



#worldipday

Tackling air pollution from mining

Air pollution is a global environmental concern and is a leading risk factor for health. It is responsible for causing millions of death every year. [Death rates from air pollution](#) are highest in low-to middle income countries.

While mining practices have improved in recent years, mining activity can have a number of negative impacts on the environment, including:

- Contamination of ground and surface water supplies;
- Loss of biodiversity, and
- Air pollution (release of microscopic dust particles that are harmful to human health).

[qAIRa](#), a Peruvian startup is using drone and sensing technology to tackle pollution, including that associated with the country's mining operations. Peru one of the world's leading producers of copper, zinc and many other minerals.



"We act against the global problem of pollution by monitoring the quality of air continuously at anytime and anywhere". (Photo: Courtesy of qAIRa)



About the company:

qAIRa was set-up in 2015 by Mónica Abarca, a research student from Peru's Pontifical Catholic University (PUCP) and her colleagues, Carlos Saito, Francisco Cuéllar and Javier Calvo-Pérez.

- qAIRa uses big data analytics and robotics to digitize and map air quality information on global map.
- Its drones fly over large areas and at high altitudes to gather data on air quality allowing them to create a global contamination map so that companies, especially mining companies – can better monitor the impact of their operations and improve their environmental footprint.
- qAIRa also uses low-cost static air quality modules to monitor pollution in urban areas.



"At qAIRa we want to digitize and democratize air quality information. Our goal is to provide everyone with the tools needed to be agents of change in favor of the environment". (Photo: Courtesy of qAIRa)

qAIRa filed for [utility patents](#) with Peru's intellectual property office, INDECOPI, in 2014 and 2016.

"IP rights allow us to add value to our technology and support the growth of our business."

The mining industry is showing great interest in qAIRa's technology to monitor the impact of its operations on air quality. The technology is also relevant to other sectors in which air pollution is a challenge, such as oil, gas, agriculture, electricity and many others.



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Photo: Courtesy of qAIRa