SINGAPORE - As part of the push for sustainability, the Government aims to quadruple the number of construction projects that adopt more efficient building methods by 2020.

This is necessary as current methods are not sustainable for the long term, said Minister for National Development Lawrence Wong at the official opening of Nanyang Technological University's new sports hall on Monday (April 24).

Current methods of constructing HDB flats and other buildings are labour-intensive, which would lead to a "far larger pool of foreign workers than we can accommodate in Singapore", said Mr Wong.

"This ends up becoming a bottleneck and constraint in our development," he added.

Currently, about 10 per cent of construction projects adopt new types of technology in the building process.

But if the Government adopts technologies like what NTU has done for its construction projects, "billions more" projects can potentially be carried out with the same number of workers today, he said.

The new NTU sports hall, called The Wave, is the first large-scale building in South-east Asia with a structure built completely using mass-engineered timber.

As the building process involves assembling prefabricated parts, construction is sped up, resulting in 25 per cent savings in manpower.

The timber material provides five times better heat insulation than concrete. It is also able to support a continuous 72m wave-like roof, without the need for internal columns or pillars.
As a result, the three-storey sports hall has a cavernous space that can host three basketball courts or 13 badminton courts.

Other local construction projects that have adopted the mass-engineered timber include the BCA SkyLab Visitor Gallery and Block 81 of the JTC LaunchPad @ one-north, which were both completed last year.