



CARBON



RESILIENCE



CIRCULARITY



WATER



BIODIVERSITY



HEALTH



**EQUITY
AND ACCESS**

GLOBAL POLICY PRINCIPLES FOR A SUSTAINABLE BUILT ENVIRONMENT

12 April 2023



WORLD
GREEN
BUILDING
COUNCIL

FOREWARD FROM CEO, CRISTINA GAMBOA

Sobering analysis from the latest IPCC report tells us there is a rapidly closing window of opportunity to implement policies that will keep us within the 1.5°C warming limit.

With such a significant environmental and carbon impact, leaders and policymakers must recognise the built environment as a key agent of change to close the 1.5°C gap.

Our sector is in a strong position to deliver resilient development that integrates mitigation and adaptation measures, whilst also addressing other pressing societal issues, including energy security, resilience, health and equity.

In this Global Stocktake of the Paris Agreement year, and ahead of countries submitting updated Nationally Determined Contributions (NDCs) in 2024, it is crucial that political leaders take bold actions to strengthen and implement building policies that deliver transformative change.

Our Global Policy Principles cover seven key areas – carbon, resilience, circularity, water, biodiversity, health, and equity and access. By adopting a holistic approach to the application of these principles, policymakers across all levels of government can ensure that policy and regulations are reaching the goals of the Paris Agreement.

The World Green Building Council and our network of 75+ Green Building Councils invite governments to use these principles to review and update with a sense of urgency all the necessary legislation, and we offer our support to implement via the supporting policy levers.



CRISTINA GAMBOA

ABOUT WORLD GREEN BUILDING COUNCIL

The World Green Building Council (WorldGBC) is the largest and most influential local-regional-global action network, leading the transformation to sustainable and decarbonised built environments for everyone, everywhere.

Together, with 75+ Green Building Councils (GBCs) and industry partners from all around the world, we are driving systemic changes to:

- *Address Whole Life Carbon emissions of existing and new buildings*
- *Enable resilient, healthy, equitable and inclusive places*
- *Secure regenerative, resource efficient and waste-free infrastructure*

We work with businesses, organisations and governments to deliver on the ambitions of the Paris Agreement and UN Global Goals for Sustainable Development (SDGs).

Find out more www.worldgbc.org

WORLDGBC GLOBAL POLICY TASK FORCE

The Global Policy Task Force is an advisory and knowledge body of the World Green Building Council (WorldGBC) comprised of Green Building Councils (GBCs) from all over the world. The Task Force brings together GBCs to facilitate dialogue, exchange views and understand the respective building policies and regulations of countries around the globe.

These Global Policy Principles for a Sustainable Built Environment have been developed by the Global Policy Task Force, ensuring that the principles are globally applicable yet locally relevant.



María Fernanda Aguirre B.
Executive Director,
Chile Green Building Council



Abdullatif Albitawi
Director,
Emirates Green Building Council



Elizabeth Beardsley
Senior Policy Counsel,
U.S. Green Building Council



Esteban Cervantes
Technical Advisor,
Green Building Council Costa Rica



Cary Chan
Executive Director,
Hong Kong Green Building Council



Andrew Eagles
Chief Executive,
New Zealand Green Building Council



Andrew Fischer
Head of Policy and Research,
Green Building Council of Australia



Marion Jammot
Head of Policy and Advocacy,
Irish Green Building Council



Juan David Lizcano
Legal Specialist,
Colombia Green Building Council



Tony Lee Luen Len
Founding Director,
Green Building Council Mauritius



Valentina Marino
International Activities and Relationships,
Green Building Council Italia



Thomas Mueller
CEO,
Canada Green Building Council



Nasra Nanda
CEO,
Kenya Green Building Council



Ghayda Salameh
Projects Coordinator,
Jordan Green Building Council



Yvonne Soh
Executive Director,
Singapore Green Building Council



Miisa Tähkänen
Leading Specialist,
Finland Green Building Council



Danjuma Waniko
President,
Green Building Council Nigeria



Simon McWhirther
Deputy Chief Executive and Director
of External Affairs, UK Green Building Council

Members of WorldGBC's Global Policy Task Force and Steering Committee

THE IMPACT OF THE BUILT ENVIRONMENT

The global community's resolve to tackle climate change is evidenced by countries' ratification of the Paris Agreement and their commitment to delivering on the United Nations Sustainable Development Goals.

Under the terms of the Paris Agreement, countries all over the world have committed to align with a 2°C reduction scenario, aiming for 1.5°C. But the reality is that the world is not on track to achieve these emissions reductions. In fact we are dangerously off track and the global economy must reduce emissions by 45% in the next seven years to avert the catastrophic impacts of climate change¹.

Worldwide, buildings are responsible for 37% of global emissions, 34% of energy demand

and 50% of materials consumption². Other environmental impacts include resource depletion, air, water and land pollution and biodiversity loss.

With such a significant impact, it is critical that the built environment is playing its part in delivering the transformative change needed to decarbonise our global economy whilst also addressing other pressing societal issues, including energy security, resilience and health and wellbeing, in the face of increasing global population.

INCREASING GLOBAL CHALLENGES

Our world is facing an unprecedented crisis – and each region is grappling with their own challenges including war, famine, economic turmoil and civil unrest. And all this is happening whilst we are confronting a climate emergency.

As industry, government, and society react to these global challenges, they do so in the face of accelerating urbanisation and population growth. There will be a 20% increase in floor area between 2021 and 2030, with 80% of this in emerging

markets and developing economies³. In Asia and Africa, building stock is expected to double by 2050. Global material use is expected to more than double by 2060, with a third of this rise attributable to materials used in the building and construction sector⁴.

In other markets such as Europe, Australia and North America – most of the buildings that will exist in 2050 have already been built. A large proportion of these buildings

are leaky and inefficient and the challenge is to rapidly increase the rate and depth of renovation of these buildings.

As global leaders and governments prepare for this growth they must seize the opportunity and adopt a holistic approach to build and renovate homes and communities in a way that enables citizens all across the globe to prosper.

THE OPPORTUNITY

Not only are sustainable built environments a critical solution to climate change, they also help create resilient, thriving communities that drive economic growth in both western and emerging economies.

The transition to a sustainable and decarbonised future will enable societies

to move away from inefficient practices, increase the autonomy of nations, and provide energy security for the most vulnerable households, whilst creating large numbers of decent green jobs for local economies.

1 [UNEP Emissions Gap Report](#)

2 [GlobalABC Status Report 2022](#)

3 [World Energy Outlook \(IEA\)](#)

4 [GlobalABC Status Report 2021](#)

OUR VISION

WorldGBC's vision is for every citizen on earth to enjoy the benefits of living in a totally decarbonised, circular, resilient and equitable built environment that provides a high quality of life.

WorldGBC's North Star Goals outline a pathway to deliver on this vision across three impact areas:

CLIMATE ACTION
Total decarbonisation of the built environment.

HEALTH, EQUITY AND RESILIENCE
A built environment that delivers healthy, equitable and resilient buildings, communities and cities.

RESOURCES AND CIRCULARITY
A built environment that supports the regeneration of resources and natural systems, providing socio-economic benefit through a thriving circular economy.

AMBITIOUS POLICY TO ACHIEVE OUR VISION

Despite the best of intentions, the actions taken to date are simply not on track to deliver the change our world needs. Policymakers and leaders must take bold leadership actions to unlock the potential of the built environment to deliver our vision.

To deliver this vision, it is critical that governments are taking action to strengthen and implement building policies that support transformative action in the built environment. This will send a clear signal to the market and enable industry to deliver the innovative solutions

needed to lower de-risk investment and lower the cost of the transition¹.

According to the IEA, delaying policy action has major economic implications. Building projects to be built by 2050 under inadequate energy policies is about 2.5-times the current building stock in China².

Such urgency requires policy action now and this must be delivered through deep collaboration between governments and cities, regions, businesses and investors.

1 [The Critical Role of Buildings, IEA 2019](#)

2 [The Critical Role of Buildings, IEA 2019](#)

GLOBAL POLICY PRINCIPLES FOR A SUSTAINABLE BUILT ENVIRONMENT

WorldGBC — in partnership with our global network of GBCs — has set out a series of principles to guide governments when developing their building policies and programmes.

These mutually reinforcing principles are constructed to recognise the interdependencies between the topics they seek to address. For example, action on carbon and resilience will unlock co-benefits across all of the principle topics. Similarly, the application of circular design principles can yield carbon savings whilst also addressing resilience and biodiversity. Each of these principles must be applied in an integrated manner to recognise

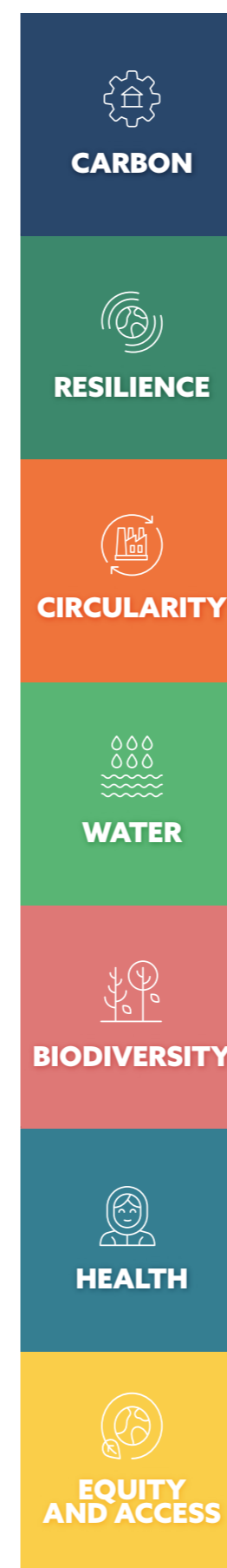
and benefit from the many interlinkages between them.

By adopting a holistic approach to the application and incorporation of these principles, policymakers across all levels of government can ensure that policy and regulations are delivering the transformative action needed to reach the goals of the Paris Agreement and deliver on WorldGBC’s vision.

In supporting the delivery of these principles, governments must take a holistic approach and embrace public funding alongside influencing financial investment decisions and tools that consider carbon mitigation, resilience and green buildings.

Our global network invites governments to review and update their existing legislation so it aligns with these principles and offer our support to implement these principles via the supporting policy levers outlined below.

PRINCIPLES



WHEN DEVELOPING POLICIES AND PROGRAMMES, NATIONAL AND LOCAL GOVERNMENTS MUST

Prioritise renovation of existing buildings and eliminate both operational and embodied carbon emissions across the lifecycle of all buildings.

Enhance the ability of homes and communities to respond to external shocks and stressors by integrating climate resilience and promoting adaptation.

Drive waste out of the construction value chain and minimise the use of primary materials by optimising use of resources and materials.

Conserve and protect water resources and guarantee equitable access to potable water and sanitation.

Regenerate natural systems and restore biodiversity loss by avoiding development on land with high biodiversity, and by prioritising nature-based solutions that enhance, expand, and protect the natural environment.

Develop healthy, equitable and resilient buildings and cities that deliver improvement in occupant, community and public health and wellbeing throughout the building and construction lifecycle.

Support equal access to safe, healthy, sustainable homes and communities for all citizens.

IMPLEMENTING THE PRINCIPLES

The policy principles on the following pages can be followed by deploying the policy levers¹.

¹ For the purposes of this table, the policy levers are categorised as:
Regulation – covering building codes, regulations laws and planning policies Information – including roadmaps, strategies, awareness campaigns etc Incentives – including financial incentives grants



CARBON

PRIORITISE RENOVATION OF EXISTING BUILDINGS AND ELIMINATE BOTH OPERATIONAL AND EMBODIED CARBON EMISSIONS ACROSS A BUILDING'S LIFECYCLE

SUPPORTING POLICY LEVERS

Regulation

- Require Whole Life Carbon (WLC) assessments before demolition.
- Mandate WLC reporting, including operational energy performance, for all buildings via Carbon/Energy Performance Certificates.
- Mandate carbon management processes for large public projects.
- Mandate provision of functional and environmental information for construction products and materials.
- Building codes that include Minimum Energy Performance Standards for all buildings and aim for low or zero carbon new construction by 2030 and over time, include WLC.
- WLC limits for buildings and infrastructure to tighten over time on a trajectory to net zero.

Information

- Net Zero Carbon roadmaps that state the impact of the national building stock on national carbon emissions, outlining a trajectory to net zero WLC for all buildings by 2050 with milestones for 2030.
- Establishment of national databases and guidelines to align approaches to calculating carbon, provide benchmarks for different building types.
- Provide information for communities to self-organise and implement district retrofit/energy projects.
- Recognise the role and leverage contributions of voluntary green building standards and certifications to this principle.

Incentives

- Optimise the role of buildings in the energy transition by creating financial subsidies for domestic renovation and rooftop solar.
- Incentivisation of low carbon building energy systems through subsidies and financial mechanisms.
- Policies that establish Environmental, Social and Governance (ESG) and net zero metrics for building assets and portfolios that are accountable and credible, and reward low carbon, green buildings.
- Discourage investments in emissions intensive technologies.
- Power system policies that enable and reward building-grid integration and distributed energy resources, and offer renewable based electricity.



RESILIENCE

ENHANCE THE ABILITY OF HOMES AND COMMUNITIES TO RESPOND TO EXTERNAL SHOCKS AND STRESSORS BY INTEGRATING CLIMATE RESILIENCE AND PROMOTING ADAPTATION

SUPPORTING POLICY LEVERS

Regulation

National planning policy that considers current and future climate and seismic risks when locating, designing and operating a building.

Climate resilience planning policies underpinned by smart, integrated, holistic and measurable urban implementation frameworks and urban climate action plans.

Building codes that incorporate passive survivability in the event of extended loss of power, heating fuel, or water.

Building codes that include seismic safety requirements for new construction and renovation of existing buildings, according to the level of seismic risk.

Information

Government approved maps of flood risk areas, identification of zones to avoid buildings construction.

Government approved maps of the seismic risk of areas, with the identification of the level of danger.

Integrated risk assessment and long-term resilience strategies that empower stakeholders to set strategic targets and implement projects that will enable communities to adapt.

Resilient design practice standards and guidelines – context-relevant how-to guides for local authorities and professionals.

Existing buildings can achieve climate and seismic resilience by renovating and/or ensuring that maintenance regimes incorporate resilience adaptation to the impacts of climate change over the building's lifetime.

Increase awareness of how passive survivability measures also support carbon goals.

Recognise the role and contributions of green buildings to this principle.

Incentives

National and local programmes to future-proof homes, including preferential funding and small grants for home retrofits.

Insurance policies and rates to recognise value of resilience/adaptation measures.

Policies to recognise the value of resilience in insurance rates and planning charges.

Funding for education and training in resilience strategies for architects and engineers, urban planning officials and building design professionals.

Infrastructure funding to adapt new and existing infrastructure systems to long-term climate change impacts.



CIRCULARITY

DRIVE WASTE OUT OF THE
CONSTRUCTION VALUE CHAIN
BY REDUCING USE OF PRIMARY
MATERIALS AND OPTIMISING USE
OF RESOURCES AND MATERIALS

SUPPORTING POLICY LEVERS

Regulation

Inclusion of limit values for primary material content of new built assets in building and/or planning regulations.

Mandate the provision of functional and environmental product information (information on dismantling, re-usability, recyclability, recycled content, in-use requirements, and toxicity) at both the building and product level.

Policies that encourage optimisation of resources and materials including:

- Renovation of existing assets
- Design for deconstruction
- Recovery of materials
- Design for modularity and adaptive reuse
- Waste separation and recycling

Buildings regulations that remove barriers and facilitate market entry of the secondary building materials from demolition/deconstruction.

Green Public Procurement as a tool to prepare markets for circular principles.

Information

Circular Economy Roadmap for Buildings that outlines the tools needed to deliver these policies including the development of local supply chains with material reclamation facilities, databases, and capacity building across the value chain.

Guidance on the creation of localised circular supply chains, including digital and physical infrastructure for material storage and takeback.

Public registries of reuse and recycling operations including pick up and drop off locations.

Develop key standards and protocols for circularity, including certification mechanisms to validate safety and efficacy of reused materials, as well as health impacts.

Promote digital platforms for building material reuse/ engagement with local supply chains to encourage further use of resources.

Policy and technical support to municipal authorities and small business to facilitate adoption of circularity practices in local construction.

Incentives

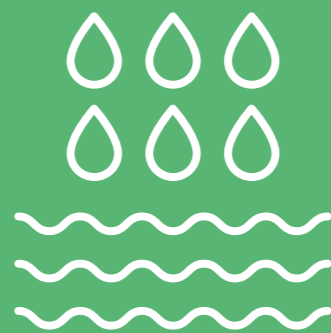
Incentives to promote materials and building recovery and reuse, including use of financial mechanisms, e.g., planning fee rebates, reduction in development cost charges where reuse thresholds are met.

Product passports to include information on product lifespans, potential new-use scenarios.

Promote circularity in insurance market by establishing and promoting certificates for responsibly sourced, reused and recycled materials.

Incentives for businesses to provide "product as a service" options for the sector.

Subsidies, tax rebates or other financial incentives to encourage local businesses and business models to support building material circularity.



WATER

CONSERVE AND PROTECT WATER
RESOURCES AND GUARANTEE
EQUITABLE ACCESS TO SAFE AND
SUSTAINABLE, POTABLE WATER
AND SANITATION

SUPPORTING POLICY LEVERS

Regulation

Integration of water efficiency measures into building codes and standards including indoor and outdoor water use.

Regulations and enforcement to prevent uncontrolled and unsafe discharges of sewage, including expansion of urban sewer systems.

Codes and standards that allow onsite recycling of blackwater and greywater, rainwater recovery systems.

Minimum Water Performance Standards and Water Performance Certificates to reduce the demand and use of potable water in buildings.

Information

Programmes to ensure access to sanitation for all citizens, including strategies to ensure safe and secure use of public sanitation facilities.

Measures that support region-specific bioclimatic designs that implement nature-based solutions and circularity in water through water capture, reclamation, recovery and recycling.

National best practice standards and design guidelines for water efficiency measures and improved effluent management.

Recognise roles and contributions of green buildings to this principle.

Incentives

Public and private sector water infrastructure investment programmes.

Financial incentives for improvement of onsite sewage management/treatment.

Subsidies and financial incentives for smart irrigation systems.

Financial incentives for building water efficiency and improvement of onsite sewage disposal.

Government development or funding for urban climate action plans and climate disaster risk assessments that include stormwater catchment and attenuation strategies to mitigate extreme flooding caused by climate change.



BIODIVERSITY

REGENERATE NATURAL SYSTEMS AND RESTORE BIODIVERSITY LOSS BY AVOIDING DEVELOPMENT ON LAND WITH HIGH BIODIVERSITY, AND BY PRIORITISING NATURE-BASED SOLUTIONS THAT ENHANCE, EXPAND, AND PROTECT THE NATURAL ENVIRONMENT.

SUPPORTING POLICY LEVERS

Regulation

Incorporate ecological considerations and biodiversity protections in planning regulations. Such measures include biodiversity or natural capital restoration targets, prevention of light pollution and provision of wildlife corridors.

National and local planning policy strengthens and enforces protections for blue and green infrastructure in city planning and development projects.

Prohibit development on ecologically fragile sites and protected and threatened species habitats.

Regulations to discourage use of non-native species in green roofs and infrastructure.

Information

Awareness raising campaign on the importance and benefits of preserving, protecting and enhancing biodiversity to prevent loss of key habitats and encourage regeneration.

Educational initiatives on the critical role of biodiversity in response to the climate emergency – from the role of habitats in carbon sequestration to the localised scale of resilience in terms of local climate regulation, shading and water absorption.

Provision of best practice standards and design guidance, e.g., privileging native species, avoiding high irrigation species.

Governments to adopt common definitions and align on definition of “nature-positive”.

Recognise the role and contributions of green buildings to this principle.

Incentives

Inclusion of nature-based solutions in policies that establish ESG and net zero metrics, and data and guidance to support accountable and credible metrics.

Insurance rates reflect the value of nature based solutions.

Financial incentives for inclusion of green roofs and features on buildings.



HEALTH

DEVELOP HEALTHY, EQUITABLE AND RESILIENT BUILDINGS AND CITIES THAT DELIVER IMPROVEMENT IN PUBLIC HEALTH AND WELLBEING

SUPPORTING POLICY LEVERS

Regulation

Federal/regional policies and timetables to move from fossil fuel combustion to electrification to improve urban air quality.

Building codes that improve ventilation systems (fresh air, filtration) and encourage the use of healthy materials.

Strengthening and enforcement of regulations prohibiting the use of hazardous and harmful materials in buildings.

Mandate and enforce the provision of health and safety labelling on building materials and products, including information on harmful emissions or discharges to the environment.

Building codes and standards to ensure safe drinking water in buildings.

Regulation to ensure occupant health and wellbeing such as air quality monitors and mould prevention or removal.

Information

Promotion of measurement systems to monitor indoor air quality to empower occupants with knowledge about the quality of the air they breathe.

Limit exposure to biological contaminants such as damp/mould when constructing new buildings and, importantly, when renovating buildings.

Provide holistic guidance on how aspects such as – heating, ventilation, insulation, materials, natural light, acoustics, water quality, access to nature – can support health and wellbeing.

Recognise roles and contributions of green buildings to this principle.

Incentives

Reduced health and workplace insurance premiums for places implementing health and wellbeing practices and measures.

Targeted subsidies for home refurbishments/retrofits for renovations and low-income households to improve indoor air quality.

Incentivise support programmes to enable shift away from inefficient gas stoves.

Financial mechanisms to incentivise healthy buildings such as planning fee rebates, fines for buildings not meeting minimum requirements and product subsidies or preferential taxes.



EQUITY AND ACCESS

ENSURE ALL CITIZENS
HAVE EQUAL ACCESS TO SAFE,
HEALTHY, SUSTAINABLE HOMES
AND COMMUNITIES

SUPPORTING POLICY LEVERS

Regulation

Strengthen and enforce the right of all citizens to safe, secure, habitable, and affordable homes under international human rights law.

Mandate and enforce protections for residents of informal settlements, including prohibition of arbitrary relocations and rights to due process and consultations on urban renewal programmes.

Minimum standards for access to utilities and services – to avoid prioritisation of certain jurisdictions.

Mandatory representation requirements for public consultations to ensure access and inclusion for all groups.

Information

Identification and recognition of national heritage sites, including special protections for culturally significant, sacred, or spiritual sites.

Develop safe cities programmes to promote the safety and security of urban citizens, especially the marginalised and vulnerable residents of informal settlements.

Public information campaigns to ensure rights awareness, especially targeted at vulnerable and at-risk populations.

Establish simplified and accessible procedures for reporting of inadequate, unsafe, or unhealthy living environments.

Adoption of participatory, inclusive and rights-based slum redevelopment programmes that prioritise in situ improvement, with relocation and redevelopment as last resort.

Set up transparent, public monitoring and reporting mechanisms to track progress towards provision of safe, secure, habitable, and affordable homes at national and subnational levels.

Recognise the role and contributions of green buildings to this principle.

Incentives

Financial interventions to ensure access to affordable homes for disadvantaged or vulnerable groups, e.g., housing vouchers and rent subsidies.

Incentives for private sector investment in social housing, e.g., loan guarantees to reduce cost of finance.

WORLDGBC HAS DEVELOPED THESE PRINCIPLES IN COLLABORATION WITH OUR GLOBAL NETWORK OF GREEN BUILDING COUNCILS

Established – our highest category of membership



Emerging



Prospective



Affiliate partners

