

FORUM: Economic and Social Council (ECOSOC)

QUESTION OF: Promoting Sustainable Human Settlement Development

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INTRODUCTION

In 2008, for the first time in history, the global urban population outnumbered the rural population. This milestone marked a new 'urban millennium,' and by 2050, it is expected that two-thirds of the world's population will be living in urban areas.¹

This drastic change represents the need to adapt our current settlements to combat the impacts of such rapid rural to urban migration through sustainable human settlements. A sustainable human settlement bases itself on the principles of sustainable development, addressing challenges such as climate change, biodiversity loss, and resource shortages while promoting social sustainability and participatory structures. The United Nations Sustainable Development Goal 11, "Sustainable Cities and Communities", aims to "make cities and human settlements inclusive, safe, resilient, and sustainable."² This goal acknowledges the growing importance of urban areas, as cities bear significant implications for sustainability, economic growth, and societal wellbeing.

Currently, human settlement conditions in many parts of the world, particularly the Less Economically Developed Countries (LEDCs), are deteriorating mainly as a result of the low levels of investment in the sector due to the overall resource constraints in these Member States. More specifically, sustainable human settlements are often deprioritized in LEDCs due to resource constraints, including budget limitations, urgent crises, and competing demands for limited financial and administrative capacities. Nevertheless, it is evident that promoting sustainable human settlements is mandatory in order to ensure that all countries strive towards sustainability.

Promoting sustainable human settlement development inherently links to the theme "Ethos vs Progress: Reassessing our Values in a Fragile World" by challenging us to balance ethical considerations such as the inclusion of indigenous communities in the urban planning

¹ United Nations. "Sustainable Cities and Human Settlements .. Sustainable Development Knowledge Platform." Un.org, 2015, sustainabledevelopment.un.org/topics/sustainablecities.

² United Nations. "Goal 11: Make Cities Inclusive, Safe, Resilient and Sustainable." United Nations Sustainable Development, United Nations, 2023, www.un.org/sustainabledevelopment/cities/.

process and sustainability with economic and infrastructural advancement, ultimately redefining progress to encompass the well-being of people and the fragile planet.

DEFINITION OF KEY TERMS

Circular Economy

“The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.”³

Human Settlements

“Cities, towns, villages, and other concentrations of human populations which inhabit a given segment or area of the environment. Human settlements are associated with numerous and complex environmental, pollution, and living condition problems for planning and management.”⁴

Internet of Things (IoT)

“The term IoT, or Internet of Things, refers to the collective network of connected devices and the technology that facilitates communication between devices and the cloud, as well as between the devices themselves.”⁵ In the context of sustainable human settlements, IoT enables the use of real-time monitoring and management of resources like water, energy, and waste in order to enhance the overall efficiency and sustainability of urban infrastructure.

Sustainability

The term sustainable refers to that which is capable of remaining in existence and doing so without depleting resources. Within the context of human settlements,

³ European Parliament. “Circular Economy: Definition, Importance and Benefits | Topics | European Parliament.” www.europarl.europa.eu, 24 May 2023, www.europarl.europa.eu/topics/en/article/20151201STO05603/circular-economy-definition-importance-and-benefits#:~:text=What%20is%20the%20circular%20economy.

⁴ “Human Settlement.” www.eionet.europa.eu, www.eionet.europa.eu/gemet/en/concept/4062.

⁵ Amazon. “What Is IoT? - Internet of Things Beginner’s Guide - AWS.” Amazon Web Services, Inc., 2024, aws.amazon.com/what-is/iot/#:~:text=The%20term%20IoT%2C%20or%20Internet.

sustainability accordingly refers to those settlements that are capable of remaining in existence using resources - whether natural, financial, or human - as efficiently as possible.⁶

Urbanisation

“Urbanisation is the increase in the proportion of people living in towns and cities. Urbanisation occurs because people move from rural areas (countryside) to urban areas (towns and cities). This usually occurs when a country is still developing.”⁷

Urban planning

“Urban planning encompasses the preparation of plans for and the regulation and management of towns, cities, and metropolitan regions. It attempts to organise socio-spatial relations across different scales of government and governance.”⁸

BACKGROUND INFORMATION

Historical Background

Human settlements have existed for thousands of years and they have evolved significantly from their earliest forms. From the earliest human settlement in Morocco, to early urbanisation with the rise of the first cities in Mesopotamia and the Indus Valley, human settlements have shifted their focus to accommodate the progress of civilizations.⁹ In the past century, constructive efforts have been made to gear towards sustainable human settlements with conferences such as the United Nations Habitat III¹⁰ and the World Urban Forum¹¹. These conferences emphasised the importance of integrating economic and social strategies such as the New Urban Agenda and the Sustainable Development Goals (SDGs),

⁶ “The Sustainable Human Settlement.” Center for the Study of the Built Environment, www.csbe.org/the-sustainable-human-development.

⁷ European Environmental Agency. “Urbanisation — European Environment Agency.” www.eea.europa.eu, 2023, www.eea.europa.eu/help/glossary/eea-glossary/urbanisation#:~:text=Urbanisation%20is%20the%20increase%20in.

⁸ “Urban Planning - an Overview | ScienceDirect Topics.” www.sciencedirect.com, www.sciencedirect.com/topics/social-sciences/urban-planning#:~:text=Urban%20planning%20encompasses%20the%20preparation.

⁹ “First Human Settlements by Country 2024.” [Worldpopulationreview.com](http://worldpopulationreview.com), worldpopulationreview.com/country-rankings/first-human-settlements-by-country.

¹⁰ “Habitat III.” Habitat III, www.habitat3.org/.

¹¹ “Twelfth Session of the World Urban Forum | UN-Habitat.” [Unhabitat.org](http://unhabitat.org), unhabitat.org/twelfth-session-of-the-world-urban-forum.

which aim to balance economic growth with social inclusion. In particular, SDG 11 recognises that the global population is constantly increasing, which means that we need to build modern, safe, affordable, and resilient cities through intelligent urban planning to incorporate green and culturally inspiring living conditions on a global scale. It advocates for safe and affordable housing, sustainable transport systems, inclusive and sustainable urbanisation, protection of the world’s cultural and natural heritage, mitigation of the effects of natural disasters, reduction of the environmental impact of cities, the provision of safe and inclusive green spaces, strong national and regional development planning, the implementation of inclusive policies, Disaster Risk Reduction and the support of Less Economically Developed Countries (LEDCs) in sustainable and resilient building¹². However, these strategies have faced significant challenges, including difficulties in implementing policies equitably over diverse regions and rapid urbanisation which has exacerbated housing shortages and increased environmental degradation. Therefore, it is evident that when approaching sustainable human settlements, nations must consider all facets—environmental, economic and social—to ensure balanced growth.

Key Features and Principles of Sustainable Human Settlements

A sustainable human settlement is a multi-faceted settlement that encompasses a wide variety of characteristics while catering for individual needs across nations. Key features of sustainable human settlements involve inclusivity, safety, resilience and sustainability.

Inclusivity

Inclusivity refers to equitable access to opportunities, public services, and amenities, regardless of a person's background or circumstances.¹³ This concept involves a deliberate process of systemic reforms in order to overcome the barriers of exclusion and to provide everyone with equitable opportunities that best correspond to their needs. Such improvement should be based on technical cooperation activities, partnerships among the public, private and community sectors and participation in the decision-making process by community groups and special interest groups such as women, indigenous people, the elderly and the disabled. It addresses the issue of homelessness and substandard living

¹²“Goal 11: Sustainable Cities and Communities.” The Global Goals, 2022, www.globalgoals.org/goals/11-sustainable-cities-and-communities/.

¹³ Desa. Vision for an Inclusive Society. 2009. <https://www.un.org/esa/socdev/documents/compilation-brochure.pdf>

conditions through improving the availability of affordable and adequate housing. For this to be achieved practically, citizens must become more open and welcoming to all people while also embracing greater equality and tolerance.

Safety

Safety in cities refers to having urban environments that protect their inhabitants from both physical harm and psychological distress. This involves addressing crime rates, traffic accidents, and potential hazards from poor infrastructure, while also considering the impacts of noise, pollution, and overcrowding on mental health. The main objective of human settlement security is to safeguard the vital core of all human lives from pervasive threats in a way that is consistent with long-term human fulfilment.¹⁴ Insecurity is one of the disturbances that threatens the safety of sustainable human settlements the most. As illustrated in the following figure, insecurity presents itself in multiple forms and dimensions.

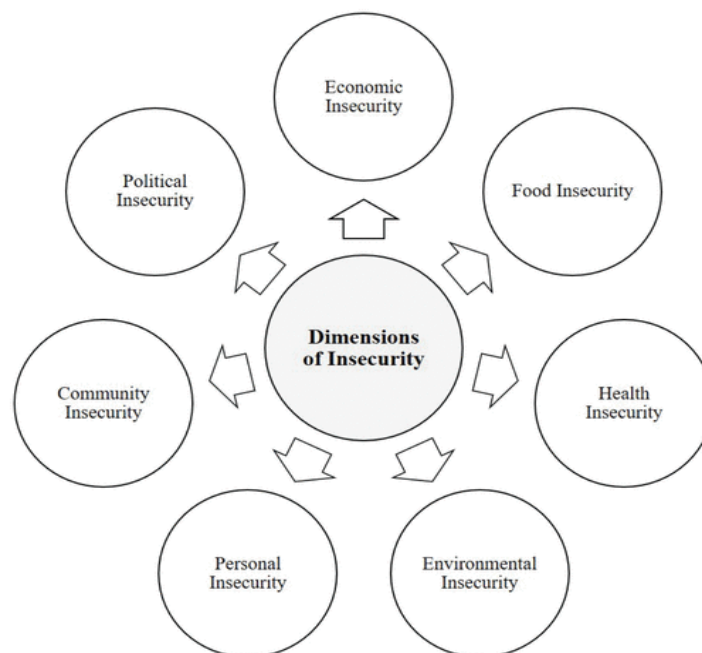


Figure 1: A diagram showing the seven dimensions of insecurity in human settlements.¹⁵

The Crime Prevention Through Environmental Design (CPTED) is an approach that suggests that the design of buildings and outdoor environments can either encourage or

¹⁴ "Sustainable Cities and Human Settlements | Sustainable Development Goals - Resource Centre." Sdgresources.relx.com, [sdgresources.relx.com, sdgresources.relx.com/tags/sustainable-cities-and-human-settlements](https://sdgresources.relx.com/tags/sustainable-cities-and-human-settlements).

¹⁵ "View of Human Safety and Security for Sustainable and Inclusive Settlements | Journal of Community Safety and Well-Being." Journalcswb.ca, 2024, www.journalcswb.ca/index.php/cswb/article/view/255/780.

discourage crime by influencing the behaviour of people¹⁶. This theory is based on four principles: natural access control, natural surveillance, territoriality, and maintenance. Natural access control refers to decreasing crime opportunity by creating a perception of risk for offenders. More specifically, elements such as sidewalks and building entrances are designed strategically to discourage access to private areas. Natural surveillance consists of placing physical features in a way that maximises visibility in order to keep intruders easily visible and therefore discourage them from committing criminal acts. This could be implemented through having parking areas and building entrances with unobstructed doors and windows and appropriate nighttime lighting in streets. Territoriality is when users develop a sense of territorial control by distinguishing between public and private spaces using methods such as appropriate signage and fences which discourage offenders who perceive this control. Maintenance is extremely important as it indicates that a space is consistently used for its intended purpose, whereas deterioration indicates less control and concern by the intended users and therefore a greater tolerance of destruction¹⁷. According to recent research, implementing CPTED principles has a positive impact on mitigating crime by up to 84% in some neighbourhoods¹⁸.

Resilience

Resilience is another important aspect, particularly in the face of climate change. Resilient cities are ones that can withstand and quickly recover from shocks such as natural disasters or economic crises. In a time where the world is faced with the escalating impacts of climate change, the economic crisis, demographic changes, and the ongoing repercussions of COVID-19, cities are especially vulnerable to these challenges, which is why adopting resilient cities is imperative.¹⁹ This involves aspects such as resilient infrastructure, disaster risk reduction strategies, and adaptive capacities at the community level. More specifically, cities can establish Disaster Risk Reduction as a key consideration throughout the urban

¹⁶ Menlopark.gov, 2023, menlopark.gov/Government/Departments/Police/Crime-safety-and-prevention/Crime-Prevention-Through-Environmental-Design#:~:text=Crime%20Prevention%20Through%20Environmental%20Design%20or%20CPTED%20

¹⁷ Crime Prevention through Environmental Design a Guide to Safe Environments in Prince William County, Virginia. Prince William County Police Department Special Operations Bureau Crime Prevention Unit 8900 Freedom Center Boulevard Manassas, va 20110 (703) 792-7270 CPTED STRATEGIES.

¹⁸ Telgian. "What Is CPTED or Crime Prevention through Environmental Design? | Telgian." Telgian, 28 July 2023, www.telgian.com/what-is-cpted-or-crime-prevention-through-environmental-design/#:~:text=CPTED%20has%20demonstrated%20its%20effectiveness.

¹⁹ "Climate and Resilience in Cities." OECD, www.oecd.org/en/topics/climate-and-resilience-in-cities.html#:~:text=Resilient%20cities%20are%20cities%20that.

planning process to determine well-defined risk reduction strategies and policies that can be swiftly implemented in times of crisis. More specifically, Disaster Risk Reduction consists of reducing disaster risks by analysing and reducing the causal factors of disasters,²⁰ thereby taking a “root causes” approach. This can be utilised to prevent and react to a crisis immediately, ensuring that cities are resilient. The Sendai Framework for Disaster Risk Reduction²¹ proposes the Ten Essentials for Making Cities Resilient, which are critical steps that need to be implemented to maintain resilience in cities.²² The Sendai Framework was endorsed by the UN General Assembly in 2015, following the Third UN World Conference on Disaster Risk Reduction (WCRR). The framework is implemented and reviewed by the United Nations Office for Disaster Risk Reduction (UNDRR) and states that local governments, the private sector and the State all have primary roles to reduce disaster risk²³.

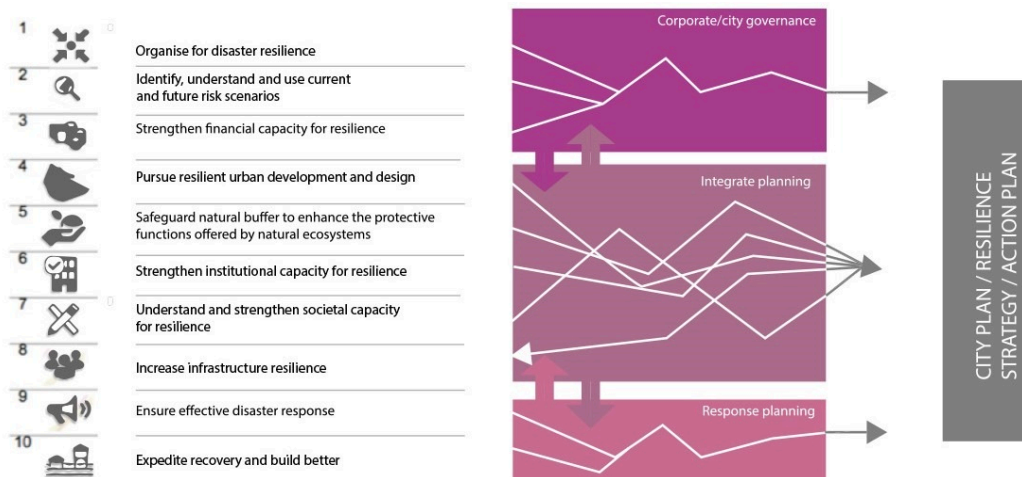


Figure 2: A diagram showing how the Ten Essentials for Making Cities Resilient can be integrated in the urban planning process²⁴.

Sustainability

Sustainability, finally, requires cities to function in a way that doesn't compromise future generations' ability to meet their own needs. This includes sustainable urban planning

²⁰ UNESCO. “Disaster Risk Reduction.” Unesco.org, 2022, www.unesco.org/en/disaster-risk-reduction#:~:text=Disaster%20risk%20reduction%20is%20the.

²¹ UNDRR. “What Is the Sendai Framework?” Www.undrr.org, UNDRR, 2015, www.undrr.org/implementing-sendai-framework/what-sendai-framework.

²² “The Ten Essentials for Making Cities Resilient | Making Cities Resilient.” Mcr2030.undrr.org, 14 Mar. 2024, mcr2030.undrr.org/ten-essentials-making-cities-resilient#:~:text=Pursue%20resilient%20urban%20development%20and.

²³ UNDRR. “What Is the Sendai Framework?” Www.undrr.org, UNDRR, 2015, www.undrr.org/implementing-sendai-framework/what-sendai-framework.

²⁴ European Environmental Agency. “Urbanisation — European Environment Agency.” Www.eea.europa.eu, 2023, www.eea.europa.eu/help/glossary/eea-glossary/urbanisation#:~:text=Urbanisation%20is%20the%20increase%20in.

to reduce environmental impact, promote energy efficiency, and conserve resources. It also considers the importance of green spaces for biodiversity and the wellbeing of urban residents.

Overall, eight important primary and secondary attributes have been identified as primary components of sustainable human settlement planning, so nations must consider each parameter. The primary attributes relate to ensuring sustainability and equality on a rudimentary level, and the secondary attributes delve deeper into solving the underlying issues in society to have functional and effective sustainable human settlements where all stakeholders (citizens and the environment) can thrive. Initially, nations should consider establishing the primary attributes in a way that is conducive to future development and following this with the development of the secondary attributes, all while ensuring that a smooth transition occurs between the two phases.

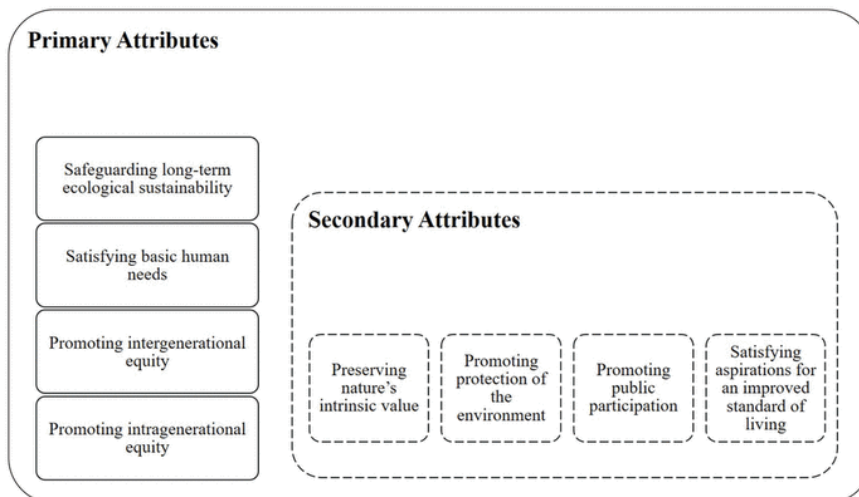


Figure 3: A diagram showing all the primary and secondary attributes of sustainable human settlements.⁸

Case studies

How Latin America and the Caribbean approach sustainable human settlement development

The forms of intervention devised to manage urban land on a sustainable basis in Latin America and the Caribbean have had limited effects. Even so, it is necessary to examine these strategies in order to develop efficient solutions to promote sustainable human settlement development.

Firstly, mechanisms for the joint management of the public and private sectors were limited in both application and effects. However, successful private-public partnerships could

have mobilised additional expertise and innovation, leading to more efficient and sustainable urban development projects since sustainable human settlements require coordinated efforts that leverage the strengths of both the private and public sectors in order to address complex urban challenges effectively.¹⁷ This demonstrates that establishing robust management frameworks with clear responsibilities is crucial.

Secondly, local government schemes proved unsuccessful because they were isolated cases compared to national efforts, meaning that they weren't widely replicated. Widespread implementation of successful local initiatives could have served as models for other cities, promoting widespread adoption of best practices in sustainable urban development.²⁵ Consequently, identifying and replicating successful local initiatives can enhance the scale and the scope of urban sustainability efforts. Through international collaboration and partnerships, such local programs could drive systemic change, promoting sustainable human settlement development across nations.

Lastly, conflicting interests among different sectors, that is the agricultural sectors and industry, made it difficult to reach consensus on land market regulation, industrial pollution control and vehicle congestion measures. Achieving social and political consensus on these issues is essential for implementing policies that balance economic development with environmental protection and social equity.¹⁷ Therefore, building inclusive and participatory decision-making processes that address the concerns of all stakeholders is key. Achieving consensus on sustainable policies requires transparent communication, stakeholder engagement, and conflict resolution strategies.

The EcoCity Approach in Brazil

Home to nearly 2 million people, the southern city of Curitiba in Brazil is a role model of sustainability. It has emerged as a city with 52 square metres of green space per person, with the Iguazu river preserving the natural landscape of the area, with the world-renown Bus Rapid Transport (BRT) that satisfies approximately 80% of the local population, with the majority of the city being pedestrianised and with an innovating waste management system.²⁶ More specifically, the Curitiba municipality has created a system whereby locals trade pounds of waste for pounds of produce. However, the region has faced significant

²⁵ Donald, Joan, et al. SERIE MEDIO AMBIENTE Y DESARROLLO SUSTAINABLE DEVELOPMENT of HUMAN SETTLEMENTS: Achievements and Challenges in Housing and Urban Policy in Latin America and the Caribbean.

²⁶ Hosey, Mike. "Sustainable Cities: Curitiba, Brazil." Think Sustainability, 24 Jan. 2018, thinksustainability.uk/2018/01/24/sustainable-cities-curitiba-brazil/#:~:text=Curitiba%20has%2052%20square%20metres.

challenges in setting up this sustainable approach.²⁷ The mayor of Curitiba in the 1970s had proposed a redevelopment plan for the city that followed the example of Brasilia, whereby Curitiba would turn into a modern metropolis to meet the growing demand for development.

Furthermore, the strategy to pedestrianise a large section of the city was initially heavily criticised by business owners due to their fear that this could cause tourism to plummet, but eventually became widely accepted once business owners recognised the benefits of pedestrianising parts of the city centre.²⁸ This demonstrates that in order for a sustainable human settlement to function efficiently, communication between the government and local communities must be improved.

The Masdar City Initiative in the United Arab Emirates

Masdar City, or “The City of Tomorrow” stands as a testament to how a city can reinvent itself, transforming its environmental impacts. From a city that used to be heavily dependent on oil, Masdar City is becoming a sustainable, low carbon eco-city in the desert since 2008²⁹. The aims of Masdar City are to specialise in greenhouse gas emission reduction projects, rely solely on solar energy and other renewable energy sources, become a hub for cleantech companies, provide homes for 50,000 people, provide facilities for 1,500 businesses and create 10,000 new jobs.³⁰ Nevertheless, this project has also faced many challenges. The city was originally intended to be completed by 2016, but due to the impact of the global financial crisis, the process slowed down. One criticism of the Masdar City project is that it is “inherently unsustainable because it involves constructing a brand new city in an unquestionably resource-intensive place, the desert”.³¹ However, according to Gerard Evenden, leading architect at Masdar City, the reason for building in the desert was about seeing if it was possible to do so; “if you can do it in the desert, which is such an extreme environment, you could actually make this happen anywhere in the world. You could make it happen on the moon.”³²

²⁷ Hosey, Mike. “Sustainable Cities: Curitiba, Brazil.” Think Sustainability, 24 Jan. 2018, thinksustainability.uk/2018/01/24/sustainable-cities-curitiba-brazil/#:~:text=Curitiba%20has%2052%20square%20metres, Ibid

²⁸ “Ecocity 4: Curitiba, Brazil, 2000.” Ecocity Builders, ecocitybuilders.org/ecocity-4-curitiba-brazil-2000/

²⁹ “Welcome to Masdar City.” Masdarcity.ae, www.masdarcity.ae/.

³⁰ “Masdar City in Abu Dhabi.” Centre for Public Impact (CPI), www.centreforpublicimpact.org/case-study/masdar-city#:~:text=Dependent%20on%20oil%20for%20too.

³¹ “Masdar City in Abu Dhabi.” Centre for Public Impact (CPI), www.centreforpublicimpact.org/case-study/masdar-city#:~:text=Dependent%20on%20oil%20for%20too.

³² CNA. “Abu Dhabi’s Masdar City Aims to Be Green Beacon for the World.” *YouTube*, 12 Dec. 2023, www.youtube.com/watch?v=nHTTVVWTGsU.

The Ellinikon

The Ellinikon project consists of building Europe's largest and greenest smart city in an \$8 billion project that began its construction in July 2020. The new 'smart' and 'green' city on the Athens Riviera constitutes the largest urban regeneration project in Europe.³³ The Ellinikon Development Team has defined Sustainable Development as a development policy that seeks to meet the economic, social, and environmental needs of society in a way that ensures short, and long-term prosperity. This state-of-the-art city will comply with all sustainable development goals while having pledged to: future proof the development against changing climate conditions by proactively mapping climate risks and opportunities, minimise air and noise pollution during both construction and operation, restore and regenerate the natural ecosystems, maximise water efficiency and minimise wastewater production, minimise resource consumption, make efficient use of source materials, minimise waste to landfill, create employment opportunities, develop and support opportunities to reduce inequalities, promote diversity and enhance accessibility, maximise health, safety, and wellbeing during project's lifecycle and develop infrastructure to enhance the natural, cultural, and historic environment for society and the local community³⁴. In order to achieve all of these goals, the Ellinikon project has developed a series of actionable steps that promote the use of technology. By integrating the most advanced technologies, such as Internet of Things (IoT), AI analytics, ultra-high speed fiber optics network and full 5G, Smart Ellinikon aims to optimize its digital assistance. Smart parking assistance and smart mobility sharing schemes for bikes, e-bikes and scooters will offer a green and pleasant means of enjoying the city.³⁵

Furthermore, all waste will be sorted at its source to maximise recycling, while IoT technology will optimise collection. The organic waste will be converted to compost, meeting the park's fertilisation requirements. Smart open- space lighting will provide efficiency, comfort and security. Life cycle assessments will be completed for commercial and high-rise residential buildings to ensure that all buildings are resilient. The Ellinikon is designed to achieve biodiversity "Net Gain", an approach to development that aims to leave the natural

³³ Glover, George. "Greece Is Turning an Abandoned Airport into an \$8 Billion Smart City. Take a Look at Ellinikon." Business Insider, www.businessinsider.com/ellinikon-greece-athens-abandoned-airport-smart-city-photos-2024-6#ellinikon-is-bein-g-built-on-the-site-of-athens-former-airport-1.

³⁴ "Europe's Greatest Urban Regeneration Project." The Ellinikon, theellinikon.com.gr/en/.

³⁵ "Smart City." The Ellinikon, theellinikon.com.gr/en/smart-and-sustainable/smart-city/.

environment in a measurably better state than beforehand.³⁶ All existing materials will be reused for repurpose or construction and all of the soil will be decontaminated for reclamation and reuse. The vast majority of construction waste will be recovered and diverted from landfills. More than 10,000 new jobs will be created during construction, thereby providing employment opportunities to locals. 600,000 m² of open green spaces will be created as well as a 50 km path network for pedestrians and cyclists to ensure that sustainability is prioritised. All of the irrigation water demand for the Metropolitan Park will be fulfilled through reclaimed water. The Ellinikon developments have been future-proofed against changing climate conditions in order to ensure that Ellinikon is a resilient city.³⁷ Nevertheless, with such a large-scale construction project, there are increasing concerns regarding the economic challenges that the project will face. More specifically, increased material prices and labour costs caused by global economic fluctuations could threaten the project. Furthermore, addressing concerns and opposition from local Greek citizens can be time-consuming, but it is necessary for the long-term success and acceptance of the project.

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

Denmark

In Denmark, Copenhagen is a city known for its extensive cycling infrastructure. More specifically, Copenhagen has more bicycles than cars, thereby reducing carbon emissions significantly due to the major development of cycling lanes. Furthermore, Denmark has invested heavily in wind energy, meaning that a substantial portion of its electricity comes from wind turbines. Equally, with regards to urban planning, Copenhagen has implemented a mixed-use development to provide neighbourhoods with access to essential services within walking distance. Finally, Denmark has implemented strict building codes that require energy-efficient construction and renovation practices.³⁸

³⁶ Government, UK. Definitions and Current Practice, https://consult.defra.gov.uk/land-use/net-gain/user_uploads/02.-definitions-and-current-practice.pdf

³⁷ "Sustainability." The Ellinikon, theellinikon.com.gr/en/smart-and-sustainable/sustainability/

³⁸ Liverino, Giuseppe. "Sustainability in Copenhagen." Wonderful Copenhagen, 2023, www.wonderfulcopenhagen.com/wonderful-copenhagen/international-press/sustainability-copenhagen.

Singapore

Singapore is known as a “City in a Garden” due to its extensive green spaces and remarkable vertical gardens. Moreover, the nation has a robust water recycling system, including the production of NEWater, a high-grade reclaimed water. Singapore has also developed the Green Mark Scheme which promotes sustainable building designs and practices. Finally, the strategic land use planning in Singapore ensures balanced development as it includes commercial, residential and recreational areas.³⁹

Rwanda

Rwanda ensures sustainable use of natural resources by providing clean and renewable energy solutions in refugee and host community households to discourage the use of firewood. Rwanda also focuses on building resilient refugee settlements that promote conscious land use and reduce adverse impact on the environment.⁴⁰

Sweden

Sweden mandates certifications like the Building Research Establishment Environmental Assessment Method (BREEAM)⁴¹ and the Leadership in Energy and Environmental Design (LEED)⁴² to obtain high standards for sustainable buildings. These policies have reduced carbon emissions and promoted the use of sustainable materials, thereby reducing the environmental footprint of new construction. Sweden has also implemented rigorous waste management and recycling programs with the aim of having zero waste in landfills. More specifically, households are required to separate waste, and there are extensive facilities for recycling. As a result, Sweden reduced landfill use and promoted a circular economy. Finally, the Swedish government offers subsidies and tax incentives for renewable energy projects.⁴³ In fact, renewable energy sources account for

³⁹ Ministry of Foreign Affairs. Towards a Sustainable and Resilient Singapore . 2018. https://sustainabledevelopment.un.org/content/documents/19439Singapores_Voluntary_National_Review_Report_v2.pdf

⁴⁰ “Multistakeholder Pledge: Climate Resilient Sustainable Human Settlements for Refugees and Their Hosting Communities.” The Global Compact on Refugees | UNHCR, globalcompactrefugees.org/multistakeholder-pledge-climate-resilient-sustainable-human-settlements-refugees-and-their-hosting.

⁴¹ BRE Group. “BREEAM | BRE Group.” Bregroup.com, 23 Feb. 2022, bregroup.com/products/breeam.

⁴² USGBC. “LEED Rating System.” USGBC, 2020, www.usgbc.org/leed.

⁴³ Swedish Institute. “Sweden and Sustainability.” Sweden.se, 16 Mar. 2022, sweden.se/climate/sustainability/sweden-and-sustainability.

over 50% of Sweden’s energy consumption, contributing to their goal of achieving zero net greenhouse gas emissions by 2045.⁴⁴

Nigeria

In Nigeria, despite various urban development plans, Nigeria's urban planning has often been poorly implemented. Projects like the National Housing Policy aimed to provide affordable housing but lacked proper execution, funding and infrastructure, leading to overcrowding and poor living conditions⁴⁵. Efforts to develop efficient public transportation systems, such as the Lagos Urban Transport Project, have not met their targets⁴⁶. Chronic underfunding, mismanagement, and corruption have plagued these transportation projects. Consequently, the reliance on informal and inefficient transport modes like minibuses and motorcycles remains high, contributing to traffic congestion and pollution.

World Bank

The World Bank supports sustainable human development through a variety of policies that promote inclusive and environmentally friendly urban growth. The City Resilience Program provides technical assistance and financial support for cities to implement early warning systems and risk management frameworks in order to enhance readiness for natural disasters⁴⁷. Moreover, Affordable Housing Programs finance the development of affordable housing solutions, focusing on rapidly growing urban areas⁴⁸. It also implements projects such as the Upgrading Informal Settlements project, which focuses on infrastructure improvements and on the provision of basic services in slums⁴⁹.

⁴⁴ IEA. "Sweden - Countries & Regions - IEA." IEA, 2017, www.iea.org/countries/sweden.

⁴⁵ Jackson, Etti, et al. Taiwo Adeshina ANALYSIS of NIGERIA'S POLICIES on HOUSING And. <https://jee.africa/wp-content/uploads/2019/01/Analysis-of-Nigeria%E2%80%99s-Housing-Policies.pdf>

⁴⁶ The World Bank FEDERAL REPUBLIC of NIGERIA for A. 2002. <https://documents1.worldbank.org/curated/en/585781468775788717/pdf/multi0page.pdf>

⁴⁷ "City Resilience Program | GFDRR." Wwww.gfdr.org, www.gfdr.org/en/crp.

⁴⁸ "Development Projects : National Affordable Housing Program - P154948." World Bank, projects.worldbank.org/en/projects-operations/project-detail/P154948.

⁴⁹ "Upgrading Urban Informal Settlements (Self-Paced)." Wwww.worldbank.org, www.worldbank.org/en/olc/course/54541.

Habitat for Humanity

Habitat for Humanity is a Non-Governmental Organisation (NGO) that aims to build strength, stability and self-reliance through shelter. This organisation is particularly involved in providing new housing solutions for people in need of shelter.⁵⁰ More specifically, Habitat for Humanity partners with the Mastercard Foundation to provide training to homeowners on managing the housing microfinance loans provided by the Foundation and offers construction assistance. Housing microfinance loans have short repayment periods, small amounts, and little or no collateral required, which makes them a perfect solution for families who want to reconstruct their roofs, add toilets and running water, install heating and improve insulation.⁵¹ Furthermore, Habitat for Humanity is currently implementing five projects, ComAct, ComActivate, JUSTEM, SUNRISE and SMARTER4EU, which aim to increase the energy efficiency of multi-apartment residential buildings in order to create healthy communities for the future.⁵² Finally, they execute Water, Sanitation and Hygiene (WASH) interventions that focus on urban slums and rural communities to improve the water supply and cleanliness of human settlements. They incorporate a “software” and “hardware” component in these initiatives, with the “software” consisting of educational programs designed to improve hygiene habits and the “hardware” encompassing the building of facilities or making infrastructure improvements like piping.⁵³

TIMELINE OF EVENTS

Date	Description of Event
5-16 June 1972	Stockholm Conference: The United Nations holds the first major conference on the environment, highlighting the need for sustainable development ⁵⁴ .
31 May - 11 June 1976	Habitat I Conference: Held in Vancouver, Canada, it marks the first UN conference on human settlements ⁵⁵ .

⁵⁰ “Reducing Housing Poverty | Habitat for Humanity.” Www.habitat.org, www.habitat.org/emea/impact/what-we-do.

⁵¹ “Housing Microfinance.” Habitat for Humanity, www.habitat.org/emea/about/what-we-do/microfinance.

⁵² “Residential Energy Efficiency | Habitat for Humanity.” Www.habitat.org, www.habitat.org/emea/about/what-we-do/residential-energy-efficiency-households.

⁵³ “Water, Sanitation and Hygiene.” Habitat for Humanity, www.habitat.org/emea/impact/what-we-do/wash.

⁵⁴ ---. “United Nations Conference on the Environment, Stockholm 1972.” United Nations, 1972, www.un.org/en/conferences/environment/stockholm1972.

⁵⁵ Nations, United. “United Nations Conference on Human Settlements: Habitat I.” United Nations, www.un.org/en/conferences/habitat/vancouver1976.

April 1987	Brundtland Report: The report “Our Common Future” defines sustainable development as meeting present needs without compromising future generations’ ability to meet their own needs ⁵⁶ .
9 March 1988	Creation of the Global Strategy for Shelter to the Year 2000 ⁵⁷
3-14 June 1992	Rio Earth Summit: United Nations Conference on Environment and Development emphasises sustainable development goals and Agenda 21 ⁵⁸ .
3-14 June 1996	Habitat II Conference in Istanbul: Adopts the Istanbul Declaration on Human Settlements ⁵⁹ .
8 September 2000	The 8 Millennium Development Goals are created as a precursor to the Sustainable Development Goals ⁶⁰ .
2001	The World Urban Forum ⁶¹ was established by the United Nations.
26 August - 4 September 2002	World Summit on Sustainable Development emphasises the role of cities in sustainable development and launches the Local Agenda 21 initiative. ⁶²
29 April 2002	First World Urban Forum held in Nairobi, Kenya.
2008	The global urban population outnumbered the rural population
25 September 2015	UN member states agree on a set of 17 goals, the Sustainable Development Goals, out of which sustainable human settlements are emphasised with Goal 11. ⁶³

⁵⁶ Federal Office for Spatial Development. “1987: Brundtland Report.” Www.are.admin.ch, 20 Mar. 1987, www.are.admin.ch/are/en/home/media/publications/sustainable-development/brundtland-report.html.

⁵⁷ The Global Strategy for Shelter to the Year 2000. <https://www.ircwash.org/sites/default/files/UN-HABITAT-1990-Global.pdf>

⁵⁸ “United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992.” United Nations, 1992, www.un.org/en/conferences/environment/rio1992.

⁵⁹ “United Nations Conference on Human Settlements: Habitat II.” United Nations, www.un.org/en/conferences/habitat/istanbul1996.

⁶⁰ “United Nations Millennium Development Goals.” United Nations, 2015, www.un.org/millenniumgoals/.

⁶¹ “The World Urban Forum 12.” Www.climate-chance.org, www.climate-chance.org/en/event-calendar/world-urban-forum/.

⁶² “World Summit on Sustainable Development, Johannesburg 2002.” United Nations, 2002, www.un.org/en/conferences/environment/johannesburg2002.

⁶³ “The 17 Sustainable Development Goals.” United Nations, 2024, sdgs.un.org/goals.

25-28 September 2015	2030 Agenda for Sustainable Urban Development: UN initiative focused on making cities and human settlements inclusive, safe, resilient and sustainable by 2030. ⁶⁴
17-20 October 2016	Habitat III Conference: Adopts the New Urban Agenda, which sets a global standard for sustainable urban development. ⁶⁵

UN INVOLVEMENT: RELEVANT RESOLUTIONS, TREATIES AND EVENTS

Resolution 43/181: The Global Strategy for Shelter to the Year 2000

Resolution 43/181, adopted by the UN General Assembly in December 1988, addresses the problem of providing adequate shelter for all, which is a basic human right as stated in the Universal Declaration of Human Rights, by creating the Global Strategy for Shelter to the Year 2000.⁶⁶ Despite its widespread endorsement, the strategy needs a much greater level of political and financial support to enable it to reach its goal of facilitating adequate shelter for all by the end of the century and beyond. Without these resources, this initiative remained under-resourced, limiting the strategy’s ability to provide adequate shelter for all by the target year.

Chapter 7 of Agenda 21: Promoting Sustainable Human Settlements Development

Chapter 7 of Agenda 21 has the subject of “Promoting sustainable human settlements development”, which calls for providing adequate shelter for all, improving human settlements management, promoting sustainable land-use planning and management, promoting the integrated provision of environmental infrastructure (water, sanitation, drainage and solid waste management), promoting sustainable energy and transport systems in human settlements, promoting human settlement planning and management in disaster-prone areas, promoting sustainable construction industry activities and promoting human resource development and capacity-building for human settlements development⁶⁷. Nevertheless, prioritising sustainable human settlement development is not

⁶⁴ “Transforming Our World: The 2030 Agenda for Sustainable Development.” United Nations, 2015, sdgs.un.org/2030agenda.

⁶⁵ “Habitat III.” Habitat III, www.habitat3.org/.

⁶⁶ “DSD :: Resources - Publications - Core Publications.” Wwww.un.org, www.un.org/esa/dsd/agenda21/res_agenda21_07.shtml.

⁶⁷ “United Nations Conference on Environment & Development.” 1992. <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

feasible in all nations due to the significant technological and financial barriers that countries face when trying to integrate these infrastructures effectively, thereby undermining this initiative.

The World Urban Forum

Established by the United Nations in 2001, the World Urban Forum examines rapid urbanisation and its impact on communities, cities, economies and climate change. Over the past twenty years, it has evolved into the premier global conference on sustainable urbanisation. The first WUF was held in Nairobi, Kenya in 2002 and has been held around the world ever since. It is organised biennially in different locations around the world.⁶⁸

Transforming our World: the 2030 Agenda for Sustainable Development

Resolution 70/1 was adopted in 2015 which created the Sustainable Development Goals. More specifically, SDG 11 is centered around “making cities and human settlements inclusive, safe, resilient and sustainable.”⁶⁹ Paragraph 89 of the 2030 Agenda calls on major groups and other stakeholders, including local authorities, to report on their contribution to the implementation of the Agenda.¹ However, the reluctance of nations to disclose personal information required for comprehensive reporting has introduced inefficiencies to this initiative.

UN-Habitat’s New Urban Agenda

UN-Habitat’s complimentary New Urban Agenda, adopted as the outcome document from the Habitat III Conference in 2016, seeks to offer national and local guidelines on the growth and development of cities through 2036.¹ UN Habitat is made up of the United Nations Habitat Assembly of the United Nations Human Settlements Programme, the Executive Board and the Committee of Permanent Representation. Its vision is of “a better quality of life for all in an urbanising world”. UN-Habitat works with partners to build inclusive, safe, resilient and sustainable cities and communities. UN-Habitat promotes

⁶⁸ “WUF11 — World Urban Forum 11, 26-30 June 2022, Katowice, Poland.” Wuf.unhabitat.org, www.wuf.unhabitat.org/.

⁶⁹ “Sustainable Cities and Human Settlements | Sustainable Development Goals - Resource Centre.” Sdgresources.relx.com, sdgresources.relx.com/tags/sustainable-cities-and-human-settlements.

urbanisation as a positive transformative force for people and communities, reducing inequality, discrimination and poverty. Their mission includes providing technical assistance regarding urbanisation and reducing spatial inequality and poverty around the world.⁷⁰

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

Geneva Declaration

The Geneva Declaration endorsed the settlement security indices (SSI), which are indicators used to give a sense of security hazards and risks. They can assist in providing an evidence base to decision makers and managers to improve policy, plan-making and management by highlighting needs, setting priorities, formulating policy, and evaluating and monitoring progress towards pre-defined settlement security targets. Multilateral and bilateral organisations, national and local governments, as well as private and public organisations have been using SSIs to monitor and evaluate the degree to which they are meeting certain settlement sustainability goals or outcomes of their policies and programmes.⁷¹ Despite the Geneva Declaration successfully raising awareness about the significance of sustainable human settlements, it is worth noting that its effectiveness has varied widely depending on local contexts and the political will of governments since the Declaration didn't provide specific policies for the promotion of sustainable human settlements, which limited its direct impact.

The Rockefeller Foundation's 100 Resilient Cities (100RC)

The 100RC initiative was created to help countries around the world to become more resilient to physical, social and economic changes. This program specifically focuses on urban resilience. As a part of this initiative, each participating city develops a resilience strategy that addresses sustainability, infrastructure and social equity. Furthermore, cities gain access to a global network of experts and resources to support this planning. As a result, cities like New York, Medellin and Bangkok have developed resilience strategies such as sustainable infrastructure and green spaces. More specifically, as a part of this program, Medellin has implemented the "Green Corridors" project, which involves planting trees and shrubs along roadsides and hillsides, which has strengthened the city's resilience to climate change by

⁷⁰ "Home." Sustainable Human Settlements Foundation, www.shs-foundation.org/.

⁷¹ The Geneva Declaration of Principles and Plan of Action Wsis Smsi Cmsi Wsis Smsi Cmsi. <https://www.itu.int/net/wsis/docs/promotional/brochure-dop-poa.pdf>

creating natural buffers against extreme weather conditions. Following the devastation caused by Hurricane Katrina, the Resilient New Orleans strategy in New Orleans focuses on innovative water management solutions and the diversification of the local economy to improve job opportunities in the green economy sector with the goal of withstanding future shocks. In India, Surat has implemented a Flood Early Warning System (FEWS) to improve the urban planning of settlements in the region. Finally, the Resilient Housing Project in Bangkok developed flood-resistant housing designs, engaged local communities in the urban planning process and provided training to residents on how to adapt existing homes or build new ones that can resist climate change impacts.⁷²

The World Green Building Council's (World GBC) Advancing Net Zero

This initiative focuses on creating sustainable human settlements by reducing the carbon footprint of buildings, which are significant contributors to global greenhouse gas emissions. The Net-Zero Certification ensures that buildings meet high sustainability standards. This initiative also provides education resources to industry professionals in order to advance their knowledge in net-zero construction. Consequently, cities like Vancouver, Sydney, and Cape Town are working towards net-zero buildings, contributing to more sustainable and resilient urban settlements⁷³. The initiative has also raised awareness within the construction and real estate industries to support the transition to net-zero carbon buildings. However, one inefficiency of this initiative is that green building practices can be more expensive upfront, which has limited their adoption in lower-income contexts.

POSSIBLE SOLUTIONS

Providing adequate shelter for all

Strengthening national shelter strategies, utilising housing and finance schemes and producing global progress reports covering national action on a biennial basis as requested in the Global Strategy for Shelter to the Year 2000 are crucial solutions for promoting sustainable human settlements. National shelter strategies allow governments to create effective policies and frameworks to address housing needs and improve living conditions and housing and finance schemes are valuable for expanding access to safe housing, particularly for low-income populations. National monitoring is another extremely important

⁷² The Rockefeller Foundation. "100 Resilient Cities." The Rockefeller Foundation, www.rockefellerfoundation.org/100-resilient-cities/.

⁷³ "Advancing Net Zero." World Green Building Council, worldgbc.org/advancing-net-zero/.

solution, as it ensures that national actions are monitored and evaluated, facilitating transparency and accountability. Nevertheless, solutions designed at a national and international level often aren't fully adapted to the conditions of individual communities, meaning that for these solutions to be effective, local stakeholders must be considered. For example, the implementation of green roofs can be promoted on an international scale but when it comes to the local impacts, the additional weight of soil and vegetation can damage the structure of older buildings. For this solution to be implemented on a local scale, specific considerations should be taken regarding the conditions of local areas. Furthermore, housing policies may face resistance from property owners or developers, hindering the efficiency of this solution.

Environmental Sustainability

Environmental sustainability is a vital component of a sustainable human settlement. By promoting renewable energy sources, water-saving techniques, and sustainable materials in construction, we can ensure the efficient use of natural resources. Through the incorporation of green spaces and urban forests, air quality can be improved, stormwater is managed, and biodiversity is enhanced. Developing cycling paths and pedestrian-friendly areas reduces fossil fuel dependence and lowers carbon emissions, and designing mixed-use neighbourhoods, which combine residential, commercial and recreational spaces, reduces travel distances. Financial incentives for green buildings and renewable energy, such as tax breaks for green buildings and subsidies for renewable energy installations, along with rainwater harvesting and recycling waste, incentivize citizens to prioritise sustainability. Nevertheless, it is important to consider that many countries may not be able to handle renewable energy financially, which is why potential collaborations with the World Bank⁷⁴ (WB) or Green Climate Fund⁷⁵ (GCF) would be necessary. Reusing grey water and employing non-destructive inspection methods, such as photogrammetry and infrared technology, further optimise resource use. Reviewing urbanisation policies is effective in assessing the environmental impacts of growth and in tailoring urban planning and management approaches to the needs and characteristics of cities and participating in international sustainable city networks can enhance local and global cooperation through the exchange of experiences and expertise. In order to manage land effectively, zoning reforms must be

⁷⁴ The World Bank. "World Bank Group - International Development, Poverty, & Sustainability." World Bank, 2024, www.worldbank.org/en/home.

⁷⁵ Green Climate Fund. "Green Climate Fund." Green Climate Fund, 2023, www.greenclimate.fund/.

conducted in a way that reflects changes in urban development and population growth. A potential solution could be using digital zoning maps, which would be updated on a regular basis. A limitation related to these solutions is that they address symptoms rather than root causes of sustainability issues. For example, promoting green technologies and efficient designs is valuable, but if underlying problems such as overpopulation, and socio-economic inequalities are not addressed, these measures may only provide temporary relief. Therefore, in order to have a fully functioning sustainable human settlement, such solutions must be paired with systemic changes that address the root causes of sustainability issues.

Social Inclusion

Introducing policies such as subsidised housing, rent control, and inclusive zoning laws ensures that people across all income levels have access to safe and affordable housing, promoting equity and reducing homelessness. Engaging local communities in planning and decision-making helps tailor development to their specific needs and preferences, fostering greater acceptance and effectiveness of projects. Supporting developing countries in implementing national energy programs enables the widespread adoption of energy-saving and renewable technologies like solar, wind, biomass, and hydro, advancing sustainable energy use. In order to ensure that social inclusion is managed efficiently, online portals could be developed in order for citizens to be able to provide feedback and service requests when needed.

Economic Resilience

Encouraging economic diversity helps reduce dependency on single industries, making communities more resilient to economic shifts. Supporting local businesses and industries creates jobs within the community, minimizes long commutes, and aids the local economy, though it may lead to uneven development of certain industries. Promoting sustainable tourism helps preserve cultural and natural assets while providing economic benefits and decentralizing urban development, but it can also strain local resources and lead to the commercialization of cultural sites. By developing intermediate cities for rural employment and supporting rural economic activities, we can alleviate unemployment and foster balanced regional growth. Promoting urban management to prevent sprawl is crucial for reducing resource degradation, though it can face resistance from stakeholders interested

in expanding development. Facilitating the transition from rural to urban lifestyles and supporting small-scale economic activities such as the production of food enhances local income generation.

Urban planning

Building resilient infrastructure to withstand natural disasters and climate change is vital for ensuring safety and durability. Infrastructure that is well-sealed against moisture and heat leakages would be an efficient solution to improve energy efficiency and indoor comfort, though it may lead to higher initial construction costs. Conducting multi-hazard research to assess risks and vulnerabilities in human settlements and settlement infrastructure is essential for comprehensive disaster preparedness. Training programs for contractors and builders on disaster-resistant methods are crucial for improving construction quality, and guaranteeing that buildings are designed with careful consideration of long-term goals. Enhancing the use of local materials in the construction sector through expanding technical support to increase the capabilities of small-scale businesses that make use of unsustainable materials and traditional construction techniques would be very beneficial in order to ensure that all socioeconomic groups can invest in sustainability. Economic instruments such as product charges or value-added taxes can aid in discouraging the use of construction materials and products that create pollution during their life cycle, thereby incentivizing consumers to invest in sustainable products instead. In addition, this could be achieved through credit schemes and the bulk buying of sustainable materials for small-scale builders. Adopting land-use policies to protect eco-sensitive zones against physical disruption through construction is necessary for environmental conservation, but it may limit development opportunities in urban areas. In order to streamline the management of urban areas, infrastructure audits should be conducted at regular time intervals to assess the condition of existing infrastructure.

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