

# SIXTH ASSESSMENT REPORT

Working Group III – Mitigation of Climate Change

ipcc

INTERGOVERNMENTAL PANEL ON climate change



# Mitigating Climate Change in buildings

## Key findings from IPCC AR 6

HQE-GBC General Assembly  
Paris, June 30<sup>th</sup>, 2022



# Report by numbers



278 Authors



65 Countries



41 % Developing countries  
59 % Developed countries



354 Contributing  
authors



29 % Women / 71 % Men



More than  
18,000 scientific papers



59,212 Review comments

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# Climate Change 2022 Mitigation of Climate Change

Summary for Policymakers



Working Group III contribution to the  
Sixth Assessment Report of the  
Intergovernmental Panel on Climate Change



The evidence is clear: the time for  
action is now.

We can at least halve emissions by  
2030

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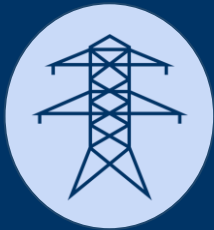
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There are options available now in every sector that can at least **halve** emissions by 2030



## Demand and services



Energy



Land use



Industry



Urban



Buildings



Transport



# Shifting the focus of policies from supply to demand side is likely to change Gvts decarbonisation priorities

Sector	Contribution of direct emissions per sector 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

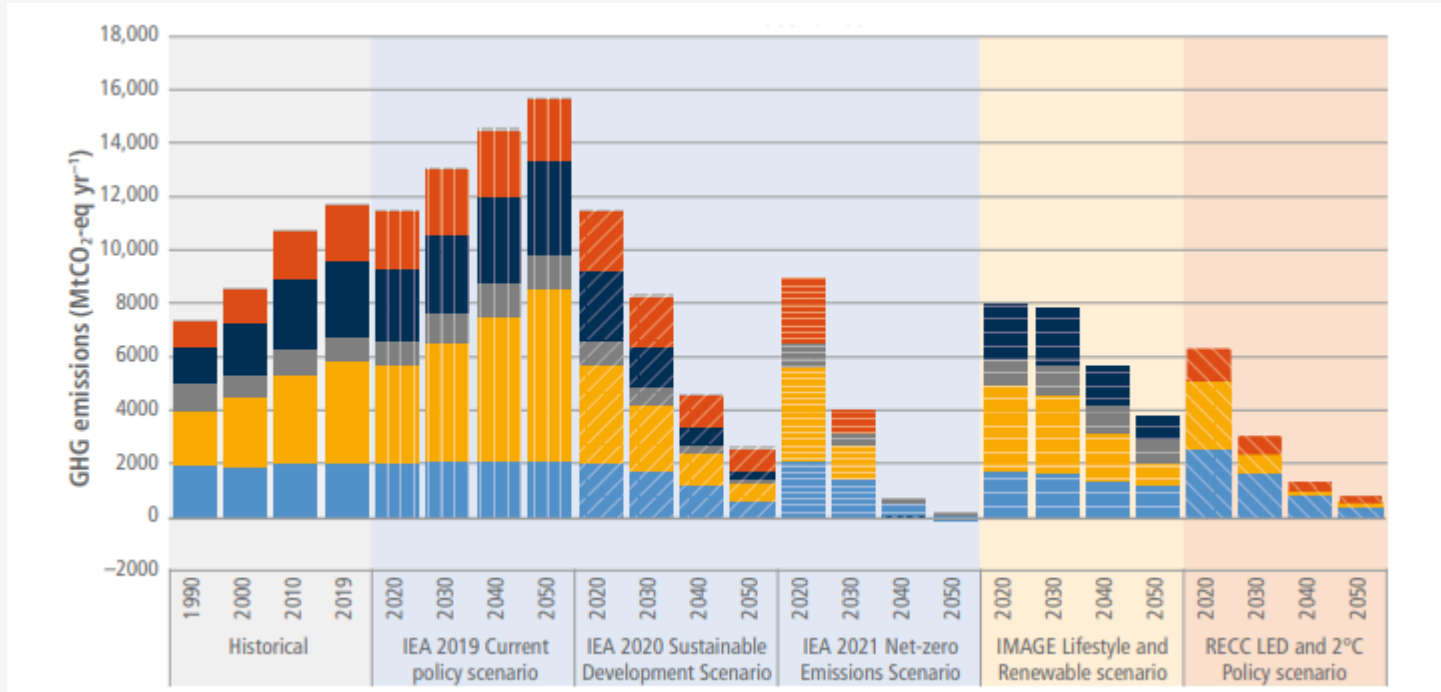
Sector	Contribution of direct and indirect emissions per sector to global GHG emissions in 2019
Electricity and heat	0%
Other energy	12%
Industry	34%
Transport	15%
Buildings	16%
Agriculture, forest and land use	22%

Looking to emissions from energy supply perspective makes buildings the lowest contributor to global energy GHG emissions

Looking to emissions from demand side perspective makes buildings the 2<sup>nd</sup> highest contributor to global energy GHG emissions



## In 2019, the contribution of buildings to global emissions reached 21% when 3 scopes\* of emissions are considered

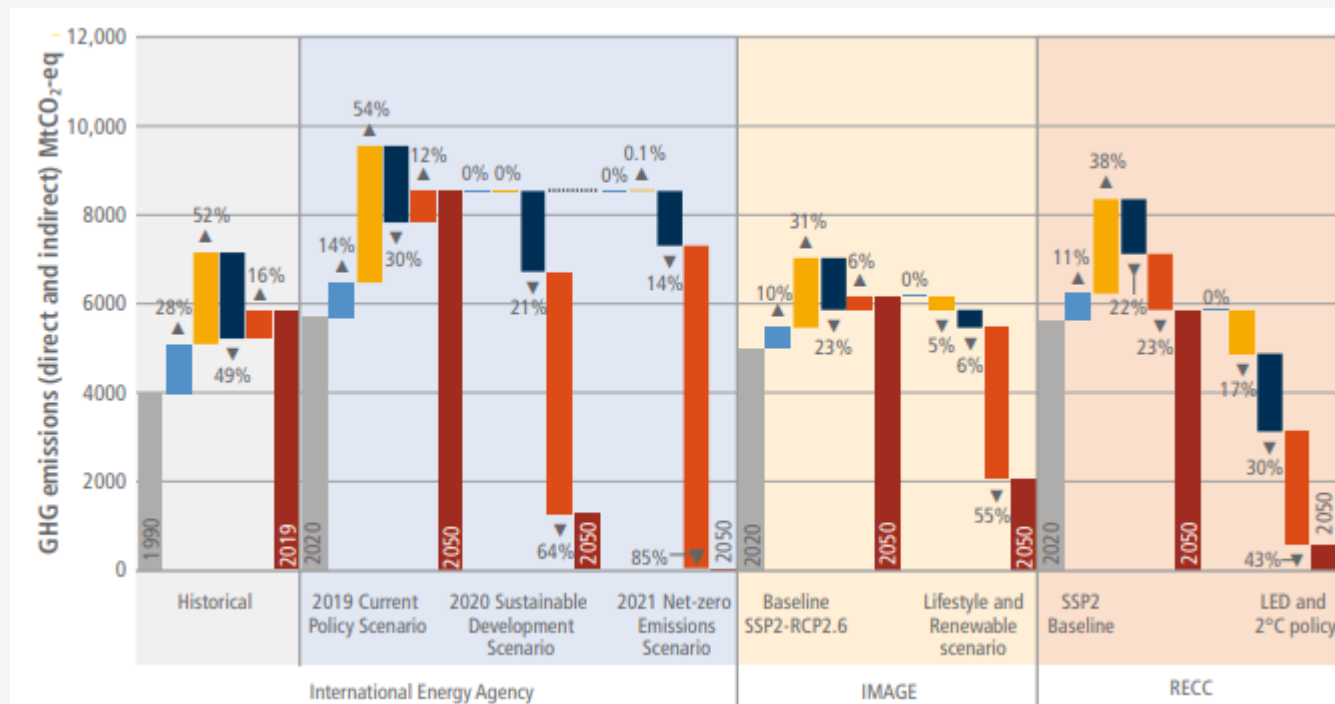


\*The three scope of emissions include direct, indirect and embodied emissions (in cement and steel only due to lack of data)



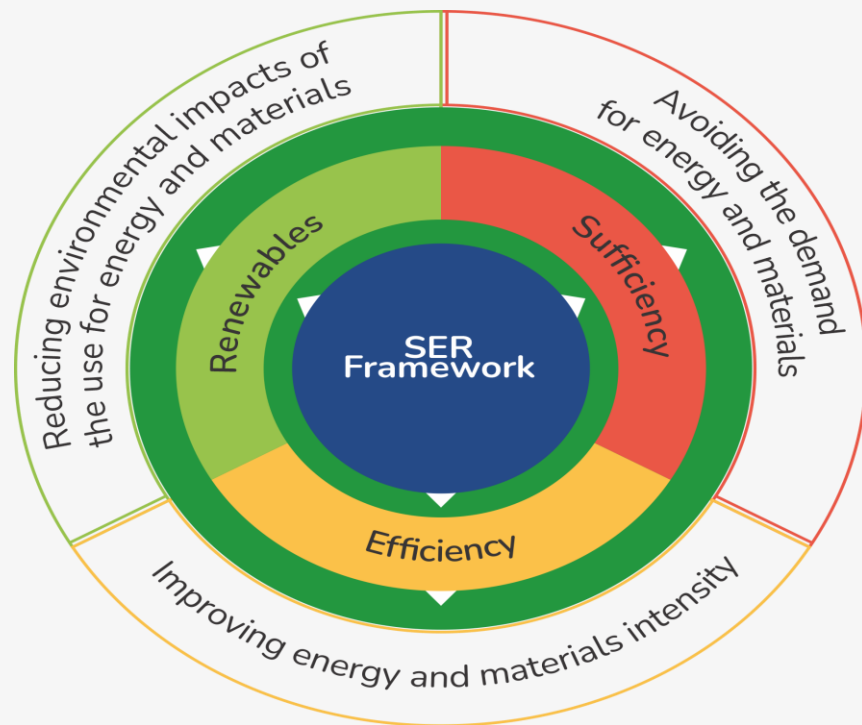
## The lack of sufficiency policies has and will continue to offset efficiency improvements

*Decomposition of global GHG emissions in residential buildings*



*Today's decarbonisation choice is between sufficiency and the reliance on unproven technologies to decarbonise our economies*

## Capturing the full mitigation potential requires considering sufficiency policies

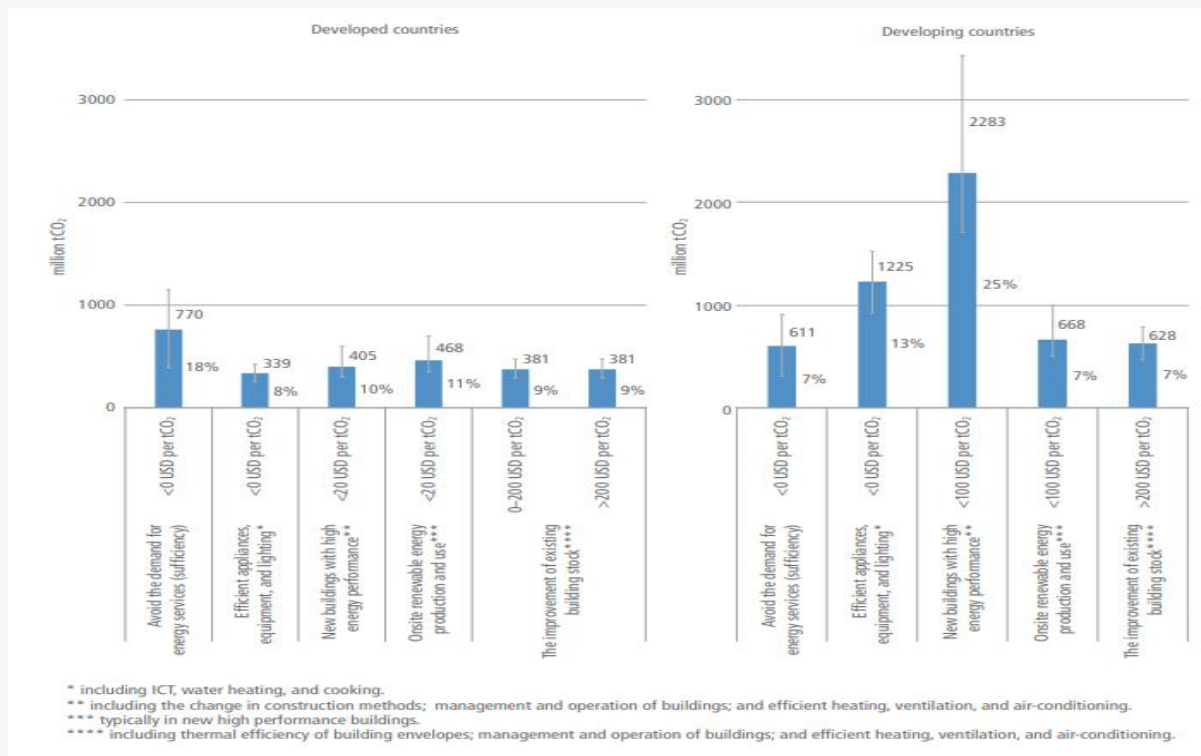


***“Sufficiency is a set of policy measures and daily practices that avoid demand for energy, materials, land and water while delivering human wellbeing for all within planetary boundaries.”***





## Sufficiency and some efficiency measures are at no cost for end-users in developed countries





## Decarbonising buildings requires moving towards the SER (sufficiency-efficiency and renewable) policy framework



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

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

[Pelargoniums for Europe/Unsplash, City of St Pete CC BY-ND 2.0, Victor/Unsplash, EThekwini Municipality, Arne Mueseler/arne-mueseler.com, CC BY-SA 3.0 de]



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**Unless there are immediate and deep emissions reductions across all sectors, 1.5°C is beyond reach.**



# Thank You

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## For More Information:

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