



Zahin attended the One Young World Summit The Hague, 2018, through The Resolution Project, and received his first impact funding as a result for his idea of leveraging AI and data analytics to tackle water-related challenges at scale.

His organisation, Hydroquo+, deploys sensors at critical junctures of water infrastructure to forecast outbreaks of waterborne disease. These sensors use ultraviolet wavelengths through a UV spectrophotometer to measure flowing water's spectrum in real time, with each spectrum corresponding to a World Health Organisation parameter that can indicate turbidity, dissolved solids, or free chlorine.

“ One Young World holds a very special place in my heart. I got my first, I would say impact funding, back in 2018 at The Hague One Young World Summit. At that point, I thought, okay, what is the biggest challenge in the world, and can we leverage AI and analytics to solve that.”

Beyond a certain value, these parameters can be detrimental to human health so water networks are tested intermittently to ensure the safety of the water supply. Hydroquo+ can produce analyses of water quality parameters that would traditionally take laboratories days or even weeks in minutes through its diagnostic and monitoring systems.

Hydroquo+'s prescriptive copilot is trained against a corpus of over one million data points in relation to microbiology and water chemistry, and can provide real time guidance to ensure that corrective actions are taken in the event of anomalous indicators.

Zahin's solution has been implemented in Dhaka, Bangladesh, where Dhaka WASA and C'WASA, which serves Chittagong, cater to over 30 million residents on a daily basis.

Hydroquo+ technology is being used to diagnose, pre-treat and post-treat water, with stations currently deployed across the city's supply network.

The enterprise has also pioneered the use of drones and rovers to prevent critical failures in public water infrastructure.

In the past two years, Hydroquo+ sensors have generated over 500 million data points, flagging over 10,000 potential contamination breaches and mitigating 170,000 tonnes of CO₂ by reducing the need for over-chlorination by 25% and, as a result, limiting the amount of trihalomethane produced.