3rd International Conference on Calcined Clays for Sustainable Concrete, India Habitat Center, New Delhi**,** 15th October 2019
Keynote address by Ambassador Dr Andreas Baum

Dr Ashok Khosla, Chairman, Development Alternatives,
Mr S. K. Wali, Wholetime Director, J K Lakshmi Cement,
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Distinguished guests from industry and academia,
Ladies and gentlemen.

It is an honor and a privilege to be here among you. Sustainability is critical to the future success of any sector. Events such as this conference are a reflection of our concern to ensure sustainability of the cement sector. Wide participation from Asia, Africa, Latin America and Europe underlines the importance of this topic, where collaboration with academia and industry is crucial.

During the recent **Climate Summit** held in September in New York, cement was discussed as one of the sectors that need further innovation, standard setting and enabling policies. Optimizing the use of cement is expected to reduce the demand along the entire construction value chain, thus helping to cut CO_2 emissions.

I would like to share with you how **Swiss international cooperation (SDC)** is related to the cement sector. Since a decade, our Development office here in Delhi focusses mainly on climate change and environmental issues. As part of our work on low-emissions development, we have been particularly active in the field of "Built Environment": from building materials like low-carbon cement, to energy efficient buildings and finally to resilient cities. Our support for the development and commercialization of a Low-Carbon Cement is thus part of a broader approach and we hope to foster exchanges between cement experts, architects and urban planners.

Why did SDC decide to support the Low-carbon cement project, which consists in researching and developing a new type of cement called Limestone Calcined Clay Cement or LC3?

Cement production is, as we all know, one of the largest sources of greenhouse gas emissions, currently contributing about 5% to global CO_2 emissions. The consumption of cement is rapidly increasing due to urbanization, which at the same time offers a great window of opportunity to intervene in this sector.

The project is an excellent example of innovation. It started as a research collaboration between Cuba and Switzerland, financed by the Swiss National Science Foundation. Based on promising results, a long-term project was developed, with a focus on India and through interaction with several other countries.

Some most renowned institutions have joined hands: the Swiss Federal Institute for Technology in Lausanne, the Indian Institute of Technology (IIT)-Delhi, IIT-Bombay, IIT-Madras, TARA & the Universidad de las Villas in Cuba.

From the very beginning, the research partners worked in close collaboration with the cement industry. This has ensured the relevance of this low-carbon solution for the private sector and has greatly enhanced its chances of having a lasting effect on how cement will be produced in the future.

Impressively, the innovation emerging from this collaboration has now spread across the world. There is great interest among cement companies, particularly in developing countries where most of the construction is happening. Remarkably, two cement companies have

invested in the commercial production of LC3 in Africa and Latin America.

The extensive research carried out shows the potential of LC3 for reducing greenhouse gas emissions by up to 30%, while maintaining a performance similar to cements available in the market.

There are still challenges to overcome for this new cement to be available in the market, mainly in the fields of **standardization**, **production and application**. The process of standardization of LC3 is progressing in India and Europe, so that it can be used as a general construction material. To support the uptake of the technology, two Technical Resource Centers have been established in India and Cuba. These centers are facilitating the knowledge transfer on LC3-production to industrial actors. Finally, to upscale the use of LC3, demonstration projects endorsed by the private sector or large corporate houses are expected.

Switzerland is confident that the industry and researchers will continue to work together and support policymakers in promoting low carbon cement technologies, thus saving millions of tons of CO_2.

Let me congratulate IIT Delhi and all other partners for organizing this conference. I wish you the very best for your deliberations over these three days. Thank you.