

Nano Science, Technology and Industry Scoreboard

Sri Lanka's Ceylon Graphene Technologies Exports Graphene to Raise Revenue

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Ceylon Graphene Technologies Ltd., a joint venture between LOLC Group and Sri Lanka Institute of Nanotechnology (SLINTEC), is Sri Lanka's first graphene and advanced materials company that is now to boost its value-added graphene exports with the ultimate goal of turning the country into one of the world's leading graphene providers.

ncreasing the value of <u>Sri Lanka</u>'s export catalogue, Ceylon Graphene Technologies (<u>CGT</u>), a joint venture between the <u>LOLC Group</u> and the Institute of Nanotechnology (<u>SLINTEC</u>), would be intensifying their value added graphene exports. The company which is 85% owned by LOLC, is <u>Sri Lanka</u>'s first graphene and advanced material company.

"We hope to account to 5% of <u>Sri Lanka</u>'s total exports in one year," said CEO, CGT, Manju Gunawardana. He said that currently they export to <u>Japan</u>, US and <u>India</u>.

He said that exporting Graphene is only the first state. Commissioning of their plant in Homagama will be completed in May 2020. "This will help us towards intensifying exports, manufacture products like car batteries, computer chips and solar power products for exports." Graphene additives are also used in applications such as coatings, paints and plastics and in automotive applications.

Mining and quarrying activity contributed about 2.7% to <u>Sri Lanka</u>'s GDP in 2017. "As graphene is known as the world's latest breakthrough material and with more exports, the current export revenue could be doubled." <u>Sri Lanka</u> is the only country in the world that produces vein graphite and has been mining graphite, better known locally as 'Miniran' for over two centuries.

<u>Sri Lanka</u> is also the only country to mine ultra-pure highly crystalline vein graphite with more than 98% of carbon purity in the world for over a century. Currently <u>Sri Lanka</u> is producing a negligible 300 tons of Graphite monthly, Sri Lankan graphite is mainly sourced from three

mines which include Bogala, Kahatagaha and Ragedara. "Sri Lankan graphite is world renowned for its superior quality and uniqueness and Graphite from these mines can be extracted for another century."

Together with SLINTEC, CGT has developed a unique and sustainable graphite refining process which can produce graphene from locally mined graphite at a fairly lower price. "The Government too envisages increasing the share of mining in GDP and are working towards this."

Graphene is the world's thinnest material and is popular for its fascinating properties. "For instance, graphene is stronger than diamond and about 100 times stronger than the finest steel. It is strong, flexible and transparent. It conducts so much electricity in so small a space that it is used to develop miniaturised, super-fast computers and transistors."

For the past one and a half years, CGT has grown tremendously and one of CGT's success stories is the project with Associate Battery Manufacturers to launch the first ever Graphene applied Lead Acid Battery.

"We have also launched several water purification projects to eliminate bacteria and other contaminants."

CGT has also taken part in many events and exhibitions around the world to promote and share our technology and expertise and to look at new markets."

Read the original article on Daily News.