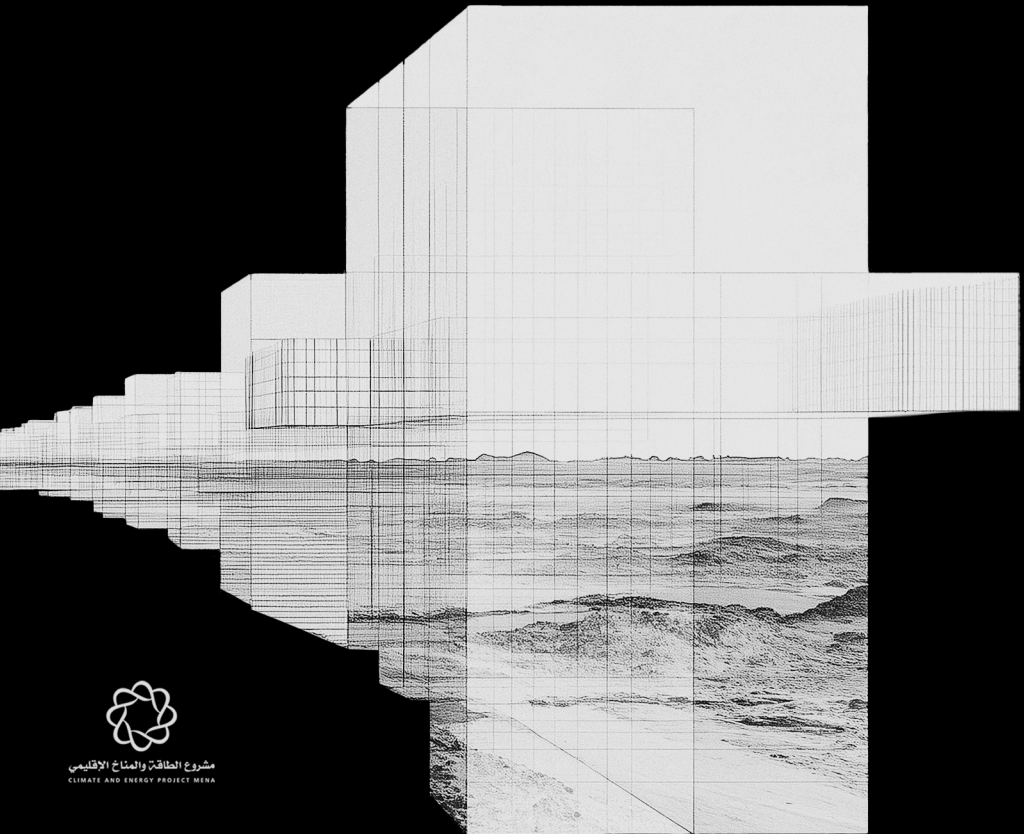


URBAN *succession*

Navigating the Past, Present, and Future of
Sustainable Cities and New Urban Centers

Dina Kisbi, Jawad Dukhgan

2024



مشروع المناخ والطاقة
CLIMATE AND ENERGY PROJECT MENA

**FRIEDRICH
EBERT
STIFTUNG**





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About

About Friedrich Ebert Stiftung (FES)
Regional Climate and Energy Project MENA

The Regional Climate and Energy Project MENA advocates for an energy transition into renewable energy and energy efficiency. It continues to search for just transition solutions in the energy sector that ensure both, the protection of the planet and the people.

As the MENA region is one of the areas most heavily affected by climate change, we contribute to policy advising, research, and advocacy in the areas of climate change policy, energy transition, and urban sustainability, with the support of research institutions, civil society organizations, and other partners in the region and Europe.

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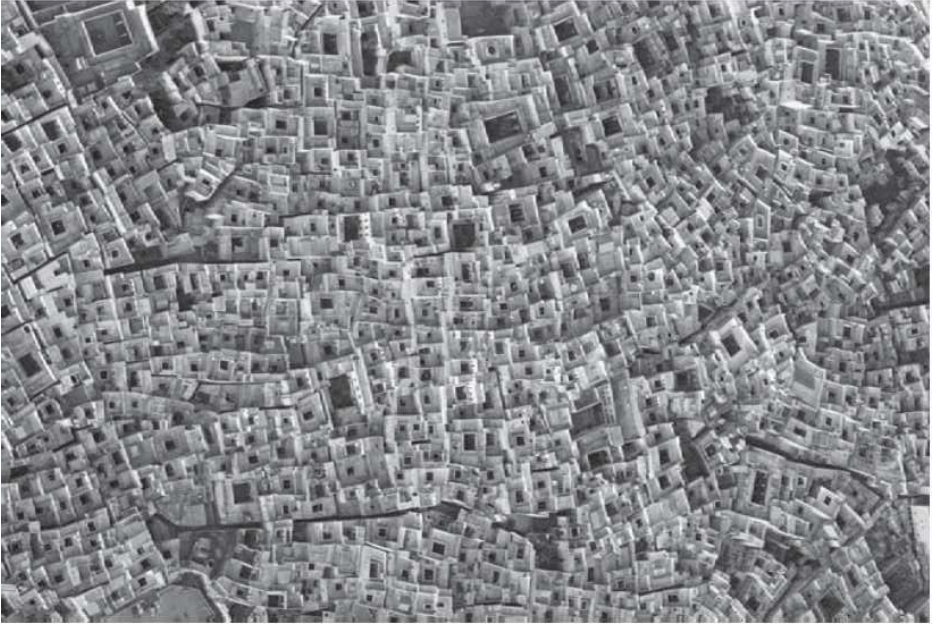
General Introduction

General Introduction

In the Middle East and North Africa (MENA) region, urban development is a complex interplay of history, society, economy, and environment. This report, a collaboration among national and regional experts and international contributors, gathers insights from discussions during a curated discussion before the 12th MENA Sustainable Cities Conference in Amman.

DEVELOPMENT.

This report focuses on urban growth, infrastructure, and societal dynamics in the MENA region, exploring the challenges and opportunities that come with both established and developing urban centres. These issues are closely tied to sustainable development, further discussed in the chapters. Urban development must prioritize sustainability, livability, and social responsibility. By focusing on environmental care, social fairness, and economic vitality, cities can become better places to live, offering residents improved quality of life. Instead of highlighting new urban projects, we look into how they operate in practice, uncovering their real-world impacts. It looks at lessons from past projects to emphasize the importance of urban planning that is inclusive, forward-thinking, and built for the long term. Our aim is to underline that sustainability, equity, and resilience aren't just abstract ideas but are essential to shaping urban development in a way that responds to real-world challenges. These principles are central to creating cities that adapt, grow, and thrive in a rapidly changing world. Urban and climate resilience play a vital role in this vision. Innovative technologies and data-driven approaches can help cities become more



00. FEZ MEDINA

energy-efficient and adaptable, but more than these tools are needed. It's just as important to prioritize social factors, ensuring that cities remain inclusive and fair for everyone. Striking the right balance between technological innovation, social equity, and environmental care is key to developing functional and livable cities for generations to come.

VISION.

This report invites readers to reflect on how cities have evolved over time and think critically about their future. Existing urban spaces need attention and investment, while emerging cities hold immense potential if approached carefully. By combining lessons from the past with forward-looking strategies, we can build urban environments where progress and fairness go hand in hand. The goal is to create cities that are not only sustainable and resilient but also places where people can genuinely thrive, now and in the future.

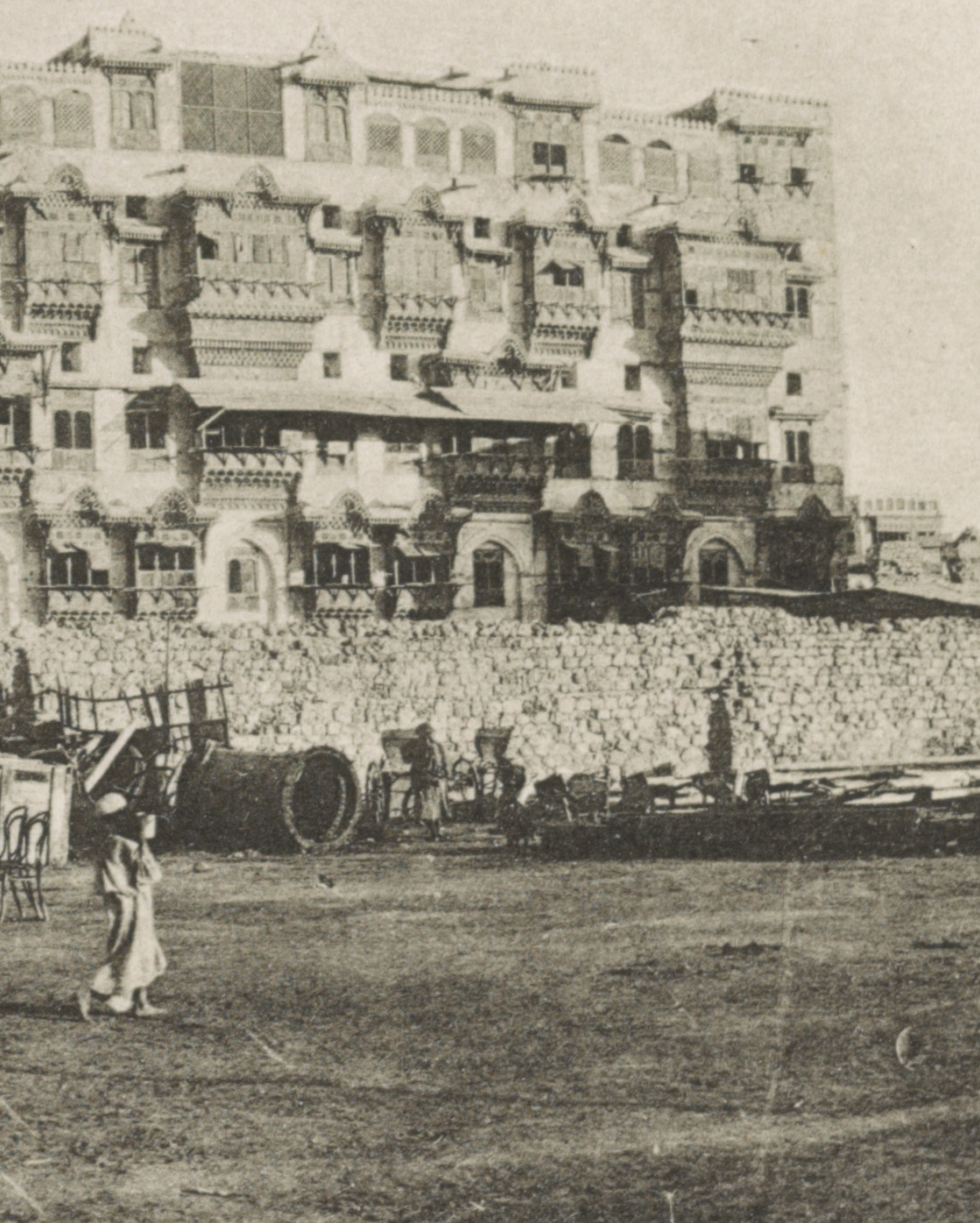




01 Urban Development Through Time



00. JEDDAH WEST GATE 1914



Chapter 1

Urban Development Through Time: Urban Dynamics and Development Trajectories

Urban Development Proposals

HISTORY.

Understanding the evolution of cities is essential for shaping their sustainable future. This chapter examines the growth and transformation of urban environments, drawing lessons from pivotal urban development theories and approaches. By exploring the achievements, limitations, and lasting influence of early 20th-century urban proposals, we gain insights to address contemporary urban challenges.

Urbanization has been a constant force throughout human history, shaping the physical, social, and economic fabric of cities. The late 19th and early 20th centuries marked significant shifts in urban development, influenced by industrialization, technological progress, and societal change. This chapter highlights critical moments from this period and explores the contributions of key urban visionaries—Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier—whose ideas continue to shape urban discourse today.

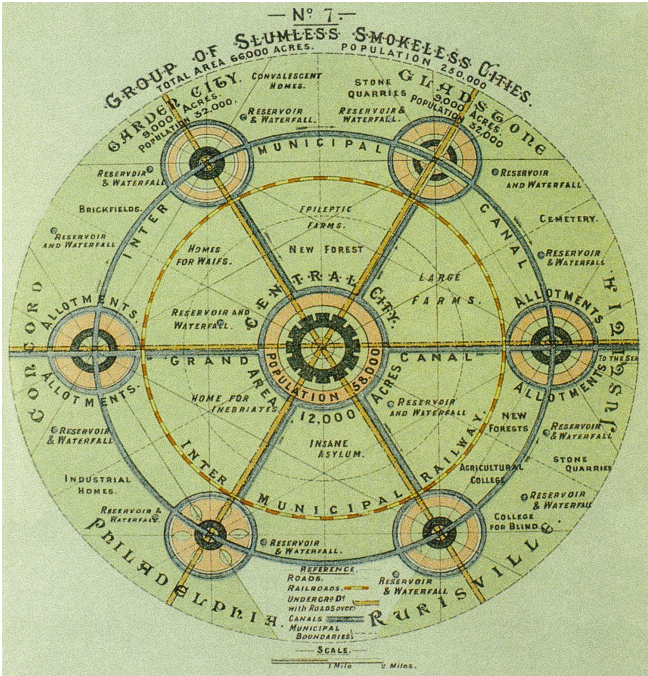
HOWARD.

The work of Robert Fishman in *Urban Utopias in the Twentieth Century* provides a critical foundation for this exploration, offering a comparative analysis of Howard's garden cities, Wright's Broadacre City, and Le Corbusier's Radiant City¹. Each of these urban utopias emerged as a response to the social, economic, and environmental challenges of their time.

FISHMAN.

Ebenezer Howard, in his seminal work *Garden Cities of Tomorrow* (1898), proposed a visionary model that sought to alleviate the adverse effects of industrialization and urban overcrowding. His garden city concept emphasized self-contained, planned communities that integrated urban and rural elements. These cities were surrounded by greenbelts, incorporating agricultural land and natural spaces to ensure harmony between urban living and nature². Howard’s design prioritized improved living conditions, social harmony, and access to green spaces, offering a progressive alternative to congested industrial cities.

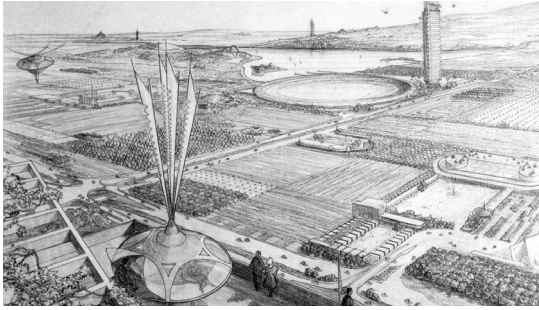
GARDEN CITY.



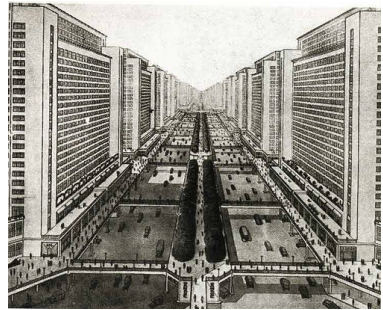
01. THE GARDEN CITY CONCEPT BY EBENEZER HOWARD

FRANK
LLOYD
WRIGHT.

Following Howard's model, Frank Lloyd Wright introduced Broadacre City, a decentralized alternative to urbanization, first conceptualized in the 1930s and later detailed in *The Living City* (1958)³. Wright envisioned a model where each family would be allocated one acre of land for residential, agricultural, and recreational use. This approach promoted self-sufficiency, individual freedom, and a closer connection to nature. Broadacre City's reliance on automobile-centric transportation and its emphasis on flexible zoning reflected Wright's belief in mobility and adaptability as fundamental principles of urban living⁴.



02. HISTORY OF UTOPIA



03. THE CITY OF TOMORROW

LE CORBUSIER.

At the same time, Le Corbusier presented his Radiant City in *The City of Tomorrow and Its Planning* (1929) as a response to the rapid urbanization of the early 20th century⁵. His vision emphasized the demolition of slums and the construction of high-rise buildings, systematically arranged to accommodate growing urban populations. The Radiant City incorporated efficient transportation systems and expansive green spaces, prioritizing modernist principles of order, hygiene, and functionality. Le Corbusier aimed to create a harmonious, efficient urban environment capable of meeting the needs of an industrial society.

CRITIQUE.

While these urban utopias offered innovative solutions to pressing challenges, they were not without limitations. Critics such as Jane Jacobs argued that such models risked promoting social homogeneity and inhibiting cultural diversity, particularly through rigid zoning and centralized planning⁶. Concerns were also raised regarding the environmental implications of high-rise construction and automobile reliance, particularly in the designs of Le Corbusier and Wright⁷. Lewis Mumford, in *The City in History*, highlighted the loss of community cohesion and continuity when utopian ideals failed to integrate cultural sensitivity⁸.

In addition to these criticisms, questions were raised about the economic feasibility of large-scale implementation. Howard's garden city concept, for instance, aspired to integrate urban and rural life but faced challenges in achieving economic self-sufficiency⁹. Nonetheless, these critiques must be understood within the context in which the ideas were developed.

LEGACY.

Despite their shortcomings, the ideas of Howard, Wright, and Le Corbusier have left an enduring legacy in urban planning and architecture. Their utopian proposals introduced principles of sustainability, decentralization, and functionality that continue to inform contemporary practices. By examining these perspectives and acknowledging their limitations, modern urban planning can adopt a more balanced approach—one that addresses current challenges while embracing the enduring ideals of inclusivity, sustainability, and harmony.

Exploring Visionary Arab City Projects

VISIONARIES.

When we think about urban development in the Arab world, specific, ambitious projects stand out for their efforts to build sustainable and resilient cities. These initiatives aim to shape the physical landscape and influence how people perceive the balance between tradition and innovation.

In the sections ahead, we'll dive into some key examples: NEOM in Saudi Arabia, Masdar City in the UAE, Egypt's New Administrative Capital, and a proposed new city in Amman, Jordan. Each of these projects offers its take on creating resilient cities, giving us a chance to explore the opportunities and challenges that come with planning for the future.



04. NEOM - CUTTING STRAIGHT THROUGH THE DESERT

NEOM: A Vision for a Technological Oasis

MEGAPROJECT.

Unveiled in 2017 as part of Saudi Arabia's Vision 2030 plan, NEOM is a groundbreaking project with the aim to reduce oil dependence and foster economic diversification. Nestled in northwestern Saudi Arabia, NEOM carries an initial budget estimate of approximately \$500 billion, ranking among the world's most ambitious megaprojects, although budgets for such undertakings are subject to change over time¹⁰. This visionary endeavour goes beyond conventional city boundaries, introducing an unprecedented, sustainable and technologically advanced megacity.

ZERO GRAVITY URBANISM.

NEOM's ambition knows no bounds; it aspires to redefine urban living and sustainability through the revolutionary concept of "Zero Gravity Urbanism". This concept that was developed for NEOM's THE LINE project, represents a progressive and radical approach to urban planning. It seeks to address global environmental and social challenges by finding a balance between nature conservation, livability, and sustainable human progress. The concept proposes a sustainable model that responds to pressing environmental and urban challenges, such as urban sprawl and climate change, while accommodating a fast-growing urban population. As the project sets to achieve its ambitious goals by 2030, NEOM is designed to initially house over one million residents and plans to grow into a vibrant urban hub. This approach and vision definitely marks a bold step toward reimagining urban living¹¹.





MOBILITY.

NEOM is expected to bring benefits to several groups. For Saudi Arabia, it's seen as a major step toward diversifying the economy, creating jobs, and increasing national income. The project also encourages international investors and businesses to participate in industries like tourism, technology, and renewable energy. For people who might live there, NEOM promises a new way of life. It's focused on sustainability and advanced infrastructure, with plans for things like flying taxis and self-driving cars to make getting around easier. The city's design puts renewable energy and smart technologies at the center, with systems in place to manage waste efficiently. To address food needs, NEOM will include vertical farms and innovative farming techniques to grow food locally.

CRITICISM.

Despite its ambitious vision, NEOM has sparked concerns from experts and environmentalists. Critics worry about the massive financial costs, questioning whether such investments could divert resources away from other urgent regional needs¹². The environmental impact is another major issue, particularly given the fragile desert ecosystem. Building a city of this scale could have significant consequences for local plants, animals, and the surrounding environment. There are also ethical concerns tied to the displacement of local communities and the potential loss of traditional ways of life, raising difficult questions about balancing progress with preservation¹³. Additionally, the sheer size and speed of the project have led to doubts about its long-term sustainability and whether such an ambitious vision can be fully realized.

SUMMARY.

NEOM is undeniably a bold example of forward-thinking urban development, driven by an enormous budget and a vision of sustainable, high-tech living. However, its future will depend on how it addresses these challenges—financial, environmental, ethical, and practical—each of which will play a critical role in shaping its outcome.

Masdar City: A Model for Sustainable Urban Development



05. MALAPERT CITY OF POSSIBILITIES



05.1 MASDAR CITY MASTER PLAN



05.2 MASDAR CITY

MILESTONES.

Located in Abu Dhabi, Masdar City is a flagship project for sustainable urban development and has gained global recognition for its focus on eco-friendliness and energy efficiency. Launched in 2008 with an estimated budget of \$22 billion, the project set an ambitious goal of completion by 2025. However, progress has faced delays over the years, reflecting the challenges of bringing such a visionary idea to life¹⁴.

FEATURES.

A defining feature of Masdar City is its relentless dedication to harnessing renewable energy sources. The city extensively leverages solar and wind power, creating a self-sustaining energy ecosystem that significantly minimizes carbon emissions. Complementing this commitment, innovative waste management systems underscore its eco-friendly ethos, contributing to a holistic approach to environmental sustainability¹⁵.

In addressing food security concerns and reducing reliance on external sources, Masdar City incorporates cutting-edge technologies, including vertical farming and advanced agricultural techniques. This multifaceted approach tackles not only sustainability concerns but also endeavours to redefine urban living with a heightened environmental consciousness.

CHALLENGES.

Despite accolades for its sustainability initiatives, Masdar City has faced critiques. Some experts express concerns about its elevated construction costs and the perceived lag in achieving self-sufficiency. Questions persist regarding the scalability of Masdar's sustainability model to other cities and regions, particularly considering the unique circumstances of the UAE¹⁶. Additionally, accessibility and affordability issues have been noted, potentially limiting its appeal to a broader demographic.

These critiques shed light on the formidable challenges and intricate considerations involved in implementing sustainable urban development on such a grand scale. As Masdar City continues to evolve, it stands as a captivating case study of a city daring to push the boundaries of sustainability in urban planning and urban design.



05.4 MASDAR CITY

Egypt's New Administrative Capital: Transforming Urban Dynamics

THE CAPITAL.

In Egypt, where rapid population growth and urbanization present daunting challenges, a transformative urban development project has taken shape. The New Administrative Capital. Positioned to the east of Cairo, this monumental initiative aims to tackle urban congestion, create job opportunities, and spur economic growth in a country grappling with these issues. Boasting an estimated budget of around \$58 billion¹⁷, the vision for this modern administrative hub extends beyond mere relief for Cairo; it aspires to set new standards for urban living in Egypt.

IMPACT.

At the heart of the New Administrative Capital's appeal is its anticipated economic impact. Beyond serving as a government administrative center, it envisions itself as an economic powerhouse, generating jobs and attracting businesses and investments to significantly contribute to the national economy. The project's synergy of government funding and private sector investments underscores the collective confidence in its potential to stimulate economic development.



06 NEW ADMINISTRATIVE CAPITAL



06.1 NEW ADMINISTRATIVE CAPITAL

DEBATES.

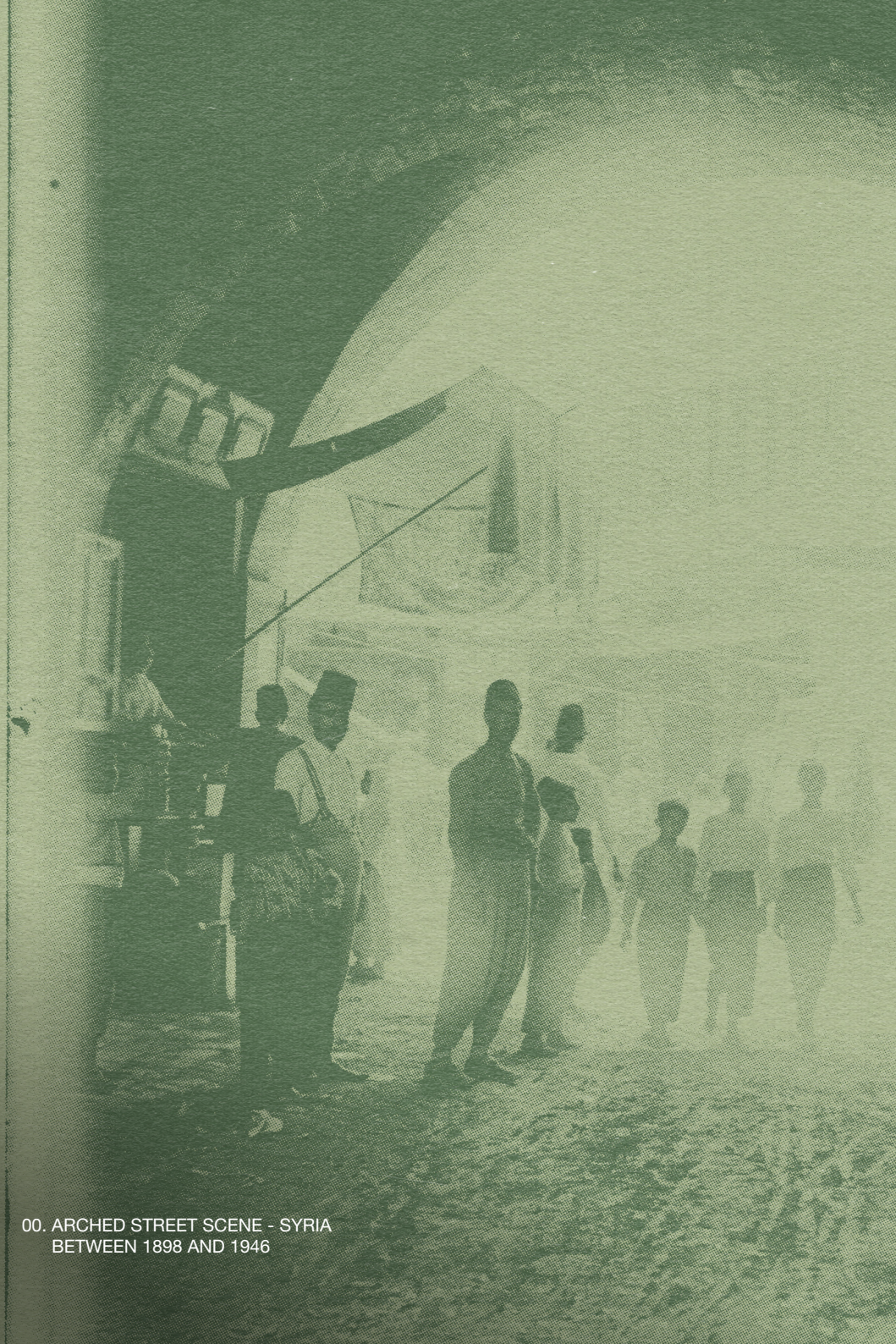
However, like any ambitious urban development venture, the New Administrative Capital has not escaped debates and concerns. Experts and citizens alike question its impact on surrounding communities. The swift pace of development and potential displacement of existing residents have ignited discussions, emphasizing the need for thoughtful urban planning that prioritizes social equity and the well-being of all citizens. Additionally, the grandiosity of the project prompts a closer examination of its economic implications, particularly against the backdrop of Egypt's economic realities. Notably, as Egypt undertakes this massive project, questions arise about the strain on the country's financial resources, given the three loans totaling \$20 billion from the IMF over the past six years¹⁸. Economic challenges, including the devaluation of the Egyptian pound, cannot be overlooked. There are apprehensions that Egypt's ambitious administrative capital project, with all its grandeur and promise, has strained the country's financial resources, raising concerns about sustainability and potential long-term economic consequences.

ECONOMIC CATALYST.

Moreover, discussions about the equitable distribution of economic benefits persist. While the project holds promise as an economic catalyst, it is imperative to ensure that these benefits reach every segment of the population, particularly those vulnerable to economic shifts.







00. ARCHED STREET SCENE - SYRIA
BETWEEN 1898 AND 1946



Amman: Forging Sustainable Urban Progress Amidst Challenges

VISION.

Amman, the dynamic heart of Jordan's urban landscape, grapples with the evolving needs of its thriving population. In response, a proposal mirroring similar initiatives in other countries has also emerged, following their lead and aiming to stay aligned with the growing trend of such visionary projects—a new city creation, seemingly positioned to address the city's expanding demands. However, this proposal is not an isolated endeavour; it reflects a global trend of large-scale urban projects that often make grand promises but confront critical challenges.

Initially appearing as a pragmatic response to Amman's resident needs, the proposal aligns with a broader narrative of ambitious urban projects that frequently aim to balance urban development and environmental preservation. This poses a fundamental challenge that the proposed city in Amman must confront.

COMMUNITY.

On the surface, this ambitious vision aims to alleviate the pressures of growing populations in large cities like Amman and Zarqa. The Jordanian government envisions the new city, sprawling across 266,000 dunums of land, as a future home for a million people, with an initial population of 157,000 residents by the end of the first phase in 2033. The project aims for overall completion by 2050, symbolizing a monumental effort in urban expansion¹⁹.

Behind the facade of progress, however, the project raises questions about its potential impacts on existing communities. The specter of community displacement, a recurring theme in urban development projects, looms large. The proposal must grapple with the profound responsibility of preserving the well-being of these communities amidst the transformative tide reshaping their surroundings. Mitigating the potential disorder caused by such a project is of paramount importance.

VIABILITY.

Moreover, this ambitious plan comes with financial concerns. Jordan's economy faces challenges, with a 2023 budget of just \$2.5 billion and a national debt of \$45 billion²⁰. On social media, some Jordanians expressed concerns that such a megaproject may necessitate taking on additional debt, following a similar path to Egypt.

Jordanian Members of Parliament (MPs) echo these concerns, suggesting that the nation should prioritize sectors like industry over building an entirely new city from scratch²¹. They raise valid questions about the feasibility of the project, given the existing debt burden and the potential for increased corruption and theft.

DEBATE.

Yet, others view this project as a necessity for the future. Former governmental employees believe it can be executed easily, under the conditions of land being provided to developers for free in exchange for utilizing it. They also point to global trends where many world capitals, including Egypt, are making similar changes due to high population density.



07 AMMAN





GLOBAL URBANIZATION.

In summary, the proposal for a new city in Amman, while ostensibly a symbol of progress, should be approached with a critical eye. It reflects broader challenges associated with ambitious urban projects, including the need for ecological balance, community preservation, and equitable development. Only through rigorous examination and careful planning can these challenges be effectively addressed, ensuring that the pursuit of sustainability in urban development does not inadvertently create new problems. As Amman works towards sustainable urban development, it draws on lessons from cities around the world, aiming to balance growth, preserving its heritage, and embracing progress.

SUMMARY.

Through our exploration of these innovative attempts in the region, we gain insights into the diverse strategies and approaches employed to design sustainable and resilient urban environments within the Arab world. However, the cautionary voices of experts remind us of the complex challenges and uncertainties that accompany these visionary projects.

Conclusion.

EXPLORATION.

In this chapter, we explored the relationship between time and the vast scale of urban landscapes, delving into earlier stages of urban development proposals and examining the visionary projects that shape modern approaches to urban design. From the ambitious proposals of the late 19th and 20th centuries to the bold visions of contemporary urban designers, our exploration offers insights into the evolution of the attempts to approach urban planning in our region and the lessons from those who shaped its development.

Our discussion of past urban development highlights the crucial role cities play in driving human progress by blending innovation, culture, and social change. While cities have faced enduring challenges, they remain reflections of economic, technological, and societal transformations. Examining the ideas of visionary urban planners like Howard, Wright, and Le Corbusier provides valuable insights. Though their utopian visions were ambitious, they often conflicted with practical realities, sparking debates around sustainability, inclusivity, and effective urban design.

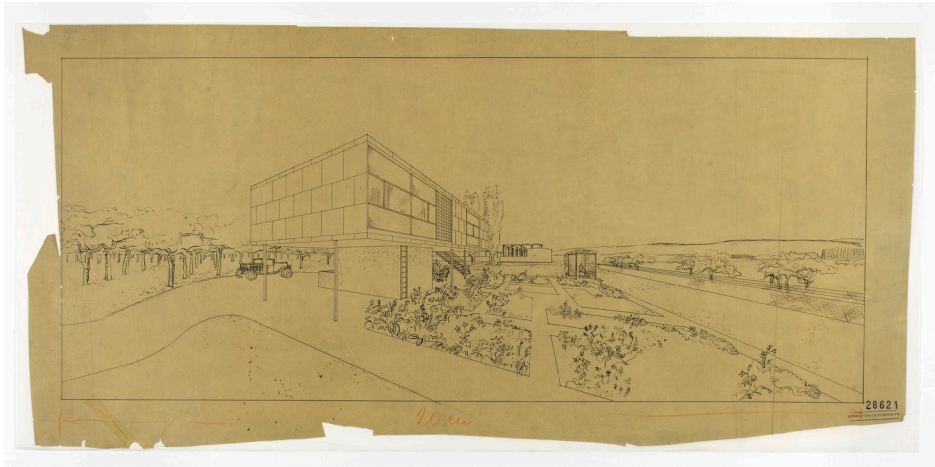
ODYSSEY.

Looking at ambitious Arab city projects like NEOM, Masdar City, Egypt's New Administrative Capital, and Amman's proposed new city, we see bold efforts to reshape urban life. These projects reflect a strong vision for the future, but they also face criticism and doubts around their practicality, environmental sustainability, and social impact. Such projects raise important questions about how these cities can truly meet the needs of their communities and the region as a whole.

In closing, our journey through the advancement of urban development—both past and present—reveals how cities are shaped by a complex mix of history, culture, and human ambition.







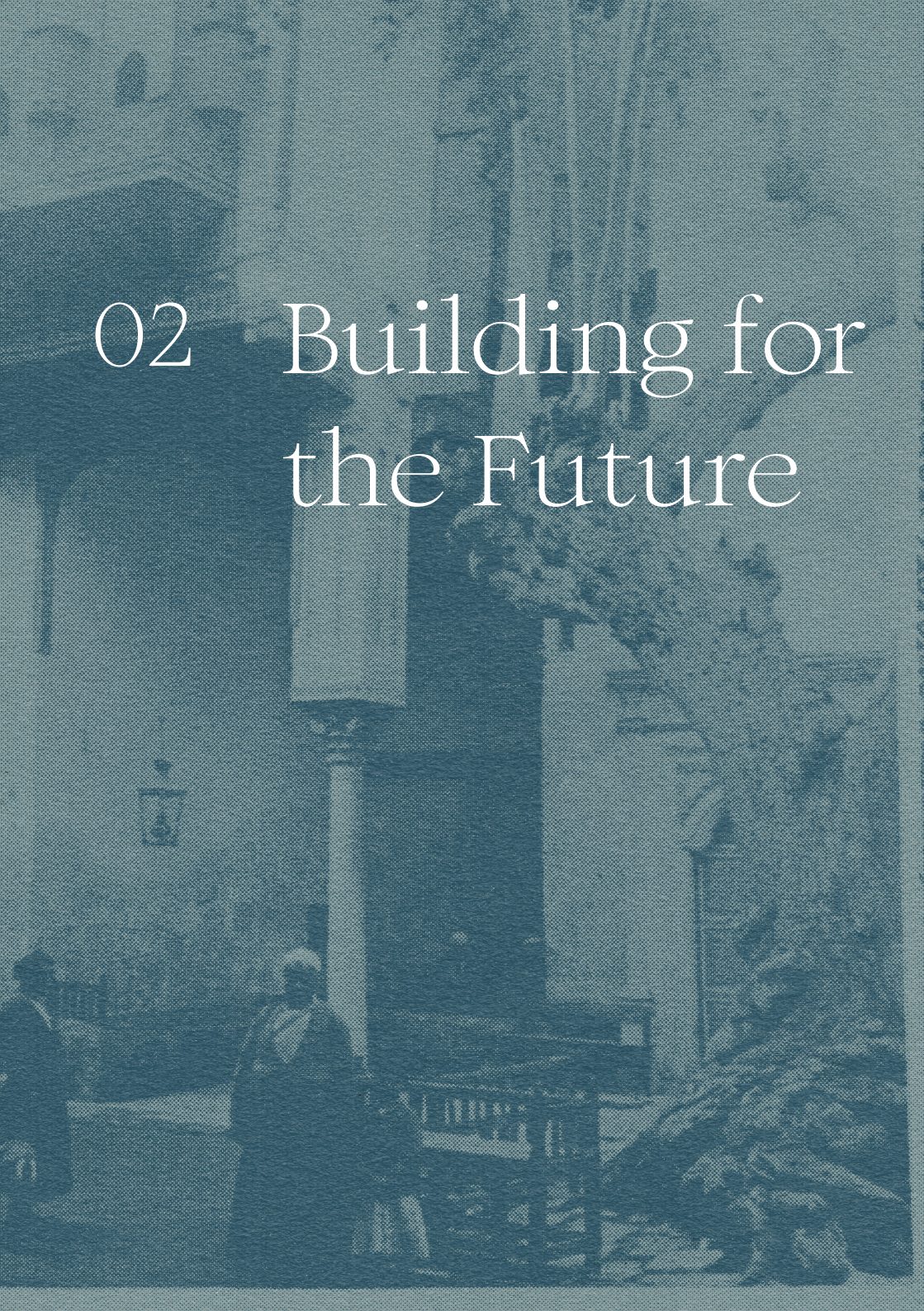
00. VILLE RADIEUSE

Cities are not just places filled with buildings; they are living environments that reflect the dreams and struggles of the people who create them. Moving forward, we must find ways to balance innovation with tradition, progress with ethics, and economic growth with equality. By drawing insights from past precedents and modern challenges, we can work toward building cities that are not only forward-thinking but also sustainable and inclusive for generations to come.



00. THE 1933 RENDERING OF PLAN OBUS FOR ALGIERS
DEMONSTRATES LE CORBUSIER'S SUPERIMPOSITION
OF MODERN FORMS



The background image is a blue-tinted, halftone-style photograph of a historic street scene. It features a large, ornate building with a prominent arched entrance and a tall, slender column. Several people are visible in the foreground, including a man in a suit and a woman in a long dress. The overall aesthetic is that of a vintage book cover or a historical document.

02 Building for the Future

Chapter 2

Building for the Future: Transforming Existing Cities into Sustainable and Inclusive Urban Centers in the MENA Region; Challenges and Solutions

APPROACH.

Investing in existing cities in the MENA region is a delicate task with challenges and opportunities. While the allure of developing new urban centers may be tempting, a closer look reveals the importance of prioritizing the long-term sustainability and social inclusivity inherent in existing urban landscapes. As we proceed through this chapter, we scramble into the complexities of why channeling investments into existing cities in the MENA region is not only a pragmatic approach but also a socially responsible one.

INTRICACIES.

This chapter draws from a curated discussion held with experts during the 12th MENA Sustainable Cities Conference. The exchange of ideas and conversations which brought together perspectives from local, regional, and international participants, triggered a deeper exploration of the challenges and opportunities shaping urban development in the MENA region. The discussions touched on the importance of investing in existing cities, tackling infrastructure challenges, and promoting social equity. These conversations helped in shaping the ideas in this chapter, leading to the exploration of the main factors that influence sustainable growth and how cities in the region can adapt to future challenges.

Land Use Planning



08 CITY OF CAIRO



08.1 HISTORIC CAIRO

Cities in the MENA region, such as the historical centres in Cairo, and rapidly growing metropolises like Dubai face a delicate challenge in managing urban landscapes. The historical cities, shaped by centuries of existence, embody a unique blend of narrow streets and historical architecture interwoven with modern developments. Meanwhile, the sudden population growth in cities like Dubai, soaring from under 1 million in 2000 to almost 3 million in 2020, intensifies the strain on available land resources, demanding innovative land use strategies²².

STRATEGY.

Recognizing this urgency, Dubai responded to the challenge with the Dubai 2040 Urban Master Plan. Unveiled by Sheikh Mohammed bin Rashid, this visionary initiative seeks to transform the emirate into a people-centric, interconnected city. The plan carefully balances modern needs with heritage preservation, tourism, and economic development.

Projected to accommodate 5.8 million residents by 2040²³, Dubai's master plan concentrates on the existing city limits, emphasizing efficiency in space utilization and optimization of urban areas. This forward-looking plan encompasses the development of five main urban areas, a 25% increase in educational and health facilities, a substantial expansion of areas for hotels and tourism, and a significant allocation of land for commercial and economic activities. A notable feature of the plan is that it dedicates 60% of Dubai's land to nature reserves and ensures that 55% of the population will live within 800 meters of a main public transport station²⁴.

MASTER PLAN.

While Dubai focuses on forward-thinking urban strategies, the historic medina of Marrakech presents a complementary yet contrasting example. Marrakech demonstrates how heritage preservation and urban development can harmoniously coexist. Traditional riads have been transformed into boutique hotels and restaurants, safeguarding cultural heritage while fostering economic growth. This approach highlights the potential for cities to enhance their economic vitality and cultural richness by embracing their historical identity while catering to modern needs²⁵.



09 DUBAI INTERNATIONAL FINANCIAL CENTRE (DIFC)



10 LEBANON

In parallel with Dubai's strategic economic focus, the Dubai International Financial Centre (DIFC) serves as a compelling example of efficient land use. The DIFC concentrates financial services within a compact area, curbing the need for sprawling developments and contributing significantly to Dubai's economic diversification. By fostering a vibrant financial hub, this model minimizes environmental impact while meeting economic goals, demonstrating the value of targeted, strategic urban planning.

ENGAGEMENT.

Other cities in the region offer further insights into inclusive land use strategies. Amman and Casablanca, for instance, have embraced participatory urban planning processes, where stakeholders—including residents, municipalities, and the private sector—collaborate to revitalize neighborhoods. This participatory approach has led to tangible outcomes such as community gardens, improved public spaces, and a higher quality of life for residents²⁶²⁷.

INTEGRATION.

Conversely, lessons from Beirut's downtown redevelopment underscore the importance of a balanced approach. While the Solidere project successfully transformed the area into a commercial and cultural hub, it also sparked debates about social inclusion and gentrification. The focus on attracting investors and creating jobs, though economically beneficial, displaced long-time residents, raising concerns about social equity and cultural identity. This case serves as a cautionary tale, emphasizing that urban development must align economic benefits with community well-being²⁸.

CONCLUSION.

In conclusion, land use planning in the MENA region demands a comprehensive and dynamic approach. The experiences of Dubai, Marrakech, Amman, and Beirut demonstrate that balancing modern development with heritage preservation, stakeholder participation, and social inclusion is key. Urban planners must navigate the intricate relationship between history, culture, and contemporary needs. By engaging all relevant stakeholders in participatory processes, cities can ensure sustainable and inclusive urban development that reflects both community aspirations and cultural heritage.

Affordable Housing:

Affordability Crisis

In the heart of Cairo, the magnitude of the housing affordability crisis is starkly evident, with a significant segment of the population residing in informal settlements, locally referred to as “ashwaiyyat”²⁹. These areas are marked by overcrowding, inadequate infrastructure, and substandard housing conditions. Estimates suggest that between 60% to 65% of the Greater Cairo population live in such settlements, illustrating the formidable reality confronting a substantial portion of Cairo’s residents³⁰. The ramifications of this affordability crisis extend beyond immediate living conditions, permeating the social fabric of the city. Inadequate housing exacerbates socioeconomic disparities, constraining access to education, healthcare, and economic opportunities for those residing in these challenging conditions.



11 «ASHWAIYYAT»

Cairo’s experience serves as a valuable source of insights into tackling the pressing issue of housing affordability. Amidst the historic city’s bustling streets, various innovative projects and initiatives have emerged, showcasing both the challenges and successes of navigating the intricate terrain of urban housing.

AFFORDABLE.

A notable testament to Cairo's commitment to affordable housing is the "Hayyena" initiative. This ambitious endeavor by the Egyptian government, funded by an USD \$8.1 million, aims to enhance urban development in Egypt. The project is part of an Egyptian-Swiss agreement for financial and technical cooperation back in 2013. By emphasizing affordability through partnerships between the public and private sectors, it seeks to streamline construction processes and reduce costs, thereby making homeownership accessible to those previously excluded. The project will be implemented in two pilot governorates between 2018 and 2024, in cooperation with the United Nations Human Settlements Programme (UN-Habitat)³¹.

SOLUTIONS.

Another project is the "Al Asmarat" housing development, situated in Cairo's heart, focusing on constructing thousands of residential units with a keen eye on affordability. Beyond mere housing, Al Asmarat integrates essential amenities such as schools, healthcare facilities, and community spaces, recognizing that affordable housing extends beyond physical structures to encompass the broader well-being of residents³².

Addressing Cairo's affordability crisis demands innovative solutions tailored to the city's unique urban context. While statistics paint a concerning picture, a closer examination unveils transformative opportunities. Social housing programs have emerged as a pivotal avenue to alleviate the burden on vulnerable populations, offering affordable rental units. However, it's crucial to acknowledge the inherent limitations of these programs, marked by bureaucratic complexities, insufficient funding, and occasional mismanagement, leaving numerous residents in need without adequate housing.

Limited Land Availability: A Myth in Cities?

SCARCITY.

In many cities in the MENA region, including Beirut and Amman, there's a prevalent narrative of land scarcity, often perpetuated by the banking and real estate sectors. This belief suggests that the limited availability of land for new developments inevitably raises land values and, consequently, the overall cost of real estate. However, a deeper examination reveals a different reality; one where scarcity is relative, rooted in competing economic behaviors, interests, and complex legal dynamics.

VACANCIES.

Cities like Beirut and Amman don't necessarily suffer from an absolute lack of land for development. In Beirut, approximately one-third of plots within the municipal boundaries are vacant and technically suitable for development. These include vacant lots, temporarily occupied spaces, and potentially under-occupied buildings that could be repurposed or redeveloped. While Beirut struggles with underutilized spaces, Jordan has developed various strategies and policies to address affordable housing, emphasizing comprehensive approaches that consider not only the availability of land but also economic factors, legal frameworks, and social policies³⁴.

Jordan's experience in addressing affordable housing offers valuable lessons. Despite facing challenges with land availability, the government has implemented initiatives aimed at providing housing units for low- and middle-income families. Additionally, Jordan has collaborated with international organizations to integrate housing into national urban policies, showcasing a proactive approach to meeting its population's housing needs³⁵.

CHALLENGES.

Prominent real estate developers in cities like Beirut have focused on constructing luxury condominium towers in recent years, requiring large plots of land. However, finding sizable, easily tradable, and reasonably priced land parcels has proven challenging. Landowners, aware of rising demand, often hold out for inflated prices, particularly in the absence of tax incentives for swift sales. Moreover, intricate legal statuses such as joint ownerships, public land, or religious property designations further complicate or prevent transactions³⁶.



12 BEIRUT

PERCEPTIONS.

This competition between developers' economic interests and landowners' price expectations, coupled with legal complexities, perpetuates the perception of land scarcity. During real estate booms, some developers amplify perceptions of scarcity to inflate demand and encourage rapid property purchases. In essence, land scarcity in cities like Beirut and Jordan is relative, driven by price and accessibility and not a physical lack of land³⁷.

DYNAMICS.

In addition, favorable tax and legislative environments for property investment, external financial inflows, and subsidized housing loan programs have maintained high real estate demand in cities like Beirut and Amman³⁸. This high demand, coupled with limited immediate increases in floor area supply, resulted in escalating real estate prices during boom years. Additionally, the market's opacity and the notable—though challenging to quantify—use of real estate assets for money laundering and tax avoidance³⁹ have further fueled price inflation.

INTERACTIONS.

Economic mechanisms also play a significant role in the intricate relationship between real estate and land markets. Developers calculate land acquisition costs by considering factors such as construction expenses, financial constraints, taxes, and anticipated profits. When demand for real estate spikes, developers' willingness to invest in land increases, driving up land prices. Conversely, during market slowdowns, landowners hold onto inflated price expectations, delaying necessary price adjustments. This delay, known as the “ratchet effect,” prevents quick responses to changing market conditions⁴⁰.

INSIGHTS.

Understanding these economic mechanisms is crucial for policymakers and stakeholders. Recognizing how economic interests, legal dynamics, and market cycles influence land availability provides valuable insights for addressing real estate inflation and improving affordable housing strategies.

CONCLUSION.

In conclusion, the notion of land scarcity in many cities does not stem from an absolute lack of land but rather from economic, legal, and behavioral intricacies. Recognizing that limited access to affordable, developable land is largely driven by economic factors and not spatial limitations highlights the need for policy reforms. These reforms, aimed at regulating price inflation and better organizing urban development, could pave the way for a more equitable and sustainable approach to land and housing in cities worldwide.

Rapid Urbanization

The MENA region is experiencing one of the fastest rates of urbanization globally, driven by a combination of factors, including rapid population growth, rural-to-urban migration, and the economic appeal of urban centers⁴¹.

METROPOLIS.

Amman, the capital of Jordan, provides a striking example of this transformative trend. Over the past two decades, Amman has evolved from a relatively small city into a bustling metropolis. Its population surged from approximately 1.5 million in the early 2000s to over 4 million by 2020, a growth fueled by both internal migration and an influx of external migrants seeking better economic opportunities. This rapid transformation underscores not only Amman's economic pull but also the challenges posed by such accelerated growth⁴².

GROWTH.

A key challenge arising from this urban expansion is the provision of adequate housing. The growing population has placed significant pressure on Amman's housing market, raising urgent questions about affordability, accessibility, and equitable distribution. Urban planners and policymakers face a dual task: expanding the city's housing inventory to accommodate demand while ensuring these developments are affordable, strategically located, and equipped with essential infrastructure and services.

DYNAMICS.

Amman's experience mirrors the broader urbanization patterns across the MENA region, unveiling both opportunities and pressing challenges. While urban growth signals economic progress, it necessitates adaptable policies and innovative urban planning to achieve sustainable and inclusive development. By addressing issues such as housing affordability and service delivery, cities like Amman can effectively manage urban growth while enhancing the quality of life for residents.

Infrastructure and Services

PIVOTAL.

Across many cities in the MENA region, meeting the rising demand for infrastructure has become an increasingly urgent challenge as populations continue to grow. This is especially true in informal settlements and low-income neighborhoods, where basic services like clean water, sanitation, electricity, and public transportation are often inadequate or even nonexistent. Solving these issues requires more than just building affordable housing; it's about ensuring that infrastructure and essential services keep up with the needs of growing urban populations.

Cairo, Egypt's sprawling capital and one of Africa's largest cities, offers a striking example of how housing and infrastructure challenges are so closely connected. With a population now exceeding 20 million⁴³, the city's infrastructure is pushed to its absolute limits. In many low-income areas, residents struggle to access basic essentials like clean water, reliable sanitation systems, electricity, and dependable public transportation⁴⁴.

The effects of these gaps in services are wide-reaching. Poor sanitation creates health risks, while unreliable transportation limits mobility, making it harder for residents to find and keep jobs. These issues highlight the need for urban planning that doesn't just focus on affordable housing but also considers how infrastructure can be developed to improve people's daily lives.

Tackling these complex challenges requires more than just throwing money at infrastructure. Cities need smarter, more sustainable urban planning strategies. For instance, they can focus on solutions like green infrastructure, expanding public transportation networks, and improving waste management systems. These steps are essential for creating better living conditions and a more functional urban environment⁴⁵.



13 CAIRO

The rapid urbanization happening across the MENA region — and the growing infrastructure gaps that come with it — requires solutions that are tailored to local contexts. Cairo's struggles with infrastructure and Dubai's rapid, unprecedented growth are two sides of the same coin. They demonstrate that affordable housing and infrastructure development cannot be separated. To build truly sustainable and inclusive cities, we need to find a balance between housing needs and resilient infrastructure that serves everyone.

Solutions and Examples from the MENA Region in Relation to Affordable Housing

In response to the complex challenges of affordable housing, several cities across the MENA region have initiated innovative solutions and projects, showcasing a commitment to sustainable urban development. These initiatives leverage a combination of public-private partnerships, community engagement, and forward-thinking urban planning.

- o **Mixed income Housing Projects:** Across the MENA region, mixed-income housing projects are emerging as a promising solution to address housing affordability and foster social inclusivity. Many of these projects are being delivered through public-private partnerships (PPPs), which combine public sector oversight with private sector expertise. Abu Dhabi's "Al Ghadeer" development stands out as a leading example of this approach. Developed in collaboration with Aldar Properties, Al Ghadeer integrates a variety of housing options, ranging from affordable units to luxury residences, all within a single, mixed-use community. This project goes beyond housing by incorporating community facilities, commercial spaces, and essential infrastructure, creating a sustainable urban environment that promotes economic diversity and vibrant living⁴⁶.



14 ABU DHABI

However, not all PPP initiatives achieve their intended goals. Dubai's ambitious "Jumeirah Central" project highlights the challenges that can arise when strategic priorities shift. Launched with plans to develop a mixed-use urban district, the project was ultimately put on hold due to market reassessments and changes in Dubai Holding's focus⁴⁷. This case underscores that while PPPs can deliver significant successes, like Al Ghadeer, they also require careful planning, risk assessment, and long-term management to navigate market volatility and potential setbacks⁴⁸. The contrasting outcomes of these projects highlight the potential and pitfalls of public-private partnerships in urban development. When executed effectively, PPPs offer cities across the MENA region a powerful tool to balance housing affordability with economic growth. By integrating mixed-income housing solutions with sustainable infrastructure and strategic planning, cities can create inclusive communities that accommodate diverse income groups while driving long-term urban resilience.

- o **Upgrading Informal Settlements:** A crucial step in addressing the housing affordability crisis involves the upgrading and formalization of informal settlements. In Cairo, these efforts have been spearheaded through collaborative initiatives led by the Ministry of Housing, Utilities, and Urban Communities, in partnership with international organizations like UN-Habitat, which provides technical expertise and support⁴⁹. These projects focus on improving living conditions by enhancing infrastructure, upgrading essential services, and integrating more sustainable solutions into informal settlements.

What makes these efforts distinct is their emphasis on community participation. Residents are actively involved in decision-making processes, ensuring their needs and aspirations are reflected in project outcomes⁵⁰. This holistic, bottom-up approach not only enhances housing quality and infrastructure but also fosters a sense of ownership and empowerment within the community. By prioritizing residents' voices, such initiatives achieve more sustainable and inclusive urban development.

- o **Smart Urban Planning:** Cities across the MENA region are increasingly adopting smart urban planning strategies to optimize land use and foster sustainable growth. This approach combines technology, sustainability, and community-driven solutions to create efficient and livable urban spaces. By utilizing data-driven tools and digital technologies, cities can improve infrastructure, streamline transportation systems, and deliver services more effectively, all while prioritizing environmental and social sustainability⁵¹.

Dubai's "2040 Urban Master Plan" is a leading example of this shift toward smarter urban growth. The plan focuses on maximizing the use of existing urban spaces, enhancing infrastructure, and accommodating a growing population without sacrificing affordability. Among its key strategies are improving resource efficiency, doubling green and recreational areas, providing sustainable and flexible mobility solutions, and fostering economic activity. Additionally, the plan prioritizes environmental sustainability, safeguards cultural and urban heritage, and promotes the development of vibrant, inclusive communities⁵².

By aligning technological advancements with sustainability and community well-being, Dubai's smart urban planning initiatives can set a blueprint for cities across the MENA region. Such strategies not only address the pressing challenges of urbanization but also would position cities like Dubai as global leaders in innovation and sustainable development.

- o **Government Subsidies:** To address economic disparities and housing affordability, several governments in the MENA region have implemented housing subsidy programs targeting low-income citizens. A notable example is Egypt's "Social Housing Program", which aims to provide affordable housing units to low-income families⁵³. The program, led by the Ministry of Housing, Utilities, and Urban Communities in collaboration with the Social Housing and Mortgage Finance Fund (SHMFF), delivers affordable rental units and financial incentives to eligible families. According to the Egypt Human Development Report 2021, published by the United Nations Development Programme (UNDP), as of June 2020, the program had already benefited approximately 312,000 families, offering monetary support totaling EGP 4.9 billion². Supported by significant funding from the World Bank, this initiative alleviates housing burdens and contributes to fostering social equity by improving access to formal housing for low-income households⁵⁴. The Social Housing Program reflects a broader strategy to bridge housing gaps and promote inclusive development. By combining financial assistance with infrastructure development, the Egyptian government has taken significant steps toward addressing the housing needs of its most vulnerable populations while supporting national economic stability.

CONCLUSION.

By comprehensively addressing these multifaceted challenges, policymakers, urban planners, and stakeholders in the MENA region can collaboratively develop strategies for affordable housing. This involves not only the creation of diverse housing options but also the enhancement of urban infrastructure and services. Through these initiatives, the aim is to foster sustainable, inclusive, and equitable urban development tailored to the distinctive contexts of existing cities in the MENA region.

Infrastructure Retrofitting and Smart City Technologies in the MENA Region

Infrastructure retrofitting and the adoption of smart city technologies across the MENA region are transforming urban landscapes while addressing historical, cultural, and spatial complexities. The diversity of the region—from planned cities to informal settlements and refugee camps—presents unique challenges and opportunities for upgrading infrastructure.

INNOVATION.

In cities where topography and land availability are major constraints, innovative engineering techniques like tunneling and elevated infrastructure have proven essential. For example, Amman's "Ras Al Ain Hangar" project successfully repurposed an abandoned industrial site into a cultural hub. Spearheaded by the Greater Amman Municipality, the project involved collaboration with local authorities, experts, and community representatives. It preserved the industrial heritage of the electricity hangar while transforming it into a multifunctional public space that hosts exhibitions, fairs, and cultural events. This demonstrates how infrastructure retrofitting can merge strategic planning with cultural preservation and community-driven objectives⁵⁵.



15 RAS ALAIN HANGAR

SMART INFRA- STRUCTURE.

The integration of smart city technologies adds another layer of efficiency and sustainability to retrofitting efforts. Innovations like Internet of Things (IoT) devices, sensors, and data analytics enable cities to monitor infrastructure performance and enhance resource management. For instance, IoT systems allow residents to monitor and control utility usage in real time, optimizing energy conservation. Smart lighting systems adapt to environmental conditions, reducing energy costs, while advanced waste management solutions improve collection efficiency and minimize environmental impact⁵⁶.

Dubai's "Water Canal Project" is a prime example of retrofitting integrated with smart technologies. By transforming an existing waterway into a vibrant waterfront destination, the project added new bridges, walkways, and public spaces while incorporating advanced technology. The canal features smart lighting systems, CCTV cameras, Wi-Fi coverage, and environmental monitoring systems. These enhancements improve safety, sustainability, and the overall user experience, demonstrating how smart infrastructure can elevate urban living standards⁵⁷.



16 DUBAI

REVITAL.

In the broader context of retrofitting, modernizing transportation systems, utility networks, and public spaces must harmonize with cultural heritage while addressing contemporary needs. Collaborative approaches that involve urban planners, engineers, and local communities ensure that infrastructure upgrades are practical, inclusive, and context-sensitive. Despite these advances, funding constraints remain a significant barrier to implementing large-scale retrofitting and smart city projects. Innovative financing mechanisms such as public-private partnerships (PPPs) and international grants can help mobilize resources and ensure project sustainability. By leveraging private sector investments, governments can achieve large-scale improvements while sharing financial risks.

CONCLUSION.

In conclusion, infrastructure retrofitting paired with smart city technologies presents both challenges and opportunities for the MENA region. Success lies in balancing technological innovation with cultural preservation, community engagement, and sustainable financing. By adopting tailored, inclusive strategies, cities can overcome infrastructure hurdles and pave the way for smarter, more livable urban spaces.

Community Engagement and Participation

Community engagement and participation stand as a cornerstone for the rejuvenation of existing cities in the MENA region. This integral aspect of urban development, while holding immense transformative potential, encounters significant challenges. Navigating through limited civic awareness, power imbalances, and inadequate resources is essential for fostering inclusive decision-making processes that resonate with the genuine needs of diverse challenges in achieving community engagement.

Challenges in Achieving Community Engagement

- o **Power Imbalance:** Power imbalances between community members and decision-makers pose significant challenges, as it plays a crucial role in influencing urban sprawl dynamics. When decision-making is concentrated in the hands of a few, urban planning tends to favor interests that may not align with sustainable development goals. In cities in the MENA region, this power imbalance can lead to unchecked expansion, contributing to the sprawl of informal settlements. Residents, lacking influence in these decision-making processes, find themselves in environments shaped by urban sprawl without adequate consideration

for their needs and preferences⁵⁸. This power imbalance contributes to unplanned expansion, emphasizing the importance of inclusive decision-making processes. Residents often face challenges in influencing decisions that directly impact their housing needs, highlighting the need for more equitable participation⁵⁹.

- o **Limited Civic Awareness:** In several cities across the MENA region, a critical lack of civic awareness poses a significant barrier to active community participation in decision-making processes. For instance, in Cairo, Egypt, the Nada Foundation for Safe Egyptian Roads, operating under the Ministry of Social Solidarity, has been at the forefront of advocating for road safety and sustainable transport since its establishment in August 2014. In collaboration with Tabdeel, an organization dedicated to promoting environmentally friendly practices, and the Cairo transport authorities, the Nada Foundation launched initiatives in 2021 to support communities in creating safer street environments. These efforts aimed to promote safer modes of transportation such as walking, cycling, and non-motorized mobility. Nada Foundation, emphasized their commitment to protecting vulnerable road users, including pedestrians, cyclists, public transport users, the elderly, children, people with disabilities, and two-wheeled vehicle drivers. These initiatives underscore the importance of targeted campaigns and collaborative approaches in raising civic awareness and fostering community engagement⁶⁰.
- o **Inadequate Resources:** Certain communities encounter obstacles stemming from insufficient resources, hampering their meaningful involvement in urban planning processes. These resources include financial resources, access to information, and technical expertise. Cities in the MENA region face significant challenges due to rapid urbaniza-

tion and environmental stressors. These challenges include escalating temperatures and diminishing green spaces, which adversely affect public health and increase energy consumption. The lack of adequate resources significantly impedes community participation in urban planning⁶¹. In some regions, the scarcity of resources has been a substantial barrier to meaningful community engagement, emphasizing the need for better access to financial support, information, and technical expertise to foster active participation⁶². Additionally, initiatives that address these resource gaps are crucial to enhance civic participation in urban planning and management. Targeted programs that provide the necessary support and tools are essential to empower communities, ensuring their voices are included in the decision-making processes that shape their environments⁶³.

Solutions to Enhance Community Engagement

- o **Developing Public Awareness Campaigns:** Local governments, supported by relevant stakeholders such as NGOs and community-based organizations, should develop comprehensive public awareness campaigns to empower residents by providing information about their rights and opportunities for involvement. For example, in Amman, Jordan, the Greater Amman Municipality (GAM) initiated the Amman Green City Action Plan⁶⁴, a long-term sustainability strategy. As part of this initiative, GAM conducted extensive public awareness campaigns to engage residents in the city's sustainability efforts.

These campaigns included community workshops, educational programs in schools, and public events showcasing sustainable practices. By involving residents in the planning and implementation of sustainability initiatives, GAM successfully created a sense of ownership and pride among the community, leading to greater support and participation in environmentally sustainable urban development.

- o **Strengthening Community Organizations:** Empowering community-based organizations is crucial for fostering collective community input. This can be achieved by providing capacity-building programs, access to resources, and opportunities for collaboration with local governments and other stakeholders. Capacity-building programs help community members acquire the necessary skills and knowledge to engage effectively in urban planning processes⁶⁵. Access to resources, such as financial support and technical expertise, enables these organizations to implement their initiatives and advocate for their communities effectively⁶⁶. Additionally, fostering collaboration between community organizations and local governments can lead to more inclusive and sustainable urban development.

For instance, the Participatory Slum Upgrading Programme (PSUP), implemented by UN-Habitat in countries such as Egypt and Morocco, focuses on strengthening the capacities of community-based organizations and local governments to collaboratively plan and implement slum upgrading projects. This program emphasizes the importance of community participation and capacity-building⁶⁷. In Cairo, the Al-Darb al-Ahmar Revitalization Project involved community members in the restoration and redevelopment of their neighborhood, providing training and resources to ensure sustainable outcomes⁶⁸. Such collaborative efforts highlight the significance of involving community organizations in decision-making processes to create more sustainable and inclusive urban environments.



17 AL-DARB AL-AHMAR REVITALIZATION PROJECT - AL AZHAR PARK

- o **Digital Inclusion:** Ensuring universal access to digital platforms broadens participation opportunities. For example, in Dubai, the Smart Dubai initiative has implemented various digital inclusion programs to engage residents in urban planning processes⁶⁹. These programs provide online platforms and mobile applications that allow residents to access information, participate in surveys, and provide feedback on proposed projects. By including residents in digital decision-making processes, cities can ensure that urban development projects align with community needs and preferences.

CONCLUSION.

In conclusion, active community engagement is not just a desirable aspect but an imperative one for sustainable urban development. Navigating challenges through public awareness, support for community organizations, and digital inclusion empowers residents to actively contribute to urban planning processes. By fostering inclusivity and embracing community perspectives, cities in the MENA region can create vibrant, sustainable urban spaces that truly resonate with the diverse needs and aspirations of their residents.

Financing Mechanisms: Overcoming Challenges in MENA Cities

COMPLEXITIES.

Investing in the development of existing cities in the MENA region presents a complex financial landscape fraught with challenges. Several cities in the region have faced critical hurdles in securing adequate funding for their ambitious urban projects. These challenges include rising debt levels, limited returns on investments, weak access to financing pools, inadequate project feasibility studies, concerns about long-term fiscal sustainability, and the geopolitical situation of the region. Additionally, the elasticity of the legal system adds another layer of complexity to the financial landscape, impacting the ease of doing business and the security of investments⁷⁰.

For instance, Beirut, Lebanon, found itself grappling with a mounting debt crisis as it pursued urban development initiatives. The city's debt burden strained municipal budgets, hindering its ability to invest in essential services and infrastructure⁷¹.

Meanwhile, in Cairo, Egypt, certain urban development projects struggled to demonstrate a clear return on investments, leading to difficulties in attracting private sector participation or securing financing⁷². This lack of clarity deterred potential investors and impeded project implementation.

CONSTRAINTS.

In Amman, Jordan, and other cities across the region, weak access to diverse financing pools has limited their ability to secure the necessary resources for development. This limitation can be attributed to several factors, including the complexity of procedures required by international financial institutions, a lack of knowledge about available financing options, and insufficient coordination among stakeholders⁷³. These challenges hindered their development efforts by impeding their ability to tap into international financial institutions, capital markets, or private investments. Additionally, fiscal sustainability concerns, like those encountered in Casablanca, Morocco, highlighted the importance of balancing budgets amid varying revenue streams and economic fluctuations⁷⁴.

SOLUTIONS.

Addressing these financing mechanism challenges required a multifaceted approach. Beirut, for instance, adopted responsible debt management practices, including rigorous debt assessments, clear repayment plans, and strategies to refinance existing debt when favorable opportunities arose⁷⁵. Cairo implemented robust monitoring and evaluation mechanisms for urban projects, allowing the city to track progress, measure impact, and provide evidence of return on investments to potential financiers⁷⁶.

Cities like Amman established investment promotion agencies actively seeking out domestic and international investors, offering incentives, and facilitating the investment process⁷⁷. Riyadh invested in building the capacity of its finance and planning departments through training programs and partnerships with international organizations, enhancing financial management skills and project preparation expertise⁷⁸. Furthermore, cities like Casablanca explored innovative financing models such as green bonds and social impact bonds to diversify funding sources, aligning with sustainability goals and attracting socially responsible investors⁷⁹.

Transparency also played a pivotal role in addressing these challenges. Riyadh and other cities prioritized transparent financial reporting, which not only built trust with investors and creditors but also enhanced creditworthiness, facilitating access to financing pools⁸⁰. Collaborative partnerships with international aid and development agencies, including UN-Habitat and UNESCWA, provided technical assistance, financial support, and knowledge sharing to strengthen the financial resilience of cities like Amman and Cairo⁸¹.

CONCLUSION.

In conclusion, learning from these real-world examples and adopting comprehensive strategies, cities in the MENA region can effectively unlock the financial resources needed to implement sustainable urban development projects, fostering economic growth and improving the quality of life for their residents.



Effective Policy Formation for Existing Cities

Investing in existing cities presents both opportunities and challenges, and the success of their transformation largely hinges on the formulation and implementation of robust policies. These policies must be carefully crafted to address the multifaceted nature of urban environments, considering the intricate interplay between various urban sectors. To achieve this, existing cities can draw inspiration from successful policy examples in the Arab and MENA regions.

RESILIENCE.

One of the primary policy considerations is the need for a long-term vision that prioritizes sustainability. A notable example is the Jordan Green Building Council (JoGBC) and its efforts to promote sustainable building practices in Jordan. JoGBC has developed a comprehensive framework for green building standards and certification, encouraging the adoption of environmentally friendly practices in the construction sector. By promoting sustainable building practices, JoGBC is contributing to the long-term sustainability and resilience of Jordan's urban environments.

ENGAGEMENT.

Furthermore, involving stakeholders in the policy-making process is imperative, as it brings diverse perspectives to the table and fosters a sense of ownership within the community. Housing policies in Qatar, for instance, have seen success through a collaborative approach. The Qatari government has engaged with developers, urban planners, and citizens to create policies that address housing affordability and quality, ensuring that housing solutions align with the community's needs and aspirations⁸³.

Coordination among different levels of government and departments is vital to ensure policy alignment and prevent conflicting approaches. Cairo, Egypt, has made strides in this regard through its policies focused on urban transport. By coordinating efforts among local authorities and the national government, Cairo has been able to improve its public transportation system, alleviating traffic congestion and reducing pollution in the city⁸⁴.

CAPACITY BUILDING.

Capacity-building initiatives are also essential to enhance the skills and expertise of those involved in policy implementation. Tunisia has demonstrated the importance of capacity building in its urban development policies. Through partnerships with international organizations, Tunisia has provided training and skill development programs for its municipal officials, equipping them with the knowledge and tools needed for effective policy implementation⁸⁵.

Lastly, regular policy evaluation and adaptation are crucial to monitor progress and adjust strategies to meet evolving needs. In Jordan, regular policy evaluation and adaptation are crucial aspects of sustainable urban development, particularly evident in the management of water resources. Jordan faces significant water scarcity challenges, exacerbated by population growth and climate change.

ADAPTATION.

To address these challenges, Jordan has implemented a robust system of water resource management policies that undergo regular evaluation and adaptation⁸⁶.

Jordan's water resource management policies include measures to promote water conservation, improve water use efficiency, and enhance water quality. These policies are regularly evaluated to assess their effectiveness in addressing water scarcity and meeting the water needs of the population. Through monitoring of water availability, demand trends, and environmental impacts, Jordan can identify areas for improvement and adjust its policies accordingly⁸⁷.

For example, Jordan's Water Strategy 2016-2025 emphasizes the importance of sustainable water management practices, including the use of treated wastewater for irrigation and the implementation of water demand management programs⁸⁸. The strategy is periodically reviewed and updated to incorporate new data and insights, ensuring its relevance and effectiveness in addressing Jordan's water challenges.

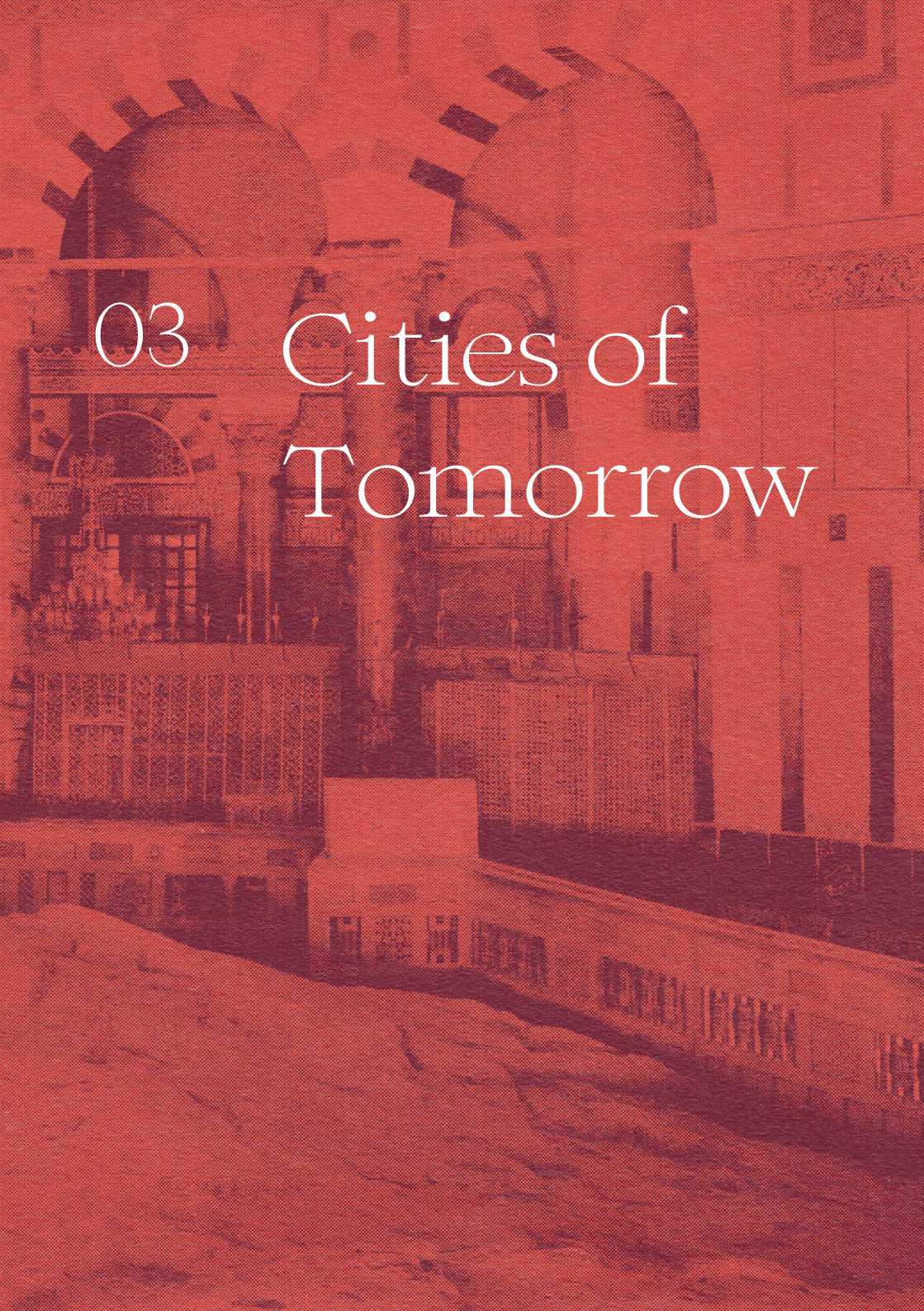
FRAMEWORK.

By formulating and implementing effective policies that prioritize sustainability, involve stakeholders, foster coordination, invest in capacity building, and allow for flexibility through regular evaluation, these cities can create an enabling environment for responsible and sustainable urban development. Embracing such policies will contribute to vibrant, inclusive, and resilient urban centers that serve as models for a sustainable future⁸⁹.

CONCLUSION.

All in all, investing in existing cities is a complex and challenging task, but it offers immense potential for enhancing sustainability, livability, and social responsibility. By retrofitting infrastructure, optimizing land use, ensuring affordable housing, leveraging smart city technologies, fostering community engagement, and implementing innovative financing mechanisms, cities can transform their existing urban landscapes. This transformation requires a multidisciplinary approach involving urban planners, architects, environmental scientists, sociologists, economists, policy-makers, trade unions and active citizen participation. Through collaborative efforts and a long-term vision, existing cities can evolve into vibrant, resilient, and equitable urban centers that serve as models for a sustainable future. Embracing the opportunities of investing in existing cities is a pragmatic choice and a responsible and forward-thinking approach toward building inclusive and sustainable communities⁹⁰.





03 Cities of Tomorrow

Chapter 3

Cities of Tomorrow: Multifaceted Approaches to Urban Sustainability and Resilience

RESILIENCE.

As climate change intensifies, urban centers are becoming pivotal in addressing environmental challenges and enhancing resilience. Cities face a range of pressing issues, including rising sea levels, extreme heat events, and environmental degradation. In response, they must adopt innovative and sustainable urban development strategies that prioritize ecological balance, resilience, and the well-being of their populations.

ADAPTATION.

The growing urgency to address climate-related vulnerabilities has propelled cities worldwide to adopt innovative approaches, such as the smart city framework. This model integrates advanced technologies, data-driven analytics, and environmentally sustainable practices, transforming urban development from a strategic option into a critical necessity⁹¹. By leveraging these tools, cities can significantly reduce greenhouse gas emissions, improve energy efficiency, and create urban systems that are resilient to climate-related disruptions.

To highlight the diverse approaches cities are adopting to build climate resilience and sustainability, we examine key initiatives and attempts from prominent urban centers. Riyadh's ambitious solar power projects, Amman's innovative water conservation efforts, and Tangiers' coastal resilience strategies illustrate peculiar commitment, adaptation, and innovation pathways. Reviewing such strategies reveals the measurable outcomes and ongoing efforts to refine and enhance sustainable urban practices. This exploration provides a clearer understanding of their "successes" and the persistent challenges that necessitate further creativity and dedication.

JOURNEYS.

This exploration aims to showcase the diverse ways in which cities, guided by their unique ecological contexts and cultural heritage, are implementing projects that align with environmental stewardship. By highlighting these initiatives, it contributes to the broader understanding of sustainable and resilient urban development practices in the MENA region and worldwide.

Doha: Attempts to Navigate Challenges with Innovation

Doha, Qatar's economic and cultural hub, is spearheading a profound urban transformation to balance rapid urban expansion with climate change challenges, particularly extreme heatwaves and carbon emissions. The city has prioritized sustainable urbanism through forward-thinking initiatives that foster resilience, environmental stewardship, and livability.

SUSTAINABLE URBANISM.

On the transportation front, Doha is shifting towards sustainable urban transit systems. The adoption of electric buses reflects a broader commitment to reducing greenhouse gas emissions and improving air quality. These advancements align with the overarching vision of urban resilience amid rapid population growth and climatic adversities⁹².

The Doha Metro, a state-of-the-art transit system, represents the cornerstone of this transformation. Designed as an alternative to car-dependent transport, the metro reduces traffic congestion and significantly pares down carbon emissions. Its three operational lines stretch over 76 kilometers and connect major districts, enabling efficient, air-conditioned commuting in one of the world's hottest regions⁹³. Complementing this, the Qbike Project encourages micro-mobility solutions by providing bicycle rental stations across key urban centers. By integrating cycling with public transit, Doha is fostering healthier, greener, and more accessible mobility options to counter urban sprawl⁹⁴.



18 DOHA



19 MSHEIREB DOWNTOWN DOHA PROJECT

CHALLENGES.

The Msheireb Downtown Doha project stands as a model for smart urban development, showcasing sustainable design principles rooted in Qatari cultural heritage. Covering 31 hectares, the district utilizes advanced technologies, including smart cooling systems, solar-powered energy grids, and energy-efficient buildings to minimize environmental impact⁹⁵. Green spaces and pedestrian-friendly pathways promote walkability and reduce heat island effects, ensuring a higher quality of life for residents while tackling air pollution and traffic congestion⁹⁶. Together, these initiatives reflect Doha's evolving urban landscape, where innovation, sustainability, and cultural identity converge to address the pressing challenges of climate resilience and urbanization.

As a key urban hub in Qatar, the city exemplifies the challenges and opportunities associated with achieving sustainable urban development in an arid region. With minimal natural freshwater resources and an average rainfall of 40–80 mm/year, Qatar relies on desalination to meet approximately 60% of its water needs⁹⁷. Key facilities like the Ras Abu Fontas desalination plant have been instrumental in supplying potable water, with recent expansions enhancing its daily capacity to over 136 million liters⁹⁸. However, this dependence underscores significant energy demands, as desalination accounts for up to 70% of operating costs and environmental concerns, including marine ecosystem impacts⁹⁹.

Efforts to address these challenges are multifaceted. Qatar's National Vision 2030 emphasizes reducing water stress through integrated water management, technological innovations, and efficiency improvements¹⁰⁰. Groundwater over extraction, which exceeds replenishment rates by nearly four times, necessitates stricter regulations and modern irrigation practices. Meanwhile, wastewater treatment initiatives have expanded, with treated sewage effluent used for agriculture and groundwater recharge, contributing 12% to Qatar's water supply¹⁰¹.

CONCLUSION.

In conclusion, Doha's evolving approach to water and energy challenges highlights the interplay between innovative solutions and policy frameworks. While initiatives like desalination, wastewater reuse, and renewable energy integration mark significant progress, the need for sustained innovation and adaptive strategies remains pivotal to ensuring a resilient and sustainable urban future.

Riyadh: Pioneering Sustainable Urban Solutions

ECO CONSCIOUS.

Riyadh, the dynamic capital of Saudi Arabia, is spearheading efforts to address the intricate challenges posed by climate change. Situated in an arid region experiencing rapid urban expansion, Riyadh recognizes the urgent need to transition to renewable energy sources. The city's bold venture into solar power serves not only as a symbol of dedication but also as a commitment to crafting a sustainable and eco-conscious future.

In response to the evolving climate and environmental concerns linked to traditional energy sources, Riyadh positions itself at the forefront of adopting solar energy. This strategic initiative reflects an in-depth understanding of the need to diversify its energy portfolio, reduce reliance on fossil fuels, and contribute significantly to global climate change mitigation efforts¹⁰².



20 RIYADH, THE DYNAMIC CAPITAL OF SAUDI ARABIA

Riyadh's Solar Power and Sustainability Initiatives:

TRANSITION.

Riyadh's dedication to solar power reflects a broader effort to diversify its energy portfolio and reduce reliance on fossil fuels. A flagship example of this strategy is the Sakaka Solar Power Plant, the Kingdom's first large-scale solar farm, which generates 300 MW of clean energy, supplying thousands of households while cutting carbon emissions¹⁰³. Complementing these efforts is the development of solar-powered desalination plants, such as the Al-Khafji Solar Water Desalination Plant. This facility harnesses solar energy to produce 60,000 cubic meters of potable water daily, addressing both energy and water security challenges¹⁰⁴.

SOLAR.

The city's solar initiatives are embedded in Vision 2030, Saudi Arabia's national blueprint for economic diversification and sustainability. By integrating cutting-edge photovoltaic technology and investing in large-scale renewable energy projects, Riyadh is positioning itself as a regional leader in clean energy adoption¹⁰⁵. These developments not only enhance the city's energy efficiency but also reduce carbon emissions, contributing significantly to global climate mitigation efforts.

Furthermore, Riyadh's embrace of solar power extends beyond energy production. Solar-powered systems are being leveraged to optimize resource management, including energy-efficient water pumping and irrigation. This integrated approach fosters synergy between energy and water systems, promoting long-term environmental conservation. By embedding sustainability across its infrastructure, Riyadh is charting a path toward a low-carbon, resilient urban future.

King Abdullah Financial District (KAFD): A Sustainable Urban Oasis?

HOLISTIC APPROACH.

The King Abdullah Financial District (KAFD) is a significant urban development in Riyadh that integrates modern urban planning with sustainability objectives. Spanning 1.6 square kilometers and featuring dozens of high-rise buildings, KAFD is envisioned to function as Riyadh's central business hub, aligning with Saudi Arabia's Vision 2030 to diversify its economy and modernize urban infrastructure¹⁰⁶.



21 (KAFD)

CHALLENGES.

To address environmental sustainability, KAFD incorporates LEED-certified designs that optimize energy efficiency and water management. The district's district cooling system, one of the largest in the world, reduces energy consumption by up to 30%, meeting the needs of Riyadh's arid climate while minimizing environmental impacts¹⁰⁷. A major innovation in KAFD is its 3.6-kilometer automated monorail, designed to connect the district's key buildings and reduce traffic congestion. The monorail can accommodate 20,000 passengers daily, significantly improving mobility and decreasing dependence on private vehicles¹⁰⁸. Additionally, 30% of the district's land is dedicated to green spaces, pedestrian-friendly pathways, and open public plazas. These features help mitigate Riyadh's extreme temperatures, promote walkability, and enhance urban air quality. Such climate-responsive design elements position KAFD as a benchmark for sustainable urban developments in the region¹⁰⁹.

INNOVATION.

By combining innovative infrastructure with sustainability goals, KAFD exemplifies Riyadh's commitment to building a resilient urban environment, aligning economic growth with ecological balance and modern urban living.

Comprehensive Waste Management and Recycling Programs: Transforming Waste into Sustainable Resources:

Riyadh's commitment to sustainability is reflected in its holistic waste management and recycling initiatives, which aim to reduce landfill dependency and transform waste into valuable resources.

WASTE MANAGEMENT.

At the forefront is the National Waste Management Strategy, which sets clear goals for reducing waste generation, increasing recycling rates, and minimizing environmental harm¹¹⁰. The strategy supports a transition toward a circular economy by transforming waste into secondary resources¹¹¹.

A key focus is the implementation of modern waste collection and separation systems, including smart bins equipped with IoT sensors to monitor waste levels and optimize collection schedules¹¹². These technologies improve efficiency, reduce costs, and ensure that recyclable materials such as plastics, metals, and paper are effectively separated and diverted from landfills.

Additionally, Riyadh is advancing waste-to-energy projects as part of its innovative approach to non-recyclable waste management. These projects involve converting municipal solid waste into electricity using incineration and anaerobic digestion technologies. Such initiatives align with Saudi Arabia's renewable energy targets under Vision 2030¹¹³, contributing to reduced greenhouse gas emissions and cleaner energy production.

RECYCLING.

Community participation is integral to these efforts. Campaigns like Recycle Riyadh educate citizens on waste segregation and recycling, fostering a culture of environmental stewardship¹¹⁴. Meanwhile, the Green Riyadh project complements waste management efforts through large-scale urban afforestation, increasing green spaces and improving air quality¹¹⁵. These combined strategies promote both environmental awareness and resource conservation.

By integrating advanced infrastructure, waste-to-energy solutions, and public engagement programs, Riyadh is creating a sustainable waste management system. The city's initiatives align with its broader goals under Vision 2030 to reduce landfill dependency, regenerate resources, and build a more environmentally responsible urban future¹¹⁶.

LEGACY.

In summary, Riyadh's efforts in solar energy, sustainable development, and waste management are supported by concrete initiatives and projects. The King Abdullah Financial District and Riyadh Solar Park exemplify advancements in sustainable urbanization and clean energy production. At the same time, the city's waste management and recycling programs aim to minimize landfill use and promote resource conservation. Despite ongoing challenges, particularly in water conservation, Riyadh remains committed to implementing sustainable practices and innovative solutions to ensure a lasting environmental impact for future generations.

Tangiers: Urban Resilience at the Crossroads of Continents

INNOVATION.

Nestled at the crossroads of Africa and Europe, Tangiers grapples with unique environmental challenges as a port city facing rising sea levels and unpredictable weather anomalies¹¹⁷. In response, Tangiers is carving innovative pathways in urban resilience, though the journey is not without persistent hurdles.



22 TANGIERS

COASTAL SAFEGUARD.

The city's commitment to sustainability is evident in its comprehensive coastal safeguard and management strategies. Tangiers invests in formidable seawalls, beach rejuvenation, and flood mitigation, fortifying its coastal infrastructure against advancing sea levels¹¹⁸. These measures not only enhance climate resilience but also support the city's dynamic tourism sector, serving as an economic cornerstone.

BALANCED URBAN HABITAT.

Tangiers extends its sustainability efforts to progressive mobility solutions, exemplified by a cutting-edge tram system. This landmark development aims to enhance public transit experiences, alleviate traffic congestion, and align with the city's ambitious emission reduction targets, contributing to an ecologically balanced urban habitat¹¹⁹.

CHALLENGES.

However, Tangiers' sustainability journey is intricate and fraught with challenges. The city grapples with the consequences of rapid urban growth and population surges, placing strain on resources and infrastructure¹²⁰. The coastal protective measures, crucial for climate resilience, require continuous adaptations and enhancements to combat the evolving threats of sea-level rises and weather events¹²¹.

The accelerating pace of urban expansion brings multifaceted challenges, requiring constant infrastructure upgrades and innovative, sustainable planning to manage environmental footprints. Protective measures like seawalls demand regular maintenance and upgrades to withstand unpredictable climatic changes, necessitating substantial financial allocations and extensive research and development¹²².

CONCLUSION.

In conclusion, Tangiers, serving as a resilient urban nexus uniting continents, remains steadfast in its commitment to sustainable progress and environmental harmony. The city's robust coastal defenses and transformative mobility solutions reflect its resilience and forward-thinking vision. However, faced with relentless urban pressures and evolving climatic landscapes, Tangiers stands at a crossroads, requiring unwavering focus, continuous innovation, and adaptive strategies to overcome extensive challenges and orchestrate a balanced, resilient intercontinental urban nexus.



00 CITY OF TANGIER AND THE BAY 1910-1900



00 OUTER TOWN GATE BETWEEN THE MAIN STREET AND
OUTER MARKET, TANGIER, MOROCCO

Amman: Navigating Water Scarcity, Flash Floods, and Urbanization

PIONEERING.

Amman, the capital of Jordan, confronts significant environmental challenges, including severe water scarcity, flash floods, and rapid urbanization. As one of the most water-scarce cities in the world, Amman has adopted innovative measures to enhance water resilience. The city has introduced advanced rainwater harvesting systems on public buildings, schools, and municipal structures to collect and utilize rainwater efficiently¹²³. These systems align with Jordan's national water management policies, addressing the country's limited natural water resources. Educational initiatives and awareness campaigns have also been launched to promote water-efficient practices among citizens, leading to measurable reductions in water consumption¹²⁴. Additionally, Amman has improved its wastewater management infrastructure by implementing treatment facilities that repurpose wastewater for agricultural irrigation and urban landscaping¹²⁵.

RENEWABLES.

The city's focus on sustainability extends to renewable energy integration, marking a key step in reducing its environmental footprint. Solar panels have been installed across numerous public buildings, generating clean energy and reducing reliance on conventional energy sources¹²⁶. Complementing these efforts, the city has launched projects to replace outdated lighting systems with energy-efficient LED alternatives, leading to significant reductions in energy consumption and maintenance costs¹²⁷.

FLOODING.

Amman has also prioritized urban resilience to mitigate the risks posed by flash floods, a recurring environmental challenge during heavy rainfall. In collaboration with UN-Habitat and the Greater Amman Municipality (GAM), the city has implemented the “Strengthening Social Stability and Resilience of Vulnerable Communities Against Flash Floods” project¹²⁸. Funded by the Government of Japan, the initiative included community consultations, capacity building, and flood hazard mapping studies to identify high-risk areas. A notable outcome of this project was the creation of the Al Zohour Green Triangle, a pilot project featuring green stormwater infrastructure and bio-retention systems to manage urban flooding effectively¹²⁹.

HERITAGE.

Amman’s dedication to sustainability extends to heritage conservation, intertwining the preservation of cultural landmarks with eco-friendly urbanism. The city has initiated projects to restore and connect historical sites, such as the Amman Citadel and the Roman Theatre, enhancing their accessibility and appeal to tourists and residents alike¹³⁰. For instance, the “Requalification of Amman Citadel-Roman Theatre Trail” project aims to create a pedestrian pathway linking these two iconic sites, promoting cultural tourism and urban revitalization¹³¹. Additionally, UNESCO has been actively involved in safeguarding Jordan’s cultural heritage through various projects that not only preserve historical sites but also create employment opportunities for local communities. These initiatives contribute to sustainable socio-economic development by utilizing culture as a driver for growth¹³².

CONCLUSION.

In conclusion, Amman demonstrates a proactive approach to sustainability through tangible projects in water conservation, renewable energy, flood resilience, and heritage preservation. While challenges remain, the city's strategic initiatives and commitment to innovation reflect its vision for a resilient and sustainable urban future.



00. THE THEATRE AT AMMAN
BETWEEN 1898 AND 1946





The background of the page is a halftone illustration. In the upper left, a tall, thin structure, possibly a windmill or tower, rises into the sky. The middle ground features a line of dark, dense trees. The foreground is a field with a fence line running across it. The entire image is composed of a fine grid of dots, with varying densities to create shading and texture.

04

Conclusions & Recommendations

Chapter 4

Conclusions & Recommendations for Sustainable Urban Development in the MENA Region

HOLISTIC.

The exploration of sustainable urban development in the MENA region reveals the intricate challenges and opportunities of creating resilient, inclusive, and harmonious cities. True sustainability extends beyond economic growth and real estate ventures; it prioritizes the well-being of citizens and the cultivation of thriving communities. While economic progress and real estate investments are vital, they must not overshadow critical issues such as housing affordability, employment, and equitable access to services. The foundation of sustainable urban development lies in embracing diverse perspectives, where the voices of visionaries, planners, and citizens come together to shape urban futures that respond to real needs.

INSIGHT.

Understanding existing urban environments has emerged as an essential step in this journey. Rather than hastily building new cities, a deeper engagement with the histories, dynamics, and collective memories of established urban centers allows for solutions that are tailored, context-sensitive, and respectful of cultural heritage. This approach ensures that development does not erase but rather enhances the identity and character of cities. Despite challenges such as limited resources and knowledge gaps, the path forward is clear: inclusive participation, where citizens are actively engaged as key stakeholders; thoughtful institutional frameworks to ensure accountability and collaboration; and effective public-private partnerships that align resources and efforts toward shared goals.

REIMAGINING.

Balanced urban growth also requires a comprehensive outlook. Investing in existing satellite cities provides opportunities to address pressing challenges such as overpopulation, congestion, and resource strain in major cities, while adopting new technologies and innovative trends makes urban solutions more adaptive and future-proof. Social equity and inclusivity remain at the core of sustainable urban development, ensuring that cities offer diverse services, choices, and opportunities for all citizens, while fostering cohesive and engaged communities.

PILLARS.

At the same time, climate change and environmental sustainability have become critical dimensions of urban planning in the MENA region. Cities must play a leading role in addressing environmental concerns by reducing carbon emissions, enhancing energy efficiency, and integrating green infrastructure to create climate-resilient urban landscapes. Across the region, cities that have successfully implemented sustainability measures stand as global examples, demonstrating that progress is not just aspirational but achievable through committed action and innovation.

GREEN.

In conclusion, the MENA region's pursuit of sustainable urban development reflects a collective commitment to shaping cities that are equitable, resilient, and future-ready. By prioritizing citizens' welfare, preserving cultural and historical legacies, and tackling environmental challenges, cities in the region are building a foundation for prosperity and harmony that benefits both current and future generations. This ongoing journey is guided by a shared vision—one where sustainability, inclusivity, and resilience are not merely ideals but defining principles that transform aspirations into enduring realities.

Recommendations for Sustainable Urban Development

This section presents a set of holistic and practical recommendations aimed at fostering sustainable urban development in MENA region. These recommendations have evolved from extensive deliberations during the 12th MENA Sustainable City Conference, where experts and stakeholders convened to address the multifaceted challenges and opportunities inherent in urban development across the region. These actionable recommendations are intended to serve as a robust roadmap, offering clear guidance to policy-makers, urban planners, and communities as they navigate the intricate journey towards sustainable urban growth.

o Clarifying the Purpose of New Cities

PURPOSE.

This recommendation emphasizes the importance of clearly defining the objectives and motivations behind the development of new cities in the MENA region. Rather than solely focusing on immediate economic returns through activities like real estate speculation and foreign investments, decision-makers should prioritize long-term benefits in consultation with the different stakeholders. These benefits should encompass not only economic prosperity but also the creation of sustainable employment opportunities and the holistic development of communities.

This entails a shift in mindset, where the welfare of citizens takes precedence over short-term financial gains. By doing so, we can foster urban environments that are not only economically prosperous but also socially inclusive, environmentally sustainable, and culturally enriching. Decision-makers should recognize that the ultimate goal is to create cities that enhance the quality of life for their residents, both now and in the future.

URBAN MEMORY.

o **Embracing Urban Memory**

Understanding the history, culture, and unique needs of existing cities is essential for informed urban development. This recommendation encourages stakeholders to explore established urban environments across the MENA region. By delving into the memory of these cities, decision-makers can gain valuable insights into their strengths, challenges, and potential for revitalization.

Rather than abandoning established cities in favor of new developments, communities should actively engage in the transformation of their urban centers. This process involves not only preserving cultural heritage but also harnessing it as a source of inspiration for innovative urban solutions. This recommendation champions a more holistic approach that respects the past while building for the future, with the active involvement of the community in shaping the destiny of their cities.

o **Aligning Fiscal Policies with Sustainability**

ALIGNMENT.

Successful urban development necessitates fiscal policies that align with sustainability goals. This recommendation highlights the importance of directing financial resources towards long-term, sustainable initiatives, rather than focusing solely on short-term financial gains. Governments should establish transparent fiscal practices that instill public trust and garner support for urban development projects.

By prioritizing sustainability in fiscal policies, decision-makers can ensure that economic growth is coupled with environmental responsibility and social equity. This approach involves careful budgeting and allocation of funds to initiatives that promote sustainable infrastructure, resource management, and community development. Through transparent financial practices, governments can demonstrate their commitment to the well-being of citizens and the long-term health of urban environments.

COMMUNITY ENGAGEMENT.

o **Fostering Public Participation and Community Engagement**

This recommendation underscores the essential role of public participation and community engagement in the success of urban development initiatives. To achieve this, mechanisms should be created that empower citizens to actively participate in decision-making processes concerning new cities and urban centers. Transparent collaboration among various stakeholders, including local communities, civil society organizations, trade unions and government agencies, is encouraged.

Public participation should go beyond mere consultation and extend to active engagement in shaping urban development plans. By involving residents in the decision-making process, stakeholders can ensure that urban projects align with the needs and aspirations of the community. Clearly defined roles and responsibilities for all stakeholders help create a productive and inclusive urban development process that benefits everyone.

o **Crafting Tailored Institutional Frameworks and Legal Structures**

FRAMEWORK & STRUCTURE.

Developing tailored institutional frameworks and legal structures is crucial for sustainable urban development in the MENA region. Each nation in the region has its unique context and challenges, requiring institutions and laws that reflect these specific needs. Instead of replicating models from other countries, governments should focus on creating legal systems that facilitate finance and investment in urban development. Proper legal systems not only provide a foundation for governance but also play a crucial role in facilitating finance and investment. Clarity, predictability, and transparency in legal frameworks can attract more finance and investment into sustainable urban development initiatives. Governments should ensure that their legal systems are conducive to private sector participation and align with the goals of sustainability and inclusivity.

Effective coordination between the private and public sectors is essential for the success of these frameworks. This coordination should ensure that urban development initiatives are driven by a shared vision of sustainability and inclusivity. By tailoring institutional setups to local contexts and fostering collaboration between different stakeholders, decision-makers can create a solid foundation for sustainable urban development.

o Prioritizing Sustainable Infrastructure and Resource Management

PRIORITY.

This recommendation emphasizes placing sustainability at the core of urban development plans in the MENA region. It involves not only prioritizing the development of green infrastructure but also implementing innovative technologies that enhance sustainability. Efforts should focus on developing green infrastructure that incorporates new technologies such as smart grids, renewable energy sources, and sustainable building materials. These technologies can significantly reduce the environmental impact of urban areas while improving energy efficiency and promoting sustainability.

Implementing efficient waste management practices is also essential. This includes the adoption of waste-to-energy technologies, recycling programs, and sustainable waste disposal methods. Decision-makers should explore innovative solutions to reduce the environmental footprint of urban areas further. Moreover, safeguarding water and food security is paramount. This involves implementing water-saving technologies, promoting water reuse and recycling, and investing in sustainable agriculture practices. The interplay between new urban centers and rural regions should be carefully examined, with a focus on creating synergies between these areas to promote sustainable resource use. By prioritizing sustainability in infrastructure development, we can create cities that are resilient, resource-efficient, and environmentally responsible.

o Advancing Social Equity and Inclusivity

SOCIAL EQUITY.

This recommendation emphasizes the importance of addressing social considerations within urban development plans. It calls for proactive efforts to promote equal opportunities and ensure equitable access to resources and services for all citizens. This entails increasing women's participation in urban governance, ensuring affordable housing for marginalized populations, and creating inclusive public spaces that cater to diverse community needs. Social equity and inclusivity are not just moral imperatives but also key drivers of sustainable urban development. By fostering an environment where all citizens have an equal stake in the city's future, decision-makers can create urban centers that are more cohesive, resilient, and responsive to the needs of their diverse populations.

o Integrating Climate Change Adaptation & Mitigation measure to ensure environmental sustainability

CLIMATE CHANGE.

Urban planning must integrate both climate change mitigation and adaptation to ensure environmental sustainability and urban resilience. Mitigation efforts focus on reducing greenhouse gas emissions through energy efficiency, renewable energy, green infrastructure, and sustainable transportation systems like electric buses and compact urban development. While adaptation measures address existing and future climate impacts by enhancing urban resilience to extreme weather, implementing nature-based solutions for flood control, improving water management systems, and safeguarding critical infrastructure. By embedding both strategies into urban plans, cities can reduce environmental footprints, strengthen their capacity to withstand climate-related challenges, and promote healthier, more sustainable living environments for current and future generations.

EXEMPLARS.

o Learning from Regional Exemplars

The MENA region can draw valuable insights from successful regional examples of sustainable urban development. Decision-makers should actively study cases like Dubai's pioneering solar energy generation, Doha's innovative electric bus networks, and other attempts from the region. By understanding the factors that contributed to the success of these initiatives, future urban development endeavors can be more informed and strategically sound. Learning from regional exemplars allows decision-makers to adapt and apply best practices to their specific contexts, accelerating progress toward sustainability and resilience.

EXISTING CITIES.

o Focusing on Existing Cities and Satellite Cities

Before considering the development of new cities, this recommendation advises evaluating existing satellite cities near major urban centers. Investing in these satellite cities can effectively alleviate the pressure on primary urban hubs, reduce congestion, and disperse economic opportunities. Comprehensive urban planning should include strategies for enhancing these satellite cities to ensure they can adequately accommodate population growth while maintaining sustainability.

o Rethinking Urban Sprawl

This recommendation emphasizes the need to address the negative effects of urban sprawl in the MENA region and calls for a comprehensive examination of its causes and impacts. Decision-makers should prioritize the development of efficient and sustainable transportation systems that reduce reliance on personal vehicles.

URBAN SPRAWL.

Urban sprawl is often associated with a range of challenges beyond transportation, including increased energy consumption, air and water pollution, and the loss of agricultural land and natural habitats. To combat these issues, cities should consider implementing policies that promote compact, mixed-use development, and green spaces. This approach not only reduces the environmental footprint of urban areas but also enhances quality of life for residents. Additionally, urban planners should explore innovative strategies for managing urban growth, such as smart growth principles and land use planning. These strategies can help create more sustainable and resilient cities by promoting efficient land use, preserving natural resources, and improving access to essential services. By rethinking urban sprawl and adopting holistic approaches to urban planning, cities in the MENA region can become more sustainable, livable, and environmentally friendly.

o Empowering Youth and Entrepreneurs

YOUTH.

The final recommendation emphasizes the importance of innovation in urban development. Decision-makers should actively encourage the participation of youth and entrepreneurs in the planning process. Establishing innovation hubs, entrepreneurship programs, and incubators can provide fertile ground for innovative ideas to contribute to urban development efforts.

Empowering youth and entrepreneurs not only fosters creativity but also ensures that urban development remains adaptable and forward-thinking. It enables cities to harness the potential of their young talent and drive innovation in sustainable practices. In conclusion, these comprehensive recommenda-

Conclusion

tions for sustainable urban development in the MENA region serve as a transformative guide for advocacy and action. By diligently implementing these recommendations, governments, policymakers, urban planners, and communities can collectively work towards creating more inclusive, equitable, and sustainable cities. These cities prioritize the well-being of their citizens and embrace long-term prosperity while simultaneously preserving the unique character and heritage of the MENA region. This journey towards sustainable urban development is not only about building cities but also about nurturing vibrant, resilient communities for generations to come.

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