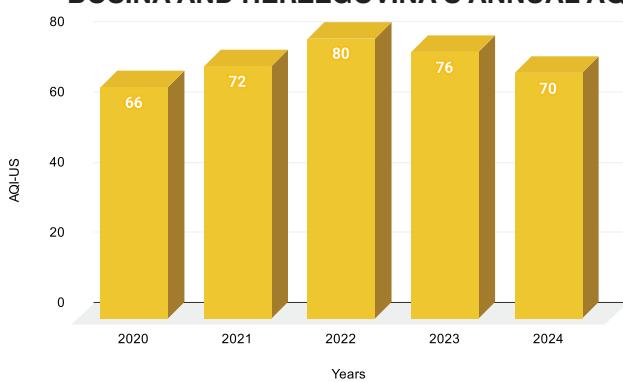
In 2024, only 02 cities in Bosnia reported “Good” air quality levels, where other 12 cities in the country reported the “Moderate” AQI levels.



Good	02
Moderate	12
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



BOSNIA AND HERZEGOVINA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



From 2020 to 2023, AQI in Bosnia & Herzegovina showed an increasing trend. In 2024, a slight decrease in the AQI levels was reported.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **Bosnia & Herzegovina's** annual average PM_{2.5} concentration ($22 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

365 cigarettes.



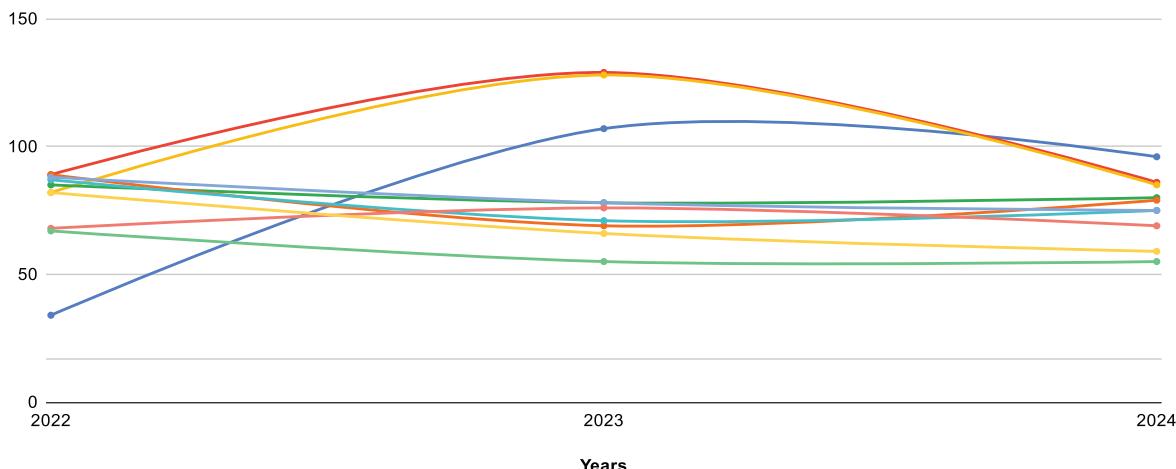
BOSNIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Bosnia & Herzegovina:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Mrkonjic Grad	96	112	112	113	115	114	113	100	93	113	65	51	55	107
2. Zepce	86	147	124	89	67	102	60	52	67	54	72	110	84	129
3. Doboj	85	145	122	87	67	103	59	58	68	52	71	109	82	128
4. Sarajevo	80	127	102	72	63	54	61	61	60	52	70	126	109	78
5. Lukavac	79	114	99	75	47	51	63	63	63	60	82	125	108	69
6. Jablanica	75	139	98	63	56	48	55	56	58	52	63	119	91	71
7. Tuzla	75	118	100	76	52	41	52	58	56	55	78	118	105	78
8. Gorazde	69	81	-	59	53	39	46	48	50	62	76	117	91	76
9. Zenica	59	100	89	68	55	43	48	49	54	39	45	55	58	66
10. Visoko	55	87	98	47	40	70	43	44	50	34	41	54	52	55

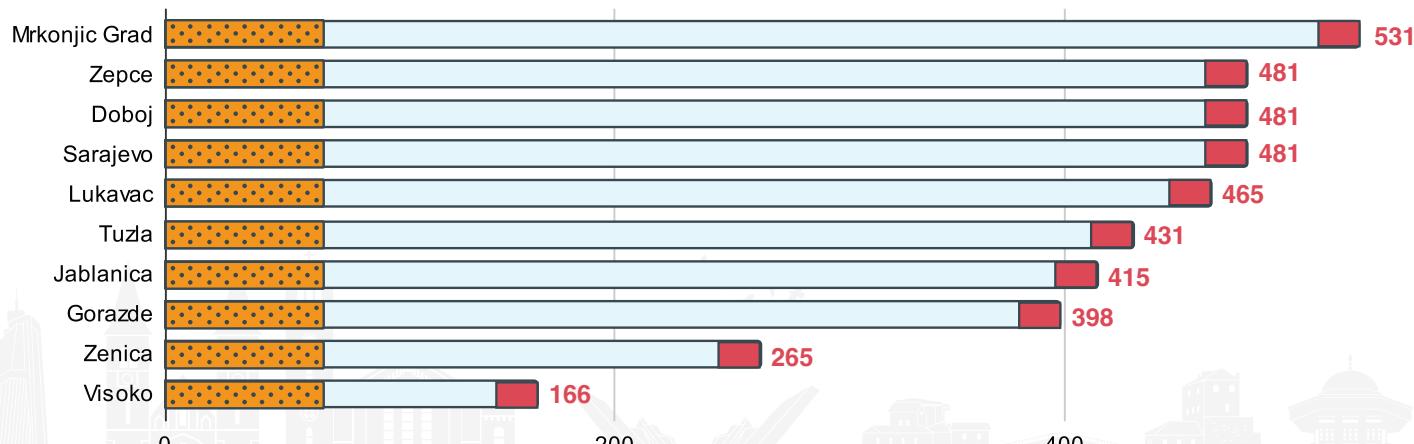
ANNUAL AQI COMPARISON OF TOP CITIES 2024

● Mrkonjic Grad ● Zepce ● Doboj ● Sarajevo ● Lukavac ● Jablanica ● Tuzla ● Gorazde ● Zenica ● Visoko



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Bosnia in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



Source: Berkeley Earth

BOSNIA & HERZEGOVINA'S METRO CITIES



Zepce
86
Moderate



Sarajevo
80
Moderate



Tuzla
75
Moderate



Zenica
59
Moderate

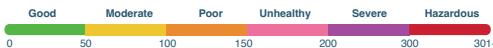
RUSSIA

In 2024, **Russia** ranked 98th globally in the air quality rankings. With an annual AQI average of 37, placing it in the “Good” category. However, 2024 levels showed a 37% increase in AQI levels as compared to the 2023 annual average. A few cities recorded “Poor” AQI levels during certain months, highlighting localized air pollution challenges.



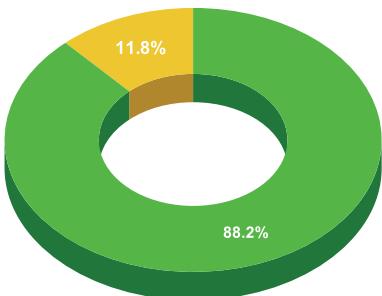
RUSSIA - 2024 AQI TRENDS

In 2024, the annual average AQI of Russia increased in September and December as recorded the “Moderate” levels. The rest of the months of 2024 reported “Good” air quality levels.



DISTRIBUTION OF RUSSIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

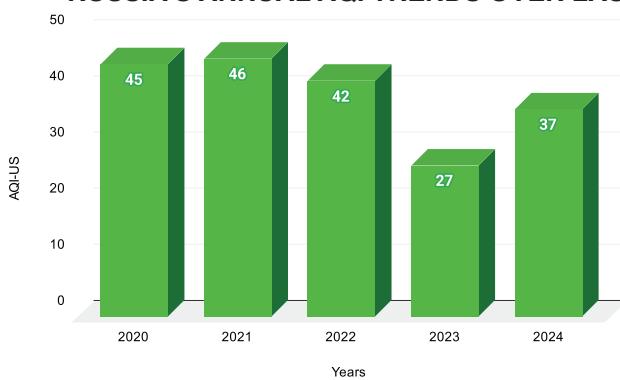
In 2024, Around 134 cities in Russia reported “Good” air quality levels. Meanwhile, other 18 cities in the country reported the “Moderate” AQI levels.



Good	134
Moderate	18
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



RUSSIA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, AQI remained in the “Good” category. The lowest AQI reported in 2023 and slightly increased in 2024.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **Russia's** annual average PM_{2.5} concentration ($10 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

166 cigarettes.

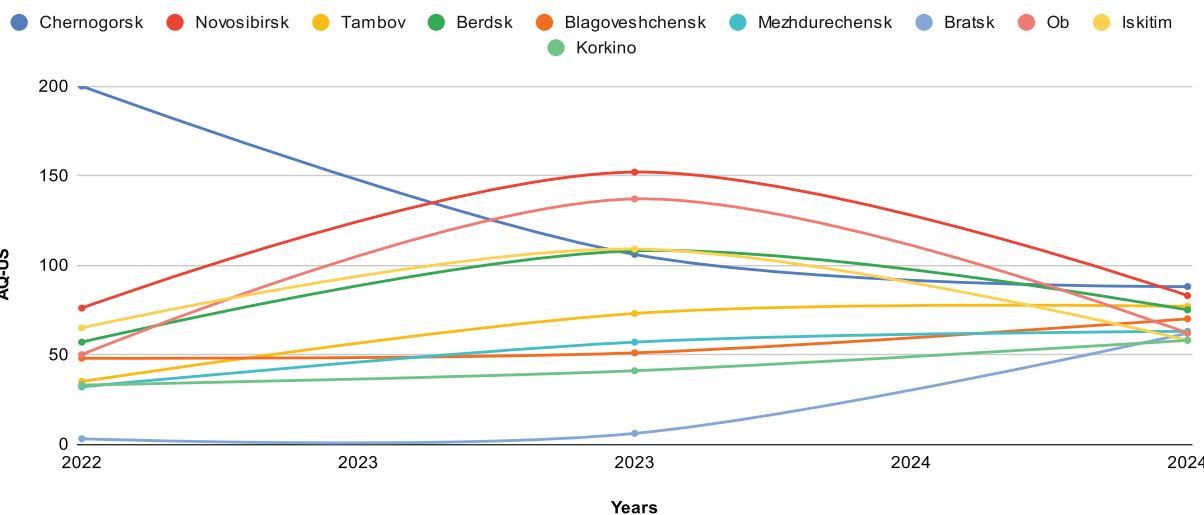


RUSSIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Russia:

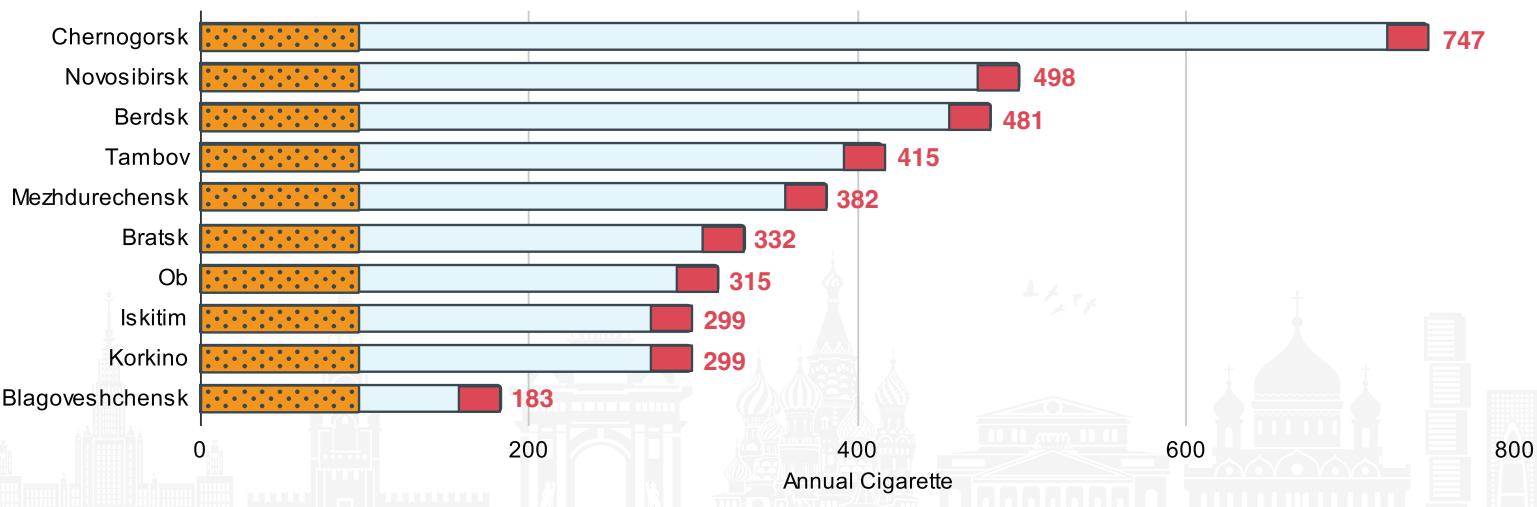
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Chernogorsk	88	244	228	99	52	29	32	30	35	43	22	50	112	106
2. Novosibirsk	83	157	130	129	128	93	49	44	42	54	35	58	108	152
3. Tambov	77	41	66	86	98	96	105	110	105	105	21	28	58	73
4. Berdsk	75	99	162	163	160	86	49	43	38	50	34	57	106	108
5. Blagoveshchensk	70	74	76	68	70	62	57	74	49	53	74	75	102	51
6. Mezhdurechensk	63	105	-	209	208	47	48	43	40	48	22	57	113	57
7. Bratsk	62	19	-	8	11	50	46	44	46	57	42	90	125	6
8. Ob	62	122	-	160	152	49	49	43	38	50	35	56	103	137
9. Iskitim	58	75	-	154	154	51	49	43	39	49	35	56	106	109
10. Korkino	58	113	-	154	154	45	49	44	43	57	23	44	90	41

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Russia in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



RUSSIA'S METRO CITIES



Novosibirsk
83
Moderate



Omsk
46
Good



Moscow
40
Good



Yekaterinburg
37
Good



Saint Petersburg
26
Good

South America

4th Ranked Continent for the Highest AQI By Countries.

In 2024, **South America** was ranked as the fourth continent for highest AQI levels in the world. Out of a total of 119 cities, only 2.5% met the WHO annual PM_{2.5} guideline of 5 µg/m³. Peru, Colombia, Ecuador and Chile ranked for the highest AQI levels in South America, recording Moderate AQI levels throughout the year.



SOUTH AMERICAN COUNTRIES AQI RANKING

Countries	2024 Avg.	Countries	2024 Avg.	Countries	2024 Avg.
1. Peru	60	4. Ecuador	52	7. Argentina	34
2. Colombia	56	5. Venezuela	50	8. Bolivia	34
3. Chile	53	6. Brazil	44		

CITIES IN SOUTH AMERICA WITH THE HIGHEST AQI LEVELS

List of **South American cities** for air quality levels ranking in 2024. Most of the cities in the “Moderate” category are from Brazil, Chile, and Argentina.

1. Mendoza, Argentina	84	31. Jundiai, Brazil	54	61. Santa Gertrudes, Brazil	47	91. Calama, Chile	38
2. Coyhaique, Chile	82	32. Puerto Aysen, Chile	54	62. Vina Del Mar, Chile	47	92. Sao Jose Do Rio Preto, Brazil	38
3. San Bernardo, Chile	69	33. Sao Paulo, Brazil	54	63. Cali, Colombia	46	93. Jacarei, Brazil	37
4. Rancagua, Chile	65	34. Curico, Chile	53	64. Cuenca, Ecuador	46	94. La Serena, Chile	37
5. Bucaramanga, Colombia	64	35. La Union, Chile	53	65. Niteroi, Brazil	46	95. Manaus, Brazil	36
6. Pamplona, Colombia	64	36. Lo Miranda, Chile	53	66. Santos, Brazil	46	96. Porto Alegre, Brazil	36
7. Alerce, Chile	63	37. Sao Caetano Do Sul, Brazil	53	67. Tame, Colombia	46	97. Bauru, Brazil	35
8. Osorno, Chile	63	38. Talca, Chile	53	68. Cucuta, Colombia	45	98. Jau, Brazil	35
9. Lima, Peru	61	39. Franco Da Rocha, Brazil	52	69. Dock Sur, Argentina	45	99. Presidente Prudente, Brazil	35
10. Medellin, Colombia	61	40. Puerto Montt, Chile	52	70. Libertad, Argentina	45	100. Rosario, Argentina	35
11. Talcahuano, Chile	61	41. Ribeirao Preto, Brazil	52	71. Tocopilla, Chile	45	101. Sorocaba, Brazil	35
12. Carapicuiba, Brazil	60	42. Taboao Da Serra, Brazil	52	72. Antofagasta, Chile	44	102. Aracatuba, Brazil	34
13. Osasco, Brazil	60	43. Chicureo Abajo, Chile	51	73. Buenos Aires, Argentina	44	103. Cochabamba, Bolivia	34
14. Puchuncavi, Chile	60	44. Piracicaba, Brazil	51	74. Campinas, Brazil	43	104. Marilia, Brazil	32
15. Chillan, Chile	59	45. Ciudad Guayana, Venezuela	50	75. Caseros, Argentina	43	105. Tatui, Brazil	32
16. Santiago, Chile	59	46. Sao Bernardo Do Campo	50	76. Catanduva, Brazil	43	106. Canela, Brazil	31
17. Bello, Colombia	58	47. Trujillo, Peru	50	77. Copiapo, Chile	43	107. Punta Arenas, Chile	30
18. Ferraz De Vasconcelos	58	48. Concepcion, Chile	49	78. Puerto Baquerizo Moreno	43	108. Iquique, Chile	29
19. Rio Claro, Brazil	58	49. Iguacu, Brazil	49	79. Americana, Brazil	42	109. Villa Constitucion, Argentina	29
20. San Fernando, Chile	58	50. Jesus Nazareno, Argentina	49	80. Linares, Chile	42	110. Darregueira, Argentina	28
21. Temuco, Chile	58	51. Paulinia, Brazil	49	81. Maua, Brazil	42	111. Vitoria, Brazil	28
22. Guarulhos, Brazil	57	52. Rio de Janeiro, Brazil	49	82. Arica, Chile	41	112. Huasco, Chile	27
23. Itaquaquecetuba, Brazil	57	53. Taubate, Brazil	49	83. Sao Jose Dos Campos	41	113. Vila Velha, Brazil	27
24. Bogota, Colombia	56	54. Tome, Chile	49	84. Sao Sebastiao, Brazil	41	114. Sao Joao da Boa Vista, Brazil	24
25. Limeira, Brazil	56	55. Valparaiso, Chile	49	85. Villa Sarmiento, Argentina	40	115. Modelo, Brazil	23
26. Sangolqui, Ecuador	56	56. Cubatao, Brazil	48	86. Buenos Aires, Argentina	39	116. Santa Rosa, Argentina	23
27. Valdivia, Chile	56	57. Diadema, Brazil	48	87. Coquimbo, Chile	39	117. Brasilia, Brazil	22
28. Quito, Ecuador	55	58. Godoy Cruz, Argentina	48	88. Los Angeles, Chile	39	118. General Pico, Argentina	22
29. Coronel, Chile	54	59. Cundinamarca, Colombia	47	89. Araraquara, Brazil	38	119. Novo Hamburgo, Brazil	21
30. Curanilahue, Chile	54	60. Guaratingueta, Brazil	47	90. Bahia Blanca, Argentina	38		

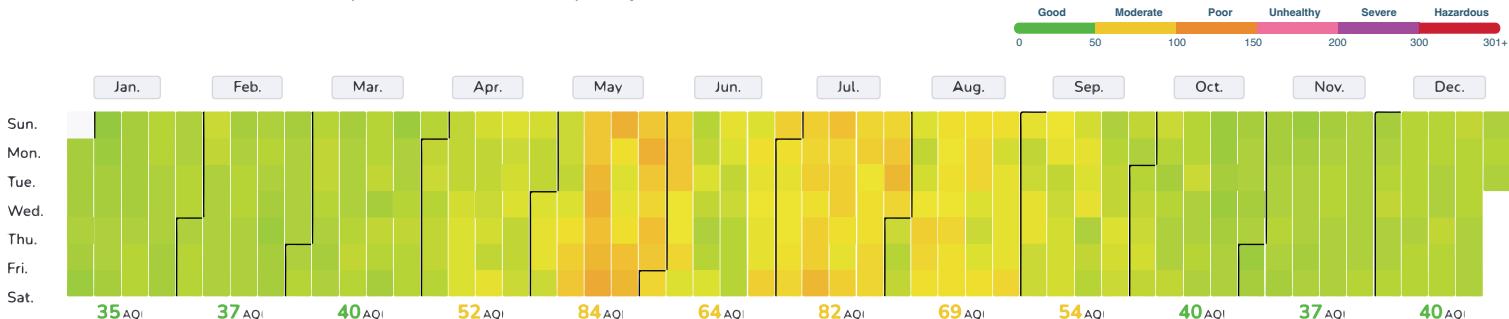
CHILE

In 2024, **Chile** ranked 58th globally in the air quality rankings. With an annual AQI average of 53, placing it in the “Moderate” category. However, 2024 levels showed a 3.6% decrease in AQI levels as compared to the 2023 annual average. A few cities recorded “Poor” AQI levels during certain months, highlighting localized air pollution challenges.



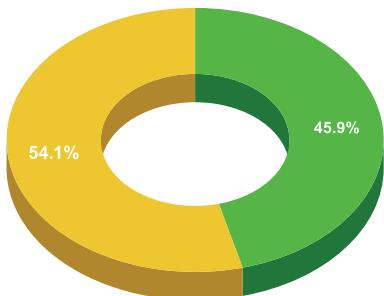
CHILE - 2024 AQI TRENDS

The annual average AQI of Chile increased from May to September as recorded the “Moderate” levels in 2024. The rest of the months of 2024 reported “Good” air quality levels.



DISTRIBUTION OF CHILE'S CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In 2024, Around 17 cities in Chile reported “Good” air quality levels. Meanwhile, other 20 cities in the country reported the “Moderate” AQI levels.



Good	17
Moderate	20
Poor	-
Unhealthy	-
Severe	-
Hazardous	-

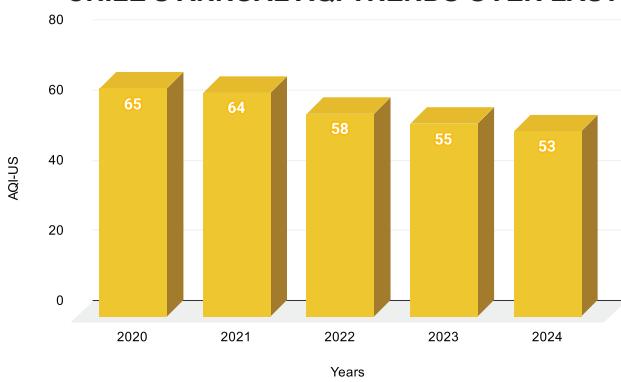
SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, Chile's annual average PM_{2.5} concentration ($17 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

282 cigarettes.



CHILE'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, the lowest AQI levels in Chile were recorded in 2024. In the other 4 years, AQI remained in the “Moderate” category.



HIGHLIGHTS

Eucalyptus plantations in Chile increased the 2024 wildfires and highly impacted the air quality.



Note : The Chile map used is for reference purpose only.

CHILE'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Chile:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Coyhaique	82	27	29	55	99	168	159	130	118	64	50	47	37	79
2. San Bernardo	69	53	53	58	64	93	94	123	79	63	49	43	50	74
3. Rancagua	65	49	47	45	66	104	93	109	81	63	41	37	44	73
4. Alerce	63	22	39	48	68	105	75	108	87	79	43	40	33	56
5. Osorno	63	17	22	42	59	129	78	112	109	78	42	36	30	66
6. Talcahuano	61	51	48	47	61	109	69	99	83	49	43	33	40	58
7. Puchuncavi	60	56	64	61	61	65	53	80	57	63	47	56	55	61
8. Chillan	59	37	38	39	62	118	74	106	77	52	36	27	30	61
9. Santiago	59	43	46	44	52	80	73	98	72	65	48	38	49	64
10. San Fernando	58	51	48	41	67	96	69	67	81	58	38	34	40	73

CHILE'S METRO CITIES



Santiago
59
Moderate

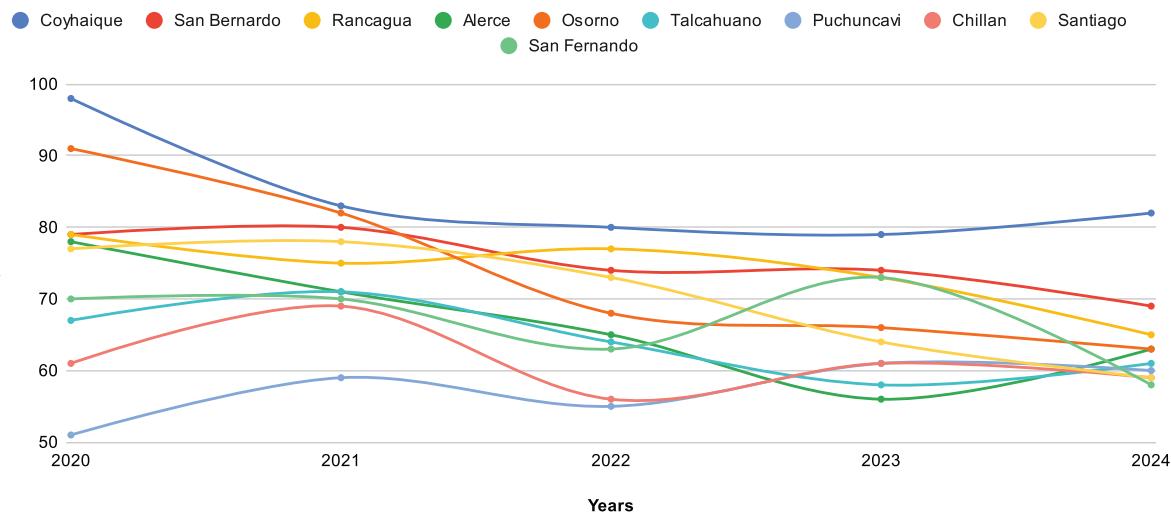


La Serena
37
Good



Iquique
29
Good

ANNUAL AQI COMPARISON OF TOP CITIES 2024

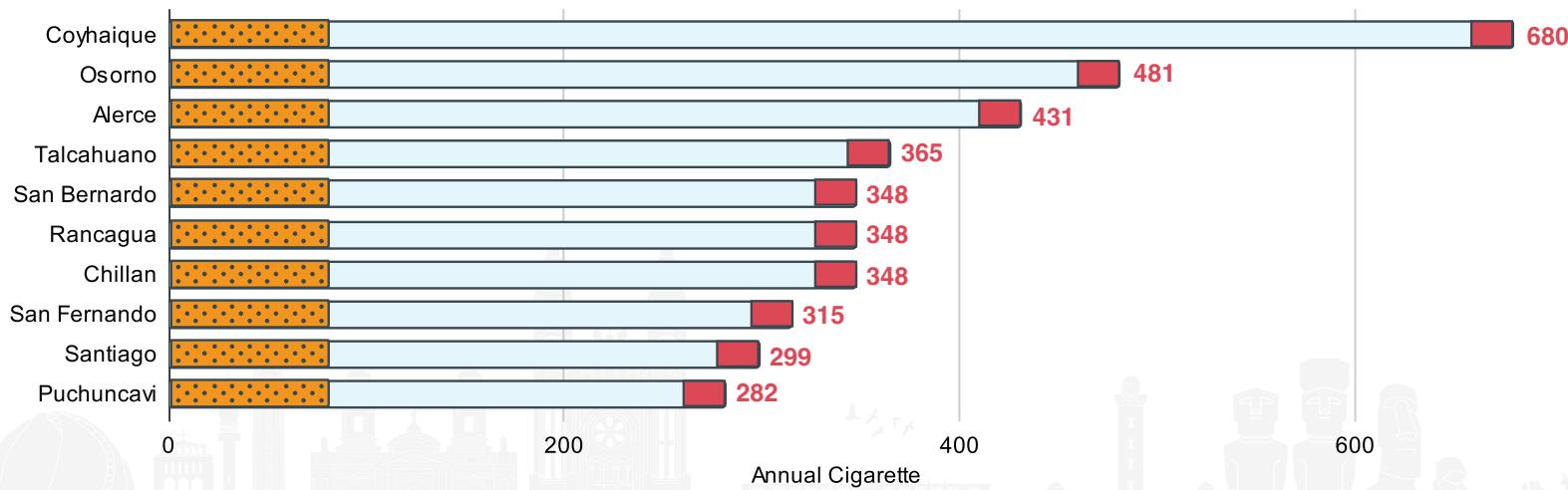


Overall, AQI levels in these cities showing different trends over 5 years.

Coyhaique showed increases in AQI but decline and other cities indicating slight changes in the overall air quality from 2020 to 2024.

ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Chile in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



Source: Berkeley Earth

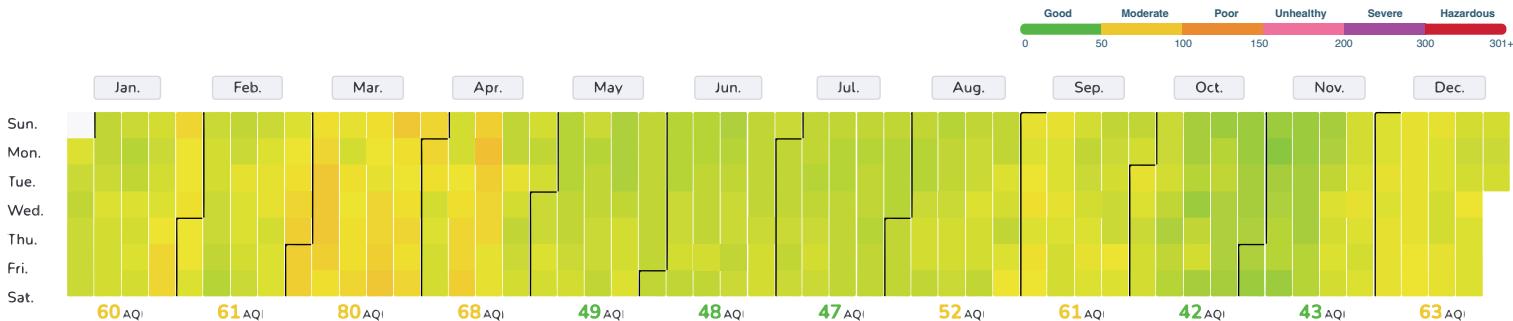
COLOMBIA

In 2024, **Colombia** ranked 53rd globally in the air quality rankings. With an annual AQI average of 56, placing it in the “Moderate” category. However, 2024 levels showed **5.7% increase in AQI** levels as compared to the 2023 annual average. A few cities recorded “Poor” AQI levels during certain months, highlighting localized air pollution challenges.



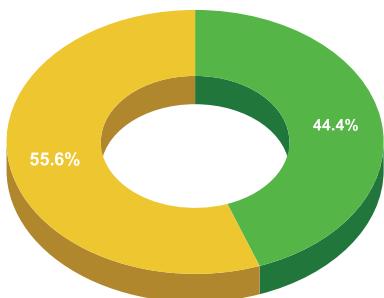
COLOMBIA - 2024 AQI TRENDS

In 2024, the annual average AQI of Colombia increased from December to April and August and September as recorded the “Moderate” levels. The rest of the months reported “Good” air quality levels.



DISTRIBUTION OF COLOMBIAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In 2024, Around 04 cities in Chile reported “Good” air quality levels. Meanwhile, other 05 cities in the country reported the “Moderate” AQI levels.

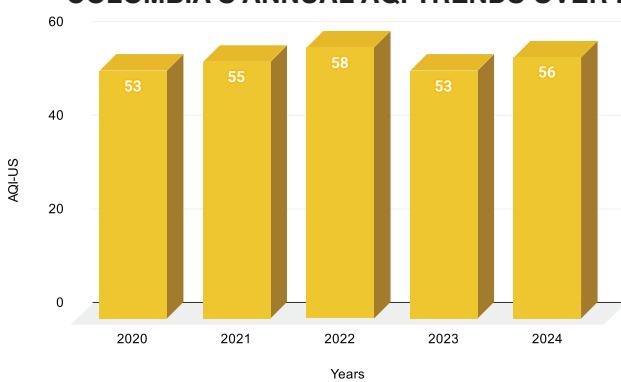


Good	04
Moderate	05
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



Note : The Colombia map used is for reference purpose only.

COLOMBIA'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, AQI in Colombia recorded in the “Moderate” category with slight changes from 2020 to 2024.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **Colombia's** annual average **PM2.5 concentration** ($16 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

265 cigarettes.



COLOMBIA'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Colombia:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Bucaramanga	64	102	92	103	95	51	51	51	49	55	18	33	55	74
2. Pamplona	64	87	79	101	91	76	48	46	47	61	11	29	59	105
3. Medellin	61	64	65	87	74	57	52	53	58	64	49	45	67	59
4. Bello	58	61	63	88	71	51	49	54	54	59	45	42	61	55
5. Bogota	56	66	66	88	74	41	41	33	47	56	44	47	65	53
6. Cundinamarca	47	64	-	95	82	40	44	42	46	68	24	42	60	46
7. Cali	46	34	35	44	40	43	51	49	51	66	34	42	62	39
8. Tame	46	51	48	88	56	25	27	46	39	44	23	38	52	26
9. Cucuta	45	41	32	38	84	54	50	49	46	46	37	46	52	41

COLOMBIA'S METRO CITIES



Pamplona
64
Moderate

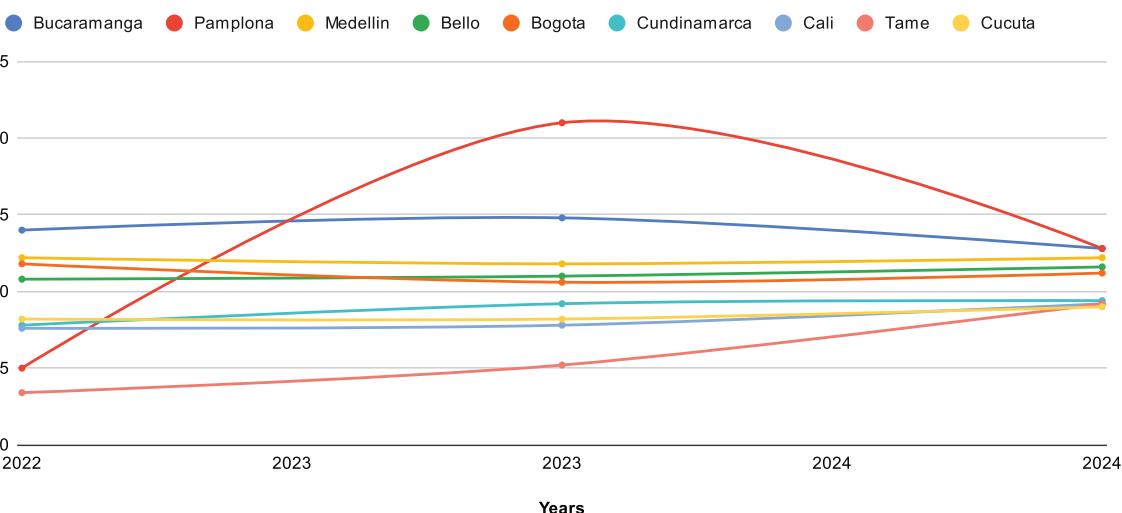


Medellin
61
Moderate



Bogota
56
Moderate

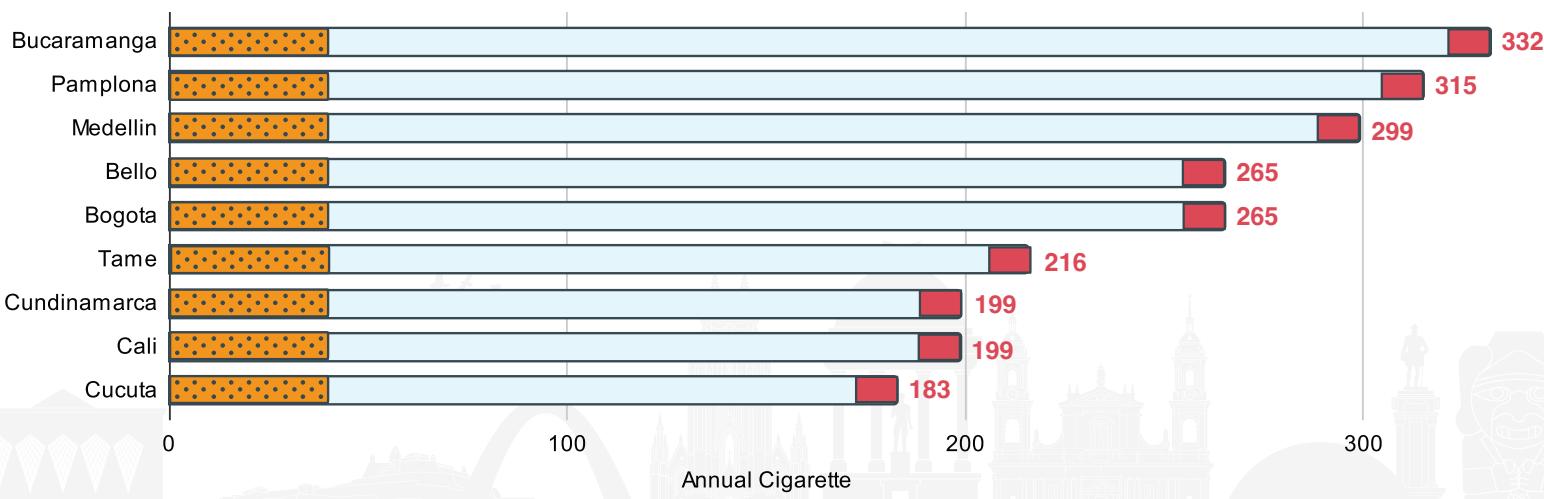
ANNUAL AQI COMPARISON OF TOP CITIES 2024



In the last 3 years, Pamplona showed a steady increase till 2023 and again decreased in 2024. Other cities mostly remained constant or showed slight changes over the last three years.

ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Colombia in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.

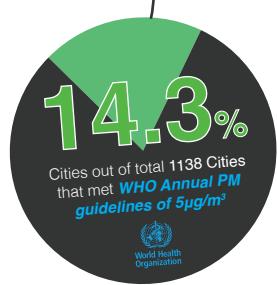


Source: Berkeley Earth

North America

5th Ranked Continent for the Highest AQI By Countries.

In 2024, **North America** was ranked Fifth for the highest AQI levels in the world. Out of a total of 1138 cities, only 14.3% met the WHO annual PM2.5 guideline of $5\mu\text{g}/\text{m}^3$. Only three countries in North America recorded the Moderate AQI levels in 2024 including Mexico, Guatemala and El Salvador.



NORTH AMERICAN COUNTRIES AQI RANKING

Countries	2024 Avg.	Countries	2024 Avg.	Countries	2024 Avg.
1. Mexico	59	5. Curacao	37	9. Guadeloupe	31
2. Guatemala	58	6. Costa Rica	36	10. Canada	27
3. El Salvador	51	7. French Guiana	36	11. Puerto Rico	27
4. Trinidad And Tobago	43	8. United States	32		

CITIES IN NORTH AMERIC WITH THE HIGHEST AQI LEVELS

List of North American cities for air quality levels ranking in 2024. 61 cities out of 1138 remained in the Moderate Category.

1. Cholula De Rivadabia, Mexico	93	31. Ocatlan, Mexico	58	61. Apizaco, Mexico	50
2. Metepec, Mexico	84	32. Valle Alto, Mexico	58	62. Bakersfield, United States	50
3. San Buenaventura, Mexico	77	33. Aguascalientes, Mexico	57	63. East Los Angeles, United States	50
4. Toluca, Mexico	77	34. Garcia, Mexico	56	64. Mission, United States	50
5. Durango, Mexico	76	35. Pachuca, Mexico	56	65. Naucalpan De Juarez, Mexico	50
6. Saltillo, Mexico	75	36. San Salvador, Mexico	56	66. Ontario, United States	50
7. Ciudad Benito Juarez, Mexico	73	37. Tecozautla, Mexico	56	67. Salamanca, Mexico	50
8. Zzacatepec, Mexico	69	38. Welby, United States	56	68. Signal Hill, United States	50
9. Celaya, Mexico	68	39. Chihuahua, Mexico	55	69. Tepotzotlan, Mexico	50
10. San Pedro Garza Garcia, Mexico	68	40. Ciudad Lerdo, Mexico	55	70. Upland, United States	50
11. Tlaquepaque, Mexico	68	41. Gomez Palacio, Mexico	55	71. Chalco, Mexico	49
12. Atitalaquia, Mexico	66	42. Ecatepec, Mexico	53	72. Guanajuato, Mexico	49
13. Ciudad Apodaca, Mexico	66	43. Leon De Los Aldama, Mexico	53	73. Oaxaca, Mexico	49
14. Ciudad Santa Catarina, Mexico	66	44. San Luis De La Paz, Mexico	53	74. San Luis Potosi, Mexico	49
15. Guadalajara, Mexico	63	45. Tonala, Mexico	53	75. San Miguel De Allende, Mexico	49
16. San Nicolas De Los Garza, Mexico	63	46. Chula Vista, United States	52	76. Burbank, United States	48
17. Zapopan, Mexico	63	47. Jaral Del Progreso, Mexico	52	77. Casas Adobes, United States	48
18. Cadereyta Jimenez, Mexico	62	48. La Magdalena Chichicaspa, Mexico	52	78. Minatitlan, Mexico	48
19. Monclova, Mexico	62	49. Meridian, United States	52	79. Poza Rica De Hidalgo, Mexico	48
20. Morelia, Mexico	62	50. Nezahualcoyotl, Mexico	52	80. San Francisco Del Rincon, Mexico	48
21. Port Isabel, United States	62	51. San Pablo De Las Salinas, Mexico	52	81. Tepic, Mexico	48
22. Tizayuca, Mexico	62	52. Tlalnepantla, Mexico	52	82. Tula De Allende, Mexico	48
23. Tlajomulco De Zuniga, Mexico	62	53. Calexico, United States	51	83. Xalapa, Mexico	48
24. Guadalupe, Mexico	61	54. Ciudad Nezahualcoyotl, Mexico	51	84. Birmingham, United States	47
25. Cuernavaca, Mexico	60	55. Hanford, United States	51	85. Corcoran, United States	47
26. Mexicali, Mexico	60	56. Jurupa Valley, United States	51	86. Guadalupe, United States	47
27. Irapuato, Mexico	59	57. Mexico City, Mexico	51	87. Heroica Matamoros, Mexico	47
28. Lerma, Mexico	59	58. San Salvador, El Salvador	51	88. Leon, Mexico	47
29. Silao, Mexico	59	59. Socorro, United States	51	89. Long Beach, United States	47
30. Guatemala City, Guatemala	58	60. Visalia, United States	51	90. North Shore, United States	47

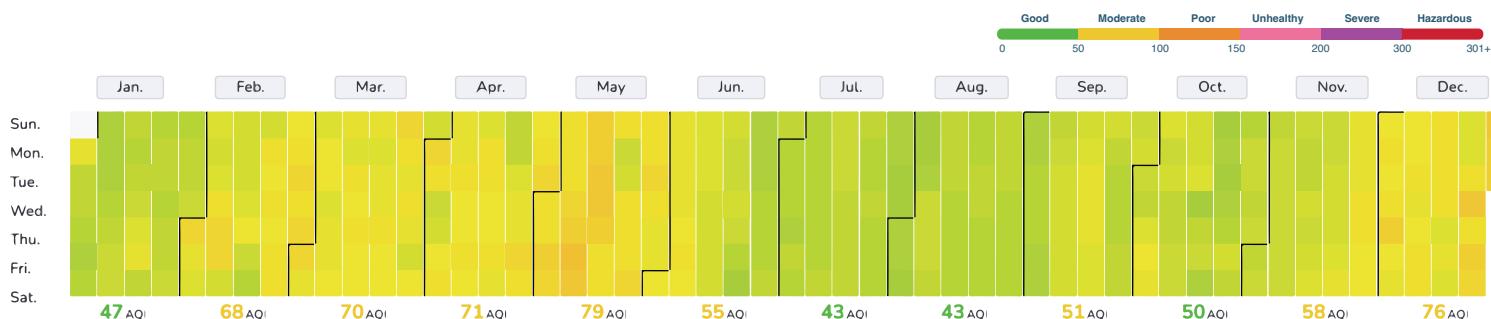
MEXICO

In 2024, **Mexico** ranked 43rd globally in the air quality rankings. With an annual AQI average of **59**, placing it in the “Moderate” category. However, 2024 levels showed no change in AQI levels as compared to the 2023 annual average. In North America, Mexico ranked 1st country for the highest AQI levels.



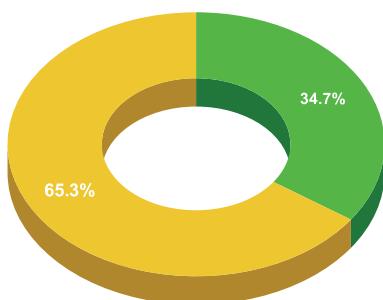
MEXICO - 2024 AQI TRENDS

In 2024, the annual average AQI of Mexico increased from February to June and in November and December too as recorded in the “Moderate” levels. The rest of the months of 2024 reported “Good” air quality levels.



DISTRIBUTION OF MEXICAN CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In 2024, Around 26 cities in Mexico reported “Good” air quality levels. Meanwhile, other 49 cities in the country reported the “Moderate” AQI



Good	26
Moderate	49
Poor	-
Unhealthy	-
Severe	-
Hazardous	-

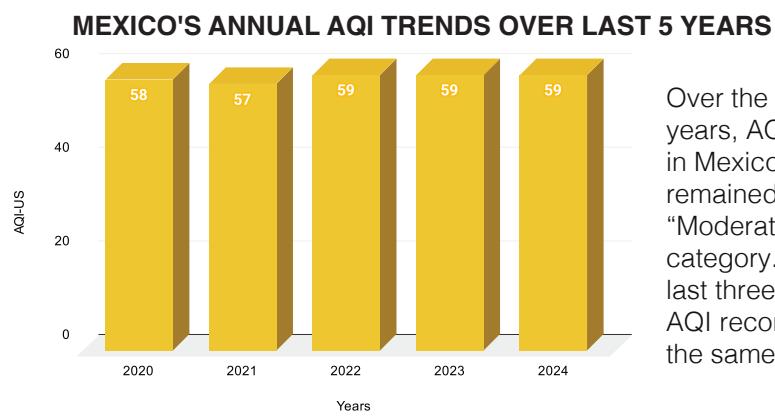
SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **Mexico's** annual average PM_{2.5} concentration ($19 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

315 cigarettes.



Source: Berkeley Earth



Over the past 5 years, AQI levels in Mexico remained in the “Moderate” category. In the last three years, AQI recorded at the same level.



Note : The Mexico map used is for reference purpose only.

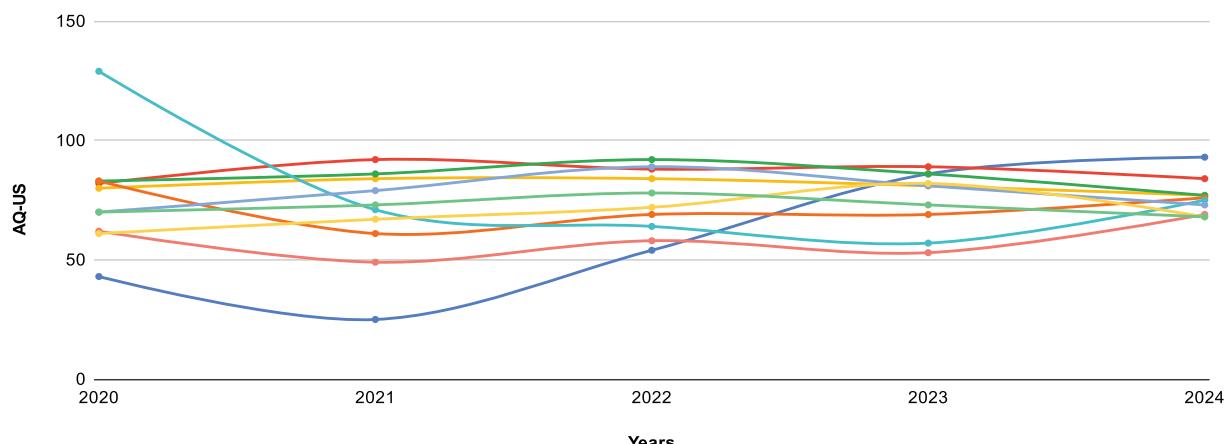
MEXICO'S TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in Mexico:

	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Cholula De Rivadabia	93	92	89	93	105	114	73	43	82	152	102	95	83	86
2. Metepec	84	91	104	111	125	125	68	45	66	71	75	71	93	89
3. San Buenaventura	77	79	87	97	104	122	79	65	53	50	56	61	89	81
4. Toluca	77	64	84	103	111	117	72	55	53	68	70	64	86	86
5. Durango	76	21	93	107	96	95	60	42	57	65	77	99	90	69
6. Saltillo	75	56	133	145	104	70	54	43	52	65	59	60	79	57
7. Ciudad Benito Juarez	73	117	103	76	88	99	49	43	53	69	62	65	77	81
8. Zacatepec	69	72	82	75	87	90	56	42	105	64	49	53	60	53
9. Celaya	68	90	87	88	92	103	69	42	40	39	35	56	78	82
10. San Pedro Garza Garcia	68	105	91	73	71	86	52	44	55	57	57	66	79	73

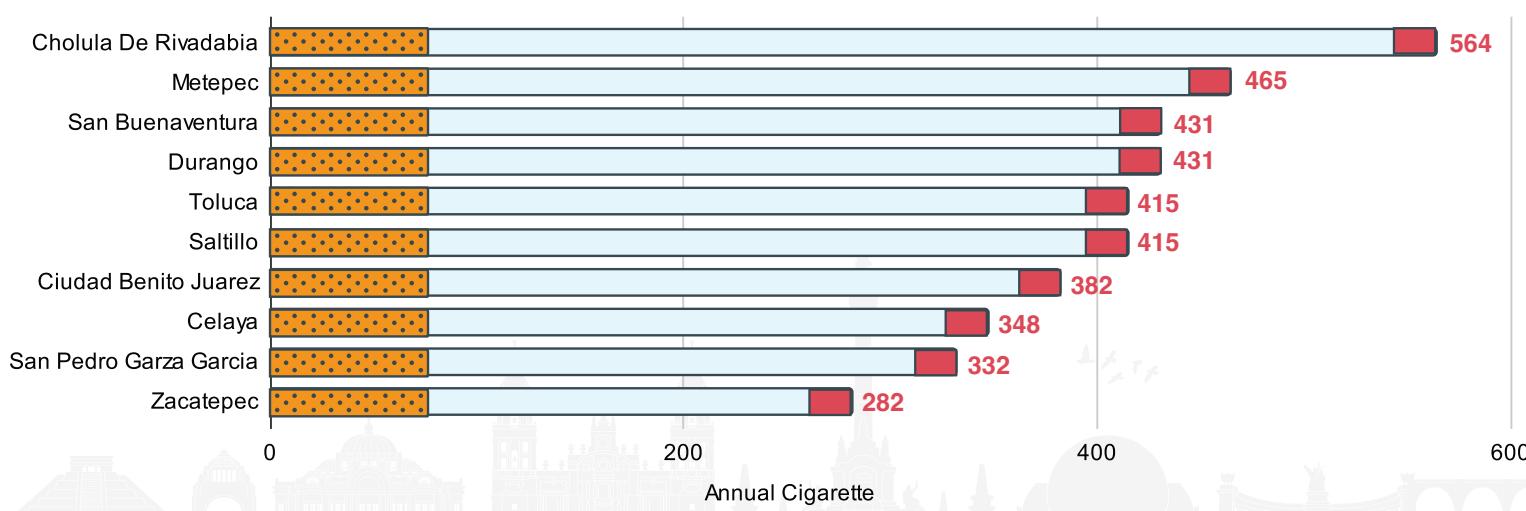
ANNUAL AQI COMPARISON OF TOP CITIES 2024

● Cholula De Rivadabia ● Metepec ● San Buenaventura ● Toluca ● Durango ● Saltillo ● Ciudad Benito Juarez
 ● Zacatepec ● Celaya ● San Pedro Garza Garcia



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of Mexico in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



Source: Berkeley Earth

MEXICO'S METRO CITIES



Ciudad Benito Juarez
73
Moderate



Guadalajara
63
Moderate



Morelia
62
Moderate



Mexicali
60
Moderate



Leon De Los Aldama
53
Moderate



Mexico City
51
Moderate

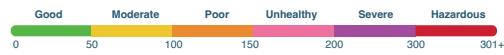
UNITED STATES

In 2024, the **United States** ranked 116th globally in the air quality rankings. With an annual AQI average of **32**, placing it in the “Good” category. However, 2024 levels showed a 8.6% decrease in AQI levels as compared to the 2023 annual average. In North America, United States ranked as the **8th** country for the high AQI levels.



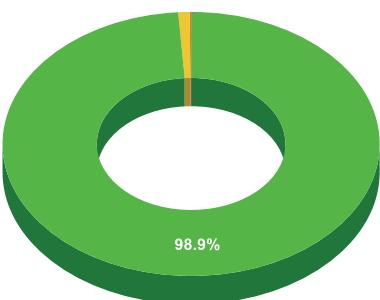
UNITED STATES - 2024 AQI TRENDS

The annual average AQI of the United States in 2024 remained in the “Good” category without causing any problems in the air quality.



DISTRIBUTION OF USA'S CITIES ACC. TO THE AVERAGE AQI STATUS FOR 2024

In 2024, Around **877** cities in the United States reported “Good” air quality levels. Meanwhile, only **10** cities in the country reported the “Moderate” AQI levels.

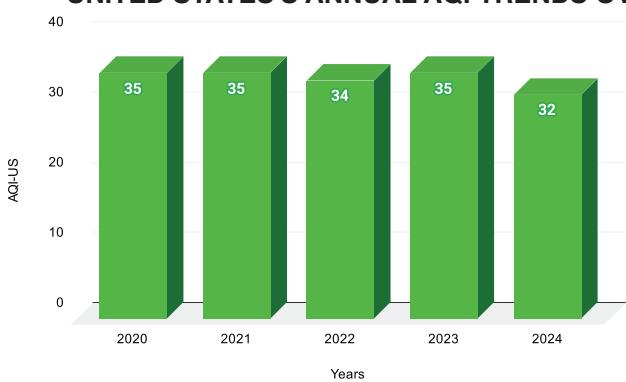


Good	877
Moderate	10
Poor	-
Unhealthy	-
Severe	-
Hazardous	-



Note: The United States map used is for reference purpose only.

UNITED STATES'S ANNUAL AQI TRENDS OVER LAST 5 YEARS



Over the past 5 years, United States AQI levels were recorded in the “Good” category with slight ups and downs.

SMOKING PREVALENCE AND AIR QUALITY IMPACT

In 2024, **United States's** annual average **PM2.5 concentration** ($07 \mu\text{g}/\text{m}^3$) was equivalent to each individual inhaling the air pollution over the year, similar to smoking

116 cigarettes.

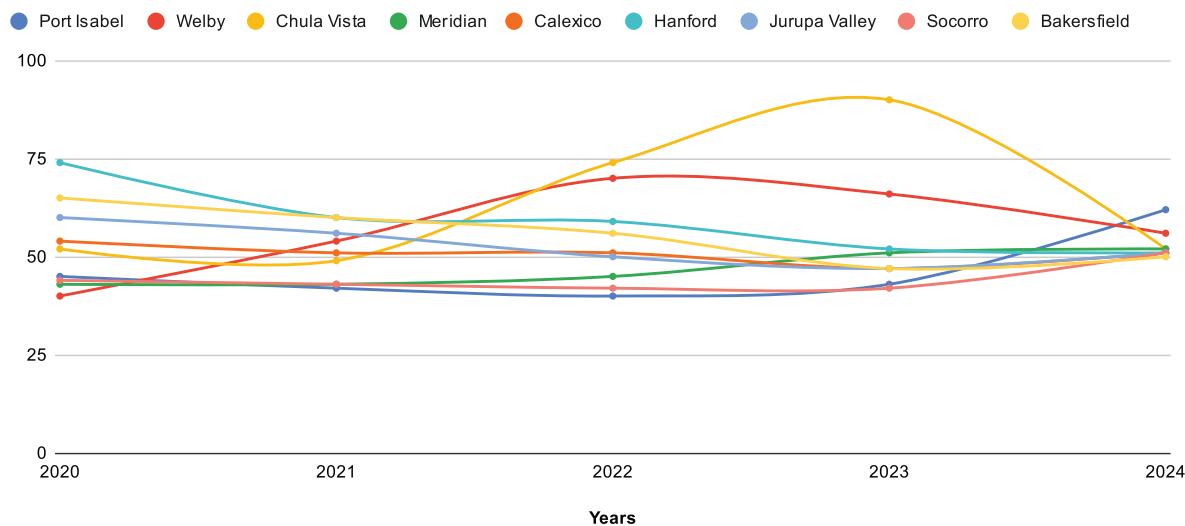


UNITED STATES' TOP CITIES WITH HIGH AQI LEVELS 2024

Below is the ranking of the top 10 cities with highest AQI levels in 2024 in United States:

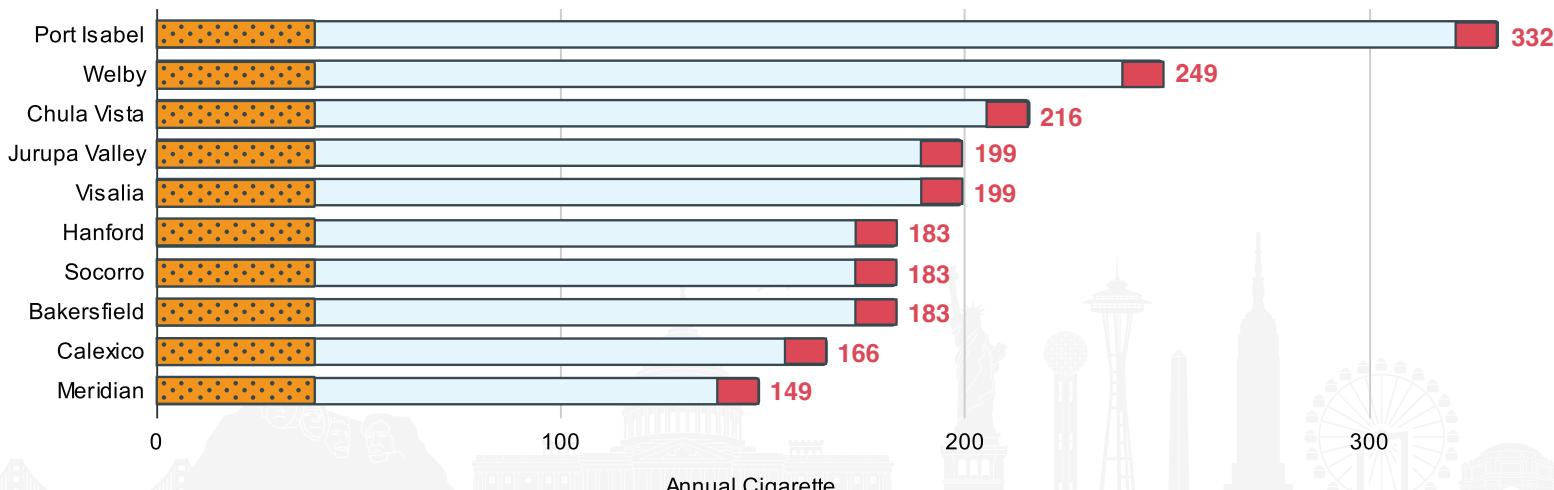
	2024 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	2023 Avg.
1. Port Isabel	62	62	55	77	101	123	75	47	38	42	50	39	44	43
2. Welby	56	69	68	67	68	68	70	69	36	40	46	28	39	66
3. Chula Vista	52	48	44	41	48	50	57	52	56	58	63	45	61	90
4. Meridian	52	45	53	52	52	48	43	62	63	60	45	45	59	51
5. Calexico	51	62	42	41	46	51	49	46	45	51	61	53	67	47
6. Hanford	51	51	37	31	42	40	49	53	56	63	71	51	63	52
7. Jurupa Valley	51	44	37	35	45	49	52	57	55	68	64	41	68	47
8. Socorro	51	39	39	47	56	54	52	50	53	45	50	60	65	42
9. Visalia	51	39	21	32	36	32	39	46	45	73	70	49	52	56
10. Bakersfield	50	49	32	31	40	47	50	59	54	59	60	52	71	47

ANNUAL AQI COMPARISON OF TOP CITIES 2024



ANNUAL SMOKING PREVALENCE

Based on the PM2.5 levels recorded in these cities of the United States in 2024, each resident effectively smoked the equivalent of these many cigarettes without actually smoking any.



Source: Berkeley Earth

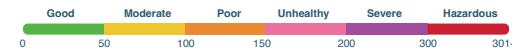
USA'S METRO CITIES

Los Angeles	50	Good
San Francisco	37	Good
Nashville	34	Good
New York	33	Good
Chicago	32	Good
Minneapolis	31	Good
Washington	30	Good

Oceania

6th Ranked Continent for the AQI Levels By Countries.

In 2024, **Oceania** was ranked as the least polluted continent in the world. Out of a total of 156 cities, 54.5% met the WHO annual PM_{2.5} guideline of 5µg/m³. All 4 countries recorded the "Good" AQI levels throughout the year.



OCEANIA COUNTRIES AQI RANKING

Countries	2024 Avg.	Countries	2024 Avg.	Countries	2024 Avg.
1. Grenada	29	3. New Caledonia	22	4. Australia	21
2. New Zealand	28				

AQI LEVELS IN CITIES ACROSS OCEANIA

List of cities in the **Oceania continent** for air quality levels ranking in 2024. All 156 cities reported the "**Good**" AQI levels in the same year.

1. Kairaki, New Zealand	48	31. Auckland, New Zealand	28	61. Rochedale, Australia	25	91. Concord, Australia	21
2. Mount Evelyn, Australia	42	32. Cromwell, New Zealand	28	62. Sydney, Australia	25	92. Port Macquarie, Australia	21
3. Mcminns Lagoon, Australia	41	33. Granville, Australia	28	63. Tamworth, Australia	25	93. Scone, Australia	21
4. Moranbah, Australia	41	34. Katherine, Australia	28	64. Wangaratta, Australia	25	94. Whyalla, Australia	21
5. Christchurch, New Zealand	38	35. Napier, New Zealand	28	65. Glencoe, New Zealand	24	95. Batemans Bay, Australia	20
6. Orange, Australia	36	36. Newcastle, Australia	28	66. Chinchilla, Australia	24	96. Corinda, Australia	20
7. Richmond, Australia	36	37. Quakers Hill, Australia	28	67. Fremantle, Australia	24	97. Launceston, Australia	20
8. Richmond, New Zealand	36	38. Wollongong, Australia	28	68. Healesville, Australia	24	98. Manukau City	20
9. Blenheim, New Zealand	35	39. Ayr, Australia	28	69. Mount Isa, Australia	24	99. Melton, Australia	20
10. Darwin, Australia	35	40. Campbelltown, Australia	27	70. Penrith, Australia	24	100. South Grafton, Australia	20
11. Lower Hutt, New Zealand	33	41. Dunedin, New Zealand	27	71. Singleton, Australia	24	101. Thames, New Zealand	20
12. Timaru, New Zealand	33	42. Mandurah, Australia	27	72. Tannum Sands, Australia	24	102. Townsville, Australia	20
13. Havelock North, New Zealand	32	43. Melbourn, Australia	27	73. Adelaide, Australia	23	103. Ballarat, Australia	19
14. Masterton, New Zealand	32	44. Morwell, Australia	27	74. Alexandra, New Zealand	23	104. Coffs Harbour, Australia	19
15. Palmerston North, New Zealand	32	45. Muswellbrook, Australia	27	75. Bli Bli, Australia	23	105. Devonport, Australia	19
16. Pukekohe East, New Zealand	32	46. Wentworthville, Australia	27	76. Brisbane, Australia	23	106. Invercargill, New Zealand	19
17. Upper Hutt, New Zealand	32	47. Mackay, Australia	26	77. Gladstone, Australia	23	107. Narangba, Australia	19
18. Wellington, New Zealand	32	48. Mosgiel, New Zealand	26	78. Macetown, New Zealand	23	108. Scottsdale, Australia	19
19. Ashton, New Zealand	31	49. Tahmoor, Australia	26	79. Nelson, New Zealand	23	109. Waitakere, New Zealand	19
20. Dandenong, Australia	31	50. Wodonga, Australia	26	80. Southport, Australia	23	110. Wollert, Australia	19
21. Albury, Australia	30	51. Yanchep, Australia	26	81. Wagga Wagga, Australia	23	111. Perth, Australia	18
22. Taupo, New Zealand	30	52. Bathurst, Australia	25	82. Andamooka, Australia	22	112. Central Coast, Australia	18
23. Te Awamutu, New Zealand	30	53. Emerald, Australia	25	83. Armidale, Australia	22	113. Cooma, Australia	17
24. Canberra, Australia	29	54. Goulburn, Australia	25	84. Cooranbong, Australia	22	114. Corowa, Australia	17
25. Geelong, Australia	29	55. Ipswich, Australia	25	85. Gunnedah, Australia	22	115. Inverell, Australia	17
26. Northcote, New Zealand	29	56. Jimboomba, Australia	25	86. Noumea, New Caledonia	22	116. Wynyard, Australia	17
27. Saint Georges, Grenada	29	57. Katoomba, Australia	25	87. Port Augusta, Australia	22	117. Cowra, Australia	16
28. Tokoroa, New Zealand	29	58. Kiama Downs, Australia	25	88. Port Pirie, Australia	22	118. Kingston, Australia	16
29. Traralgon, Australia	29	59. Moe, Australia	25	89. Ulladulla, Australia	22	119. Merimbula, Australia	16
30. Hamilton, New Zealand	29	60. Raymond Terrace, Australia	25	90. Cambridge, New Zealand	21	120. Oatlands, Australia	16



Disclaimer

The data presented in this report is based on city and country-level calculations. Each country's data is collected with an average of all city stations present in the country.

Data source

Air quality data is sourced from monitoring stations operated by governmental agencies, research institutions, universities, and other organizations.

Data validation

Collected data is stored on our servers, where it undergoes rigorous filtration and cleaning. The data is then processed using our AQI data model, ensuring adherence to standardized calculation methods before being displayed on our website.

Data reliability

The majority of data sources originate from government-operated monitoring stations. To enhance accuracy and reliability, we perform thorough data cleaning and filtration on our servers before analysis and presentation.

Data scope and limitations

This report is based solely on collected air quality data. No independent research or supplementary studies were conducted beyond the available datasets.

Data limitations

At times, data from the original sources, including government-operated monitoring stations, may be delayed, incomplete, or unavailable. Additionally, the number and distribution of monitoring stations vary across cities, which can lead to differences in data representation and accuracy. These factors may occasionally result in gaps or inconsistencies in the reported air quality data.

Data visualization

The maps, graphs, and visuals in this report are designed to provide an objective and transparent representation of air quality data. These visualizations are intended purely for informational purposes and do not convey any political stance. Since the report relies entirely on collected data, limitations in data availability may influence interpretations.

Note: Continent rankings in this report may vary based on the number of countries and cities. A higher ranking does not always indicate higher pollution levels, as some continents have fewer monitoring stations.

What to do now?

The AQI report highlights the need for effective measurements and regulations to control the air. Here are some steps for Governments and Individual to incorporate into their lives to make air quality better or breathe clean air.



Strict regulations enforcement

Forming and implementing strict rules to limit emissions from different sources is necessary. It includes emissions from vehicles, factories and other major sources.



Prioritizing renewable energy sources

Investing in renewable energy can help in reducing air pollution levels. It involves using solar, wind and other clean energy sources to replace fossil fuels.



Electrical vehicles and public transport

Electrify buses and trains can support reducing emissions from public transportation.



Supporting urban green spaces

Increasing tree cover to improve the air quality naturally should be considered. It can support natural air filtration and combat pollution.



Increasing monitoring and research

Installing more advanced air quality sensors across cities and rural areas can support better air quality data for a better air quality monitoring network.



Encouraging citizens to monitor air quality

Citizen science with tools and training for communities can support local air quality monitoring.

What Can Individuals Do?

Air quality can become better for everyone to breathe clean air. For it, everyone has to take the steps together and make actions work. Begin by becoming a voice of cleaner air:



Take part in the local events

Join communities for clean air and drives to raise awareness or support air quality efforts.



Share information on air quality

know the air quality around you with your air quality monitor and share it with the world with contribution.



Protect yourself, protect family

Monitoring air quality to understand the air you are breathing plan your activities accordingly and try to wear protective masks.



Upgrade your home

Install air purifiers and ensure the proper ventilation for better indoor air quality. Stay up-to-date with air quality around you with the AQI.in website and Mobile app.



Limit your footprint

Limit your footprint in the environmental impact by opting for carpooling, and using cycle or electric vehicles whenever possible. Conserve energy by managing the appliances and using energy-efficient products.

Thank You for Prioritizing Clean Air

We appreciate your time and commitment to understanding air quality and its impact. By reviewing this report, you're taking a crucial step toward fostering healthier environments for communities, businesses, and future generations.

Together, we can breathe easier and build a cleaner, healthier future.

For further insights, resources, or collaboration opportunities, please visit