



LC3 at the Countdown Global Launch organised by TED

As part of a global initiative to support and strengthen solutions to the climate crisis, a TED Event was organised on 10 October 2020 and was streamed online through the TED official YouTube channel. The five-hour live virtual event featured climate leaders to give a glimpse of what a healthy, abundant, zero-emission future can look like, and further turning ideas into action for battling the climate crisis.

All the talks carried TED's signature blend of actionable and research-backed ideas, cutting-edge science, and moments of wonder and inspiration. The fourth segment in the series titled "Breakthroughs" highlighted the novel Limestone Calcined Clay Cement (LC3) technology which the Development Alternatives Group has pioneered in India for the last decade, and is now spreading to different parts of the globe.

LC3 is a new type of cement that is based on a blend of limestone and calcined clay. LC3 can reduce CO₂ emissions by up to 40%, is made using limestone and low-grade clays which are available in abundant quantities is cost-effective and does not require capital intensive modifications to existing cement plants

Representing the LC3 technology, Prof. Karen Schrivner, Head of Laboratory of Construction Materials at Ecole Polytechnique Fédérale de Lausanne (EPFL) Switzerland, brought out the entirety of the LC3 process into a comprehensive perspective. She reiterated in resonance with her co-speakers in the segment that the world around us is mainly made of two things: nature and the materials that we extract from it. To fight climate change, we need to protect and regenerate nature and transform materials into low- or zero-carbon alternatives.

The highlights of her talk covered how easily available the raw materials for LC3 are. Besides, it doesn't require heating the limestone, slashing concrete's carbon emissions by 40 percent. She pointed out that, "The possibility to replace portland cement with a different material with [the] same properties ...but with a much lighter carbon footprint, is really crucial to confront climate change. It can be done fast, and it can be done on a very large scale, with the possibility to eliminate more than 400 million tons of CO2 every year."

The LC3 technology has taken form as LC3 Training Resource Center India over the last three years, which is in active collaboration with Cement Manufacturers in India and Africa to carry out feasibility studies in and around its cement plants. The Development Alternatives group finds itself in the driver seat of this major breakthrough that will encompass all the international cement companies and soon enough revolutionise the outlook of the building materials industry, especially concerning climate change.