



How Bhopal Gas Tragedy Sparked Clean-Tech In Tamil Nadu

TUTICORIN: In Tamil Nadu's Thoothukudi district, famous for its salt farms, Tuticorin Alkali Chemicals and Fertilizers produces soda ash by recovering more than 90 per cent of the carbon dioxide it generates from its coal-fired boilers - used for heating. A first in the world, according to them. Soda ash, is used as a raw material for glass, detergents and baking soda among others.

"We were on the verge of shut down after our parent company couldn't supply carbon di-oxide to us and after a lot of research, we designed our plant based on the technology given by Carbon Clean Solutions," says M Thilagar, Operation Manager.

Earlier they couldn't use the carbon di-oxide they generated because of high cost of production. And it was Carbon Clean Solutions - run by two IIT Kharagpur alumnus that proved a game changer for them, bringing down the cost of production by one fourth.

After filtering the pollutant or flu gas from their boilers, they cool it, selectively absorb the CO₂ by the special amine liquid created by Carbon Clean Solutions and finally separate the CO₂, which is used as raw material to produce their soda ash.

Now with no liquid or gaseous polluting affluent, the factory aims to use 60,000 metric tonnes of CO₂ generated by them.

"We started the process in December 2015 and finally commissioned in September 2016. We are 100 per cent green. We are the only soda ash factory in the world to use this technology and we are open to any inspections," says S Thangathirupathy, General Manager (Works).

Across the world, most of the factories either let out CO₂ in the atmosphere or pump it underground something that Aniruddha Sharma and his company - Carbon Clean Solutions - hope to change.

Aniruddha Sharma, an IIT Khargpur graduate from Bhopal grew up with memories of his family members being affected by the Bhopal gas tragedy. His friend and colleague Prateek Bumb, also an IIT pass out, came up with the technology of carbon capture from industrial plants back in 2009.



With not many takers in India, their idea turned a viable business model after the UK government offered a grant of 3.6 million pounds. The technology developed by the engineer duo - uses easily degradable chemicals leaving a small carbon footprint at a low cost. While an average model of carbon capture costs 60 dollars a tonne world over, this model costs around 30 dollars a tonne.

Aniruddha Sharma, CEO, Carbon Clean Solutions Ltd, told NDTV, "I urge power plants in India to look at this technology closely. This is a systematic way to suck carbon out of the air and make money on it."

"I have seen closely the effects of Industrial waste after what happened in Bhopal. And anything we can do to prevent such disasters should be welcome and supported," he said.