Pathways to Climate Resilience:
The Central Role of Building Codes in Climate Adaptation and Mitigation: Key Findings

Communities are facing unprecedented challenges of responding to the increasing number and frequency of disaster events, many driven by climate change.

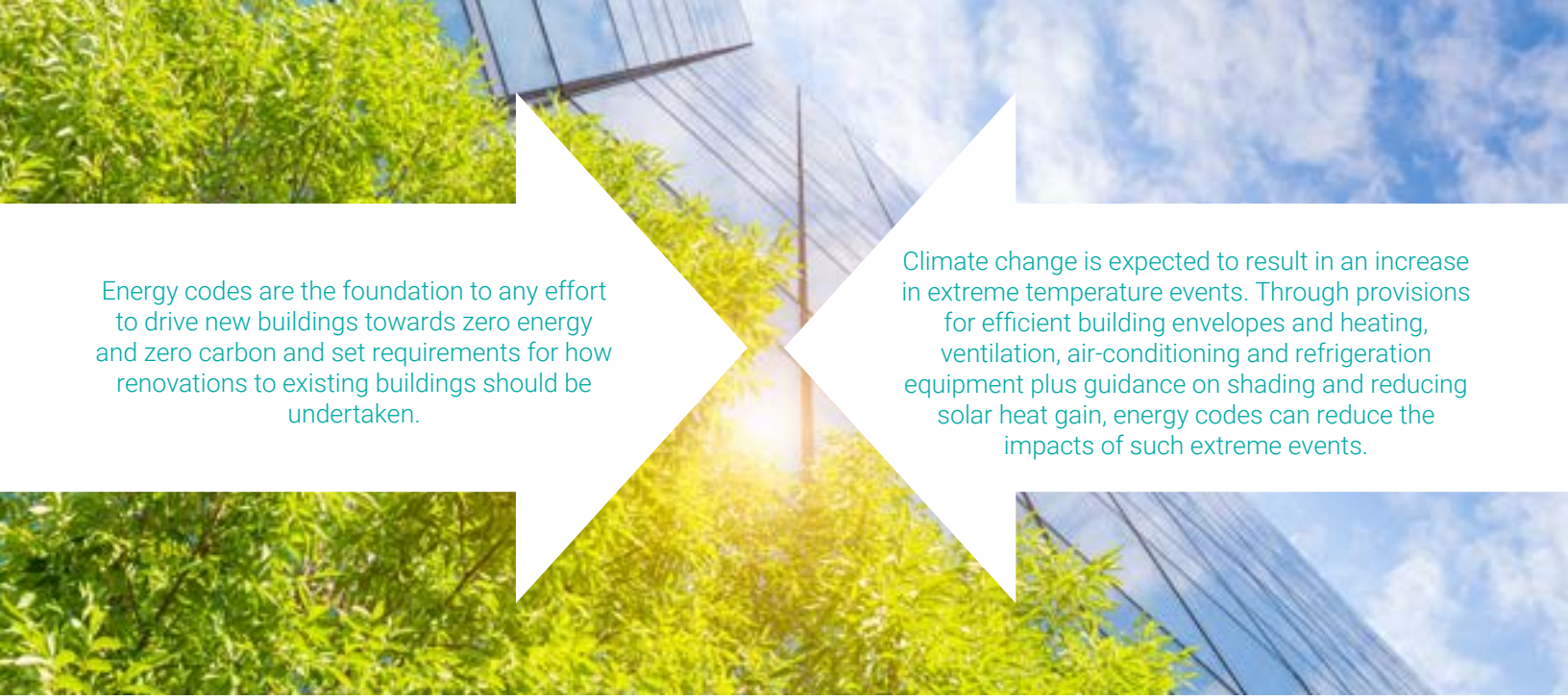
Governments are looking for solutions to stem the greenhouse gas (GHG) emissions that continue to drive changes in climate.

The built environment is central to both enhancing resilience and mitigating GHG emissions.

Buildings are our shelter against the storm, the homes of our governments and institutions, drivers of economies, and symbols of our ideals.

Buildings are significant users of energy and materials.

Building codes and the activities that support their effective use are central to the realization of a climate resilient future.



Energy codes are the foundation to any effort to drive new buildings towards zero energy and zero carbon and set requirements for how renovations to existing buildings should be undertaken.

Climate change is expected to result in an increase in extreme temperature events. Through provisions for efficient building envelopes and heating, ventilation, air-conditioning and refrigeration equipment plus guidance on shading and reducing solar heat gain, energy codes can reduce the impacts of such extreme events.

Why buildings?

- According to the 2021 Global Status Report for Buildings and Construction, in 2020, the global buildings sector was responsible for 36% of global final energy consumption and 28% of total global energy-related CO_2 emissions. When including construction, buildings accounted for 37% of global energy-related emissions.
- According to the World Business Council for Sustainable Development, approximately 255 billion m^2 (2.75 trillion ft^2) of buildings currently exist worldwide with the addition of roughly 5.5 billion m^2 (59.2 billion ft^2) added every year, equivalent to a city the size of Paris every week.
- The World Resources Institute identified the building sector as having the greatest opportunity to capture unrealized cost-effective emissions savings. Residential and commercial buildings make up approximately 34% of the opportunity to improve energy productivity.
- ***Any efforts to achieve NDCs that do not address buildings are overlooking an essential opportunity.***

Why building codes?

- According to GlobalABC, when matched with United Nations population growth estimates, just 65% of the population growth by 2030 will be in countries that have identified building energy efficiency and/or energy codes in their NDCs
- Just as building codes provide significant benefits against the impacts of hazard events, energy codes are highly effective in reducing energy use and GHGs while also saving building owners and tenants money and enhancing their resilience.
- Building codes are a fundamental contributor to community resilience. A community cannot be resilient without resilient buildings and the codes that support their development.

The International Code Council calls on all governments to adopt and enforce building codes aligned with domestic and international goals for reduced GHG emissions and enhanced resilience.

ICC INTERNATIONAL CODE COUNCIL®

For additional information and to read the full paper, please visit www.iccsafe.org/UNFCCC