

CURRENT WATER UTILIZATION OF READY MIX CONCRETE IN MONGOLIA

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ABSTRACT

The prudent utilization of water in ready-mix concrete production is a critical aspect of sustainability in the construction industry. With the growth of ready-mix batching plants across Mongolia, driven by the rapid development of infrastructure projects, there is a growing concern over the escalating use of drinking water in the concrete mixing process. This study investigates the current water utilization practices in local and regional batching plants, predominantly reliant on groundwater sources. It also explores the potential for reducing water consumption through the adoption of innovative techniques such as utilizing greywater and implementing regulatory measures to limit groundwater extraction.

Presenter



Dr. Narantuya Batmunkh is a distinguished committee member and former Chairperson of the Mongolian Concrete Association. She serves as the Dean of the School of Civil Engineering and Architecture at the Mongolian University of Science and Technology. Dr. Narantuya earned her Master's degree from the Concrete Laboratory at the University of Tokyo, Japan, and subsequently completed her Ph.D. at Curtin University, Australia, focusing on the "Engineering Characteristics of Construction Waste for Western Australian Road and Highway Materials." Her research interests encompass sustainable concrete development, the influence of chemical admixtures on enhancing the properties of fresh and hardened concrete, porous structures in concrete, permeability-solid space ratio relationships, and thermodynamic states in cement paste.