SIXTH ASSESSMENT REPORT
Working Group III – Mitigation of Climate Change

ipcc
INTERGOVERNMENTAL PANEL ON climate change

WMO UNEP

Climate Change mitigation in buildings
Key findings from IPCC AR 6

In 2019, buildings contributed by 21% to global GHG emissions when 3 scopes of emissions are considered

Sector	Contribution to global GHG emissions in 2019
Electricity and heat	23%
Other energy	10%
Industry	24%
Transport	15%
Buildings	5.6%
Agriculture, forest and land use	22%

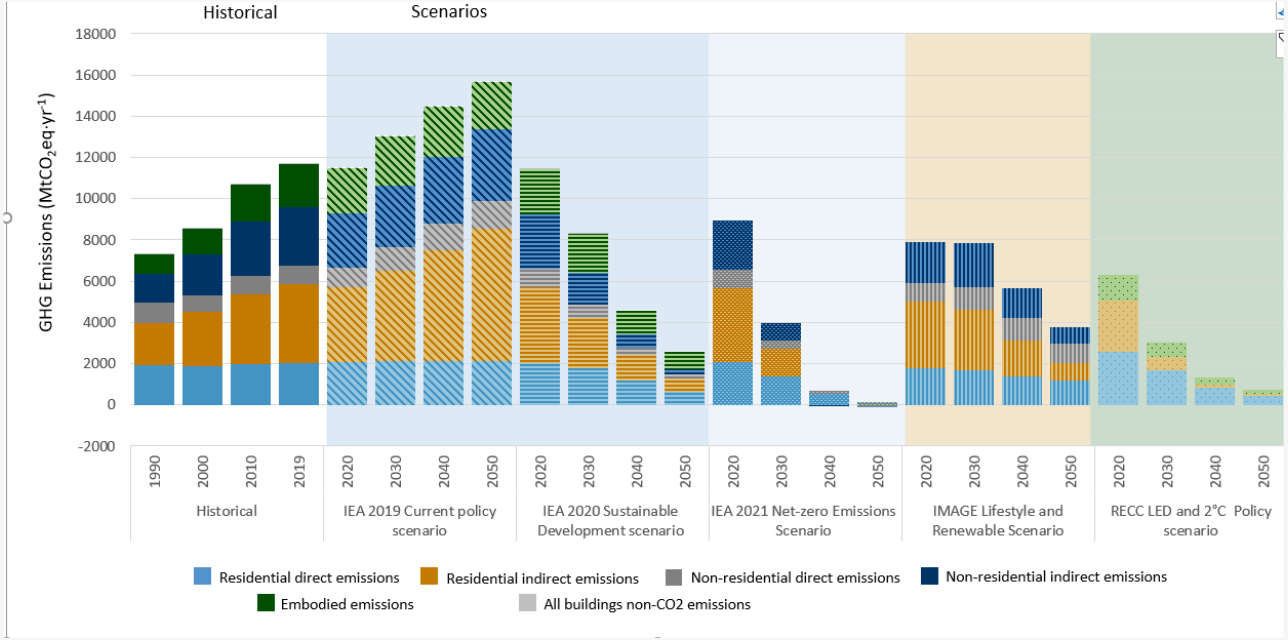
Energy

Sector	Contribution to global GHG emissions in 2019
Electricity and heat	0%
Other energy	12%
Industry	34%
Transport	15%
Buildings	16%
Agriculture, forest and land use	22%

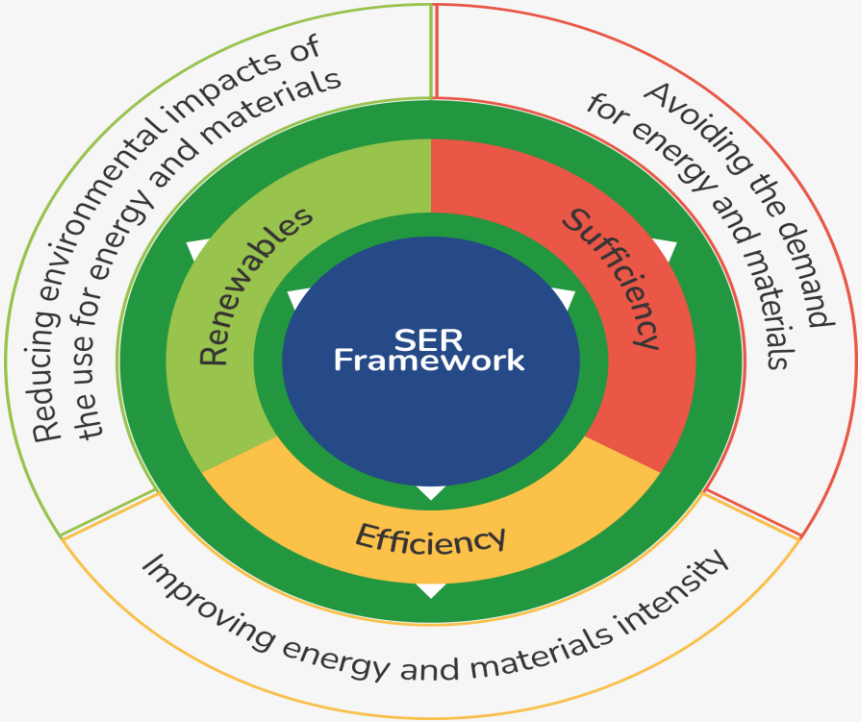
Scope 1 emissions makes buildings the lowest contributor to global energy GHG emissions

Scope 1 and 2 emissions make buildings the 2nd highest contributor to global energy GHG emissions

Existing policies failed in decarbonising the global building stock and are not able to make in the future buildings climate neutral



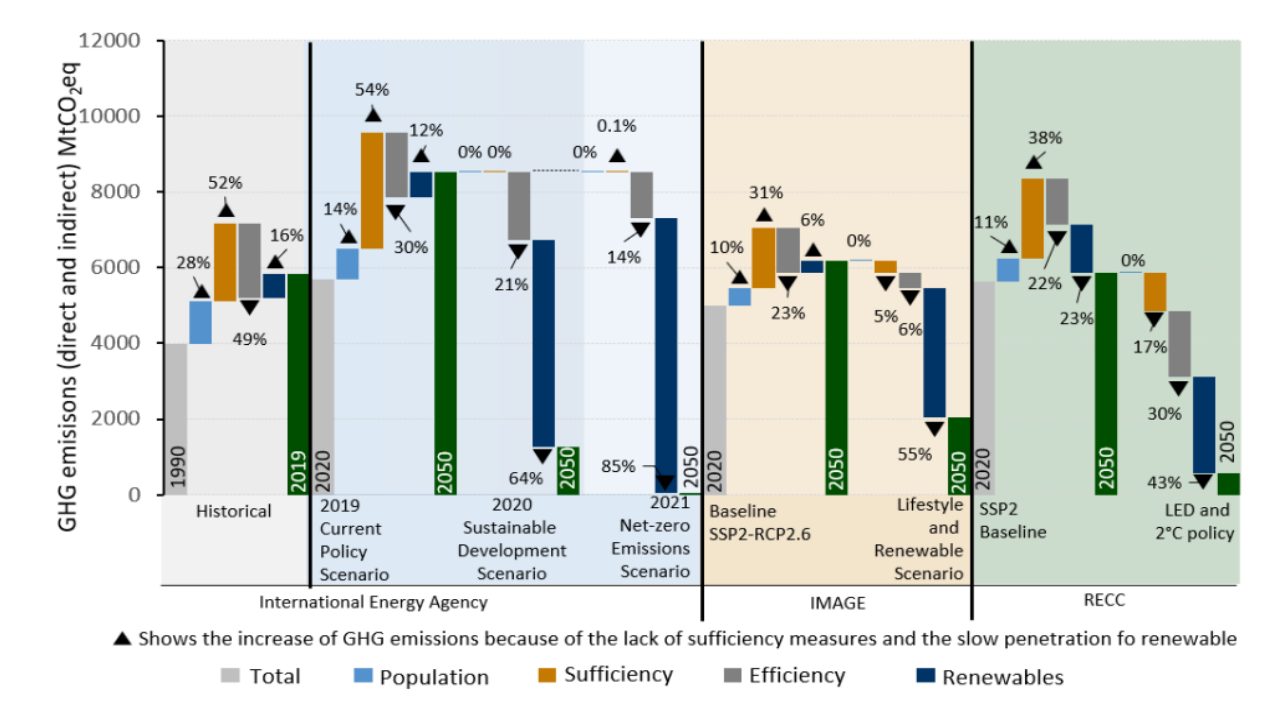
From efficiency and renewable to sufficiency, efficiency and renewable climate policy framework



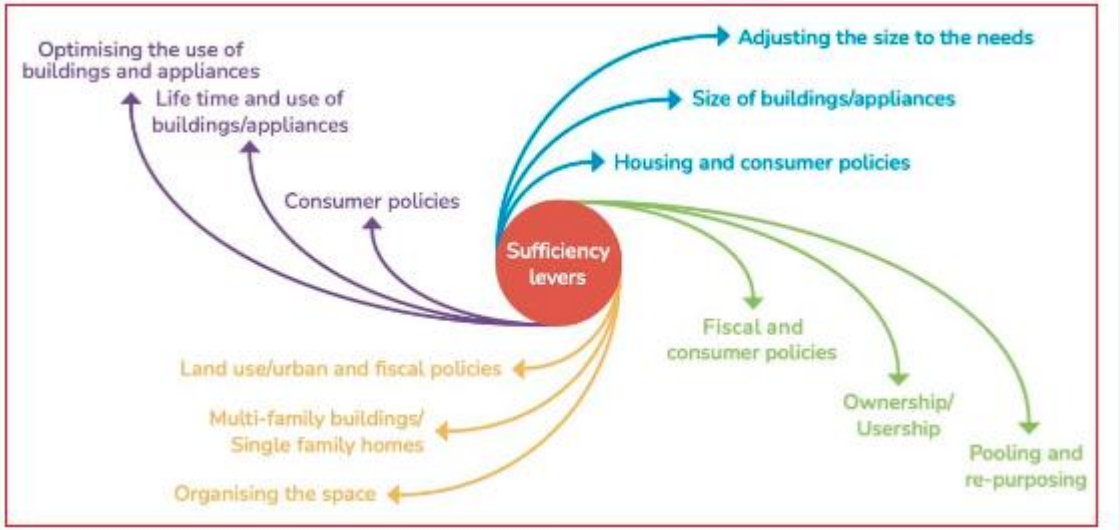
"Sufficiency is a set of policy measures and daily practices that avoid demand for energy, materials, land, water and all natural resources while delivering human wellbeing for all within planetary boundaries."

COP26: Sufficiency should be first
IPCC WGIII SPM

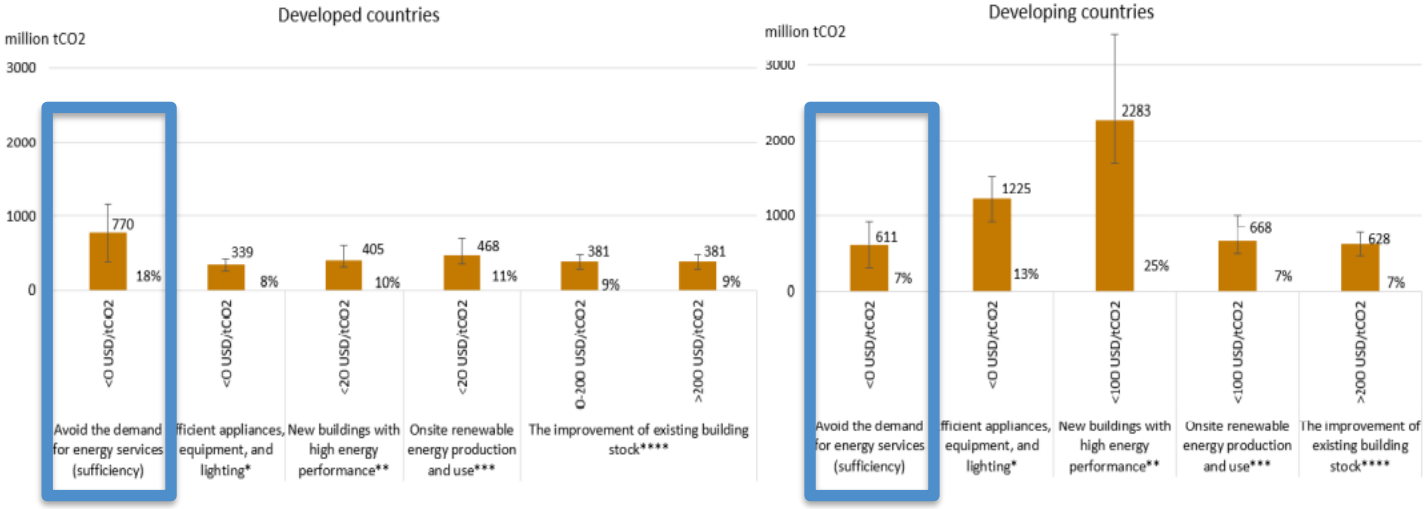
Efficiency improvements have been (and will continue to be) offset by the lack of sufficiency policies



Sufficiency should be considered first to avoid the carbon lock-in and to make buildings carbon neutral



Sufficiency measures are at no cost for end-users in both developed and developing countries



* including ICT, water heating, and cooking.
** including the change in construction methods; management and operation of buildings; and efficient heating, ventilation, and air-conditioning.
*** typically in new high performance buildings.
**** including thermal efficiency of building envelopes; management and operation of buildings; and efficient heating, ventilation, and air-conditioning.

Climate neutral building stock will contribute to meeting at least 10 SDGs

Decarbonising buildings requires sufficiency, efficiency and renewable policies that consider buildings within their environment

Net zero emissions global building stock by 2050 is possible if:

- land use and urban planning policies are considered in climate mitigation policy packages targeting buildings
- the existing policy framework composed of efficiency and renewable includes sufficiency measures and sufficiency is considered first
- measures implemented in the current decade do not lock buildings in carbon
- existing buildings are renovated to the zero emissions standard

Thank You

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