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The Economic Importance of Contemporary Cities in Achieving Growth and Innovation for Sustainable Economic Development: A Case Study of Mosul City.

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Abstract

This study investigates the economic importance of contemporary cities in fostering growth and innovation for sustainable development, with Mosul serving as a detailed case study. Despite experiencing severe post-conflict challenges, Mosul retains strong potential for economic revitalization due to its strategic geographic position, skilled human capital, and existing urban infrastructure. The research illustrates how modern cities act as engines of sustainable development through innovation-driven activities, targeted investments, and effective urban planning strategies. The findings highlight the necessity of rebuilding post-conflict urban economies with an emphasis on resilience, sustainability, and knowledge-based development—positioning Mosul as a viable model for comprehensive urban regeneration.

Introduction

Contemporary cities play a pivotal role in driving global economic growth. Their concentration of population, advanced technological capabilities, and diverse economic structures create environments that facilitate innovation, enhance productivity, and generate new economic opportunities. As centers of knowledge creation and technological adoption, cities promote economic diversification and serve as critical nodes within national and global economic systems.

However, accelerating urbanization also presents environmental, social, and spatial challenges. Issues such as resource depletion, environmental degradation, infrastructure pressure, and social inequality demand new urban management strategies capable of balancing economic development with environmental sustainability and human well-being. In this context, the concept of sustainable urban development has emerged as an essential framework for guiding the economic evolution of modern cities.

This study aims to analyze the economic role of contemporary cities in supporting growth and innovation, focusing particularly on how urban planning, technological adoption, and strategic policy interventions contribute to sustainable development. By employing Mosul as a case study, the research explores how post-conflict cities can rebuild their economies, strengthen resilience, and reestablish their position as dynamic centers of economic activity. Understanding Mosul's challenges and opportunities

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provides valuable insights for policymakers, urban planners, and development practitioners working to reconstruct and revitalize urban economies in similar contexts.

Problem Statement:

Cities increasingly drive economic growth and innovation, but this expansion also creates rising environmental and social pressures. This situation requires studying how to balance economic development with sustainable resource use and a good quality of urban life.

Significance:

This study is important because it clarifies how contemporary cities function as engines of growth and innovation, and identifies ways to strengthen their role in achieving sustainable development. The findings can help policymakers design more effective and balanced urban policies.

Hypothesis:

The study assumes that contemporary cities can support economic growth, innovation, and sustainable development when they apply integrated urban planning and make effective use of technology.

Objective:

The main objective is to examine how contemporary cities promote economic growth and innovation, and to assess the degree to which they contribute to sustainable economic development.

Methodology:

This study uses a descriptive–analytical method that includes reviewing relevant literature and theoretical models, as well as analyzing selected case studies of contemporary cities. The purpose is to identify how urban planning and technology interact with economic growth and sustainable development.

Research Scope:

The research focuses on the economic role of contemporary cities within the framework of sustainable development, emphasizing urban planning, technology, and innovation. The study is limited to a modern spatial and temporal context and does not cover historical cases or rural settings.

Theoretical Framework:

1. Contemporary Cities and Economic Growth:

Contemporary cities play a central role in economic growth. They function as major hubs for production and services, creating favorable conditions for investment and job creation. This role is supported by advanced infrastructure, large and diverse markets, and concentrated skilled labor, all of which promote innovation and raise productivity.

Modern cities are more than population centers; they operate as economic systems where technology and human capital interact to produce measurable development outcomes. Hassan Mostafa notes that "cities have become the primary actors in the global economy due to their ability to concentrate resources and direct them toward sustainable development" (Mostafa, 2018, p. 47).

1-1. The Concept of the Contemporary City:

The term contemporary city refers to an urban form shaped by major social, economic, and technological changes from the late twentieth century to today. It is not only a demographic or administrative unit but a dynamic environment that supports technological progress, cultural diversity, global economic exchange, and fast-paced urban life driven by smart infrastructure.

Edward Soja defines the contemporary city as "the product of reshaping urban space through the interaction between globalization, the rise of the knowledge economy, and information technology, leading to a new form of urbanism that transcends the traditional concepts of the modern industrial city" (Soja, 2000, p. 6). He argues that the contemporary city has evolved into a global center for decision-making, creativity, and major social and economic transformation, marked by flexibility, diversity, and adaptability.

Similarly, Peter Hall describes the contemporary city as "the urban entity that transcends the traditional geographic concept to become a center for decision-making, innovation, and global interaction, where economic, social, and technological factors interact within a dynamic and ever-changing context" (Hall, 2002, p. 39). He adds that features such as smart governance, vertical development, and community participation make the modern city a key driver of twenty-first-century growth and development.

1-2. Economic Characteristics of Cities:

Modern cities are defined by economic features that make them major centers of production and investment. Their dense concentration of firms, factories, and commercial facilities within a small area creates economies of scale, increases efficiency, and lowers operating costs. Advanced infrastructure—such as transport systems, energy supply, communication networks, and financial services—supports faster production and distribution and strengthens cities' ability to attract capital.

Cities also provide diverse labor markets with employment opportunities in industry, commerce, education, health, and digital services. This diversity increases economic flexibility and reduces exposure to shocks. In addition, cities function as key sites of innovation, hosting universities, research institutes, incubators, and start-ups that promote entrepreneurship and technological development. These factors give cities a competitive advantage. Large urban centers are further integrated into the global economy through participation in trade networks and supply chains.

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As Florida states, "cities are the main engines of the creative economy, as the interaction between human capital and infrastructure creates a highly productive and dynamic economic environment" (Florida, 2005, p. 27).

1-3. The Role of Cities in the Global Economic System:

Cities play a leading role in the global economic system because they concentrate high-value activities in finance, advanced services, technology, and innovation. Their institutional and human resources support specialization and division of labor, which raise efficiency and productivity.

Major cities operate as coordination hubs between local and global markets and help reshape global value chains by attracting multinational firms and financial institutions. According to Sassen, "global cities are no longer merely local population or economic centers; they have become strategic nodes in the global economy network, performing advanced organizational and knowledge functions that enable them to direct global flows of capital, information, and services" (Sassen, 2001, p. 3).

2. Innovation and Sustainable Economic Development:

Innovation is a key factor in sustainable economic development because it increases productivity, offers new solutions to environmental and social problems, and improves the efficient use of resources. Its importance comes from enabling economies to grow without damaging the environment or exhausting natural resources, thus supporting the integration of economic, environmental, and social goals.

Schumpeter (1942, p. 83) explains that innovation drives sustainable capitalist transformation through "creative destruction," which replaces older systems with more efficient and adaptable ones. Later studies expanded this idea beyond economic growth.(Barbier, 2010, p. 268) argues that innovation is a strategic tool for achieving long-term sustainable development based on green economy principles, social equity, and efficient resource use.

2-1. Definition of Innovation and Its Types:

Definition of Innovation:

Innovation is the process of generating new ideas and turning them into products, services, processes, or business models that improve organizational performance or respond effectively to societal needs (OECD, 2005, p. 46). It is not limited to technological inventions; it also includes structural and intellectual changes that create measurable economic or social effects. This shows its multidimensional nature and its role in supporting sustainable change in institutions and societies.

2-1-2. Main Types of Innovation:

Innovation includes several main types that jointly support economic and social development. Technological innovation refers to creating new or improved products or processes using technology and is a key driver of economic growth, as seen in smartphones, renewable energy, and artificial intelligence.

Managerial or organizational innovation involves updating management practices and organizational methods, such as remote work, agile management, or partnership models, to increase efficiency and reduce costs.

In the social field, social innovation provides creative solutions to social problems—such as microfinance, open education, or community energy projects—thereby supporting social equity and sustainable development.

Marketing innovation involves changes in product design, pricing, or distribution strategies, such as subscription-based models instead of direct sales.

According to the OECD Manual (OECD,2005, p. 47), these categories highlight that innovation should be assessed not only by technological results but also by its ability to generate clear and measurable improvements in organizational performance.

2-2. The Relationship Between Innovation and Economic Growth:

Innovation plays a key role in sustainable economic development because it increases productivity, offers effective solutions to environmental and social problems, and improves resource efficiency. Its importance lies in supporting economic growth without harming the environment or exhausting natural resources, helping balance economic, environmental, and social objectives.

Schumpeter (1942, p. 83) describes innovation as the main force behind "creative destruction," a process in which outdated systems are replaced by more efficient ones, leading to structural change in the capitalist economy. Building on this idea, Barbier (Barbier,2010, p. 268) argues that innovation is a strategic tool for long-term development based on green economy principles, social justice, and efficient resource use.

According to the OECD (OECD,2005, p. 46), innovation is the development of new ideas and their transformation into products, services, processes, or business models that improve organizational performance or address societal needs. This definition includes technological, intellectual, and organizational changes that create measurable economic and social impacts.

The literature identifies four main types of innovation—technological, managerial, social, and

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marketing—each contributing to improved institutional performance and broader development.

Romer (ROMER,1990, p. S72) states that innovation is the main driver of long-term economic growth because it produces "new ideas" that are not limited by physical resource constraints. Through innovation, productivity rises, new markets appear, investment becomes more attractive, and sustainability is strengthened through technologies that reduce emissions and improve quality of life. Romer (Romer,1990, p. S74) emphasizes that knowledge accumulation and continuous innovation form the core foundation of sustainable growth.

2-3. Principles and Objectives of Sustainable Economic Development:

Sustainable economic development is the process of improving current economic well-being without limiting the ability of future generations to meet their needs. It depends on integrating economic growth with social justice and environmental protection within a long-term framework (WCED, 1987, p. 43).

This approach is guided by key principles: efficient resource use to achieve high productivity with minimal consumption; social and economic justice through fair access to opportunities and reduced poverty and unemployment; and coordination between environmental and economic policies to lower pollution and emissions. It also requires decision-making that considers the interests of future generations.

The main goals of sustainable development include long-term economic growth supported by innovation and economic diversification, the creation of decent jobs—especially in green sectors such as renewable energy—and improvements in quality of life through better public services and stronger economic governance based on transparency, efficiency, and accountability.

The Brundtland Commission clearly stated this idea: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43).

3. Urban Growth and Balanced Development:

Urban growth is the increase in city population and built-up areas, driven by rural-to-urban migration and natural population growth. This expansion places greater pressure on infrastructure and essential services.

Balanced development, however, aims to distribute resources and services fairly between urban and rural regions to support social equity and spatial sustainability.

According to the United Nations Human Settlements Program me (UN-Habitat), rapid urban growth without effective planning increases social inequality, worsens urban poverty, and weakens public services. The 2022 report emphasizes the need for policies that promote fair investment distribution, improve housing, and strengthen public transportation to achieve more balanced urban development (UN-Habitat, 2022, p. 17).

3-1. Advantages and Disadvantages of Rapid Urbanization:

Rapid urbanization is increasing worldwide and has both benefits and drawbacks. Its main advantage is its contribution to economic growth and job creation; cities generate more than 80% of global GDP and are major engines of development (UN-Habitat, 2022). Urbanization also improves access to public services such as education, healthcare, and infrastructure, as city residents generally receive better services than rural populations (World Bank, 2021). In addition, the demographic diversity of cities supports cultural exchange and social interaction. Saskia Sassen (2018) describes cities as hubs of globalization and intellectual innovation.

However, rapid urbanization also produces significant challenges. It places heavy pressure on infrastructure and public services and contributes to the growth of informal settlements lacking basic living conditions. UN-Habitat (2022) reports that more than one billion people live in inadequate housing. Unplanned and uneven urban expansion also increases economic and social inequality within cities, as resource and income gaps widen (World Bank, 2021).

Urbanization further has major environmental impacts, as cities are responsible for about 70% of global greenhouse gas emissions (IPCC, 2022). These issues highlight the need for sustainable urban policies that reduce environmental harm and support balanced, inclusive development.

3-2. Mechanisms for Achieving a Balance Between Urban Expansion and Resource Protection:

Achieving balance between urban expansion and natural resource protection requires comprehensive and sustainable strategies that address population growth and rising environmental pressures. A key strategy is smart urban planning, which promotes efficient land use, supports vertical development, and encourages moderate population density. These measures help limit uncontrolled horizontal expansion, protect agricultural land, and maintain ecological diversity.

Green infrastructure—such as natural areas and urban parks—improves air quality and helps regulate local climates. Sustainable public transportation systems, including electric buses and trains, reduce dependence on private vehicles and lower carbon emissions. Additional mechanisms include water and waste recycling technologies and the use of renewable energy to support a circular economy. Community participation in planning is also essential to ensure that urban policies meet environmental and social needs.

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According to UN-Habitat (2022, p. 38), integrating these mechanisms into urban policy strengthens cities' capacity to face future challenges and supports resource sustainability and quality of life within balanced urban development.

Applied Framework:

4. Case Study: Contemporary Mosul (Economy and Infrastructure):

Contemporary Mosul is a major Iraqi city located in the north of the country and serves as the center of Nineveh Governorate. It is known for its historical, cultural, and economic importance. Over the past decades, the city has experienced major transformations, especially after the U.S. invasion in 2003 and later the control of ISIS between 2014 and 2017. This period caused severe destruction to infrastructure and led to large-scale population displacement.

Since its liberation, Mosul has been undergoing continuous reconstruction efforts. There has been gradual improvement in service provision and economic activities, although security and development challenges still remain. Today, Mosul represents a significant example of post-conflict urban recovery and seeks to restore its role as a leading urban center in Iraq.

4–1. Historical and Geographical Overview of Mosul:

Mosul is located in northern Iraq on the banks of the Tigris River. Its area is estimated at 180–200 km², and it is the center of Nineveh Governorate, which covers about 37,343 km². Mosul is considered the second largest city in Iraq by population. It lies at 36.34°N latitude and 43.13°E longitude. Its strategic location connects northern Iraq with Turkey and Syria, and also links it to central and southern Iraq. This position has given the city major geographical and economic importance and made it a center of trade and cultural exchange throughout history (Central Statistical Organization, 2023, p. 17).

Mosul dates back thousands of years and developed near the ancient Assyrian city of Nineveh, one of the most important cities of the ancient world. The city flourished during the Islamic periods and reached a high level of importance in the Ottoman era as a key commercial and cultural center linking East and West. Because of its strategic location, Mosul played a central role in transport and economic exchange networks over time. Despite the severe destruction caused by ISIS in 2014, the city is now witnessing accelerated reconstruction efforts, strengthening its position as a key component in Iraq's sustainable economic development plans.

4–2. Development of Mosul Before and After the Conflicts:

Before 2003, Mosul experienced clear urban and economic growth. It was an important administrative, commercial, and cultural center in northern Iraq, with relatively effective infrastructure and integrated education and health services. However, the U.S. invasion of Iraq in 2003 marked a major turning point. The city entered a period of political and security instability, accompanied by declining public services, rising unemployment, and increased armed activities, which negatively affected economic and social stability (Dodge, 2013, p. 142). This situation weakened local state institutions and widened the gap between society and the state, paving the way for ISIS to take control of the city in 2014.

As a result, Mosul's infrastructure suffered massive destruction. More than 8,500 residential buildings were destroyed, over 130 km of roads were damaged, and five main bridges were demolished (World Bank, 2018, p. 23). The conflict also caused large-scale displacement and the collapse of public services.

Since the liberation of Mosul in 2017, reconstruction efforts have begun with local and international support. Around 15,000 houses in western Mosul have been rehabilitated, allowing about 90,000 displaced people to return (UNDP, 2021, p. 8). Debris recycling centers have also been established as part of a sustainable circular economy approach (UNEP, 2022, p. 11). Despite ongoing security and economic challenges, the city shows promising signs of recovery and transformation toward a more balanced and sustainable urban model.

4–3. Current Economic Analysis of Mosul:

In the post-conflict period, Mosul is experiencing complex economic changes due to the large-scale destruction of infrastructure and the loss of many economic assets. Despite ongoing challenges, gradual recovery is visible in several sectors, supported by reconstruction programs and public–private efforts. This section reviews the current economic situation by examining key sectors, services, and development indicators.

4–3–1. Current Status of the Industrial Sector in Mosul (2024–2025):

According to official data from the Ministry of Industry and Minerals, Mosul's industrial sector showed gradual improvement in production and employment during 2024–2025. This progress is linked to reconstruction and economic development programs adopted after 2017. Annual reports indicate the rehabilitation and reactivation of several state-owned factories in Nineveh, especially in cement, textiles, and food industries, after maintenance and rebuilding works were completed (Ministry of Industry and Minerals, 2024, pp. 37–41).

Data from the Central Statistical Organization show a gradual increase in the number of operating industrial establishments in Nineveh compared to the

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immediate post-conflict period. However, a gap remains between design capacity and actual production levels in many factories (Central Statistical Organization, 2023, pp. 112–118). This gap is mainly due to financial and technical constraints and disruptions in supply chains during the conflict years.

In the building materials sector, reports from the Iraqi Cement State Company confirm that Nineveh cement plants, particularly the Badoush plant, have restored advanced production levels to support reconstruction projects. Production lines were upgraded and operational efficiency improved (Ministry of Industry and Minerals, 2024, p. 52). This aligns with the Ministry of Planning's National Development Plan priorities, which focus on supporting strategic industries directly linked to infrastructure (Ministry of Planning, 2023, p. 89).

Regarding supporting infrastructure, the Ministry of Oil included refinery development projects in its medium-term plans to enhance fuel self-sufficiency and ensure stable supply to the industrial sector (Ministry of Oil, 2024, pp. 24–27). The Ministry of Electricity also expanded power generation stations in Nineveh to improve grid reliability and reduce outages, which is essential for lowering industrial production costs (Ministry of Electricity, 2024, p. 33).

In spatial industrial planning, documents from the Nineveh Governorate confirmed the allocation of land for new industrial and commercial zones in line with balanced spatial development and investment laws (Nineveh Governorate, 2024, pp. 15–18).

Despite relative improvement, structural challenges remain, including limited industrial financing, weak integration of advanced technology, uneven infrastructure readiness, and competition from imported goods. Industrial economic literature emphasizes that sustainable recovery requires integrated policies, including rational production protection, investment incentives, and stronger industrial governance (Al-Samarrai, 2022, pp. 141–145).

4-3-2. Current Situation of the Commercial Sector in Mosul (2024–2025):

During 2024–2025, the commercial sector in Mosul has shown gradual improvement as part of the post-conflict economic recovery (2014–2017). Data from the Central Statistical Organization indicate an increase in the number of registered commercial establishments in Nineveh Governorate compared with the immediate post-liberation years, particularly in wholesale and retail trade. This reflects the partial restoration of local market activity (Central Statistical Organization, 2023, pp. 156–162).

Reports from the Ministry of Planning show that small and medium-sized commercial enterprises represent a large share of private sector establishments in Mosul. Most activities are concentrated in food and daily consumer goods trade, linked to the gradual return of residents and the improvement in local demand (Ministry of Planning, 2023, pp. 104–109).

According to the Nineveh Chamber of Commerce, many shops and traditional markets on both the right and left sides of the city have resumed operations, including central markets that were heavily damaged during the conflict. However, recovery rates vary between areas depending on infrastructure damage and the level of basic services (Nineveh Chamber of Commerce, 2024, pp. 21–25).

At the macroeconomic level, the annual report of the Central Bank of Iraq indicates a relative increase in internal trade transactions in the liberated governorates. This improvement is supported by higher liquidity and growth in private sector lending, although real levels remain below those recorded before 2014 (Central Bank of Iraq, 2024, pp. 47–52).

Regarding the business environment, government-led urban infrastructure rehabilitation projects—especially in electricity, water, and roads—play a crucial role in stabilizing markets and encouraging commercial investment. Nevertheless, reports from the Ministry of Construction, Housing, and Public Municipalities point to continuing service gaps in some neighborhoods, which limit the regularity and expansion of small businesses (Ministry of Construction, Housing, and Public Municipalities, 2024, pp. 33–36).

Despite this progress, structural challenges persist. These include high operating costs, limited access to affordable finance, increasing competition from imported goods, and the impact of income levels and inflation on household purchasing power. Economic literature suggests that sustainable recovery of the commercial sector in post-conflict cities requires supportive policies for small and medium enterprises, improvement of the business environment, and stronger integration between commercial and local productive activities (Al-Ani, 2022, pp. 88–93).

4-3-3. Current Situation of the Service Sector in Mosul (2024–2025):

The service sector in Mosul is a key indicator of urban recovery after the armed conflict, especially in education, health, and public utilities.

In education, data from the Ministry of Education show an increase in the number of operating schools in Nineveh due to rehabilitation and new construction programs. However, overcrowding and double-shift systems remain in some neighborhoods (Ministry of Education, 2024, pp. 18–23). The annual statistical report of the Ministry of Planning also indicates improved enrollment rates in basic education compared with the immediate post-liberation period, although

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spatial gaps persist in the most damaged areas (Ministry of Planning, 2023, pp. 172–176).

In the health sector, reports from the Ministry of Health confirm that several hospitals and health centers in Mosul have been rehabilitated and reopened under government reconstruction programs. Nevertheless, service capacity remains below national standards relative to population size, with continuing shortages in some medical specialties and supplies (Ministry of Health, 2024, pp. 41–46).

Regarding electricity, the Ministry of Electricity reports improved generation and supply capacity in Nineveh following the rehabilitation of power plants and transmission networks. However, actual supply hours are still affected by technical constraints and high seasonal demand, leading some households and service institutions to rely on alternative energy sources (Ministry of Electricity, 2024, pp. 55–59). This situation supports Al-Obaidi's findings on structural challenges in post-conflict energy systems, particularly network inefficiency and high technical losses (Al-Obaidi, 2022, pp. 133–138).

In water and sanitation, reports from the Ministry of Construction, Housing, and Public Municipalities indicate that water and sewer networks in Mosul were heavily damaged during the conflict. Although gradual rehabilitation projects have been implemented, some neighborhoods still face unstable supply and high water losses (Ministry of Construction, Housing, and Public Municipalities, 2024, pp. 37–42) , (Al-Hamdani , 2023, pp. 201–205) notes that aging infrastructure and high maintenance costs limit the achievement of sustainable service delivery.

Despite clear progress in reopening schools and health facilities and improving parts of the infrastructure, structural challenges remain—especially in the most affected areas. These include limited financial resources, aging networks, and weak integration between urban planning and service management. Planning literature emphasizes that sustainable service recovery requires integrated policies combining physical reconstruction, strengthened local governance, and improved management and operation systems (Al-Obaidi, 2022, p. 145).

4-3-4. Current Situation of the Agricultural Sector in Mosul (2024–2025):

During the 2024–2025 agricultural season, the agricultural sector in Mosul and Nineveh Governorate faces significant environmental and production challenges. These are mainly linked to fluctuating rainfall and repeated drought waves, which have affected cultivated areas and actual output, especially strategic crops such as wheat. Data from the Ministry of Agriculture show a decline in areas included in the winter agricultural plan in some parts of Nineveh compared with high-rainfall seasons, due to limited water storage and reduced water releases (Ministry of Agriculture, 2024, pp. 27–31).

The climate report issued by the General Authority for Meteorology and Seismic Monitoring indicates that rainfall levels in Nineveh during the 2024–2025 season were below long-term averages. This directly reduced the productivity of rain-fed agriculture (General Authority for Meteorology and Seismic Monitoring, 2025, pp. 14–18). The Central Statistical Organization also confirms that changes in wheat and barley cultivation areas in northern governorates are strongly linked to climate variability and irrigation availability (Central Statistical Organization, 2023, pp. 198–203).

From a structural perspective, Abdullah (2022, pp. 112–117) explains that agriculture in Nineveh suffers from multiple challenges, including inefficient traditional irrigation systems, damaged irrigation infrastructure, high production costs, and limited use of modern water-management technologies. Al-Hamdani (2023, pp. 76–81) adds that climate change has become a major pressure factor on production stability in semi-arid areas, requiring more adaptive and sustainable farming practices.

In response, the Ministry of Agriculture, in coordination with the University of Mosul, has implemented training and extension programs for farmers in Nineveh. These programs focus on modern irrigation techniques, resource-conserving agriculture, and improved soil management, within national plans to strengthen food security and reduce water waste (Ministry of Agriculture, 2024, pp. 45–48). These efforts align with the Ministry of Planning's priorities for sustainable agricultural development under the National Food Security Strategy (Ministry of Planning, 2023, pp. 121–126).

Despite ongoing climate and production challenges, the shift toward modern irrigation systems, better natural resource management, and stronger agricultural research represents a strategic path to enhance the resilience of the agricultural sector in Mosul, support more stable production, and reduce the medium-term food import gap.

4-3-5. Estimating the Gross Domestic Product of Mosul (2024–2025):

The absence of national accounts at the local (city) level in Iraq creates a methodological challenge in measuring the real size of urban economies. Official GDP estimates are published only at the national level, without regular detailed data for governorates or cities (Ministry of Planning, 2023, pp. 15–19).

According to the World Bank, Iraq's GDP at current prices reached about USD 279.64 billion in 2024 (World Bank, 2024, p. 5). The annual report of the Central Bank of Iraq notes that economic activity in

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2024 showed relative stability, mainly driven by the oil and services sectors, while non-oil sectors contributed at varying levels (Central Bank of Iraq, 2024, pp. 28–34).

Since no official GDP estimate exists for Nineveh Governorate or Mosul, a proxy estimation approach can be used based on population weight and economic activity. Data from the Central Statistical Organization show that Nineveh is one of the largest governorates by population, and Mosul is its main administrative and economic center, hosting a large share of commercial, service, and industrial activity (Central Statistical Organization, 2023, pp. 67–72).

Al-Ani (2022, pp. 143–148) suggests that, in the absence of official local accounts, GDP can be estimated using alternative indicators such as population share, number of economic establishments, and employment levels, while considering sectorial differences. If Nineveh contributes approximately 8–10% of Iraq's GDP based on its population and non-oil activity, and if Mosul represents about 60–70% of the governorate's economic activity, the estimated GDP of Mosul in 2024 may range between USD 13–19 billion. This is a cautious estimate based on proportional analysis rather than direct national accounting.

For 2025, the International Monetary Fund projected Iraq's economic growth at around 1–2%, supported by limited improvement in non-oil sectors (IMF, 2024, p. 7). Assuming growth of about 1.4%, Mosul's estimated GDP could increase slightly to approximately USD 13.2–19.3 billion, depending on actual local sector performance.

These figures remain proxy estimates due to the absence of official regional GDP accounts. This highlights the need to develop a more accurate local statistical system to measure economic output at the governorate and city levels, in line with recommendations in regional planning and spatial development literature (Al-Ani, 2022, p. 151).

4-3-6. Poverty, Unemployment, Migration, and Rural–Urban Differences in Mosul and Its Surroundings:

Nineveh Governorate, with Mosul as its administrative and economic center, faces accumulated socio-economic challenges. These include high unemployment and poverty rates, the effects of internal displacement, and clear development gaps between rural and urban areas.

Data from the Ministry of Planning show that conflict-affected governorates, including Nineveh, recorded unemployment rates above the national average in the years after 2017. This was mainly due to damage to productive activities and disruption of the local labor market (Ministry of Planning, 2023, pp. 74–79). The Central Statistical Organization also reports a significant gender gap in economic participation in Nineveh, with lower female participation reflecting social, economic, and structural constraints (Central Statistical Organization, 2023, pp. 132–138). Al-Ani (2022, pp. 95–101) notes that post-conflict cities often struggle to reintegrate the labor force, especially in the informal sector, which absorbs many low-skilled workers.

Regarding poverty, Iraq's Poverty Map issued by the Ministry of Planning shows that Nineveh recorded relatively high poverty rates, particularly in rural districts and sub-districts. This is linked to income decline and loss of livelihoods during the conflict years (Ministry of Planning, 2018, pp. 41–46). Al-Hamdani (2023, pp. 167–172) explains that persistent poverty in Nineveh is associated with slow recovery of productive sectors, high dependency ratios, and weak social protection networks.

In terms of migration and internal displacement, official data from the Ministry of Migration and Displacement indicate that Nineveh experienced large waves of displacement since 2014, mainly from rural and peripheral areas toward Mosul and other urban centers. Although many families have gradually returned after security improved, some populations remain in temporary or unstable conditions (Ministry of Migration and Displacement, 2024, pp. 12–18). Abdullah (2022, pp. 121–126) argues that internal displacement in conflict-affected areas has reshaped population distribution and increased pressure on urban services and infrastructure.

Clear rural–urban disparities are evident in Nineveh. Data from the Central Statistical Organization show that poverty and unemployment rates are higher in rural areas than in Mosul, due to limited non-agricultural job opportunities and weaker basic services (Central Statistical Organization, 2023, pp. 141–145). Al-Hamdani (2023, p. 179) confirms that this development imbalance drives continued internal migration toward cities in search of jobs, education, and healthcare, increasing urban pressure and spatial inequality.

Addressing unemployment, poverty, and migration in Mosul and its surroundings therefore requires integrated development policies. These should focus on stimulating the local economy, strengthening social protection programs, and promoting sustainable rural development to reduce forced migration, in line with principles of spatial justice and balanced development.

4-4. Infrastructure and Institutional Support:

Infrastructure and institutional support are key pillars of sustainable development. Efficient institutions and integrated infrastructure networks improve the state's ability to implement public policies, manage resources effectively, and achieve economic and social stability (Al-Ansari, 2020, p. 22).

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Development literature also confirms that weak infrastructure and poor institutional performance are major obstacles to recovery and reconstruction in post-conflict cities (UN-Habitat, 2021, p. 34).

In this context, the city of Mosul faced serious structural challenges due to the extensive damage to infrastructure and service institutions during the armed conflict (2014–2017). Government reports show that the electricity, water, and transport sectors experienced significant deterioration, which negatively affected the delivery of basic services and slowed stabilization and reconstruction efforts (Iraqi Ministry of Planning, 2018, p. 15).

4-4-1. Electricity Infrastructure:

The electricity sector is one of the most affected sectors in Nineveh Governorate, particularly in Mosul. According to the Iraqi Ministry of Electricity, there remains a gap between actual electricity production and local demand due to aging transmission and distribution networks, damaged substations, and limited investment in rehabilitation and maintenance (Iraqi Ministry of Electricity, 2023, p. 9).

Official statistics indicate that the average daily electricity supply in some areas of Nineveh does not reach full 24-hour service. This is due to technical constraints in the national grid, high loads, and infrastructure damage during the conflict years (Iraqi Ministry of Planning, 2022, p. 41).

Mosul mainly depends on the national electricity grid, which is based on a mix of thermal, gas, and hydroelectric power plants. Mosul Dam is one of Iraq's main hydroelectric sources, with a design capacity of about 750 MW and additional supporting units. However, actual production efficiency depends on maintenance conditions and reservoir water levels (Iraqi Ministry of Water Resources, 2021, p. 27).

Due to irregular supply, many residents rely on private generators and small-scale solar systems to cover shortages. This reflects the growing need to diversify energy sources. In this regard, the Iraqi Ministry of Electricity has launched initiatives to promote renewable energy, especially solar power, as part of a national strategy to increase the share of renewables in the energy mix by 2030 (Iraqi Ministry of Electricity, 2023, p. 18).

On the demand side, estimates from the Iraqi Ministry of Planning show that population growth and urban expansion in Nineveh Governorate are steadily increasing electricity demand, particularly in residential, commercial, and service sectors. This requires expanding generation capacity and improving transmission and distribution efficiency to ensure stable supply and support local development (Iraqi Ministry of Planning, 2022, p. 45).

In conclusion, rehabilitating the electricity infrastructure in Mosul is a strategic priority within reconstruction programs, as it directly supports economic activity, improves service delivery, and strengthens social stability. This requires coordinated efforts between federal and local institutions within a sustainable planning and implementation framework.

4-4-2. Transport and Communications Infrastructure in Mosul:

The transport and communications sectors are essential components of urban infrastructure. They play a key role in improving spatial connectivity, stimulating economic activity, and supporting reconstruction in post-conflict cities. Planning literature considers the efficiency of transport and communication networks a major indicator of urban recovery and social stability (Abdulhamid, 2019, p. 63).

During the armed conflict (2014–2017), the city of Mosul suffered severe damage to roads, bridges, and communication infrastructure. This led to a clear decline in service levels and disrupted mobility and commercial exchange. According to reports by the Iraqi Ministry of Planning, the transport sector in Nineveh Governorate was among the most affected sectors, as the main bridges over the Tigris River were destroyed and both internal and external road networks suffered major structural damage (Iraqi Ministry of Planning, 2018, p. 28).

4-4-2-1. Transport Infrastructure:

In the years following liberation, government programs focused on rebuilding major bridges and roads in Mosul. The Iraqi Ministry of Construction, Housing and Public Municipalities announced the completion of key bridge reconstruction projects across the Tigris River. These projects restored the physical connection between the eastern and western sides of the city, reduced traffic congestion, and improved mobility within Mosul (Ministry of Construction, Housing and Public Municipalities, 2022, p. 14).

Rehabilitation efforts also included regional roads linking Mosul with neighboring governorates, particularly the Mosul–Duhok road. This improved economic and administrative connectivity between Nineveh Governorate and the Kurdistan Region of Iraq, stimulated trade activity, and facilitated the movement of people and goods (Ministry of Construction, Housing and Public Municipalities, 2023, p. 31).

In the air transport sector, Mosul International Airport is considered a strategic facility for regional development. The Iraqi Ministry of Transport stated that the airport's rehabilitation and reopening are part of a national plan to restore damaged airports, supporting travel, trade exchange, and economic integration (Ministry of Transport, 2024, p. 19).

Regarding railways, the Iraqi Republic Railways Company confirmed that projects to develop railway lines linking northern and southern Iraq are included in its strategic plans. These projects aim to enhance

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logistical integration, reduce transport costs, and support the movement of goods and passengers (Iraqi Republic Railways Company, 2023, p. 11).

4-4-2-2. Communications Infrastructure:

The communications sector suffered significant damage during the conflict due to the destruction of towers and wired and wireless network infrastructure. According to the Iraqi Communications and Media Commission, recent years have witnessed gradual improvement in telecommunications services through infrastructure rehabilitation, an increase in licensed service providers, and expansion of mobile and internet networks (Communications and Media Commission, 2024, p. 22).

Despite this progress, challenges remain, particularly disparities in service quality and internet speed between central and peripheral areas. This highlights the need for further investment in fiber-optic networks and the development of fourth- and fifth-generation technologies, in line with digital transformation requirements and sustainable development goals (Al-Kubaisi, 2021, p. 88).

Overall, the rehabilitation and development of transport and communications infrastructure in Mosul are essential components of urban recovery. They directly enhance spatial connectivity, stimulate economic activities, and improve public service delivery. Continued government support and long-term strategic planning are therefore necessary to ensure the sustainability of these efforts.

4-4-3. Water Infrastructure and Institutional Support in Mosul:

Mosul's water infrastructure suffered severe damage during the 2014–2017 conflict, in addition to the effects of unplanned urban expansion and rapid population growth. This reduced the efficiency of water production and distribution systems and led to lower water supply levels in several neighborhoods, especially on the western side of the city (Iraqi Ministry of Planning, 2018, p. 87; Ministry of Construction, Housing and Public Municipalities, 2021, p. 23). Official reports indicate that large parts of the transmission and distribution networks were damaged or lost operational efficiency, requiring comprehensive rehabilitation programs within stabilization and reconstruction plans.

Between 2019 and 2023, the Iraqi government included several water rehabilitation and expansion projects in Mosul within its investment program. These included the rehabilitation and development of the Al-Quba Water Treatment Plant on the eastern side, one of the city's main facilities, which supplies a large share of the left-bank population with drinking water (Ministry of Construction, Housing and Public Municipalities, 2022, p. 41). The Ministry of Planning also confirmed that the water and sanitation sector was given high priority in the reconstruction of liberated areas due to its direct link to public health and social stability (Iraqi Ministry of Planning, 2020, pp. 55–56).

Scientific studies have identified additional qualitative challenges related to groundwater quality in some areas of Mosul. Field research published in peer-reviewed journals reported high levels of total dissolved solids (TDS) and microbial contamination in samples from shallow wells, particularly in areas with highly permeable soils. These problems are linked to sewage leakage and damaged infrastructure, highlighting the need for integrated management of surface and groundwater resources within a sustainable urban planning framework (Al-Obaidy et al., 2018, pp. 7–9, Iraqi Journal of Science; Al-Ansari et al., 2021, Environmental Earth Sciences, pp. 112–115).

Institutionally, reports from the Nineveh Governorate Office show that the Nineveh Water and Sewerage Directorate carried out rehabilitation works between 2021 and 2023. These included repairing damaged distribution networks, replacing pumps, rehabilitating storage tanks and pumping stations, and expanding services to neighborhoods that lacked formal coverage before 2017 (Nineveh Governorate Office, 2023, pp. 18–21). These actions align with the National Water Strategy prepared by the Ministry of Water Resources, which aims to improve water-use efficiency, reduce losses, and strengthen integrated water resources management (Ministry of Water Resources, 2015, pp. 33–35).

Overall, Mosul's water infrastructure reflects accumulated war damage and weaknesses in urban planning, alongside ongoing government rehabilitation efforts. Achieving water sustainability, however, requires stronger integration between urban planning, water resource management, and science-based environmental monitoring.

4-4-4. Role of Local and International Institutions:

Local and international institutions play a central role in Mosul's reconstruction after the widespread destruction caused by the conflict. At the local level, departments of municipalities, water, electricity, and urban planning in Nineveh Governorate have led rehabilitation projects and managed public services in coordination with the central government, despite ongoing financial and administrative challenges (Iraqi Ministry of Planning, 2020, pp. 55–56; Nineveh Governorate Office, 2023, p. 18).

Internationally, United Nations agencies such as the United Nations Development Programme (UNDP) and the United Nations Children's Fund (UNICEF) have provided technical and financial support for infrastructure rehabilitation, including water and electricity networks, as well as the restoration of schools and health centers. They have also supported

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institutional capacity-building and local governance mechanisms (Ministry of Construction, Housing and Public Municipalities, 2022, p. 41). This cooperation has improved basic service delivery and expanded coverage to marginalized neighborhoods that lacked adequate infrastructure even before the conflict (Al-Ansari et al., 2021, pp. 112–115).

4-4-5. Industrial and Commercial Areas:

Industrial zones in Mosul are a key pillar of the urban economy, extending across both sides of the city and hosting diverse production activities. On the right bank, the Wadi Akab industrial area is particularly important, including heavy industries such as cement, iron, and petrochemicals. Its development dates back to the 1970s (Al-Shammari, 2018, p. 91). On the left bank, medium and light industries are concentrated in areas such as Al-Quds and the old industrial zone, including workshops for furniture, agricultural equipment, and metal works (Al-Mousawi, 2020, p. 47; Al-Dulaimi, 2021, p. 60).

Commercially, the right bank maintains its traditional importance through historic markets such as Bab Al-Tob and Saraykhana, while the left bank has witnessed growth in modern retail, including shopping centers and popular markets (Al-Dulaimi, 2021, p. 65; Al-Obaidi, 2022, p. 34). Although many of these areas were rehabilitated after 2017, challenges related to infrastructure, financing, and investment flows remain (Ministry of Industry and Minerals, 2021, p. 23).

5. Innovation and Entrepreneurship in Mosul:

Mosul represents a promising environment for innovation and entrepreneurship, driven by reconstruction efforts and active youth engagement. Business incubators and accelerators play an important role by providing administrative guidance, technical support, legal services, and infrastructure for start-ups (Abdullah, 2021, p. 73).

5-1. Role of Incubators and Accelerators:

Incubators such as "Mosul Manara" and the "Nineveh Business Center" have helped create a supportive innovation ecosystem, enabling young people to develop viable projects and promote economic and social sustainability (Al-Jubouri, 2022, p. 91). A study by Al-Akeedi (2023, p. 104) found that more than 60% of projects participating in incubator and accelerator programs continued operating after two years, reflecting their positive impact despite ongoing financial and administrative challenges.

5-2. Youth Participation in Entrepreneurial Projects:

Youth participation is a central driver of economic and social development, as entrepreneurship encourages young people to seek innovative alternatives to traditional employment (Al-Ani, 2021, p. 66). Local studies show that many young people have promising business ideas but face challenges related to funding, managerial experience, and access to technical resources (Khalil, 2022, p. 91). Al-Akeedi (2023, p. 108) reported a 35% increase in youth participation in incubator and accelerator programs over two years. Al-Hamdani (2023, p. 117) emphasized the need to strengthen digital infrastructure and small-business legislation to further enhance youth engagement.

5-3. Role of Universities and Research Centers:

Universities and research centers in Mosul are key institutions supporting innovation and entrepreneurship. The University of Mosul has established university-based incubators and organized workshops and training programs to help transform ideas into productive enterprises (Al-Jubouri, 2020, p. 112). Research centers have also developed innovative solutions to local challenges in technology, agriculture, and renewable energy sectors (Al-Khayat, 2021, p. 87). Recent studies indicate that activating the role of universities in economic development can form a foundation for sustainable reconstruction and stimulate the local economy (Ahmed, 2022, p. 134).

6. Challenges and Opportunities in Mosul:

Mosul faces major development challenges due to years of armed conflict, including weak infrastructure, high unemployment, and declining education and health services (Ahmed, 2021, p. 45). However, important opportunities for economic and social growth are emerging through reconstruction programs, investment in higher education, youth empowerment, and expanded public–private partnerships. These factors make Mosul a promising environment for innovation, entrepreneurship, and sustainable development (Al-Khayat, 2022, p. 88).

6-1. Effects of War and Conflict:

Since 2003, Mosul has undergone major transformations due to repeated conflicts and insecurity, leading to weakened state institutions and declining public trust in government (Al-Dulaimi, 2018, p. 92). The crisis deepened after ISIS took control of the city in 2014, causing widespread destruction of key infrastructure, including bridges, roads, hospitals, and schools, and near collapse of essential services such as water, electricity, waste management, and public health (Hassan, 2020, p. 105).

The conflict also led to mass displacement of hundreds of thousands of residents, weakening social cohesion and increasing poverty, homelessness, and illiteracy, especially among women and children (Al-Shammari, 2021, p. 66). Human capital was further reduced due to the migration of skilled professionals. Cultural heritage also suffered systematic destruction, including the Al-Nuri Mosque and its famous leaning minaret, resulting in a loss of historical identity and collective memory (Al-Obaidi, 2020, p. 117).

Even after liberation in 2017, the effects of war persist, including incomplete infrastructure

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reconstruction and deep psychological impacts, particularly on youth (Al-Shammari, 2021, p. 68; Yassin, 2022, p. 93). Literature emphasizes that recovery requires integrated strategies combining physical reconstruction with social and psychological rehabilitation to ensure sustainable urban recovery.

6-2. Investment Opportunities:

The post-conflict period has created strong investment opportunities due to large gaps in infrastructure and services. Key sectors include:

Housing: The city needs more than 100,000 housing units to address the accumulated deficit after the destruction (Al-Rubaie, 2020, p. 61).

Industry: Mosul's strategic location and proximity to raw materials and regional markets provide strong potential for manufacturing and food-processing industries (Al-Tamimi, 2021, p. 77).

Agriculture: Fertile land and irrigation water offer major investment opportunities, provided modern irrigation techniques and improved infrastructure are available, contributing to local food security (Jabbar, 2022, p. 105).

Education: Higher and technical education represent attractive investment areas to meet rising demand after institutional decline during the conflict, while strengthening human capital and sustainable development (Al-Khatib, 2023, p. 89).

Government policies support investment through Iraqi Investment Law No. 13 of 2006 (as amended), offering incentives such as tax exemptions and land allocation to encourage private-sector participation in strategic projects (Ministry of Planning, 2022, p. 14).

6-3. Future Plans for Reconstruction and Development:

Future reconstruction plans focus on rebuilding infrastructure, improving basic services, and promoting sustainable development and the local economy. According to the National Reconstruction Strategy launched by the Iraqi government in 2020, priorities include rebuilding roads, bridges, schools, and hospitals, and rehabilitating water, electricity, and sewage networks (Ministry of Planning, 2020, p. 23).

The plans also aim to strengthen social stability by supporting vulnerable groups, integrating returnees, and promoting social cohesion (United Nations Development Programme, 2021, p. 41). Other priorities include digital transformation projects and modernization of local administration to improve public service efficiency and reduce corruption, in addition to encouraging investment in industry, agriculture, and housing (Al-Ani, 2022, p. 66). The Nineveh Integrated Development Plan (2021–2027) adopts a participatory approach that brings together local government, the private sector, and civil society to achieve sustainable economic and social reconstruction (Al-Mawsili, 2021, p. 88).

7. Analysis and Comparison: Mosul and Aleppo in the Context of Urban Economics and Sustainable Development:

Post-conflict cities face complex challenges in reconstruction and sustainable development. Mosul (Iraq) and Aleppo (Syria) are two major examples of heavily damaged historic cities. A comparative analysis helps identify recovery opportunities and constraints.

7-1. **Infrastructure** and Housing:

Mosul experienced massive destruction during ISIS control (2014–2017). More than 50% of housing units were damaged, especially on the right bank, along with the collapse of basic service networks such as water, electricity, and sanitation (Alfuqhar & Aysu, 2022, p. 173).

Aleppo also suffered major destruction, mainly in its eastern districts and the Old City. However, significant parts of its infrastructure remained usable, allowing partial rehabilitation instead of complete rebuilding (Kousa & Pottgiesser, 2020, p. 112).

7-2. Heritage and Urban Identity:

Both cities have rich historical and urban heritage, which represents both a challenge and an opportunity for sustainable reconstruction. In Mosul, initiatives were launched to revive the Old City through participatory urban renewal projects that involve the local community and focus on preserving cultural identity (Alfuqhar & Aysu, 2022, p. 176).

In Aleppo, sustainable practices such as reusing building debris helped reduce reconstruction costs and preserve the historic urban fabric (Kousa & Pottgiesser, 2020, p. 115).

7-3. Local Economy and Employment:

Mosul faces a weak labor market due to displacement and economic destruction. However, reconstruction could become a strong economic driver if linked to sustainable investment policies and productive projects (Bajec, 2021, p. 43).

Aleppo, in contrast, has focused on revitalizing its local economy by supporting crafts and small industries in rehabilitated areas, showing a flexible and scalable economic recovery model (Mikdad, 2021, p. 27).

7-4. Sustainability and Challenges:

Achieving sustainability in both cities requires adequate funding, good governance, and active community participation. However, political instability, financial constraints, and ongoing security challenges continue to slow recovery (Hatahet, 2021, p. 19).

Overall, Mosul faces greater challenges due to the scale of infrastructure destruction and labor market weakness. Aleppo benefits from the partial survival of its urban and heritage fabric, allowing a more gradual recovery based on local crafts and environmental sustainability.

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8. Compatibility of Mosul with Contemporary City Concepts:

Mosul faces major challenges in aligning with modern city concepts, particularly in urban economics and sustainable development. After the war with ISIS (2014–2017), the city became a model of a post-conflict city, marked by damaged infrastructure, disrupted economic activity, and weak local governance. Bajec (2021, p. 43) notes that the destruction of housing and economic facilities caused near paralysis in key sectors such as industry and services, along with mass displacement that negatively affected the labor market.

Despite reconstruction initiatives, Mosul has not yet developed a diversified economic base or a productive structure capable of supporting a sustainable urban economy. Alfuqhar and Aysu (2022, p. 176) highlight the potential of urban regeneration through preserving cultural and social identity while integrating environmental considerations into traditional urban fabric. Lolli et al. (2022, p. 9) propose an integrated urban planning strategy focused on efficient land and resource use, architectural heritage preservation, and stronger community participation in local decision-making.

However, major challenges remain, including limited funding, overlapping reconstruction authorities, and weak institutions, which hinder clear economic policymaking. Hatahet (2021, p. 19) emphasizes the need for a supportive legal and institutional environment to attract investment and revitalize the local economy, especially in sustainable sectors such as handicrafts, local services, and cultural tourism.

Overall, Mosul is still in the early stages of transformation toward a contemporary city aligned with modern urban economic and sustainability principles. Deep structural reforms in governance and urban planning, along with strong local and international partnerships, are necessary to unlock its full potential.

9. Conclusions and Recommendations:

9-1. Conclusions:

Infrastructure destruction and economic impact: Damage to infrastructure led to paralysis in industry and services, weakening the urban economy and slowing recovery.

Gradual but incomplete recovery: Some industrial, commercial, and service sectors have improved, but weak basic services and financial and institutional constraints limit full recovery.

Worsening social and spatial gaps: Displacement, poverty, and unemployment have deepened rural–urban disparities and weakened human capital and institutional trust.

Importance of governance and partnerships: Strong institutional coordination and partnerships between government, private sector, and civil society are essential for sustainable reconstruction.

Entrepreneurship and youth role: Emerging entrepreneurial initiatives, supported by universities and incubators, have created jobs and improved stability, despite ongoing challenges.

Investment potential: Mosul has strategic location, human resources, and cultural assets that can attract investment in housing, industry, agriculture, and education if guided by sustainable planning policies.

Urban identity and sustainable renewal: Historic areas offer opportunities for reconstruction that preserve cultural identity while integrating sustainability principles.

Ongoing structural challenges: Limited funding, weak institutions, and multiple responsible authorities continue to hinder the development of an integrated urban model aligned with contemporary city concepts.

9-2. Recommendations:

Adopt a comprehensive sustainable reconstruction plan: Develop an integrated vision linking infrastructure rebuilding, housing, and economic services, while accelerating projects for schools, hospitals, and bridges to support stability and productivity.

Promote investment in key sectors: Provide financial and legal incentives for industry, agriculture, housing, and SMEs, with emphasis on innovation, modern technologies, food security, and reducing import dependence.

Strengthen human capital and entrepreneurship: Expand incubators and accelerators, implement training programs for youth and skilled workers, and connect universities with the private sector to transform research into sustainable productive projects.

Enhance governance and institutional partnerships: Reform legal frameworks, build local institutional capacity, and activate partnerships among government, private sector, civil society, and international actors to ensure funding, efficiency, and sustainability.

Integrate environmental sustainability and digital transformation: Modernize water and energy networks, expand renewable energy use, apply environmental solutions in reconstruction projects, and develop digital public service management to improve efficiency and transparency.

Achieve balanced spatial development: Implement rural development programs to improve services and infrastructure, reduce rural–urban disparities, and limit internal migration.

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