

SUSTAINABLE CONSTRUCTION FOR SINGAPORE'S URBAN INFRASTRUCTURE – SOME RESEARCH FINDINGS

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ABSTRACT

Larger countries may be able to afford the old model of urban sprawl, where the city boundary grows outwards. However, in countries like Singapore, evolving Singapore's city of the future will be very different. Singapore requires development of holistic sustainable technologies and solutions for sustainable infrastructure to meet future social and economic needs. This includes adopting building designs, construction methods and materials that are environmentally-friendly, as well as using materials and resources that have sustainable supplies. Research on sustainable development at NUS is on-going. A number of interesting projects are targeted at developing sustainable solutions to meet challenges unique to Singapore. The session deals with two recently completed projects funded by the MND Research Fund for the Built Environment. The first project proposed an innovative technique to increase the yield and quality of recycled concrete aggregates through microwave beneficiation. The second project involves partnering the Housing Development Board, to design high-rise buildings that - like building blocks - can be disassembled and re-used. A brief update of the research findings of both projects will be presented.