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GREEN TRANSFORMATION OF THE LABOR MARKET: A LEGAL PERSPECTIVE ON SUSTAINABLE EMPLOYMENT

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Abstract

Global climate change poses an increasingly serious challenge not only to environmental systems but also to the economic and social spheres, particularly affecting labour market dynamics and the ability of states to provide decent and sustainable employment. The ongoing transition to a green or low-carbon economy requires a fundamental rethinking of the legal and institutional frameworks governing labour relations. As economies restructure themselves in response to environmental imperatives, labour laws must evolve to support this transformation, while ensuring the protection of workers' rights and the creation of fair and inclusive labour markets.

This article examines the principles of sustainable employment in the context of climate change, focusing on the need to harmonize environmental policies with labour laws and employment strategies. Sustainable employment in this context refers not only to the creation of jobs in environmentally responsible sectors ('green jobs'), but also to the social dimension of the transformation of work – ensuring social justice, inclusion and resilience in the face of climate-induced economic shifts.

The paper examines both international legal standards and national approaches, highlighting the importance of integrating global frameworks such as the International Labour Organization Just Transition Guidelines and the Paris Agreement into national policies and legislation. A detailed legal analysis is provided, highlighting how these international commitments can inform national labour law reforms to support a just and sustainable transition.

Special attention is paid to the experience of the Republic of Moldova and its legal capacity to adapt to climate-related challenges in the world of work. Comparative insights are drawn from countries such as Germany, Canada and Belarus, which have adopted progressive legal and policy frameworks to address employment challenges related to climate change. For example, Germany's integration of climate and employment strategies, Canada's federal support for workers affected by the energy transition and Belarus's state employment programs offer valuable models.

The article formulates a number of proposals for improving the current legislation for the Republic of Moldova. These include the development of national sustainable employment strategies, legal guarantees for retraining and upgrading workers, creating incentives for creating environmentally friendly jobs and aligning labour market institutions with environmental goals.

The article formulates a number of conclusions justifying that adapting labour legislation to climate challenges requires a comprehensive, multidimensional approach that balances environmental responsibility with social justice, economic development and legal certainty.

Keywords: labor relations, green transformation, labor market, climate change, legal guarantees

1. INTRODUCTION

Global climate change presents a growing challenge not only to environmental systems but also to economic and social structures, particularly labour markets. The transition to a green economy necessitates a re-evaluation of labour laws to ensure decent and sustainable employment.

Climate change is no longer a purely environmental issue, but a socio-economic challenge that disrupts labor markets and employment stability. The transition to a low-carbon economy requires a legal framework that supports the adaptation of the workforce while ensuring social justice. The Republic of Moldova, like many other countries, faces the dual challenge of mitigating climate change and maintaining economic sustainability. In this regard, it is of interest to analyze the current labor legislation, primarily in relation to the norms of the international framework - international legal guarantees.

Trends in the development of labor legislation are determined by climate-related economic changes. At the same time, ensuring sustainable employment - defined not only as jobs in green sectors, but also as fair, inclusive and sustainable labor markets - is one of the key objectives of most states. The presented article is based on international best practices and proposes some legal reforms for Moldova to align its labor policy with environmental sustainability.

Economic and legal studies show that "The green transformation of production structures needed to achieve net zero emissions—with large changes expected in capital infrastructure for greener energy and products—will also entail a transformation of the labor market, changing the allocation of workers across occupations and sectors." According to the World Economic Outlook (WEO) analysis has found the policy package required to achieve net zero emissions by 2050 would lead to about 2 percent of the global workforce changing the sector in which they work over the next 30 years, with workers moving from polluting, higher-emissions sectors to those that are cleaner and generate lower emissions (World Economic Outlook, 2025).

2. METHOD

The basis for studying the green transformation of the labor market from a legal perspective is an interdisciplinary methodological approach. This scientific method includes, along with legal analysis, also policy assessment and socio-economic research for a comprehensive study of how labor legislation can adapt to climate change while promoting sustainable employment.

The analysis of the existing legal framework, including international treaties, national legislation and case law, to assess their effectiveness in promoting sustainable employment forms the basis of the study. We reviewed the ILO Guidelines for a Just Transition (International Labour Organization, 2015) and the Paris Agreement (UNO, 2015), as well as a number of provisions of the Moldovan labor legislation regarding adaptation to climate change.

Of practical importance is also a comparative legal analysis to assess how different jurisdictions regulate the transition to green employment. The study focuses on the German Energiewende policy (Energy Policy Review, 2020), the Canadian Just Transition Act (Government of Canada, 2021) and some other countries, emphasizing the possible use of effective practices in Moldova.

Policy analysis and impact assessment further enrich the study by assessing how existing and proposed laws impact labour markets and environmental objectives. This includes a thorough analysis of the National Development Strategy of Moldova 2030 (<u>Law of Republic of Moldova No. LP315/2022 - The National development strategy "European Moldova 2030".</u>) for its alignment with climate and labour integration and an assessment of the implications of the EU Green Deal (European Green Deal Policies and Sustainability) for Moldova's labour legislation.

The paper also uses statistical and economic data analysis, including labour market statistics, employment trends and climate vulnerability indices in the legal debate.

3. DISCUSSION

Climate change has emerged as a significant disruptor of labour markets worldwide, reshaping employment patterns through multiple channels. Until recently, many authors in the analytical literature noted that environmental and climate targets are increasingly being mainstreamed into new policy fields, like labor market policy, that—until now—had little collaboration with environmental topics (Bohnenberger Katharina, 2022).

One of the most immediate effects is job displacement in carbon-intensive industries such as fossil fuels and heavy manufacturing, where decarbonization policies and technological shifts are rendering certain occupations obsolete. Simultaneously, new economic sectors are emerging, including renewable energy, sustainable agriculture, and the circular economy, creating fresh employment opportunities that align with environmental sustainability goals. However, the transition is not always smooth, and economic instability caused by climate change has led to a rise in informal labour, where workers face precarious conditions without adequate social protections.

The concept of sustainable employment has gained prominence as a framework for addressing these challenges. It encompasses three key dimensions: environmental sustainability, which involves jobs that actively contribute to decarbonization efforts; social sustainability, ensuring fair wages, safe working conditions, and robust social protection systems; and economic resilience, which enables labour markets to adapt to climate-induced economic shifts without leaving workers behind. This holistic approach recognizes that the green transition must be just and inclusive, balancing ecological imperatives with social equity.

At the international level, the International Labour Organization (ILO) has been instrumental in promoting the idea of a just transition through its guidelines, which emphasize that climate policies should not exacerbate inequality. Central to this framework is the principle of social dialogue, requiring collaboration between governments, employers, and workers to design equitable transition strategies. Additionally, the ILO highlights the importance of skills development for green jobs and the need for strong social protection mechanisms to support workers displaced by industrial transformations. The International Labour Organization defines green jobs as "decent jobs that contribute to preserving or restoring the environment" in sectors such as energy efficiency, waste management, renewable energy, and sustainable agriculture (ILO, 2008). In its foundational report, Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World, the ILO argues that green jobs should be not only environmentally sound but also decent—meaning they offer fair wages, safe conditions, and social protections. In 2015, the ILO released the Guidelines for a Just Transition, a policy framework for integrating environmental goals with labor standards. The guidelines stress the importance of: Promoting green jobs through proactive industrial policies; Providing vocational training and re-skilling opportunities; Ensuring robust social protection systems; Engaging in tripartite social dialogue

(ILO, 2015). The UN report "Working Towards Sustainable Development: Opportunities for Decent Work and Social Inclusion in a Green Economy" (ILO-UNEP-IOE-ITUC, 2012) expands on the potential for green growth to generate millions of jobs worldwide. The report concludes that "green sectors have the potential to be major job creators," but warns that without legal safeguards, the transition could deepen existing inequalities (UN, 2012).

The UN report highlights:

- Green jobs contribute to reducing environmental risks while ensuring decent employment;
- National policies should support job creation in renewable energy, sustainable agriculture, and green construction;
- Legal systems must adapt to ensure inclusive growth and fair access to new economic opportunities.

The Paris Agreement of 2015 further reinforces the link between climate action and labour market policies. Article 7 of the agreement explicitly calls for climate adaptation measures that consider labour market implications, urging nations to integrate employment concerns into their climate strategies. This international commitment provides a foundation for countries to develop policies that simultaneously address environmental and social challenges.

Varied strategies to manage the labour market impacts of climate change have been adopted by many countries, and these examples can be used in improving the legislation of Moldova. Germany's Energiewende, or Energy Transition, serves as a leading example of how to integrate climate and employment policies effectively (Energy Policy Review, 2020). Through targeted initiatives, Germany has promoted renewable energy jobs while implementing worker retraining programs to help employees in traditional industries transition to new roles.

As part of its commitment to align with the European Green Deal, Turkey has initiated national strategies aimed at integrating sustainability into employment law. The Ministry of Labor and Social Security, in collaboration with the Ministry of Environment and Urbanization, has supported vocational programs like *Yeşil Meslekler* (Green Professions)(<u>Halim Baş</u>, 2021), targeting young unemployed individuals and offering training in renewable energy, waste management, and energy efficiency systems.

Turkey has also explored tax incentives and public-private partnerships to stimulate green employment. However, legal reform remains piecemeal. The absence of a clear statutory definition of green jobs and the lack of binding labor-environment integration pose challenges for consistency and enforcement. The researchers note that measures taken to increase the share of the green economy and achieve the UN SDGs and "...that green energy investments can simultaneously achieve environmental goals and promote economic stability through job creation and improve trade balances" (Kübra Atik Gözkün, Özgür Orhangazi, 2025).

Canada has taken a proactive approach with its Just Transition Act (Government of Canada, 2021), which provides financial aid and retraining opportunities for workers in the fossil fuel sector. The government has also introduced incentives for green job creation, fostering employment in clean energy and other sustainable industries. Meanwhile, Belarus has pursued state-led solutions through its National Green Economy Plan (The National Action Plan, 2016) which includes vocational training programs to prepare workers for eco-friendly sectors.

These examples highlight several key takeaways for Moldova. First, policy coherence between climate objectives and labour market strategies is essential for a smooth transition. Second, active labour market policies, such as retraining and upskilling initiatives, can help workers

adapt to new economic realities. Finally, robust social protection mechanisms are crucial to safeguarding vulnerable workers during periods of industrial change.

Currently, Moldova's labour legislation lacks sufficient integration of climate considerations, leaving workers in transitioning sectors with inadequate protections. The country faces several structural challenges, including its heavy economic dependence on agriculture—a sector highly vulnerable to climate change impacts. Additionally, brain drain has reduced the availability of skilled labour, while insufficient investment in green industries has limited job creation in sustainable sectors.

Addressing these issues will require comprehensive legal and policy reforms. Moldova must strengthen its labour laws to incorporate climate resilience measures, expand social protections for affected workers, and invest in education and training programs to prepare the workforce for green jobs. By learning from international best practices and tailoring them to local contexts, Moldova can build a more sustainable and inclusive labour market capable of weathering the challenges posed by climate change.

When making changes to legislation, it should be taken into account that labor legislation is influenced by tripartite cooperation between trade unions, employers and the state. Therefore, the expert's opinion deserves attention: "Tripartite partners refers to the three primary social partners in the just transition: governments (including Indigenous governments in nation-to-nation relationships), employers, and workers and their organizations. Tripartite social partners are the three core actors that cooperate and engage in dialogue on affected work, labour standards, policies and programs via consultation, negotiation and information exchange. A tripartite approach to just transition policy development ensures cooperation among these three social partners, increased participation from those affected, and improved governance" (Matt Hulse, 2023).

In general, it should be noted that changes in the economy and the transition to more environmentally friendly technologies inevitably have an impact on all sectors of the economy, including the labor market. The analysis suggests that more stringent environmental policies are associated with employment with higher green intensity and lower pollution and emissions intensities. Specifically, the findings suggest that a country that moves from the 25th to the 75th percentile in environmental policy stringency would see a 2 percent increase in its average green intensity of employment; its average pollution and emissions intensities would decline by about 4 and 6 percent, respectively. In other words, policies that encourage greater environmental sustainability are statistically significantly related to greener employment (International Monetary Fund, 2022).

4. CONCLUSION AND RECOMMENDATIONS

The transition toward sustainable employment faces significant legal hurdles, particularly regarding regulatory gaps and implementation barriers. A fundamental challenge lies in the absence of standardized definitions for green jobs across national labor frameworks, creating difficulties in monitoring compliance and incentivizing employer participation. This definitional vacuum is compounded by insufficient coordination between labor ministries and environmental agencies, resulting in disjointed policy approaches that fail to address the intersection of climate action and workforce development. Social protection systems further exacerbate these challenges, especially in emerging economies where workers displaced from carbon-intensive industries often fall through the cracks of inadequate safety nets.

Despite these obstacles, the green transition presents opportunities for legal innovation and strategic policy development. Introducing legally binding definitions of green jobs within labor

codes would provide much-needed clarity and legitimacy to sustainable employment initiatives. Similarly, embedding environmental obligations into employment contracts could institutionalize sustainability as a core component of labor relations. Institutional reforms, such as establishing independent Just Transition Commissions with statutory mandates, could ensure coordinated oversight of green labor policies. Additionally, integrating green vocational training standards into national qualification frameworks would equip workers with the skills needed for emerging sustainable industries. These measures would not only strengthen the legal foundation of green labor reforms but also align employment law with broader environmental objectives.

The green transformation of labor markets demands more than technological change—it requires a fundamental rethinking of legal and institutional frameworks to ensure a just and inclusive transition. Current systems often suffer from misaligned environmental and labor legislation, constrained budgets for worker retraining programs, and the persistent lack of legal recognition for green jobs. However, these challenges can be addressed through targeted legal innovations, including the formal codification of green job classifications, amendments to labor codes that incorporate sustainability principles, and the creation of specialized oversight bodies such as Just Transition Authorities.

International experiences demonstrate that successful transitions hinge on the integration of labor rights with environmental sustainability within national legal systems. While countries like Turkey and Moldova have begun incorporating sustainable employment policies, drawing on guidance from international organizations such as the ILO and UN, further progress depends on enhanced legal frameworks and institutional cooperation. By adopting clear definitions, robust standards, and inclusive policies, nations can ensure that the shift to a green economy is both socially equitable and legally enforceable, fulfilling the dual imperatives of environmental protection and decent work for all.

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