# AirGradient Launches First Real-Time Global CO2 Map, Promoting Transparency and Citizen Science for Climate Action

CHIANG MAI, THAILAND, July 1, 2024 /EINPresswire.com/ -- In a significant step forward for environmental monitoring and climate action, AirGradient has launched the first-ever real-time global CO2 map. This groundbreaking tool leverages the power of crowd-sourced data from a network of 500 open-source air quality monitors by AirGradient, providing an unprecedented level of transparency and citizen science participation in understanding our planet's CO2 landscape.

"I'm very excited about the launch of the AirGradient CO2 map. It will help us better understand how local emissions, e.g. from traffic in a city, contribute to climate change. By identifying and quantifying these emission sources, they can be much better mitigated, and improvements can be verified with the measurements. With our crowd-sourced approach, we enable everybody to participate, understand climate change better, and contribute to science by openly sharing their data." said Achim Haug, CEO & Founder of AirGradient.
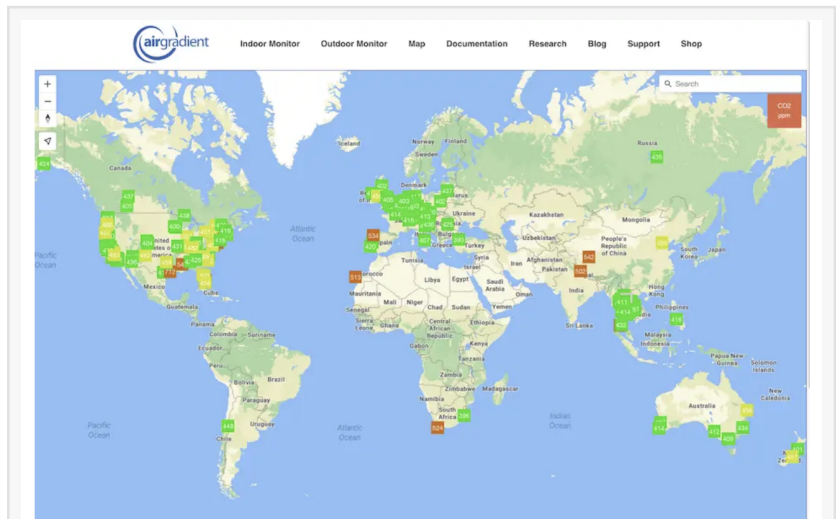
AirGradient CO2 Map
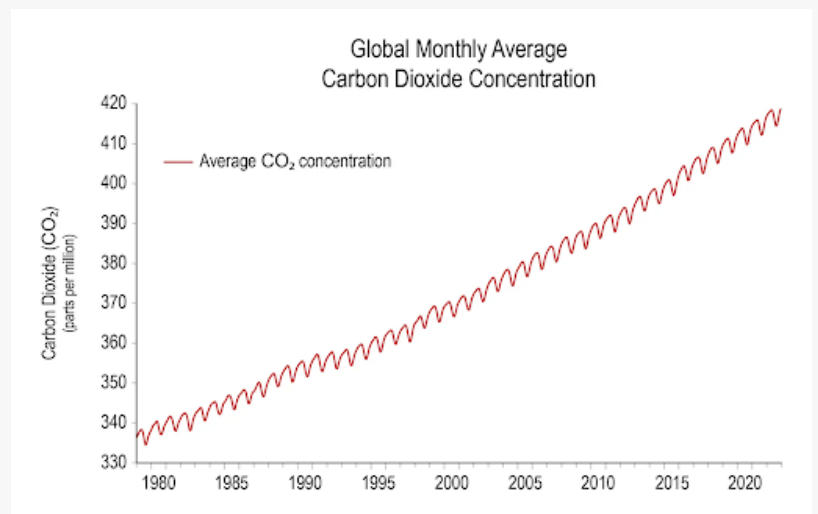
Source: U.S. Global Change Research Program (https://www.globalchange.gov/indicators/atmospheric-carbon-dioxide)

The AirGradient CO2 map is critically important because it helps revolutionize CO2 monitoring by providing a far more comprehensive picture of CO2 emissions, offering a clearer view of global

pollution trends. It empowers targeted mitigation by pinpointing specific sources of emissions, allowing policymakers and citizens to develop targeted, data-driven strategies for reducing our carbon footprint more effectively. Additionally, the real-time nature of the map enables users to track progress and measure impact by witnessing changes in CO2 levels over time, thus allowing them to gauge the effectiveness of implemented mitigation efforts and adjust strategies as needed. To experience the map firsthand and see real-time CO2 levels, visit AirGradient's CO2 Map https://www.airgradient.com/map/ and switch to the CO2 layer using the orange button on the top right corner.

At the heart of this network is the AirGradient Open Air Monitor, which measures CO2 with a SenseAir NDIR CO2 sensor, among other pollutants, such as particulate matter. Extensively tested in cooperation with the University of Cambridge, the AirGradient monitor offers a high degree of accuracy and reliability despite its low cost of under USD 200. The high correlation with reference-grade instruments makes the monitors ideal for widespread deployment, allowing a more comprehensive and precise mapping of CO2 levels never done before.

From Local to Global CO2

Having a dense, low-cost CO2 monitoring network like AirGradient's is becoming increasingly important as global CO2 emissions have reached unprecedented levels, and local emission sources are among the most significant contributors to atmospheric carbon dioxide levels. Factories, power plants, traffic, construction, agricultural activities, boats, and wildfires can significantly increase atmospheric carbon dioxide.

Reference-grade instruments aren't needed to identify these local emission sources. Instead, a network with many low-cost monitors can provide a detailed map of these hot spots in a city. If a combined global effort is made, we will hopefully be able to reduce our total carbon emissions and slow down climate change.

In Bangkok, the project's practical application is already evident. Monitors placed at various locations, such as the busy Nana Pier and the quieter Soi Itsaraphap, have provided clear data on CO2 and PM 2.5 levels, highlighting the impact of local activities like the pollution from speed boats on Bangkok's canals on air quality. Only a dense, low-cost network of CO2 monitors can identify and pinpoint local pollution hotspots like this.

While the CO2 map is in its early stages, with many features planned for implementation in the coming weeks and months. Using the power of community involvement, the already established air quality monitoring network, and open-source & open-data approach, AirGradient aims to provide a comprehensive and detailed understanding of CO2 concentrations across various regions. To allow everyone to participate, AirGradient made their monitors affordable and easily accessible. AirGradient invites organizations, researchers, policymakers, and interested parties to participate. By contributing to this global effort, citizens can play a vital role in identifying emission hotspots and understanding the local impact of CO2 emissions.

About AirGradient

AirGradient is a pioneer of accurate, open-source air quality monitoring solutions for indoor and outdoor environments. Driven by a passion for cleaner air and environmental responsibility, AirGradient provides affordable and accessible air quality monitors to thousands of users in over 75 countries. AirGradient is committed to empowering people to take control of their air quality and making a positive impact on the global environment. The company's open-source hardware and software platform enables users to build, customize, and deploy their own air quality monitors. AirGradient also partners with openAQ, more than 25 research partners from leading institutions and universities, along with environmental organizations to advance air quality science and advocacy. AirGradient is also a member of the 1% for the Planet movement and donates 1% of sales to environmental protection organizations.

Yohana Angeline
Airgradient Limited
+62 81517118025
email us here