Edited by Iryna Degtyarova Yuliia Metalnikova

Modernisation and Recovery of Ukraine from the Perspective of Ukrainian and European Students

Report from the CIVICA Ambassadors Forum on Recovery and Modernisation of Ukraine

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Introduction

During 8–9 May 2023, the SGH Warsaw School of Economics hosted the CIVICA Ambassadors Forum on Recovery and Modernisation of Ukraine. Organised in collaboration with the Student Association for Recovery of Ukraine at SGH (referred as SKN OU or SKN[1]) as part of the CIVICA for Ukraine project funded by NAWA, the Forum brought together CIVICA Ambassadors[2], SKN student members, and students from five Ukrainian universities: Kyiv National Economic University named after Vadym Hetman, Kyiv School of Economics, National University of Kyiv Mohyla Academy, Ukrainian Catholic University, and Vasyl Stus Donetsk National University, participating in CIVICA for Ukraine.

[1] See https://www.sgh.waw.pl/kae/en/student-association-ukraines-recovery; SKN is also present in all social media.

[2] CIVICA Ambassadors (selected students/doctoral candidates representing each university in the Alliance) promote interaction and exchange within the Alliance's communities. The Ambassadors network actively shapes CIVICA by initiating bottom-up projects and participating in formal and informal alliance activities. More about CIVICA Ambassadors on the website https://www.civica.eu/ambassadors/

CIVICA for Ukraine[3] is a collaborative project led by the SGH Warsaw School of Economics under the NAWA programme "Solidarity with Ukraine – European Universities", together with the European University of Social Sciences (CIVICA) and five Ukrainian universities, aiming to enhance cooperation in social sciences, humanities, management, and public policy. The project includes a variety of activities for students, doctoral candidates, faculty, and staff exchanges from Ukrainian universities, such as conferences, study visits, internships, summer schools, seminars, workshops, and more.

The CIVICA Ambassadors Forum was focused on inspiring student debate about the recovery of Ukraine and highlighting the crucial role of the youth in fostering peace in Europe. The underlying motivation of this Forum extended beyond mere networking; it embraced the essence of academic collaboration; the aim was to channel the collective intellect of young people into meaningful scholarly work. The agenda encompassed engaging discussions, plenary sessions, expert talks, and interactive working sessions covering five topics, facilitated by students, and cultural activities aimed at integrating participants from both CIVICA and Ukrainian universities. During these sessions, participants shared recommendations and suggestions.

An important outcome of this ambitious initiative is a report jointly prepared by Ukrainian students and CIVICA Ambassadors, offering complex solutions derived from the deep discussions held within the framework of five thematic working groups and youth views on Ukraine's reconstruction within the context of its future EU membership. Merging the insights of both Ukrainian and Polish students and CIVICA Ambassadors, it summarises all the presentations and outcomes of the collective work of five thematic working groups (Energy & Environment, Globalistion & EU, Social Policies & Education, Overview of Recovery Plans, Local Development), which correspond to the five chapters of this report. Each chapter presents key problems for each topic that was discussed, followed by solutions and a vision for future reconstruction projects, and concluded with recommendations from the students. As this was a unique academic exercise involving students facilitated by students, it obviously falls short of covering all relevant topics and areas.

[3]More about the project see https://www.civica.eu/for-ukraine/ and https://gazeta.sgh.waw.pl/sgh-dla-ukrainy as well as on SGH International profile in social media and track #CIVICA4Ukraine in social media.

Composition of the students' thematic working groups:

WG Energy & Environment
- Yuliia Metalnikova, SGH, Student Association for Recovery of Ukraine (moderator)
- Mateusz Świtaj, SGH, Student Association Energy (moderator)
- Solomiia Hnidan, UCU
- Gustav Jäger, SSE, CIVICA Ambassador 2022/2023
- Valeriia Kotsan, SGH
- Francesca Minetto, Hertie School of Governance, CIVICA Ambassador 2022/2023
- Nelli Yashchenko, KSE

WG Social Policies & Education
- Olena Vol, SGH, SKN Recovery of Ukraine (moderator)
- Konstantin Bogatyrev, Bocconi University, CIVICA Ambassador 2022/2023 (moderator)
- Stefaniia Bulakh, KNEU
- Joel Christoph, EUI, CIVICA Ambassador 2022/2023
- Joanna Grams, SNSPA, CIVICA Ambassador 2022/2023
- Olha Ivasiuk, Vasyl Stus DonNU
- Anna Mosina, NaUKMA

WG Geopolitics & European Integration
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- Mahmoud Javadi, EUI, CIVICA Ambassador 2022/2023 (moderator)
- Lena Ibishi, CEU, CIVICA Ambassador 2022/2023
- Emma Summer Johnson, SSE, CIVICA Ambassador 2022/2023
- Olha Tolmachova, UCU
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WG Overview of Recovery Plans
- Dobromir Wołowiec, SGH, SKN Recovery of Ukraine (moderator)
- Artem Melnyk, KSE (moderator)
- Aleksandra Dragan, SGH, CIVICA Ambassador 2022/2023

- Myroslava Ivaniutina, Vasyl Stus DonNU
- Oleksandra Kachynska, KNEU
- Anna Ustenko, NaUKMA

WG Local development

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- Kseniya Kvitka, UCU
- Maria Maievska, Vasyl Stus DonNU
- Alexandra-Bianca Marica, SNSPA, CIVICA Ambassador 2022/2023
- Ruslana Mushcherova, KNEU
- Sofiia Pavlova, NaUKMA
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The draft Report was compiled by the editorial board: Solomiia Hnidan (UCU), Nelli Yashchenko (KSE); Konstantin Bogatyrev (Bocconi University), Olha Ivasiuk (Vasyl Stus DonNU), Olena Vol (SGH, QEM); Mahmoud Javadi (EUI); Emma Summer Johnson (SSE), Olha Tolmachova (UCU); Anna Ustenko (NaUKMA), Artem Melnyk (KSE); Kseniya Kvitka (UCU). The work was finalised by 15 August 2023.

Overall supervision and editorial work was performed by Head of the SGH Student Association for Recovery of Ukraine Yuliia Metalnikova and dr Iryna Degtyarova, Project Coordinator, SGH Rector's Representative for Cooperation with Ukrainian Universities. The editors did not interfere in the students' ideas and texts, allowing them to express their vision for the recovery and modernisation of Ukraine, as it was discussed in the mixed groups.

We believe that this Report will contribute to the general discussion about the recovery and modernisation of Ukraine and may inspire young people in Ukraine and Europe to engage more in the ongoing intellectual discussions at the university, local, national, and international levels, as well as participate in concrete recovery actions. Moreover, such academic endeavours help students to develop their analytical and research skills, practise their academic writing and group work, expand their networks and make new, long-lasting academic and professional friendships.

Iryna Degtyarova, Yuliia Metalnikova
SGH Warsaw School of Economics

Executive Summary

Ukrainian and European students, participants of the CIVICA Ambassadors Forum on Recovery and Modernisation of Ukraine at SGH in May 2023, advocate for a holistic and forward-thinking approach to Ukraine's recovery. In light of the ongoing conflict and uncertain duration of the war, it is crucial for Ukraine to prioritise immediate reconstruction and modernisation efforts, which must commence now, without delay. The CIVICA Ambassadors Forum emphasises the need for transformative change rather than merely restoring pre-war conditions. A strong foundation for long-term prosperity can be established through comprehensive strategies.

Key messages include:

1. Embracing Change for Innovative Reconstruction: Ukraine's recovery should be viewed as a chance to build a stronger foundation for sustained prosperity, focusing on positive transformation rather than mere restoration. Ukraine should seize the opportunity to improve its foundation for long-term prosperity through innovative reconstruction strategies.

2. Long-Term Holistic Vision and Resilience: Ukraine's recovery should be viewed as interconnected actions to enable synergistic reforms and regulatory implementations across sectors, and demands a strategic, holistic,

and long-term approach. By embracing local engagement, anti-corruption measures, education reform, and innovative strategies, communities can be at the forefront of Ukraine's recovery.

3. Transparency in the Recovery Process: Effective recovery of Ukraine demands clear guidelines, monitoring mechanisms, reporting mechanisms, and transparency to ensure fair resource distribution and combat corruption. Implementation of anti-corruption and transparency measures is crucial for effective resource utilisation.

4. Local Engagement and Entrepreneurship: Engaging local communities and organisations in the planning, implementation, and monitoring of reconstruction projects is vital. Local entrepreneurship and involvement of regional companies in reconstruction efforts will identify urgent needs and drive effective action.

5. Anti-Corruption Measures and Digital Advancements: Robust prosecution of corruption cases, including cases related to bribery and fraud, is crucial for maintaining the integrity of anti-corruption institutions, supported by initiatives like Prozorro, expansion of functionalities, and integration of advanced anti-corruption tools. Leveraging digital advancements can optimise bureaucracy, enhance democratic participation, and improve public services.

6. Fiscal and Monetary Policy Reforms: Ukraine's economic development hinges on responsible and strategically planned fiscal policies, simplifying the tax system, reducing rates, and promoting a competitive business environment. Strengthening public financial management and transparent oversight is crucial for efficient resource utilisation.

7. Technology-Driven Reconstruction: Linking public governance and technology enhances reconstruction, optimising bureaucratic processes, democratic participation, and public service efficiency. Technology-driven modernisation impacts multiple sectors, making it a critical tool for comprehensive effectiveness and progress.

8. Energy Sector Strategies: Reforming the energy sector involves diversifying power delivery, investing in the development of domestic energy sources, and advancing with green transition awareness. Collaboration with reliable partners, in particular for the expansion of the nuclear energy potential and support for renewables, will contribute to sustainable energy development.

9. Market Operation Enhancements: Deregulating markets, prosecuting corruption, reprivatising energy assets, and fostering private investments are essential steps. Supporting small businesses, improving competition laws, and advancing renewable energy will stimulate economic growth.

10. Equity and Inclusion: The recovery plan should reduce inequalities, also in education and labour market on the basis of income, disabilities and place of origin; support smaller cities and disadvantaged regions, and ensure modern standards of accessibility and inclusion, also for the veterans. Mental health and access to counselling services should be ensured, including at educational institutions.

11. Local Empowerment: Strengthening local communities through optimised tax administration, optimisation of services, stimulating and supporting business initiatives, infrastructure development are key to empowering local communities and for local economic growth, for driving Ukraine's reconstruction after victory.

12. Infrastructure Development: Prioritise quality infrastructure, road reconstruction, waste management, and other sustainable services and key infrastructure for improved quality of life, economic development, and environmental preservation with efficient resource allocation.

13. Community Leaders' Development: Building the capacity of community leaders and administrators through strategic knowledge and skills development is essential for effective governance, cooperation, and accessing external support. Community leaders should prioritise continuous learning and strategic thinking. By fostering knowledge, financial literacy, and collaboration with residents and external partners, leaders can effectively drive sustainable development and secure external support.

14. Address Environmental Challenges and Promote Eco-Friendly Mindset: Demining is essential. A key step is to support green tech entrepreneurship through encouraging small and medium-sized businesses, including startups, to develop green technology solutions, and offer state support to nurture these innovative initiatives. Eco-awareness should be promoted through education, emphasising respect for nature, eco-tourism and recreational activities that align with sustainable practices.

15. Higher Education and Innovation: The country's recovery and modernisation cannot be imagined without reinvigorating Ukrainian universities. It is not just rebuilding the institutions the way they were, but addressing the long-standing challenges of higher education to build back better. Empowering universities is vital for sustainable growth, innovation, and human capital development.

Specifically, the **following recommendations to address Ukraine's higher education** challenges are proposed:

– To tackle funding and facility issues, redeveloping old or building new energy-efficient and accessible facilities for HEIs, potentially in suburban areas, should be funded by both recovery plans and private donations. Naming facilities, scholarships, faculty positions, study programmes and chairs after donors should be used to attract private funding, along with R&D contracts and other partnerships with businesses. The state should provide incentives for teaching and research performance. Increasing public funding at pace with economic growth is recommended.

– For quality improvement, HEIs should transition from remote education to primarily in-person classes. Staff performance should be fostered through individual performance-based incentives, visiting scholar and exchange programmes, internal training, and a strictly implemented code of ethics. Universities should integrate research into their core activities and implement open and competitive hiring and promotion practices that take research performance into account. Besides, they should encourage community engagement and extracurricular activities. Internationalisation can be promoted through recognition of credentials obtained abroad, exchange programmes for faculty and students and research cooperation with foreign institutions.

– To alleviate degree-job mismatch and restore trust in academic degrees, HEIs should undergo stricter licensing procedures. Non-qualifying institutions should either convert to vocational education or merge with a qualifying HEI that will implement the necessary changes. The government should regularly conduct independent audits to improve teaching and organisational practices. Universities should invite reputable employers to be involved in course development, teaching, and membership in supervisory boards.

– To improve equity and inclusion in higher education, the government should reimplement offline External Independent Testing for admissions. Students should be represented on HEI boards and granted decision powers on some, even if minor, parts of university budgets. Any new or renovated infrastructure should be accessible to visitors regardless of their gender, age, and disability. HEIs should monitor mental health and provide access to counselling services. Higher education policies should not critically disadvantage HEIs in smaller cities and regions with lower HEI density and ought to support their development in cases where they lag behind.

In conclusion, the Report underscores the potential for transformative change in Ukraine's reconstruction efforts. By prioritising transparency, engaging local communities, fostering innovation, technological advancement, human capital development, and implementing strategic reforms, Ukraine can navigate challenges, overcome war damage to society, and create a resilient and prosperous future as part of the European family. Undoubtedly, Russia must be held accountable for the war damage, war crimes, and ecocide committed.

CHAPTER 1

OVERVIEW OF RECOVERY PLANS FOR UKRAINE[4]

Artem Melnyk[5], Anna Ustenko[6]

Introduction. Why We Look at Other Plans

Ukraine stands at a critical juncture in its pursuit of a post-war green transformation. As the country seeks to rebuild and modernise, it is essential to consider alternative plans that go beyond conventional approaches. This policy recommendation highlights the significance of benchmarking, cooperation, diversification, gaining alternative perspectives, and leveraging synergy to maximise the success of Ukraine's green transformation.

To ensure the effectiveness and efficiency of Ukraine's green reconstruction efforts, it is crucial to adopt a multifaceted approach that explores alternative plans [CEPR, 2022; Wise Europa, 2022; Lugano plan,

[4] Elaborated in group discussion with: Dobromir Wołowiec, SGH, SKN Recovery of Ukraine, Artem Melnyk, KSE, Aleksandra Dragan, SGH, Myroslava Ivaniutina, Vasyl Stus DonNU, Oleksandra Kachynska, KNEU, Anna Ustenko, NaUKMA.

[5] Student of Kyiv School of Economics.

[6] Student of National University of Kyiv Mohyla Academy.

2022; KSE, 2022; National Council plan, 2022] while considering the failures and challenges encountered in past reconstruction efforts.

By incorporating various perspectives and strategies, Ukraine can mitigate risks, enhance outcomes, and learn from the experiences of other nations. The following sections present the main reasons for considering alternative plans, taking into account some negative experiences of other countries.

Benchmarking involves studying and adapting successful practices (the Marshall Plan, German reunification, and the reconstruction of Kuwait) implemented by other countries or organisations. Ukraine can benefit immensely from analysing green reconstruction initiatives implemented elsewhere. By identifying best practices, studying their outcomes, and tailoring them to suit Ukraine's unique context, the country can streamline its efforts and accelerate its green transformation.

However, it is essential to approach benchmarking with caution and thoroughly evaluate the transferability of practices, considering the differences in socio-cultural, political, and economic contexts. The negative experience of the United States in rebuilding Iraq serves as a reminder of the importance of contextual adaptation and careful implementation [CEPR, 2022; World Bank, 2022],

Cooperation and collaboration are crucial for a successful green reconstruction. Ukraine should actively engage with international organisations, research institutions, and other countries to foster knowledge sharing and leverage collective expertise. Learning from the United States' experience in Iraq, it is evident that unilateral decision-making and a lack of cooperation can hinder the effectiveness and sustainability of reconstruction efforts. Ukraine should strive to establish collaborative mechanisms, engage stakeholders in decision-making processes, and ensure transparent and inclusive cooperation with international partners [National Council plan, 2022].

Ukraine should adopt a diversified approach to its green transformation, considering various technological, economic, and policy options. Relying solely on a single plan or solution may limit the country's potential for innovation and resilience. Drawing lessons from the United States' experience in Iraq, where an overemphasis on oil production and neglect of

other sectors led to economic imbalances and dependency, Ukraine should aim for a balanced and diversified green reconstruction strategy. Exploring multiple pathways ensures resilience, promotes economic diversification, and mitigates risks associated with over-reliance on specific industries or technologies [Wise Europa, 2022].

Gaining alternative perspectives is vital to enriching the decision-making process. Ukraine should actively seek inputs from various stakeholders, including civil society organisations, local communities, academia, and industry experts. Ukraine should learn from this experience and prioritise the active participation of local communities in the planning, implementation, and monitoring of green reconstruction projects. This approach ensures the alignment of initiatives with local needs, enhances social acceptance and promotes sustainable development [IIEA, 2022].

Achieving synergy between different sectors and policies is crucial for a comprehensive green transformation. Ukraine should strive for integrated solutions that align various initiatives, such as energy efficiency, renewable energy deployment, sustainable transportation, and circular economy practices. Drawing from the negative cases of post-war reconstructions, where a lack of coordination between sectors hindered progress and led to fragmented outcomes, Ukraine should prioritise cross-sectoral collaboration and ensure policy coherence. Integrated approaches enhance efficiency, optimise resource allocation, and maximise the impact of individual measures [KSE, 2022].

In order to achieve a successful green transformation, Ukraine must look beyond conventional plans and explore alternative strategies, while being mindful of the downsides which may occur along the way. By incorporating benchmarking, cooperation, diversification, gaining alternative perspectives, and leveraging synergy, Ukraine can enhance the efficiency, effectiveness, and sustainability of its green reconstruction initiatives, while avoiding the pitfalls and challenges encountered in past reconstruction efforts.

Build Back Better

Ukraine's green reconstruction efforts hold the potential to not only rebuild what was lost but to improve the status quo and lay the foundation for a more sustainable and prosperous future. In light of this, this policy

recommendation emphasises the importance of adopting a "Build Back Better" approach, with a focus on improvement, long-term sustainability, and unlocking opportunities for growth and economic acceleration. By integrating these principles into the reconstruction process, Ukraine can create a resilient and sustainable future for its citizens.

To ensure that Ukraine's green reconstruction efforts effectively address the challenges and opportunities at hand, it is crucial to adopt a thematic structure and problematic approach. This approach encompasses key findings centred around the concept of "building back better Ukraine." The following sections explore the importance of focusing on improvement, incorporating sustainability aspects, and leveraging the opportunity for growth and economic acceleration.

Rather than simply rebuilding what existed before the war, Ukraine's green reconstruction should embrace the opportunity for improvement, rather than plain reconstruction. This entails assessing the weaknesses and shortcomings of the pre-war status quo and implementing changes that address these issues.

By incorporating lessons learned and integrating innovative solutions, Ukraine can rebuild infrastructure, systems, and institutions in a way that enhances the effectiveness, resilience, and responsiveness to the needs of its citizens. This approach enables Ukraine to build a stronger foundation for long-term prosperity [Wise Europa, 2022].

Sustainability should be a guiding principle in Ukraine's green reconstruction efforts. By prioritising long-term solutions, Ukraine can ensure the resilience of rebuilt infrastructure and systems, while minimising negative environmental impacts. This includes integrating renewable energy sources, implementing energy-efficient technologies, promoting sustainable transportation options, and embracing circular economy practices. Emphasising sustainability not only reduces Ukraine's carbon footprint but also leads to cost savings, improved quality of life, and increased competitiveness in the global green economy [IIEA, 2022; World Bank, 2022].

By strategically investing in green industries, clean technologies, and sustainable practices, Ukraine can stimulate job creation, attract investments, and diversify its economy. Leveraging the transition to a green economy can

enhance competitiveness, improve resource efficiency, and foster innovation and entrepreneurship. Additionally, incorporating social inclusion measures can ensure that the benefits of green growth are equitably distributed across communities, contributing to a more inclusive and resilient society.

Ukraine's green reconstruction presents a transformative opportunity to "build back better" and create a more sustainable and prosperous future. By focusing on improvement and sustainability aspects incorporation, while leveraging the opportunity for growth and economic acceleration, Ukraine can lay the foundation for a resilient and thriving society. Therefore, implementing the proposed recommendations would not only mean rebuilding what was lost but creating a greener, more inclusive, and economically vibrant Ukraine for generations to come.

Redistribution of Resources

In the process of rebuilding Ukraine, it is crucial to establish clear criteria for the redistribution of resources. This policy recommendation emphasises the importance of transparency, anti-corruption measures, engagement with foreign officials and organisations, and cooperation between the public and private sectors. By implementing these criteria, Ukraine can ensure that resources are allocated effectively, corruption is minimised, and expertise from both domestic and international sources is leveraged for the country's development.

In order to examine the obstacles and possibilities related to the redistribution of resources in Ukraine, it is advisable to embrace a thematic structure and an approach centred around addressing specific issues. This approach incorporates key elements such as transparency, anti-corruption actions, engagement of foreign officials and organisations, and collaboration between the public and private sectors. The following sections delve into each criterion, providing insights into their importance for effective resource redistribution.

Transparency plays a vital role in ensuring the equitable and efficient distribution of resources. Ukraine should establish clear guidelines and procedures for the allocation of funds and resources, with a strong emphasis on transparency and accountability. Implementing mechanisms such as public disclosure of information, monitoring and evaluation systems, and

clear reporting frameworks will enhance transparency and enable effective oversight. Transparent processes will build trust among stakeholders, facilitate public participation, and mitigate the risk of corruption [KSE, 2022; World Bank, 2022].

Combating corruption is crucial for effective resource redistribution. Ukraine should strengthen its anti-corruption measures, including legal frameworks, enforcement mechanisms, and institutional capacity. This involves enhancing investigative capabilities, prosecuting corruption cases rigorously, protecting whistle-blowers, and promoting a culture of integrity. By actively addressing corruption risks and establishing a strong anti-corruption framework, Ukraine can ensure that resources are allocated based on merit, efficiency, and public interest [KSE Institute, 2023].

Engaging foreign officials, organisations, and Ukrainian experts is essential for effective resource redistribution. Ukraine should actively seek partnerships with international entities, inviting their participation in the decision-making processes and drawing upon their expertise and best practices. Collaboration with foreign officials and organisations can provide valuable insights, innovative approaches, and technical assistance. Simultaneously, engaging Ukrainian experts ensures that domestic knowledge and perspectives are considered, leading to contextually appropriate resource allocation strategies [CEPR, 2022].

Collaboration between the public and private sectors is crucial for successful resource redistribution. Ukraine should foster an environment that encourages public-private partnerships (PPPs) and cooperation. By leveraging the strengths and resources of both sectors, Ukraine can enhance efficiency, attract investment, and ensure sustainable development. PPPs can facilitate the mobilisation of additional funding, expertise, and technology, contributing to the effective redistribution of resources for reconstruction efforts [KSE Institute, 2023].

By implementing clear criteria for resource redistribution, Ukraine can ensure that the allocation of funds and resources is transparent, corruption-free, and based on merit and public interest. Improving transparency, implementing anti-corruption actions, engaging foreign officials and organisations, and fostering public-private sector cooperation will contribute to the effective and equitable redistribution of resources. These measures

are crucial for rebuilding Ukraine, promoting sustainable development, and realising the country's full potential.

Bottom-up Approach

In the process of Ukraine's reconstruction, a bottom-up approach that actively involves local communities is vital for fostering ownership, empowering citizens, and addressing their most urgent needs. This policy recommendation highlights the importance of initiating actions from the bottom to the top, activating local people and companies, and ensuring that the reconstruction efforts are responsive to the immediate and pressing requirements of the affected communities. By embracing a bottom-up approach, Ukraine can achieve inclusive and sustainable reconstruction outcomes that prioritise the well-being and aspirations of its citizens.

To effectively involve locals in Ukraine's reconstruction, it is necessary to adopt a thematic structure and problematic approach. This approach encompasses key elements such as initiating actions from the bottom to the top, activating local individuals and companies, and prioritising the fulfilment of urgent community needs. The following sections delve into each criterion, providing insights into their importance for fostering local participation and inclusive reconstruction.

A bottom-up approach emphasises the initiation of actions at the grassroots level, allowing local communities to identify their specific needs, challenges, and aspirations. Ukraine's reconstruction should enable communities to actively participate in decision-making processes and encourage the formulation of local development plans. By empowering local communities as key stakeholders, Ukraine can ensure that reconstruction efforts are tailored to the unique context and needs of each community. This approach promotes a sense of ownership, increases accountability, and enhances the overall effectiveness and sustainability of reconstruction initiatives [National Council plan, 2022].

Engaging local people and companies is crucial for achieving meaningful and sustainable reconstruction outcomes. Ukraine should actively involve local individuals, community leaders, and organisations in the planning, implementation, and monitoring of reconstruction projects. This includes fostering local entrepreneurship, encouraging the participation of local

companies, and providing opportunities for skills development and capacity building within the community. Activating local resources and expertise not only drives economic growth but also ensures that reconstruction efforts align with the community's cultural values, social fabric, and long-term aspirations [National Council plan, 2022].

Prioritising the fulfilment of urgent community needs, a bottom-up approach emphasises addressing the most urgent needs of local communities in the early stages of reconstruction. Ukraine should conduct thorough assessments to identify immediate requirements, such as access to clean water, healthcare facilities, and temporary housing. By prioritising urgent needs, the reconstruction process can have an immediate positive impact on the lives of affected individuals. This approach demonstrates responsiveness and enhances community trust, fostering a sense of hope and collaboration among the local population [CEPR, 2022; World Bank, 2022].

Involving locals through a bottom-up approach is crucial for achieving inclusive, sustainable, and people-centred reconstruction in Ukraine. By initiating actions from the bottom to the top, activating local people and companies, and prioritising the fulfilment of urgent community needs, Ukraine can empower its citizens, promote social cohesion, and create a sense of ownership and responsibility among local communities. Embracing this approach will not only lead to more effective reconstruction outcomes but also foster resilience, social harmony, and sustainable development for a brighter future.

Transparency

Power abuse and corruption are oftentimes closely related to the political instability of the post-transitional market economies in the Eastern European region. Nonetheless, in the course of the last decade, Ukraine has demonstrated a positive shift towards curbing corruption in the government. According to the Corruption Perceptions Index (CPI), Ukraine gained eight points compared to 2013, ascending one step further in the course of the last year, even despite the ongoing war against Russia's invasion [Transparency International, 2022].

Transparency is a crucial element in promoting accountability, combating corruption, and fostering good governance. This policy recommendation

underscores the importance of upholding transparency and updating systems like Prozorro in Ukraine. It emphasises the need for anti-corruption actions, exerting pressure on lawmakers to implement more transparency regulations, and recognising that future reforms are contingent upon a strong rule of law framework. By prioritising these aspects, Ukraine can strengthen its governance system, build public trust, and pave the way for sustainable development.

Ukraine's continued anticorruption efforts, enforced with the support of external actors, such as the IMF and EU, as well as the political will of the president's administration, endorsed by the system of anticorruption institutions keep building up Ukraine's anti-corruption resilience [Minakov, 2023]. But to further address the challenges and opportunities related to transparency, such as the Prozorro updating, it is essential to adopt a thematic structure and problematic approach.

This approach should include key elements such as anti-corruption actions, support for initiatives, advocacy for transparency regulations, and emphasising the indispensable role of the rule of law. The following sections delve into each criterion, providing insights into their importance for promoting accountability and combating corruption in Ukraine.

Ukraine should strengthen its anti-corruption actions by bolstering the capacity and independence of institutions such as the National Anti-Corruption Bureau of Ukraine (NABU) and the Specialised Anti-Corruption Prosecutor's Office (SAPO). Adequate resources, rigorous investigations, and effective prosecution of corruption cases are paramount to combating corruption and instilling public confidence in the transparency system [KSE Institute, 2023].

Ukraine should continue supporting and enhancing initiatives such as Prozorro to promote transparency in public procurement. Prozorro has been instrumental in reducing corruption risks, increasing competition, and ensuring fair access to public contracts. Strengthening Prozorro's functionalities, expanding its coverage to other sectors, and incorporating advanced anti-corruption measures will further enhance transparency and accountability in public procurement processes [Delegation of the European Union to Ukraine, 2022].

Ukraine should exert pressure on lawmakers to implement comprehensive transparency regulations. This includes advocating for the adoption of legislation that promotes openness, disclosure, and accountability across all sectors. Civil society organisations, the media, and concerned citizens should actively engage in monitoring, lobbying, and public awareness campaigns to ensure the enactment and enforcement of robust transparency laws. Holding lawmakers accountable for their actions and urging them to prioritise transparency will contribute to a more accountable and corruption-resistant governance system.

A strong rule of law is fundamental for sustaining transparency efforts in Ukraine. Upholding the rule of law ensures that institutions are independent, fair, and accountable, providing the necessary legal framework for transparency regulations to be effectively implemented. Ukraine should prioritise reforms that strengthen the judiciary, enhance legal protections for whistle-blowers, and promote the integrity and professionalism of law enforcement agencies. Only through a robust rule of law can Ukraine secure the foundations for sustainable development, transparency, and good governance [IIEA, 2022].

Ukraine's journey towards transparency and combating corruption requires steadfast commitment, anti-corruption actions, advocacy for transparency regulations, and unwavering adherence to the rule of law. By prioritising these elements, Ukraine can build a governance system that fosters accountability, instils public trust, and paves the way for sustainable development. Upholding transparency and combating corruption is indispensable for Ukraine's progress towards a prosperous and transparent society.

Spillover Effect

The post-war period which awaits Ukraine will inevitably require a significant institutional capacity to counter a diverse array of challenges, linked to such aspects as sustainable economic development, the distribution of resources, and anti-corruption efforts, amongst many others. This assumption presupposes that if reconstruction is to be executed rapidly, multiple sectors will have to undergo a thorough and concurrent transformation.

In June 2022, the National Council for the Recovery of Ukraine from the Consequences of the War developed a comprehensive Plan that contains a list of measures, initiatives, proposals, and drafts of legal documents, and covers a total of 24 sectors that require prioritised attention, such as the economic recovery, social protection, urban planning, the development of the military-industrial complex, and more. Yet, the framework itself seems to lack clarity on establishing defined criteria by which the order of potential significance of the highlighted sectors would be identified [European Investment Bank, 2023]. To put it in another way, facilitating the implementation of the proposed measures would require a thorough priority assessment.

Despite the fact that the term appearing in the title of this subchapter is oftentimes used with a negative connotation, in this particular context, it highlights the need to establish an in-depth programme of Ukraine's recovery, broad enough to be of use in various sectors but sufficiently coherent as to establish an interdependency of its features. Eventually, the spillover effect of the recovery and reconstruction efforts should result in bringing a synergistic linkage to the proposed institutional reforms.

In 2023, the EU's recovery plan for Ukraine established a Multi-Agency Donor Coordination Platform built on the results of the Conferences in Lugano, Berlin, and Paris as one of the key pillars for the reconstruction [European Commission, 2023]. Aimed at addressing the country's specific requirements with necessary financial resources, the creation of the platform underlines the EU's evident commitment to sustain its leadership position in international reconstruction efforts.

It is apparent that in order to swiftly address Ukraine's most urgent needs would require a multi-actor approach, including the support of partner governments. Hence, five key areas for immediate support of Ukraine's recovery were outlined by Ukraine's PM Denys Shmyhal at a Multi-Agency Donor Coordination Platform meeting in London in 2023. This includes housing, energy, critical and social infrastructure, mine clearance, and the economy [Cabinet of Ministers of Ukraine, 2023].

Nonetheless, Ukraine's recovery process needs to be resilient in meeting future challenges. Therefore, it is important to secure that the implementation of the required reforms is going to be sustained despite

the possible changing conditions and/or obstacles arising. Ultimately, the reforms should be designed to perform synergically.

Reconstruction is a broad term that encompasses a myriad of activities conducted on various levels. Ukraine's recovery ought to be executed on the basis of democratic and liberal governance in accordance with the interests of minority groups while involving different public and state actors.

Fiscal Policy Revision

The revision of fiscal and monetary policy is crucial for promoting economic stability, attracting investment, and fostering sustainable development in Ukraine. This policy recommendation emphasises the importance of implementing changes to fiscal policy, reducing tax burdens, creating a more competitive business environment, and effectively managing public finances.

By addressing these aspects, Ukraine can enhance its economic competitiveness, stimulate growth, and lay the foundation for a resilient and prosperous future. If managed properly, the economy's financial sector can secure the continuity of reforms and institutional changes. Nevertheless, in order to achieve a "broad-based reconstruction", rebuilding the financial system would require strong supervision and regulation [Addison, Le Billon, Murshed, 2001].

To address the challenges and opportunities related to fiscal and monetary policy revision in Ukraine, it is essential to adopt a thematic structure and problematic approach. This approach encompasses key elements such as changes to fiscal policy, reducing tax burdens, creating a more competitive environment, and effective management of public finances. The following sections delve into each criterion, providing insights into their importance for advancing fiscal and monetary policy in Ukraine.

Ukraine should prioritise changes to fiscal policy to ensure sustainable economic growth and fiscal stability. This includes adopting responsible fiscal measures, enhancing budgetary discipline, and promoting efficiency in public spending. Reforms should focus on aligning expenditures with strategic priorities, improving revenue collection systems, and streamlining budget processes. By implementing sound fiscal policies, Ukraine can build investor confidence, attract foreign direct investment, and create an environment conducive to sustainable economic development [CEPR, 2022].

Reducing tax burdens is essential for stimulating economic activity, encouraging entrepreneurship, and attracting investment. Ukraine should consider measures to simplify the tax system, reduce tax rates, and eliminate excessive bureaucracy. By creating a more favourable tax environment, businesses can thrive, job creation can be fostered, and the informal economy can be curtailed. Moreover, reducing tax burdens can enhance Ukraine's competitiveness, encourage innovation, and promote a fairer and more equitable tax system [KSE Institute, 2023; CEPR. 2022].

Ukraine should actively work towards creating a more competitive business environment by removing barriers, reducing red tape, and improving the ease of doing business. This entails streamlining regulations, enhancing transparency, and promoting fair competition. Measures such as deregulation, simplifying licensing procedures, and improving access to finance can stimulate entrepreneurship, attract investment, and foster innovation. A more competitive environment will contribute to increased productivity, job creation, and sustainable economic growth {European Commission, 2022].

Efficient management of public finances is crucial for ensuring fiscal stability and sustainability. Ukraine should prioritise measures to improve public financial management systems, enhance transparency in budgetary processes, and strengthen fiscal oversight mechanisms. This includes effective budget planning, robust expenditure controls, and rigorous monitoring of public spending. By fostering accountability and transparency in public financial management, Ukraine can build trust, promote effective resource allocation, and ensure the responsible use of public funds.

The revision of fiscal and monetary policy in Ukraine is vital for driving sustainable economic growth, attracting investment, and ensuring fiscal stability. By implementing changes to fiscal policy, reducing tax burdens, creating a more competitive business environment, and effectively managing public finances, Ukraine can establish a strong foundation for prosperity and resilience. These measures will contribute to fostering a favourable business climate, encouraging entrepreneurship, and positioning Ukraine as an attractive destination for investment, which would facilitate the country's economic development.

Public Administration and AI

Among the number of aspects that the majority of recovery plans for Ukraine have in common is the consensus on the need for ensuring a bureaucratic system performs in high quality. Yet, as has been extensively argued in academia, to do so would require a thorough public administration reform.

Needless to state, Ukraine has already been doing exceptionally well in this sphere of digital optimisation of public services for years before the escalation of Russian aggression in 2022. The electronic procurement platform Prozorro, Prozorro.Sales, and e-Health (eZdorovya) are strikingly positive examples.

Moreover, at the early stages of the war, owing to this high level of digitalisation, Ukraine managed to evade a bureaucratic collapse with millions of people relocating to other regions and/or abroad along with the literal impossibility of reaching countless amounts of documents in territories occupied by Russian troops [Davydov, 2023].

But given the country's already evident success in implementing digitalisation into the public sphere, further improving the institutional framework through technological innovation ought to ensure a growing efficiency of public services [Boyarchuk, Hartwell, Gorodnichenko, 2023]. To put it in another manner, preserving the stability of the state apparatus hinges on ensuring a strong relationship between the system of public governance and advanced technology.

Ultimately, digital optimisation of issues that pertain to public governance (such as the services of general interest) ought to bring numerous benefits to different stakeholders at the international, national, and local levels. To name a few, such optimisation can reduce the amount of needed recovery financing, provide more transparency and accessibility, and in the longer term, improve Ukraine's prospect of meeting EU requirements for accession.

Nevertheless, the adaptation of Ukrainian legislation to the EU acquis is a resource-intensive task, so the reforms that are to lead the country to accession need to be undertaken swiftly. Further digital improvement can foster reconstruction efforts on a grander scale, contributing not only to the optimisation of bureaucratic procedures but affecting democratic participation and the efficiency of public services as well [Bandura, Staguhn, 2023].

Notably, the European Union has recently recognised Ukraine's achievement of reaching a "more transparent government" through progress in digital transformation European Commission, 2023]. Additionally, the EU's decision to associate Ukraine to the Digital Europe Programme (DIGITAL) ought to facilitate the strengthening of the national resilience against Russia's cyber-attacks and encourage Ukraine to meet the EU standards for digitalisation in a shorter time period.

Ultimately, through cooperation and communication with the European institutions, Ukraine ought to aim at securing the maximum efficiency of reconstruction activities, and improving the public administration system is one of the key tasks to undertake in this regard.

Digital-First Approach to Reconstruction

The current subdivision connects quite logically to the previous one by focusing on what is already one of the most prominent sectors of Ukraine's economy — information and communications technology (ICT), which, according to the CSIS report, contributed 4% of the country's gross domestic product (GDP) [Ukraine NOW, n.d.]. Additionally, between 2020 and 2021, the IT sector in Ukraine grew by 36% "from $5 billion in exports of computational services in 2020 to $6.8 billion in early 2021" [Bandura, Staguhn, 2023].

Particular focus on the aspects of the so-called digital-first approach to reconstruction is substantiated by the uncertainty concerning the ultimate timespan of the war. Even with numerous recovery efforts already enacted, the threat of Russian violence disables the majority of the required programs to be initiated and fully executed.

Yet, as is widely believed, the incorporation of the digital can facilitate reaching the reconstruction objectives at their most desired capacity. This includes operating under critical and hazardous conditions. At the same time, a number of documents and plans on Ukraine's recovery mention such aspects as the strengthening of digital infrastructure and facilitating economic growth with the help of technologically advanced instruments, but they still leave the topic rather underdeveloped.

Technology-driven reconstruction and modernisation of Ukraine would affect a wide range of sectors, including the economy, energy and food

production, logistics, and transport, amongst many others. Therefore, the digital ought to be regarded not just as one of the most crucial tools, but as one of the most critical importance. In other words, any recovery plan needs to devote full attention to issues that pertain to digital transformation, given the contemporaneous effect such an approach to reconstruction is able to provide.

It is important to outline that not only does digital transformation affect numerous sectors, but it also presents itself as a multilevel endeavour — the notion of digital development concerns numerous stakeholders. That being stated, the civil society in Ukraine is already actively engaged in realising a diverse array of initiatives, aimed at providing transparent and efficient solutions to the challenges of Ukraine's recovery and upcoming modernisation [Bandura, Staguhn, 2023].

To illustrate, in 2022, a "RISE UA" coalition of Ukrainian and international public organisations, state institutions, and activists was set up. Presently, it aims at developing innovative and data-driven solutions for reconstruction, while including local citizens and businesses to oversee such processes [Rise Ukraine, 2023]. It presents one of the examples of how Ukrainian civil society can directly contribute to reconstruction and modernisation initiatives through the creation of digital platforms and promoting dialogue amongst various intrastate and interstate stakeholders.

Ultimately, the digital-first approach needs to be at the forefront of all reconstruction efforts, as it cannot improve the effectiveness of the measures and secure their progress, but will be useful in realising recovery initiatives under the war circumstances. Therefore, the Ukrainian government, civil society as well as international and multistate actors should already view this aspect with particular attention, as it harbours a considerable potential to facilitate reconstruction efforts in the upcoming years.

Summary

The post-war period which awaits Ukraine will inevitably require a significant institutional capacity to counter a diverse array of challenges linked to such aspects as: sustainable economic development, the distribution of resources, computer-based technology, and multi-stakeholder engagement, amongst numerous others.

To address these challenges, various recovery strategies have already outlined some key benchmarks for Ukraine to keep in perspective. In this chapter, we identify the recurring ideas, as well as those that seem to not receive sufficient attention, in order to determine the most comprehensive approach to employ, reaching toward Ukraine's recovery, modernisation, and reconstruction.

List of recommendations

1. Rather than simply rebuilding what existed before the war, Ukraine's reconstruction should embrace the opportunity for improvement. Doing so would enable Ukraine to create a stronger foundation for long-term prosperity.

2. Ensuring a fair distribution of the resources dedicated to reconstruction would require establishing clear guidelines, monitoring mechanisms, and respective reporting frameworks. This aspect draws particular attention to the requirement for the implementation of anti-corruption and transparency mechanisms.

3. Local communities and organisations ought to be actively engaged in the planning, implementing, and monitoring the reconstruction projects. Promoting local entrepreneurship and engaging local companies in reconstruction initiatives would not only harness regional resources and expertise but also help to identify and prioritise the most urgent needs, ensuring that immediate actions are taken to address them.

4. Ensuring the independence of anti-corruption institutions requires a rigorous prosecution of cases of professional misconduct related to bribery, exploitation, extortion, and fraud. Sufficient attention should be granted to supporting and enhancing initiatives such as Prozorro by expanding its functionalities, broadening its coverage, and integrating other advanced anti-corruption measures.

5. It is crucial to perceive reconstruction as a number of interconnected actions that ought to bring synergistic linkages and facilitate the implementation of the necessary reforms and regulations.

6. The revision of Ukraine's fiscal and monetary policy is vital for promoting economic development. Yet, such aspect would require implementing responsible fiscal policies, including strategic expenditure

planning, revenue enhancement measures, and budgetary discipline; reducing tax burdens by simplifying the tax system, reducing tax rates, and eliminating bureaucratic obstacles; creating a more competitive business environment through deregulation, streamlined regulations, and improved access to finance; enhancing public financial management systems, including transparency, accountability, and effective oversight of public spending.

7. Maintaining the stability of the state apparatus calls for a strong connection between the systems of public governance and technology. Further advancement of digital environment can foster reconstruction efforts, contributing not only to the optimisation of bureaucratic procedures but also to affecting democratic participation and the efficiency of public services.

8. Technology-driven reconstruction and modernisation of Ukraine would affect a wide range of sectors. Therefore, it ought to be regarded as a critically important tool to achieve maximum effectiveness. Ukraine ought to apply the so-called digital-first approach to reconstruction, as technology-driven modernisation would expand its capacity over various sectors that require the most attention.

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CHAPTER 2

GEOPOLITICS OF UKRAINE'S RECOVERY AND EUROPEAN INTEGRATION[7]

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Introduction

The 2014 invasion of Ukraine by Russia brought the world's attention to a resurging phenomenon: "the return of geopolitics". The subsequent full-scale aggression by Russia against Ukraine in February 2022 unequivocally highlighted the crucial role of geopolitics in understanding the reasons behind the invasion. Russia, Ukraine, and their respective allies have presented varying justifications and interpretations of the conflict's origins.

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Nevertheless, the prevailing signs indicate that achieving a settlement, whether through peaceful negotiations or on the battlefield, remains distant in the foreseeable future.

In light of the geopolitics-initiated circumstances, Ukraine's post-war recovery and modernisation must be replaced with an agenda that reflects the geopolitical realities. Convincing the world, particularly Europe, of this urgency requires a change in narrative. Europe but also Ukraine must now present innovative, outside-the-box solutions to emphasise the imperative nature of Ukraine's recovery and modernisation. It is no longer viable to postpone this process, and proactive measures must be taken promptly.

With this in mind, this chapter endeavours to illuminate the key issues concerning Ukraine's recovery and modernisation amidst the backdrop of complex geopolitical situations. Recognising the vital role of geopolitics in comprehending the Ukraine war, the chapter delves into several innovative and daring ideas, substantiating their significance. Achieving these ideas necessitates unwavering political determination from both Europe and Ukraine.

Primary Issues

The war in Ukraine can be best understood through the lens of geopolitics. Russia's invasion of Ukraine in February 2022 was driven primarily by Putin's ambition for a "Great Russia"; thus, making the war inevitable. This aggressive mindset aims to annex the entire Ukraine or at least reinforce control over the eastern regions such as Donetsk, Luhansk, Kherson, and Zaporizhzhia, keeping peace efforts at bay.

Russia's perception of having the upper hand, along with its nuclear weapons rhetoric, impedes any near-term peace initiatives. Moreover, Russians believe that Ukraine's allies, such as the United States and Europe, have limited military capabilities to support Ukraine permanently. Putin is also keeping a watchful eye on the US presidential elections in 2024, hoping that war fatigue will drive Washington away from supporting Ukraine.

On the other hand, Ukraine's leadership and its people are determined to resist Russian aggression and reclaim their full territorial integrity. With ongoing support from Washington and the European capitals, Ukraine is

emboldened to counter Russian forces and refuses to concede to Moscow's demands.

Given the deadlock and reluctance to compromise, it is evident that the war will likely continue, at least in the near future. To address the aftermath and ensure Ukraine's recovery and modernisation, both domestic and external stakeholders must initiate efforts without delay. Amidst various options, Ukraine's staged accession to the European Union stands out as the optimal strategy considering that immediate full membership is impeded by intricate procedures outlined in the EU rulebook and the underlying structural challenges within Ukrainian governance.

Staged accession to the EU offers a middle ground that can demonstrate the EU's responsible and decisive support for Ukraine. Although it comes with challenges, this approach can bring dividends to both Ukraine and the European Union.

While the European Union and its members have their obligations for Ukraine's recovery, the Ukrainian leadership must also take innovative approaches towards modernisation and recovery. Focusing not only on hardware infrastructure but also on software aspects, such as governance and decision-making processes, will be crucial. The Ukrainian leadership can involve ordinary Ukrainians in shaping the country's policies more democratically and in a bottom-up fashion, taking inspiration from the EU's successful practices during the Conference on the Future of Europe.

Regardless of the extensive list of recommendations for Ukraine's recovery and modernisation, some of which are listed below, it is essential to start the recovery and modernisation efforts promptly without postponing until the conclusion of the war. Both Ukraine and Europe must adopt innovative and bold approaches to ensure Ukraine's prosperous future.

Recommendations

Staged Accession of Ukraine to the European Union

Ukraine's enduring ambition to become a member of the European Union has been marked by a protracted journey, riddled with hurdles and complexities. A significant turning point was the eruption of war in the

country in February 2022, precipitating an economic downturn and a shift in political perspectives. As a result, the Ukrainian nation is now imbued with heightened enthusiasm for EU accession. While Ukraine may not align seamlessly with the European Union's accession criteria, given the imperative of reconstructing Ukraine's economy in accordance with their stipulations – a process that could span multiple years –the Ukrainian nation's and leadership's aspiration to join the European Union remains both attainable and pragmatic for Ukraine.

Amidst the ongoing full-scale aggression, achieving full recovery and reconstruction might only become viable after the war eventually comes to an end. However, it remains crucial for Ukraine and more importantly for the European Union to adopt proactive and bold measures aimed at improving the situation. Accelerating modernisation and recovery efforts even amidst the war becomes imperative. This underscores the significance of implementing the process of Ukraine's staged accession to the European Union.

To this end, the European Union could potentially develop a multi-level membership framework, enabling Ukraine and even other aspiring candidates to gradually advance towards full membership. More specifically, through a phased accession process, Ukraine could attain membership rights progressively, although without immediate full veto power. This interim phase, lasting a considerable duration, could help alleviate concerns regarding potential disruption of the EU's internal dynamics by the new member with democratic and governance deficiencies. Crucially, the focus should be on strategically creating such adjusted membership models as a means to facilitate eventual full membership.

For example, as highlighted by the Centre for European Policy Studies (CEPS) [Emerson, Blockmans, Movchan, Remizov, 2022], the European Commission has the potential to promptly propose the recognition of Ukraine as a candidate state. This proposal would subsequently require endorsement from the European Council. Immediate operationalisation of this status could be achieved through informal involvement in key EU institutions, bypassing the need for legislative changes. Some avenues for such informal participation could include:

1. Participation in Selected Council Meetings: Ukraine's informal engagement could encompass involvement in specific meetings of the European Council, the Foreign Affairs Council, and relevant sectoral Councils. While devoid of voting rights, this participation has already commenced within informal, exceptional, and virtual contexts.

2. European Parliament Observer Role: A significant step could involve delegating members of the Ukrainian parliament to actively participate in the European Parliament as observers or honorary Members of the European Parliament (MEPs). Although devoid of voting privileges, this would apply to specific issues of pertinence to Ukraine.

Furthermore, the swift integration of Ukraine into various EU initiatives is of paramount importance. This is vividly demonstrated by instances such as the integration into projects like the ENTSO-E electricity grid connection and the Green Deal. These measures signify a concerted effort to bring Ukraine into the fold of EU projects, policies, and programmes. This approach not only symbolises solidarity but also underscores a pragmatic commitment to shared goals and aspirations.

During her visit to Kyiv in May 2023, Commission President Ursula von der Leyen acknowledged that some might perceive the idea of a free and peaceful Ukraine within the European Union as "impossible, improbable, or too distant [President von der Leyen, 2023]. However, the President emphasised that the essence of Europe lies in transforming the seemingly impossible into reality. Given this determined perspective, the EU now stands in need of resolute decisions to usher Ukraine aboard. Ukraine, in its unwavering pursuit to fulfil the EU accession criteria, while simultaneously defending its sovereignty, and safeguarding European security on the frontlines, exemplifies the kind of spirit that aligns with Europe's ethos of making the impossible achievable, and paving the way for Ukraine's recovery and modernisation amidst the war ongoing with no horizon for its termination. The security landscape is closely linked to Ukraine's recovery process. It is crucial to address the issue of security guarantees by implementing enforceable measures to protect Ukraine's integrity. While the 1994 Budapest Memorandum emphasised the importance of guarantors, the current situation highlights the need for a strategy.

As Ukraine moves towards joining the EU [Questionnaire, 2022], it becomes crucial to ensure that reforms and integration go hand in hand. The challenge lies in balancing efforts between EU membership and addressing reforms within the organisation. While there are calls for an EU that plays a significant role on the global stage, it is essential to find a balance that allows Ukraine's accession process to move forward smoothly. Implementing policies that enable participation in EU initiatives could pave the way for comprehensive and seamless integration.

Ukraine's journey toward EU membership holds significance when considering modernisation and recovery. The various aspects of security associated with EU membership extend beyond integration. By aligning with EU security policies, Ukraine can enhance its security landscape while benefiting from the EU's track record in promoting peace and cooperation.

A vital aspect of modernisation is the EU's dedication to preventing and resolving conflicts. By participating in the EU's mechanisms for resolving conflicts, Ukraine can benefit from diplomacy and strategies. This proactive approach not only reduces instability but also establishes a solid foundation for sustainable political recovery. The cooperation between Ukraine and the EU acts as a catalyst for transforming the region. Their joint efforts in navigating security situations and promoting stability go beyond states, positively impacting the broader region. This resulting stability becomes crucial for resilience, modernisation, and recovery, positioning EU membership as a force that shapes Ukraine's path.

Ultimately addressing Ukraine's challenges and potential revolves around aligning security, stability, and modernisation. By developing a strategy that intertwines security assurances, EU integration, and reconstruction efforts, Ukraine can chart a course that addresses needs while paving the way for a future characterised by stability, prosperity, and resilience [Sasse, 2023].

Other Recommendations

When investigating the macroeconomic and financial side of things, we found that generally – in terms of macroeconomic action and looking at the broader economy – there is sufficient financial infrastructure underway thanks to major investments by the International Monetary Fund and the World Bank. For example, since February 2022, in collaboration with other

development partners, the World Bank Group has mobilised more than $37.5 billion in financial support to Ukraine [World Bank, 2023]. As such, while we do not intend to understate the major and significant blows to the Ukrainian economy (with poverty rising by nearly 19% in 2022 alone), we have opted for a more optimistic outlook on the continued support of international organisations and allies in the provision of resources and tools to help Ukraine's economy – which would undoubtedly translate into support for the global economy as well [United Nations, 2023]. Furthermore, improvements in Ukraine's financial infrastructure should help with issues of increased transparency and more efficient processes for financial transactions in Ukraine for investing in the economy in the long term. We only urge continued international support well beyond the time that the unjustifiable war ends, to ensure a smooth and sustainable recovery of the Ukrainian and global economies from the supply shocks and inflationary pressures that are still persistent at present.

That said, in order to safeguard these large investments into a more stable economy, we recognise the need for both modernisation and diversification. Namely, diversification of the economy across the agriculture, technology, and culture sectors. Considering two of Ukraine's largest industries, agriculture and retail, the war has obviously had major logistical difficulties when it comes to transport and trade. Hence, one of our primary recommendations would be to prioritise new and more efficient logistical pathways when reconstructing lost infrastructure, especially with regard to railways. More efforts like the "State-owned 'Ukrainian Railways' – new (international) freight operator" pioneer faster logistics, signal substantial efforts to integrate into the European single market and play to Ukrainian strengths.

Yet another strength, which we expect to be a great aid to these logistical efforts, is the well-established, global reputation of Ukraine's budding technology sector. That's why Ukraine should take full advantage of its already successful IT industry, which, despite the war circumstances, saw a 5.8% growth compared to the pre-war year 2021[IT Ukraine, 2023]. Ultimately, knowing that Ukraine's IT sector has already been internationally acclaimed as dynamic and in-demand, our recommendation is to keep the industry encouraged and motivated in spite of the harsh geopolitical

conditions under which it must operate. More government support of this industry and international promotion of Ukrainian talent, in tandem with the industry's proven resilience, should thus create more international faith and trust in the industry with respect to garnering more investments and supporting innovation.

For some guidance on how to support innovation, we turn to the "Silicon Valley of Europe" [Colm, Mukherjee, 2021] – Stockholm, Sweden. There, a symbiotic relationship has thrived between a generous government welfare system, entrepreneurship and private equity. Providing access to all households to modern technology and creating a social welfare net has allowed entrepreneurs (like Klarna's founder Sebastian Siemiatkowski) to feel less vulnerable to the risks necessary for them to challenge existing or build entirely new industries. Having a financial backbone that encourages entrepreneurs and their young businesses to take on the unavoidable risks of true innovation, allows them to storm ahead. Giving more entrepreneurs this sort of platform to do more than draft the ideas for their innovations, gives investors (of all sizes) more to pay attention to, invest in and support. Therefore, you have a healthy symbiotic relationship between the two. This is why we think that an investment in entrepreneurship could be greatly beneficial – even from an educational standpoint. Considering "entrepreneurship" as a career, there are arguably lower barriers to entry. In terms of traditional educational requirements, you do not necessarily need a PhD or a master's to have a good idea, and if your welfare system calms any worry of crushing bankruptcy, then one is likely to push ahead with their good, or even great, idea. Hence, this path could also help manage some of the imbalances in education between young people who have been in different areas and who have had to face not only the pandemic but also the war; encouraging them to create (or aid in the creation of) new solutions to the plethora of issues each industry, new and old, will certainly present without the otherwise apparent need to "catch up" to their agemates – in Ukraine and globally – academically. Overall, forward-looking investments into entrepreneurship, innovation, and Industry 4.0 will only aid Ukraine in its eventual assimilation into the European Union.

Nonetheless, while we call on policymakers and the Ukrainian government to encourage the "new", with our final recommendation we hope to recognise the indisputable value of Ukraine's rich culture and many traditions. As regards cultural exchange and public diplomacy, it is of absolute importance that cultural assets are maintained and given a platform of their own. Cultural exports can be a great aid in terms of establishing fruitful relationships and promoting the wonderful country that Ukraine is to international partners, mainly in the Middle East and Africa, who have not previously been exposed and/or (closely) related to Ukraine. Examples of such tourism and cultural exchange may include everything from documentaries, virtual augmentations of museums and historical artefacts, student exchanges, and more. We are all familiar with the risks of war fatigue, and we think that kind of mass communication that continuously translates the importance of Ukraine's success as success for the free world as well could help combat the negative connotations of some of the war fatigue that we see and that might otherwise lead to less sympathy and consequently less support for Ukraine as a nation in the years to come. Therefore, we see investments in cultural preservation as essential for public diplomacy and cultural exchange as well for Ukraine to thrive in the coming years.

To conclude, the war has and continues to take a toll on the Ukrainian people and its economy in ways that will pose challenges for many years ahead. While battling for victory and the end of this atrocious war to come as soon as possible, our recommendations are rooted in the belief that the promise of a sustainable and most fruitful victory for Ukraine in the long term must include an integration into the EU, forward-facing investments into Ukraine's most auspicious industries and an unwavering commitment to the promotion of Ukraine's proud and independent cultural identity.

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CHAPTER 3

ENERGY, ENVIRONMENT, AND CLIMATE[11]

Solomiia Hnidan[12], Nelli Yashchenko[13]

Introduction

The energy system and health of the environment are the foundation for maintaining the quality of life of a population. Effective operation of the power sector and proper protection of the natural resources ensures the basic needs of the population – access to drinking water, food, clean air, safe, sanitary surroundings, heating or cooling processes. Nevertheless, Russian military actions and the destruction of Ukraine's territory critically have deteriorated the environmental condition. The Russian war has made it impossible to provide for a large part of the basic needs of Ukraine's population; it negatively impacts the critical problem of global warming and climate change in the world. Ukraine has already suffered significant

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economic losses, particularly as one of the largest exporters of agricultural products, which seriously affected international trade and brought the world closer to a potential food crisis. Even though economic losses are colossal, Ukraine still has remarkable potential for development; it is an opportunity to rebuild better for more efficient work and higher quality cooperation with the international community in the future. The development of the situation in Ukraine has short– and long-term consequences not only locally for Ukraine but for the whole world, requiring complex actions from all actors in the political arena. Altogether, it demonstrates the **relevance and critical importance of thorough research into the energy and environment sectors in Ukraine, and subsequently taking urgent actions to stabilise the situation.**

The energy sector and the environment are inextricably linked; however, the problems emerging in the territory of Ukraine now have their specifics. In the energy sector, end-of-life coal-fired power generation facilities contribute to emissions and inefficiency of energy transformation, as well as high energy intensity of Ukrainian GDP, and dependency on energy carriers imports from Russia prevail. Crucial debates also take place seeking to strike a balance between fast recovery with cost minimisation and long-term investments in energy efficiency measures and social policy. As part of the discussion on energy security, we have faced the need to introduce the carbon pricing mechanism locally according to the "the polluter pays principle, to face the Carbon Border Adjustment Mechanism, and allocate funds for the modernisation of energy facilities", and the last development of nuclear power packages of the European Union. Finally, the question of the cleanness and safety of nuclear energy became debatable. Recent events in Ukraine prove that the issue of nuclear safety is one of the key ones for Ukraine and the whole world. In particular, this concerns Russia's nuclear blackmail at the occupied Zaporizhzhia nuclear power plant and the provocations that Russia is carrying out on the plant site. The consequences of a potential attack could be colossal for Ukraine and the whole of Europe. This proves the urgent need to resolve the issue of nuclear safety and further discussions regarding the prospects for the development of nuclear energy within the framework of the reconstruction of Ukraine.

As part of the key problems related to the environment, the Russian war in Ukraine, which has significantly deteriorated the environmental situation, became critical. As a result of hostilities, the country's territory is mined on an enormous scale with devices that will take decades to deactivate. As a result of the warfare, shelling, deliberate bombing, and hostilities, the air, waterways, and soil are significantly polluted. This negatively affects not only the environment but human health and well-being. The war has significantly damaged natural reserves and caused deforestation in the country, deterioration of the biodiversity and ecosystems, and loss of the fauna diversity. This already has severe implications for the ecology of the country and the world, disrupting not only chains of supply but also creating the threat of ecocide and food crises in different countries worldwide. One of the recent developments that is important to take into consideration is the Russian attack on the Kakhovka Dam [EcoZagroza, 2023]. The Ukrainian Nature Conservation Group report claims that blowing up one of the biggest water reservoirs in Ukraine has a significantly devastating impact on nature and people. The catastrophic consequences of the destruction of the dam include destroying wildlife, whole natural ecosystems, national parks, desalination, and pollution of the Black Sea, apart from destructive effects on the population, the economy, and energy, in particular on nuclear safety in Ukraine [UNCG, 2023].

Torbjörn Becker, director of SITE, the Stockholm Institute of Transitional Economy, said: **"The EU can afford to help Ukraine. What the EU cannot afford is not to help Ukraine"** [Becker, 2023]. It becomes clear that Russia must be held responsible for its actions to normalise the critical situation in the energy and environment sector and facilitate world security, not only in the military but also in the economic and ecological dimensions. Critically important for the world is the collective desire to hold the aggressor country to account since the consequences of military actions have no borders and will spread far beyond. Thus, there is an urgent need to evaluate the energy and environment sector based on the urgent issues Ukraine faces, ongoing discussions, and debates at the local and international levels regarding Ukraine's current situation and the global climate change. Based on Ukrainian and international research and results of the CIVICA Forum discussion on the rebuilding and modernisation

of Ukraine among Ukrainian and CIVICA university students, we will correspondingly provide suggestions and recommendations for improving the Ukrainian energy sector and environment.

Environment

The issue of environmental protection was considered by us in terms of the possibility of high-quality reconstruction and the need to respond to the environmental consequences of a full-scale invasion of Ukraine, which entails a regional ecological catastrophe.

In particular, as of the date of preparation of the materials, the following indicators were summarised (according to the Kyiv School of Economics [2023] and the Ministry of Natural Resources of Ukraine [2023]):

– 25% of the generation capacity of renewable sources is lost,

– about 5.5 million tonnes of emissions into the air, causing damage of about 25 billion US dollars,

– about 25,000 units of destroyed military equipment, which resulted in an additional 50,000 tonnes of emissions into the atmosphere,

– about 188 thousand km2 of contaminated and/or damaged soil,

– probably about 30% of the territory of Ukraine is mined,

– a third of the total natural reserves are in the war zone.

It is also worth noting the destruction of forests and, accordingly, entire ecosystems, the extermination of fauna and flora diversity.

Due to the above, it is necessary to act in accordance with the existing losses in terms of quality restoration, as well as to focus efforts on proving Russia's responsibility for the perpetration of ecocide and bring it to justice by forcing it to pay damages.

Regarding high-quality reconstruction, the implementation of smart city projects is proposed. Some cities have been destroyed by 50–70%. Thus, it is more appropriate to build a city from scratch with a long-lasting transport infrastructure, shifting the emphasis to bicycles and pedestrians. Such cities will provide high energy efficiency, smart heating, ventilation and air-conditioning systems, LED lighting, etc.

As for measures to protect the environment, the problem of air, water, and soil pollution is not only a problem of ecology and Ukrainians but a global problem. Air and water have no borders, taking into account

Ukraine's maritime connections. Now, the countries of the Black Sea coast are experiencing the destruction of the quality and dangers of the waters of the Black Sea, where all the water from the Kakhovka hydroelectric power station flows. The main problem is that we cannot restore ecosystems to the way they were before, or reverse the damage that has already been done.

However, we have recommendations for the first steps to protect the environment. In particular, the following:

– support small and medium-sized business and entrepreneurs, such as start-ups in green tech, demining, and waste management.

– empower local authorities to manage their policies, manage their deals by themselves.

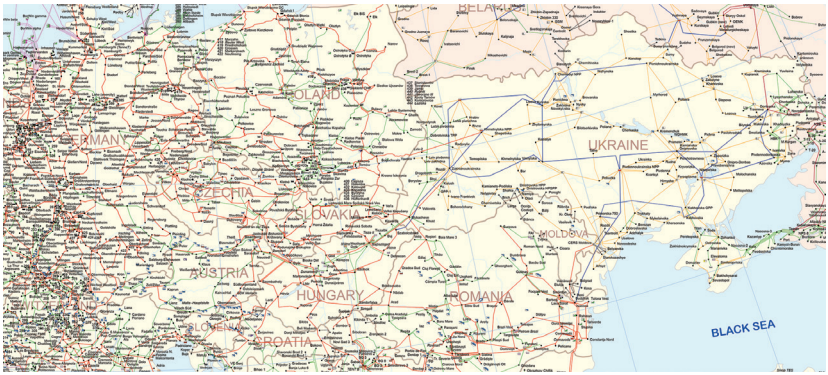
– promote eco-tourism, recreation among citizens

And from our discussion, we understand that ecocide and crimes against environment are not so simple to investigate. Therefore, our recommendation is to call for prosecution of those responsible for Russian ecocide and to gather our arguments and evidence that ecocide takes place in Ukraine.

Energy Sector

The first aspect to highlight in the energy sector is **the specifics of power grid construction in Ukraine**. Even though the power transmission lines are extensive, carrying electricity over vast territories of the country, they can become a significantly easy target to attack. The attacks on power lines in autumn 2021 – winter 2022 already led to massive blackouts. Thus, in order to ensure security and provide for basic needs for the population, it is crucial to forecast potential threats and construct a diversified electricity transmission and distribution system based on lower-voltage power lines. This could follow the practice that has already proved successful in Europe, as illustrated in Figure 1.

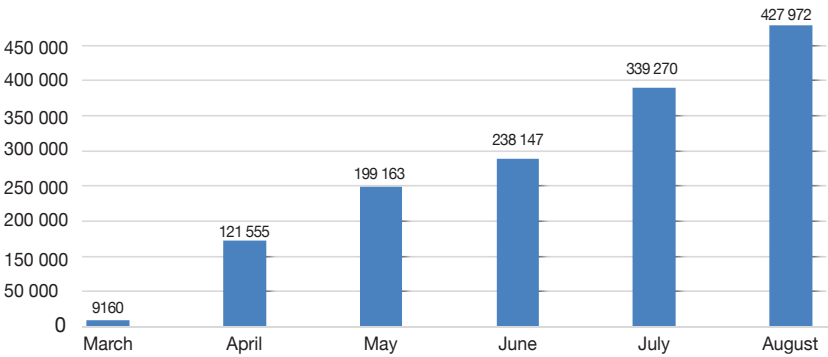
Figure 1. Power infrastructure grid in Ukraine and Central Europe



Legend: Coloured lines represent power lines and cables of different voltages (blue: 750 kV, red: 380–400 kV, yellow: 300–330 kV, green: 220 kV, black: 132–150 kV, pink: DC-line).
Source: ENTSO-E [2019].

Another aspect that must be taken into consideration is the need for the development of domestic extractions in Ukraine, and the diversification of electricity export routes, as a next step. Before the Russian attacks on the power system, Ukraine was a reasonably large exporter of electricity to different countries, and has significant potential to develop this sector further after the war, both in internal usage and export. The growing volume of Ukraine's electricity exports to Europe, even during wartime, is demonstrated in Figure 2.

Figure 2. Ukraine's export electricity volume, March 2022–August 2022 (MWh)



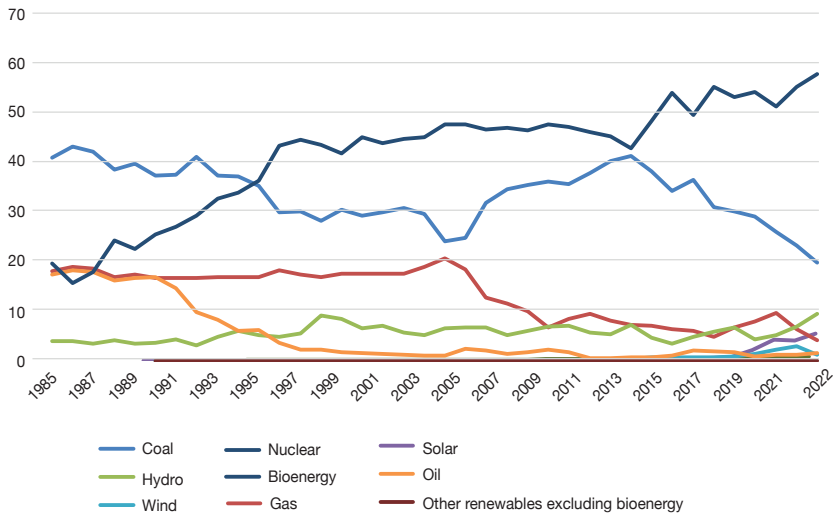
Source: Authors' graph based on data from EXPRO [2022].

According to the International Energy Agency [2022], Ukraine possesses substantial reserves of oil, gas, a full range of coal types, considerable renewable energy potential, both biomass resources and waste management possibilities [IEA, 2021]. Ukraine has successfully developed renewable energy resources, demonstrating positive tendencies in recent years, which is crucial in terms of decreasing energy dependency on Russian gas and maintaining energy security. In particular, during wartime, we are all witnessing how the security of energy and basic needs can become the instrument of manipulation and blackmail. Thus, decreasing energy dependency and improving Ukraine's domestic energy potential and export routes must become one of the governmental goals and investment priorities after the war.

The third pillar of an effective energy transition in Ukraine is the promotion of energy-effective practices among consumers. Consumers may also contribute to the increase of the green power share in Ukraine's electricity mix, becoming so-called prosumers, which is, however, unattainable without respective investment in the expansion and strengthening of the transmission network. Educational enlightenment of the population and investment in information campaigns and programmes are crucial for constructing a mechanism for civic engagement, bilateral interaction, and effective cooperation between people and government. One successful example of prosumer behaviour is the opportunity to purchase and install solar panels by the population, which increases convenience, reinforces renewable energy usage and development of potential green regions, and simultaneously decreases the dependency on energy imports, but has to be matched by a respective transmission capacity to avoid the enforcement of power generation curbs, which is currently the case in Poland and the Netherlands, or even a blackout. The last aspect, which is vital to take into consideration, is that of the perspectives of nuclear energy development in Ukraine.

According to the EU Taxonomy, nuclear energy is considered clean, which provides a significant advantage compared to using and developing other types of energy. Currently, there are 15 nuclear power reactors in Ukraine, which produce more than half of the country's energy. The electricity generation mix is depicted in Figure 3.

Figure 3. Share of electricity production by source in Ukraine in 2021 (%)



Source: Our World in Data [2023].

The benefits of nuclear energy development in Ukraine are also enhanced by further prospects for cooperation with the United States of America, a carbon-free future, and the promotion of rapid independence from Russian energy exports, much faster as it could be achieved through renewable energy sources. Nuclear energy is currently well developed in Ukraine, due to the number of the existing power plants and years of working experience with nuclear energy; thus, Ukraine has significant potential for a further development of this sector. The critical question remains, which is more important for the Ukrainian situation in the future – clean nuclear energy or security in the context of today's war and vague perspectives of guaranteeing nuclear energy security in the future?

The context of war is vital now to guarantee a secure future. Right now, nuclear energy is repeatedly becoming a tool of propaganda, manipulation, and blackmail on the part of the Russian Federation. The occupation of Europe's largest nuclear power plant – the Zaporizhzhia NPP from March 2022, the physical deployment of troops and military equipment on the plant site, power cuts that lead to overheating and

reactors, as well as repeated provocations and the threat of a terrorist attack on the plant represent significant risks to the development of nuclear energy in the country, along with the argument about its cleanliness. Yet other aspects to highlight are **financial profitability and time consumption**. Remaining one of the most expensive technologies to build, nuclear power plants demand high-cost investments for construction and maintenance of power production facilities of the plant, and implementation of a quality NPP construction project is a highly time-consuming process. Another vital argument to take into account is **the outdated experience of nuclear power plant construction**. Even though nuclear power plants remain efficient in terms of the amount of energy produced, compared to European and American technological approaches, they are only partially safe. First of all, many designs date back to the Soviet Union times, with their technological safety put into question in the wake of the Chernobyl nuclear catastrophe in 1986, which left millions of people affected. Secondly, considering the damage brought by the war, a new innovative approach to rebuilding the plants is without a doubt needed.

All things considered, **nuclear power plants are a reasonable solution from a short-term perspective**. Considering that some of Europe's most highly emitting coal power plants are located in Ukraine, and as of 2019, almost half of the coal power plants exceeded their emissions ceilings, it is beneficial for coal and oil to be phased out. However, because of the current and potential future dual use of nuclear power, in terms of its involvement in military activity, **it is not practical to rely solely on nuclear energy facilities**. A reasonable approach to tackle this issue could be to further the development of nuclear power plants with a focus on diversification with other green sources and improving the reliability of other RES, while having nuclear power as the base load; maintenance and protection of already existing nuclear power plants with focus on security guarantees from other countries and well-developed air defence systems in case of potential threat; scaling up small modular nuclear reactors (SMR), which lead to less capital costs and independence from large grid nodes which are easy to attack; public opinion examination, which will represent actual attitudes and population support for nuclear energy development.

However, **Ukrainian energy market limitations** must be taken into consideration too. In particular, these are corruption practices that hinder efficient energy market development, reprivatisation of energy assets by oligarchs in the 1980s and 1990s, which results in the operation of power facilities in the interests of particular figures, absence of transparency in the processes of power generation, governance interference and excessive regulation of the energy market; unfavourable competitive situation for renewable energy enterprises, as well as a generally discouraging state of the market for local or foreign investments.

Taken together, to improve the situation in the energy sector of Ukraine, we suggest the following actions in terms of energy sources usage:

– Development of a complex grid to diversify power delivery;

– Re-launch of the energy sector based on the development of domestic extraction of energy carriers and diversification of energy imports;

– Investment in information campaigns and education programmes for regions affected by the green transition; reinforcing the acknowledgment and capacity for energy prosumers; development of RES-related complex reskilling programmes for specialists;

– Further development of nuclear energy and renewables in cooperation with reliable partners; scaling up small modular reactors with diversification of green energy sources;

– Security guarantee and well-developed defence system for safe maintenance of existing nuclear power plants;

– Public opinion research on energy sector perspectives.

In terms of market operation in Ukraine, the below-mentioned recommendations are advisable for implementation:

– Deregulation of the market, empowerment of the local government;

– Corruption prosecution;

– Reprivatisation of the energy assets held in the hands of oligarchs;

– Encouragement of private investments, local and FDI; encouragement to improve the energy efficiency of industry and support SMEs;

– Corporate Social Responsibility framework for enterprises significantly affecting the environment, in line with advanced reporting and transparency;

– Legislation for innovations and technology development;

– Improvement of the competition laws to accelerate RES development and support industry.

The following measures are needed for environmental protection:

– Investment in long-lasting road infrastructure, taking into account the weather conditions and building sustainable stormwater drainage systems

– Shifting the focus from car-centred infrastructure to bicycles and pedestrians;

– Development of a convenient public transport network, including trams and underground transport;

– Educating the residents about the life of their cities: promoting social media content of explanatory nature on smart cities;

– Building cities with high energy performance of buildings: insulation, windows, and doors;

– Support for SMEs, especially those dealing with green tech, demining, and waste management;

– Empowerment of local authorities/municipalities;

– Promoting respect for nature and recreation among citizens;

– Education about the environment and interconnectivity of the system;

– Call for prosecution of the Russian ecocide and crimes against environment (Article 7 or 8 of the Rome Statute);

– Emissions trading system (CBAM context);

– Encouragement of businesses and support of start-ups in dealing with the disposal of the war-time waste;

– Examination of the contaminated zones, both Ukrainian and Russian mines.

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CHAPTER 4

INVESTING IN PEOPLE: UNIVERSITIES FOR UKRAINE'S RECOVERY AND MODERNISATION[14]

Konstantin Bogatyrev[15], Olha Ivasiuk[16], Olena Vol[17]

Introduction

Ukraine's vast system of higher education, enrolling more than a million students, has suffered greatly from the full-scale Russian invasion, preceded by the COVID-19 pandemic. War has taken a toll on the lives and health of students and staff members, academic processes, community activities, and infrastructure.

[14] Elaborated in group discussion with: Olena Vol, SGH, Konstantin Bogatyrev, Bocconi University, Stefaniia Bulakh, KNEU, Joel Christoph, EUI, Joanna Grams, SNSPA, Olha Ivasiuk, Vasyl Stus DonNU, Anna Mosina, NaUKMA.

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The country's recovery and modernisation cannot be imagined without reinvigorating Ukrainian universities. Producing knowledge and providing education, universities are key to building a modern and prosperous Ukraine. As Ukraine strives for a brighter tomorrow, it requires transformative higher education policies.

This chapter provides concrete recommendations tailored to address the most pressing challenges of the higher education sector. These proposals aim to support Ukrainian universities in fostering innovation, cultivating skilled human capital, and ultimately steering Ukraine toward a sustainable path of empowerment, growth, and prosperity.

Higher Education in Ukraine: Facts and Figures

Ukraine boasts a vast system of higher education. Before the COVID-19 pandemic and the full-scale Russian invasion, Ukraine was home to around 330 universities, academies, and institutes that fostered the academic pursuits of more than 1.2 million students [Gresham, Ambasz, 2019; UkrStat, 2022][18]. This number of university students is impressive even for a country as large as Ukraine. By enrolment in tertiary education, Ukraine has been ranked at the top of its income group of countries [USAID, 2023].

Most young people in Ukraine receive tertiary education. The level of educational attainment is high by European standards: 58% of Ukrainians aged 30–34 have completed tertiary education [Eurostat, 2023a]. This share is higher than in any of the EU countries, led by Luxembourg and Ireland with 46% [Eurostat, 2023b]. However, a larger scale does not necessarily imply superior quality. According to the World Bank's Skills Towards Employment and Productivity (STEP) survey, having a degree in Ukraine "does not guarantee even basic cognitive skills" or ensure such skills relative to major OECD countries [Gresham. Ambasz, 2019].

Tertiary education for today's students in Ukraine has become synonymous with a university degree. Higher education institutions (HEIs) such as universities, academies, and institutes attract an overwhelming

[18] Hereinafter the data exclude the temporarily occupied territories of Ukraine. The 2019/2020 student number comes from Table 6.5 of the Yearbook [UkrStat, 2022]. The tally of universities has been verified by several sources [Cybermetrics Lab, 2021; Gresham, Ambasz, 2019; Nikolaiev et al., 2023].

majority of the student body[19]. Their percentage of students has grown from 54% in 1991 to over 87 % by 2019, while the remaining share for colleges, vocational and technical training schools consistently declined[20]. Universities dominate the system of higher education, while institutes and academies, being small sectoral schools, are only a few dozen in total, with an average student body of less than 2000 students [Gresham. Ambasz, 2019].

Ukraine puts significant resources into its university system, relative to the size of the Ukrainian economy and state budget. About 70% of HEIs in Ukraine are public, but they account for over 90% of all degree students[21]. Similarly, over 70% of spending on tertiary education in Ukraine is public [Brik et al., 2022]. Its share in the GDP has consistently been exceeding 1.2%, always placing Ukraine among the top 20 countries in the world by this indicator [UNESCO, 2022]. Private funding relies primarily on tuition fees, which are paid by most students [Gresham, Ambasz, 2019]. The rest study on a state-funded basis. Certainly, the resources available to Ukrainian universities lag behind what is available to the EU countries. Indeed, the public and private funding per student in Ukraine in constant PPP$ is below that of every EU country but Greece [UNESCO, 2023]. However, the same statistics show that Ukraine spends more PPP$ on every student than some countries with higher income per capita, such as Greece, Argentina, Belarus, Kazakhstan, and Moldova.

However, the potential of Ukraine's expansive higher education system remains underutilised. The country already maintains a large network of universities, and their funding, although limited, has been an evident priority for both public and household budgets. Though the number of HEIs in Ukraine may seem vast, for a big European country it is well within the norm. Indeed, while countries such as Germany, Italy, Spain, and the UK have fewer universities per capita than Ukraine, others such as France,

[19] Some sources also classify colleges as HEIs, in accordance with Ukrainian legislation that adopted a broad definition of higher education. In fact, even the State Statistical Service translated the Ukrainian term *вища освіта* as *tertiary education* [UkrStat, 2022]. Indeed, colleges in Ukraine provide professional tertiary education [Gresham, Ambasz, 2019]. Thus, they are beyond the scope of this chapter. However, many of the challenges and proposals we identify are also attributable to Ukrainian colleges.

[20] Authors' calculations based on Table 6.5 of the Statistical Yearbook [UkrStat, 2022].

[21] Authors' calculations based on Tables 4.1 and 4.3 in Gresham and Ambasz, 2019.

Poland, Russia, or the Netherlands have more [Cybermetrics Lab, 2021]. However, the academic performance of HEIs in Ukraine relative to other countries has been modest, as shown both by university rankings and skill surveys [Cybermetrics Lab, 2021; Gresham, Ambasz, 2019]. Thus, this chapter is primarily focused on the improving performance of the university system, given the resources it already has and will have.

Long-standing Challenges of the Ukrainian Higher Education

In the long term, Ukrainian universities should ensure the best academic quality given the available resources, while working in an equitable way that benefits the whole country. The material resources available to HEIs are indeed often scarce relative to their tasks, which in turn limits the quality of facilities and equipment and the salaries of employees. Among other obstacles to academic performance, previous research has highlighted academic misconduct and corruption [Denisova-Schmidt et al., 2018; OECD, 2017; Oksamytna, 2020; Osipian, 2017], labour market mismatch [Gresham, Ambasz, 2019; Kupets, 2016], and outdated approaches to governance, teaching, and research [Gaind, Liverpool, 2023; Gresham, Ambasz, 2019; Sovsun, 2017]. Besides, the current university system does not always allow equitable and inclusive access to education, thus reproducing or exacerbating disparities on the basis of parental income, disabilities, region of origin, and rural vs. urban divide [Gresham, Ambasz, 2019; Nikulina, 2020; Oksamytna, 2020]. Below, we elaborate on these enduring challenges.

Deficits of integrity are a major obstacle to the quality and prestige of academic degrees. Indeed, corruption is the most frequent answer given by Ukrainians asked about the major problems of higher education [Oksamytna, 2020]. Misconduct takes varied forms, from undue evaluations by faculty to corrupt assignment of dormitories by the administration, as well as plagiarism and cheating by students [OECD, 2017; Sovsun, 2017]. According to surveys, an average university student had personal experience with plagiarism and cheating. A non-negligible share of students also encountered bribes, and every third is certain of bribery in their own department [Denisova-Schmidt et al., 2018; OECD, 2017]. Remote

education, launched during the pandemic and resumed due to the full-scale Russian invasion, only exacerbates these risks.

Another related issue is the degree-job mismatch, which is listed by a third of Ukrainians asked about the major problems of higher education [Oksamytna, 2020]. In other words, more people get a degree than is demanded by the labour market, while there are more low-skilled jobs than workers. An empirical study deemed between 19% and 30% of Ukrainian employees "overqualified", interpreting a degree as a proxy for qualification [Kupets, 2016]. At the same time, 40% of employers reported detrimental skill gaps in their employees [Gresham, Ambasz, 2019]. Currently, cooperation with employers in higher education remains rare.

An equally significant issue is the quality of teaching and learning. Course instructors often rely on outdated curricula and approaches to teaching [Gresham, Ambasz, 2019; Sovsun, 2017]. Not rarely, their qualification is limited too. Indeed, only a few HEIs in Ukraine employ internationally renowned researchers. Given the low salaries, not everyone can be motivated to work at a university. Around half of the faculty work in the educational institution from which they graduated [Sologoub, Coupé, 2015]. This academic inbreeding hinders exposure to fresh perspectives and innovation, and is associated with nepotism and bias in hiring practices, thereby reducing the quality of research and education. Just like the faculty members, most students never leave their university. For both categories, the level of exposure to international opportunities through universities is usually low due to limited awareness, English skills, and international opportunities that an average university in Ukraine could provide. Still, in a 2013 survey, 43% of university professors and researchers expressed an interest in moving abroad for studies, temporary employment, or permanent residence [Kupets, 2014].

Universities, primarily seen as professional schools providing knowledge and skills, miss the Humboldtian vision of independent academic communities that have a social mission and produce research and education with an emphasis on personal development and values [Kahanec et al., 2022]. Research is underfunded, mostly done outside of universities and lacking an efficient performance-based grant system [Bezvershenko, Kolezhuk, 2022; Gaind, Liverpool, 2023]. Good governance of HEIs

is hindered by insufficient autonomy in financial and personnel matters, falling short of modern academic management [Kahanec et al., 2022; Osipian, 2017]. However, autonomy does not always lead to a positive transformation due to corruption, legal loopholes, and absent incentives for change [Nikolaiev et al., 2023; Osipian, 2017; Sovsun, 2017].

The challenge of inequity in access to quality higher education is exacerbated by regional disparities in resource allocation and the concentration of the most prestigious institutions in larger cities [Gresham, Ambasz, 2019; Nikulina, 2020; Oksamytna, 2020]. This creates a divide in the education quality between regions as well as between urban and rural areas.

Since the Revolution of Dignity in 2014, Ukrainian higher education has been undergoing important reforms aimed to address the aforementioned issues. Importantly, the 2014 Law on Higher Education, later amended in 2017, paved the way for greater autonomy of universities, fighting academic misconduct, some performance-based funding, and an alignment with the EU educational space [Brik et al., 2022]. The newly launched National Agency for Higher Education Quality Assurance (NAQA) with its independent and transparent accreditation procedures and expert policy work has been a further step towards quality [Kahanec et al., 2022]. However, the problems described in this chapter are yet far from being resolved, and the progress of recent years has been halted by the COVID-19 pandemic and the Russian invasion.

Fallout of War

Since 2014, the war and occupation of Crimea along with parts of the Donetsk and Luhansk regions have dealt a tangible blow to the Ukrainian higher education system. After the Donbas front line stabilised in early 2015 till the full-scale Russian invasion of 2022, 7% of the Ukrainian territory remained under Russian control. Yet the highly populated and urbanised Donetsk and Luhansk regions was home to a disproportionately large share of higher education institutions and students. In the 2014–2015 academic year, the Ukraine-controlled higher education system had 15% fewer

institutions, employing 13% less faculty and enrolling 17% fewer students than a year before [Antoniuk, 2023][22].

Both during the 2014–2021 Russian occupation period and later during the full-scale war, educators in occupied territories encountered pressures from the occupation administration. They were coerced to teach in Russian according to Russian curricula in newly formed institutions that are not recognised by anyone outside of Russia. Working remotely for Ukrainian HEIs is both difficult due to unstable Internet and dangerous due to threats from the occupants [Nikolaiev et al., 2023]. The occupation conditions raise concerns about the mental health and personal safety of Ukrainian higher education communities in these territories.

While a few dozen of HEIs remained in the territories occupied in 2014, a large number of people and organisations were displaced from there. Around 3,500 academic employees and almost 40,000 students fled the occupied territories [Antoniuk, 2023]. Moreover, 18 public universities, two private universities and 11 research institutions were evacuated from the Donetsk and Luhansk regions, and one more university left Crimea [Antoniuk, 2023; Gresham, Ambasz, 2019]. While an evacuated university was re-registered in locations under Ukrainian control, a namesake institution usually kept functioning in the occupied territory. Having to leave behind a part of their staff and students together with the organisational property, evacuated universities were deprived of a large part of their material and human resources [Antoniuk, 2023].

Later during the full-scale Russian invasion, displaced universities similarly left their premises. This includes 44 HEIs from four regions in 2022 alone, which collectively employ over 7,000 teaching faculty members that teach over 54,000 students (Nikolaiev et al., 2023). Unable to move their entire communities and facing a shortage of facilities, these institutions switched to a fully online mode of work [Nikolaiev et al., 2023; Suchikova, 2023; Suchikova, Tsybuliak, 2023].

The full-scale Russian invasion inflicted unparalleled devastation on universities throughout Ukraine, and in particular in the regions close

[22] For 2015–2016, the number of HEIs covered by statistics increased again by 11, though the number of students never recovered: https://www.ukrstat.gov.ua/operativ/operativ2005/osv_rik/osv_u/vuz_u.html (accessed: 04.08.2023).

to the front lines. Estimates of direct damage to HEIs vary between 500 million and 3.9 billion US dollars [Gaind, Liverpool, 2023; KSE Institute, 2023]. As of 24 February 2023, 116 institutions of higher education and research incurred partial damage, and four were destroyed [Ministry of Education and Science of Ukraine, 2023a]. 22 of the top 100 universities incurred noticeable damage, including centuries-old prominent institutions such as the National University of Kyiv and Kharkiv National University [Ganguli, Waldinger, 2023]. The damage to the educational infrastructure is overwhelmingly concentrated in all of the Ukrainian regions proximate to Russia and to the territories occupied by its army. Indeed, all four destroyed universities were in the Donetsk region, and 21 out of 25 universities in Kharkiv suffered physical damage [Ministry of Education and Science of Ukraine, 2023b]. As a consequence, the number of applications to study in Kharkiv, Sumy, or Mykolaiv in 2022 became only a small portion of what it had been just a year before [Antoniuk, 2023].

Beyond the physical losses inflicted on Ukrainian HEIs, their communities have suffered psychologically. Among students and staff who remained in Ukraine, virtually everybody reported a deterioration in their psycho-emotional status. Besides, most of them acknowledged feeling lonely, and conditions like depression, exhaustion, nervousness, and anger were each mentioned by over 75% of respondents [Kurapov et al., 2023]. Besides, most students find it harder to focus on studies than before the war [NaUKMA School for Policy Analysis, 2023].

Another major wartime challenge to higher education is the physical displacement of students and academics. Up to 30% of HEI students and teachers have been displaced within Ukraine, and another 16% of students went abroad [Education Cluster et al., 2022; NaUKMA School for Policy Analysis, 2023]. That many faculty members and students being abroad also poses a risk of brain drain. According to varied estimates, between 6% and 19% of academic researchers have left Ukraine [Gaind, Liverpool, 2023; Ganguli, Waldinger, 2023]. Among 619 surveyed scholars who left Ukraine after 24 February 2022, most have benefited from temporary programmes and positions offered by foreign universities, while only a few received a permanent position abroad [Maryl et al., 2022]. However, 29% of them reported no plans to return to Ukraine if the war were to end soon, and

30% did not know whether they would return or not.

In fact, most displaced academics abroad maintained their affiliation with their home university, either working remotely or being on unpaid leave. Similarly, Ukrainian students abroad keep connected to their home country by studying remotely or in visiting programmes in the 2022–2023 academic year. For students and scholars displaced abroad, common problems emerged. These included language barriers, financial and employment issues, lack of affordable housing, mental health issues, limited access to medical and public services as well as to academic resources such as funding, equipment, data, literature and software [Lutsenko et al., 2023; Maryl et al., 2022; Suchikova et al., 2023]. Many of these issues are also pressing for those who stayed in Ukraine [Education Cluster et al., 2022].

The Russian full-scale attack compelled the Ukrainian government to cut the budget for higher education, retaining only the salaries and student funding while obliging HEIs to raise tuition fees. Moreover, the newly introduced performance-based funding model was rolled back to the pre-2020 model based on the number of students [Kahanec et al., 2022; Nikolaiev et al., 2023].

Repercussions of Remote Education

Since the beginning of the COVID-19 pandemic and later during the ongoing war, HEIs have had to make it possible for their employees and students to work and study remotely. During the pandemic lockdowns, universities closed their facilities entirely for extended periods. The 2022 Russian invasion has forced over half of all universities to work online only [Antoniuk, 2023; Education Cluster et al., 2022; European University Association, 2022]. Some HEIs had no other choice, being evacuated from their facilities in the occupied territories [Suchikova, 2023; Suchikova, Tsybuliak, 2023]. Others did so due to physical threats, damaged facilities and displacement of staff and students. Virtually all the other HEIs, i.e., over 40% of them, have adopted a hybrid (blended) mode of work to combine online and offline activities for similar reasons [Antoniuk, 2023; Education Cluster et al., 2022]. Relying on the usual face-to-face mode remains a privilege of some HEIs in safer positions in Western Ukraine [Suprun, 2022]. Despite these vast changes or even thanks to them, an overwhelming

majority of students continued their education at the institutions where they were enrolled [Education Cluster et al., 2022].

However, in addition to the direct physical and mental health toll of war and the pandemic in Ukraine, remote work and learning have adversely affected the education sector in several ways.

First, remote education exacerbated the problems of teaching, learning and research quality. Some types of teaching, learning and research activities – e.g., science lab projects – got disrupted, while new online methods of interaction were inhibited for many due to insufficient equipment and technical skills [Brik et al., 2022]. Students themselves acknowledge a reduction in education quality during the full-scale war: in a survey of 12,000 students from 31 public HEIs, 38% reported slight deterioration, while another 10% said the quality decreased severely [NaUKMA School for Policy Analysis, 2023]. Apart from quality, it is also a question of equity, as organising an online working and learning environment is a bigger challenge for the economically disadvantaged.

Lacking oversight and engagement, remote education inadvertently created an environment conducive to academic misconduct, which was already prevalent in Ukraine before [Denisova-Schmidt et al., 2018; OECD, 2017]. While there is no systematic evidence from Ukraine on the changes in misconduct, evidence from the U.S. and Romania suggests that switching to online increased cheating in exams [Ives, Cazan, 2023]. Unsurprisingly, the prestige of academic degrees earned remotely also suffered. To some extent, the progress in resolving these problems achieved in the previous years got reversed.

Second, the social component of education and academic work was largely lost. Studying remotely impedes interactions in a classroom, especially student-to-student interactions unprogrammed by the instructor. Besides, students do not get to spend time together on campus, which hampers extracurricular activities and community engagement. After all, students lose a chance to gain vital social skills and create networks and friendships for life. Indeed, there are already students who have received their full degree remotely or have only studied on campus for one semester.

Third, moving online has jeopardised the fairness, efficiency, and social trust in university admission procedures. Implemented nationwide

since 2008, External Independent Testing (EIT) has been a success story of reliable standardised testing for undergraduate admission in a secure environment, supported by both students and parents [OECD, 2017]. However, it is impossible to organise under conditions of wartime and partial occupation. Therefore, admission to universities is based on online testing, in particular, the National Multidisciplinary Test in the case of undergraduate programmes. However, the online format undermines confidence in the integrity and transparency of the results, concerning risks of corruption and unfair ranking of applicants.

Finally, remote work and learning are especially difficult in the ongoing war, which also damages critical infrastructure. Poor Internet connection was named by the vast majority of HEIs as a pressing obstacle to education, surpassed only by lack of safety [Education Cluster et al., 2022]. When electricity, heating, and the Internet are unstable, remote education can be disrupted. The intermittent nature of these essential services requires students and academics to adapt swiftly and be productive during the limited times they have access to reliable resources.

The war posed significant hurdles to the effective delivery and reception of higher education in the country, emphasising the need for innovative solutions and support to ensure the continuity and quality of learning in such challenging circumstances.

Recommendations

HEIs in Ukraine ought to become a pillar in the recovery and modernisation agenda. Not only have they suffered disproportionately from the war because of their higher prevalence in the capital and the eastern part of the country. Being usually non-profit, public and complex institutions, they also lack the ability to adjust and rise from the ashes inherent in many businesses. Thus, universities cannot snap back without solid government and international support. Providing it will yield positive externalities for the economy, science, innovation and public expertise. Top experts from Ukrainian universities should be involved in designing modernisation plans for the country, which should not only come from the government in a top-down manner.

These policies must not merely replicate every part of the pre-war higher education system with its merits and flaws. While striving to preserve

and improve the advantages of the system, the recovery plans should also tackle its lingering shortcomings together with the fallout from the Russian invasion. The following recommendations serve both of these purposes.

(Re-)developing physical infrastructure

- Instead of rebuilding and repairing all the damaged facilities of HEIs, recovering their infrastructure implies providing HEIs with modern, accessible and efficient facilities tailored to their needs and tasks. This should involve repurposing existing structures and building new ones, or even a greenfield campus for a university devastated by the war.
- Any construction, remodelling, or renovation should aim at creating energy-efficient facilities suitable for academic activities and accessible to people with disabilities. Public authorities should enshrine these principles in standards.
- For public universities whose infrastructure is highly damaged, obsolete or inadequate, modernisation plans should consider developing new campuses. As academic activities do not necessitate a city centre location and can thrive in a more secluded environment, these new campuses could be advantageously situated in suburban areas.
- Education institutions should raise funds for developing modern infrastructure by providing naming or design rights for buildings, rooms, and gardens in exchange for donations from businesses, foundations, or private persons.

Reinvigorating and empowering HEI communities

- Wherever possible in the available facilities, institutions should return to primarily in-person teaching once major safety risks are eliminated. To ensure a smooth transition from distance learning, HEIs should implement a hybrid mode of teaching if this is necessary due to the displacement of faculty and students. Selective courses may be offered online only in the long term if they meet higher education standards.
- The government should curb further concentration of higher education in the largest cities by paying extra attention to supporting HEIs in less university-dense regions and cities.

- HEIs should monitor the mental health of their communities and provide them with counselling services, in person or remotely.
- HEIs should provide spaces and opportunities for community engagement and extracurricular activities and foster their self-promotion, e.g., via social media, notice boards and student club fairs. Student associations should be encouraged to organise their events on campus.
- Democratically elected student self-governments should be represented on HEI boards and granted decision powers on some, even if minor, parts of university budgets. For example, this can be a university-funded engagement budget of a few thousand euros per year.

Improving governance and funding practices

- Based on the profiles and track records of HEIs, regulations should distinguish between research universities, universities of applied sciences, or liberal arts colleges. Among these types, policies should differ to ensure efficiency, equity, and good performance.
- Public funding of the higher education sector should remain stable and increase at pace with economic growth. However, this does not imply the same for every single HEI. More funds should go to HEIs that show prospects of greater performance.
- Public funding should incentivise good performance in teaching and research. Non-research performance evaluation should involve independent expert surveys and assess teaching quality, graduate employability, and social impact. Research performance should be rewarded, taking into account international expert assessments and discipline-adjusted impact indicators.
- Universities should integrate research into their core activities, incentivising research by faculty and teaching by researchers, including those from research organisations such as the National Academy of Sciences of Ukraine.
- Universities should offer expertise to government, businesses and non-profits by means of R&D contracts, partnership agreements, or pro bono when it serves the public good.
- HEIs should seek to fund well-performing talents and initiatives by establishing named scholarships, faculty positions, study programmes and chairs sponsored by private donations.

Improving quality

- For admission to undergraduate programmes, the government should reimplement the offline External Independent Evaluation (EIE).
- HEIs should implement performance-based salaries and incentives for faculty, including incentives for scholars who win research grants.
- HEIs should provide faculty and administration with meaningful training on academic integrity, ethics, diversity and inclusion, good governance, and research excellence.
- HEIs should liaise with international partners to organise regular staff mobility. Faculty members should visit partner institutions for extended spells of time to learn from the best academic practices, network, and start productive collaborations.
- Universities should invite independent members from leading academic institutions and reputable companies to their advisory boards.
- Universities should hire and promote professors on an open competitive basis. Leading research universities should also hire in the international job market. The government should provide temporary economic incentives for new professors who obtained their PhD abroad (for instance, a similar "brain re-entry" programme exists in Italy).
- Every HEI should adopt and strictly implement an honour code, defining the principles of academic integrity and sanctions for their violation.

Expanding internationalisation

- HEIs should incorporate English skills into student and faculty assessment and provide effective language courses where it is required. Leading universities should also offer degree courses in English where Ukrainians can study together with foreign students.
- HEIs should recognise courses and degrees accomplished abroad by students.
- HEIs should strive to sign more extensive and specific partnership agreements with foreign institutions, e.g., securing places for exchange or creating joint degree courses. HEI-to-HEI exchange programmes, traineeships, and workshops should concern not only students but also professors and administration staff of all levels.

• The government should incentivise international cooperation by providing mobility scholarships and funding for international teaching and research collaborations.

• HEIs should seek to invite successful academics from abroad for short and long visits, temporary or permanent positions.

• The government should push for complete integration of Ukraine into the European Education Area (EEA) and European Research Area (ERA). This will enable Ukrainian HEIs to benefit from various funding schemes, cross-border collaboration opportunities, and peer effects.

Matching degrees with the job market

• The government should regularly conduct independent audits involving HEI students, which provide an understanding of the institution's progress and prospects, and ways to improve the educational process and internal organisation.

• The government should curb substandard degrees through stricter licensing, mandating non-qualifying HEIs with the lowest quality of education to close, convert into vocational training institutions, or merge with a qualified HEI that will ensure necessary reforms.

• The government should support the development of vocational education and its public prestige, with academic degrees becoming no longer the default option.

• HEIs should involve employers in the design and teaching of courses, participating in university boards, organising student internships, and promoting careers on campus.

• The government should support the development and fund study places in academic disciplines that do not produce enough graduates for the market and the public demand. This could apply to science, technology, engineering, mathematics, and medicine.

• The government should eliminate obstacles to liberal arts programmes, where students choose a major during their first or second year of study. By choosing majors later, students can benefit from being more aware of both their own interests and talents and of the labour market demands.

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CHAPTER 5

LOCAL DEVELOPMENT – EMPOWERMENT OF COMMUNITIES[23]

Kseniya Kvitka[24]

Introduction

Ukraine's decentralisation reform was launched in 2014 and was preceded by the events of 2013–2014 called the "Revolution of Dignity" or Maidan. These tragic events caused the fleeing of the former President Yanukovych to Russia and the changing of Ukraine's government. New people that came to power had a narrow window of opportunities to carry out vital and long-pressing reforms, one of which was the decentralisation reform.

At that moment, the enormous imbalance between the powers of the centre and those of municipalities was extremely conspicuous. Concentration of the powers and financial resources at the central level resulted in inadequate administrative capacity to deliver public services,

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high dependency of local development on the state and large inter-regional disparities [Romanova, Umland, 2019]. Despite occasional gains under the old system – such as improvements in the functioning of some cities and partial fiscal decentralisation – the local level was underdeveloped. This also contradicted the provisions of the European Charter of Local Self-Government and the best world practices.

The reform of 2014 aimed to put forward the interests of residents of territorial communities through transfer of significant powers, resources, and responsibilities from the executive branch of the government to the bodies of local self-government [Decentralisation, 2023].

As of 2022, the reform resulted in the creation of 1,469 amalgamated communities which is a voluntary unification of nearby villages, towns, or cities under joint leadership (the chair of an amalgamated community is called "starosta") and administrative bodies [Cabinet of Ministers of Ukraine, 2023]. 39% of the old small local communities, covering 39.7% of Ukraine's territory, were amalgamated. Over a quarter of the population (28.3%) were united in amalgamated communities with another 42% living in "cities of regional significance", which already enjoyed strong and sustainable local self-government and typically have not participated in the amalgamation. For the rest of the territory, amalgamation was in progress [Romanova, Umland, 2019].

The amalgamated community itself is responsible for its own development, as well as its medical, educational, and other spheres, having the financial resources allocated from the state budget in the form of direct transfers, taxes, or subventions. The reform resulted in a significant increase in local public service delivery and public funding for regional and local development [OECD, 2023]. The communities are also taking on additional responsibilities for delivering public services and fostering infrastructural development [Romanova, Umland, 2019]. An essential feature of decentralisation is the involvement of the local residents in the life of the community, meaning enhancing local democratic practices.

Some of the financial milestones of the reform are the following.

Table 1. Financial milestones of the reform: before and after

Prior to the reform	After the reform
Local budgets were entirely dependent on the state funds [Furdychko, 2017]. Only a limited amount of taxes collected on the local level stayed there, namely: • Tax on immovable property other than land; • Income tax; • Parking fee; • Tourist tax; • Fee for certain types of businesses; • Advertising tax; • Municipal tax; • Inheritance tax; • Unified social fee; • Other types of taxes and fees. The amount of money received by the local authorities was critically low and did not allow them to implement any significant local projects. Hence, local authorities were often dependent on the good will of the centralised government. According to the legislation in place, local authorities' powers were quite limited.	Not only the powers and responsibilities of the amalgamated communities enlarged, but they received additional financial resources due to the introduction of new taxes and increase in the rate of deductions to the local budget from some of the national-level taxes: • 60% of the personal income tax, paid by the enterprises registered at the amalgamated community for each officially employed staff member; • 25% of environmental tax; • 5% of excise duty on the sale of excisable goods; • 100% of the income tax on entrepreneurs registered in the community; • 13.44% of excise duty on fuel; • 100% of the income taxes on community-owned enterprises; • 100% of property tax (real estate, land, transport); • parking fee; • tourist tax; • rent payments for the use of subsoil (including for the extraction of minerals), water, and forest resources. Among all these taxes, two most important are: personal income tax and private enterprises' income tax. Therefore, the more private businesses are registered in the community, the more funds the community receives from taxes.
Only regional and district budgets, budgets of cities of regional significance had direct relations with the budget [Cabinet of Ministers of Ukraine, 2023].	Amalgamated communities receive direct funding from the state budget. They also receive specialised additional budget funding (called subvention) for educational and medical spheres, development of the infrastructure, etc. [Cabinet of Ministers of Ukraine, 2023].
Financial allocations from the central government • alignment subsidy; • subventions; • funds transferred to the state budget and local budgets from other local budgets; • additional subsidies [Serebrianska, 2016].	Financial allocations from the central government • basic subsidy; • subventions for education, medical, implementation of investment projects, etc; • reverse subsidy; • additional subsidies [Serebrianska, 2016].
Local budgets were approved only after the adoption of the Law on the State Budget of Ukraine (should be done every year in December) [Serebrianska, 2016].	Local self-government bodies received the right to approve local budgets regardless of the date of adoption of the Law on the State Budget [Serebrianska, 2016].

cont. Table 1

Funds of the local budgets were to be held only in the accounts of the State Treasury.	Funds from local budgets, in addition to the State Treasure accounts, can be now held in banks as part of the development budget. Local budgets can also receive charitable contributions and grants. This way local budgets received a possibility to generate their own profit though placing funds in deposit accounts.

Source: Authors' own findings based on literature.

The reform generated a new social contract between local companies, citizens and self-government bodies. The latter understood that in order to preserve and extend their communities' budgets they need to retain and attract businesses, which in turn pay taxes.

Impact of the War

The full-scale invasion on 24 February 2022, among others, impacted the gains of the decentralisation reform, especially in the territories close to the zones of hostilities and currently occupied territories. At the same time, other communities, despite the tremendous strain on their financial and human capacities, are continuing to deliver effective local public services and are shouldering additional responsibilities to support the war effort.

The greatest negative impacts of the war on the amalgamated communities are as follows[25]:

- **war-caused impact on the communities close to the areas of active hostilities:**

– occupation

Around 18% of Ukrainian territory is currently under occupation around 3700 cities and villages of the Mykolaiv, Kherson, Zaporizhzhia, Donetsk, and Luhansk regions [Office of the President of Ukraine, 2023]. This means that positive changes that had started on these territories were eliminated by the Russian invasion;

– destruction, killings, and contamination

[25] Of course there are much more negative impacts of the war which cannot be all covered within this chapter.

Around 3 thousand educational facilities and 1.2 thousand medical facilities were ruined. More than USD 19.7 bn is needed in order to restore social infrastructure. Power infrastructure has been extensively shelled causing losses of around USD 6.8 bn [Pastushenko, 2023]. Some cities in the East of Ukraine, such as Bakhmut, Mariupol, Volnovakha, Rubizhne, Popasna, Lyman, Sievierodonetsk, are almost levelled with the ground. Some of the communities of the de-occupied territories of the Kyiv, Chernihiv, and Kharkiv regions are facing great difficulties in finding money to carry out restoration works. As of March 2023, around 8,173 civilians were killed and 13,620 injured as the result of the hostilities [Popov, 2023].

Around 30% of Ukraine's territories are contaminated by mines and unexploded ordnance (UXO). Including around 45% of the fertile agricultural land in the south. As a result, farmers` work has become deadly dangerous and close to impossible [Nazarenko, 2023].

Russians targeted numerous chemical industry facilities containing chlorine and ammonia, more than 40 industrial sites that release toxic industrial chemicals, more than 20 fuel infrastructure sites; occupied the Chernobyl and Zaporizhzhia nuclear plants. Scrap metal from the weapons, destroyed military equipment and vehicles, and asbestos from the ruined buildings are causing enormous pollution to the soil and air. War has caused huge disruption to the agricultural sector and damage to natural ecosystems such as the blowing up of the Kakhovka dam in the Kherson region and the destruction of grain warehouses in the Odessa region the losses are still hard to estimate in terms of the impact on the Ukrainian territories affected and the communities living in those areas;

– fleeing of the population to other territories of Ukraine and abroad

Around 5 m Ukrainians had to flee abroad and another 4.9 m Ukrainians moved internally, becoming internally displaced persons, or IDPs [Popov, 2023].

- **war-caused impact on the communities further away from the areas of active hostilities:**

– hosting communities had to provide all kinds of support to the IDPs

Though integration of the IDPs into the hosting communities went rather smoothly, in comparison with previous war years, all the spheres of the hosting communities' lives, namely education, healthcare, administrative services, provision of the humanitarian aid and lodging, had to be adjusted to the growing demand and financed from the local budgets. This became an additional financial burden on their budgets;

– support to the relocated businesses

Around 1500 companies applied to the central government for additional funding support for the relocation of businesses, with around 510 of them already relocated to the western part of Ukraine from the war-affected areas [Popov, 2023]. As good as it is for the communities, the majority of them were not prepared to host new businesses due to several reasons: unpreparedness of the key infrastructure (roads, buildings, networks, etc), inability to be flexible in negotiations in terms of providing new businesses with all support and concessions within their authority.

- **financial and other impacts:**

– The Russian war against Ukraine, among others, caused a dramatic economic decline of more than 30.4% of the GDP. Inflation of around 33% and huge loss of the industrial businesses in the industrial and more war-affected parts of Ukraine impacted the financial capacity of the state to continue supporting communities. Some of the areas that were still under subvention support from the central government – education, healthcare, infrastructure – were left underfinanced. With the decrease up to 38% in certain types of taxes – i.e., land tax and soil rent – budgets of the communities are becoming more dependent on the still limited transfers from the centralised budgets [Popov, 2023];

– The war caused insecurity among businesses in terms of continuing investments in the Ukrainian economy. Some of the reforms that were to continue through 2022–2023 in the territories of the communities, such as the land reform, have been paused for an uncertain period;

– due to mobilisation, in some communities it is difficult to convene meetings of local councils or undertake any works;

– outflow of companies and people of working age has caused communities to "grow older" and be more dependent on the centralised social support. The reduced revenue part of the local budgets can be as much as 90% less in terms of revenue from companies that are still operating and up to 50% less in terms of local revenues compared to the pre-war level [Popov, 2023].

This list is not an exhaustive enumeration of the consequences of the deadly war started by Russia. Keeping this in mind, there are a couple of recommendations that can be proposed towards enhancing the development of local communities.

Recommendations for the Communities' Empowerment

• ***Improvement in administration of taxes and simplicity of their payment***

The decentralisation reform brought new financial possibilities to boost local budgets. However, the war has either put on pause or imposed difficulties on business activity – the main source of income for the state and local budgets. After almost 1.5 years of the war many businesses are resuming work and adjusting to the new realities. They not only keep on paying taxes. Some of them had to relocate their businesses and/or support their staff in their relocation, while at the same time donating money to war-connected initiatives.

In such circumstances, the best solution on the government's part would be to improve tax administration and support taxpayers with all means possible, mainly through clarifying the amounts that should be paid and simplification of the paperwork.

One of the examples in which the improvement in the administration of taxes is needed is the income tax, which is the main source of income for the amalgamated communities and should be paid from the salaries of employees in the territory where the enterprise is registered. Some of the communities where military headquarters are registered receive more of

the income taxes than others where there are no military headquarters. This generates inequalities between communities [Popov, 2023]. State-level adjustments in the administration of taxes is needed in order to fairly distribute money among communities (i.e., payment according to the place of registration of the employee and not the enterprise or other employer).

The concerned state structures should provide more clarity on the amount of taxes that should be paid and their further distribution. They also need to provide simple digital instruments for their payment and simplify paperwork, for example, through the government system Diia.

Law enforcement bodies should control the payment of taxes and further transparency in spending them. Only this way would the payers have a clear picture of why and for what their taxes are spent, and will be more motivated to pay them further on.

Administration of taxes should be viewed by the government through the lens of simplicity and speed, and should be treated in a business-like manner rather than follow a typical state bureaucratic approach. For the taxpayer, payment of taxes and their administration should be as easy as buying coffee.

- ***Optimisation of services***

Some of the communities keep on financially supporting ineffective structures, such as small village schools or hospitals or some municipal enterprises. Their service levels and equipment standards are not sufficient for the provision of high level of services and financially they are a burden on the community's budget. State subventions given to support social services such as healthcare and education are not enough to sustain existing services. Therefore, communities should spend their own money on supporting ineffective institutions only for the sake of retaining teachers and doctors in the community. Municipal enterprises are oftentimes loss-making for the budgets and can be more profitably replaced with private companies which provide exactly the same services (i.e., waste management companies, utilities, etc).

War and economic difficulties should become a trigger for the optimisation of services and closure of ineffective structures. Communities should stimulate the work of market forces.

For example, the community can invest in renovation and opening of one big hospital with high-level services and equipment instead of numerous small ones offering questionable services in villages. Renovation of roads can be an additional argument to attend the hospital. As hospitals in Ukraine receive money directly from Ukraine's National Health Service for the number of services provided, the better they perform, the more money they can receive. Therefore, the hospital or any other optimised institution with high-level services would not require additional funding from the community's budget, which can be redirected to other purposes.

Such initiatives can also be undertaken through private-public partnership projects or through joint projects between nearby communities. One of the examples might be joint creation of healthcare and rehabilitation facilities for war survivors.

- ***Free economic zones, communities' support for business initiatives***

Many businesses are relocated from the war-affected areas to the rest of Ukraine's territory. IDPs, who are left without a job, might also be the ones who are interested in starting a new business in the new place of living. These initiatives are profitable for the communities and should be encouraged and supported.

The government together with INGOs provide grants for the reallocation or opening of a new business. Local community, on the other hand, can provide other services to support business, for example, premises, support with experienced staff to do the paperwork, contracting for the provision of services/goods needed for the community, etc. In coordination with the central government, the community can propose tax holidays to the new/relocated business for the period of time needed to generate income.

One of the options to support big businesses which are aimed to be opened or relocated, is the establishment of free economic zones where companies are taxed very lightly or not taxed at all to encourage economic activity. Such zones can be arranged by local communities in coordination with the state, especially near Ukrainian border areas, to encourage internal business development and external investments.

The more open the community is to welcome new business and support its development the more money it will receive in its budget.

• ***Development of vital infrastructure***

Quality infrastructure is important for the development of any project in business or public fields. Infrastructural projects are always about creating new job opportunities, enhancing business climate, providing higher quality of services to the residents and improving their quality of life.

First and foremost, there are roads, which are in a dire condition even In the territories far away from the zones of hostilities. Due to the unavailability of air travel, railways and roads are the main means of movement in Ukraine. Good quality of the roads allows goods, people and services to move faster, generate exchanges and income. Legally, communities have the possibility to reconstruct roads situated on their territories, which they can do with their own funds or with private investments. Such reconstructed roads can be included in the system of toll roads with the fees funnelled back to the private investors or communities.

Secondly, it is the matter of waste management and preserving the environment. Even before the war, Ukraine had already been one of the top ten most polluted countries in the world. With the effects of the war, pollution increases drastically. Communities further away from the zone of hostilities should already be thinking on waste management solutions though waste disposal and recycling centres. Communities should develop environmental sustainability programmes and encourage businesses and residents to get greener. One of such programmes might be enhancing low-impact tourism with an eye toward protecting the environment and culture of an area.

Besides roads and waste management, communities should ensure sustainable functioning of other facilities and services that are important for the resident and business development utilities, postal service, security, networks, etc.

Of course, implementation of all these projects is impossible without the involvement of the private capital. It is crucial for the community leaders to start working towards being more open to welcome new business initiatives in their territories.

- ***L&D of community leaders and public administrators***

Community leaders and public managers should consider the development of their communities from the strategic long-term point of view. Ambitious goals require understanding how and with what aim they are implemented. Therefore, community leaders should constantly improve their level of knowledge not only in the field of their direct responsibilities and spheres of authority, but also in managing projects, financial literacy, language knowledge, finances, and strategic thinking. This will give them the possibility to learn from the best practices and build sustainable strategies of their communities' development.

This way they will be more prepared to cooperate with the residents, attract businesses, effectively operate local funds, and apply for funding and investment grants, i.e., support provided by the EU institutions.

Conclusions

The war has caused dramatic consequences for Ukrainian people and territories. Among others, it influenced public reforms and institutions that started to develop prior to 2022. One of them is the decentralisation reform that involved all the communities in Ukraine.

An all-Ukrainian poll at the end of 2022 showed that despite all the difficulties around 76.5% of Ukrainians stated that decentralisation reform should be further developed and it played a significant role in opposing the large-scale Russian invasion. This was because of the existence of local leaders who managed to unite communities, made them more resilient and prepared to face emergencies and challenges caused by the war [Decentralisation, 2022]. This also influenced communities further away from the frontline to be more welcoming towards IDPs and relocated businesses.

At the same time, the development of local communities in Ukraine should be viewed strategically and in the long term. Communities now have better financial resources and authority to implement positive changes in their territories. With some administrative, financial and expert support from the state, external donors and financial institutions, communities might be one of the driving forces for the reconstruction of Ukraine after its victory.

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Students call for in a holistic, forward-thinking and strategic approach to Ukraine's recovery, in an innovative, transformative change and technology-driven reconstruction rather than merely restoring pre-war conditions. Immediate reconstruction and modernisation efforts as well as solid anti-corruption measures should be prioritised. The Report focuses on the overview of different domestic and international recovery plans for Ukraine (Chapter 1), analysing geopolitical context of recovery and European integration of Ukraine (Chapter 2), and exploring green and environmental policies, including fostering green energy and development of eco-friendly mindset (Chapter 3). Students show the need of investing in development of human capital and the role of universities for Ukraine's recovery and modernisation (Chapter 4). Cross-cutting priorities include local development, empowerment of the communities and their leaders as well as support for the regional and local enterprises and businesses (Chapter 5).

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