

Global and urban climate change and the built environment

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Abstract

The presentation starts by looking at the evidence for climate change and global warming. It highlights the carbon 12 carbon 13 ratio as evidence of mankind's fossil fuel emissions into the atmosphere. The role of the IPCC, its processes and reports are considered. The influential climate deniers are also discussed. Measurements on the urban heat island are shown which indicate that in some cities this is increasing.

As the built environment is responsible for almost a third of the greenhouse gas emissions the potential for reducing them is shown. Renewables, building design and near zero energy buildings are examined. Also the unexpected consequences of saving energy are discussed, namely the retrofitting of flammable insulation systems and summer overheating of dwellings.

The presentation concludes by suggesting that the profile of science, engineering and their benefits be raised to combat climate denial and political ignorance.