



Cities Unit

UN Environment Programme

Background



Background

While cities only occupy 3 per cent of the Earth's land surface, they are home to more than 55 per cent of the world's population. This will increase to 68 per cent by 2050, adding another 2.5 billion people to urban areas by 2050. However, climate change, natural disasters, biodiversity loss, pollution, and conflicts disproportionately affect cities due to the high density of the population and infrastructure. Moreover, extreme heat impacts cities more than surrounding areas due to the urban heat island effect.

Urbanisation is occurring disproportionately across regions. 90 per cent of urban growth is happening in Asia and Africa; and three countries – India, China, and Nigeria – will collectively account for 35 per cent of the growth by 2050.

As such, cities have become vital hubs of innovation and play a major role in addressing the triple planetary crisis. Local and subnational governments need to work closely with national governments to implement climate-resilient strategies, enhance energy efficiency, restore ecosystems and their services to urban dwellers, promote sustainable building practices, and foster community engagement, to ensure future-proofed and resilient cities.

UNEP

Founded in 1972, the UN Environment Programme (UNEP) is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment.

UNEP Cities Unit

The Cities Unit is located in the Climate Change Division. It supports cities, regions and countries in addressing the triple planetary crisis of climate change, biodiversity loss and pollution, by accelerating their climate change mitigation and adaptation efforts, and mainstream environmental sustainability principles into relevant economic and social policies and programmes. The Cities Unit's activities are implemented through the integrated efforts of its four sub-workstreams:

- (1) **Zero-emission, efficient, and resilient buildings and construction;**
- (2) **Sustainable Energy and Cooling;**
- (3) **Net-zero, Circular, and Nature-positive Cities; and**
- (4) **Urban Food Systems and Food Waste**

Partnerships

The Unit is working closely with national and sub-national governments, private sector, academia, and civil society to achieve its programme of work. Moreover, it hosts several secretariats of multi-stakeholder coalitions – namely the Global Alliance for Buildings and Construction (GlobalABC), the Cool Coalition, the UrbanShift programme and the Food Is Never Waste Coalition – strengthening its reach and successful partnerships. Through its four sub-workstreams, the Unit 1) shapes global environmental and climate policies, 2) promotes science-based policies

and frameworks, and 3) provides technical assistance and capacity building.

The Cities Unit engages actively in the Local 2030 Coalition activities, which aims to promote the **localisation of the Sustainable Development Goals (SDGs)** – in particular SDGs 11, 12, 13, and 15. It is also coordinating jointly with ITU, UNECE and UN-Habitat, the United for Smart Sustainable Cities (U4SSC) Initiative. In addition, the “Greener Cities Partnership” provides a solid framework for bilateral cooperation between UNEP and UN-Habitat.



Image: Unsplash

01

Zero-emission, efficient, and resilient buildings and construction

Global Alliance for Buildings and Construction (GlobalABC)

UNEP hosts the secretariat of the [Global Alliance for Buildings and Construction \(GlobalABC\)](#). Launched at the COP21 and with over 330 members, including 42 national governments, the GlobalABC is a global platform bringing together all built environment stakeholders committed to achieving a **zero-emission, efficient, and resilient buildings and construction sector**.

Under GlobalABC, UNEP supports the work of fostering a common vision for the sector, elevating the built environment's agenda as a global priority, and accelerating our world's transition to net-zero, including in the context of the [Buildings Breakthrough](#), the [Declaration de Chaillot](#), the Intergovernmental Council for Buildings and Climate, and UNFCCC processes ([Marrakech Partnership for Global Climate Action - Human Settlements Pathway](#), [Mitigation Work Programme](#), and [Technology Executive Committee](#)).

UNEP also supports the GlobalABC's thematic Hubs (Adaptation, Clean Heat, Data, Finance, Market Transformation, and Materials), Action Groups (Higher Education Institution, Passive Cooling, Subnational

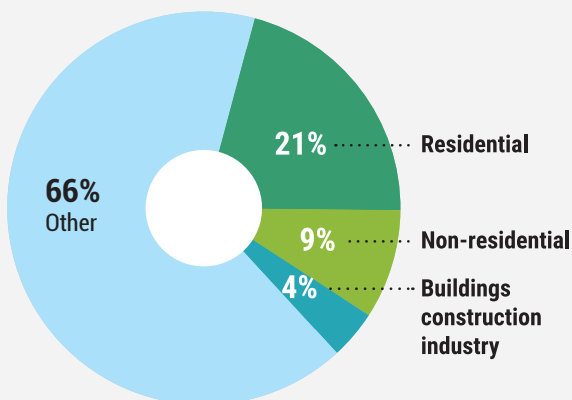
Stakeholders, and Sufficiency), as well as the [Roadmaps Coordination Group](#), which serve as channels for members to engage, address barriers in the sector, and contribute to GlobalABC flagship products and activities, including the annual [Global Status Report for Buildings and Construction](#), [Climate Action Roadmaps for Buildings and Construction](#), and [Buildings Pavilion](#) at climate COPs.

Transforming the Built Environment through Sustainable Materials

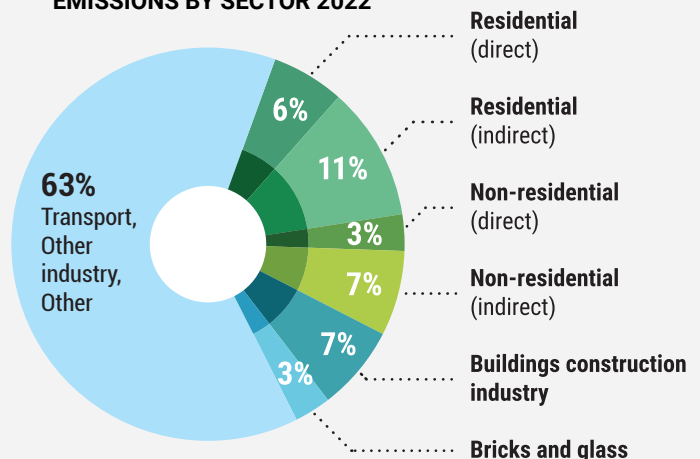
UNEP is leading the implementation of the BMZ-funded project "Transforming the Built Environment through Sustainable Materials" in collaboration with UNOPS and UN-Habitat. The project has three main objectives: 1) Support Bangladesh, India, Ghana and Senegal in reducing embedded carbon emissions from the buildings sector by creating enabling frameworks for the acquisition of low-carbon building materials; 2) Enable countries in further raising the climate ambition of their Nationally Determined Contributions (NDC) targets in the buildings sector by 2025, specifically integrating actions and targets to reduce embodied carbon; and 3) Underline the importance of sustainable materials in high-level international processes such as the climate COPs and the G7.

Figure 1: Share of buildings in total final energy consumptions in 2022 (left) and share of buildings in global energy and process emissions in 2022 (right)

ENERGY DEMAND BY SECTOR 2022



EMISSIONS BY SECTOR 2022



(Source: IEA 2023a. Adapted from 'Tracking Clean Energy Progress')

Notes: Buildings construction industry refers to materials used in construction, including concrete, steel and aluminium. Other materials shown separately.

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Sustainable Energy and Cooling - support to the Cool Coalition and Global Cooling Pledge

UNEP's Cities Unit hosts the secretariat of the [Cool Coalition](#) which is a global multi-stakeholder platform connecting stakeholders from government, cities, international organizations, businesses, finance, academia, and civil society groups to facilitate knowledge exchange, advocacy and joint action towards a rapid global transition to efficient and climate-friendly cooling.

In 2023 at the Climate Change Conference (COP28) in Dubai, the COP28 Presidency and the Cool Coalition launched the [Global Cooling Pledge](#) which was endorsed by 71 Member States. It aims to raise ambition and international cooperation through collective global targets to reduce cooling related emissions by 68% from today by 2050, drawing on the modelling from the 2023 Global Cooling Watch report.

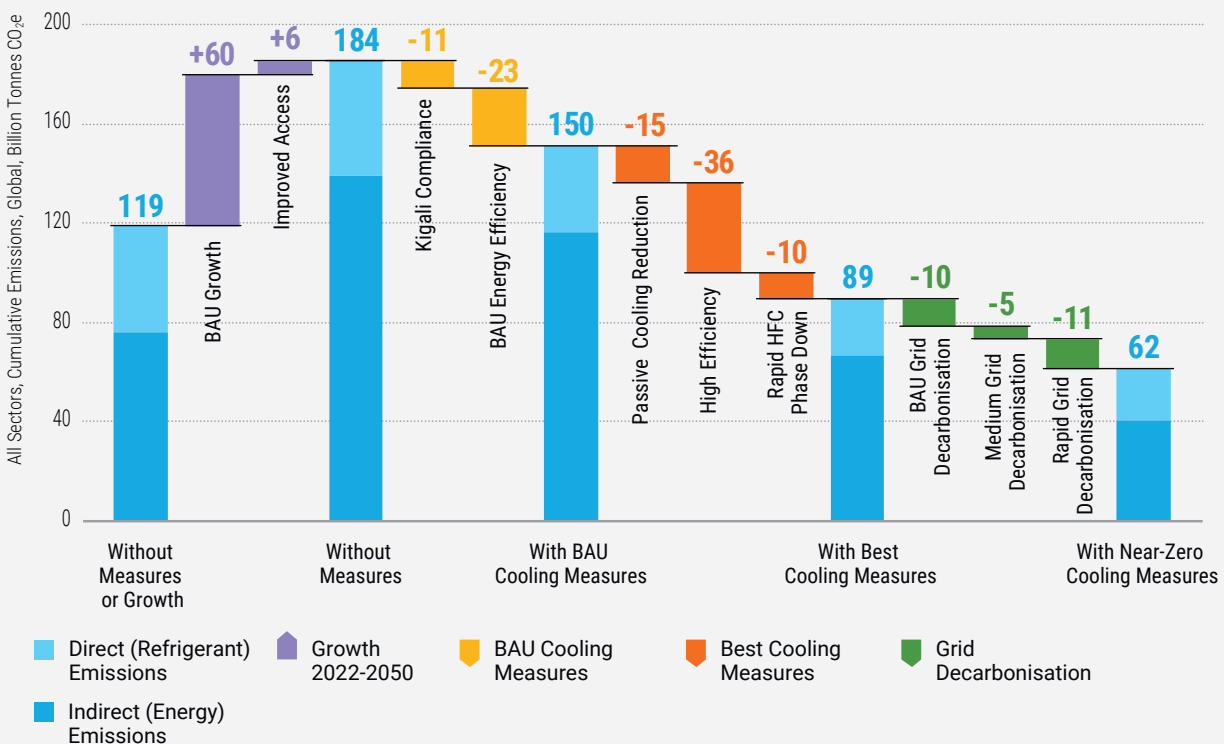
The [Global Cooling Watch](#) report, Keeping it Chill: How

to meet cooling demands while cutting emissions, was launched in 2023 in support of the Global Cooling Pledge. It is the first to establish a model that provides pathways to sustainable cooling measures in three areas: passive cooling, higher-energy efficiency standards, and a faster phase down of climate-warming refrigerants.

BeCool: Extreme Heat Protection through Passive Cooling in the Built Environment

UNEP, in the framework of the Cool Coalition and with the support of the Governments of Switzerland and Denmark, and the Climateworks Foundation, is leading the implementation of a global programme to support countries and cities "Be Cool" in the face of extreme heat through adaptive thermal comfort and passive cooling approaches (e.g. urban heat planning and design, nature-based solutions, reflective surfaces and resilient buildings). **UNEP is currently supporting Association**

Figure 2: Cumulative global GHG emissions from cooling, 2022-2050



Source: Global Cooling Emissions Model

of Southeast Asian Nations (ASEAN), India, Vietnam, Cambodia, Ghana, Morocco and Brazil. The ultimate objective is that the built environment is sustainably cooled, more resilient to extreme heat and people have access to reliable, affordable cooling and thermal comfort while energy consumption and greenhouse gas emissions caused by cooling are avoided reducing adverse effects on the climate, power systems, health, environment, economy.

UNEP is supporting governments and industry to drive comprehensive policy and finance and coordinated regional national-subnational action on passive cooling including through: 1) Regional passive cooling roadmaps

2) Customization and integration of relevant codes, standards, and guidelines into subnational policy 3) Support state government to make available dedicated funding schemes and/or finance mechanism to enable passive cooling features in housing 4) preparation of bankable investment ready pipeline with public authorities (passive and nature-based cooling in built environment) 5) Design and implementation of passive cooling strategies with real-estate developers to showcase performance and scale up passive cooling in the built environment. The programme also supports Pledge Signatory commitments on the following policy actions on NDCs: building codes, national and urban cool/heat plans. procurement, and nature-based solutions.



Image: Unsplash

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Net-zero, Circular, and Nature-positive Cities

UrbanShift programme

Through the UNEP-led GEF Sustainable Cities Programme, **UrbanShift** supports 23 cities in 9 countries to adopt an integrated “whole of government and whole of society” approach to urban development and implementation of global environmental and climate related policies, towards shaping a resilient, inclusive, zero-carbon future where both people and planet can thrive.

UrbanShift aims to achieve this transformation in two ways; through local projects and through the Global platform. Through local projects in participating cities, UrbanShift engages directly with local officials, urban practitioners and national governments to plan and implement innovative, cross-cutting solutions that address multiple urban issues. These solutions apply pilot approaches that can be easily scaled up and replicated and cover a range of focus areas, from sustainable transport to affordable housing, green infrastructure to waste management and more.

To complement UrbanShift’s local projects, the programme has facilitated a suite of capacity-strengthening activities to connect cities with global expertise and cutting-edge research in the field of integrated urban development. These activities tap into the unique capabilities and extensive networks of our partner organizations and offer cities opportunities to enhance their strategic urban planning skills, engage with the private sector, and exchange best practices with their peers at virtual and in-person events.

As part of its overall advocacy strategy, UrbanShift was engaged in the organization of the [UNEA Cities and Regions Summit](#), which is held during the UN Environment Assemblies. The Cities and Regions Summit regularly reviews the engagement of local and regional governments in achieving goals of multilateral environmental and climate agreements, especially of the [Paris Climate Agreement](#) and the Convention on Biological Diversity. The Third Summit took place at the UNEP headquarters in Nairobi in February 2024, and the upcoming Fourth UNEA Cities and Regions Summit will take place in Nairobi in December 2025.

Figure 3: Typology of Urban NbS Actions

System-level action	Definition
Urban forests	Locating forests within cities or at the urban rural interface
Parks and green spaces	Providing unpaved, biologically active spaces
Urban agriculture	Growing plants or animals in and around cities, also local processing and delivering food
Streets	Supporting linear natural infrastructure with strips of trees, plants and vegetation at various scales, planting street trees, and establishing green corridors
Buildings	Building green roofs and walls, capturing, and recycling stormwater, improving air quality, controlling for extreme temperatures, promoting albedo roof treatment
Water management	Constructing green storm water (e.g., landslide prevention / slope remediation, bioretention areas, bioswales, impermeable surfaces) and drinking water (e.g., watershed conservation and restoration) infrastructure
Riverine restoration	Improving and or greenlighting rivers, and protecting wetlands, floodplains, embankments, and natural culverts, removing trash
Coastal protection	Restoring or preserving mangroves, salt marshes, dunes and beaches and conserving and restoring reefs, removing trash

Source: Adapted by the authors from Smart, Sustainable and Resilient cities: the Power of NbS (UNEP 2021)

Generation Restoration project (2023-25)

Funded by Germany's Federal Ministry for Economic Cooperation and Development (BMZ), the programme supports urban-nature restoration for climate action to 25 Generation Restoration cities in 19 countries. Working with ICLEI's Global Biodiversity Center, as well as ecosystems, finance and city experts, Generation Restoration aims to address selected political, technical, and financial challenges to promote restoration in urban areas. Activities include direct funding to local actors for the implementation of catalytic pilot projects, capacity building and peer-to-peer learning, as well as the development of new science and tools to accelerate the implementation of nature-based solutions in cities.

Through its advocacy efforts, the programme supports policy dialogue between national and sub-national governments, city networks, multilateral development banks and leading academic institutions for the

implementation of Target 12 of the Global Biodiversity Framework: Enhance Green Spaces and Urban Planning for Human Well-Being and Biodiversity and is an important contribution to [the UN Decade on Ecosystem Restoration](#).

Urban Nature Programme (UNP)

The GEF global programme is co-led by UNEP, the World Bank and ICLEI, and in partnership with the World Resources Institute, International Union for the Conservation of Nature (IUCN), C40 Cities and World Business Council for Sustainable Development (WBCSD), and is supported by the High-Level Climate Champions. Through UNP, financial and technical assistance will be provided to local and national governments as well as MDBs to accelerate investments in nature in urban areas. The initiative showcases lighthouse cities that exemplify global leadership and will build a pipeline of ambitious cities that intend to leverage green urban infrastructure and nature-based solutions to address the impacts of climate change.

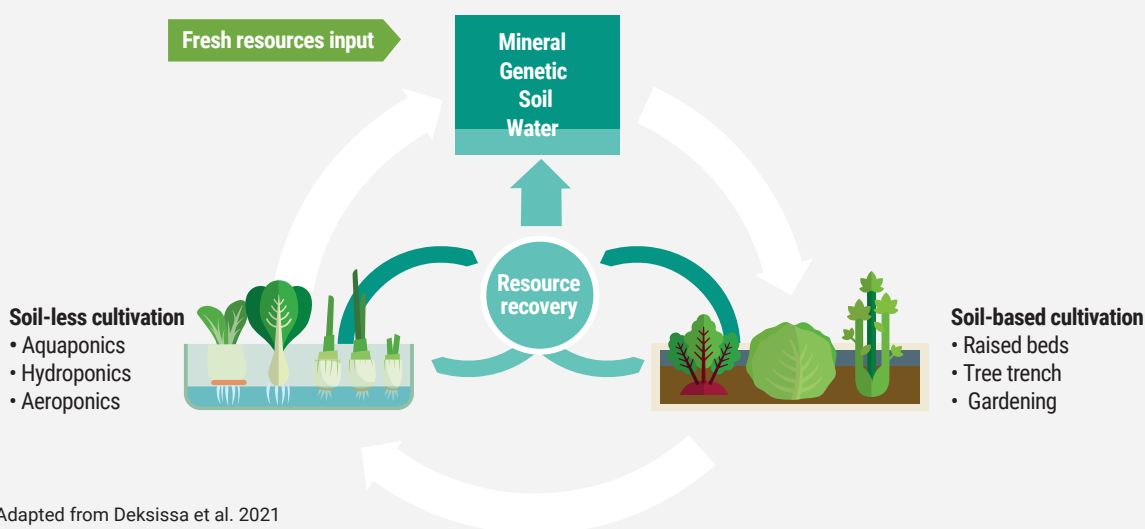


Image: Duncan Moore/UNEP

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Urban Food Systems and Food Waste

Figure 4: Circular urban agriculture



Source: Adapted from Deksissa et al. 2021

The [Food Waste Index Report](#) was published in March 2024 by UNEP, tracking global and country-level progress towards SDG 12.3, to halve food waste by 2030. This second edition of the Food Waste Index, following the initial publication in 2021, is the most comprehensive available assessment of food waste, providing methodology on food waste measurement and a solutions' spotlight on multi-stakeholder collaboration through public-private partnerships.

Further work on food waste is focused on supporting citizen behaviour change, policy and partnerships, in

cities, together with the [Food is Never Waste Coalition](#), moving them towards implementation to support local climate mitigation measures. In 2024, building on its methodologies on food waste reduction and management and moving them towards implementation to support local climate mitigation measures.

UNEP will co-host the annual "Meetings of Agricultural Chief Scientists of G20 States (MACS-G20)" Food Loss and Waste Workshop for the Latin American region and a capacity-building workshop on food waste prevention in cities in Brasilia in October 2024.

Figure 5: Average food waste in kilograms per capita per year, by World Bank income grouping

Income Group	Household	Food Service	Retail
High income countries	81	21	13
Upper-middle income countries	88	Insufficient data	Insufficient data
Lower-middle income countries	86	Insufficient data	Insufficient data
Lower income countries	Insufficient data	Insufficient data	Insufficient data

Contact

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UNEP Cities Webpage: <https://www.unep.org/topics/cities>

Cool Coalition

- Twitter/X: [@ActOnCooling](https://twitter.com/ActOnCooling)
- LinkedIn: [cool-coalition](https://www.linkedin.com/company/cool-coalition)
- Cool Coalition Webpage: <https://coolcoalition.org/>
- Global Cooling Pledge: <https://coolcoalition.org/global-cooling-pledge/>

GlobalABC

- Twitter/X: [@Join_GlobalABC](https://twitter.com/Join_GlobalABC) https://twitter.com/Join_GlobalABC
- LinkedIn: [join-globalabc](https://www.linkedin.com/company/join-globalabc) <https://www.linkedin.com/company/join-globalabc>
- YouTube: [GlobalABC](https://www.youtube.com/@GlobalABC) <https://www.youtube.com/@GlobalABC>
- Webpage: <https://globalabc.org>

Urban Shift

- Twitter/X: [@shiftcities](https://twitter.com/shiftcities)
- LinkedIn: [shiftcities](https://www.linkedin.com/company/shiftcities)
- Facebook: [shiftcities](https://www.facebook.com/shiftcities)
- Webpage: <https://www.shiftcities.org/>

UN Decade on Ecosystems Restoration (Generation Restoration)

- Twitter/X: [@Decade2Restore](https://twitter.com/Decade2Restore)
- LinkedIn: [UN Decade](https://www.linkedin.com/company/un-decade)
- Facebook: [UN Decade](https://www.facebook.com/un-decade)
- Webpage: <https://www.decadeonrestoration.org/generation-restoration-cities>

Urban Food Systems

- <https://www.stopfoodlosswaste.org/>
- <https://www.unep.org/topics/cities/urban-food-systems>
- <https://www.oneplanetnetwork.org/programmes/sustainable-food-systems>



Image: Unsplash

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