

Greener buildings can slow down global warming.

BETTER architecture and energy savings in buildings can do more to fight global warming than all curbs on greenhouse gases agreed under the United Nations Kyoto Protocol, a UN study shows.

Better use of concrete, metals and timber in construction and less use of energy for everything from air conditioners to lighting in homes and offices could save billions of dollars in a sector accounting for 30% to 40% of world energy use.

Buildings can play a key role in combating climate change, the UN Environment Programme (UNEP) said in a report on ways to promote economic growth without damaging the environment.

Simple measures include more blinds to keep out the sun in hot climates, switching to energy-efficient light bulbs, better insulation and ventilation. Avoid building a bigger house than you need was among the tips.

By some conservative estimates, the building sector worldwide could deliver emission reductions of 1.8 billion tonnes of carbon dioxide, said Achim Steiner, the head of UNEP. A more aggressive energy efficiency policy might deliver over two billion tonnes or close to three times the amount scheduled to be reduced under the Kyoto Protocol, he said.

The Kyoto Protocol binds 35 industrial nations to cut emissions of greenhouse gases, mainly from burning fossil fuels, by about 5% below 1990 levels by 2008 to 2012 to slow a warming that may cause more heat waves, droughts and rising seas.

But Kyoto has few incentives for more efficient buildings even though they are a big part of a problem also stoked by sectors such as transport and farming. The report urged global action to promote greener buildings.

The savings that can be made right now are potentially huge and the costs to implement them relatively low if sufficient numbers of governments, industries, businesses and consumers act, Steiner said.

The report said fast-growing developing nations needed to focus on more efficient new buildings. China is the world's top builder, adding almost 2 billion sq m of new building space every year.

Typically construction costs increase by 3% to 5% due to the introduction of energy efficient solutions.

The report said most energy used in buildings is during their lifetimes from heating to lighting rather than in construction. Overall, most energy is used by homes, ahead of shops, offices and other buildings such as schools or hospitals.

For builders, timber was often a cheaper and lighter-weight alternative for house frames than steel. Energy consumption in making steel was two to three times higher than in making glulam (glued-laminated timber) beams wood glued together and laminated for more strength.

It also recommended refurbishing old buildings rather than demolishing them and designing new buildings for long use. The report also said there were other factors to keep in mind even gender. Some studies have shown women prefer higher room temperatures than men, even with similarly thick clothing.

Reuters

by ALISTER DOYLE

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