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In the thematic monograph *Legal Insights into Environmental Sustainability*, the concept of sustainable development has been analysed as a legal and economic category, aiming to explore the way that changes in the socio-economic model impact public policy and normative framework. The results could serve as guidelines for policymakers to enhance states' efficiency in achieving the sustainable development goals, and define standards in terms of sustainable development. The themes covered in the monograph are internationally relevant, advocating best-practice approaches in the field.

Dr Mirko Vasiljević, Professor Emeritus

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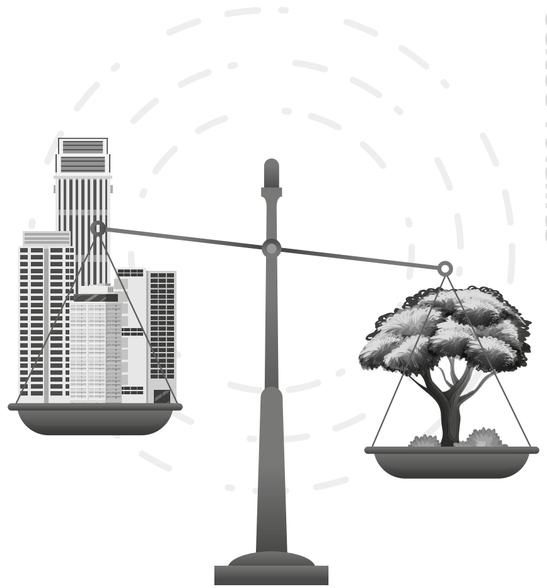
LEGAL INSIGHTS INTO ENVIRONMENTAL SUSTAINABILITY



edited volumes

EDITORS: SANJA STOJKOVIĆ ZLATANOVIĆ, RANKO SOVILJ, IVANA OSTOJIĆ, MILKA DIMITROVSKA

LEGAL INSIGHTS INTO ENVIRONMENTAL SUSTAINABILITY

Exploring the intersection of various traditional legal disciplines – labour, business, and ecological law, with sustainability issues aims to offer valuable insights into the significant academic uncertainties about the future of a multilateral, globalized, and digitalized world, with law as an integral part of it. Global environmental protection issues are undoubtedly linked to economic development, societal progress, and finally, the exercise of fundamental human rights. Thus, legal, economic, and scientific reflections regarding the reconceptualization of basic notions/institutes by improving and/or adjusting the applied methods in various social science disciplines could contribute to the ongoing national and international debate at the public policy level, to implement theory in practice. This thematic monograph comprises eight research papers where legal ones dominate in Part 1 of the monograph related to the topics of Law and Sustainability, while the last two papers in Part 2 of the monograph deal with economic issues of sustainable development.

LEGAL INSIGHTS
INTO ENVIRONMENTAL SUSTAINABILITY

PUBLISHED BY

Institute of Social Sciences, Belgrade

Ss. Cyril and Methodius University in Skopje,
Institute for Sociological, Political and Juridical Research, Skopje

PUBLISHER

Goran Bašić

REVIEWERS

prof. emeritus Mirko Vasiljević

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Ana Knežević Bojović, PhD

SERIES

Edited Volumes

SERIES EDITOR

Veselin Mitrović

Belgrade, 2024

ISBN 978-86-7093-276-0

edited volumes

LEGAL INSIGHTS
INTO ENVIRONMENTAL SUSTAINABILITY

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for the Republic of Serbia

ИНСТИТУТ ЗА
СОЦИОЛОШКИ И
ПОЛИТИЧКО
ПРАВНИ
ИСТРАЖУВАЊА

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PART B
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Preface

Humankind has been grappling with profound technological, societal, demographic, and climate changes, endeavoring to reshape the very concepts and ways of work and living. Understanding the paradigms of social and environmental justice in a transformed world of business and work requires a deeper examination of notions such as environmentalization, datafication, and platformization. The concepts of social and environmental justice need to be unified and considered together, acknowledging that the social environment is responsible for ecological, social, and economic crises and should be analyzed as a cross-cutting issue across traditional legal disciplines.

Exploring the intersection of various traditional legal disciplines – labor, business, and ecological law, as well as sustainability issues – aims to offer valuable insights into the significant academic uncertainties about the future of a multilateral, globalized, and digitalized world, with law as an integral part of it. Alongside these efforts, attempts have been made to introduce novel legal disciplines such as Digital or Internet law, Sustainable Development law, or even EU Climate law as normative responses to the

greatest scientific and technological revolution ever, i.e., the Fourth Industrial Revolution. Some academics go a step further by exploring the theoretical foundation for the interrelationship of science, technology, and law – "integrating technological materiality into a legal doctrine" in the era of digitalization and focusing on so-called "normative expectations," as they apply general legal principles and rules instead of "digital expectations" and constructions of society. Others advocate for the introduction of novel institutions and rules of law based on existing ones, integrating digital culture into digital law as an emerging legal discipline.

While social sciences, in general, are at a crossroads, lagging far behind the technical and natural ones, their role and involvement as a 'partner' in supporting enormous and rapid technological progress by controlling and impeding possible misuse and wrongdoings cannot be neglected. This is particularly true in terms of the legal consequences of ongoing changes.

Global environmental protection issues are undoubtedly linked to economic development, societal progress, and finally, the exercise of fundamental human rights. Thus, legal, economic, and scientific reflections regarding the reconceptualization of basic notions/institutes by improving and/or adjusting the applied methods in various social science disciplines could contribute to the ongoing national and international debate, at the public policy level to implement theory in practice. The interconnection between hard and soft law instruments is most visible in the field of the environmental legal landscape when focusing on raising awareness of the negative influence of today's humans on the future of the next generation and planet Earth, considering also the impact of business and economic activities on environmental degradation and vice versa. Furthermore, business activities take place in workers' environments, influencing workers' health and safety, while the work environment impacts the environment in general. Hence, economy, law (both traditional and emerging legal disciplines), and public policy are the key overlapping areas of research interest in terms of dealing with sustainable development goals in a digitalized world.

This thematic monograph comprises eight research papers where legal ones dominate in Part 1 of the monograph related to the topics of Law and Sustainability, while the last two deal with

the economic issues of sustainable development (Part 2). The central theme of the first part mostly revolves around the interconnection between traditional legal disciplines of Labor and Business law and emerging ones – Environmental, Digital, and Climate (Change) law – in the era of the digital and green economy and a data-driven society. In the second part, authors examine the achievement of sustainable development goals by considering the societal and ecological dimensions along with the economic one, and the role of the private sector, particularly the concept of corporate social responsibility in the transition process, from the standpoint of economic scholars. Reflections on key similarities and differences between Labor and Environmental law, both in the context of individual and collective dimensions of labor law, insights into the employment status of a particular category of workers, i.e., those engaged in the agricultural sector, have been critically examined in the first three chapters of Part 1 of the monograph.

The engagement of all actors – state, employers, and unions – in driving the green transition while ensuring that no one is left behind is the cornerstone of achieving sustainable development goals in the changed world of labor. Furthermore, the role of agriculture and farmers in achieving the goals of the European Green Deal, has also been explored in depth by following the studies of socio-ecological aspects of a just transition. The last two papers of Part 1 examine the new forms of business operations (Uber, Airbnb, and Blockchain) in terms of gig and platform economy that contributes to the green transition, as well as legal insights and approaches in the field of public procurement driving circularity.

The Editors

Part A
LAW & SUSTAINABILITY

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Relationship Between Labour and Environmental Law – Accidental or Natural Partners?

Abstract

In addition to the differences that exist between the issues they regulate and the goals they strive for, labour law and environmental law do have common points of encounter. This is primarily manifested in the fact that work environment is part of the environment, which is why environmental disasters can be caused by accidents stemming from industrial activities of employers. On the other hand, certain environmental events may affect the exercise of labour rights, regardless of the norms that protect the environment. This is evident in events increasingly linked to climate change, which can jeopardize employment security and effective exercise of many labour rights. In addition, the exercise of labour rights can be exceedingly threatened due to the preventive measures, as well as measures to eliminate harmful effects on the environment, even though a healthy and clean environment is a prerequisite for effective enjoyment of labour and other human rights. Under the auspices of international organizations, attempts to link labour and environmental law largely ended with the adoption of soft law sources, while national legislations are characterized by uneven, sporadic and unsystematic intertwining of sources of labour and environmental law. The authoress sheds light on the indicated aspects of the relationship between labour and environmental law from the point of view of a labour law scholar.
Keywords: Legal system, Employment relationship, Climate change, Occupational health and safety, Social dialogue.

Subject Matter and Objectives of Labour and Environmental Law – Differences

The legal system is a congruous and coherent system, composed of a large number of general norms that are interconnected. This requires the sources of law that contain these norms to be organized, in order to enable the subjects of law to have, in every situation, accurate and reliable information of how they should

behave, i.e. to have the ability to synchronize their behaviour with applicable regulations. In addition to organizing the sources of law according to content, the construction of a legal system also entails the grouping of legal institutes, as sets of norms that refer to a certain social relationship (or a group of social relationships), according to the same principles, into the branches of law. In this regard, the question of the relationship between different branches of law becomes relevant, because they are integral parts of a congruous legal system, despite the differences arising from the subject of the norms they contain.

This question is also raised with regards to the relationship between labour and environmental law, although their subject matter and objectives are very different. *Labour law* was thus constituted as an autonomous branch of law at the end of the 19th century, shortly after the first legislative interventions in the world of labour. The interventions were necessary since the classical contract law, with the principle of equality of the contracting parties, could not provide the necessary protection of the personhood, physical integrity, or dignity of workers. This wave of state interventionism restricted the subject of labour law to *dependent, subordinate work*, while the main objective of this branch was to protect employees, as the weaker party to the employment relationship. This is because employees earn their sole or predominant means of subsistence by working for an employer, and by entering into an employment relationship, they take on the obligation of working in the name of, on behalf of and under the (managerial, normative and disciplinary) prerogatives of the employer. Legal subordination of employees, therefore, creates the need to alleviate the inequality of the parties to the employment relationship, which includes the creation and implementation of norms that will prevent abuse of employers' prerogatives. In this way, "labour law norms will contribute to the establishment and preservation of social peace and achieving the ideal of social justice and social cohesion, while minimal harmonization of working conditions will lead to harmonization of labour costs, as an important instrument for preventing unfair competition among employers. Suchlike development of the regulation of labour came about due to several different factors, chief among which were the changes in the nature of the state, economic development,

ideology, and the activities of labour movements, employers' associations and civil society organizations" (Hepple, 2011: 36–41). In this regard, one should keep in mind the continuous attempts of contemporary labour law to adjust to the new ways of management, organization and work execution, as well as changes that are happening in other areas. Some of these adjustments are so demanding that one can fairly talk about a multiyear crisis in labour law. This, above all, applies to "intense pressures for further flexibility and deregulation of labour law, and to reconsidering the basic concepts of labour law, including the concepts of employment, employee (worker) and employer" (Davidov & Langille, 2011: 1).[1] More precisely, we are referring to the challenges to labour law, brought on by the vertical disintegration of companies, as they call into question the unitary "concept of the employer, but also the bilateral and contractual nature of the employment relationship" (Gaudio, 2021: 264). This has been followed by the emergence of new forms of work, some of which are extremely precarious and cannot be easily subsumed under the binary model of work in which there is a clear difference between subordinate and independent work, where millions of workers "remain outside the personal scope of labour legislation or are afforded only some aspects of labour protection" (Kovačević, 2021: 90–94). In that sense, *ad hoc* solutions are being designed for certain categories of workers, primarily thanks to case law, and, less often, legislators, while international and European organizations are directing their normative activity towards establishing universal protection for all workers, regardless of the legal basis of their engagement (concept of decent work of the International Labour Organization, European Pillar of Social Rights, Directive of the European Parliament and the Council 2019/1152 on transparent and predictable working conditions in the EU). When it comes to doctrine, however, authors are divided over the idea of persisting with a firm division into subordinate and independent work, as some writers suggest different techniques for overcoming the problems that accompany the binary model of labour.

[1] However, we should not lose sight of the fact that the impact of the collective labour law is limited, primarily because many workers are not unionized, while unions' strength and importance is declining rapidly.

The second group of authors advocates the development of worker protection system, which would not be based on subordination as the most important criterion for determining the subjects of labour protection. Instead, the goal would be to build a system with social and economic position of workers at its core, as a crucial criterion for the recognition and enjoyment of labour protection.

Finally, we should bear in mind that, after becoming independent from civil law, "labour law was developed with a collective vision, in which the worker was viewed as an integral part or member of a group (community) of workers" (Adam, 2005: 9). This approach called for inclusion of employees into a collective protection network, which is realized through trade unions, works councils, or other (institutional and non-institutional) forms of employee participation. In this sense, elevating traditional employment relations to a collective level can be understood as basic characteristic of labour law in comparison with civil law, which is aimed at individuals and is based on their equality (Supiot, 1998). The expansion of the collective aspect of employment relationships was motivated by the effort to ensure the protection of the weak, primarily through recognition of "freedom of association, the right to collective bargaining, the right to strike and the right to participation (in decision-making, management and ownership). By recognizing these rights and freedoms, workers can be adequately represented in relations with their employer, can express their views, and take industrial action" (Camerlynck, 1968: 14). "Thus, it can rightly be said that, at a collective level, labour law creates equality which, due to legal subordination, can never be reached and achieved in full at the individual level" (Supiot, 2007: 124–125). More precisely, this means that the imbalance which the labour market creates between an employee and an employer in terms of establishing "working conditions can be alleviated by trade unions and collective bargaining" (Trudeau, 2004: 12). This undoubtedly shifts the balance on "the scales of the relationship between employee and employer, as the collective rights of workers will undoubtedly ensure that employees get their respect in the workplace" (Meyrat, 2002: 345).[2]

[2] For the analysis of the development of regulation concerning the protection of environmental values see: Drenovak-Ivanović, 2021, 19–25.

Furthermore, "the collective dimension of the labour law is, in reality, almost always subtly present when exercising rights deriving from an individual employment relationship" (Supiot, 1990: 488). This is especially true for the regulation of the working conditions through normative part of the collective agreement, as well as for the fact that workers can, thanks to union membership, strengthen their position in relation to the employer as regards to the protection of their rights, considering that an employee whose employment rights have been violated may authorize a trade union representative to initiate proceedings against the employer.

On the other hand, *environmental law* "is a younger branch of law, as it became an independent branch of law in the nineteen seventies. Before that, issues of importance for environmental protection were regulated under the auspices of other branches of law, primarily civil and administrative law" (Doorey, 2017: 217).[3] Thereby, the most important objective of environmental law is the protection and improvement of the environment, which is further achieved in two ways – by reducing human and environmental exposure to contaminants, as well as by reducing pollution. Environmental law faces a number of challenges, the biggest one being regulation of climate change. These challenges are so significant that some authors indicate that environmental law, much like labour law, is going through a period of crisis. "Climate change calls into question the "classical" boundaries and basic concepts of environmental law, and one of the solutions for proper and complete regulation of climate change is to form a special branch of law – climate change law" (Doorey, 2017: 204).

Common Points of Labour and Environmental Law and Feedback Effect

Despite the differences in the social relations they regulate and the objectives they strive for, labour law and environmental law have common points of intersection. This is manifested in the fact that the main objective of environmental law includes the protection of the environment from the damage that may be caused by

[3] See *Cf.* Hough, 2012, 299–300.

human activities. In this regard, we should bear in mind that various human activities can be qualified as work, but that labour law regulates only work within the employment relationship, whereby work for the employer within the employment relationship can affect nature and all its components, i.e. may endanger or impair the quality of the environment (Escande-Varniol, 2018). This is because the working environment is part of the environment, and environmental and technological disasters may occur in connection with industrial activities, i.e. in connection with incidents that occur during the activities of employers, or during the work that the employees perform for their employers: "labour itself is part of the socio-economic model contributing to the global environmental disaster" (Escribano Gutiérrez & Tomassetti, 2020). This is evidenced by the biggest environmental and technological disasters, which began as industrial incidents, as was the case with the disasters in Bhopal (due to a technical failure in the pesticide factory, several tons of toxic gas methyl-isocyanine were released into the atmosphere), Seveso (due to an incident in a chemical factory, huge amounts of chemicals, including 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) were released into surrounding settlements) and Chernobyl (due to the explosion and fire that engulfed one of the reactors in the nuclear power plant, radioactive material was released into the environment).[4] On the other hand, "carrying out industrial activities in areas prone to natural disasters may cause technological incidents, as was the case with the Fukushima nuclear disaster, which was caused by the earthquake and tsunami" (Tiraboschi, 2015: 3).[5]

[4] See: Umezawa, 2014, 145–174.

[5] Although the regulations of certain guilds contained provisions on protection of health and well-being of journeymen and apprentices, it was not until the second half of the 19th century that the first legal standards on health and safety in the workplace were adopted. The latter standards applied *in primis* only to minors and women (in some countries, only to younger women), while in the later stages of the development of protective legislation, general rules were adopted that applied to all workers, regardless of their sex and age. This was followed by the introduction of a special legal system of employer liability for occupational accident risks (Germany /1884/, Norway /1894/, England /1897/, France /1898/, Denmark /1898/, Belgium /1903/, the Netherlands /1903/, Sweden /1904/), because with the expansion of industrial revolution, due to the increased number of workers and the introduction of equipment using steam, gasoline, oil and electricity, accidents at work started occurring daily, often with fatal outcomes. Such "sacrifice" of workers

In addition to affecting the environment, the activities of employers affect health and safety of workers, and to create the conditions for the effective exercise of the right to health and safety at work is of major relevance for environmental law. This is because the protection of health and safety entails monitoring of harmful substances, i.e. monitoring workers' exposure to harmful substances (Doorey, 2017), while the complete protection of workers' health entails not only the requirement to ensure a safe and healthy working environment, but also to protect the health of workers, as citizens, from the negative effects that the performance of employers' activities has on the environment (Escribano Gutiérrez, 2019). Finally, this means that "health and safety of workers at work, as well as the prevention of industrial risks, represent an important requirement for environmental protection" (Bugada et al., 2019: 4). Thus, the connection between labour and environmental law can primarily be viewed in light of the fact that certain events in the work environment can affect the quality of the environment, while higher standards in health and safety of workers imply a higher degree of attention with which society treats its environment. The connection between labour and environmental law implies a feedback effect, since certain events in our environment can affect the exercise of labour rights, regardless of the norms that protect the environment. This is particularly evident in the event of severe weather events, e.g. floods and droughts, which are increasingly linked to climate change, as this environmental degradation threatens employment stability and the exercise of many labour rights. This further means "that cases of environmental degradation can result in a violation of labour rights, just as a healthy environment should be seen as a precondition for the unhindered enjoyment of a range of economic and social rights" (Čučković, 2018: 14; Daly & May, 2020: 27–28).

Interfaces between labour and environmental law are necessary in view of the principles of sustainable development, which affirm the (economic, technological and scientific) progress of

at the expense of progress from which the whole society benefited was contrary to the idea of elementary social justice (Capitant & Cuche, 1921, 308–324; Rouast & Durand, 1963, 14–15; Lyon-Caen, 1955, 314; Ramm, 1986, 103–104).

society, while meeting the developmental and environmental needs of present and future generations. Environmental pollution appears to be an inevitable consequence of the constant drive of the modern society to develop, but this development must be constrained by the ability of present and future generations to enjoy nature and use natural resources (Čučković, 2018). Effective implementation of the principles of sustainable development is, therefore, inevitably linked to the "harmonization of economic development with environmental protection, in order to prevent the harmful effects of economic growth on the quality of the environment and human health" (Drenovak-Ivanović, 2019: 121). This is because, from the employer's perspective, work within the employment relationship (and the related implementation of labour law, social law and tax law regulations) and the application of environmental legislation – result in a number of (direct and indirect) costs, which may affect their ability to maintain business continuity. Therefore, the need of the society to preserve the economy must be in harmony with the need "to protect and improve the environment, which, in turn, entails the creation of decent jobs" (Doorey, 2017: 221). Namely, the concept of *decent work* cannot be consistently applied if it is not accompanied by the effective application of environmental legislation. In that sense, the relationship between labour and environmental law should be viewed in light of the need to protect the employees who disclose information that their employer violates environmental regulations, i.e. that the company's activities are accompanied by environmental risk, as well as in light of the impact of climate change on regulation of employment (and *vice versa*), and issues of bipartite and tripartite social dialogue on the issues of importance for environmental protection.

In this regard, it should be noted that under the auspices of certain international organizations and bodies, the first attempts were made to link labour and environmental law, but this remained largely in the domain of adopting soft law instruments, such as Stockholm Declaration of the United Nations Conference on the Human Environment (1972) and the Rio Declaration on Environment and Development (1992). However, when it comes to national legislations, normative frameworks are characterized by uneven, sporadic and unsystematic intertwining of sources of labour and

environmental law on these issues (Čučković, 2018). Therefore, with the exception of regulating safety and health at work, when it comes to modern labour and environmental law one can perceive an absence of legally binding instruments that specialize in environmental protection and labour rights (in terms of introducing environmental protection guarantees in the labour law sources, i.e. introduction of guarantees of individual labour rights into environmental protection instruments).

Protection of Health and Safety at Work

Historically, the main objective of labour protection was protection of physical health of employees in the workplace, which is why the first sources of labour law were dedicated to the regulation of working hours, prohibition of child labour and health protection, as well as improvement of the safety of workers.[6]

The next phase in the development of labour law was accompanied by gradual improvement and detailed regulation of health and safety at work. In the 1980s, "*the concept of prevention* took over and was placed at the heart of health protection, relying heavily on *risk assessment*, so that professional risks could be avoided completely or, failing that, minimized" (Ales, 2013: 412). Nevertheless, improving the protection of physical health of employees remains a challenge for labour law, especially because, despite the developed, extensive and often very sophisticated legislation, injuries at work and occupational diseases remain an integral part of the modern world of labour. In addition, organizational changes, which may cause the emergence (or, perhaps, only a clearer visibility) of psychosocial risks, call for a review and improvement of health and safety at work (Adam, 2008). This is important because of the expansion of the concept of health and safety at work to

[6] It should be noted that whistleblowing isn't an obligation, but rather a *possibility* of an employee reporting illegal actions by the employer, assuming a problem cannot be solved in the usual way, e.g. because there is danger of misuse of the reported information. This rule may be derogated from in exceptional cases, for example with regard to informing the employer of irregularities and dangers which could endanger the safety and health of employees (Committee on Legal Affairs and Human Rights, 2009, para. 116, point j).

a healthy and safe workplace, where, in the spirit of the definition of health accepted by the World Health Organization ("state of complete physical, mental and social well-being"), 'workers' physical and mental health are protected, as well as their psychosocial well-being" (Ales, 2013: 412).

Furthermore we shouldn't overlook the emergence of new, as well as heightening of the existing risks to health and safety at work, initiated by climate change. Extreme air temperatures and other environmental risks are associated with deteriorating working conditions, especially when it comes to open-air work (e. g. construction work), while respiratory, infectious and other diseases caused by climate change impair the general working capacity of workers. These (and other) risks necessitate that employers ensure a healthy work environment and prevent their activities from endangering or disturbing the environment. A healthy and safe working environment is invaluable for preserving the health and working ability of workers, whether they are employees, or persons engaged under civil or commercial law contracts. Consequently, employers have obligations related to the assessment and coordination of occupational risk prevention, adoption of preventive and protective measures tailored to these risks, control of the use of harmful substances in the workplace, control of workers' exposure to adverse working conditions, and medical examinations, as well as information and training of employees in this area. Besides, employers are obliged to control the application of relevant regulations by all the persons working under their supervision, as well as by their subcontractors.

On the other hand, we should not lose sight of the fact that a safe work environment is an important factor in the competitiveness of companies, since the concept of prevention of injuries and occupational diseases that may lead to temporary or permanent disability is at the core of occupational health and safety regulations, and that by taking appropriate measures, these professional and social risks can be prevented and the productivity of the companies increased. There's no industrial activity that doesn't affect health and safety of workers, as well as the environment, negatively (Kohler), just as it is not possible to draw a precise line of demarcation between occupational and environmental risks, or between

internal and external risks to workers' health, that may exist in the workplace (Gutiérrez & Tomassetti, 2020). In this regard, Supiot's definition of "occupational risks with an environmental dimension" seems particularly interesting. It is, in fact, a generic term, which, in addition to working conditions, includes a number of hygienic, health and safety problems that threaten the physical integrity of workers and third parties (Supiot, 1994). In contrast, "environmental risks with an occupational dimension" are perceived as risks caused by the company, which affect the environment but do not produce consequences for the safety and health at work (Supiot, 1994).

Employees are also implementers of the prevention policy, because they have the obligation to apply preventive and protective measures, as well as the right to disclose information if the employer is violating environmental regulations, while employee representatives have "the right to be informed and consulted on health issues and safety in the workplace" (Bugada et al., 2019: 4). When it comes to the employees who can disclose information about the activities of their employers that endanger the environment, we should have in mind that the relationship between an employer and an employee is based on mutual loyalty, which includes refraining from disclosing information that could harm the interests of the other party. This loyalty is not, however, unlimited, which is why an employee will not be liable for the breach of duty of loyalty, if he/she discloses certain information in order to stop the illegal conduct of the employer or colleague. In this case, the interests of the subjects of employment are weighed, on the one hand, with the public interest, on the other. Employers have interest in making gains, maximizing profits and gaining and maintaining a competitive advantage in the market. However, their interests must be in line with public interests, and this compatibility does not exist if they are manufacturing and selling products that are not safe for the environment, deceiving citizens about the harmful effects of the services provided and taking other actions that endanger the legitimate interests of citizens. This further means "that disclosing information about employer's illicit actions contributes to the protection of citizens' rights and freedoms, especially bearing in mind that citizens are a weaker party in their relationship

with an employer" (Kovačević, 2013: 106). Considering that the protection of rights and freedoms of citizens is the primary role of law, it must take precedence over the duty of loyalty to the employer. A conclusion can be drawn that whistleblowing can be justified only if it is aimed at *defending values that are more important than the value of loyalty to the employer*, with the environment and public health indisputably falling in this category.[7] Environmental protection, therefore, requires effective protection of the employees who are directly aware that their employer circumvents or violates environmental regulations. This protection includes access to clearly established and efficient systems of internal and external whistleblowing, as well as protection from employer's retaliation. In this regard, a distinction should be made between the whistleblowing procedure and the procedure for the protection of employment rights, i.e. between whistleblowing and filing complaints (Mirjanić & Čošabić, 2016). Whistleblowing refers to disclosing information about an irregularity that may produce consequences for the whistleblower, as well as for third parties. This means that the whistleblower, as a rule, is not personally and directly affected by a certain illegal action of the employer and rarely has a personal interest in the outcome of the whistleblowing procedure and even if he/she has – he/she is not the only one affected by the consequences of the illegal act.[8] On the other hand, the complainant will state the facts that concern only his/her legal position and will, consequently, seek only the protection of personal rights.

The Effect of Climate Change on Labour Law

The field of employment is one of the areas that are intensely affected by climate change. This impact is primarily related to the emergence of the need for new jobs that contribute to combating climate change, as well as to improving energy security, such as jobs

[7] *Cf.* G20 Anti-Corruption Action Plan. Protection of Whistleblowers: Study on Whistleblower Protection Frameworks, Compendium of Best Practices and Guiding Principles for Legislation, para. 15.

[8] At ILO level, green job is defined as "work in agriculture, industry, services and administration that contributes to preserving or restoring the quality of the environment" (*Green Jobs: Towards decent work in a sustainable, low-carbon world*, 5).

related to investments in renewable energy, jobs that contribute to reducing energy consumption and waste production, jobs related to recycling and green processing of materials, jobs related to the protection of ecosystems and biodiversity (organic agriculture, ecotourism, etc.), jobs important for reducing carbon dioxide emissions and other jobs that contribute to the preservation or restoration of quality of the environment (Stevens et al., 2009). The standards of the International Labour Organization (ILO) stipulate that, in addition to the benefits for the environment, the aforementioned and other green jobs should also contribute to the consistent application of the concept of decent work, i.e. provide the workers who hold these jobs with well-being and a life worthy of man (Working towards sustainable development, 2012). In this sense, decent work is affirmed as one of the foundations of a fair transition to a green economy, together with workers' rights, social protection, social dialogue and sustainable business.[9]

This is *the concept of a fair transition to a low-carbon economy*, which, in addition to making profit, supports the idea of environmentally responsible business and the creation of conditions for decent work by worker (Stojković Zlatanović, 2020). This concept is based on the requirement that the transition to a green economy must be accompanied by the creation of conditions for decent work, as well as a fair distribution of risks and benefits that accompany this process – among all affected actors. This includes "providing assistance to workers who will lose their jobs due to the transition to a green economy, as well as to workers whose working conditions will be worsened due to climate change" (Regan, 2021: 270). In this regard, the labour rights guarantees should

[9] In literature, the concept of a fair transition to a green economy is criticized, primarily for believing that the consideration of labour law issues under the auspices of politics of eco-modernization conceals environmental problems concerning the class division of the world: "The problem with the Just Transition strategy [...] is that it is locking-up labour even more firmly with the continuation of capitalism and wage-labour in the 'green' mode – built upon the perpetuation of a gendered and racialized division of labour on the world scale – while ruling out a serious discussion of different perspectives and more radical alternatives, and thus the possibility to effectively eradicate the structural causes of both ecological and social inequalities" (Barca, 2019: 228).

be considered an integral part of the concept of fair transition, with the necessary harmonization of labour and environmental legislation.[10]

This includes the introduction of green technology, better waste management, improved land use, changes in production methods and the application of environmental standards regarding work equipment that may result in the need for training and development for employees, in order to acquire knowledge and skills needed to work with appropriate equipment, or perform appropriate tasks, but also the need to hire new workers who have the necessary knowledge and skills. With the introduction of new technologies and equipment, the need for certain types of workers may end, due to the reduced workload or termination of certain jobs, when training is not an option, and transfer to another job or location, or implementation of the remaining employment measures are not possible, bearing in mind that termination of employment is the *ultima ratio*. Accordingly, training has emerged as an important factor in the stability of green jobs, i.e. as a precondition for obtaining and maintaining employment, as well as for advancement in these jobs (Dsouza, 2015).

Besides the emergence of the need for green jobs, this impact can be negative. This is primarily true for the increase in air temperature, which endangers the safety and health of employees, especially when working in the field. On the other hand, cyclones, floods and other natural disasters damage traffic infrastructure, production facilities, service facilities and housing estates, which may result in the need to relocate people to safer areas, while the employers' need for their work may end, due to inability to maintain business continuity (Rosemberg, 2010). Climate change regularly creates *temporary cessation of work for companies* (due to material damage caused to the employer, inability to supply energy, inability of the employer's clients to use the services, civic duties of employees to participate in eliminating the consequences of the disaster, etc.) (Tiraboschi, 2015), during which, in many legal systems, workers are entitled to salary compensation (often with

[10] For example, due to the devastating effects of Hurricane Katrina, more than 40,000 employees in and around New Orleans lost their jobs (Rosemberg, 2010, 130).

exemption from paying for social security) (Doorey, 2017).[11] In addition, climate change can lead to a *permanent reduction in workload or termination of jobs*, which can be a valid ground for dismissal. This is especially true for jobs in the fields of agriculture, forestry, fishing, tourism, energy, infrastructure and insurance, as activities in these sectors are crucially dependent on regular climate conditions (Rosemberg, 2010). For example, high temperatures are particularly threatening to livestock, forestry and farming; agriculture and forestry are also negatively affected by extreme weather conditions, while fishing can be threatened by changes in surface water temperatures and ice melting. For these sectors, and the same is true for tourism, the impact of climate change is characterized by the focus on a particular type of work, with seasonal jobs being most at risk, precisely because of the close links between work activity and climate and environmental processes (and cycles), since the work of seasonal workers is related to a season, as a continuous period of time.

The outlined impact of climate change on employment shows that the recovery of the economy, and the preservation (but also redefining) of existing jobs (e.g. expanding the job description of a construction worker with tasks related to the use of new technologies in improving energy efficiency of buildings) and the creation of new jobs (e.g. solar panel installers) appear as the main tools for overcoming the consequences of the crisis (Dsouza, 2015). This underscores the importance that labour law can have for the process of climate change mitigation and adaptation, starting with the introduction or strengthening of legal instruments relevant for preventing redundancies and creating new jobs (Rosemberg, 2010). In both cases, the development of appropriate skills can be of great importance for a successful transition to green economy, as this is important for the professional mobility of the workers who will lose their jobs due to climate change. This, of course, includes well-designed training and development programs for older workers, but also training programs for young workers who are taking their first steps in the world of work (Martinez-Fernandez, Hinojosa & Miranda, 2010). On the other hand, we should not lose sight of the fact

[11] See *Cf.* McDougall, 2021, 28–30.

that the unemployment caused by climate change is one of the important factors in the degradation of working conditions. This is because "the high unemployment rate allows employers to have a much greater impact on employment and working conditions than is their right, especially as a "reserve army" of workers is available on the market willing to work in poor conditions, without legal basis or as undeclared workers" (De le Court, 2018: 23).

The impact of climate change on the regulation of employment relationships differs from one country to another: the negative consequences of this impact are far more severe and serious in underdeveloped and developing countries, as they are characterised by poverty, food shortages and the spread of diseases among the population (Regan, 2010).[12] Also, climate change affects different categories of workers differently, which is why we should look at the *gender perspective of the impact of climate change on labour law.* "The negative consequences of climate change affect women harder, because they, due to poverty, depend much more on endangered natural resources than men, and make up the majority of employees in the field of food production (Committee on Employment and Social Policy, 2008, para. 14). All the more so because in many societies, due to social and cultural norms, women have less geographical and professional mobility in the event of natural disasters, and, consequently, less chance of finding a new job" (Sargeant, 2014: 37–41). In addition, "the under-representation of women in technical jobs in construction, energy and other sectors may result in their lack of access to many green jobs" (van der Berge, 2010: 229). As vulnerability to climate change is directly caused by poverty (Rosemberg, 2010), special attention should be paid to *workers in the informal economy.* Although this is a very heterogeneous group of workers – from the self-employed persons, over the workers who perform unpaid work in a family business, to the workers whose employment is not regulated – the most important instrument for the protection of these persons is a partial expansion of labour and social legislation, in order to provide them with conditions for decent work, while reducing poverty and recognizing

[12] See Copenhagen Declaration on Social Development, 14 March 1995, A/CONF.166/9, par. 3.

new rights that will take into account their particular needs (Charbonneau & Seifert, 2017). Given the insufficient education of informal workers, as well as the non-recognition of the skills acquired by working in the informal economy, training and orientation appear as an important instrument to support their transition to the formal economy (International Labour Conference, 2010, para. 137). Finally, we should take note of the special position of economically dependent self-employed persons, who earn most of their income by working for only one client, as well as bogus self-employed persons, as these workers are often deprived of the protection provided to employees in case of negative effects of climate change, which makes their situation particularly vulnerable (Lamm, 2014).

Social Dialogue and Environmental Protection

Successful mitigation and adaptation to climate change requires the participation of the widest possible range of stakeholders in the decision-making in this area. In addition, the need for a comprehensive approach also applies to environmental protection instruments, as the role of laws is rather limited. It is therefore important to take advantage of other instruments, many of which go beyond the realm of law. This is especially true for sensitizing citizens to the problems associated with climate change mitigation and adaptation, and, then, for reconciling the legitimate interests that different actors have in this area. Therefore, all citizens must participate in the process of climate change mitigation and adaptation, and a special responsibility, in addition to the state, lies with the social partners. In this sense, there is a need to strengthen the role of trade unions, employers and employers' associations in this area, primarily through strengthening *(bipartite and tripartite) social dialogue on issues of importance for environmental protection*, because social change is not possible without the participation of the stakeholders in that process. This type of dialogue can be conducted under the auspices of tripartite bodies, such as socio-economic councils and similar consultative bodies, which give opinions on draft legal regulations and strategies relevant to the legitimate interests of all three parties involved – the state, trade unions and employers' associations. This, of course, includes giving opinions on

regulations and strategic documents in the field of environmental protection, since the working environment is part of the environment and they intensively influence each other. In addition, tripartite dialogue can be the basis for the adoption of *climate action plans*, in line with the obligation of the state to consult the social partners as well as other stakeholders when designing action plans aimed at reducing greenhouse gas emissions, especially when these contain measures and activities in the field of energy, construction, transport, trade, industry, agriculture and forestry (Confederation Syndicate European Trade Union, 31).

The social partners are, therefore, important stakeholders in the field of environmental protection, and this, in itself, requires bringing labour and environmental law closer together, despite the fact that environmental policy instruments often do not recognize, or insufficiently recognize, the importance of labour and social law issues for the protection and improvement of the environment, as well as for climate change mitigation and adaptation. This is especially true for the issues of job creation and preservation, and poverty, which should be taken into account when regulating environmental protection and decision-making in this field. In this regard, it's essential to inform and consult workers' representatives on all issues related to the risks associated with endangering safety and health in the workplace, as well as endangering the environment with employer's activities. There is also a need for other forms of social dialogue on the impact of climate change on employment, creating decent jobs, developing skills needed to work with new technologies in new sectors, and protecting people who have lost their jobs or been displaced due to climate change (Doorey, 2017). This is accompanied by efforts to reconcile the activities of trade unions aimed at providing decent jobs and working conditions with the need to protect the environment, in terms of achieving as many benefits as possible, as well as minimizing the difficulties that workers and the community can affect, or face in the process of climate change mitigation. Otherwise, the lion's share of climate change mitigation and adaptation costs will fall on the poorest workers and the poorest households.

These principles are largely reflected in "the *concept of a fair transition to a green economy*, which affirms the efforts of trade

unions and the international community to make the transition to a more sustainable society and green economy as easy as possible, by providing decent jobs and decent pay" (Rosemberg, 2010: 141). We shouldn't lose sight of the fact that some countries cite preservation of employment as one of the important reasons for not proceeding with the reduction of greenhouse gas emissions (Rosemberg, 2010). Similarly, some unions and workers' representatives oppose collective bargaining on issues important for achieving environmental sustainability, because of the belief (and fear) that "the transition to a green economy will lead to job losses" (Poschen & Khazri, 2007: 49). Although concern for employment stability is not the only reason for refraining from promoting the transition to a green economy, it is extremely important that the social partners are involved in the climate change mitigation decision-making, as this strengthens the legitimacy of the decisions and thus make them acceptable to the wider circle of stakeholders. Based on their rich experience in adapting their activities to industrial change, trade unions and employers' associations are expected to facilitate the achievement of sustainable development and dedicate themselves to the protection of the work environment and the surrounding natural environment (*Talking weather. Trade unions and climate change*, 2007). This includes participation in bipartite and tripartite dialogue on the intertwining of environmental issues with the issues directly related to the world of work.

When it comes to *collective bargaining*, the latter requirement in particular requires recognizing the importance of promoting sustainable development and the green economy transition through collective agreements. This includes the introduction of *green clauses* in collective agreements, starting with the clauses confirming the commitment and obligation of the contracting parties to act responsibly towards the environment, often with establishing (general and/or special) objectives that companies should achieve in this field (Escribano Gutiérrez & Tomassetti, 2020). This is accompanied by the clauses confirming employer's obligation to introduce new job classification and organize training to acquire skills and knowledge relevant to environmental protection, as well as the obligation to pay financial incentives to workers who contribute to achieving company goals related to energy saving, waste

minimization or similar goals, so called *'green pay'* (Escribano Gutiérrez & Tomassetti, 2020). Collective agreements may also contain the clauses linking the protection of workers' health in the workplace with a wider environmental context, clauses providing for the establishment of an authority responsible for environmental risk management and the clauses related to the supervision of the fulfilment of the listed obligations (Escribano Gutiérrez & Tomassetti, 2020). Finally, in some legal systems, the social partners, in order to improve environmental protection and sustainability, enter into *green agreements*, expressing their commitment to environmental issues, establishing mutual rights and obligations, and introducing procedures relevant to working together on these issues (Olsen, 2007).

However, issues related to the promotion of sustainable development and the green economy transition are, in practice, rarely regulated by collective agreements (Escribano Gutiérrez, 2019). This is primarily because environmental protection measures are still considered measures the design and implementation of which are under the exclusive authority of the employer, which is why there is no place for their regulation through collective agreements (Escribano Gutiérrez & Tomassetti, 2020). In practice, employers prefer regulation of environmental issues with unilateral legally non-binding sources of autonomous law, such as the *code of socially responsible employment*. Motives for adoption of these acts range from strengthening the responsibility of companies towards the society and key stakeholders, strengthening company reputation and improving their business, to controlling legislative risks (Rodić, 2016). In accordance with the idea of corporate social responsibility, the codes establish the rules of operation and specify the values to which employers are committed, either in the form of guidelines and prohibitions of certain behaviours, in the form of general statements of values and goals of the company, or statements on the direction and ways of conducting company business policy (Obradović, 2011). Some of these rules also express values related to environmental protection, since the main goal of the corporate governance code is to convey common values to all members of the company and strengthen their unity, in order to increase the motivation and loyalty of each member (Barège, 2008).

Moving Closer to the Ideals of Social and Environmental Justice

The need to bring labour and environmental law closer together can also be seen through the lens of the tendency of moving closer to the ideals of environmental and social justice. This is because *social justice* is associated with the fair distribution of the fruits of economic development and the creation of conditions under which everyone can earn a living based on a freely chosen occupation and employment, develop their personality through work, receive fair compensation, and enjoy protection from social risks. Besides, social justice can be understood as creation of conditions for enjoyment of human rights and fundamental freedoms under equal conditions, with the possibility of applying special measures in favour of vulnerable groups. The focus of the concept of social justice is not (only) the individual, but the society, in terms of striving to achieve greater equality in terms of living and working conditions of different social groups and classes (The International Forum for Social Development, 2006). Manufacturing and consumption of goods isn't enough to achieve this goal, and full employment, fight against poverty, social inclusion and other instruments are needed to effectively meet the material and spiritual needs of individuals, families and the communities in which they live.[13]

In the field of labour law, this ideal of social justice requires fair remuneration for work, limited working hours, protection of health and safety at work, protection of dignity at work, trade union freedoms and the right to collective bargaining. Such an approach stems from the *labour is not a commodity* principle, or rather from the requirement to protect workers from fraud and abuse in the world of work, since workers are, above all, people, and not goods to be bought and sold on the market. Accordingly, work activity cannot simply be separated from the individual performing it, for work is a part of his/her everyday life, a factor in his/her dignity

[13] Some authors recognize a legal paradox in the principle that labour is not a commodity, since labour law seeks to provide, hand in hand, both the successful functioning of employment relations in the market and the protection of employees from commodification of their work (Fudge, 2011: 122).

and well-being, and a precondition for his/her development as a human being (Rodgers, 2016). This further implies that economic development cannot be an end in itself, but must also be aimed at improving the living and working conditions of people, or at creating jobs and conditions that enable freedom, security and dignity of work (Perulli, 2018). However, this greatly restricts the freedom of contract between workers and employers, since their relationship is regulated differently from the vast majority of relationships established in the market, in terms of protecting workers from the economic logic of commoditisation of their work.[14] Namely, labour is not a matter that can be negotiated solely on the basis of profit goals, which is why the price and social costs of labour cannot be determined solely on the basis of free market mechanisms. Especially as employees are free to decide whether to enter into an employment contract with an employer or not, and after entering into an employment contract, they don't become the employer's property, but rather a subject of rights and duties towards the employer (Perulli, 2018). In this regard, the approach of the human economy is interesting and innovative, suggesting that the security that work provides can be more easily achieved if work becomes less and less needed to provide livelihoods (Bueno, 2017). Accordingly, *freedom from work* is affirmed, as "the freedom to enjoy life, without the pressure to work for economic reasons (negative freedom from work) and the freedom to perform an essentially valuable activity" (Bueno, 2021: 19). The premise is that the existing economic system reduces human beings to capital whose most important function is reflected in making economic value. This ignores the potential of people to create outside the field of production of goods and provision of services, which is why it is proposed to abandon the prevailing economic course in which labour is a cost, employment is a secondary goal, and labour rights are rigid obstacles to investment. "Reconstruction" of the economy is proposed instead, based on human rights, so that the obligations that states have regarding the exercise of the right to work and other human rights take precedence over any other obligation (Branco, 2019). Nicolas Bueno pleads for a change in economic perspective of exercising

[14] *Cf.* Marković, 2009, 327–336.

the traditionally understood right to work in the direction of a gradual increase in freedom from work, due to the belief that this can reduce society's need for work (Bueno, 2017). This means that people can reach their maximum potential for themselves and for other members of society, outside the world of labour that values only the skills that create economic value. In this regard, the possibility of using a part of time and energy that is usually spent on participation in the production of goods and services – to create human benefits is pointed out (Bueno, 2017). They emerge as a result of economic activities that improve the abilities of individuals, "measured" with a yardstick of human rights and freedoms (e.g. the right "to live a healthy life and without violence, to gain access to good food, clean water, education and housing), just as, contrary to that, economic activities that reduce abilities are considered a human cost, in the light of human rights guarantees. Activities that create human benefits increase freedom from work, while activities that create human costs increase the necessity to work" (Bueno, 2017: 479). Thus, for example, the development of technology that reduces the need to work in agriculture allows workers to work less to ensure human benefits in terms of exercising the right to food. Implementation of the same technological innovation can, however, lead to human costs, if it, for example, uses pesticides, because human costs are manifested in endangering the right to health and clean water, which is why workers in the jobs related to health and environmental protection will have to work harder. Bueno suggests *putting an end to the further waste of human resources*, caused by the focus of traditional work organization on incentives to improve skills that create economic value (regardless of whether it causes human benefits or costs), as well as the treatment of the unemployed persons as a burden to society, without recognizing and respecting all their potentials (Bueno, 2017). Hence, there are proposals to improve the free use of human resources, by creating opportunities for those who want to improve or use their potential to do so, primarily by providing a universal basic (minimum) income for all, as well as volunteer work. Namely, users of universal basic income get the opportunity to control the pace and intensity of their work and also to quit unsuitable jobs, while for the state, this kind of redistribution of wealth should not be an insurmountable

task, especially since it can redirect the funds that are being used for certain social benefits, as well as for subsidies for the creation of unproductive jobs – to provide universal basic income (Bueno, 2017). In addition to working in private or public sectors, workers are encouraged to commit to volunteering, by introducing tax incentives for those who use their potential to create human benefits. This new view of freedom of work implies that freedom of choice of employment and the negative aspect of freedom of work can be viewed as a solution to reduce society's dependence on human labour, as well as to reduce excessive reliance on work itself, which can undoubtedly have positive consequences for environmental protection. The human economy, in fact, is based on the idea that the security that work provides to people can be more easily achieved if work is less and less needed to provide a livelihood (Bueno, 2017). Consequently, workers are not seen as human capital, but as human beings with potentials that help them create human benefits. This, finally, requires a better understanding of the reasons why people work and what they create and destroy by working (Bueno, 2017).

Environmental justice is based on the idea of distributive justice, as well as on the idea that environmental problems are only a part of broader social issues (Lilić & Drenovak Ivanović, 2014). This means that environmental justice is based on the requirement that costs and benefits arising from the implementation of environmental legislation must be evenly distributed among all persons to whom the applicable regulations apply, in order to "prevent social, spatial and temporal asymmetries in the consumption of natural resources and pollution" (Doorey, 2017: 225). This is because unequal use of natural resources results in different levels of environmental debt, where, for example, when it comes to natural resources, countries of the Global North live beyond their means, and since the biosphere is limited, their "debt" falls on developing countries (Green New Deal, Green Economy and Green Jobs, 15). Environmental justice is therefore linked to the demand for an even distribution of economic and social costs and benefits of climate change. In addition, environmental justice includes access to effective legal remedies for the protection of the persons who believe that their rights recognized by applicable law have been violated.

This, finally, means that moving closer to the ideals of social and environmental justice can also be viewed from the point of view that the well-being of an individual or a group is partly determined by environmental conditions. Hence, it is important that the subject of social policy (both labour and social law, as its framework) be expanded with elements concerning the control of environmental factors that may affect the health and well-being of individuals (Laurent & Pochet, 2015). In this regard, social policy (and both labour and social law), just like environmental policy (and environmental law), must be geared towards correcting the shortcomings of the market economy that require the intervention of public authorities.

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The Role of Social Dialogue and Tripartism in Just Transition Policy – Exploring the Nexus Between Labour and Environmental Law*

Abstract

Climate change adaptation and mitigation policies have a profound impact on economic and labour market activities and *vice versa*. On the international level, a consensus regarding the transition to an ecologically sustainable economy has been reached, and it will undoubtedly cause significant changes in the world of work. According to the prevailing view, approaching the employment dimensions of climate actions and the creation of green jobs presupposes the integration of so-called Just Transition principle into both, national labour and environmental legislations and policies. Social dialogue has been seen as an appropriate instrument that could represent a linkage between environmental and labour law. Therefore, the paper primarily deals with the theoretical and conceptual basis of the just transition principle as a valuable ground to ensure the low-carbon transition and fulfilment of equity and inclusiveness goals that ensure decent work conditions. Furthermore, the role of social dialogue and tripartism in driving the just transition towards a low-carbon and resource-efficient economy needs to be considered broadly in regard to the recently promoted concept of tripartism plus social dialogue mechanisms. The authors point out the tripartism plus concept as an appropriate policy and legal ground for arguing the necessary bond between environmental and labour law, particularly, by highlighting the role of civil society groups in just transition policies.

Keywords: Labour law, Environmental law, Just transition concept, Social dialogue, Tripartism

* This paper was written as part of the 2024 Research Program of the Institute of Social Sciences with the support of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia.

There is one universal law ...
That law is justice. Justice forms the cornerstone of each nation's law.

Alexis de Tocqueville, 1835

Introduction and Theoretical Background

Environment degradation and labour exploitation are among the central global challenges nowadays, so stressing the importance of tackling the impact of climate change on the economy and labour and *vice versa* undoubtedly calls for the adaptation and transformation of both labour and environmental law,[1] internationally and nationally. Thus, environment protection and a worker-centred, human-rights based approach to labour have to go hand-in-hand when it comes to the transition onto low-carbon economy and reduction of pollution.

The transition to a low-carbon economy could affect many industrial sectors, but at the same time the emergence of new services and production opportunities increases the demand for new green jobs. Exploring the links between environmental and labour law in terms of green economy transition has recently become the main objective of academics searching for potential theoretical and policy framework for making interconnection between these two legal disciplines. Moreover, both legal disciplines are confronted with the challenges of how to reform in the era of climate change i.e. identifying and establishing adequate mechanisms to mitigate the climate change threats to the environment and labour. Therefore, at the first glance, exploring the very foundation of the green economy model in terms of theoretical understanding and conceptual development has been considered important for the creation of the 'bonding' framework. With that in mind, the prevailing view indicates that the concept of green economy has a philosophical background expressed in the ethical principle of eco-centrism, stressing the correlation among nature, economy and civilization, and the need for their coevolution through the preservation of

[1] Environmental law represents a relatively new legal category of international law. It emerged in the late 1960s as a part of public health law and derived also from private actions for pollution damages (Shelton & Kiss, 2005).

nature and socio-economic developmental opportunities. It presupposes the application of systematic, holistic, and integrated approaches to the concept of the green economy since it represents a complex dynamic system with deterministic effects of its parts, i.e. subsystems of ecology, economy, and society (Ivlev& Ivleva, 2018: 871). In that regard, dealing with climate change issues, also, needs a multinational and holistic approach, where 'holistic' is linked with the introduction of human component and the development of a coordinated policy and legal framework at all levels (Stojković Zlatanović, Stojković & Mitković, 2018: 798). Thus, the tripartite model of green economy has been stressed among scholars as the most applicable policy framework comprising both the individual, i.e. capitalist interests with the alternative ones i.e. social and green (Stojković Zlatanović, 2020: 231). When it comes to the historical origin and theoretical foundation of labour law, the general view could be presented in Spector's terms (2006, 1190), implying that 'the Labour law is an offspring of the social and political action of the working class movement' whose origins are derived from socialist ideology. Environmental law has roots in the social and political movement – environmentalism, broadly defined as a system of values that emerged to promote an environmentally friendly society, by advocating the limitation of negative human impact on the environment (Tarlock, 2010, 2). The essence of every social movement is the change of structure of the society or the distribution of resources, where the law has the role of a tool to achieve desired social change (Coglianese, 2001, 85). In terms of green economy transition, it means the reform to both labour and environmental law, each in its own domain but, simultaneously, exploring the novel concept for their interconnection, integration, and recognition within the model of sustainable development. In doing so, at the very beginning of the 21st century, several alternative approaches of economic and social transformation were introduced, primarily by activists – members of different social movements, and subsequently by scientists. They were arguing for social, environmental, and ecological justice consideration in terms of the prevailing concept of unlimited economic growth. Among them, the most influential initiatives have become the ecosocialism and degrowth, both rooted in ecological movement and politics of Green Left.

The concept of ecosocialism as stressed out by the most prominent contributor to ecosocialism ideology, Michael Löwy, is based on collective ownership of the means of production, democratic planning of investment and production, and a new technological structure of productive force replacing fossil sources with renewable sources of energy (water, wind and the sun) (Löwy, 2007: 294). Employment represents an important element of the ecosocialism ideology, where the working class has been seen as a driving force of structural transformation and democratic planning. The full exercise of the right to workers' participation in managing the economy and society has been highlighted in this regard, accompanied by the reduction of working hours, giving workers enough time for participation in the process of democratic planning (Löwy, 2007: 297). On the other hand, the degrowth concept arises as a primarily social movement initiative in 1972 France, calling for car-free communities, anti-advertising, and limits on production and consumption (Demaria et al., 2013: 195). The scientific concept of degrowth has an unclear conceptual foundation, but it seems that the idea was to generate socialism or at least ecosocialism that has indirectly been embedded in the foundation initiatives. The degrowth proponents, both activists and scientists, claim that there is compelling evidence that economic growth could increase inequality as well as lower it, but the economic growth as such certainly has direct negative effects on the level of well-being by creating anxiety and encouraging consumerism over happiness (Parrique, 2019: 33). Although the concepts of ecosocialism and degrowth are missing the clear and precise transition strategies, i.e. how to achieve desirable societal change, they are grounded in democratic principles regarding the actors and instruments for the transition, where the democratic planning i.e. democratic control over the production system has been considered crucial for the fair and just ecological and societal transition. Given that, Barca has emphasized that the 'ecosocialist degrowth should aim for a democratic, worker-controlled production system including the workers' right to participate in the decision-making process over the use of surplus', and argued that the problem of workers' alienation from the labour process that could be surpassed by constructive dialogue with the alienated and exploited workers of the world (Barca, 2017: 3).

Furthermore, Barca advocates the interconnection between alienated workers and environmental activists, working together to enact sustainable production but dealing fairly with the expected layoffs in affected sectors, which has been further embedded in the idea of just transition, regardless if this transition will be to a post-capitalist or degrowth society (Barca, 2017: 5).

The paper aims to contribute to the ongoing scholarly debate on the interconnection between labour and environmental law in terms of ensuring environmental, social, and economic sustainability, having in mind that the traditional concept of capitalist production still remains dominant but, now, is empowered by the term 'sustainable' or 'green' capitalism. It means that the growth can be unlimited, but nevertheless be rendered with consideration of environmental and social issues (Smith, 2016: 3). The concepts of ecosocialism and degrowth are relatively new, they are lacking 'coherent theory' and according to the prevailing views in literature they are 'stuck in a permanent conceptual blur' (Parrique, 2019: 7), so the mainstream economic model remains the capitalist model of sustainable economic growth. Thus, this paper will be grounded on the widely accepted economic model of 'green capitalism' and the role and responsibility of labour actors (particularly labour unions) in achieving green sustainable transition. However, the concepts of ecosocialism, degrowth, and so-called green capitalism i.e. sustainable capitalism have one element in common – democratic worker-involved decision-making procedure, emphasizing the broader social dialogue as an adequate policy and legal instrument to achieve desirable economic, ecologic, and societal change.

Hence, building upon the 'green capitalism' concept and social dialogue as the most effective framework for worker participation in democratic decision-making about the transition onto the green economy, this paper looks at the potential nexus between labour and environmental law, working together to tackle the issues of climate change adaptation and mitigation, in terms of the sustainable development economic model.

Climate Change, Labour and Just Transition – How to Interconnect or Simply Step out of the Prevailing Conceptual Blur?

Institutions that control the rationality of use and the degree of depletion of resources constitute the necessary framework for achieving sustainability (Ostojić, Petrović & Kelić, 2023). Climate changes represent the largest and the most complex challenge confronted by the mankind in our times, to which multiple legal disciplines are trying to respond. One of them is inevitably the environmental law, which sets the rules of environment protection, but there is also the unavoidable role of the labour law, which needs to make sure that the workers and their right to decent work do not bear the brunt of combating against the climate changes. The report of the Intergovernmental Panel on Climate Changes from 2018 contains one of the best illustrations of the consequences of climate changes; it confirms that the global warming by 1.5°C in the period from 2020 till 2052 will jeopardize the health of the mankind, its environment, food safety, water supply, as well as the safety of the population and the economic growth. Lower resilience of the impoverished communities to climate changes will lead to strong migratory pressures and global disruptions in the world of work (IPCC Special Report, 2018: 9).

Avoiding such impact of climate changes requires above all, the energy transition resembling the one that took place when the economy first switched from the power of domestic animals to the steam-run machines, and then from the steam to electrical energy to meet its energy needs. Modern energy transition involves "moving energy production and supply from fossil fuel to low-carbon alternatives, and across every conceivable sector" (Ghaleigh, 2019: 7). "The shift from fossil fuels would have to be almost complete by 2050 in historically high emitting nations, and by century's end globally, to avoid catastrophic global warming" (Ghaleigh, 2019: 7).

An obvious consequence of such transition are major workplace losses in the economic sectors reliant on fossil fuels. Finding a solution for a challenge represented by such dramatic climate changes requires almost unimaginable economic and social changes, including a different nature of work, which could inevitably lead

to tensions between the advocates of environment protection and the socio-democratic representatives of the world of work, enshrined in the 'jobs or environment dilemma'. "The green economy establishes a link and an appropriate balance between ecology and the economy to increase social welfare, reduce poverty and achieve social justice" (Ostojić, Petrović & Matijević, 2022: 128).

Thus the concept of just transition is relevant from the labour rights perspective above all, because, instead of confronting the creation of new jobs with the environment protection, it points at the 'jobs and environment' principle, putting the environment protectors into a position that contributes to labour productivity. If accepted and adopted by the relevant decision-makers, just transition led by the workers' representatives would have the capacity to contribute to the rapprochement of the viewpoints of the interested parties – those protecting the labour rights with those dedicated to environment preservation. Thus the narrative 'jobs or environment' transforms into 'jobs and environment', whereby the care for environment no longer represents an obstacle to new decent work opportunities. Apart from that, such "blurring the boundaries between environmental law and labour law, it can help align environmental decisionmaking more with the realities of complex social-ecological systems" (Eisenberg, 2019: 277). "At the same time, by aligning environmental interests with labor concerns, it creates potential for coalition-building, thus informing both the ends of climate policy and the ever-elusive means for achieving it. Finally, in an age of dramatic populist alienation, it would inject much-needed economic equity considerations into environmental decisionmaking" (Eisenberg, 2019: 277).

However, the idea of 'jobs and environment' lacks the real policy and legal mechanisms to interconnect job creation with environment preservation, while, to many interested parties, the just transition policy approach seems rather vague – not precise enough and unclear. Just transition encompasses a huge set of principles, processes, and practices, representing the vision of a better post-transition green society aiming to reach economic and labour equity (Pinker, 2020: 9). With that in mind, the transition to a green, low-carbon economy needs to be just and equitable, fair and inclusive, decent for all workers groups, and with respect to

fundamental labour rights and principles. Concrete policy measures to address the issues of the transition process are still undefined, both in terms of employers' and workers' positions, novel insights into traditional labour institutes (working hours' scheme, training programmes, anti-discrimination, and social policy measures) are lacking, or without an adequate theoretical ground with respect to the proposed concept of just transition. Similarly to other related (social/union) movements, including its conceptual counterpart – degrowth, the concept of just transition has 'weak policy prescriptions' (Parrique, 2019: 6) falling short of providing the answer to how to achieve the 'equity, fairness and justice' when it comes to the workers' status and protection of fundamental rights. The governments, social partners and environmentalists are perceived as the key actors and the driving force of the transition, but currently there is no universally defined conceptual and practical framework for the transition process and the role of each party concerned. When affirming the system approach, meaning that the outcomes of every process arise from the interactions and relationships between its parts, this will result in system failure if these parts are physically or even theoretically divided and non-coordinated (Parrique, 2019: 22). Therefore, the implementation of the just transition concept requires finding the bonding point of labour and environmental activities supported by the national governments, working together to define a sustainable pathway for the transformation of the socio-economic system in terms of addressing the impact of climate change.

Labour and Environmental Law – Common Look Towards the Just Transition

From their very emergence in the late 19th and early 20th century, labour and environmental law have had little in common. Both legal fields have been trying to resolve difficult sorts of social and economic problems, balancing different types of interests. They however "deploy different legal rules, techniques, modes of reasoning, and different discourses, and they are concerned with social and economic problems with very different temporal and geographic scopes" (Doorey, 2017: 205). "Environmental law scholars

and lawyers rarely speak to their labour law counterparts. They publish in different journals, attend different conferences, appear before different tribunals" (Doorey, 2017: 205).

The goals and outcomes of environment and labour law are ultimately not in conflict, but their promoters are trying to achieve them within different timespans and geographic spaces. Labour law tries to secure that the socio-economic need for attainment and preservation of the right to decent work "is not subjugated to the political and economic demand for more and better decent jobs, while the environmental law too is concerned with preserving jobs, but also with the impacts of consumerism and economic activity on climate, air, and water quality and other harmful effects on the natural environment" (Doorey, 2017: 205). Even though these two legal fields have rarely been in touch with one another in the past few decades, it is evident that there are areas in which their interests overlap, such as the occupational safety and health regulations, which control and limit the exposure to hazardous substances in the process of work (Stevis, 2011: 145).

Still, the need for environment protection mostly remains only an external factor that can affect labour law and the outcomes of its work, so the two legal fields recognize each other "as an occasional source of exogenous influence" (Doorey, 2017: 221). For example, "climate influences the range of labour market activities and employment levels, as well as the relative bargaining power and strategies of workers, unions, and employers, while the modern environmental laws that limit emissions and require 'green' production equipment or techniques can affect production systems in ways that impact working conditions, cause layoffs, or create downward pressure on labour costs, which affects the collective bargaining and sometimes shapes the substance of rules and practices that emerge from the labour law system" (Doorey, 2017: 221).

Although the two legal fields deal with essentially different issues and socio-economic objectives, labour and environmental law are bound together by the fact that both legal fields rely upon bargaining and balancing among the interests of various interested parties about a very important and complex issue. The objectives of labour law are to balance the interest of workers in terms of preservation and improvement of labour rights, and the imminent

aspiration of employers to enhance the labour productivity and profitability of enterprises, in the situation characterised by inequality of bargaining powers of the two sides. Environmental law strives to establish a different kind of balance – that between the protection of environment from the damages inflicted by human activities, and the socio-economic need for a productive economy, within which it is possible to attain the decent work. Hence, one may conclude that both legal fields are somehow trying to combine the demand for economic activities and jobs with the essential needs of preserving the right to live and work in a healthy environment.

In spite of such clear duality of objectives and outcomes of labour and environmental law, climate changes as an extremely complex and multi-sectoral problem, due to which the transition to a green economy is a necessity rather than a matter of policy choice, will affect numerous fields of law – including, above all, labour law. That being said, it is evident that "the global transition towards a low-carbon and sustainable economy has both positive and negative impacts on employment. Generally, output and employment in low-carbon industries and services will grow, while energy and resource-intensive sectors are likely to stagnate or contract" (UNFCCC, 2016: 11).

The research conducted by the European Trade Union Confederation with support from the European Commission pointed at "a limited positive impact on employment from climate change, provided appropriate economic policies are put in place, with an overall net gain in employment for the sectors covered by the study of the order of 1.5 %" (Dupressoir et al., 2007: 185). In the enterprises incapable to adjust to these new circumstances of doing business the loss of jobs will be imminent, but the number of new green jobs in the enterprises capable to seize the opportunities of the green economy will outweigh that loss, so the overall employment will have a net growth.

Labour law has always been interested in the influence of economic transformations onto the distribution and quality of jobs, and the socio-economic consequences to the world or work. Nevertheless, the labour law researchers have thus far had a limited participation in the ongoing discussions about climate changes and

their possible influence upon labour law. "That has been a consequence of the fact that, despite the logical coherence between social democracy and environmentalism, environmental activism has often been portrayed as the "bourgeois playground" and an indulgence of those who lack a proper cause" (Ghaleigh, 2019: 9).

The World of Work and the Just Transition

The orientation of trade unions towards the just transition has been evident for several decades, although its full affirmation took place only in the last ten years or so. There are several versions about how this concept emerged, but there is little doubt that one of the founders of 'labour environmentalism' was Larry Sefton, leader of the Steelworkers Union in Canada, who introduced that concept in a dispute over uranium mining (Greener Jobs Alliance, 2018). It was not until 1993 that one of the leaders of North American trade union movement, Tony Mazzocchi, pledged for the creation of a superfund–which would later be called 'just transition fund'– to support workers whose jobs might disappear through a closure of toxic production facilities in the arms factories (Rosemberg, 2017: 6). However, the term 'just transition' is mostly attributed to the Canadian trade union leader Brian Kohler, who in 1996 used that term to "reconcile efforts to provide workers with decent jobs and the need to protect the environment" (Galgóczi, 2020: 369). The Canadian unions' Congress then adopted a document titled *Just Transition for Workers during Environmental Change* in 1999, depicting its vision of a healthy Canadian environment as the one founded on sustainability – a sustainable economy, sustainable employment, sustainable production and the public services that support it.[2] In parallel with that, it was the predecessor to the International Trade Union Confederation that had linked the term 'just transition' to the Kyoto conference of 1997, which resulted in a Kyoto Protocol – a treaty adopted as the first addition to the United Nations Framework Convention on Climate Change (UNFCCC),

[2] Just Transition for Workers during Environmental Change, April 2000, https://digital.library.yorku.ca/yul-1121737/just-transition-workers-during-environmental-change/datastream/OBJ/download (19.01.2022).

an international treaty that committed its signatories to develop national programs to reduce their emissions of greenhouse gases. One should take into account as well the significance of the success of trade unions which managed to include the notion of 'just transition' into a Preamble of the Paris Agreement of 2015 – a legally binding international treaty on climate change mitigation, adjustment and financing, which represents the key international statement of will of 190 countries in combating global warming.

At the same time, it should be pointed out that within the United Nations' system, the leading role in the affirmation of the just transition concept as an element of sustainable development has been played by the International Labour Organization (ILO), whose 2015 guidelines are considered as the milestone in all national just transition policies. The Guidelines invite the ILO member states to generate decent jobs along the entire supply chain with employment opportunities on a wide scale, by setting up institutional arrangements that would ensure the participation of all the relevant stakeholders at all levels. The Guidelines also highlight the need to secure the livelihoods of those who might be negatively affected by the green transition and also stress the need for societies to be inclusive, provide opportunities for decent work for all, reduce inequalities and effectively eliminate poverty (ILO, 2018: 3).

The Concept and Meaning of the Just Transition

In the narrow sense of the meaning, just transition represents management of the overall transformation of the economy, so that its new structure contributes to environment preservation within a given socio-economic framework in a balanced and socially just manner. As such, the just transition has got two main dimensions – appropriate outcomes, e.g. the new social structure and new sources of employment in a decarbonized economy, and adequate processes, e.g. the sequence of transformative steps from existing into new socio-economic reality in which the burden sharing is just and nobody is left behind (ILO, 2018: 2). In other words, the outcome of a just transition should be decent work for all workers in an inclusive society and a decarbonized economy, while the process would involve a meaningful social dialogue at all

levels, composed of two elements – one that involves redistributive effects of climate policies (for example, how the surge of prices of fossil fuels could affect various levels of workers' income), and the other that determines the regional programmes of economic restructuring and industrial policy. Generally speaking, the shift to a low-carbon economy should be seen as an opportunity to rectify the injustices of the fossil fuel economy, and not doing so, or allowing inequalities to worsen, would itself effectuate injustice (Eisenberg, 2019: 280).

The term 'just transition' has at least two primary usages, whereby on the global scale it is used to label the transition to a low-carbon society that is fair to the most vulnerable populations. The current fossil fuel-based economy has been characterized by inequality and environmental injustice, or environmental hazards that are inequitably distributed. The new, low-carbon economy should not repeat or exacerbate these injustices; in fact, the transition is a new opportunity, indeed an obligation, to counteract them (Eisenberg, 2019: 275). On a country level, 'just transition' should protect the workers and communities who depend on high-carbon industries from bearing an undue burden of the costs of decarbonization. Hence, it is intended to prevent that the shift to a low-carbon economy affects the livelihoods of low-paid workers in high-carbon industries disproportionately (Eisenberg, 2019: 275).

Specifying the benefits from a well-managed just transition and the challenges it confronts, the ILO Guidelines for just transition emphasize that well-managed transitions to environmentally and socially sustainable economies can become a strong driver of job creation, job upgrading, social justice and poverty eradication. Greening all enterprises and jobs by introducing more energy – and resource-efficient practices, avoiding pollution and managing natural resources sustainably, leads to innovation, enhances resilience and generates savings which drive new investment and employment (ILO, 2015: 4).

Broadening the Perspective – Beyond the Principle of Tripartism

The traditional ILO concept of tripartism has been inscribed into the very foundations of that oldest specialized agency of United Nations, as it is the tripartite decision-making of governments of member-states, representative trade unions and employers' organizations that forms the essence of the international labour standards' setting mechanism. Tripartite social dialogue includes consultations and cooperation between public authorities and the social partners, through which public policies, laws and other decision-making processes in the economic and social spheres are discussed. Depending on each country's traditions, national tripartite social dialogue comes in a variety of forms, such as economic and social councils, labour advisory councils and similar institutions for cooperation at the policy level (Engin, 2018: 21). The ILO has been relying on this form of tripartite decision making for many decades, with little interest in expanding the social dialogue beyond its traditional actors.

However, in the past couple of decades the traditional tripartite partners have been realizing that there are areas within their scope of work in which they could benefit from collaboration with other actors of the civil society specialized in particular issue of relevance for their work. That conclusion, enshrined in the ILO resolution concerning tripartism and social dialogue (2002)[3] which acknowledged the potential of collaborating with civil society, was reached primarily due to a new breed of non-governmental organizations (NGOs) that has emerged at that time – professionalized, vocal and media-friendly. Those NGOs have often received strong support from those who felt that the establishment didn't always address their concerns, such as young people, and engaged in other spheres which have had a bearing on ILO concerns – poverty

[3] ILO Resolution concerning tripartism and social dialogue was adopted at the 90th session of the International Labour Conference in 2002, and in its preamble it emphasizes 'that the social partners are open to dialogue and that they work in the field with NGOs that share the same values and objectives and pursue them in a constructive manner; recognizing the potential for the International Labour Office to collaborate with civil society following appropriate consultations with the tripartite constituents'. https://www.ilo.org/public/english/standards/relm/ilc/ilc90/pdf/res.pdf

reduction and development are good cases in point (ILO, 2003: 5). In order to properly address such relationship with the newly-emerged civil sector the ILO has come up with the 'tripartism plus' concept, depicting the situations in which the traditional tripartite partners have chosen to open up the dialogue and engage with other civil society groups, to gain a wider perspective and consensus on issues beyond the world of work (such as the protection of the environment, or the needs of specific or vulnerable groups) (ILO National Tripartite Social Dialogue, 2013: 15).

Even before the adoption of this Resolution, there were some ILO instruments that requested the involvement of specific civil society groups beyond the social partners, such as the Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159), and the HIV and AIDS Recommendation, 2010 (No. 200). Nonetheless, despite the emergence of 'tripartism plus', the ILO reinstates that the employers' and workers' organizations are distinct from other civil society groups in that they represent the actors of the 'real economy' and draw their legitimacy from their membership (Kovačević & Stojković Zlatanović, 2023: 123). Therefore, it is clear that, in any case, the purpose of involvement with other 'advocacy groups' is to strengthen tripartism, not to weaken or dilute it (ILO National Tripartite Social Dialogue, 2013: 15). However, the engagement of specific civil society organizations in international and national social dialogue and collective discussion could have an important role in proliferating the awareness, action, and responsibility towards ecological sustainability. Additionally, it could contribute to the introduction of a *sui generis* type of 'social partnership' aiming to strengthen unions' influence in achieving the sustainable development goals (Kovačević & Stojković Zlatanović, 2023: 124). Accordingly, scholars have agreed that the implementation of sustainable development agenda needs to be negotiated through some type of dialogue and collective discussion of all parties concerned emphasizing the principle of participatory governance (ILO-ITUC Issue Paper, 2017: 6). The International Labour Organization, in 2009, launched the *Green Jobs Programme* stressing the social dialogue as a mechanism for the implementation of environmental and climate policies. Having said that, some unions have recently been advocating for building a coalition among unions, environmental

organizations and wider civil society to deal better with the climate change and labour-related issues (Just Transition Alliance, 2022). It has been followed by the proposals to develop a novel structure of social dialogue in order to ensure the recovery and resilience in the post-pandemic era while simultaneously addressing the key societal challenges, including environmental and climate-related SDGs, as well as those related to decent work, inequality, economic growth, and innovations (Kovačević & Stojković Zlatanović, 2023: 124). An example of unions' initiatives for engagement in the area of environmental policies implementation is a piece of Spanish legislation adopted in 2005 allowing the social partners to participate in the preparation and monitoring of the national emission allocation plan, while in Senegal and Sierra Leone national environmental bodies include unions, employers' organizations, and civil society organizations (ILO-ITUC Issue Paper, 2017: 22).

'Advanced' social dialogue (tripartism plus social dialogue) i.e. empowered by the experience of environmental civil society organizations could help shape new social rights, provide mechanisms for adaption of existing ones, as well as support workers' transition to new green jobs (Kovačević & Stojković Zlatanović, 2023: 124). It will also encourage the inclusion of environmental clauses in social dialogue (green social dialogue), and take the leading role in driving the just transition towards a low-carbon economy. Obviously, environmental clauses in collective agreements have the potential to create quality and healthy jobs and drive the just transition towards a low-carbon economy (Bugada et al., 2020). In France in 2018, for instance, upon an initiative by the unions, the Agenda regarding the implications of digital and ecological transition on the organization of work was adopted, creating a valuable ground for industry and enterprise-level bargaining (Bugada & Cohen-Donsimoni, 2021: 9). Previously, in 2016, the Declaration of the social partners on public works for infrastructure for ecological transition and employment was also signed as a non-binding instrument, but with strong potential for increasing awareness of ecological-related issues' importance in collective bargaining. The Declaration sets out that the companies in the public sector should identify the new skills linked to green transition, provide ecological training for public works professions, and promote training and research through partnership with the

relevant actors (Bugada & Cohen-Donsimoni, 2021: 10). In Australia, collective bargaining over environmental issues is extremely rare, particularly having in mind that the Fair Work Act prohibits the inclusion in enterprise-level agreements clauses related to climate change while allowing consultation regarding some environmental issues, as a part of the implementation of health and safety measures considering the latter as a subject of 'employment relationship' (Markey & McIvor, 2019: 90). In Australia and the United Kingdom, the environmental and climate change issues are not yet addressed in collective agreements, but there are some developments regarding the inclusion of green workplace initiatives into other forms of social dialogue mechanisms, such as consultation at the enterprise level or even in policy documents, i.e. 'soft' law voluntary multilateral agreements advocating regulation of workers' actions in terms of climate change mitigation and adaptation policies (Markey & McIvor, 2019: 89). Moreover, in Canada, a union of employees in the public sector participated directly in adoption of a national environmental policy document advocating green bargaining and workplace environmental policies, while the Public Service Alliance of Canada calls for inclusion of environmental clauses in collective agreements (Das, 2022: 2).

Conclusion

The just transition concept still needs time and evidence of success in order to prove itself as the best way of dealing with climate change and labour issues in terms of the inevitable environmental transition process in the post-pandemic period. Thus far, it has more often been considered a policy instrument, or even a policy platform of the sustainable development model of economic growth, rather than a true legal mechanism for achieving desirable societal change. As stressed by Barca and Pinker (2020) "just transition can be ranged from a simple claim for jobs creation in the green economy, to a radical critique of capitalism and refusal of market solutions". Instead, social dialogue notably plays an important role as an interconnector among economic, labour and environmental issues representing the possible link between the two legal disciplines of environmental and labour law. We argued that so-called advanced social dialogue i.e. tripartism-plus social

dialogue mechanism is a starting point in proliferating the awareness, action, and responsibility toward economic, social and ecological sustainability. Activists and academics suggested several models of economic transformation – sustainable development, ecosocialism, or degrowth – but all have one element in common – emphasizing the democratic planning and participation of all parties concerned as crucial in achieving values of social justice, equity, and dignity. The right to participate in the transition of economic and labour model, links social justice, equity, and the very nature of employment relationship to environmental protection initiatives and requirements. Environmental civil society organizations have had a significant role in advocating green clauses in collective agreements by sharing their experience with the unions on engaging on the topic of environmental sustainability, discussing the various challenges they face in that regard, and exchanging good practices and possible tools. So-called advanced social dialogue that is suggested in the article is not intended to alter the traditional structure of the social dialogue between governments, unions, and employers' organizations, but rather to empower the social partners to deal better with climate change issues, by using practical experiences and knowledge of specialized civil society organizations.

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Sustainabile Production and Workers' Status Through the Prism of Policy-Making in the Macedonian Agriculture

Abstract

Agriculture is a specific sector more dependable on climate and biochemical changes than any other sector both generally and in the Republic of North Macedonia. Agricultural activity is simultaneously directly linked to sustainable management of natural resources, quality of food, as well as with the socio-economic stability of a sizable category of persons. This paper aims to elucidate the substantial parameters for protection of the quality of Macedonian agricultural production and agricultural labour, while determining the impact of certain policies on them, with an accent on the agricultural policy, whose level of effectiveness is also evaluated.

The Macedonian agricultural policy and farmers are still facing structural challenges concerning environmental, social and economic aspects, mostly based on extensive agriculture and low productivity. Despite that, the respective Macedonian policy of recent years has provided a significant normative basis consisting of manifold measures and institutions, as well as substantial funding for a medium-developed country, resulting in growing production, keeping of the farmers' jobs and income, while also making a small progress in organic farming. Macedonian agricultural workers, despite enjoying the rights stemming from the social character of the state, still face great challenges of lesser accessibility of various public services and remain low-paid which leads to lower quality of life. Future possibilities are to be found in the harmonisation of agricultural modernization, agricultural labour protection, infrastructural investment and environmental sustainability in the production process for which the EU integrative processes would be highly beneficial.

Keywords: Environmental sustainability, Macedonian agriculture, Agricultural workers, Policy-making

Introduction

Agriculture is a specific economic sector, both in the European Union (EU) and in the Republic of North Macedonia (RNM)[1] due to its greater proneness to weather, climate and biochemical changes compared to any other economic sector. This might ultimately reflect on the basic production of agricultural products or the farmers' existence. In the EU, regardless of the significance of the food production, the farmers' income is around 40% lower than the income in non-agricultural sectors, and there is a time lag between the consumers' demand and the farmers' supply (EC, 2018). Profitable agricultural production implies environmental sustainability, by sustaining the soil and biodiversity. The business insecurity and the need to prevent agriculture from endangering the natural environment represent the justification for policy action in agriculture (EC, 2018). The same logic is applicable when it comes to the necessity of the state support to Macedonian agriculture, with an additional burden of this sector facing deeper challenges. Moreover, countries with better natural conditions and the ones with advanced technological level in agriculture represent stiff competition in the Macedonian market of agricultural products, which might negatively impact the total capacity of Macedonian agriculture.

The agriculture in less-developed or medium-developed countries such as the RNM has a bigger share in the GDP and higher employment rate in that sector compared to developed countries. In the RNM, agriculture, forestry and fishing had a share in the structure of GDP of 8.1% in 2019 and 8.6% in 2020 (SSORNM, 2022b), and have employed on average, throughout the years, almost 14 % of the total employed persons in the country. Namely,

[1] Since the signing of the Prespa Agreement between the Republic of Macedonia and the Republic of Greece, and its subsequent ratification in the Macedonian Parliament, issued in the Official Gazette of Republic of Macedonia No.7/2019 on 14. 01. 2019, the official name of the country is 'Republic of North Macedonia' (further on: RNM) and the respective adjective is 'Macedonian'. Therefore, in this work all current references would be addressed with the new name – Republic of North Macedonia, but all the circumstances, and events that transpired in the period 1991–2019, as well as the legal acts of this period would be referred to by the country's constitutional name at the time – Republic of Macedonia (RM).

in 2019, out of 797.651 nationally employed persons, 111.033 were employed in agriculture, forestry and fishing, thus making it the third largest sector by the number of persons employed in the RNM. "Out of these 111.033 persons working in agriculture, 35% (38.478) were unpaid family workers, 49% were self-employed and around 15% regularly employed. Around 17% (18.379) of the total active work-force in the agriculture, are part-time or seasonal workers" (MAFWE, 2021b: 13). "In 2020, in this sector, 95.545 were employed out of total 794.909 at the national level and in 2021, 91.506 out of the total of 795.087 employed persons" (SSORNM, 2022b: 36). However, there has been a significant number of persons with partial employment and informal workers in the sector. Additionally, in the rural areas 22.4% of the employed women are unpaid family workers (SSORNM, 2020b).

The Macedonian agroindustry based in agriculture participates with 19% in the total number of the employees in the industry. Agricultural export is about 10% of the total export of the RNM (WB, 2019). Other economic activities related to agriculture, such as preparation, packaging, stocking, transport and trade of food products, also have significant share in the employment and national GDP.

Therefore, agriculture and subsequently, sustainable production of agricultural products and especially the agricultural workers, have the need to be supported by the state, i.e. by a combination of aiding measures and instruments of the economic, social, infrastructural, expert, organizational and environmental nature. Financial support is needed for the realization of the above measures by which they would improve the economic conditions in agriculture, ensure the social and subsequently, material security of the farmers, and would provide farmers' incentives for increased quality and quantity, as well as ecological production of basic products. Current generations that use the resources and environment should allow future generations the same right to reap the benefits of the environment. Only the concept of economic development that enables this over an unlimited period of time can be considered sustainable (Ostojić, 2020).

These focal aspects will be the subject of evaluation, through an analysis of the respective normative solutions, of the

budget, budget statements, reports, analyses, other literature and secondary empirical data. The paper aims to elucidate the parameters of relevance for the protection of the quality of agricultural production and labour, while determining the impact of certain policies on them, with an emphasis on the agricultural policy, whose level of effectiveness is necessary to be evaluated.

Developmental Influences and Normative Setting of Macedonian Agricultural Policy

"Well-designed national policy frameworks and instruments are necessary to enable a fundamental shift towards sustainable production and consumption patterns" (Ostojić, 2023: 209). Macedonian agricultural policy is under the influence of global, European and national currents. With the WTO joining in 2003, the Republic of Macedonia, eliminated non-custom tariffs and reduced custom tariffs, so even though agricultural products are protected more than any other product in the Macedonian economy, agricultural producers are exposed to greater competition than before, which pushes the agricultural policy to enhance the economic capacity of the agricultural producers through other measures. Since the signing of the Stabilization and Association Agreement with the EU in 2001, certain harmonization processes took their course, which were especially intensified after the RM gained the candidate status in 2005. So, by the adoption of the first Law on Agriculture and Rural Development in 2007 the goals of the Macedonian policy of agriculture and rural development have been defined, along with several agricultural measures, including, the measure of 'direct payments' – the support for farmers per hectare of agricultural land, per unit of specific crop produced and/or per head of livestock which would become the pillar of the contemporary Macedonian agricultural policy.

With the mentioned Macedonian Law from 2007, the new agricultural policy was not elaborated, but initiated. With the next Law on Agriculture and Rural Development from 2010 and its amendments by 2016, the normative bases of this policy were elaborated through thoroughly defined goals, institutional and organizational framework entailing many institutions and organizations

involved in the policy making and implementation. This normative upgrade introduced a wide range of measures with economic, social and environmental background, including not only measures for promoting production, but also the ones pertaining to higher protection of the agriculturally less productive areas, or cases of production risks, etc. The operative part of this policy determines more sources of income, which would result in the increased total amount of finances for realization of the policy's goals. In the same period, several other supportive agriculture-related laws were adopted, out of which the Law on Agricultural Land from 2007 should be highlighted, as it promotes the enlargement of agricultural estates and the total agricultural production through leasing and providing usufruct of the state land to farmers under highly favourable conditions.

Currently, the Macedonian agricultural policy is highly harmonized with the EU's CAP (Common Agricultural Policy) and this harmonization continues, both in terms of legislation and practically. Numerous laws regulate this matter, the current primary one being the Law on Agriculture and Rural Development (2017) which provides continuity of the aforementioned endeavours. The most recent strategic documents are the National Strategy on Agriculture and Rural Development 2021–2027 and the topical Programme 2018–2022. The Strategy entails instruments, measures and implementation activities, time-frames, dead-lines and finances for measures' implementation. The Annual Programme of Financial Support for Agriculture in the Implementation of the National Programme and the Multiannual Programme for using the EU IPARD funds are at play as well. Environmental protection, ecological production and good natural resources' management are stipulated in each of these documents.

Measures and Instruments Supporting Macedonian Farmers

The selected measures for further elaboration directly affect the Macedonian farmers' socio-economic status. Simultaneously, these are the most important measures shaping the agricultural policy in the RNM.

Beneficiaries of the measures can be farms, other beneficiaries and agricultural cooperatives (LARD 2010, Art. 14). Primarily, the beneficiaries are family farms that are responsible for at least 50% of the annual agricultural net income. There are 4 categories of farms out of which the first two get more support. The first category are the family farms whose annual net income from agriculture amounts to the minimal net annual salary for the previous year; while the second are the family farms whose annual net income made in agriculture range from the amount of the net annual salary for the previous year, to the amount of the minimal annual basis for calculation and payment of the allowances of the compulsory social security (LARD 2010, Art. 15a). As mentioned, the most frequently used measures that cover over 80% of the state support to the agricultural producers are the direct payments. Out of the numerous measures and instruments, several are selected due to their relevance.

Economic and Social Measures

The policy measures which support agricultural producers that we could characterize as both economic and social include:

a. Measures of the agricultural policy directed to additional support to the income from agricultural products in the areas and rural communities with limited possibilities for agricultural production. These are realized by intervening in deprived areas. The areas with limited agricultural production potential include mountain areas (over 700 m altitude); naturally-deprived areas (high altitude, with steep terrain elevation or low soil productiveness) and specifically-deprived areas (the depopulated rural communities, as well as areas where agriculture is limited in favour of environmental protection) (LARD 2010, Art. 64).

b. Aid for agriculture in the areas with limited possibilities for agricultural production. The aid is distributed to farms in the form of direct payments.

c. Right to lease and gain usufructuary right of state-owned agricultural land below economic prices. It is granted for up to 5 years to persons able to work, but materially insecure and using social aid. After these 5 years, the usufructuary right is transformed

into the right to lease (LAL 2007, Art. 40). Additional state aid is provided by enabling the beneficiaries of the usufructuary right to use the *De minimis* financial aid for the initiation of agricultural activity.

Agricultural Measures in Environmental Protection and Quality Production

Some of the measures concerning an environmentally sound agricultural production include:

a. Agriculture aid for the purpose of protection and improvement of the environment. It is granted to: agriculture in accordance with the principles of good agricultural and hygienic practices; initiatives of preserving rural areas and their traditional characteristics; and the initiatives of preserving the genetic diversity of autochthonous plants and domestic animal breeds.

b. Aid for introducing higher standards of quality of agricultural products, granted for organic agricultural products, protection of agricultural products with geographical or traditional designation and security standards in primary agricultural production (LARD 2010, Art. 106).

c. Aid for the improvement of the genetic quality of breeds (LARD 2010, Art. 103).

d. Aid for attaining higher standards of domestic animal well-being, granted to the farms that have voluntarily agreed to apply such standards, for the period of 5–7 years.

e. Protection of soil from erosion (LAL 2007, Art. 4).

Fiscal Policy Concerning Agriculture and Food Industry

In the RNM, there are several types of taxes to which legal and physical persons, or in this context, the firms in agriculture and food industry are subsumed. This overview, however, dominantly considers macroeconomic measures with social elements directed to farmers.

Primarily, the value added tax (VAT) is stipulated as having the general rate of 18%, with the reduced rates of 5% and 10% (LVAT 99, Art. 28). "The reduced tax rate of 5% shall be applied to

the supply and import of food products for human consumption, water for irrigation of agricultural land, seeds and seed material for agricultural plants, fertilizer, means for plants' protection, plastic foils for agricultural usage, agricultural mechanization, raw oil for production of food for human consumption, food and food additives for farm animals' consumption, live cattle and heating energy" (LVAT 99, Art. 30). The VAT is waived for transport vehicles, animals, special agricultural tools and instruments.

Further, the estate tax is waived when it comes to the cultivated land used in agricultural production (LET 2004, Art. 8), the profit tax is waived for the farms with up to 5.000 Euro income from agricultural activity, while with approximate lower rates being paid for the income up to 30.000 Euro (MAFWE, 2014). For supporting investments, the Agricultural Credit Discount Fund within the Macedonian Bank for Support of Development, provides rural loans for all agricultural purposes, with favourable conditions regarding the annual interest rate. There are additional social benefits for farmers.

Since the normative basis and the major substantive aspects of Macedonian agriculture pertaining to the production and farmers are determined, they need to be accompanied with implementation aspects and general evaluation perspectives. In the following text, an additional comparison with the respective situation in the EU is depicted.

Evaluation and Further Challenges of Macedonian Agricultural Policy in Light of Economic and Environmental Sustainability

In the RNM, the processes of keeping agricultural workers, realizing agricultural production and sustainable use of natural resources need to unravel in parallel, which is an extraordinary challenge that requires great capacities of policy-making, institutional and financial support. Relating to that, certain interpretation and evaluation perspectives of Macedonian agriculture policy would be elaborated in the following section.

Implementation of Funds and Measures

In regards to the implementation of funds and measures in the RNM, special attention should be given to the measures that specifically target farmers' income. This is mostly the direct state (budgetary) support to farms. There is a significant financing in agriculture, even though not all the initially envisaged allocations per policy instruments are actually spent. "The main factors contributing to this discrepancy are: (i) frequent amendments and adjustments to the underlying regulations and deviation of their implementation relative to the outlined long-term plans; (ii) demanding administrative procedures which cause the delay of payments to the next calendar year; and (iii) relatively insufficient experience, education, and skills of farmers' which constraints them to understand the complex administrative requirements and to collect and prepare all necessary documentation" (Kotevska et al., 2018: 35). Regarding rural development support, Kotevska et al. identify the educational level of farmers and their entrepreneurial orientation as "factors that influenced the farmers' decision to apply for support" (Kotevska et al., 2015: 79–81).

However, increased sums have ended directly in farmers' hands. Unlike the modest and insufficient 7 million Euro distributed to the Macedonian farmers in 2003 and 13 million in 2007, these finances gained significance in 2009, when 65 million euros were spent in supporting farmers, 2011 with its more than 100 million and 115 million Euro in 2013. In 2013, around 84% of the total financial support was distributed as direct payments in agriculture, while 16% (around 18 million Euro) were spent for total support in agriculture, including measures for modernization of agricultural production which mostly did not surpass the level of amortization (Malcheski & Malcheski, 2015). In this period there was no public spending on environmental goals. In the period 2014–2020, 732.4 million euros in direct payments were spent, i.e. on average 82% of the total amount of all measures of state support in agriculture and rural development. The annual spent amount ranged from 89 million euros in 2016 to 115.1 million in 2019 (MAFWE, 2021b). It is evident that, after reaching a certain effect-producing point, the spending has been stable.

The farmers have been supported from the EU IPARD funds as well, with 60 million projected to be distributed in the 2014–2020 period (EC, 2015). Based on this, the contracts of 38.419,104 Euro in total worth were signed (MAFWE, 2021a). As we can see, this spending was far smaller than the state one, however the amount gradually increased. By having an insight into the allocations and spending of the IPARD finances, it can be concluded that almost insignificant, extremely small amount was granted for environmental purposes, and only for renewable energy.

This is significant public spending, with an increasing trend, which in the Macedonian context has provided livelihood for the farmers and the agricultural sector, has resulted in an increased production value for most of the beneficiaries, and has set a sound base for further improvement of agriculture and agricultural workers' circumstances.

Dominant Positive Evaluation of the Recent Endeavours

Macedonian agricultural policy can be evaluated positively in relative terms, with caveats regarding certain core aspects that persist as challenges. The positive connotation of this evaluation refers to the attainment of certain goals and the strong involvement of state structures in maintaining and elevating the circumstances in agriculture and for the farmers in the last 15 years.

Namely, in the 2007–2016 period, an annual growth of 2–4% of agricultural production was achieved, where in some years, it was 2%, while in the 2006–2013 period the total growth amounted to 32%, while in the entire analysed period of around 9 years, the share in the GDP was 9–10% (EC, 2015). In the entire period from the introduction of the concept of the current Macedonian agricultural policy, the state support contributed to the competitiveness of new businesses, i.e. the introduction of fresh capital and increased expertise in agriculture. Also, the income index for the production factors in agriculture, per annual working units, was 96.8 in 2016, which was 4.1 index points higher than in 2012 (SSORNM, 2019) – which is a modest but positive result. Between 2010 and 2015, the annual budgetary share for farmers was 1.14% of the GDP, and was two times higher than the respective shares of the

Western Balkan countries, as well as almost 60% higher than the EU 28 average (WB, 2020). In the context of reduced purchasing power and intensified world interventions, the financial support for Macedonian agriculture succeeded in maintaining and increasing the presence of Macedonian agricultural products on foreign markets. This support mitigated certain negative trends, especially referring to the most vulnerable groups of the yet-to-be-transformed small owners, or the owners of cultivated land that had not modernized their production, which has been the dominant category in the RNM.

The state support in the 2014–2020 period had similarly positive effects, some of which involved the impact on the development of the structure, or enlargement of farms. The average size of the supported farms in terms of the used land increased by 25%, while their economic size increased by 5%, compared to those who did not use subsidies (MAFWE, 2021b).

Also, though it may be open to interpretation, we might say that the trend in organic production has been favourable: when compared to 2018, in 2019, the organic production of fruit increased by 32.9%, of vegetables by 1.07%, crops by 11.15%, vine by 40.32%, cattle by 30.03% and sheep by 7.74%; while the organic production of non-food crops dropped by 82.67%, of fodder crops by 31.88% and the number of goats by 33.34% (SSORNM, 2020a).

Structural Challenges

Despite the elaborated endeavours, Macedonian agriculture faces structural handicaps, the most important of which being the extensive character of the agriculture, i.e. the archaic way of production and subsequently, low overall productivity. This commits further public and private costs to maintaining the current production, but not reaching any environmental goals. The reconciliation of these two goals, at this moment, seems extremely hard.

Furthermore, the expertise of the agricultural producers has not been radically increased due to the limited number of available trainings. The current level of expertise along with the insufficient finances for modernization of the mechanization is at a discrepancy with the contemporary agricultural trends and the EU standards in

this sense. The existing mechanization is obsolete and insufficient for modern production. Similarly, the size of the individual agricultural estates has not increased substantially, and a great number of small estates that dominates this sector impedes efficient and intensive usage of mechanization. Hence, the agricultural sector is characterised by land fragmentation and unresolved real-estate issues. The average size of an agricultural estate is 1.85 ha, and its annual economic output is up to 4.825 Euro on average. This impacts the production capacities – the business subjects which are only 0.2% of the total number of farms have over 100 times bigger engaged capacities per agricultural economy on average, or 197 ha, in comparison with the family farms (MAFWE 2021b).

Another area where agricultural policy has not achieved any improvements is the managing of the state land. There is neither a unified policy/law on public land, nor single administration/ management authority for it. There is no reliable inventory of state land containing correct data, while agricultural competitiveness is limited due to the lack of access to the data relevant for production (WB, 2019).

Another challenge the policy hasn't coped with is the fact that small producers generally have short cycles of disposal, ending in farmers' markets or at a wholesale facility near the producer's estate. Negotiating the disposal is not typical and the transactions for the small producers mostly involve *ad hoc* agreements for which it is not unusual to be breached, or for the payments to be delayed. After the harvest, the sorting and packing for transport are often inadequate, which impacts the freshness and quality of the products. The RNM generally has limited and technologically outdated capacities for cold storage of products (WB, 2019).

An important component of a developed agriculture, which in the RNM would require a great state effort, is the irrigation. OfZthe total of 80% of the cultivated land that could potentially be irrigated, irrigation systems have been built for some 42.25% of these areas, entailing 17 big dams, over 100 small dams, and 1,400 km of main irrigation and drainage ditches (MAFWE, 2014). Most of these systems were built in the second half of the 20th century, dominantly after 1957, while a smaller number of them date back to 1990. In 1991, the process of rehabilitation began.

The percentage of utilization of the irrigation systems in the RNM has been decreasing, so from 67.5% utilization in 1987, it fell to 34% in 2000, and 22% in 2013. Today, only 12 % of the total cultivated land is being irrigated (MAFWE, 2014). The low percentage of utilization of the irrigation capacities is largely due to their being outdated, as a result of their insufficient maintenance and reconstruction, which leads to a low collection of water fee from the users of the irrigation services by the state agencies managing irrigation. The aforementioned land fragmentation and, partially, the irregular cultivation are additional problems for an efficient utilization of the irrigation systems (MAFWE, 2014). The drainage systems are problematic as well.

Macedonian agriculture faces a great challenge regarding another major factor that could contribute to its success – modern transport. Railroad transport has an advantage of being cheaper and more efficient than road (truck) transport. However, in the RNM, the railroad transport takes an extremely small share, due to its obsolescence and amortization. Primarily, the total Macedonian railroad network involves 925 km, out of which only 315 km are electrified (MZ, 2022). Many agricultural regions in the RNM are not covered by railroad network (Strumica region, Ohrid region, Berovo region and others). In the last 10 years, 30 km of the Corridor 10 were reconstructed but this reconstruction did not include bigger bridges, tunnels, or signalization and telecommunication system (CIJ, 2019). Out of 79 available locomotives, 34 are 50–60 years old, while another 34 are 50–60 years old (MZ, 2022).

Overall, significant investments and technical support are needed to overcome the elaborated difficulties that impede the agricultural functionality and modern production.

Status of Macedonian Agricultural Workers

The status of Macedonian agricultural workers is defined by several laws and policies, as well as the functionality of certain systems, such as the central and local government. Some of their main aspects are elaborated below.

Central State Competences in Guarantying Decent Work and Social Rights of Agricultural Workers

The state, through the sectorial laws concerning education, social security, child care, health, environment, culture and others, regulates the provision of public material goods and services to the population. Hence, the state determines the beneficiaries of the services, the contents of services and the public institutions that provide them, the organization of these institutions, as well as which government, the central or local, would operatively realize their implementation, along with control mechanisms regarding these competences.

Regarding the health protection, farmers are stipulated as one of the categories of persons that are subsumed under the compulsory health security. Namely, the current Law on Health Security determines the owners of family farms as beneficiaries of all three types of health protection in the RNM – primary, secondary and tertiary, involving a wide range of health services, from ambulance to hospital care, administered free of charge, or by paying a very low contribution. Several types of social protection are also available to agricultural workers, such as guaranteed minimal aid and support for disabled persons (LSP 2019, Art. 44–45). The state provides child care by encompassing several social categories of children (poor, with special needs etc.) (LPC 2013, Art. 22–39). Agricultural workers are also within the system of compulsory pension and disability insurance, which enables them to use the rights of age-related, disability-related, or family pension (LPIS 2016, Art. 57). In the field of housing, the state provides special housing facilities for temporary accommodation of persons at social risk (LH 2012, Art. 3) at low rates, far beneath the economic pricing. Additionally, the central state has competences in the operative functioning of high education, national cultural institutions, road-infrastructure (including highways, express motorways, trunk roads and regional roads). In the environmental sector, the Ministry for Environment and Spatial Planning issues A-integrated permit for new structures that should meet the ecological standards for their functioning.

Elementary Local Competences in the Local and Narrower Rural Development

Certain economic and social rights cannot be exercised without the available infrastructure, social services, etc. In this sense, local competences, i.e. the competences of Macedonian municipalities and the City of Skopje include: urban planning (adoption of the general and detailed urban plans, urban plans for village and for non-inhabited place), environmental protection (issuing of B-integrated permit), local economic development, communal actions (drinking waters supply, local roads and other infrastructural objects, waste water management and processing, public cleanliness, local public transport etc.), housing, local culture and sport.

Local government ensures care and protection of numerous categories of population, especially of the vulnerable groups. The scope may include: the ownership, financing, investment and maintenance of kindergartens and seniors' caring facilities; realization of social care for persons with disabilities; foster care for children without parental care, socially-challenged children, special-needs children, homeless children, as well as drug and alcohol abusers, and others (LLS 2002, Art. 22).

In the educational sector, local government is competent for the establishment, financing and administration of primary and secondary schools, in cooperation with the state (LLS 2002, Art. 22). Primary and secondary education are compulsory and free in the RNM.

All these aspects directly or indirectly affect the working possibilities in agriculture.

Policies' Effects and Circumstances of Macedonian Agricultural Workers

Fiscal, social, educational and other systems include farmers, and generally provide, through their regular functioning, to most of the farmers, said services in each sector, on the central and local levels. However, the infrastructure, including the basic one, including roads and drinking water accessibility, is not optimal in many rural areas, and realization of certain rights stemming from pension

and social care is at times more difficult in the rural areas where most of the agricultural population resides, due to bureaucratic practices. Moreover, educational, social and health services are less available, or suffer in quality in rural areas, sometimes to the point of workers' complete inability to exercise certain right, such as prenatal care and other reproductive rights, or kindergarten services.

Besides being comprehensively covered with all the relevant policies which might positively affect working and wellbeing, the farmers are still coping with difficulties referring to quality of life. As mentioned, agricultural structural challenges persist, which impedes a fast-track catching-up with contemporary technological, professional, or policy trends in this sector. These lead to the prevalence of low-income agricultural workers, aging population, or depopulation (even though reduced) of the areas where agriculture is widespread. Namely, agricultural workers remain to be low-paid – the average gross wage "is the third lowest in the sector of agriculture, forestry and fishing, being a little less than 500 Euro in 2021 (after accommodation and food service activities – 430 Euro and administrative and support activities – 450 Euro)" (SSORNM, 2022b: 39).

All this is in line with the challenges of the agriculture in the RNM, for which to be overcome, a longer period of time and consistent efforts are necessary.

Agricultural Workers and COVID-19

While in the RNM, in the 2nd and 3rd quarter of 2020, the economy shrank by 9.1%, the production in agricultural sector rose by 4.6%, yet 20,776 jobs were nevertheless lost, "the working hours diminished by 28% and the salaries income by 16%. Subsequently, the agricultural workers were the most impacted by the COVID-19 crisis, while being the least protected by the governmental measures" (FT, 2021: 15–29).

This was the initial situation that especially affected informal workers, so soon enough, the government sought for solution, such as formalising some of the unpaid family workers as small farms.

During the state of emergency, declared due to the COVID-crisis, the Macedonian government issued 250 decrees with

the force of law (DFL) for the purpose of dealing with the pandemic, primarily involving special economic measures, then also more general, substantial fiscal and procedural issues, as well as monetary, budgetary and other financial issues. DFLs regarding the private sector were adopted, covering contract relations, firms, bankruptcy and liquidation, and some of these pertained to the aid to and regulation of the status of agricultural workers. There were many DFLs that regulated agriculture specifically, but also other sectors such as tourism, transport, construction, infrastructure, water supply, energy supply, sport, culture and others. Some of the DFLs regulating various social policies referred to agricultural workers – they entailed child care, minimal wage, social security, employment and insurance in case of unemployment, labour relations, health, pension and disability insurance, compulsory social security, employment and pensions of persons with disabilities.

In October 2020, the Assembly adopted the reprogrammed state Budget for 2020, according to which all the expenditure items were changed compliant to the fourth set of governmental measures for dealing with the pandemic. Just illustratively, the P1 measures envisaged financial support for many categories, including grapevine and wine producers of (Amended Budget of RNM 2020).

"At the end of December the Budget of RNM for 2021 was adopted. This is a very specific budget, accommodated to the pandemic, addressing all key challenges (Budget of RNM, 2020). *Inter alia*, the informal workers were enabled a fast-track entering into the system of guaranteed minimal aid" (Tumanoska et al., 2021: 62–64). So, despite the fact that farmers, but especially informal agricultural workers, were the most impacted by the pandemic, the intensive institutional and budgetary endeavours lead to introducing of permanent legal opportunities for regulation of precariat.

However, besides the mitigation policies addressing effects of the pandemic, structural changes needed to be adopted towards making the labour market safer, more just and more effective in case of future crises (Tumanoska et al., 2021).

Conclusion

Agriculture is a specific sector, more dependable on climate and biochemical changes than any other. Agricultural activity is simultaneously directly linked to environmental protection, sustainable natural resources' management, security and quality of food, as well as the socio-economic stability of a significant category of persons. Therefore, constant and consistent public interventions and good policy-making are necessary.

Since the circumstances regarding agricultural work and sustainable production are influenced by several state policies, their legal embedding and implementation, as well as the capacities and functioning of the central and local governments (while lately the COVID-crisis also played a role), the conclusion is complex.

Macedonian agricultural policy, and hence the farmers, are still facing structural challenges concerning environmental, social and economic aspects. Namely, Macedonian farmers still practice extensive agriculture, without substantial step towards modernization; they function within small, fragmented areas of cultivation, and they subsequently face low productivity. They also possess lower level of professional training, both regarding new technologies and usage of available financial policy instruments. The state land management is suboptimal, the irrigation reduced, obsolete and not reconstructed, while the products' placement is *ad hoc* and on a smaller scale. There are also transport-related issues.

Despite these deep issues, the Macedonian state's endeavours regarding agricultural support since 2007, but especially in recent years, have provided a significant normative basis for multiple measures, instruments and institutions, substantial funding within the realm of possibilities of a medium-developed country, and consequently the production has grown, farmers have dominantly kept their jobs and income, while small progress was also made in organic farming. This is an improvement compared to the previous situation and especially considering the low starting point of the Macedonian agriculture.

As regards the status and possibilities for economic activity of agricultural workers, in addition to agricultural policy, more policies and measures are relevant, such as those dealing with labour

relations, social protection, rural development, fiscal policies and local government, most of which are legislatively well-designed to protect the social and economic status of agricultural workers. Additionally, most of the measures with financial implications are stable in their implementation, even though workers could benefit from simplified application procedures and additional cost-free trainings.

However, despite enjoying the rights stemming from the social character of the state, agricultural workers face the great challenge of diminished accessibility to various public services (health, education, social security), remain low-paid, with a significant part of the working force in agriculture deemed as informal, which cumulatively with the demanding agricultural work, leads to a lower quality of life. These circumstances were accentuated during the COVID-crisis, but on the positive side, the pandemic instigated legal solutions for fast labour formalization and covering by the system of guaranteed minimal aid.

Per the ensuing period, it is necessary to persist with the recent policy endeavours, and continue funding, but with the overall perspectives regarding possibilities of modernization of the production and encompassing environmental sustainability in the production process. Since the Macedonian funding is limited in this sense, a greater perspective is expected with the deeper involvement with the EU. Continuous harmonization with EU practices is evidently beneficial for Macedonian agriculture. Also, investments in infrastructure, and dominantly in transport, would increase the potentials for this sector, while new forms of associations among farmers, with the goal of homogenizing the land cultivated, should be supported, both legally and financially. Greater control over the exercising of labour rights should be made, as well as continuous efforts regarding formalization of informal workers and ensuring permanent security opportunities for the precarious workers in agriculture.

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The Role of Agriculture in Achieving the Objectives of the European Green Deal*

Abstract

The European Green Deal as a new EU strategy aiming to reach no net emissions of greenhouse gases (GHG) by 2050, as well as economic growth which is not tied to resource use, while leaving no person or place behind, was presented and adopted right at the beginning of the spread of the COVID-19 virus. Despite the obstacles, new strategies and laws were adopted during the pandemic years. Reaching the objectives of the Green Deal requires various changes in different sectors. One sector that has a significant role in achieving those goals is agriculture. This research focuses on the special role of agriculture within the European Green Deal and how agricultural production and farmers can contribute to the achievement of the European Green Deal objectives. In this context the Farm to Fork Strategy and EU Biodiversity Strategy for 2030 were analyzed. Special focus was set on the correlation between those strategies, the European Green Deal and new Common Agricultural Policy for the period 2023–2027.
Keywords: European Green Deal, Farm to Fork Strategy, EU Biodiversity Strategy for 2030, Common Agricultural Policy, Climate change

Introduction

Climate change and environmental issues are some of the main challenges that the world has been facing. Rising temperatures and global warming have been affecting various sectors, including agriculture, which is already combating negative consequences. The necessity for global action was recognized in 1992 by the United Nations Framework Convention on Climate Change, as well as the Kyoto Protocol in 1997. Unfortunately, the goals of

* This paper was written as part of the 2024 Research Program of the Institute of Social Sciences with the support of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia.

these agreements have not been fully achieved at the global level in the past two decades (Rosen, 2015). The new international agreement on climate change was signed in Paris in 2015, setting the long-term goal to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" (Paris Agreement 2015, Art. 2). Achieving climate change mitigation and adaptation goals while pursuing economic growth and development has been challenging for most countries.

The European Union approached this challenge through the European Green Deal, aiming to find the balance between climate and environmental requirements, and sustainable growth. As a new growth strategy, the European Green Deal was presented on December 11, 2019. The European Parliament adopted the resolution on the European Green Deal on January 15, 2020. Some of the main goals are to reach no net emissions of greenhouse gases (GHG) by 2050, to reach economic growth which is not tied to resource use while leaving no one behind (sustainable and inclusive growth), to protect, conserve and enhance natural capital, and to protect citizens' health and wellbeing from environmental risks (The European Green Deal, 2019). In parallel with the changes and the beginning of work on the new goals and strategies, the spread of the Covid-19 virus began, which brought the world into the state of pandemic and emergency (Nikolić Popadić, Milenković & Sjeničić, 2021: 230). This new situation threatened to slow down and stop the work on pursuing the Green Deal goals. However, despite the pandemic challenges, the adoption of strategies and regulations for achieving those objectives continued. The Covid-19 pandemic did not hinder the plans regarding the European Green Deal, it actually opened up a possibility to use it as an exit and recovery strategy (Bongardt & Torres, 2021: 177– 179). The Next Generation EU pandemic recovery fund, which is directed toward green, digital and resilient Europe, has been contributing to achieving the Green Deal goals (see: European Commission, 2020).

The European Green Deal covers different fields grouped in the following policy areas: EU's climate ambition for 2030 and 2050; clean, affordable, and secure energy supply; mobilization of the industry for a clean and circular economy; shift to sustainable and smart mobility; fair, healthy and environmentally-friendly food

system; preservation and restoration of ecosystems and biodiversity; zero pollution ambition, toxic-free environment (The European Green Deal, 2019). All these policy areas are interlinked and should be transformed in order to achieve prescribed goals. The field that has a significant role in achieving the objectives of the Green Deal is agriculture. It permeates several policy areas. This research focuses on the special role of agriculture within the European Green Deal. How can agriculture (agricultural production and farmers) contribute to the achievement of the European Green Deal objectives? What is the role of the EU Common Agricultural Policy (CAP), and the correlation between CAP changes – a new CAP for the period 2023–2027 and the European Green Deal? Those are some of the main questions discussed in this paper.

Strategies that represent a further basis in the implementation of the Green Deal goals were adopted but a couple of months ago and they require a more detailed analysis. At the time when this research was conducted, the literature on the correlation between agricultural production and farmers, and the European Green Deal, the Farm to Fork Strategy and the EU Biodiversity Strategy, was scarce. It was focusing mainly on the CAP changes and the European Green Deal. With this research, we would like to contribute to the literature in this field and bring to light the importance and role of agricultural production and farmers, which sometimes seems to be forgotten. They are core subjects who work on the concrete application and implementation of measures, and it is necessary to emphasize the importance they have in the achievement of the Green Deal goals. It should also be noted that their position and practices will have to go through a transition and change in line with these new objectives and they will need significant support in that process.

The European Green Deal and Agriculture

Agriculture has an important role in achieving the goals set out in the European Green Deal. Limiting global warming to 1.5C, achieving no net emissions of greenhouse gases (GHG) by 2050, transition to a climate-neutral society, and preventing excessive biodiversity loss (European Green Deal, 2019) are some of the goals

that agriculture can make a significant contribution to. Its importance is recognized in the European Parliament resolution of 15 January 2020 on the European Green Deal (2019/2956/RSP) stating that "sustainable agriculture and farmers will play an important role in tackling the challenges of the European Green Deal." European agriculture has the "potential to contribute to climate action, the circular economy and enhanced biodiversity and to promote the sustainable use of renewable raw materials" (The European Green Deal, 2019).

The correlation between the climate change objectives of the European Green Deal and agriculture can be viewed and analyzed from several aspects. On the one hand, activities within agricultural production contribute to climate change, which means that the agricultural sector can have a significant role as a climate change mitigation factor. A large proportion of greenhouse gases (GHG) emission, which is an important factor in keeping global warming within the 1.5°C limit (IPCC, 2018: 33), are coming from agriculture. It is estimated that around 20% of GHG emissions globally are from agriculture (Ekardt et al., 2018). In the European Union, that percentage is lower, and is around 10% (Agovino et al., 2019: 7). Agriculture is also responsible for primary PM10 emissions, being the third largest source of those emissions in the European Union (Farm to Fork Strategy, 2021; Guerreiro et al., 2014). A significant part of harmful emissions comes from livestock, the use of mineral fertilizers, and other activities in agricultural production, such as deep plowing of the soil (Ekardt et al., 2018; European Environment Agency, 2019: 40; González-Sánchez et al., 2017). On the other hand, agricultural production is significantly affected by climate change and there is a necessity for climate change adaptation measures in this sector. A decrease in yield on the global level influenced by climate change is already taking place and will be also a challenge for the future (Lobell, Schlenker & Costa-Roberts, 2011; Field et al., 2014). Agriculture has an important role in preserving biodiversity and preventing its loss. Different agricultural practices lead to deterioration of the land, while excessive use of fertilizers and pesticides cause water pollution and various negative effects on ecosystems (Nikolić Popadić, 2020: 90–91, 96–97). Loss of biodiversity significantly affects agricultural production

(see part 2.2). Therefore, changes in agricultural practices are necessary.

In this context, one should be reminded of the fact that agriculture and food production involves the employment of a relatively large number of people who can also be affected by the consequences of climate change. As indicated in the Statistical Yearbook of the Food and Agriculture Organization of the United Nations, agriculture is the second largest source of employment on the global level, with 27% of the global workforce being employed in this sector in 2019 (FAO, 2020: 4). In Europe, this number is much lower, with only 5.3% of the employees working in agriculture (FAO, 2020: 5).

The main role of agricultural production and farmers within the Green Deal is concretized in two strategies, the Farm to Fork Strategy and the Biodiversity Strategy, which will be analyzed in the following pages.

The Farm to Fork Strategy

One of the aims of the European Green Deal is to design a fair, healthy and environmentally friendly food system. The basis for reaching that goal was set within the Farm to Fork Strategy, which was presented by the European Commission in May 2020. The European Parliament adopted a resolution on a farm to fork strategy for a fair, healthy and environmentally-friendly food system (2020/2260(INI)) on 20 October 2021. As it was adopted during the Covid-19 pandemics, the resolution reflects on that situation stating that the pandemic has shown the importance of food security and the necessity for a "sustainable and resilient food system that functions in all circumstances" (Farm to Fork Strategy, 2021: 56). It is emphasized that the Covid-19 pandemic should be used as an opportunity to build that kind of system (Farm to Fork Strategy, 2021: 56).

The Farm to Fork Strategy is one of the main actions within the European Green Deal. In the European Parliament resolution, it is emphasized that it is important to "ensure coherence between the farm to fork strategy and the objectives of the European Green Deal, including on climate, biodiversity, zero pollution and health"

(Farm to Fork Strategy, 2021: 8). Some of the primary objectives of the Farm to Fork Strategy are "ensuring sustainable food production; ensuring food security; stimulating sustainable food processing, wholesale, retail, hospitality and food services practices; promoting sustainable food consumption and facilitating the shift to healthy, sustainable diets; reducing food loss and waste; combating food fraud along the food supply chain" (Farm to Fork Strategy, 2020).

The strategy recognizes and emphasizes some of the main roles of farmers in reaching both the Green Deal and Farm to Fork Strategy goals, especially when it comes to the way of use of agricultural land. Agricultural production and land use would be in the focus of our analysis, having in mind the topic of this research, although the strategy covers a wider range of topics. The initial Farm to Fork Strategy, i.e. the Communication from the Commission to the European Parliament, was structured in a way that was easy to follow, focusing on the six objectives which were mentioned above. In the analysis of the Farm to Fork Strategy on the following pages, we used the European Parliament Resolution, which was a much more complex and longer document with thematic overlaps throughout. Topics are repeated in the resolution in an inconsistent way which makes it hard to follow as some goals and necessary changes in certain fields appear as examples at the beginning of the document, then again in the middle and at the end, with quite different topics in between. We tried to summarize the provisions that are dealing with the topic of interest (which are relevant for this research), so that we could analyze them and provide an answer to the question pertaining to the role of agriculture in achieving the Green Deal and Farm to Fork Strategy goals.

As in the European Green Deal, the issues of climate change are also in the focus of the Farm to Fork Strategy. It is particularly emphasized that agriculture has important role in the process of adaptation to the climate change and its mitigation. Agricultural production has a significant impact on land use and soil quality. As already mentioned at the beginning of this research, agriculture is responsible for GHG emissions which in turn contribute to climate change. It is important to reduce those emissions in order to support the achievement of the Paris Agreement goals (Farm to Fork

Strategy, 2021: 21). There is a "need and potential to maintain, restore and enhance natural carbon sinks and reduce agricultural emissions of carbon dioxide, methane and nitrous oxide, in particular in the feed and livestock sectors as well as the organic and mineral fertilizer sector" (Farm to Fork Strategy, 2021: 21). In the resolution, European Parliament calls for the "appropriate and tailored regulatory measures and targets for emissions from agriculture and related land use as part of the 'fit for 55' package to ensure ambitious reductions of all GHG emissions in these sectors" (Farm to Fork Strategy, 2021: 21).

The necessity for a change towards sustainable farming and sustainable management of natural resources is emphasized in the Farm to Fork Strategy (Farm to Fork Strategy, 2021: 6). Changes in agricultural practices are crucial, especially when it comes to the risks associated with the use of pesticides, such as environmental pollution, harmful effects of its use on bees and other pollinators, etc. Reduction in pesticide dependency is linked to integrated pest management – the practice which should be applied by agricultural producers (Nikolić Popadić, 2020: 43). Having in mind the struggles with its' implementation in the previous period (Nikolić Popadić, 2020: 44), the role of Member States in this process is emphasized again, especially regarding the conversion of general principles of these measures into practical criteria which can be measurable at the farm level (Farm to Fork Strategy, 2021: 10). It is concluded that the regulation of pesticide approval and implementation has to be improved, especially the environmental risk assessment process (Farm to Fork Strategy, 2021: 11). The European Commission has committed to promote "the global phasing out of pesticides no longer approved in the EU" (Farm to Fork Strategy, 2021: 125). Besides the changes in pesticides use, it is necessary to transform the practice of fertilizer consumption. The legally binding initiatives are required and the measures that will help agricultural producers to improve nutrient management (Farm to Fork Strategy, 2021: 14). Agroecological practices, smart farming, precision farming, targeted fertilization, and nature-based solutions would be beneficial for soil quality and biodiversity. These practices will contribute to the reduction of excessive and inefficient fertilization and will reduce dependency on mineral fertilizers, lessening negative effects on

the climate and the environment (Farm to Fork Strategy, 2021: 14). The benefits of organic farming and the need to increase the area of agricultural land under organic production are also recognized in the strategy (Farm to Fork Strategy, 2021: 30). The promotion of sustainable agro-forestry is important as well, as it can contribute to climate objectives, biodiversity, diversification, and circularity (Farm to Fork Strategy, 2021: 48). The strategy emphasizes the importance of support for agricultural producers who are in transition towards sustainable forms of agricultural production (Farm to Fork Strategy, 2021: 23). The additional rewards for farmers who are applying good agricultural practices, and those who deliver climate and environmental benefits, are also suggested in the strategy (Farm to Fork Strategy, 2021: 31).

Besides the concrete measures that are applied in the process of agricultural production, adaptation to changed climatic conditions can be tackled through sowing different plant varieties which are adapted to the climate change pressures. The strategy suggests that these should be traditional and locally-adapted varieties (Farm to Fork Strategy, 2021: 32). Along with that, emphasis should also be on the implementation of "new smart-farming technologies and techniques", digitalization, and innovations that are compatible with traditional practices and which can contribute to efficiency, "environmental sustainability, and can deliver positive economic benefits from agricultural production" (Farm to Fork Strategy, 2021: 109, 115).

As farmers have an important role in the achievement of the Green Deal and Farm to fork strategy goals it is necessary to support the transfer of knowledge and exchange of experiences, to increase collaboration between different stakeholders and provide training for agricultural producers, especially young farmers, as well as to provide independent farm advisory services (Farm to Fork Strategy, 2021: 110, 116, 117). All that would contribute to the transition prescribed by the European Green Deal.

It is important to emphasize that the strategy recognizes the significance of the agricultural land, as it forms the basis for fulfilling the goals of the Farm to Fork Strategy. Food security depends on healthy soil and it is necessary to prevent further degradation of this natural resource, which is under increasing pressure. Therefore,

it is necessary to adopt a new soil strategy (Farm to Fork Strategy, 2021: 43). "Agricultural land is limited and hence must be used efficiently" (Farm to Fork Strategy, 2021: 45).

EU Biodiversity Strategy for 2030

Another strategy that represents one of the main initiatives of the European Green Deal is the *EU Biodiversity Strategy for 2030: Bringing nature back into our lives*, which was proposed by the European Commission in May 2020. The European Parliament adopted the resolution on the EU Biodiversity Strategy for 2030: Bringing nature back into our lives (2020/2273(INI)) a year later, on 9 June 2021. This strategy aims, among other things, to achieve the European Green Deal objective of avoiding the massive loss of biodiversity and restore it. As it was also proposed during the Covid-19 pandemics, the strategy reflected on that situation and circumstances. On one hand, the Covid-19 pandemics made the necessity of protecting nature even more urgent, while on the other, nature protection and recovery would be "critical for Europe's economic recovery" from the pandemic crisis (EU Biodiversity Strategy, 2020). "The European Green Deal – the EU's growth strategy – will be the compass for our recovery, ensuring that the economy serves people and society and gives back to nature more than it takes away… Over half of global GDP depends on nature and the services it provides, with three key economic sectors – construction, agriculture, and food and drink – all highly dependent on it. Biodiversity conservation has potential direct economic benefits for many sectors of the economy." (EU Biodiversity Strategy, 2020; World Economic Forum, 2020: 8).

In the analysis of the European Parliament resolution on the EU Biodiversity Strategy for 2030, we also focused on the role of agriculture in achieving the objectives of this strategy and the Green Deal goals. It is emphasized that agriculture has an important role in contributing "to the protection and restoration of biodiversity" (EU Biodiversity Strategy, 2021: 55). Agriculture and biodiversity are interdependent. Biodiversity is essential for agricultural production and food security. The fact that more than 75% of the global food crop types depend on animal pollination shows how great

this connection is (IPBES, 2019). Farmers are among the first to see the consequences of biodiversity loss. Their practices contribute to the loss of biodiversity, but they can also contribute to its preservation (EU Biodiversity Strategy, 2020). Therefore, the role of farmers in the implementation of this strategy and its objectives is crucial (EU Biodiversity Strategy, 2021: 54).

In the resolution, the European Parliament expressed concern about the significant decline in the farmland biodiversity. One of the examples that illustrate the worrying situation is the fact that populations of farmland birds have declined by 34% since 1990 and the number of grassland butterflies declined by 39% (European Court of Auditors, 2020, 7, 8; European Environment Agency, 2019: 83). Some of the main causes of biodiversity loss are "fragmentation and degradation of natural ecosystems due to agricultural intensification", land abandonment, "intensive forest management and urban sprawl" (EU Biodiversity Strategy, 2021; European Environment Agency, 2019: 83).

Just like the Farm to Fork Strategy, the EU Biodiversity Strategy emphasizes the necessity for the implementation of agricultural measures that are less harmful and damaging to the land, as healthy and fertile soil is vital for agricultural production (EU Biodiversity Strategy, 2021: 46). Agriculture should be transformed so as to be sustainable, and to enhance the restoration of biodiversity and its protection (EU Biodiversity Strategy, 2021: 55). There are several targets that are set in the strategy which should contribute to biodiversity conservation and improvement, as well as to the achievement of other Green Deal goals. One of them is an increase in organic production so that at least 25% of agricultural land should be brought under organic management by 2030 (EU Biodiversity Strategy, 2021: 52, 58). A minimum of 10% of agricultural land should consist of "high-diversity landscape features" which should "provide ecological connectivity for habitats across and in between farmed landscapes" (EU Biodiversity Strategy, 2021: 52). Fertilizer use should be reduced by 20% by 2030, and nutrient loss from fertilizers by 50% (EU Biodiversity Strategy, 2021: 114). Reductions of 50% are also necessary when it comes to pesticide use, especially when it comes to more hazardous and chemical pesticides (EU Biodiversity Strategy, 2021: 114).

All these targets should be set in legislation. European Commission should determine, together with Member States, the baseline for those targets, as well as contributions for each state, according to their different positions and circumstances (EU Biodiversity Strategy, 2021: 114–115). A significant part of the strategy related to pollution problems is dedicated to the issue of pesticide use. Special attention is paid to the procedure of authorizing pesticides (EU Biodiversity Strategy, 2021: 117–121). In that regard, it is important to stress that the European Parliament "opposes the reauthorization of the active substance glyphosate after 31 December 2022, calls on all Member States to carry out the relevant preparatory work to provide all farmers with viable alternative solutions after the ban of glyphosate" (EU Biodiversity Strategy, 2021: 116). This statement is very important, having in mind problems and challenges related to glyphosate approval in previous years (Nikolić Popadić, 2020: 45–46). Achieving the goal of reduction in use of pesticides and fertilizers requires a change in farmers' practices (Nikolić Popadić, 2020: 102). Same as in the Farm to Fork Strategy, the Biodiversity Strategy encourages agro-ecology, implementation of integrated pest management, crop rotation, precision agriculture, etc. (EU Biodiversity Strategy, 2021: 120–124). In order to succeed and achieve the reduction goals, farmers need more varieties of alternative and environmentally friendly crop protection methods. In that regard, agricultural innovation, digitalization and new technologies play an important role (EU Biodiversity Strategy, 2021: 125, 148). Preservation of local genetic resources and genetic variability, instead of a limited number of varieties of agricultural crops which are now represented in agricultural production, is necessary for the diversity of agricultural ecosystems and for combating climate and environmental challenges (EU Biodiversity Strategy, 2021: 67). As in the Farm to Fork Strategy, it is emphasized that agricultural producers need support in this transition, through knowledge transfer, education, advisory services, financial support, etc. (EU Biodiversity Strategy, 2021: 56, 126).

From the previous analysis, we can conclude that the objectives and suggested measures in the EU Biodiversity Strategy are quite similar, and some even identical, as those in the Farm to Fork Strategy.

The EU Common Agricultural Policy (CAP)

The Common Agricultural Policy (CAP) has a vital role in the achievement of the European Green Deal objectives and implementation of the Farm to Fork Strategy and EU Biodiversity Strategy. The CAP should link all objectives analyzed in the previous sections, for the achievement of which the agricultural sector is the key, and accordingly direct the further action of Member States and farmers. Within the Resolution on the European Green Deal it is emphasized that the CAP should be in line with the European Union's climate and biodiversity ambitions (The European Green Deal, 2019). The CAP measures should support farmers to provide more environmental and climate benefits (The European Green Deal, 2019). When the European Green Deal was presented, the CAP was going through the process of reform as the CAP for the 2014–2020 period was about to expire. The first guidelines for the CAP after 2020 were presented in December 2017, and discussions followed in 2018 (European Council, 2021). The proposal for the new CAP for the period 2023–2027 was already made two years before the European Green Deal. After the presentation of the European Green Deal in December 2019 and the adoption of the resolution in January 2020, different analyses has shown that the CAP would not be able to completely meet European Green Deal ambitions and that there was a need for a change (Guyomard, Bureau et al., 2020). The process of the CAP reform was prolonged. The new CAP was adopted on 2 December 2021, with its implementation planned from 1 January 2023.

The CAP is a complex system based on two pillars. Due to the limited scope and subject matter of this paper, we will not present an analysis of the CAP reform as a whole, but we will focus on the most significant changes in the context of achieving the Green Deal goals and some of the key roles of agricultural production and farmers, especially when it comes to climate and environmental issues.

Compared to the CAP for the previous period, the new one has an increased ambition regarding environmental goals and climate-related objectives. Implementation of the new CAP will be based on the strategic plans of Member States. These plans have to accommodate particular needs of each state. The European Commission is responsible for assessing whether "the EU countries'

CAP strategic plans contribute to, and are consistent with, EU legislation and commitments in relation to climate and the environment, including those laid out in the Farm to Fork and Biodiversity strategies" (European Commission, 2021). In this context, it should be mentioned that in the resolution on the European Green Deal and both previously analyzed strategies, CAP was quite often mentioned as a necessary tool for implementation and achievement of the prescribed goals. In the Resolution on the European Green Deal, the European Parliament called "for a sustainable CAP which actively supports farmers and encourages them, through its measures, to deliver more environmental and climate benefits and to manage volatility and crises in a better way… stresses that CAP strategic plans must fully reflect the ambition of the European Green Deal, and calls on the Commission to be firm on this point in its assessment of the strategic plans, and especially to verify the ambition and effectiveness of the Member States' eco-schemes and closely monitor the results of their implementation; stresses the importance within the New Delivery Model of a results-based and targeted approach with greater simplification and transparency about concrete deliverables and added value objectives" (European Green Deal, 2020: 58). Similar statement was made in the Resolution on Farm to Fork Strategy, where the European Parliament "calls on the Commission to only approve CAP national strategic plans which clearly demonstrate a commitment to sustainability from the economic, environmental and social perspectives and are in line with the objectives of the European Green Deal, the relevant EU-wide targets and the Paris Agreement" (Farm to Fork Strategy, 2021: 41). The EU Biodiversity Strategy also refers to CAP national strategic plans. It implies that the CAP national strategic plans should implement objectives of both strategies and that Member States should set "ambitious baselines for sustainability and biodiversity when establishing conditionality standards and to ensure the ambitious and prompt development and uptake of measures, in particular eco-schemes and agri-environment-climate measures" (EU Biodiversity strategy, 2021: 63). National strategic plans should integrate "measures with regard to high diversity landscape features" (EU Biodiversity strategy, 2021: 64, 69).

The guidelines for the CAP Strategic Plans were given in the "Regulation (EU) 2021/2115 of the European Parliament and of the

Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013". The novelty in this new CAP is a system of conditionality that should be part of the CAP Strategic Plans. Under that system, the farmers and beneficiaries who are receiving direct payments or annual payments are subject to administrative penalties "if they do not comply with the legal requirements for management under Union law and standards of good agricultural and environmental conditions of land which are set out in the CAP strategic plans", and which are related to "climate and environment, including water, soil and ecosystem biodiversity; public and plant health; animal welfare" (European Parliament, 2021, art. 12). In the previous CAP for the 2014–2020 period, noncompliance with the requirements would result in a reduction of CAP payments, and administrative penalties were not prescribed. In the new CAP, Member States have to determine "minimum standards for good agricultural and environmental" conditions of land at the national or regional level. According to the Annex III of Regulation 2021/2115. Some of the necessary measures which should protect soil are: minimum soil cover, crop rotation on land parcels at least once a year (with some exceptions), tillage management, etc. For the protection of biodiversity, minimum 4 % of arable land at the farm level should be devoted to "non-productive areas and features, including land lying fallow" (with some exemptions) on farms that have at least 10 hectares (European Parliament, 2021, Annex III). Buffer stripes should be established along the watercourses, and the minimum width of 3 meters without pesticides and fertilizers use should be respected (European Parliament, 2021, Annex III). Those are some of the measures that should be applied. When defining standards at the national and local levels, Member States should take care of the characteristics of the soil, climate, farm size, farm practice, etc. (European Parliament, 2021, art. 13).

The CAP 2023–2027 will have, within the first pillar, schemes for the climate, environment and animal welfare, so-called eco-schemes. They should be established also within CAP Strategic

Plans, while Member States should define the list of agricultural practices which should be beneficial for the climate, environment and animal welfare (European Parliament, 2021, art. 31). The resolution has a list of areas, among which at least two should be covered by each eco-scheme. Some of them are climate change mitigation, reduction of GHG from agriculture, climate change adaptation, protection of water quality, prevention of soil degradation, improvement of soil fertility, protection of biodiversity, sustainable and reduced use of pesticides, etc. (European Parliament, 2021, art. 31). All these commitments should go beyond the minimums prescribed by the relevant statutory management requirements and the good agricultural and environmental conditions of land, and should be different from agri-environment-climate commitments. The eco-schemes are voluntarily for farmers. There are additional payments which are compensating farmers for additional costs and foregone income caused by the commitments they made (European Parliament, 2021, art. 31; Albrecht & Nikolić Popadić, 2022: 45–46; Michel, 2020).

Support for the climate, environment and animal welfare is also available within the CAP's second pillar – rural development. Member States should include "agri-environment-climate commitments in their CAP Strategic Plans". This is a voluntarily measure, within which farmers should receive payments for commitments that go beyond minimum requirements "for good agricultural and environmental conditions of the land, beyond minimum standards for the use of fertilizer, plant protection products, or for animal welfare, or other statutory requirements" (European Parliament, 2021, art. 70). These commitments should be different from those undertaken under the eco-scheme, and they should last for 5 to 7 years, but the exemptions in length are possible (European Parliament, 2021, art. 70).

The previously analyzed measures are part of the new green architecture of the CAP. The change from the green architecture of the CAP 2014–2020, which was based on a system of cross-compliance, greening and agri-environmental climate measures, to the CAP 2023–2027 system of enhanced conditionality, eco-schemes and agri-environmental climate measures, aims to contribute to the Green Deal objectives.

Discussion

From the analysis of the European Green Deal aims and goals, Farm to Fork Strategy and the EU Biodiversity strategy, we can conclude that there is a coherence between these strategies in terms of objectives and the direction in which it is necessary to act in order to achieve them. Quite general and broadly set objectives dominate the strategies, except for the goals related to the reduction in the use of pesticides and fertilizers. There is a significant overlap between the two strategies when it comes to the role of agriculture and the activities of agricultural producers. The general necessity for a change in agricultural production is emphasized in both of them, while the proposed changes are quite similar. It is important to mention that, although quite general in terms of measures that should be taken regarding agricultural production, both strategies are very significant, as they finally highlighted the place, role, and importance of agricultural production, given that thus far, the importance of agricultural production has been mainly discussed in the context of the CAP. The strategies provide merely a basis for the next steps, i.e. they have set up the framework for further action. Finding ways and implementing the measures envisaged by these strategies are yet to come. In this sense, it is very important to take into account the coherence of activities based on these strategies, as they should complement each other. It is necessary for the measures and activities that agricultural producers need to implement to be as concrete as possible, with clear guidelines and measurable results, in order to avoid these strategies remaining only as a general guidelines for a change, but without achieving concrete effects.

The European Green Deal and the strategies rely significantly on the CAP in terms of the implementation of concrete measures. The new CAP has tried to make a shift towards the results-based approach. The change in green architecture is aiming to contribute to climate and environmental goals. However, some concerns have been expressed, questioning the success of such a system, especially in view of the experience of the previous CAP period. The green components of the CAP for 2014–2020 proved to be ineffective. There were changes in farming practices in only 5%

of the farmland in the EU (European Court of auditors, 2017: 6). Some of the suggestions of the European Court of Auditors for the new CAP regarding the greening component were accepted in the Regulation (EU) 2021/2115, such as penalties for non-compliance, "funding reflecting an assessment of the average costs incurred and income foregone", taking care of specific local environmental and climate-related needs, etc. (European Court of auditors, 2017; European Parliament, 2021). The new CAP relies significantly on the CAP Strategic Plans of the Member States, giving them an important role. That should have some positive effects, since Member States have a better insight into the situation and needs in their respective countries, so goals and measures can be better adapted to the local needs. The adoption and implementation of CAP Strategic Plans will play a key role in achieving environmental and climate goals. Therefore, prescribing and applying measures that should contribute to the goals of the Green Deal are largely in the hands of the states.

Conclusion

The European Green Deal has set ambitious goals that will require joint and coordinated action by different sectors. Although it was adopted during the Covid-19 pandemic, that did not prevent further work on the adoption of strategies and regulations that enable the realization of the envisaged goals, where the pandemic was used as a driver of change and turning to a new beginning.

From the results of this research, we can conclude that agricultural production and farmers have a very important role in achieving the goals of the Green Deal. They are key subjects who apply concrete measures, and their actions can make a shift towards different goals, especially regarding climate change, environmental and biodiversity objectives. Reduction of GHG emissions, as well as reduction in the use of pesticides and fertilizers are dependent on agricultural practices. Food security also depends on agricultural producers. The roles and importance of agriculture are multiple and paramount. The Green Deal relies on agriculture and expects a lot from agricultural producers. Farmers should be among the key subjects who are the bearers of change. Therefore, it is necessary to help them in this transition. To change a multitude

of practices will require additional finances, while a change in the current conventional production can lead to a yield reduction which will in turn reflect on finances. Along the way, it is necessary to provide appropriate professional support, through various types of consultations, education, training, practical applications in the field, etc. The Common Agricultural Policy has an important role in supporting farmers and accomplishing the Green Deal goals. With the new CAP for 2023–2027 Member States will have a greater role in shaping and controlling the application of agricultural practices. Therefore, the systems in the countries should be adequately prepared for the upcoming changes and the implementation of the new policy from next year. Agriculture and agricultural producers will have a special role in the years to come, especially having in mind the prescribed targets for 2030 and 2050. This role should be recognized and supported on the global, national, and local levels.

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Legal Impact of the New Models of Doing Business Like Uber, Airbnb and Blockchain on Green Economy*

Abstract

Exploring the linkage between the green economy and new models of doing business like Uber, Airbnb and Blockchain is challenging, particularly having in mind the necessity for a deeper technology integration with an impact on achieving sustainable development goals. However, the authors argue the linkage between the green economy and these new models of doing business, considering their revolutionariness in terms of business decision-making and resource management. A basic impact and, therefore, a connection between these models of doing business and the green economy is in the consumption, as a consequence of optimal choices and coordination of consumers with the suppliers, as well as collaborative sharing economy.

Authors, firstly, analyse the legal status of the aforementioned models of doing business and, subsequently, their impact on the green economy. The authors concluded that decentralized process of decision-making, which is enabled through access to Internet (digital) platforms and resolved asymmetry of information, is a crucial factors in determining the new models of doing business in terms of the green economy transition.

Keywords: Uber, Airbnb, Blockchain, Information asymmetry, Green economy

Introduction

Having in mind the new models of doing business as Uber, Airbnb, Blockchain and others which are based on sharing economy, one might wonder if there is an impact of such models on the

* This paper was written as part of the 2024 Research Program of the Institute of Social Sciences with the support of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia.

green economy.[1] Precisely, if there is an enhancement of life and, in general, environmental conditions, due to a better way of concluding and performing contracts in business and civil law area?

The direct impact of legal institutes on the green economy has not been noticed, while indirect could be scientifically significant to analyse. In the case of Uber and Airbnb, as well as Blockchain and Distributed Ledger Systems, and also in other modes of concluding and performing contracts, the underlying idea lies in the faster and easier way of matching suppliers with the consumers. Given that, Uber, Airbnb and Blockchain could be considered as some kind of 'nontraditional intermediaries' not unlike stock exchange. That is because these models, so-called Internet or digital platforms, make circumstances in which they imitate the traditional stock exchange in the manner in which they collect and centre a lot of supply and demand, while they optimize the matching and choosing process among them. Also, Uber, Airbnb and Blockchain are not only markets where supply and demand meet, but also the organizers of their respective markets, just like the stock exchange.

More than 80% of the global GDP is generated in urban areas, while cities are also accountable for most of the energy consumption and pollution (Jovanović, Ostojić & Nikolić, 2023: 85). The basic impact of these 'evolving' business models on the green economy derives from the original definition of the green economy, determined as a process or a result of improving social well-being while, at the same time, significantly reducing environmental risks. The mere fact that new models of doing business are time-saving in their nature, and have influence on changing the manner of business decision-making (opting not to have ownership of the good, but use it only through different kinds of short forms of lease) could have a positive impact on mitigation of ecological risks. To be more precise, these models enhance the bypass process of contemporary consumer culture (actually, behaviour) which consists of constantly buying a lot of goods and services which are, on one hand, not necessary in a long term, and on the other, this produces a problem with an accumulation of unnecessary things.

[1] The concept of sharing economy is not a new one. It was presented after WWII, and it has been often considered the "best idea since Keynes" (Weityzman, 1984: 4).

Therefore, models of renting, leasing and chartering modified by special methods through Internet platforms have a result not only in the improvement of intermediary model, but also maximizing the efficient use of goods in an ecologically functioning environment.

In this article, the authors consider the new models of doing business such as Uber and Airbnb, as well as Blockchain and Distributed Ledger System, and their impact on the green economy. Specifically, the authors analyse the intermediary role of these new business models which, with the help of the Internet, creates a *sui generis* type of stock exchange.

Legal Status of Uber and Airbnb

Computer technologies have brought the new models of doing business especially in the sphere where many people are referred to each other in meeting their daily or periodical needs (Janković, 2020a: 279 BL). It is particularly highlighted in the transport and tourism industry. Uber and Airbnb are typical examples of new business models which have evolved from the combination of Internet and IT technologies.

As a company and idea of transporting people, Uber was founded in San Francisco, USA, in 2009. During the 2010s, it spread around the world. The fundamental concept of Uber lies in the sharing economy inherent to the mechanism of sharing the surplus of owned goods and services, having in mind the optimal satisfaction of own preferences. The same basic concept, is present, also, in Airbnb.[2] However, in the evolved concept of Uber and Airbnb, this original type of sharing surplus of goods and services of every person involved has transformed into the traditional way of doing business through the legal form of company (Janković, 2019: 402–404). Therefore, Uber and Airbnb have the legal status of companies, i.e. usually limited liability partnerships and rarely traditional joint-stock companies.

[2] Initially, the concept of sharing surplus of goods and services was not manifested through the company manner of doing business, or even any known legal form of it. These were just common people who were ready to share their goods and services to the extent they felt possible and appropriate (Sundararajan, 2016: 7–10).

Uber and Airbnb represent some kind of stock exchange because they serve as intermediaries between supply and demand for the transport and tourist services. They serve as an optimal matcher between many supplies and specific demands, collected by special computerized algorithms. To be legally precise, Uber (and, also Airbnb) serves not only as a technical, IT tool that matches many suppliers of transport services and many demanders (i.e. consumers), but also as a legal form for collecting both of these and arranging them in an appropriate way. Uber, therefore, having the role of the intermediary (as a sort of stock exchange), has, simultaneously, the role of a market and that of the market organizer.

Besides the aforementioned Uber's legal qualification of intermediary (which is also applicable to Airbnb), there are two additional legal qualifications, both in theory and in legal practice (especially before European courts).[3] First of them is the role of an immediate provider of transport and tourists services. According to that role, Uber acts as a typical, simple carrier, just like any taxi carrier, while Airbnb is a traditional hotelier who provides passenger with accommodation, meals and other similar services. The second is the role of Uber and Airbnb as mere organizers, but not immediate providers of tourist and transport services. This role is similar to the role of carrier in a freight forwarder contract, and to the role of tourist agency as part of a traditional contract of packet arrangement (Janković, 2020b: 205 PiP).

Finally, the opinion that Uber is a carrier (and consequently Airbnb is a classic tourist agency) prevailed in most of the world, based on the argument that these business models, have crucial control over the process of negotiating and performing the contract, and also, collecting the price (Janković, 2020a: 286–288). However, besides this prevailing opinion, we considered Uber and Airbnb not only from the legal perspective in this article, but also from the economical and, finally from the consumers' perspective, with the purpose to highlight the impact of these business models on the green economy.

[3] The basic legal problems concerning Uber in Europe sprung from the uncertainty for consumers which consisted of the lack of monitoring of drivers and vehicles, insurance, and process of licensing of potential drivers (Colagnelo & Zeno-Zencovich, 2019, 138).

The Impact of Uber and Airbnb on the Green Economy

The basic concept of the green economy which has been defined by the UNEP (United Nations Environment Programme) is viewed as a mutualism of the improvement of social welfare on the one side, and reduction of environmental risks and damages, on the other (Willis & Kirby, 2015: 19). More precisely, the green economy is the exploitation of the potentials of our planet in the accordance with ecological standards, which finally results in a reduction of the carbon emission (for example, in the transport sector resources, actually, net-zero transport) and pollution, while at the same time enhances energy and resource efficiency (Newton & Cantarello, 2014: 2–3). The authors argue that the green economy is not only an economic issue, but also requires a multidisciplinary approach to the subject.[4] Although, as it has already been mentioned that the green economy has a core meaning in the term of net-zero transport and, in general, is limited to the process of reducing the harmful gases etc., we have tackled the green economy from economic and legal perspective.

Uber, Airbnb, Blockchain and other Internet (digital) platforms are examples of self-organization in the current market, based on the ideas of the sharing economy and, in an indirect manner, of the green economy. The substantial impact of these internet platforms on the green economy consists of the idea of resolving information asymmetry which usually exists between demanders (i.e. consumers) and suppliers (Janković, 2020a: 279). These internet platforms solve the information asymmetry problem by making the process of concluding and performing the contracts between the two opposite sides – consumers and suppliers, easier and faster.

Reducing the time consumed for concluding and performing the contract via internet platforms is the first real impact to the green economy. It is an appropriate contribution to the concept

[4] Some scientists have deemed that the financial crisis from 2007 accelerated the process of actualization of the green economy, through promoting the positive opinion of the green economy as a concept to solve the many problems which caused the global economic crisis (Newton & Cantarello, 2014: 1–2).

of the green economy, having in mind the scope and generality of contracts concluded in this way. These contracts are derived from basic human needs such as transport, accommodation, food, banking services, etc. In the absence of these internet platforms, the process of contracting would remain long lasting (time consuming), making the information asymmetry a problem.[5]

As a consequence of the use of internet platforms, the general consumption is reduced, because the platforms, as particular markets, enable people to use goods and services more preferably and rationally.[6] This is self-evident in terms of the green economy, due to reduced consumption which, as such, reduces pollution in the general sense. Nowadays, in the era of the Coronavirus, these platforms serve as tools for remote concluding and, even performing the contracts, enabling daily human needs.

Legal Status of Blockchain

In a globalized world where environmental sustainability is a principal success factor, what is the role of the blockchain technology? (Parmentola et al., 2021: 1). By using a comparative legal approach, we analyse whether and how blockchain technology influenced environmental sustainability.

Blockchain is defined as a novel and fast-evolving approach to recording and sharing data across multiple data stores (or ledgers) (Parmentola et al., 2021: 2). One should be aware that blockchain technology works in the form of a distributed ledger system where data, used in communication or transactions, are stored in a publicly available network of digital blocks (Parmentola et al., 2021: 3). Blockchain, distributed ledger technologies and smart contracts, challenge traditional private-ordering beliefs (Kulms,

[5] The concept of sharing economy manifested in Uber and Airbnb, resolves not only the information asymmetry problem, but it also provides a system of trust between the consumers and suppliers, through the reputation scale of these virtual markets (Monakhov, Monakhov & Telny, 2021: 28–43).

[6] General consumption is reduced and became functional due to not only the classic concept of sharing economy, but also through a new economic paradigm based on collaborative consumption, which in the biggest degree impacts sustainable development, and in an indirect manner the green economy. More about collaborative consumption as an economic paradigm can be seen in (Iscan, 2020: 37 et seq).

2019: 307). This research analyses whether there is still space for law. The paper gains insights into a recent codification process conferring erga-omnes effects on the blockchain-related contracts and the values stored on electronic ledgers, having in mind that blockchain and distributed ledger technologies alter traditional business operations, finances, industries and public services (Kulms, 2019: 307). Business transactions could be carried out in 'real time' without the intervention of traditional intermediaries such as investment companies.

Blockchain technology has passed forth a new infrastructure for transmitting and storing data. Blockchain, which was first initiated in 2008 through Bitcoin, opens up multiple possibilities that will transform the contemporary business operations by authorizing business execution, including multiple services without a central authority or any particular participant. (Pinto e Netto & Menengola, 2021: 22). Blockchain works differently than the traditional data bases, as it does not have to be centrally maintained. The transactions to be executed are approved consensually, which means that no intermediary is involved in the process, as the network users themselves approve the transactions. One should be aware that blockchain technologies differ significantly from centralized networks, such as those used by the banking system, since in these cases, all transactions are processed and stored in a central server (Pinto e Netto & Menengola, 2021: 23). In distributed networks, each of the blocks, distributed among the users in a decentralized way, has a complete copy of the ledger, which is permanently updated by the network, so there is no need for a central authority. This may enable efficiency and lower the costs of companies and other organizations, by allowing faster transactions that are disseminated digitally across a number of different parties. Additional benefit of the blockchain technologies is that there is no need for a trusted third party to serve as an intermediary for the transactions, since everything occurs under the supervision of all the nodes that make up the network. A huge advantage of blockchain technology is the elimination of vulnerable central points (Pinto e Netto & Menengola, 2021: 23).

Blockchain and distributed ledger systems could be organised as permissionless or private networks. The software cannot

be openly downloaded for private, or permissioned blockchain and distributed ledger systems. Alternately, participants will have to require access, ordinarily from the organisers of the platform, by accepting the terms of operation, including validation and the standards of digital trading (Kulms, 2019: 309). Having in mind that private blockchain systems benefit from low verification costs, the costs of running trusted nodes still cannot be dispensed with (Catalini & Gans, 2019: 12). The international finance community has begun to estimate the perspective of permissioned blockchains. The permissioned blockchain systems are thought to be assuring a high degree of compliance with local regulatory interventions, since the 'gatekeeper' of the permissioned system normally has to apply for a licence from local capital market authorities (Kulms, 2019: 310).

Blockchains, digital assets and smart securities generate both positive and negative externalities. Also, blockchain and distributed ledger technologies are progressively being seen as a way for the derivatives industry to realise operational efficiencies and cut costs (ISDA Linklaters, 2017: 3). Notwithstanding, legislators appear to have decided not to interfere with digitisation in the making. "A regulatory sandbox approach or supportive blockchain statutes are recommended as an element of regulatory competition to attract business" (Kulms, 2019: 311).

It should be noted that blockchain is a technology that could be used for any modification in ownership and keeping of significant information and documents such as licences, certificates and government decisions (Ølnes et al., 2017: 355). It can be implemented in the blockchain operations of the registration of property, copyright, identity, votes and smart contracts, i.e. the performance automation of the contracts that can only be executed when the pre-specified conditions are fulfilled, eliminating a third party (Kewell et al., 2017: 429). However, blockchain technologies are in the nascent stage, and there is still a lack of agreement on what a smart contract is, what role it can play in the derivatives market, and how it might interact with the existing legal rules and standards (ISDA Linklaters, 2017: 3).

As smart contracts and artificial intelligence are beginning to integrate with blockchain technology, scholars concentrates on how the assertion that 'code is law' can be reconciled with

traditional notions of offer and acceptance. The question is how assets can be stored digitally and whether they produce erga-omnes effects. Once recognised as a 'thing', a piece of property, digital assets could be traded like any other commodities (Kulms, 2019: 311).

Blockchain ledgers do not have a specific location for each transaction, so each node potentially could be located in a different country. In that sense, it is not clear whose jurisdiction a blockchain might fall under. In terms of legal disputes, deciding which laws could be enforced and which courts have the right to decide on the matters will be challenging (Herweijer, Waughray & Warren, 2018: 23). In addition, except legal and regulatory issues, there are logistical and cultural issues that are yet to be solved to clear the path for extensive usage of the blockchain technology (Hughes et al., 2019: 116).

Nowadays, legal and regulatory frameworks of blockchain are defined only in a small number of jurisdictions. At the EU level, Regulation on Markets in Crypto-assets are proposed as a part of the Digital Finance package. The proposal of regulation has several goals. The principal goal is one of legal certainty. For digital asset markets to develop within the EU, there is a need for a sound legal framework, clearly defining the regulatory treatment of all digital assets and the internet or digital platforms that are not covered by current financial services legislation. The second goal is to support and promote innovation. To promote the development of digital assets and a wider use of blockchain and distributed ledger technology, it is necessary to put in place a safe and proportionate framework to support innovation and fair competition. The third goal is to instil suitable levels of consumer and investor protection and market integrity, given that the digital assets and blockchain applications not covered by the existing financial services legislation present many of the same risks as more familiar financial instruments. Finally, the fourth objective is to provide financial stability, because digital assets and blockchain technology are permanently evolving (Proposal of Markets in Crypto-assets Regulation, 2020: 2)

The Impact of Blockchain on the Capital Market and Green Economy

Recent decades have been marked by numerous changes in the capital market that have affected the alteration in the institutional structure of the functioning of the financial system (Sovilj & Stojković-Zlatanović, 2021: 267). A wider application of blockchain technology is one of the great challenges in the financial markets. Blockchain is an innovative certification technology with a high transformative power in new business models, exercising a social impact by offering solutions that include governance and sustainability (Tavares et al., 2019: 1). The intension of this research is to discover the various benefits of applying the blockchain-based platforms during environmental services negotiation. A lot of the relevant articles deal with the use of blockchain related to digital assets (cryptocurrencies), but only few address the use of blockchain in the capital markets and green economy.

The combination of some or all aspects of the blockchain technology could enable modern capital markets to overcome some of the numerous problems, and, perhaps more importantly, to offer innovative solutions (Hadžić & Nedeljković, 2018: 155). One of the first possible applications of blockchain technologies in the capital markets was observed in the area of transaction settlement. Settlement of a transaction is the process in which buyers (investors) of securities become their owners, while the sellers come into possession of money. In the capital markets, two working days usually pass from the moment of sale to the moment of settlement, which is a consequence of the fact that in that period buyers and sellers are given time to provide the accounts they need for the transaction. Improving and accelerating the settlement process, while at the same time providing security that the blockchain technology offers by disabling so-called double sales, i.e. the simultaneous sale of one security to two or more customers (actually, investors) or the use of the same funds for two purchases, would significantly contribute to lowering the costs and increase the confidence in the capital markets (Hadžić & Nedeljković, 2018: 155).

An additional advantage of the implementation of the blockchain technology is reflected in the increase of capital market

liquidity. Usage of the blockchain technology contributes to a reduction in intermediary commission costs (to be more precise, costs of investment companies' services), as well as the reduction in the bid-ask spreads (differences between the offered purchase and sale price on the market) with a simplified trading procedure. This increases the efficiency of the capital market while reducing the information asymmetry between issuers and investors. In addition, appropriate application of the blockchain technology would further contribute to savings by minimizing errors (Hadžić & Nedeljković, 2018: 157). However, one should be careful with the application of the blockchain technology in the capital markets, taking into account that the capital markets are the most important but also the most vulnerable segment of the economic system of each country (Sovilj, 2020a: 112).

However, blockchain is a relatively new technology that has been primarily focused on the capital market and cryptocurrencies (Svetec, 2019: 61). The most significant use of blockchain is the development and operation of digital assets. In the meantime, blockchain has become independent from the initial cryptocurrencies operations, having in mind that blockchain has become the foundation of FinTech. Still, the blockchain technologies go well beyond electronic trading via a finance platform (Kulms, 2019: 329). Blockchain technologies introduce to digitisation in asset management, production processes in industry and agronomy, climate change, water management, land registry with electronic mortgages, public administration, e-government, green finance (Sovilj, 2020b: 267). It should be noted that the blockchain technology would also be crucial for integrating the internet of things into daily life applications. The internet of things, blockchain and peer-to-peer approaches play a significant role in the development of decentralized and data intensive applications running on billions of devices, preserving the privacy of the users (Conoscenti, Vetro & De Martin, 2016: 1). In the meantime, the blockchain technology has created a very acceptable technology in the internet of things, attracting substantial interest from energy supply corporations, innovative start-ups, financial institutions and international organizations, governments and scholars.

Currently, there is a serious academic debate about the impact of the blockchain technology on the sustainable development, and climate change adaptation and mitigation policies. Even though the blockchain technology is still in its nascent stage, researchers agree that it bids a number of potential interests that will help various institutions meet the demands of the Fourth Industrial Revolution. (Parmentola et al., 2021: 3). In addition, blockchain addresses a scope of environmental sustainability challenges, supporting environmental sustainability through three principal instruments related to resource rights, product origins and behavioural incentives (Herweijer, Waughray & Warren, 2018: 23). It could relieve novel sources of green production, as well as storage and supervising of data-related activities liable for pollution and environmental degradation, the collection and analysis of low-carbon data in timely decision-making, and supporting the growth of a sustainable supply chain (Parmentola et al., 2021: 3).

In a recently study conducted by the Coolclimate Network at the University of California, it was estimated that the American banking industry emits 383.1 million tons of CO_2 per year for bank branches and 3.2 million CO_2 per year for ATMs, on the one side, while the bitcoin network produces 0.75 million tons of CO_2 per year, on the other. This leading to the conclusion that digital asset has 99.8% fewer emissions than the American banking system. Hence, should it be possible to soon replace banks with digital assets such as Bitcoin, Ethereum etc., which are all blockchain-based, this would likely cause a positive environmental impact. (Pinto e Netto & Menengola, 2021: 25). Also, with the establishment of national green investment banks, as well as the rapid growth of the green bond market, the interest in green financing has grown in the last decade (Ostojić, 2023: 24).

Nowadays, blockchain is applied in a number of fields. International organizations and states also recognized the opportunity of blockchain to affect substantially of the green economy and enhance environmental sustainability. In this regard, an excellent example is California which utilised blockchain technology to control Sacramento's groundwater. The similar project is the *Share & Charge* which was first implemented in the United Kingdom and later in the European Union, promoting the application of blockchain

in controlling electric car charging systems. Recently, Mora emphasized the function of blockchain in establishing a sustainable society, identifying how various blockchain digital decisions could support sustainability from three points of view toward the topic on which the technology can be oriented – service delivery, resource management and city governance (Parmentola et al., 2021: 3).

Conclusion

The current economic system has proven to be inefficient in terms of sustainable development and, it is obviously necessary to find a new solution that will meet the conditions of the sustainable development and green economy. In this sense, blockchain and other digital platforms could enable efficient and transparent resource management, contributing to sustainability goals, decentralization of the energy system, and democratization of societies. Definitely, blockchain is destined to transform the business model in the proximate future, matching economic efficiency with the goal of reaching a more environmentally sustainable world. Blockchain-based supply chains are basically changing companies' manner of conducting business, proposing decentralized processes via public blockchain. Since innovative technologies, such as blockchain and other digital platforms, are still in their nascent stage, it is necessary to carefully analyse them and find effective solutions for their application. The obstacles that may occur in the implementation of digital platforms are primarily of the legislative nature. Therefore, the legal and regulatory framework for digital platforms such as Blockchain, Uber and Airbnb must also be established and operable internationally, across jurisdictions. In that sense, the currently legal and regulatory challenges for blockchain involve shared jurisdictions, networks of law and data privacy.

To summarise, the current legal and regulatory approach to blockchains oscillates between intervention and softness. In this context, it is often overlooked that digital platforms like those blockchain-based, or Uber and Airbnb, with their smart contracts, challenge traditional law beliefs. Therefore, a more comprehensive legal approach is necessary, combining insights from digital processes with capital market law, traffic law, contract law and

property law (Sovilj, 2021: 309). Moreover, rules of property law and capital market regulations will have to be modified in order to advance the commodification of electronic signals, conferring on them the status of a 'thing' or, a financial instrument. Furthermore, an extensive legal approach towards digital platforms need to consider the fact the involvement of artificial intelligence reshapes established causation and liability concepts (Kulms, 2019: 329).

Although the solutions that the blockchain technology offers to modern capital markets are challenging, as well as promising, greater implementation in practice will be possible only after overcoming a number of identified but still largely unnoticed problems. The blockchain application presupposes not only technological challenges, but also the adoption of relevant legislation and a change in the established practices of the modern capital markets. These problems could incur additional costs and contribute to resistance of professional public regarding the proposed changes, which would lead to a significant slowdown in the overall process. In the long run, the blockchain application would probably completely change the roles of individual participants in the capital market, and above all, that of investment companies. Namely, by acquiring the role of intermediary in the capital market, the blockchain technology would take over the business of investment companies. In this sense, investment companies could redirect their business on providing advisory services to clients, while custody banks and central registries would provide some additional services to clients that do not exist today.

On the other side, Uber and Airbnb, as traditional representatives of the sharing economy, serve as particular, virtual markets resolving in that role the information asymmetry which has existed between consumers and suppliers for years. The crucial impact of Uber and Airbnb on the sharing economy consists not only in a reduced consumption, but also in the collaborative consumption, creating a more functional model of contemporary consumption and, as such, having an influence on the whole system of the green economy.

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Addressing in Practice Neglected Policy and Legal Approaches Towards Circularity Through Public Procurement

Abstract

Although in academic literature and practice, a common view exists that the public procurement system could and should contribute to the realisation of the goals of the circular economy policy, the approaches to achieve those goals are still being developed. This paper aims to present important principles and approaches to how the public procurement system can contribute to the realisation of the goals of the circular economy policy—the ones most neglected in practice. However, when these are pursued, they have a high impact. Accordingly, this article presents the three fundamental principles which could foster development.

Keywords: Circular public procurement, Sustainable public procurement, Strategic public procurement, Innovation, Third-country economic operators

Introduction

No single definition exists of the term circular economy, so most definitions describe the term as a concept of a product created with its own end-of-life taken into account. Circularity is also considered as the next frontier of sustainability. Traditionally, it is argued that in a circular economy, once the user is finished with the product, it goes back into the supply chain instead of the landfill (Nicholaus, 2021). However, within the public procurement system, significantly more can be achieved than a mere product reuse. The public procurement system enables the public sector – as an important customer in the market – to promote new business models based on the concept of the circular economy, as well as to encourage their implementation in practice. It is often essential for the breakthrough of the business model to reach the necessary critical mass of users or customers, with public contracting

authorities being an essential support system (Jovanović & Ostojić, 2022).

Literature Overview

Sustainability aims to address the environmental and socio-economic issues of this generation and future ones. The circular economy concept has been proposed to address environmental issues by transforming waste into resources and bridging production and consumption activities. The transition to a functioning circular economy regime requires a systemic multi-level change, including technological innovation, new business models, and stakeholder collaboration (Witjes & Lozano, 2016: 37).

The objective of a circular economy is to maintain the value of products, materials, and resources in the economy by closing material loops and minimising waste generation (Yong, 2007: 121; Yuan et al., 2008: 4; Witjes et al., 2016: 37; Alhola et al., 2019: 96). Circular economy is the EU's development priority, and it is part of the EU industrial strategy. In 2015, the European Commission (EC) adopted its first circular economy action plan (European Commission, 2015). In 2019, it followed up by drafting a comprehensive report on the implementation of the action plan (European Commission, 2019c). In 2020, it adopted the new circular economy action plan (European Commission, 2020) as one of the main building blocks of the European Green Deal, Europe's new agenda for sustainable growth. The latter introduces legislative and non-legislative measures targeting areas where action at the EU level brings real added value.

As observed by Wierzbicka, the transition to a more circular economy is an essential contribution to the EU's efforts to develop a sustainable, low carbon, resource-efficient and competitive economy (Wierzbicka, 2021: 111). However, the idea of a circular economy has not become prominent only in Europe but also globally, e.g. in the Canadian, (Government of Canada, 2022) the U.S. (U.S.E.P. Agency, 2022), or Chinese policymaking (McDowal et al., 2017: 651).

In the U. S., under the Save Our Seas 2.0 Act, the term "circular economy" implies an economy that uses a systems-focused

approach and involves industrial processes and economic activities that (A) are restorative or regenerative by design; (B) enable resources used in such processes and activities to maintain their highest values for as long as possible; and (C) aim for the elimination of waste through the superior design of materials, products, and systems, including business models (Save Our Seas 2.0 Act, 2020).

Following the development and considering different initiatives and approaches, critical analysis is awaking. Bringing together perspectives from social sciences, environmental economics and policy analysis, The Circular Economy in Europe provides a critical analysis of the policies and promises of the next panacea for growth and sustainability (Kovacic et al., 2019: 3).

Sustainable public procurement, like the circular economy, has no uniform definition.

The OECD defines sustainable public procurement as a demand-side policy intervention to reduce the consumption of resources. The consumer is central to any discussion on sustainable public procurement. Therefore, in practice, the implementation of sustainable public procurement requires not only laws and guidelines, but also a change in consumers' attitudes towards the sustainable consumption of products and services (OECD, 2015).

The United Nations Environment Program (UNEP, 2012: 7) defines circular sustainable public procurement as

> "A process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisations, but also to society and the economy, whilst minimising damage to the environment".

Similarly, as observed by Pircher, the EC also considers that sustainable public procurement is a method used by public authorities to accomplish the best equilibrium between the economic, social, and environmental pillars of sustainable development during the different stages of procuring goods, services, or works (Pircher, 2019: 509).

The definition of circular sustainable public procurement is thus founded on three dimensions: environmental, social, and economical. The economic dimension struggles with the pursuit of

profit and growth, the environmental dimension attempts to keep production and consumption as environmentally friendly as possible, while the social dimension strives to ensure that production and consumption maximise benefits for people and society at large (Fischer et al., 2020: 87).

In the EU (European Commission, 2008, 4), green public procurement has developed from the environmental dimension of sustainable public procurement

> "as a process whereby public authorities seek to procedure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured."

Consequently, governments have been accelerating their pursuit of the green procurement in response to the growing urgency of environmental concerns in the civil society (Nuaimi et al., 2021).

Green public procurement is also an indicator of the "CE monitoring framework" for a circular economy (Moraga et al., 2019: 146). As analysed by Pircher, many EU public authorities implement green public procurement as part of a broader approach to sustainability in their procurement – in line with the EC's clarifications on green and sustainable public procurement. This process also addresses economic and social issues. However, it is not the policy objectives that are changing; tools and techniques also change, including in the procurement system (Pircher, 2019: 509).

According to the EC, the SPP implementation thus consists of six different aspects: Green Public Procurement, Internal Social Criteria, Social Return on Investment, Bio-based Public Procurement, Circular Economy, and Innovation-oriented Public Procurement. There were designs, including specific toolboxes for supporting the SPP, including practices, management, and inter-organisational dimensions (European Commission, 2022b).

In recent years, the role of public procurement has been recognised as an important, but as yet not fully exploited opportunity by cities and municipalities in their transition toward circular societies. Circular procurement can occur through the procurement of

better-quality products in circular terms, the procurement of new circular products, the use of business concepts that support the circular economy, and investments in circular ecosystems. (Alhola et al., 2018: 96) Public contracting authorities and undertakings are the key actors in shifting the economy to sustainability.

The neglected approaches for fostering a circular economy through the public procurement system

Indeed, fostering a circular economy through the public procurement system represents a complex and extreme departure from traditional procurement methods. It entails significant changes in fundamental organisational culture, beliefs, and technology surrounding procurement practices – similar to what Coggburn observes for green public procurement (Coggburn, 2004: 236). Nevertheless, despite all hardship, the authors in their professional lives strive toward a circular economy in public procurement and public-private partnerships, focusing on identifying different practices and innovative approaches, and bringing them to practice, in order to preserve the planet for future generations. Following the best global practices and research, the authors tend to bring these practices to Slovenia and implement some of our own concepts. This kind of work is often related to the parallel implementation of change management and organisational development practices.

By advising and supporting contracting authorities in implementing at least a hundred circular economy-oriented public procurement and public-private partnerships-oriented projects in the last decade, we identified three of the most neglected approaches that could more energetically foster circular economy through the public procurement system, if used more frequently and diligently. We are, however, aware of the limitations of our findings, as they were identified by predominantly following the practice in Slovenia. Nevertheless, we believe they may also be valuable for other countries.

Promoting the circular economy policy objectives by using public procurement as an instrument that encourages innovation

Meeting the circular economy commitments depends crucially on innovation and new approaches related to the use and reuse or sharing of goods, services and works, waste and surplus management, the integration of sustainable, social and environmentally friendly solutions, all leading to a more efficient use of resources, and subsequently, new business models. From this perspective, promoting innovation in the public procurement system is the key in achieving the goals of the circular economy policy, as the circular economy principles seek to transcend the current linear approach to procurement and replace it with a circular one, requiring new, innovative approaches.

It has been identified that the number of patents correlates with the investments in innovation, while investment also proved to be the most crucial factor that stimulates patents in the circular economy innovation (Ilić et al., 2022: 702).

For decades, procurement has been a consolidated practice in public sector organisations, but starting in the 2000s, public managers began exploiting procurement for its strategic and systemic potential beyond the mere act of purchasing (Thai, 2001: 9). As observed in academic literature, this applies especially to the European context, where the EC explicitly aims to promote procurement "to boost jobs, growth and investment, and to create an economy that is more innovative, resource and energy efficient, and socially-inclusive" (Demircioglu, 2021: 379).

The EU sees investment in research and innovation as the future of Europe, which will make it easier to compete in the global market in the future and maintain its unique social model. Innovation and research improve the daily lives of millions of people in Europe and around the world, and help address some of society's greatest challenges, which is why the EU actively supports them through several instruments and incentives (European Commission, 2022c). At least a decade ago, the EU also recognised the public procurement system could be an effective tool for fostering innovation (European Parliament, 2010).

Not surprisingly, when the legislation was recast, and the fifth EU public procurement package of 2014 was adopted (Directive 2014/23/EU, Directive 2014/24/EU, Directive 2014/25/EU), much attention was paid to innovation (cf. Directive 2014/24/EU, recital 47). Several instruments for promoting innovation have thus been included in the Directive 2014/24/EU, as the word innovation/innovative appears 67 times throughout various contexts in it (Ferk & Ferk, 2020: 13–15). In particular, the new procedure should be highlighted, that of Innovation Partnership (Article 31), where the criteria for the most economically advantageous tender may include, *inter alia*, innovative characteristics (Article 67(2)), and conditions for the performance of the contract, which include, *inter alia*, innovative aspects (Article 70). Preliminary market consultation also plays an important role (Article 40), while pre-commercial procurement to promote innovation is also encouraged (European Commission, 2007).

The use of tools allowed by public procurement can also raise innovation to introduce a circular economy in a given country. Two possible levels of action exist here: the central level and the level of an individual organisation. The introduction of innovation will always require a top-down approach. Also, a need exists for solid support from decision-makers (at least) at the level of an organisation, and even better at the state level, as well as the strengthening of the innovation environment and innovation culture. Concerning the latter, raising awareness of whether an individual country needs an innovation-oriented public procurement to benefit this and future generations is crucial. It would often be more appropriate for the public sector to commission the development of a particular innovative service, goods or construction and promote innovation by example than to co-finance programmes that lead to innovation through a dispersed system of subsidies and incentives. (Ferk & Ferk, 2020b: 13).

Promoting circular economy policy objectives through the public procurement system with the accessibility of the EU public procurement market only for the economic operators who pursue the EU's objectives and commitments in this area

Currently, the EU is considered to be the largest and most accessible single public procurement market in the world, where third-country economic operators can compete in public procurement procedures on an equal footing with the EU economic operators (Ferk, 2020a).

The term economic entities or third-country providers is understood to imply the providers who are not established in one of the EU Member States. Article 26(2) TFEU ensures the free movement of goods, persons, services and capital within the EU. The internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured. Any form of discrimination between economic operators based on the place of registration is prohibited (Weatheril et al., 2019: 21).

The EC notes that, regardless of the openness of the public procurement market in the EU, most major countries or economic partners with whom the EU does business restrict access to their public procurement markets to EU economic operators. The EU public procurement rules are based on the principles of transparency and non-discrimination, without distinguishing between the EU and third-country economic operators. On the contrary, the EU economic operators are among the most discriminated against, when compared to third-country providers (European Commission, 2020).

The EU has long been a leading proponent of opening up public procurement markets globally, notably in the World Trade Organization Agreement on Government Procurement (hereinafter referred to as the GPA) (WTO, 2022), comprising 20 Contracting Parties and the total of 48 countries, with the EU acting as the single Contracting Party for all 28 EU Member States. An additional 34 members of the World Trade Organization are acting as observers, of which ten are working to accede to the GPA.

The GPA aims to open up the public procurement market between the parties to the Agreement (Dawar & Skalova, 2016: 59). However, we can conclude that some of the largest public procurement markets, e.g. India and China, are not signatories to the GPA, but only observers, and are thus not subject to the GPA rules.

Another tool with which the EU seeks to open up public procurement markets at the global level is conclusion of bilateral trade agreements (European Commission, 2020a). The EU also strives to achieve these goals through the International Procurement Instrument initiative.

In the Joint Communication to the European Parliament, the European Council and the EU-China Council – A Strategic Vision (European Commission, 2019d), the EC has identified the achievement of more balanced and reciprocal trade and investment relations as one of its key objectives. The EC also adopted the Guidance on the participation of third-country bidders and goods in the EU procurement market (hereinafter: the Guidance) (European Commission, 2019a).

Although it might seem that these measures stem from an increase in protectionist attitudes, it is also important to recognize, according to the Commission's Guidance, that providers of goods and services from outside the EU are often not held to the same standards as EU-based companies. Additionally, these international suppliers may not be under the stringent regulations of state aid that EU businesses must follow. This situation potentially places EU service and goods providers at a competitive shortfall. For this reason, the EU public procurement rules should be applied to ensure that the EU or third-country undertakings are subject to comparable or parallel standards and criteria (European Commission, 2019a, 3). In practice, this is true in many cases, especially if the contracting authorities are procuring based on the lowest-price-principle, and – if on top – they ignore externalities of the procurement, such as CO_2 emissions resulting from transportation.

Accordingly, with regard to the legal status of third-country economic operators, the EC clarifies that outside the scope of the obligations under the agreements, the third-country economic operators which do not have an EU market-opening agreement, or if their goods, services, and works fall outside of such agreements,

might not have their entry assured to the EU public procurement processes (European Commission, 2019a: 5). However, under the TFEU, EU public procurement adheres to fundamental principles of openness, fairness, and non-discrimination. This entails that the procedural regulations are applicable to every public contract, irrespective of the tenderer's nationality (European Commission, 2019a: 4).

For this reason, the EC is working on the adoption of a legal basis which would allow it (but not the contracting authorities) to protect the EU public procurement market from unfair competition from third countries as a result of environmental or social dumping, non-compliance with applicable standards in the EU, illegal state aid and subsidies, non-compliance with labour law, human rights violations and other measures that unduly improve the competitive position of the third-country economic operators.

Notwithstanding the above, the EC has identified in the Guidance some legal bases that already allow limiting the access of third-country providers and goods to the EU public procurement market, in particular: (a) procurements under intergovernmental agreements, where the EC emphasises the need to respect the basic principles set out in the TFEU; (b) procurements under Article 85 of the Directive 2014/25/EU, enabling the contracting authorities in the field of infrastructure to reject a tender for the performance of a public supply contract if the proportion of products originating in third countries exceeds 50% of the total value of the products constituting the tender; (c) for defence and security procurement falling under the provisions of Directive 2009/81/EC, an exception is established, permitting each Member State to specify in its domestic regulations whether it may allow the contracting authorities to include economic operators from non-EU countries in procurement procedures (recital 18).

In addition to the above, the EC also emphasises the institute of abnormally low tender, as defined in Article 69 of Directive 2014/24/EU. It stresses that contracting authorities must ensure a level playing field by dealing with abnormally low tenders.

The EC advises that contracting entities should verify if the bid adheres to the relevant obligations under environmental, social, or labour laws laid down in the EU, national and collective

agreements, or international environmental, social and labour law listed in Annex X to the Directive 2014/24/EU. Simultaneously, it emphasises that these obligations apply directly, regardless of their inclusion in the tender documentation. The existence of foreign financial support could be part of the overall assessment of the feasibility of the offer (cf. Directive 2009/81/EC, recital 18).

Therefore, it can be concluded that a circular economy-oriented public procurement effort is entirely in line with the objectives mentioned above in the Communication set out by the EC.

Promoting the objectives of the circular economy policy through the transition to strategic public procurement

As particularly important, the Commission emphasises in the Guidance the strategic approach to public procurement, which was already addressed in Making Public Procurement Work in and for Europe (European Commission, 2017), and it emphasises the definition of quality in public procurement procedures. Thus, special attention is paid to the definition of quality in public procurement procedures, both in terms of technical specifications and criteria for evaluation and ranking of tenders. Furthermore, the Commission stresses the integration of environmental, social and other standards into public procurement procedures and their proper verification during the tender evaluation phase. In this context, the Guidance specifies that considering the aspects based on quality in public procurement enables buyers to acquire products and services that are more sustainable and innovative. If contracting authorities want to strengthen the fulfilment of the circular economy commitments, they must change their public procurement strategy. While the Commission has already identified six priority areas where clear and concrete action can transform public procurement into a powerful instrument, leading to substantial benefits in procurement outcomes (European Commission, 2017), in practice contracting authorities are struggling with the approach to implement them. From our experience, a gradual, multi-stage transition to strategic public procurement proves to be effective.

The first step is to analyse the processes of managing public tenders at the contracting authority. Only based on accurate knowledge of one's own processes can the potential for optimisation be determined. The processes must be transparent and efficient, free of unnecessary duplication and exceptions. Digitisation is a tool enabling us to optimise the processes from the perspective of managing public tenders. It makes sense to connect the process of digitisation with education at the contracting authority and the process of introducing changes. Online public procurement platforms should be a tool for contracting authorities to conclude public contracts more quickly and efficiently.

The second step is the standardisation of the contracting authority's documents, tender documents, sample contracts, conditions for the recognition of competences, and the criteria for evaluating the received tenders. It is necessary to ensure constant updating of documents with applicable regulations and their continuous availability for all expert commissions and project groups' members. This enables a focus on the substantive issues related to the implementation of a public tender.

The third step is the introduction of more flexible, long-term and tailor-made public procurement management procedures. In this context, greater use should be made of framework agreements, the introduction of a dynamic purchasing system, the testing of electronic auctions and a bolder use of more flexible procurement procedures, e.g. negotiation procedures. The aim is not only to reduce the number of administrative and formalistic tasks in concluding public contracts, but to focus on the subject and substance of the public tender in the light of pursuing the goals of the circular economy.

The fourth step is ushering in innovative "smart" criteria for evaluating the received bids, based on the inclusion of social, ecological and sustainable criteria, with an emphasis on quality and cost throughout life. This should be linked to the preparation of investment documentation and economic and financial analyses of public procurements. Measuring quality is one of the key challenges in this step.

The fifth step is the introduction of project management and effective information-supported control over the implementation

of public contracts. A clear definition of rights and responsibilities among the participants in group projects is crucial to the effective implementation of public contracts. Full traceability of all processes and activities at all stages of the project cycle must be ensured.

In the sixth step, public procurement centralization should be strengthened, both in terms of organisational units within the contracting authority and in-house contractors, public institutions and public companies. Also, cooperation should be enhanced with other contracting authorities with related needs and goals. The aim is to create an interactive digital community of contracting authorities who exchange information and good practices, implement common procedures when it is rational, and share knowledge and experience.

Conclusion

By following the goals pursued within the concept of the circular economy, the public sector moves from the role of policy-maker, developing strategies and goals, through its role as a buyer in the public procurement system, to being a direct contractor and designer. Contracting authorities face critical challenges when, as in the examples identified above, they strive to usher in new circular economy principles into the public procurement procedures.

One of the challenges involves vague and overly abstract objectives. Therefore, the objectives of the procurement process must be clear, measurable and verifiable. A short-term view focused solely on the price must be replaced by a long-term perspective, which includes the use, maintenance and, ultimately, replacement, or decommissioning, as well as the costs incurred throughout the life of the object of purchase.

The absence of examples from practice, hinder the development. Therefore, central purchasing bodies, which generally involve the greatest concentration of knowledge and experience from contracting authorities, could (should) take on the role of drivers of integrating the circular economy approach into individual pilot procurement procedures. This allows the remaining contracting authorities to become acquainted with new concepts and adapt them more easily to their goals and needs. Contracting authorities should

also be able to direct communication with potential providers of new market concepts, particularly through open and transparent market analysis, exchange of knowledge and experience.

Finally, only through the planned professionalization and training of those responsible for managing public procurement procedures can we expect a breakthrough in using new concepts of the circular economy, sustainability and environmental aspects, as we deal with the fear of the new and unknown. From this perspective, it is not enough to know only the goals and commitments of development policies, but they need to be presented with concrete tools that make it easier for them to implement new concepts. Digitisation must be at the core of such efforts, as it is not expected that those responsible for public procurement will, e.g. use complex models of evaluating the received bids from the perspective of their impact on the environment, without simple digital tools such as, e.g. models for automatic bid evaluation. Therefore, the exchange of information, learning from each other, and supporting each other in either small steps or giant leaps towards implementing a circular economy is crucial.

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Part B
ECONOMY & DEVELOPMENT

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Market Economy and Sustainable Development: Example of Japan*

Abstract

The attitude of market economies towards environmental protection is in line with the definition, goals and principles of sustainable development prescribed by the United Nations. Each country includes areas such as preserving peace, reducing economic inequalities and poverty, increasing innovation, as well as reducing waste and the risk of climate change in its green economy strategies. This should provide future generations with a healthier and better working and living environment. There is growing talk of a strong industrial policy, based on the knowledge society, digitalization, competition and sustainable consumption with the intention of reducing industrial pollution and industrial waste management. The country that has consistently worked on respecting green goals and principles is Japan. The most striking example of aligning the United Nations Sustainable Development Goals for 2030 (SGS) with a company's sustainable development goals is Toyota. This company sees sustainable development as a part of its mission, in the development and production of cars, but also as a model of global, market and social sustainability.
Keywords: Sustainable development goals, United Nations, The role of the state, Japan, Toyota

Introduction and literature review

Developed market economies have been considering the issue of sustainable development for many years. The United Nations (UN) has set goals for sustainable development, with which developed market economies try to harmonize their economies and societies, and many international conventions, such as the Kyoto Declaration and the Paris Agreement, have been accepted as binding.

* This paper was written as part of the 2024 Research Program of the Institute of Social Sciences with the support of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia.

However, the countries not considered to be developed, include environmental protection and a kind of "human protection" in their strategies on green economies. This should provide future generations with a healthier and better working and living environment. Through a partnership of all national actors, such as governments, the private sector, civil society and citizens, an inclusive agenda leading to the progress of society is possible. From the economic point of view, both growth and development are indicators of the economic well-being in a country, but the concept of sustainability introduces the component of the justification of the use of natural resources, or the opposite of the ujustified excessive consumption of natural resources (Miint & Kruger, 2011). In any case, the green economy should be low-carbon and inclusive – the use of resources should ensure such economic development that is equal "for all".

The aim of this paper is to prove the great importance of sustainable development and green economy in market economies, as they have been dealing with these problems for a long time. Also, the aim of the paper is to emphasize that market economies in their industries insist on smart growth – the economy based on knowledge and innovation; sustainability – promoting a more efficient, greener and competitive resource economy; and technological development – for economic and social benefits. The consequence is a change in traditional occupations, and the solution to this is sought in education for new jobs in sectors such as digitalisation, industry, agriculture, services, administration and green building. Human resources, in this concept, play a significant role, and it has always been like that when there were major socio-economic changes, because the speed of those changes depends on people's willingness to retrain and acquire additional qualification. The term human resources itself "... means that organizations have conscious knowledge about human potential as an innovative component, along with the possession of intellectual and biological potentials without which the work process cannot take place" (Maksimović, 2004: 13).

The following research methods were used in this paper: observation method and descriptive method. The research of the problem is based on theoretical, scientific and applied facts. This article gives an original contribution to science, emphasizing the topic of sustainable development in the theoretical concept, but

also testifying to its latest application in an international company. The examples of Japan and Toyota is cited for this. The goal is actually to improve the efficiency and economy when it comes to the use of factors of production, without destroying the environment. The essence is in reducing the negative effects on the environment and enabling the survival of people, flora and fauna on the planet Earth. The literature used in this paper includes scientific monographs and papers, as well as the official websites of the UN and Toyota.

And finally, a statement could be heard at the 2019 UN Annual Conference organized by the European Center for Peace and Development (ECPD) in Belgrade: "Without Human Security, there is no development, Without development, there is no peace, without peace, there is no rights, If you want Peace, educate for Peace." "Trust in key public institutions is a very important economic, sociological and political issue that significantly determines the functioning of a society and the well-being of citizens" (Matijević, Ostojić & Jovanović, 2022: 98). From this follows the question: Are the issues of sustainable development and environmental protection, issues of peace?

Research

Market economies have aligned their environmental goals with the definition, goals and principles of sustainable development prescribed by the United Nations – the UN Sustainable Development Goals (SDGs). This is a collection of 17 goals designed to be "a blueprint for a better and more sustainable future for all". The global goals are: (1) No poverty, (2) No hunger, (3) Good health and well-being, (4) Quality education, (5) Gender equality, (6) Clean water and sanitation, (7) Accessible and clean energy, (8) Decent work and economic growth, (9) Industry, innovation and infrastructure, (10) Reducing inequality, (11) Sustainable cities and communities, (12) Responsible consumption and production, (13) Climate action, (14) Life under water, (15) Life on land, (16) Peace, justice and strong institutions, (17) Partnerships for goals. UN experts expect that UN members will keep their promise and take actions in environmental protection that will lead to the cessation of deforestation by 2030 and consequently reduce methane emissions by 30%.

The relevant documents include: the 2015 Paris Agreement and the UN Framework Convention on Climate Change (UNFCCC). These documents call on the member states to intensify their efforts to tackle climate change, in order to prove themselves responsible, and to take the lead in combating climate change and its harmful effects on the planet. The Paris Agreement recognizes that climate change affects all of humanity, and when taking action to address it, countries must respect, promote and take into account their obligations regarding human rights, health, indigenous peoples, local communities, migrants, children, people with disabilities and people in vulnerable situations, as well as gender equality (UN: COPF26, 2021). Both documents also emphasize that economic and social development, poverty reduction and food security are among the top priorities of developing countries.

Prior to that, the Kyoto Protocol was adopted on December 11, 1997 in Kyoto, but entered into force on February 16, 2005, and currently has 192 signatory countries. In short, this Protocol obliges industrialized countries and economies in transition to limit and reduce greenhouse gas emissions, and to adopt policies and measures to mitigate the harmful impact on nature. According to the Protocol, countries must achieve their goals primarily through national programs and measures. However, the Protocol offers additional means to achieve environmental goals through three market mechanisms: International Emissions Trading, the Clean Development Mechanism (CDM) and Joint Implementation (JI). This is taken into account by the UN Secretariat for Climate Change, based in Bonn, Germany, which keeps an international transaction log to verify that the transactions comply with the rules of the Protocol. Replacing technology helps countries in reducing the harmful effects of climate change (What is the Kyoto Protocol? 2022). It is necessary to improve practical and relevant knowledge, build capacity and transfer technical knowledge on planning green economy projects and policy making in response to climate change and persistent poverty in mountainous countries. "Mountainous countries, with their rich water, biodiversity, including agrobiodiversity, and traditional knowledge, are largely following the path of low-carbon growth in their development policies and programs. However, persistent poverty, social and gender inequality, and

increasing disaster risks call for new actions to build resilience in all sectors" (Green economy in the context of sustainable development and poverty eradication, 2022).

Sustainable development is particularly important in ecology and geography (environmental protection and conservation of natural resources); then in biology (in the context of the survival of life and the human species on earth).

"In the economy, sustainable development refers to the rational use of natural resources in the process of creating sustainable economic (industrial) development and the possibility of creating new jobs; employment and human resource management. Such jobs are called green jobs. In addition, it is considered in economics from the point of view of sustainable development in tourism, then as technological development in industries, then as sustainable development in agricultural economics and application of agrotechnical measures, and in investment policy and international economy" (Maksimović, 2020: 245).

Sustainable development is a matter of qualitative improvement, while sustainable growth is a matter of qualitative increase. The concept of sustainability is the one that connects the environment, economy and society (Maksimović, 2020). The impression is that market economies were the first to study the issue of sustainable development, and for these reasons it is defined in the following way:

"Market economy is one in which individuals and private companies make major decisions about production and consumption. The system of prices, markets, profit and loss, incentives and rewards determine what, how and for whom to produce. Companies produce the goods that bring the biggest profits (what) using the cheapest production techniques (how). Consumption is determined by the decisions of individuals on how to spend the wages and income of the owner, acquired through work and ownership of property (for whom). The extreme case of a market economy, in which the state does not interfere in economic decisions, is called laissez-faire economy" (Samuelson & Nordhaus, 2005: 8).

There are still many definitions, but mostly they all come down to the fact that within the market economy, production and consumption are adjusted to the customer, that prices are

determined based on supply and demand, innovation is rewarded, investments are focused on product quality, and actions that lead to the reduction of unprofitable activities and giving a chance to profitable activities are emphasised. At the same time, competition is what encourages the mobilization of resources, for the benefit of society. "In the modern economy, success will be guaranteed to those organizations that are able to adapt quickly, are agile, bear responsibility with the expertise of their employees" (Maksimović, 2004: 5). However, it is the green economy that should lead to the reduction of environmental catastrophes, thus introducing a more colourful and safer life for people, and to the reduction of excessive exploitation of nature. In any case, efficient markets consist of institutions, implying the separation of the economy from politics and the rule of law. Thus, the industries of certain countries differ according to the development of institutions, technology and organization of companies. Therefore, it is said that there are three growth factors, namely: basic economic determinants (for example, market, consumer, price), institutional framework and cultural heritage of society, although the mainstay on which dynamic economic change rests is the continuity of interactions between institutions and organizations (North, 1997). Thus, "(1) the institutional framework will shape the direction of acquiring knowledge and skills and (2) that direction will be a decisive factor for the long-term development of that society. If a firm or other economic organization invests in knowledge that increases the productivity of physical or human capital or improves the knowledge of entrepreneurs and then the results, increasing productivity is also in line with economic growth" (North, 1990: 78).

Therefore, it is economic sustainability that requires decisions to be made in the most fiscally sound way, while social sustainability requires institutional stability and includes cultural identity. Institutions and institutional mechanisms as drivers of economic growth represent "a key factor in explaining the differences in achieved rates of economic growth between developed and less developed countries" (Ostojić, 2020: 135). The ultimate goal of social sustainability is poverty alleviation. Accordingly, the 2030 Agenda has five main themes, known as the Five P's, namely: people, the planet, prosperity, peace and partnerships. The UN calls for a partnership of government, private sector, research institutions, academies and civil

society organizations to encourage the improvement of the lives of future generations, but also to preserve the resources of the planet (Mensah, 2019). This is also an explanation of the concept of green economy, for which there is no universal definition in the literature. The concept of green economy is included in the reindustrialization of society, in addition to sophistication and advancement of technology. While the green economy should improve the well-being of people and contribute to the protection of the natural environment, the green industry is the one that does not cause damage to nature, or endanger human health. The first is responsible for the well-being of society, and the second for more efficient and responsible use of raw materials. Today, economies are committed to the policy of conservation of water resources, but also the development of technologies, protection of intellectual property, development of industries that depend on environmental resources (agriculture, forestry, tourism) and development of work skills to avoid structural gaps (Maksimović, 2020). In economic theory, in the section on economic growth, the paradigm of green development has long been present. Green development implies redirecting development policy to sectors such as energy efficiency, renewable energy, clean technologies, sustainable agriculture, green transport and water management, waste management, forestry, and tourism. In addition to the changes taking place in the market, the bearer of changes is also the state. It is precisely in the green development, as well as in the concept of "green industries", that small countries should see their chance for reindustrialization (Pokrajac & Josipović, 2015). "A green economy that includes social and economic the well-being of the environment is actually the way to sustainable development. It became a reality through the struggle to stop exhaustion resources of the planet Earth, as well as to try to eradicate poverty." (Maksimović, 2022: 61–62). Green jobs include those that ensure decent work, preserve the quality of the environment, provide adequate income, social protection and respect for workers' rights. The green jobs are being developed in green sectors such as agriculture, forestry, construction, manufacturing or transport, the bioenergy sector. It is obvious that new strategies are needed that will integrate the issues of energy, environment, policy, work of institutions, education and skills development, and thus encourage dignified work, while adapting to

climate change. "Considering its importance, it can be said that sustainable development has become a kind of scientific and technological enterprise" (Maksimović, 2020: 260).

The concept of sustainable development includes economic goals, such as good supply and distribution of goods, and customer satisfaction; but also political and social goals. Stability of the social and economic framework is needed in order to implement these goals. To achieve stability, the focus is on economic development policy, promotion of capital creation, better educational and health conditions, population, and development of financial and social institutions. Development policy refers to a number of measures needed for the development of a country, while development assistance is assistance to developing countries (for example, interest-free loans or low-interest loans). Today, this development assistance is called development cooperation, and it can be provided by one country, groups of countries or international institutions (Hemmer, 2008).

Each country includes in its strategies the green economy, and areas such as maintaining world peace, reducing economic inequalities, increasing innovation and reducing the risk of climate change. For example, in today's Germany, the most important strategy is that of the creation of prosperity, i.e. creating a business environment that encourages innovation and prosperity based on creation. In this context, the concept of sustainability, which has been present in Germany for several decades and built into the model of social market economy, is being observed. "After the Second World War, the model of the social market economy began to be valid for the German peculiar way of running the state and the economy, called special way" (Maksimović, 2021: 85). In Germany, the term sustainability was first used in forestry, and meant that fewer trees were to be cut down than grown. Anglo-Saxon philosophers John Locke (1632–1704) and John Stuart Mill (1806–1873) initiated a debate on sustainability, arguing that resources should be used in such a way as to keep future generations in mind. The concept of sustainability remained in use in Germany during the 18th, 19th and 20th centuries, and is still used today. In the twentieth century, the key to its survival was the report of the UN Council and its Commission for Environmental Development in 1987 and the consideration

of a common future, known as the Brundtland Report. The three known pillars are ecologically, socially and economically connected. "Development is sustainable if it is appropriate to the needs of the present generation, without compromising the potential of future generations to see their own needs and choose how they want to live" (Hasse, 2008: 448). Therefore, what is ecologically and socially sustainable, must also be economically sustainable, and only in that way will it be financed on a long-term basis, with a balance of interests of present and future generations. The concept of sustainability leads to a change in the priorities of politicians, the economy, consumers and citizens, and therefore it is not easy to fit it into the concept of democracy of the state and market economy. Its implementation in the concept of market economy takes time, but therefore a sustainable economy becomes even more competitive (Hasse, 2008). It could be said that this issue has become a global problem, when in this case the task was given to economic policy to modify certain previous patterns of behaviour, and lead to harmonization of the concepts of sustainability, market economy and democracy.

Another example is the Kingdom of Denmark, a leading country in accepting innovations in economic diplomacy, and emphasizing sustainable development in its foreign policy, in addition to the concept of digitalization, further development of technology and IT sector (technoplomacy). In addition to technological diplomacy, the Kingdom of Denmark has included green diplomacy and climate diplomacy in the organizational scheme of its Ministry of Foreign Affairs. The goal has been to ensure the best positioning of Danish companies on the international market, the improvement of digitalization, but also the creation of new jobs. What is particularly important is the export strategy that develops trade and enables the creation of new jobs (Ministry of Foreign Affairs of Denmark 2021). Green diplomacy belongs to the domain of economic diplomacy, and "in a multipolar system, economic diplomacy is a useful tool to achieve national interests peacefully" (Maksimović, 2023: 199). Other market economies and countries, after many years, are talking again about a strong industrial policy, based on the knowledge society, digitalization, competition, and sustainable consumption, all with a view to reducing industrial pollution and promoting industrial waste management.

The next example is Japan. The country is a positive example of good business practice of environmental sustainability, emphasizing the expanded responsibility of producers and consumers of industrial products, which is reflected in the collection, sorting and storage of industrial and any other waste. The Japanese model of market economy development is one of the most authentic in the economic literature. It is a model in which the government participates in economic development by drawing up plans, and even controlling some prices. The government can also engage in economic development, in terms of curbing inflation, maintaining high employment rates, social stability and national security. It is companies that make business decisions by analyzing information from the market and then, under the influence of the government, achieve broader economic goals (Zhang & Zhao, 2011). Today, the biggest problem in the Japanese model is how to connect employees' motivation with performance evaluation, with all the diligence, zeal, loyalty, intelligence and teamwork for which the Japanese have been known in the world. Japan's further development is seen through a business model that includes technological innovations such as the IoT (Internet of Things), Big Data and artificial intelligence, as well as sensor robots that make agriculture the sixth industry. In order to attract the world's best human resources, Japan will become one of the first countries to introduce a "Japanese green card for highly qualified foreign experts", which is the fastest such system in the world (Japan Revitalization Strategy, 2016).

Japan's international climate policy has been influenced by the emergence of international climate documents: first the 1988 Intergovernmental Panel on Climate Change (IPCC), followed by the three most important international climate agreements: the 1992 UN Framework Convention on Climate Change (UNFCCC); Kyoto Protocol COP – Quantified emission limitation and reduction objectives for developed countries of 1997; and Paris Agreement of 2015 (189 countries and EU, USA, Russia and Serbia ratified). So, Japan is a country that has consistently worked on respecting the mentioned green goals and principles. The pillar of Japanese government's growth strategy include: creating a "virtuous cycle of environmental protection and economic growth" and "making the best efforts to achieve a green economy". Japan further advocates

and implements energy efficiency improvements, as well as nuclear policies with security in mind as a top priority, and advocates for stable energy support. Japan has approached the issue of changing the policy on coal-fired power plants in a "drastically different way". It strives for transformational changes in industry and the economy through aggressive climate policies. The Green Growth Strategy focuses on 14 areas, some of which are hydrogen, the nuclear and automotive industries, battery supply, infrastructure, food and agriculture, homes and buildings, and the circular economy. At all the summits, Japan promises to reduce greenhouse gas emissions to zero by 2050 and become a decarbonised society. Many companies have committed themselves to that, such as: Tokyo Gas (2019), Toyota (2015), Nissan Motors (2009), Oil Holdings, Fuji Film Holdings, Fujitsu, Mitsubishi Electric Corporations, Otsuka Pharmaceutical, Sumitomo Chemical, Toshiba... Japan sees its "green recovery" from Covid-19 through a sustainable recovery, better economic and social building and a major reset (Takamura, 2021).

The company of Toyota is one of the most striking examples of aligning the United Nations Sustainable Development Goals 2030 (SDGs) with the Sustainable Development Goals. This company sees sustainable development as part of its mission, not only for the development and production of cars, but also as its model of global, market and social sustainability and responsibility. The five most important principles of Toyota according to SDGs are: "a) finding the spirit and technology cultivated through production, respecting and empowering human resources, making safe cars of high quality at a reasonable price and maintaining a stable business base; b) transformation into a mobile company through building a future mobility society, tackling climate change and promoting the use of new energy sources; c) contributing to the resolution of social issues through business that is safe and reliable in accordance with UNSCRs 3, 9, 11, 12, 13, and 17; d) activities of social contributions to people in accordance with the objectives of the UN SDGs 3,4,11,12,15,17; and e) enhancing human rights issues and promoting diversity, and sports – Waku-doki" (Toyota SDGs Initiatives, 2022). Also, this company has decided to align its business with the changes in the Japanese society, thus defining the Toyota Environmental Challenge 2050 with its six main changes, namely:

1) Live cycle zero CO_2 emission Challenge, in accordance with the SDGs 12 and 13; 2) New Vehicle Zero CO_2 emissions Challenge in accordance with the SDGs 7 and 13; 3) Plant Zero CO_2 Emissions Challenge in accordance with the SDGs 7, 9, and 13; 4) Challenge of Minimizing Optimizing Water usage in accordance with the SDGs UN 6; 5) Challenge of Establishing a Recycling based Society and System in accordance with the SDGs UN 9 and 12; and 6) Challenge of Establishing a Future Society in Harmony with Nature in accordance with the UN SDGs 12 and 15. In addition, it defined Initiatives at the New Toyota R&D Center: Promoting Harmony with Nature and Local Communities in line with the objectives of the SDGs UN 14, 15 and 17. The technology should be such as to contribute to zero CO_2 emissions, and Toyota's contribution to this is to promote electrification and electric vehicles. The production of electric vehicles, namely hybrid (HEV), plug-in hybrid (PHEV), battery-powered (BEV), and fuel cell (FCEV), is in line with the objectives of the SDG UN 3, 9, 11, 13 (Toyota Six Challenge, 2022). There is a tendency for electrified vehicles to become "standard" cars, where great importance is attached to vehicle safety. In this regard, a software application of a virtual model of the human body has been developed, which enables computer simulation and analysis of human body injuries caused by vehicle collisions. This software is known as the "Total Human Safety Model" or "THUMS" aligned with the principles of the UN SDGs 3, 9, 12, 13, and 17.

The company's contribution to society implies the creation of "ever better cars", which has enabled Toyota to achieve the sustainability of its business activities. Toyota has evolved from a carmaker to a mobility company, and Toyota's ultimate challenge is: zero deaths and injuries in road accidents. One important goal in this company is "a friendly relationship between vehicles and drivers where they protect and take care of each other." In the future, this company will also use the data obtained from the camera installed in the customers' vehicles, in order to understand "situations in which accidents cannot be prevented" and make artificial intelligence to learn them in order to make better judgments. This is in line with the objectives of the SDGs UN 3, 9 and 12. In practice, Toyota's global challenge remains the promotion of electric vehicles to reduce CO_2 emissions. Furthermore, when it comes to global

efforts to protect biodiversity, Toyota has strived to preserve the Earth's complex and diverse ecosystem, as well as to combat climate change. In 2016, Toyota formed a partnership with the International Union for Conservation of Nature (IUCN) to raise awareness of the global biodiversity crisis with the goal of enriching the IUCN Red List of Endangered Species, which has become a true Barometer of Life (Toyota SDGs Initiatives, 2022).

The company's contribution to society is the creation of "ever-better cars", and that allows Toyota to do business successfully. So, she strives to make safe cars with which the number of traffic accidents will be reduced. When using image data, it is important to pay attention to the privacy of all road users. This is in line with the objectives of the SDGs UN 3, 9 and 12. In practice, Toyota will offer the use of a free license for approximately 23,740 patents for vehicle electrification technologies.

Through these activities, Toyota wants to contribute to the creation of a rich society with its business activities, and the ultimate goal is becoming a reliable corporate citizen in the international community.

Discussion

As the common and accepted concept of sustainable development is divided into three basic dimensions: ecological, economic and social sustainability, which fits into the seventeen UN development goals, all international conventions and all national documents are in accordance with these postulates and principles. Therefore, international conventions are adopted first, and when states have ratified them, strategic guidelines are sent to business entities for harmonization through national development plans and policies. The role of the green economy is to unite the aforementioned three principles (ecological, economic and social) in the way referred to as goal alignment, and all changes must be multiple and multidimensional. This means that technological changes also imply social changes, and that takes a certain amount of time. Changes in the concept of sustainable development cannot happen at the same time in all countries, because the speed, level and breadth of changes depends on the economic development of the country, as

well as on the financial capabilities of the company, and the educational level of the human resources.

Only those industrial policies that are based on the sustainable development and green economy principles, knowledge society, entrepreneurship, digitalization, competition, as well as sustainable consumption with the aim of reducing industrial pollution and promoting industrial waste management, can hope to attain progress. "Today, entrepreneurship as a kind of "soft" power tries to exist as an independent social phenomenon on a global level, and it is often precisely from its economic field that various wars are started and permanent truces are established, although this again testifies to the permanent and "fatal" connection between entrepreneurship (business, economy) and politics in their permanent dispute over the distribution of the cake of power, where again, completely paradoxically, they cannot do without each other, even though they don't really like each other very much" (Cvetićanin, 2018: 47).

The country that has consistently worked on respecting green goals and principles is Japan, and the most striking example of harmonizing with the United Nations Sustainable Development Goals for 2050 is the company of Toyota. Also, the European Union, which began its process of reindustrialization of strategic resources during the Covid-19 pandemic, is taking all steps to reduce its strategic vulnerability, but now struggling with the real military (wars), economic (recessions and depressions), or health (pandemics and epidemics) instability. "Therefore, in the time of global of the return of geopolitics, its old role as the guardian of the global balance remains strength, once intended for her by De Gaulle" (Cvetićanin, 2021: 82).[1] The reduction of strategic vulnerability is also reflected in the reversal of the instability into a stable economic growth and employment stability. The role of the state is evident here, as it must insist on the implementation of accepted international obligations and the implementation of the production process itself. Simply put, sustainable development should encourage the development and application of the technologies that do not pollute the environment,

[1] "Politically speaking, the twentieth century has not ended at all, as the aforementioned theorists thought, but it is still going on, to a large extent, "politically", because it actually represents the last episode of political Modernity" (Cvetićanin, 2017: 246).

but also work in parallel on the education of human resources. This refers to the reduction of poverty and inequality in society, increasing equality in education, better health care, but also the protection of human rights. The rule "dignified life for all", that is, a life full of meaning for all, was proclaimed a long time ago. Therefore, human sustainability is also necessary. The role of the state is to preserve peace and stability, in every aspect, including in terms of energy efficiency. "We are inclined to believe that peace and stability at the global level will occur sooner or later (as always in the past), only at this moment it is not clear whether this will be only after a more noticeable social, political and geopolitical global conflict or things though will not go that far" (Cvetićanin, 2017: 212).

"Changes in the level of employment occur in terms of redistribution of labor, transformation of the workplace or structural changes. Significant potential for job creation lies in the renewable energy and green industry sectors. Investing in human capital saves the use of physical and natural resources, but also benefits employees by creating a better standard of living and well-being. Investments in vocational education contribute the most to economic growth. Through education, it is necessary to create equal opportunities for all people, some to continue to progress, and those "vulnerable" groups to have an equal opportunity not to remain poor". (Maksimović, 2020: 260).

Inequality most often affects the poorest strata of the society, and the most vulnerable are the disadvantaged, not adapted structurally to the needs of the labour market, followed by the female population and young people. Thus, on the one hand, we have an inadequate labour force on the market, and on the other, an increased number of inhabitants, and this has been tried to be solved through industrialization and the conversion of protected green areas and habitats into arable land, or even worse, through excessive housing construction.

It can also be concluded that the transition to a green economy represents an energy transition, seeking to reduce the use of oil and gas and harmful emissions on the planet earth, and reduce the greenhouse effect. But the big question is what will happen to oil and gas companies, with the reduced consumption and decarbonisation being required of them? The answer is that oil and gas

remain an important part of the energy supply, especially in developing countries and regions. It is well known that the United States, India and China are the three largest emitters of greenhouse gases, but they should also strive to decarbonise the energy system. Are they ready for it? Reducing the use of oil and gas contributes to a greater use of fossil fuels, renewable energy and material recycling, all of which reduce costs, as well as pollution. It also depends on how much each country is willing to invest in a green economy (Johnston, Blakemore & Bell, 2020). Consequently, the question has arisen of whether all countries want to implement the green agenda in their own economies equally, thus reducing the harmful effects on nature, including pollution. Is the approach to sustainable development and the application of the green economy different in countries that have raw materials and are exporters of energy than in those who do not have oil and gas, so they need to import them? At what speed would former, and at what the latter accept the energy transformation? Should energy companies themselves take a greater part in decarbonisation?

Conclusions

Green growth aims at an economically sustainable development that prevents environmental degradation. Several conclusions can be drawn from the above. First, a proper and realistic economic policy can protect the development and introduction of new technologies that would reduce waste production. The impact of digitalization will also be evident. Secondly, in addition to this environmental sustainability, "human sustainability" is also very important, i.e. the protection of human resources through better insurance, respect for human rights, as well as work that does not endanger the dignity of the employee. Third, it is necessary to emphasize the role of international conventions and agreements that need to be implemented and thus launch innovations in society, but also provide funds for environmental change. The fourth conclusion is that the role of the state and institutions, as well as of non-governmental organizations, which together should be the bearers of environmental changes, should be emphasized. Fifth, visibility needs to be attained of the importance and role of

companies, especially multinational companies as carriers of economic development, but also environmentalists. Sixth, everything should be done to preserve the natural order, and restore it where it has been disturbed. And seventh, the achievement of the set goals needs to be constantly monitored in terms of progress in the implementation of the principles of sustainable development and environmental protection. Having in mind the above, this topic will certainly remain relevant in the next two or three decades, in which we will try to protect human health and nature itself. This leads to a change in the economy (in those sectors that are marked as "green", with the promotion of environmentally safe products), as well as in the society (a more active role of institutions), and in the political milieu (respect for those standards related to sustainable development that are adopted by international organizations, harmonizing national policies with them, concluding international agreements that are in line with the Green Agenda), but it also reshapes the cultural milieu, forcing us to think in an "ecological way".

Acknowledgement

The authors would like to thank Mr. Robert Lukić, General Director of Toyota Srbija doo and Director of Toyota Adria for useful suggestions regarding the green economy and sustainable development related to this company. They are also grateful for the explanation of the management tools and clarifications of terms related to the Toyota Company.

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Blended Finance as a Sustainable Development Support Mechanism*

Abstract

It is widely agreed that public resources will not be sufficient to cover the investment gap needed for the sustainable development goals achievement (around USD 2.5 trillion annually in developing countries). The development finance landscape has changed in terms of actors, financial instruments, motives and goals. Blended finance is an important mechanism for encouraging the growth of private sector investments in sustainable development projects in which development finance institutions have a significant role. Public and philanthropic capital can catalyse private sector investments that provide financial incentives and create innovative solutions to achieve the sustainable development goals in underdeveloped countries. By improving the risk-return profile of investments without disrupting functioning markets, blended finance encourages and mobilizes private capital in emerging and frontier markets, where public sector resources and donor funding are limited. In the following paper, the blended finance concept and its connection with complementary development strategies, its importance in supporting sustainable development, as well as the blended finance instruments and mechanisms, will be explained.

Keywords: Blended finance, Sustainable development, Development finance institution, Private sector investment

Introduction

Determining the concept of globalization and considering its impact on society as a whole is the subject of numerous discussions conducted both at the national and international level, especially in the years at the turn of the 21st century (Stojković-Zlatanović & Sovilj, 2017: 833). Globalization, mostly perceived as an economic

* The paper was written as part of the 2024 Research Program of the Institute of Social Sciences with the support of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia.

process, has also its political and social, and, why not mention, also its ecological aspects (Zarić & Kelić, 2022: 15). What certainly characterizes today's phase of globalization is that it is the last stage of internationalization, which includes the concept of regionalization and wide expansion (Maksimović & Petrović, 2017: 211).

Green economy and sustainable growth are among the most studied topics today and are especially significant in economics, in terms of "the rational use of natural resources and in the process of creating sustainable economic (industrial) development" (Ostojić, Maksimović & Stojković-Zlatanović, 2022: 263). According to Petrović et al. (2017) "the use of fossil fuels is a key generator of harmful gases that cause the greenhouse effect and lead to global climate change, which is why managing the growing global energy demand is one of the key priorities" (Petrović, Nikolić & Ostojić, 2017: 1). The research results indicate that, in the short term, the impacts of population, gross domestic product per capita and energy intensity on CO_2 emissions are positive and significant (Petrović, Nikolić & Ostojić, 2018: 63; Petrović, 2023a). According to the analysis "an increase in gross domestic product by 1% leads to an increase in energy consumption between 0.47% and 0.48%" (Petrović, 2023: 1473). Also, economic policy measures "should be focused on stimulating loans to finance investments in more energy-efficient technology that enables the transition to cleaner energy sources, especially in the energy, manufacturing and transportation sectors" (Petrović & Lobanov, 2022: 6655).

The green economy, which includes the social and economic well-being of the environment, is the path to a sustainable development (Maksimović, 2022: 61). Effective, inclusive, and efficient institutions are a prerequisite for the implementation of the sustainable development goals, where the purpose of the state with such a set of institutions is to protect, without jeopardizing the natural rights of those who live in it (Ostojić, 2020: 101; Kelić, 2018: 30). The achieved levels of development of individual economies are greatly influenced by the development of institutions (Ostojić & Petrović, 2019: 307). Development finance institutions have an important role in promoting sustainable development and the green economy concept, as well as related blended finance activities (Ostojić, Petrović & Kelić, 2023).

There was a turnaround in the development financing in the last couple of decades. The development finance institutions are no longer the primary financial resources of the public sector, but there is an increased interest in private-sector investments in development. The representation of green banking in the operations of national development banks contributes to the mobilization of financial resources for specific climate change mitigation and adaptation projects. The specificity of these financial institutions is reflected in their ability to use limited public resources to mobilize larger amounts of private capital for development, in order to achieve the net-zero goals (Ostojić, 2023: 201). Private equity funds, multinational corporations, foundations and financiers that are not controlled by the government, as representatives of private sector investors, assume a central role in the global development (Savoy & Milner, 2018). Financing of development projects can be realized by using grants from bilateral or multilateral donors. When it comes to commercial financing, which is also one of the available mechanisms for financing development, investors are primarily interested in achieving returns on the funds invested. Blended finance is created by combining the two aforementioned types of financing, and involves the use of capital from public, or philanthropic sources to increase private sector investments in developing countries in order to support the achievement of sustainable development goals (Convergence, 2021). Investors' interests are satisfied by achieving appropriate financial returns, while at the same time, commercial capital is attracted to projects that contribute to sustainable development. According to the OECD definition, blended finance represents "the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries" (OECD, 2018: 4). This financing mechanism contributes to a faster economic growth of developing countries, ensuring that the total amount of resources at their disposal is increased, complementing their investments and the inflows of agency aid to fill the gap in the financing of the sustainable development goals and thereby make a significant contribution to the implementation of the Paris Agreement. Therefore, blended finance most often appears in the form of financial support to the small and medium-sized enterprise sector, climate finance,

investment in infrastructure and agribusiness, and development of the local financial market (Savoy & Milner, 2018). In the following pages, the concept of blended finance, its importance in supporting sustainable development, as well as the instruments and mechanisms on which it is based, will be explained.

Literature Overview

Blended finance is a relatively new tool in the development cooperation toolkit (OECD, 2020). Khan & Badjie (2020) present a framework for the blended finance of impactful small and medium enterprises (SMEs) to achieve the sustainable development goals (SDGs). They emphasize that the consensus of three stakeholders (philanthropy, private-sector activities and public-sector facilitation) is an essential precondition for blended finance. Prontera & Quitzow (2022) analyse blended finance as an instrument of 'catalytic power', defined as the mobilisation of partners and their resources to pursue external objectives. Luis Curbelo's research (2022) confirms that an important part of the bankability gap of private projects can be covered with public investments, by using blended finance, emphasizing their importance. Pereira (2017) points out that 'blending' has become a common term for development finance, but with an accent on one important problem that is reflected in the fact that this type of financing does not always support pro-poor activities, favouring middle-income countries as well as private-sector donor firms. Attridge & Engen (2019) recognize that blended finance is under enormous pressure to eradicate poverty as the ultimate goal of sustainable development and suggest that policymakers need a better understanding of the development potential of the blended finance, as well as its real costs, to ensure value for money and effective policy-making and aid distribution. Havemann, Negra & Werneck (2022) explore blended finance for agriculture and conclude that to ensure more significant investments in agriculture, it is necessary to unite multiple funding modalities and thereby, they advocate blended financing of agriculture to achieve the sustainable development goals. Christiansen (2021) analyses how non-governmental organizations, development finance institutions and philanthropists using blended finance

seek to fill the funding gap for marine conservation according to blue economy principles. He also suggests that blended finance can become a technical solution that enables market-based environmental management. Choi & Seiger (2020) put climate finance in the focus of the analysis, explain how the transition to low-emission, climate-resistant development paths should be implemented. However, the current global climate finance flows are grossly inadequate. Blended finance, a mechanism that mobilizes significant capital and investment from different actors, becomes a promising solution to help economies decarbonize and meet the goals of the Paris Agreement. Attention has been mostly focused on the volumetric contribution of blended finance, which is why the authors believe that a qualitative assessment of blended finance, which examines the processes and mechanisms by means of which capital sources are mobilized and operationalized, is equally important. Apampa et al. (2021) argue that, due to the existence of high risk and uncertain economic returns, sustainable agriculture is systemically underfunded in developing countries despite its key contribution to many sustainable development goals. The authors' view is that blending public finance with private sector resources to overcome some of these challenges is the best solution for financing sustainable investments in agriculture on a large scale.

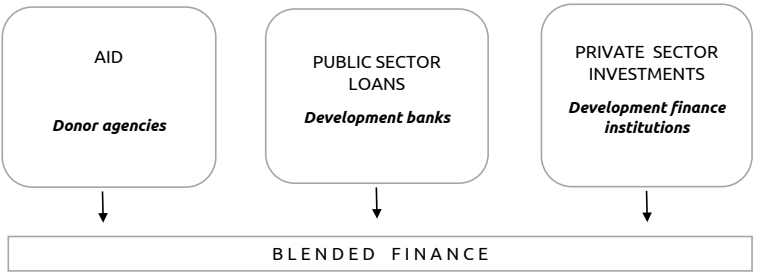
Research

Blended Finance and Complementary Development Finance Strategies

The three main development finance strategies of low-income and middle-income countries are aid, loans to the public sector and investments in the private sector (Graph 1). Each of them annually channels significant flows of development finance. Crucially, what differentiates these strategies is the funding methods and instruments they use. Financial resources whose purpose is to provide aid to vulnerable countries refer to the resources of aid agencies, that is, donor agencies, and include grants and technical assistance. Development banks approve loans to the public sector that include concessional and non-concessional loans to states and

their institutions, while development finance institutions support the private sector by investing in commercially and environmentally sustainable projects (EDFI, 2016).

Graph 1. Development finance strategies



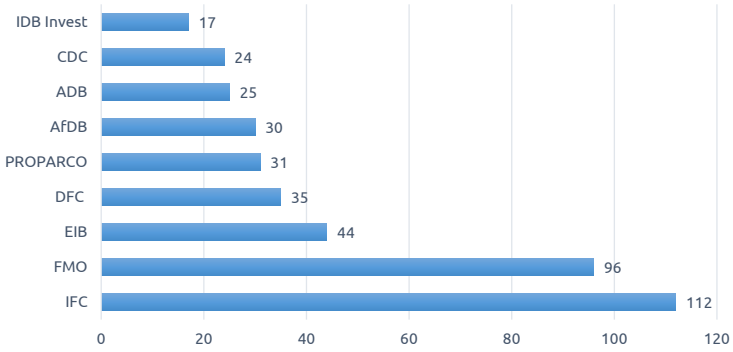
Source: EDFI, 2016: 8.

Financial resources of aid agencies, such as the Official Development Assistance (ODA) are an important source of funds that encourages development activities in low-income countries. The ODA is the prevalent channel of public development aid that encourages economic development and welfare growth in developing countries and in 1969 it was accepted as the 'gold standard' of foreign aid (OECD, 2021). In practice, aid agencies funds are often combined with investments in project activities on preferential terms, aimed at attracting private investors, providing them with protection against losses, or some other form of 'preferential treatment' (EDFI, 2016). In 2022, the official development assistance by the member countries of the Development Assistance Committee (DAC) amounted to USD 204 billion, recording an increase of 13.6% compared to the previous year. The largest share of these funds (over 98%) was made up of grants, loans to sovereign entities, debt relief and contributions to multilateral institutions (calculated on a grant-equivalent basis), while the rest (less than 2%) involved development-oriented private sector instrument (PSI) vehicles, net loans and equities to private companies operating in the ODA-eligible countries (calculated on a cash flow basis) (OECD, 2023).

Blended finance is one of the key approaches in mobilizing new sources of capital to achieve the sustainable development

goals. Blended finance implies the merging of donor finance with the private capital of development finance institutions that invest according to market conditions. In this type of financing, concessional capital serves to attract private investments (Murray & Spronk, 2019). This is achieved by accepting riskier projects to meet the requirements of private investors in terms of return and risk. On the other hand, donors use grant funds in order to achieve a rebalancing of the return and risk ratio, or mitigate the risks associated with investments in regions where private investors are not willing to invest. Injecting private capital into specific development projects can help fill the development finance gap (Mustapha, Prizzon & Gavas, 2014). Through the sharing, or reduction of risk, donor finance can have a stimulating effect on investors from the private sector and provide funds to achieve financial stability, build missing capacities and infrastructure in new and underdeveloped markets, while also generating financial returns for investors (Economist, 2016). In one blended financial fund, one dollar of concessional capital mobilized an average of four dollars of private capital (capital at market terms), while three of the four dollars were invested by development finance institutions (Convergence, 2020). Mobilized capital can include credit lines to micro, small and medium enterprises in developing countries, project financing, as well as direct

Graph 2. Development finance institutions' engagements in blended finance by volume of financial activities, 2020 (number of financial commitments)



Source: Merchant, 2020: https://www.convergence.finance/news-and-events/news/7GHDALorzVgedYo85N8XJK/view

investments in companies (Pereira, 2017). Blended finance is used to 'unlock' untapped investments in sustainable development, particularly from the private sector (IFC, 2019). Its importance is also indicated by the fact that this combined form of financing has so far mobilized approximately USD 161 billion of capital for sustainable development in developing countries, with the average annual capital flow of USD 9 billion since 2015 (Convergence, 2021).

It is interesting to see how the financial resources of development finance institutions and aid agencies can be combined in blended finance. The lucrative nature of development finance institutions and their profit orientation enable them to achieve a long-term sustainability, financial stability of the projects, as well as successful project implementation and achievement of development goals. A financing mechanism that would combine the financial resources of aid agencies and development finance institutions would bring benefits to both parties. Aid agencies would benefit from the business experience of the development finance institutions and their profit orientation, as they would thus ensure the sustainability of their investments, which is generally not achieved in many cases. Aid agencies often cooperated with non-governmental agencies and other non-profit organizations in their project activities, which did not have a long-term dimension and lasted a certain period (Savoy, Carter & Lemma, 2016). An example is the construction of electrical infrastructure in underdeveloped areas. Most of these projects do not have long-term sustainability, while the positive effects would only be realized as long as the achieved improvements are maintained, just for a certain period. Therefore, by partnering with development finance institutions, the aforementioned deficiency would be eliminated, due to the institutions' accumulated knowledge, skills and experience, while projects could provide maximum results and progress that would be confirmed and guaranteed in the future. On the other hand, the development finance institutions could, using the experience of the aid agencies, engage more in border markets and the unstable countries with war conflicts, for whom financial support is extremely important. These are regions that bring numerous challenges and require more extensive and risky investments, which can be provided through the concept of blended finance (Savoy, Carter & Lemma, 2016).

Blended Finance Instruments and Mechanisms

Development finance institutions make a significant contribution to bridging the gap between public and private sector investments, as they compensate for missing financial resources by mobilizing commercial investments (Ostojić, 2022). Developmental finance institutions provide financial support in those spheres of business that are undercapitalized, which are considered to carry a high risk and in which private investors are losing interest. They provide capital, insurance, guarantees and local currency financing. These institutions promote and provide investment, not only through financial support, but also through improving the business environment in underdeveloped countries, facilitating the process of privatization of local companies and strengthening environmental corporate social responsibility (CDC, 2021).

The presence of development finance institutions has a significant impact on risk mitigation in underdeveloped countries (currency risks, preventing contract violations, expropriation). Accumulated knowledge, advanced technologies, expertise, set of standards that development finance institutions apply in risk assessments encourage other investors. Also, these institutions act as intermediaries between companies, banks and other national and international financial and development institutions, and enable their connection and long-term cooperation (ADB, 2011)

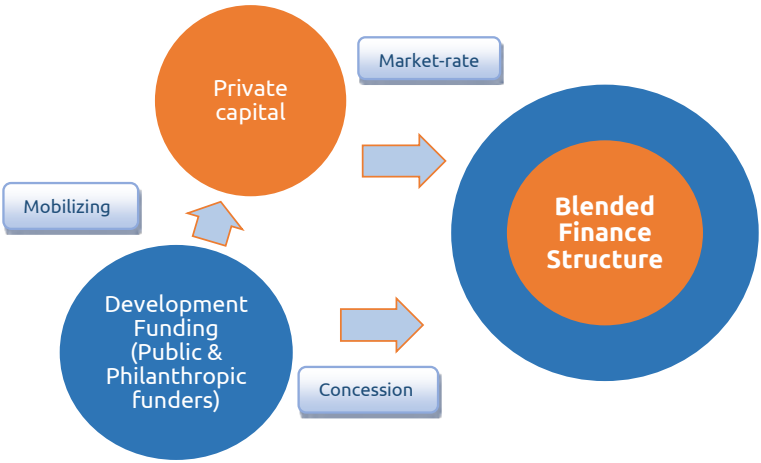
The largest part of the development financial institutions' investments for the development of the private sector in underdeveloped countries, which are implemented with the support of donors, are provided by global multilateral development financial institutions (40%), which include the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency. Regional multilateral development finance institutions cover a quarter of capital flows. Bilateral development finance institutions provide a third of capital flows for private sector development and include 15 European development finance institutions, the U.S. International Development Finance Corporation (DFC) and the Japan Bank for International Cooperation (EDFI, 2016).

Blended finance is based on a structural approach. Public or philanthropic financiers provide financial resources on more

favourable terms than the market ones. In this way, lowering the price of capital, or providing additional protection to private investors in the form of insurance on the terms more favourable than the market ones, providing guarantees or improving credit rating is ensured. Public and philanthropic investors also provide technical assistance before or after the investment, to ensure the sustainability of the investment and enhance development results (IDFC, 2019). Concessional capital, guarantees, or risk insurance are used to improve the investment environment and attractiveness for private investors by defining the ratio of return and risk (reducing the risk rate, or improving the ratio of return and risk). Unlike private investments, concessional finance involves scenarios where a public sector investor, or philanthropic organization accepts a higher risk for the same or lower rate of return, or the same risk for a lower rate of return (Convergence, 2021).

The consensus of United Nations member countries on the importance of the allocation of public sector funds in order to attract private investment is defined in the Addis Ababa Action Agenda which emphasizes the importance of establishing a blended finance market to attract additional capital for sustainable development goals financing (United Nations, 2015). There are several ways

Graph 3. Blended finance mechanism



Source: Convergence, 2021: 9.

to combine public sector finance with private investments: first loss guarantees, the waterfall model, the cascade model and technical assistance (Savoy & Milner, 2018).

First Loss Guarantees

This type of financing of sustainable development implies the consent of the public sector to cover a part of the loss in a specific investment, up to a determined amount. This business arrangement represents a type of financial tool for providing risk protection to private investors by covering capital losses (Savoy & Milner, 2018). As the development financier absorbs the initial losses associated with the investment, donors point out that this is precisely what makes it a powerful financial tool (IDFC, 2019). The public sector's consent to cover the loss cumulates private sector investments that would otherwise not have been realized, while the reason for the new investor inclusion is the private capital direction toward the sustainable development goals (GIIN, 2013).

In developing countries, the sector of micro, small, and medium enterprises and entrepreneurs is faced with financial barriers to further development, which are reflected in insufficient access to financial resources. They need additional financial resources to modernize and expand their business scope (increase sales, improve product quality, provide better working conditions for employees). In a financial system without microcredit financial institutions which provide easier access to capital for the mentioned enterprises, commercial banks only remain in the role of lenders. Commercial banks require guarantees that significantly exceed loan value (over 130%), as well as high interest rates and treat investments in these companies, as those with high risk. As a result, many enterprises with sustainable projects are unable to obtain the necessary financing from the regular financial intermediation system, which leads to the financial gap caused by the insufficient supply of credit to micro, small and medium enterprises (Chatzouz et al., 2017). Without the necessary funds, this important sector and development driver enters a circle: lack of credit – lack of investment – lack of sustainable growth and development (Savoy & Milner, 2018).

The mentioned problems can be mitigated to a certain extent by the credit guarantee scheme. If the public sector is the loan guarantor, banks are much more willing to provide credit lines for the sector of micro, small and medium-sized enterprises and entrepreneurs, because in this way they receive protection against credit risk in the form of a financial guarantee of the first loss. This type of guarantee emphasizes how public policies can respond to the needs of the financial market, fill certain gaps in the financial market, provide financing for the sector of micro, small and medium enterprises and entrepreneurs and establish cooperation between the private and public sectors for sustainable development and successful project implementation (EIB, 2015).

First loss guarantees raise certain issues, such as negative selection and moral hazard. When their investments are secured by public sector guarantees, private investors can accept riskier projects because they feel protected. In this way, credit lines are granted to riskier borrowers, which results in inefficient allocation of resources (Saito, 2014). In this way, risk is transferred from the private to the public sector. For the mentioned reason, guarantees cover only 30–80% of the loan value (Hamp, Rispoli & Agwe, 2014). Also, both private and public sectors have invested financial resources and in the case of successful investment, both sectors realize returns at established rates. If the investment fails, the public sector reimburses the private investors for their initial investment, to cover the initial risk (Runde et al., 2011).

Waterfall Model

This type of blended finance corrects the shortcomings of the previous model, with the gains and losses for public and private investors being eventually balanced. Both private and public investors realize returns, but at different times and different rates (OECD, 2018a). The waterfall model works on the principle of pre-determining the rate of return of the development project which is guaranteed to the private sector. This is usually a rate below the commercial rate, but is guaranteed by the public sector.

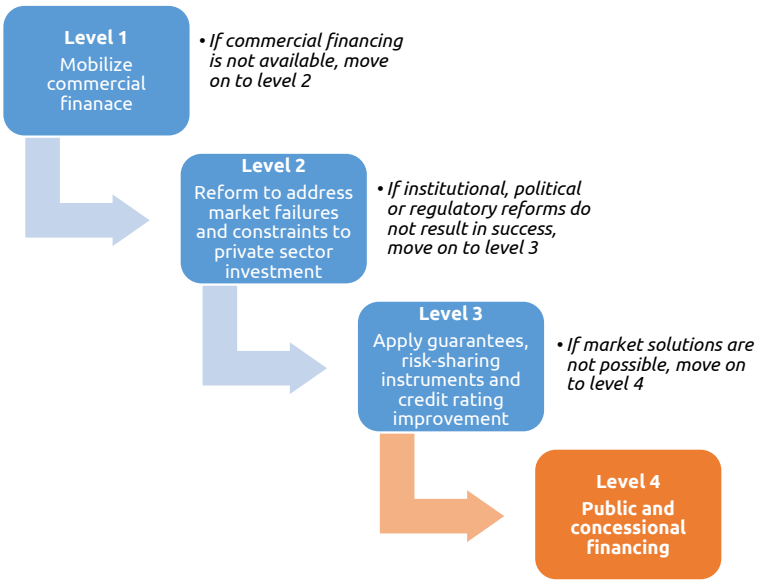
If the yield on a development project is equal to or less than the guaranteed rate, all realized returns belong exclusively to the

private sector. In the case of a return on investment at a rate equal to the commercial rate, private and public investors achieve balanced returns. If the development project achieves additional financial gain, above the rate that ensures balanced investor returns (above the commercial rate), these funds are paid to the public sector as a premium for the accepted risk (Savoy & Milner, 2018).

The Cascade Model and Maximizing Financing for Development (MFD)

The cascade approach to development finance involves determining the best instrument – decision tree that selects an adequate financial tool adapted to the development project specifics (Savoy & Milner, 2018). The focus is on the private sector, intensifying their investments in development projects and filling the financial gap for the realization of ultimate development goals, such as eradicating extreme poverty, inclusive growth, good governance, promoting general prosperity, environmental and social

Graph 4. The cascade decision-making model



Source: OECD, 2020: 38; IFC, 2019a: 11.

sustainability. The role of the private sector is not only that of a source of financial support, but also a source of innovation and expertise. Only in the situations where there is no possibility to finance the development project with the private investors' funds, the public sector is allowed to participate. The priority is to optimally use public resources and avoid unsustainable debt and liabilities (IMF, 2017).

Technical Assistance (TA)

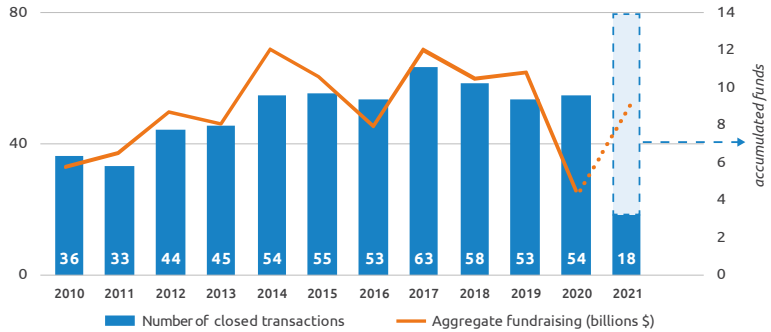
Financial resources are necessary to initiate development investments, but technical assistance provided by donors and philanthropic agencies is also important for the successful commercialization of project ideas. Technical assistance does not imply a direct injection of capital, but the goal is to monitor the project life cycle and accomplish final positive outcomes. Experts with professional advice and experience can contribute to successful project implementation and the achievement of higher rates of return (OECD, 2015). Although the value of blended finance transactions decreased from USD 55 million (average transaction value in 2015–2017) to USD 39 million (average transaction value in 2018–2020), more than a third of the blended finance contracts in 2020 were related to technical assistance mechanisms for capacity building (Convergence, 2021). Technical assistance can be very important for new investors in the traditionally considered high-risk areas such as agriculture, and can include transactions such as the improvement of environmental protection standards carried out in the periods before, or after the investment, that contribute to successful investments (Convergence, 2021).

Discussion

In response to the financial crisis in 2007, several international regulations "were adopted to improve the ability of the financial sector to absorb losses arising from economic and financial stress situations, seeking to reduce the risk of spillover of the crisis from the financial sector into the real economy" (Sovilj & Stojković-Zlatanović, 2018: 1). Focusing on the global blended finance

flows, since 2015 the value of annual capital flows has averaged around USD 9 billion, and the average number of closed transactions per year has been 55. During 2021, blended development finance flows did not reach the level of the previous year (Convergence, 2021). The main investment barriers that private investors face through blended finance are high perceived risk and lower return compared to the investments with the same risk. Fund managers and donors have reduced or postponed fundraising for 2020. Fund mobilization began when markets had stabilized and investors resumed their activities at the same scale as before the Covid-19 crisis. Many donors and private investors were focused on protecting the existing portfolios from the negative consequences caused by the pandemic, which somewhat deterred them from financing new projects (OECD/UNCDF, 2020). As a result, the participation of private sector investments in blended finance transactions decreased from USD 2.2 billion in 2019 to USD 1.1 billion in 2020 (Convergence, 2021).

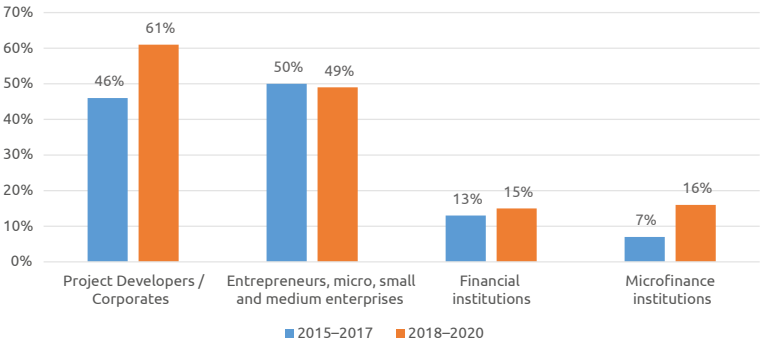
Graph 5. Blended finance market, 2010–2021.



Source: Convergence, 2021:14.

In 2020, more than a third of the blended finance transactions were related to the energy sector (35%), agriculture (28%) and financial services (26%) (OECD, 2021a). The most represented direct beneficiaries of blended capital since 2015 have been corporations (61%). The important direct beneficiaries of the blended capital have also included entrepreneurs, micro, small and medium enterprises, as well as microfinance institutions (Graph 6).

Graph 6. Proportion of closed transactions by direct beneficiary, 2015–2020.

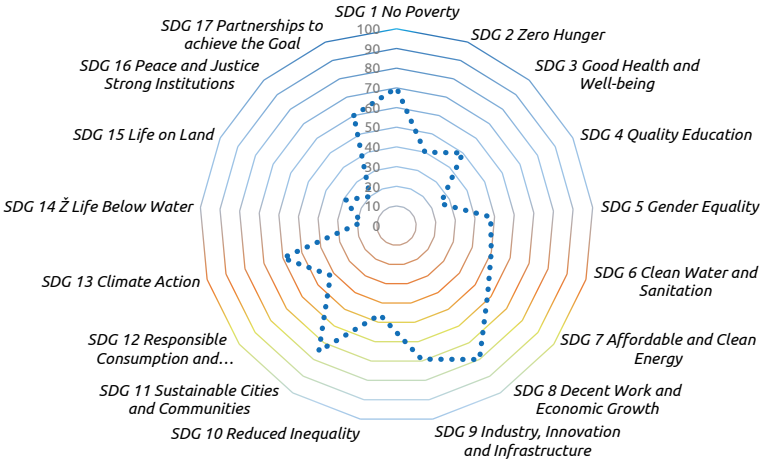


Source: Convergence, 2021: 26.

Some of the blended finance disadvantages defined by the Global Network for Blended Financing are that they favour middle-income countries and foreign investors to the detriment of local investors, as they manifest a lack of transparency, moral hazard and risk "subsidization" at the expense of taxpayers (Larrea, 2021; Savoy & Milner, 2018). Most of the criticism has also been directed to the development finance institutions. Consequently, the mentioned development financing model should be used in situations when the private sector has primary participation. Development finance institutions are very important for underdeveloped and conflict-affected countries where private sector investments are necessary to drive development. Private investors are not ready to invest due to the perceived high risk which makes these countries insufficiently attractive for investors. However, precisely in these countries, blended finance and development finance institutions work best and play catalytic roles in fund mobilization and risk mitigation (Pereira, 2017).

Blended finance contributes to those sustainable development goals that require investment and can generate profit. Half of the finance for sustainable development goals in developing countries can be presented in the form of investments. This is evidenced by the OECD research on the connection of blended finance with sustainable development goals (Graph 7). The goal that is targeted the most by blended finance is SDG 8 Decent work and economic growth. It is followed by Industry, innovation and infrastructure

Graph 7. Blended finance and sustainable development goals



Source: OECD, 2018a: 27.

(SDG 9), Affordable and clean energy (SDG 7), Climate action (SDG13), No poverty (SDG1), Zero hunger (SDG2) and Joint action and partnership towards global progress (SDG 17) (OECD, 2018a). The least positive impact was achieved in the areas of biodiversity, natural resources, reforming and strengthening institutions and establishing the rule of law (SDG 14, 15 and 16). Therefore, as previously stated, this type of financing does not have the same potential to contribute to all the sustainable development goals, just as it does not represent an adequate tool in all development contexts. It is necessary to further improve blended finance and find new private-public approaches to development finance (OECD, 2018a).

Conclusions

The funds from public sources are insufficient for the sustainable development goal achievement (around USD 2.5 trillion annually in developing countries). In the last twenty years, development finance has undergone fundamental changes. The development finance landscape has changed in terms of actors, financial instruments, motives and goals. In addition to the Official Development Assistance (ODA), other development finance opportunities

have emerged. In order to progress successfully, it is necessary to bring in private actors as development partners.

Blended finance is becoming recognized as a helpful tool to bridge the funding gap for the sustainable development goals achievement. A significant role in blended finance is played by development finance institutions that invest in projects with a development and financial dimension, respecting the principles of responsible business for society and the environment. Accepting high-risk projects that other investors are not interested in, development finance institutions provide examples for others to follow in their path transferring knowledge and experience and paving the way for progress toward the SDGs.

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CIP – Каталогизација у публикацији
Народна библиотека Србије, Београд

349.6(082)
338.1:502.131.1(082)

LEGAL insights into environmental sustainability / editors Sanja Stojković Zlatanović ... [et al.]. – Belgrade : Institute of Social Sciences ; Skopje : Ss. Cyril and Methodius University, Institute for Sociological, Political and Juridical Research, 2024 (Beograd : RIC Grafičkog inženjerstva Tehnološko-metalurškog fakulteta). – 197 str. ; 21 cm. – (Series Edited Volumes)

Tiraž 150. – Str. 7–9: Preface / editors. – Napomene i bibliografske reference uz tekst. – Bibliografija uz svaki rad.

ISBN 978-86-7093-276-0 (ISS)

1. Stojković Zlatanović, Sanja, 1986– [уредник] [аутор додатног текста]
а) Животна средина – Одрживи развој – Правни аспект – Зборници
б) Привредни развој – Одрживи развој – Зборници

COBISS.SR-ID 14656436

Language proofreading: M. Prevodi | **Graphic design and layout:** MITRACK | **Print:** 150 copies | **Printed by:** Faculty of Technology and Metallurgy, Research and Development Centre of Printing Technology