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Urban Regeneration and Post-War Recovery: Prospects for Sustainable Development in Ukraine

Abstract. This article examines the integration of urban regeneration strategies with the challenges of post-war reconstruction in Ukraine. Drawing on European experience, specifically the Leipzig Charter and related approaches, the paper highlights that effective recovery of war-damaged territories requires not only physical rebuilding of infrastructure but also comprehensive economic, social, and cultural revitalization. The analysis emphasizes the limitations of traditional “restore as before” models and argues for modern concepts such as compact cities, mixed-use development, and sustainable technologies. Special attention is paid to demographic shifts caused by the war, including depopulation, aging of the population, and the rise in the number of people with disabilities, which demand inclusive and adaptive planning. The essay also considers the potential of small and medium-sized towns, which may become new growth centers through the integration of internally displaced persons. Case studies from both European and Ukrainian contexts demonstrate that integrated strategies, that is combining participatory planning, decentralization of housing, and economic diversification, represent the most effective model for Ukraine’s long-term urban renewal.

Keywords: urban regeneration; post-war reconstruction; sustainable development; integrated urban planning; Leipzig Charter; Ukraine; internally displaced persons; decentralization; demographic change; economic diversification.

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Introduction.

The relevance of the issue of urban regeneration today is evident not only for European countries, which for decades have been actively implementing strategies for the renewal and revitalization of cities, but also, and especially, for Ukraine, which now faces the extraordinarily difficult task of post-war reconstruction [1, 12]. Since the beginning of Russia’s full-scale invasion in February 2022, a significant number of Ukrainian cities have sustained critical destruction. The scale of damage in many cases can be compared to the consequences of the Second World War. Entire settlements were erased from the map; housing stock and infrastructure were destroyed; industrial and commercial enterprises, which for a long time had been city-forming and defined the socio-economic profile of their regions, were demolished [2, 6].

In view of these factors, the urgent question arises whether it is sufficient to limit ourselves to traditional approaches to reconstruction, or whether this crisis should be used as a starting point for rethinking the very

idea of urban regeneration in the Ukrainian context, drawing upon modern European and global principles of urban planning.

The aim of this essay is to analyze the possibilities for integrating approaches to urban regeneration, formed within the framework of European experience, in particular based on the Leipzig Charter and similar strategies, with the necessity of post-war recovery of Ukrainian cities. The objectives include identifying the most effective strategies for combining the processes of regeneration and reconstruction in light of the specific challenges and constraints caused by the war, as well as offering practical recommendations regarding the selection of models for the development of damaged territories.

A brief overview of European approaches to regeneration, especially the provisions of the Leipzig Charter, shows that urban regeneration is not limited to the physical renewal of space. It also presupposes economic and social revitalization of territories, the development of inclusivity, sustainability, and the

provision of a high quality of life for residents [1, 8, 12].

For Ukraine, this issue is doubly relevant: it concerns not only the classical regeneration of outdated or degraded urban zones, but also the comprehensive reconstruction and revival of cities and territories that have suffered massive destruction.

Thus, Ukraine now has a unique opportunity to draw on the experience of other countries, to take into account the lessons learned from the implementation of regeneration strategies in Europe, and to creatively reinterpret traditional models of post-war reconstruction. This process holds the potential for transforming the national system of planning and regeneration of territories, contributing to the formation of more resilient, inclusive, and effective cities that can meet the challenges of the twenty-first century.

The following sections examine the theoretical aspects and European experience of urban regeneration, the peculiarities of the post-war situation in Ukraine, critically analyze possible reconstruction paths, and propose ways to integrate European principles into Ukraine's recovery process while taking into account local specificities and challenges.

Urban Regeneration: Theoretical Foundations and European Experience

The Concept and Principles of Urban Regeneration

Urban regeneration is a comprehensive process that involves the renewal of urban space and infrastructure while simultaneously improving the socio-economic living conditions of the local population. Unlike simple repair or reconstruction, urban regeneration aims at a systemic transformation of urban territories, with an emphasis on sustainable development, inclusivity, economic viability, and preservation of cultural identity [8, 12].

The main principles of urban regeneration include:

- *Comprehensiveness*: simultaneous consideration of economic, social, environmental, and cultural aspects of territorial development.
- *Inclusivity*: ensuring accessibility and equal opportunities for all social groups.
- *Sustainability*: orientation to long-term perspectives and balance between economic growth, environmental responsibility, and social justice.
- *Participatory governance*: involving local communities and other stakeholders in the decision-making processes concerning regeneration.
- *Innovation*: employing modern technologies, approaches, and solutions to improve the quality of life in cities [8].

These principles form the basis of contemporary urban policy in many European countries and are increasingly regarded as essential components of territorial resilience and sustainable urban development.

The Leipzig Charter and Contemporary European Approaches

The Leipzig Charter (2007, updated in 2020) is a key document that defines strategies and priorities for the development of European cities [1].

The core provisions of this document include:

- Strengthening integrated approaches to urban development;
- Promoting polycentricity and territorial balance in the growth of cities;
- Enhancing economic and social integration;
- Ensuring access to affordable and high-quality housing;
- Preserving and improving the environment while promoting ecological sustainability of urban spaces [1, 13].

The Charter also emphasizes that regeneration must be oriented toward people and their needs. This entails improving public spaces, accessibility of transport, cultural and recreational infrastructure. At its core lies the principle of cooperation between various levels of government, civil society, and business.

In addition to the Leipzig Charter, European countries actively apply concepts such as the "smart city," the "compact city," and the "city of short distances." These strategies aim at creating comfortable, environmentally friendly, and economically efficient conditions for urban living [9, 14].

Examples of Successful Urban Regeneration in Europe

Germany (Leipzig). After reunification in the 1990s, Leipzig faced severe depopulation and economic decline. Large-scale integrated regeneration programs, including restoration of historic buildings, development of transport infrastructure, support for entrepreneurship, and citizen participation in governance, enabled the city to regain economic viability and demographic stability [4].

Poland (Łódź) This city successfully overcame the consequences of industrial decline by transforming industrial zones into cultural and creative spaces. Comprehensive investments in education, culture, and infrastructure attracted young people, students, and businesses, which significantly improved the region's socio-economic indicators [5, 13].

Netherlands (Amsterdam-Noord). Through comprehensive regeneration of neglected industrial areas and the development of housing and public spaces, this district was transformed from a peripheral zone into a hub of urban life. Mixed land use, improved transport accessibility, pedestrian-friendly infrastructure, and cultural development formed the basis of this transformation [13].

These examples demonstrate that effective regeneration requires multi-level integration of strategies, citizen engagement in planning and implementation, and attention to the social, cultural, economic, and environmental specifics of territories.

Given the scale of destruction in Ukrainian cities, these approaches may serve as a valuable basis for developing comprehensive reconstruction programs that not only restore what has been lost but also create

qualitatively new spaces capable of meeting the needs of Ukrainian society.

Features of Post-War Reconstruction of Cities in Ukraine and Current Challenges

The Nature of Destruction and Damage Caused by Russian Aggression

After the start of Russia's full-scale invasion of Ukraine in February 2022, significant parts of the country found themselves in zones of active combat. As of early 2025, the scale of destruction of infrastructure and housing stock is unprecedented for Europe since the Second World War [2].

Cities such as Mariupol, Bakhmut, Volnovakha, Sievierodonetsk, Popasna, Lysychansk, Izium, Kharkiv, Chernihiv, Irpin, Bucha, Hostomel, and many smaller settlements in Donbas, Kyiv, Sumy, Kharkiv, Kherson, Mykolaiv, Zaporizhzhia, and Chernihiv regions suffered extensive damage or even complete destruction.

According to estimates by the Kyiv School of Economics, by November 2024 approximately 236,000 residential buildings had been damaged or destroyed. More than 26,000 kilometers of roads were damaged or destroyed. Significant parts of power generation facilities, high-voltage substations, and oil-and-gas infrastructure were also lost [2].

To illustrate the scale of losses:

- *Mariupol*, once a major industrial and port center with a population of around 450,000, has been destroyed by nearly 90%.
- *Bakhmut*, with both industrial capacity and cultural heritage, has essentially been erased from the surface of the earth.
- *Kharkiv*, Ukraine's second-largest city, has sustained massive damage to housing stock, historic monuments, transport infrastructure, and public facilities [2, 6].

The character of these destructions often makes traditional reconstruction methods impractical, demanding substantial revision of planning approaches and regeneration strategies.

Demographic Situation: Depopulation, Migration, IDPs, Aging Population, and Increase in Persons with Disabilities

Alongside the physical destruction of urban structures, Ukraine has faced an unprecedented demographic crisis. Currently, the number of internally displaced persons exceeds 5 million, while approximately 8 million citizens have left Ukraine, mostly relocating to European countries [6].

Such large-scale migration has led to depopulation of entire regions, particularly in frontline zones, while simultaneously increasing pressure on central and western Ukrainian cities. At the same time, some smaller towns that had suffered from long-term demographic and socio-economic stagnation now have the opportunity to receive new development impulses through the integration of displaced persons. This situation creates a unique context in which regeneration strategies must be oriented not only toward physical reconstruction but also toward the strategic

redistribution of population and economic activity, giving small and medium-sized towns a chance for revival [10].

The issue is not merely where reconstruction should take place but also who will inhabit these cities in the future, what their needs will be, and what demographic realities should be reflected in planning decisions.

First, the aging of the population has accelerated considerably. Whereas the proportion of people aged 65 years and older increased from 12% in 1991 to 18% in 2021, available demographic projections indicate continued growth of this age group. Consequently, post-war recovery policies must account for age-friendly urban environments, healthcare accessibility, barrier-free public spaces, and social support infrastructure adapted to older residents [10].

Second, there has been a sharp increase in the number of people with disabilities. According to the European Disability Forum, as of early 2025 more than 300,000 people in Ukraine had acquired disabilities as a direct consequence of the war. Other international organizations estimate that between 50,000 and 100,000 individuals have lost limbs. These circumstances require accessibility considerations to become one of the central principles of reconstruction. Housing, transportation systems, educational institutions, healthcare facilities, and public spaces must be designed according to the principles of universal accessibility and inclusive urban planning [3].

Therefore, post-war regeneration in Ukraine must be understood not only as rebuilding cities but also as creating environments capable of responding to profound demographic transformations.

Economic Challenges: The Destruction of Enterprises as City-Forming Economic Anchors

The war inflicted severe damage not only on housing and infrastructure but also on the economic foundations of cities by destroying or heavily damaging enterprises that served as local economic anchors [2, 7].

Among the most notable examples are:

- the complete destruction of the Azovstal and Ilyich steel plants in Mariupol;
- the devastation of major industrial facilities in Sievierodonetsk and Lysychansk;
- extensive damage to coal mines, chemical enterprises, and manufacturing complexes throughout the Donbas region.

The destruction of these enterprises has generated a chain reaction affecting employment, local budgets, social services, and regional competitiveness. In many cases, the former industrial model may no longer be economically viable, even if physical reconstruction becomes possible.

For this reason, recovery must go beyond restoring physical space. It requires strategic economic re-profiling of regions. Considering global economic trends, Ukraine should prioritize economic diversification through support for small and medium-sized enterprises, attraction of modern investments, development of innovation ecosystems, and expansion of sectors such as information technology, logistics,

creative industries, renewable energy, and advanced agricultural technologies [9, 10].

Economic regeneration should therefore be viewed as an integral component of urban regeneration. Without the creation of new jobs and sustainable local economies, physical reconstruction alone will not be sufficient to ensure the long-term viability of war-affected cities and regions.

Consequently, post-war reconstruction must simultaneously address spatial, social, demographic, and economic dimensions of recovery. Only such an integrated approach can create the foundations for resilient and sustainable urban development in Ukraine.

Critical Analysis of Existing Reconstruction Approaches and the Need for Rethinking

Traditional Approaches: Advantages and Shortcomings of “Complete Restoration”

Conventional strategies of post-war reconstruction are often oriented toward the full or maximum restoration of territories and infrastructure to their pre-war condition. This approach is based on the understandable desire to return to familiar surroundings, ensure the rapid resumption of normal life, preserve historical heritage, and maintain local traditions and collective memory.

Among the principal advantages of this model are:

- clarity and comprehensibility of implementation mechanisms;
- psychological reassurance for affected populations;
- preservation of cultural identity and symbolic continuity;
- relatively straightforward communication of reconstruction goals to stakeholders.

These characteristics explain why the “restore as before” approach is frequently favored in the immediate aftermath of conflicts and disasters. Communities that have experienced traumatic events often seek visible signs of normality and continuity, and reconstruction of familiar urban landscapes can contribute to social stabilization.

However, the shortcomings of this approach are equally significant.

First, structural urban problems frequently remain unresolved. Rebuilding without rethinking urban development often reproduces pre-existing deficiencies such as outdated housing typologies, insufficient public infrastructure, inefficient land use patterns, and poor-quality public spaces.

Second, economic inefficiencies may arise when resources are invested in restoring industrial enterprises or economic structures that are no longer competitive under contemporary market conditions. In such cases, reconstruction may merely prolong economic decline rather than stimulate sustainable development.

Third, traditional restoration models often fail to account for profound demographic transformations caused by war, including population displacement, labor-force restructuring, and changes in social needs. As a result, reconstructed territories may no longer correspond to the realities of post-war society.

Therefore, while the “restore as before” approach may provide short-term psychological and political benefits, it is insufficient as a comprehensive strategy for long-term sustainable recovery and may ultimately become an obstacle to future development [7].

Arguments in Favor of Modern Urban Approaches

The limitations of traditional reconstruction models have led many researchers and practitioners to advocate for approaches based on contemporary urban planning principles. Such approaches seek not only to rebuild what was lost but also to improve the overall quality, resilience, and sustainability of urban environments.

One of the most promising directions is the promotion of low- and mid-rise block development instead of large-scale monotonous high-rise housing estates. This type of urban form generally provides more comfortable living conditions, facilitates social interaction, supports local identity, and contributes to the creation of a more human-scaled urban landscape [12].

Another important concept is the compact city and the related idea of the “15-minute city.” These models aim to ensure that essential services such as employment, education, healthcare, shopping, and recreation can be reached within a short distance from residential areas. Such an approach improves accessibility, reduces transportation costs, lowers environmental impacts, and strengthens community cohesion [8, 14].

Equally important is the principle of mixed-use development. Instead of separating residential, commercial, administrative, and recreational functions into distinct urban zones, contemporary planning encourages their integration. Mixed-use neighborhoods create more vibrant urban environments, increase economic activity, improve safety through continuous use of public spaces, and reduce the need for long daily commutes [13].

Modern reconstruction strategies also emphasize the application of sustainable and energy-efficient technologies. These include renewable energy systems, environmentally friendly construction materials, smart infrastructure management systems, water-saving technologies, and climate-resilient urban design solutions. Such measures contribute not only to environmental sustainability but also to long-term economic efficiency and energy security [15].

Taken together, these approaches provide an opportunity to transform post-war reconstruction from a process of simple restoration into a process of modernization and sustainable development.

The Prospect of Regenerating Small Towns Through IDP Integration

One particularly promising direction for Ukraine involves the regeneration of small and medium-sized towns through the integration of internally displaced persons. Prior to the full-scale invasion, many such settlements faced demographic decline, labor migration, shrinking local economies, and underutilized infrastructure.

The arrival of internally displaced persons has created new opportunities for reversing these trends. Additional population increases demand for housing, educational services, healthcare, retail activities, and local businesses. As a result, towns that previously struggled with stagnation may receive new impulses for economic and social development.

Several advantages support this approach.

First, it can be economically efficient. Reconstruction and modernization of existing infrastructure in smaller settlements often require fewer resources than rebuilding heavily destroyed metropolitan areas from the ground up.

Second, it promotes balanced territorial development by reducing excessive concentration of population and economic activity in a limited number of major cities.

Third, it contributes to national resilience by creating multiple regional growth centers capable of supporting local employment and social services.

At the same time, successful implementation requires careful planning. Housing development must be coordinated with labor market opportunities, transportation infrastructure, healthcare services, and educational facilities. Without such integration, there is a risk that newly developed areas may fail to achieve long-term sustainability.

Consequently, the regeneration of small and medium-sized towns (include towns in Vinnytsia, Khmelnytskyi, Poltava, and Ternopil regions) should be viewed not merely as a temporary response to displacement but as a strategic component of Ukraine's broader post-war development model. Combined with contemporary urban planning principles and economic diversification policies, this approach may contribute significantly to the creation of a more balanced and resilient territorial structure for the country.

Integration of Urban Regeneration Strategies and Post-War Reconstruction: Practical Recommendations for Ukraine

Formation of Integrated Strategies: Reconstruction Through Regeneration

Taking into account contemporary urban planning principles and the specific features of Ukraine's post-war situation, it is advisable to formulate integrated strategies that combine the tasks of post-war reconstruction with the conceptual approaches of urban regeneration. Such strategies should view recovery not as a purely technical process of rebuilding damaged infrastructure, but as a comprehensive transformation aimed at improving social well-being, strengthening local economies, enhancing environmental sustainability, and increasing territorial resilience.

In practical terms, this means that the recovery of destroyed cities and territories must involve not only the physical restoration of infrastructure but also their economic, social, and cultural revitalization [1, 12].

One of the most important characteristics of integrated regeneration is its long-term orientation. Instead of focusing exclusively on immediate reconstruction needs, strategic planning should seek to

identify future development opportunities and establish conditions for sustainable growth.

Key components of integrated strategies include:

- *Comprehensive planning*, based on Integrated Urban Development Plans (IUDPs), which establish connections between economic, social, environmental, and infrastructural dimensions of territorial development.
- *Active community participation*, ensuring that local residents, businesses, civil society organizations, and internally displaced persons are involved in planning and decision-making processes.
- *Economic restructuring and diversification*, aimed at reducing dependence on a limited number of economic sectors and encouraging innovation, entrepreneurship, and investment.
- *Institutional coordination*, facilitating cooperation among national, regional, and local authorities as well as international partners.

International experience demonstrates that cities implementing integrated planning frameworks are generally more successful in adapting to demographic, economic, and environmental changes than those relying on fragmented sectoral policies [9].

Thus, reconstruction through regeneration should be regarded as a strategic framework capable of ensuring not only recovery from war damage but also the creation of more competitive and resilient urban environments.

The Concept of Decentralization of Housing Construction and Infrastructure Restoration in the Context of IDPs

One of the central recommendations for Ukraine's post-war recovery is the adoption of a decentralized approach to housing construction and infrastructure development. Rather than concentrating all available resources on rebuilding large cities that have suffered severe destruction, policymakers should simultaneously support the development of small and medium-sized towns that possess relatively intact infrastructure and substantial growth potential.

The rationale for this approach is based on several considerations.

First, smaller towns often have available land resources, lower construction costs, and less complex infrastructure requirements, enabling faster implementation of housing projects.

Second, decentralization promotes a more balanced distribution of population and economic activity across the country. Concentrating reconstruction efforts exclusively in major urban centers may increase territorial inequalities and place excessive pressure on local infrastructure and public services.

Third, investments in smaller settlements can contribute to the emergence of new regional growth centers, strengthening local economies and improving territorial cohesion.

In the context of internally displaced persons, decentralization may also facilitate more effective integration processes. Smaller communities often provide favorable conditions for social inclusion,

community participation, and the formation of local support networks. At the same time, successful implementation requires coordinated investments in employment opportunities, healthcare facilities, educational institutions, transportation systems, and digital infrastructure.

As a result, decentralization should be viewed not merely as a housing policy instrument but as a broader strategy for balanced territorial development and long-term regional resilience [10].

Practical Examples of Potential Cities for Implementing Integrated Strategies

Several Ukrainian cities illustrate the potential for applying integrated approaches that combine regeneration and reconstruction principles.

Kamianets-Podilskyi (Khmelnyskyi Region). City possesses a unique combination of historical heritage, tourism potential, educational institutions, and relatively favorable security conditions. An integrated regeneration strategy could include the expansion of housing stock, development of innovation-oriented educational centers, support for creative industries, and enhancement of digital infrastructure. Such measures would contribute to both economic growth and social integration.

Myrhorod (Poltava Region). Traditionally known as a spa and wellness destination, Myrhorod has significant potential for accommodating internally displaced persons through the development of modern residential neighborhoods. Reconstruction efforts could focus on energy-efficient housing, healthcare infrastructure, educational facilities, and transport connectivity. These investments would strengthen the city's role as a regional service center while maintaining its existing economic specialization.

Mukachevo (Zakarpattia Region). Due to its advantageous geographical location near the borders of several European Union member states, Mukachevo has the potential to become an important logistics and business hub. Integrated strategies could support the development of logistics infrastructure, industrial parks, low-rise residential districts, and small and medium-sized enterprises oriented toward European markets.

The examples above demonstrate that successful post-war recovery requires differentiated approaches that reflect local characteristics, development potential, and demographic conditions. Rather than applying uniform reconstruction models throughout the country, Ukraine should encourage place-based strategies tailored to the specific needs and opportunities of individual territories [6].

Overall, the integration of regeneration and reconstruction principles provides a practical framework for achieving sustainable urban development. By combining physical rebuilding with economic modernization, social inclusion, environmental responsibility, and active citizen participation, Ukraine can transform post-war recovery into a catalyst for long-term territorial development.

Examples of Successful or Promising Practices of Urban Regeneration in Post-War Ukraine

First Steps and Regeneration Plans: The Cases of Irpin, Bucha, Kharkiv, and Chernihiv

Although the full-scale war is still ongoing, Ukraine already demonstrates the first examples of strategic approaches to post-war regeneration. These initiatives illustrate the growing recognition that reconstruction should not simply reproduce pre-war urban structures but should instead contribute to the creation of more sustainable, inclusive, and resilient cities.

Irpin and Bucha (Kyiv Region). Following their liberation from occupation, the immediate priority in Irpin and Bucha was the restoration of critical infrastructure and essential public services. However, local authorities and international partners soon recognized that long-term recovery required more comprehensive planning approaches. Current projects increasingly emphasize low-rise and medium-rise housing development, energy-efficient construction technologies, high-quality public spaces, and improved pedestrian and cycling infrastructure.

Particular attention is being devoted to strengthening social cohesion through the creation of multifunctional public spaces that support community interaction and local identity. These initiatives demonstrate how post-war recovery can serve as a catalyst for broader urban transformation.

Kharkiv. Despite experiencing extensive destruction, Kharkiv has become one of the most ambitious examples of strategic urban recovery planning in Ukraine. The city's long-term development vision incorporates many contemporary European urban planning principles, including compact neighborhoods, improved public transport systems, mixed-use development, and innovation-oriented economic restructuring.

A key objective is to ensure that reconstruction contributes not only to the restoration of physical infrastructure but also to the strengthening of economic competitiveness and urban resilience. Special attention is given to preserving cultural heritage while integrating modern architectural and technological solutions.

Chernihiv. City has also adopted a regeneration-oriented approach to recovery. Planning initiatives emphasize the preservation of historical identity, expansion of green infrastructure, improvement of public spaces, and development of energy-efficient housing. Public participation has become an important component of the planning process, reflecting the growing role of local communities in shaping reconstruction priorities.

Current regeneration initiatives in Ukrainian cities reflect a broader shift toward integrated and future-oriented urban development. Rather than focusing exclusively on quantitative reconstruction indicators, local authorities are increasingly prioritizing quality, inclusiveness, sustainability, and long-term resilience [6, 11].

Promising Regional Projects with Integrated Approaches

Beyond the cities that have suffered direct war damage, significant regeneration opportunities can also be observed in smaller towns that have become destinations for internally displaced persons.

Zhmerinka (Vinnytsia Region). As an important railway hub with relatively well-preserved infrastructure, Zhmerinka possesses favorable conditions for residential expansion and economic development. Future projects may combine housing construction with social, educational, and cultural facilities capable of serving both local residents and newcomers.

Shepetivka (Khmelnyskyi Region). Town has considerable potential for logistics development, industrial modernization, and the establishment of innovation-oriented enterprises. Regeneration initiatives could integrate new housing, business infrastructure, vocational education facilities, and public services designed to support regional economic growth.

Drohobych (Lviv Region). Drohobych already demonstrates elements of integrated urban development through its efforts to preserve cultural heritage, support tourism, and encourage creative industries. The increased demand for housing and services resulting from population movements during the war may provide additional opportunities for sustainable local development.

The regeneration potential observed in many smaller Ukrainian cities demonstrates that recovery efforts should not be limited to territories directly affected by military operations. Numerous municipalities possess the resources, infrastructure, and institutional capacity necessary to become important centers of regional growth. Through targeted investments and integrated planning approaches, such territories can contribute significantly to Ukraine's balanced post-war development and the formation of a more resilient urban system [10, 14].

Conclusions

The analysis conducted in this study demonstrates that the challenges of post-war reconstruction in Ukraine cannot be effectively addressed through traditional approaches focused exclusively on restoring damaged infrastructure and returning cities to their pre-war condition. While such approaches may provide short-term benefits and psychological reassurance, they are insufficient for ensuring long-term sustainability, economic competitiveness, and social resilience.

The experience of European urban regeneration, particularly the principles embodied in the Leipzig Charter, provides valuable guidance for Ukraine's recovery process. Contemporary concepts such as integrated urban development, compact cities, mixed-use neighborhoods, participatory governance, and sustainable infrastructure offer opportunities not only to rebuild what has been destroyed but also to improve the overall quality of urban environments.

Particularly important is the recognition that post-war reconstruction must extend beyond physical rebuilding. Recovery strategies should simultaneously address demographic challenges, economic restructuring, environmental sustainability, social inclusion, and institutional capacity building. In this regard, urban regeneration provides a comprehensive framework capable of integrating these diverse dimensions into a coherent development strategy.

Special attention should be devoted to the decentralization of housing construction and infrastructure investments. Supporting the development of small and medium-sized towns can contribute to a more balanced territorial structure, reduce pressure on major cities, create new economic growth centers, and facilitate the integration of internally displaced persons. Such policies can transform demographic challenges into opportunities for regional revitalization.

The examples of Irpin, Bucha, Kharkiv, Chernihiv, Zhmerinka, Shepetivka, Drohobych, Kamianets-Podilskyi, Myrhorod, and Mukachevo demonstrate that integrated approaches are not merely theoretical concepts but practical tools already being applied in various forms throughout Ukraine. Their common characteristics include comprehensive planning, stakeholder participation, economic diversification, and a commitment to sustainable development.

Based on the findings of this study, several practical recommendations can be proposed. Effective post-war recovery in Ukraine requires the development of integrated regional and municipal plans that combine social, economic, environmental, and infrastructural objectives within a coherent strategic framework. Equally important is ensuring active citizen participation throughout planning and implementation processes, allowing local communities to influence decisions that directly affect their future development. Balanced territorial development should be promoted through targeted investments in smaller towns capable of accommodating internally displaced persons and supporting new economic activities. Particular attention should be paid to economic diversification by fostering small and medium-sized enterprises, innovation ecosystems, creative industries, logistics, and other high-value-added sectors. Furthermore, reconstruction projects should incorporate energy-efficient and environmentally sustainable technologies in order to enhance long-term resilience and reduce resource dependence. Finally, successful implementation of recovery policies will require strong cooperation among local authorities, national institutions, international partners, and civil society organizations, ensuring coordinated and transparent decision-making throughout the reconstruction process.

In conclusion, the integration of urban regeneration strategies with post-war reconstruction represents the most promising pathway for Ukraine's long-term recovery. By combining physical rebuilding with social, economic, and environmental transformation, Ukraine has an opportunity not only to overcome the

consequences of war but also to establish the foundations for a more resilient, inclusive, and sustainable system of urban development.

Successful implementation of this vision will require consistent public policy, effective institutional

coordination, transparent resource management, and active engagement of local communities. Under these conditions, post-war reconstruction can become not only a process of recovery but also a catalyst for modernization and sustainable development in Ukraine throughout the twenty-first century.

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Міська регенерація та післявоєнна відбудова: перспективи сталого розвитку в Україні

Анотація. У статті розглядається питання інтеграції стратегій міської регенерації з викликами післявоєнної відбудови в Україні. Спираючись на європейський досвід, зокрема Лейпцизьку хартію та подібні підходи, автор доводить, що ефективне відновлення зруйнованих війною територій вимагає не лише фізичного відтворення інфраструктури, але й комплексної економічної, соціальної та культурної ревіталізації. У роботі підкреслюються обмеження традиційної моделі «відбудови як було» та обґрунтовується необхідність застосування сучасних концепцій, таких як компактні міста, змішане використання територій та впровадження сталих технологій. Особлива увага приділяється демографічним змінам, спричиненим війною, зокрема депопуляції, старінню населення та зростанню кількості людей з інвалідністю, що зумовлює потребу в інклюзивному та адаптивному плануванні. Аналізується також потенціал малих і середніх міст, які можуть стати новими центрами зростання завдяки інтеграції внутрішньо переміщених осіб. Приклади європейських і українських міст демонструють, що інтегровані стратегії, що поєднують партисипативне планування, децентралізацію житлового будівництва та економічну диверсифікацію, є найбільш ефективною моделлю для довгострокової трансформації та розвитку українських міст.

Ключові слова: міська регенерація; післявоєнна відбудова; сталий розвиток; інтегроване міське планування; Лейпцизька хартія; Україна; внутрішньо переміщені особи; децентралізація; демографічні зміни; економічна диверсифікація

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