



**ISSN 2334-7171**

ISSN 2334-7058 (Online)

DOI 10.12709/issn.2334-7058

4D 61 6E 61 67

65 6D 65 6E 74

45 64 75 63 61

74 69 6F 6E

53 63 69 65 6E

63 65

54 65 63 68 6E

6F 6C 6F 67 79

# **MEST Journal**

**Edited by  
Zoran Čekerevac**

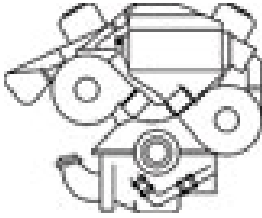
**MESTE**

**Vol. 9**

**No. 2**

**July 2021**

*THIS PAGE INTENTIONALLY LEFT BLANK*



**ISSN 2334-7171**

ISSN 2334-7058 (Online)

DOI 10.12709/issn.2334-7058

This issue:

DOI 10.12709/mest.09.09.02.00

# **MEST Journal**

Management

Economics

Society

Technologies

**Edited by**  
**Zoran Čekerevac**

**MEST Journal**

**Vol. 9**

**No. 2**

**July 2021**

CIP – Каталогизacija u publikaciji  
Narodna biblioteka Srbije, Beograd

005+37+3+66

**MEST Journal** : Management, Economics,  
Society, Technologies /  
editor-in-chief Zoran P. Čekerevac. –  
[Štampano izd.]. – Vol. 9, no. 2 (2021) –  
– Belgrade : MESTE NGO : Faculty of Business  
and Law of the “MB” University in Belgrade ;  
Toronto : SZ & Associates, 2013- (Belgrade :  
ICIM+). – 30 cm  
Polugodišnje. - Drugo izdanje na drugom  
medijumu: MEST Journal (Online) = ISSN  
2334-7058  
ISSN 2334-7171 = MEST Journal (Štampano Izd.)  
COBISS.SR- ID 196182028

Circulation: 100 copies



## MEST Journal online

www.mest.meste.org

DOI 10.12709/issn.2334-7058

Current Issue: DOI 10.12709/mest.09.09.02.00



**MEST Journal** is an international academic journal, the official journal of the non-profit organization MESTE, published online, as well as print, which publishes scientific and professional research articles and reviews in the English language. MEST Journal is published from Belgrade - Serbia and Toronto - Canada. The focal point of the journal is at international level, with the view on matters from a global perspective, but, also, some papers concerning some local specific events could be published. The science and technological advancements and their socio-political impact that happens all over the world can find a place in the MEST Journal. The journal is indexed by Index Copernicus in ICI Journals Master List ICV from 2015, in ERIH PLUS from 2017, in Google Scholar, CrossRef, COBIS.SR, COBIB.RS, Kobson, Scilit, CiteFactor, EBSCO, etc.

### Publishers

- **MESTE NGO** – Belgrade
- **Faculty of Business and Law** of the "Union – Nikola Tesla" University in Belgrade, Belgrade, Serbia
- **SZ & Associates**, Toronto, Canada

### Editorial board – Scientific Board:

**Prof. PhD Walter E Block**, Harold E. Wirth Endowed Chair and Professor of Economics Joseph A. Butt, S.J. College of Business Loyola University New Orleans New Orleans, Louisiana, USA and Senior fellow at the Mises Institute, United States

**Prof. Fawzi M M Al-Naima**, Al-Ma'moon University College, Baghdad, and Al-Nahrain University, Baghdad, Iraq, Iraq

**Prof. Dr. Milija Bogavac**, Faculty of Business and Law of the "MB" University in Belgrade, Belgrade, Serbia

**Prof. Dr. Ana Čekerevac**, University of Belgrade, Faculty of Political Sciences, Belgrade, Serbia

**Prof. dr Zoran P. Čekerevac**, Faculty of Business and Law of the "MB" University in Belgrade, Belgrade, Serbia

**Prof. Ing. PhD Zdenek Dvorak**, Faculty of Security Engineering, University of Zilina, Zilina, Slovakia

**Prof Dr. Sergey Kirsanov**, Russian State Hydrometeorological University (RSMU, St. Petersburg), and Russian State University for the Humanities (RSUH, Moscow), Russian Federation

**Prof. DSc. Petar K. Kolev**, "Todor Kableshkov" University of Transport, Sofia, Bulgaria

**Prof. PhD Iouri Nikolski**, Lviv Polytechnic National University, Lviv, Ukraine

**Prof. Dr. Vlasta D. Piližota**, University of J.J. Strossmayer in Osijek, Faculty of Food Technology, Osijek, Croatia

**Prof. Dr. Lyudmila Prigoda**, Maykop State Technological University, Maykop, Russian Federation

**Prof. Dr. Evgeny Safonov**, Russian state Humanitarian University in Domodedovo, Moscow, Russian Federation

**Prof. PhD Daniela Todorova**, "Todor Kableshkov" University of Transport, Sofia, Bulgaria

**Prof. DSc. Yaroslav Vykylyuk**, Bukovinian University, Chernivtsi, Ukraine

**Prof. Dr. Jelena M Ivanović**, Faculty for sport, University "Union – Nikola Tesla" in Belgrade, Serbia

**Ing. PhD Stanislav Filip**, School of Economics and Management in Public Administration in Bratislava, Bratislava, Slovakia



- Assoc. prof. Ph.D. **David Rehak**, VSB - Technical University of Ostrava, Faculty of Safety Engineering, Ostrava, Czech Republic
- Assoc. prof. Ph.D. **Bohuš Leitner**, University of Žilina, Slovakia, Slovakia
- Dr. hab. **Ladislav Hofreiter**, Andrzej Frycz Modrzewski, Krakow University, Krakow, Poland
- CSc **Irina Ivanova**, State University of Food Technologies, Mogilev, Belarus
- Col. Ing. CSc **Veroslav Kaplan**, Faculty of Military Technology, University of Defence in Brno, Brno, Czech Republic
- Ph.D. **Denis Vasilievich Kapski**, Belarussian National Technical University, Minsk, Belarus
- Dr. Sc. **Zvonko Kavran**, Faculty of Transport and Traffic Engineering, University of Zagreb, Zagreb, Croatia
- PhD **Tatiana Paladova**, Maykop State Technological University, Maykop, Russian Federation
- Ing. PhD **Radovan Soušek**, University of Pardubice, Jan Perner Transport Faculty, Pardubice, Czech Republic
- Prof. Dr. hab. **Zenon Zamiar**, General Tadeusz Kosciuszko Military Academy of Land Forces in Wroclaw, Wroclaw, Poland
- Dr. **Evelin Krmac**, University of Ljubljana, Faculty of Maritime Studies and Transportation, Portoroz, Slovenia
- Dr. Sc. **Mario Bogdanović**, University of Applied Sciences at Istrian University of Applied Sciences, Pula, Croatia
- Dr. Sc. **Fabrizio Rossi**, University of Cassino and Southern Lazio, Cassino, Italy
- Prof. Dr. **Wang Bo**, Ningbo University of Technology, Ningbo, China

### Editorial staff – Production:

- Editor-in-chief: Prof. Dr. Dr. h. c. **Zoran Čekerevac**, Faculty of Business and Law, Belgrade, RS
- Deputy chief editor: Prof. Dr. **Milija Bogavac**, Faculty of Business and Law, Belgrade, Serbia
- Technical editor: **Damjan Čekerevac**, MSc, University of Coimbra, Coimbra, Portugal
- Technical editor: **Slavko Zdravković**, MSc, SZ & Assoc.- Toronto, Canada
- Lector: Prof. Dr. **Ljiljana Jovković**, Faculty of Business and Law, Belgrade, Serbia
- Lector: **Sanja Čukić**, MA, Faculty of Business and Law, Belgrade, Serbia
- Manager: Dr. h. c. **Milanka Bogavac**, PhD, Faculty of Business and Law, Belgrade, Serbia
- Design: SZ & Assoc. – Toronto, Canada

Printed by: **ICIM+, Belgrade**

Circulation: 100 copies

The journal was published online at URL: <https://www.meste.org/ojs/index.php/mest/index>

The MEST Journal is registered in doiSerbia of the National Library of Serbia, COBIB.SR, Matica Srpska Library, COBISS.SR, EBSCO, Google Scholar, CrossRef, OALIB, EleCas base of KoBSON, the Index Copernicus ICI Journals Master List from 2014 (*ICV 2019 =100.00*), Scilit, ROAD, ERIH PLUS, CiteFactor, and in the ResearchBib (IF: 2020 Evaluation Pending).

**All published papers have been internationally reviewed**

**Two issues of journal are published annually, on January 15<sup>th</sup>, and July 15<sup>th</sup>.**

**ISSN 2334-7058 (Online) &  
ISSN 2334-7171**



MEST Journal  
Year IX, Vol. 9, Issue 2  
DOI: 10.12709/mest.09.09.02.00

## Editorial on MEST Journal 2021-1

Prof. Dr. Dr. h. c. Zoran Čekerevac<sup>1</sup>  
Editor-in-Chief  
(1) Faculty of Business and Law, "MB" University, Knez Mihailova 33, 11000 Belgrade, Serbia

Belgrade, July 15<sup>th</sup>, 2021

If we say that 2020 was unusual in every respect, for the first half of the year 2021, we may say that it continued with the trends from the previous year. The main difference is that vaccines emerged gave hope that life will return to its former normal state. But along with vaccines, there came discussions about whether vaccines were effective and whether they also protect against new strains or pose a higher risk than COVID-19 itself.

Our journal continued to work and made some changes. One of the most important is that we have three new members of the Scientific Board. Prof. Dr. Jelena M. Ivanović, from the Faculty for Sport, University "Union - Nikola Tesla" in Belgrade, Serbia, Assoc. prof. David Rehak, Ph.D., VSB - Technical University of Ostrava, Faculty of Safety Engineering, Ostrava, Czech Republic, and Assoc. prof. Ph.D. Bohuš Leitner, University of Žilina, Slovakia, are new members of the Scientific Board. At the same time, due to retirement, prof. Ing. Ladislav Šimak, Ph.D. left the Scientific Board. We wish to take this opportunity to thank professor Šimak for everything he did for the MEST Journal.

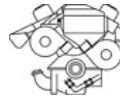
06/01/2021 we have signed a contract with EBSCO Publishing, Inc., making the MEST Journal listed in the EBSCO database of scientific journals. We are sure that it will help MEST Journal to be more visible in the scientific society.

This issue is published online and in paper form. In this issue, we published 13 submitted papers. Two of them are original research scientific papers. The six articles belong to the review papers, three to case studies, and one is a scientific discussion.

This journal issue includes papers that analyze the opposing opinions of different authors. The articles that present case studies give more pronounced views of the authors. Therefore, we repeat that our editors do not censor the works we publish and that the published works may contain and proclaim statements that could differ from the positions of the editors. We check articles for plagiarism, but we cannot guarantee the accuracy of the data published. We believe that our authors are honorable and publish only their original works with really achieved results. We thank the authors and reviewers who did their job well and conscientiously on the quality of the work we publish.

We invite you to publish your works in the MEST journal. We will help you with that.

Prof. Dr. Dr. h. c. Zoran Čekerevac



## Economics and Law

Economics

Political economy

Management in economics

Public administration

Public management

Management in industry

Entrepreneurship

Management in crisis situations

Management in transport

Technologies and quality tools in management

IT management

Management in ecology

Management in sport

Economic education and teaching of economics

Information security and information system security

Business information system

Innovation and technology

Legal aspects of management

Law

***These are basic, but not exclusive themed areas.***



Article No.	Category Name(s) of the author(s) <b>TITLE OF THE ARTICLE</b> DOI	Pages No.
#1	<b>Case study</b> Mariya Boyko, Oleksandr Dluhopolskyi <b>ACADEMIC INTEGRITY IN UKRAINIAN UNIVERSITIES: CASE OF ACADEMIC IQ PROJECT IN TNPU</b> DOI: 10.12709/mest.09.09.02.01	1-6
#2	<b>Review article</b> Begum Burak <b>AN ANALYSIS OF SERBIA'S CYBER-POLITICAL HABITAT</b> DOI: 10.12709/mest.09.09.02.02	7-14
#3	<b>Review article</b> Sergii V. Dzholos, Oksana Koshulko <b>WOMEN'S EMPOWERMENT IN ACTION: FROM PAST TO PRESENT</b> DOI: 10.12709/mest.09.09.02.03	15-21
#4	<b>Research paper</b> Aleksandar Gracanac, Dragana Djokic, Vladimir Djokic <b>CONTEMPORARY IDENTIFICATION OF FUTURE LEADERS IN THE AFFIRMATION OF HUMAN RESOURCES</b> DOI: 10.12709/mest.09.09.02.04	22-27
#5	<b>Review article</b> Yurii S. Kononenko, Sergii V. Dzholos <b>NATURAL LAW AND SOCIAL CONTRACT: CONSERVATIVE PHILOSOPHERS' VIEW (XVII – XVIII CENTURIES)</b> DOI: 10.12709/mest.09.09.01.05	28-34
#6	<b>Scientific discussion</b> J. C. Lester <b>DEVELOPMENT OF CHILDREN'S RIGHTS IN POLAND – SELECTED ASPECTS</b> DOI: 10.12709/mest.09.09.02.06	35-44
#7	<b>Review article</b> Svitlana Luchyk, Margaryta Luchyk <b>HUMAN CAPITAL OF UKRAINE: INCLUSIVE DEVELOPMENT</b> DOI: 10.12709/mest.09.09.02.07	45-53
#8	<b>Case study</b> Alaa Mohammed, Fawzi Al-Naima <b>MANAGING THE STATUS OF SUFFERING PILGRIMS IN MAKKAH VIA MOBILE APPLICATION</b> DOI: 10.12709/mest.09.09.02.08	54-60
#9	<b>Research paper</b> Maryna Resler, Diana Maksymenko <b>STRATEGIC PRIORITIES FOR THE PROVISION OF AGRICULTURAL ENTERPRISE DEVELOPMENT</b> DOI: 10.12709/mest.09.09.02.09	61-67
#10	<b>Review article</b> Richard de Schweinitz, Walter E. Block <b>PROPERTY RIGHTS IN THE POSTCOLONIAL WORLD</b> DOI: 10.12709/mest.09.09.02.10	68-74



Article No.	Category Name(s) of the author(s) TITLE OF THE ARTICLE DOI	Pages No.
#11	<b>Review article</b> Nikolay Tsonkov <b>WATER SECTOR MANAGEMENT AND SUSTAINABLE DEVELOPMENT OF BULGARIAN REGIONS</b> DOI: 10.12709/mest.09.09.02.11	75-80
#12	<b>Case study</b> Dragan Vujovic, Aleksandar Gračanac, Andrej Spirkovski <b>IMPROVING EFFICIENCY OF COURTS AND OTHER INSTITUTIONS BY SMART AV RECORDING SYSTEM</b> DOI: 10.12709/mest.09.09.02.12	81-90
#13	<b>Review article</b> Alina Zhukovska, Oleksandr Dluhopolskyi <b>ELEMENTS AND INDICATORS OF INCLUSIVE ECONOMIC DEVELOPMENT</b> DOI: 10.12709/mest.09.09.02.13	91-98
A1	<b>Reviewers</b>	99-101
A2	<b>Instructions for authors</b>	102-105
A3	<b>Submission instructions</b>	106
A4	<b>Reviewer's report</b>	107-108
A5	<b>Templates for the MEST Journal papers</b>	109



# ACADEMIC INTEGRITY IN UKRAINIAN UNIVERSITIES: CASE OF ACADEMIC IQ PROJECT IN TNPU

**Mariya Boyko**

Ternopil Volodymyr Hnatiuk National Pedagogical University, Ternopil, Ukraine

<https://orcid.org/0000-0002-3864-1044>

**Oleksandr Dluhopolskyi**

West Ukrainian National University, Ternopil Volodymyr Hnatiuk National Pedagogical University, Ternopil, Ukraine

<https://orcid.org/0000-0002-2040-8762>

©MESTE

JEL Category: **H52, I21, I23**

## **Abstract**

*The article is focused on the evaluation of the implementation of the project “Academic IQ” in Ukrainian universities (case of Ternopil Volodymyr Hnatiuk National Pedagogical University). The study analyzes the progress of Ukraine towards improving the quality of higher education both with the help of internal stakeholders and with the help of external donors-partners of educational reforms. Based on the survey of 194 teachers and 1293 TNPU students, it was found that the university is actively working to clarify the law, the institution's policy on academic integrity in the educational process, and technical verification of plagiarism is carried out by software resources, expert verification is carried out by a qualified commission, the principle of blind peer review is implemented. The university also has a transparent system of questionnaires of students about the disciplines they have passed, which enables it to quickly make changes to educational programs. Conclusions emphasize that students are well informed about the procedure of appeals in violation of the rules of academic integrity, teachers and students communicate effectively with each other, and the percentage of classes attended by students during the semester corresponds to high attendance and quality work of the university.*

**Keywords:** *academic integrity, university, quality assurance, NAQA, TNPU*

*Address of the corresponding author:*

**Oleksandr Dluhopolskyi**

[✉ dluhopolsky77@gmail.com](mailto:dluhopolsky77@gmail.com)

## **1 INTRODUCTION**

Issues of academic integrity, well-known to the educational environment of highly developed countries, have long been ignored by the Ukrainian scientific and educational community. The reasons for this are quite different – from



inherited from the Soviet-era practices of educational conformism, “buying positions and awards” to the need to survive in a reduced contingent of students, increasing competition in the market of educational services with minimal budget funding and lack of incentives to improve education. However, with the adoption of the Laws of Ukraine “On Higher Education” in 2014 and “On Education” in 2017, the issue of academic integrity among all education stakeholders has become important. An additional factor in strengthening the institutional capacity of the higher education system in this direction was the establishment of the National Agency for Higher Education Quality Assurance (NAQA) in 2015, with the mission to catalyze positive changes in higher education and culture of its quality (NAQA, 2021; Stukalo, Dluhopolskyi, 2020).

Academic integrity in the direction of strengthening the quality of higher education in Ukraine acquires a special role not only due to the internal motivations of the educational community but also to external stakeholders - international donors who implement “best practices” of world standards of academic integrity in Ukraine. One such project is the Academic Integrity and Quality Initiative – Academic IQ, which aims to bring together the professional community of educators working in secondary and higher education to share experiences and work together to support academic integrity and quality of education (AcademIQ, 2021).

The beginning of this project was preceded by the successful administration by the American Councils of Strengthening Academic Integrity in Ukraine Project, SAIUP (2016-2019) and Seeding Academic Integrity in Secondary School, SAISS (2017-2019). Today, this project is implemented with the assistance of the US Embassy in Ukraine and with the support of the Ministry of Education and Science of Ukraine and the National Agency for Quality Assurance in Higher Education (American Councils, 2021). It involves 60 leading institutions of higher education in Ukraine, including Ternopil Volodymyr Hnatiuk National Pedagogical University (TNPU), which is recognized as the leader in humanities education and the best pedagogical institution of higher education in Ukraine in 2020.

## 2 METHODOLOGY

As part of the Academic IQ project, a survey was conducted on the issues of academic integrity by students and teachers of TNPU (from December 1<sup>st</sup>, 2020, to February 5<sup>th</sup>, 2021). The survey covered 1293 students from different faculties and courses of the university and 194 teachers from different faculties of TNPU. Among the surveyed students, 85% are women and 15% are men, and among the surveyed teachers, 73% are women and 27% are men.

## 3 RESULTS

The Commission on Academic Integrity, Ethics and Conflict Management, and the Academic Integrity Promotion Group (TNPU, 2021) promote the principles of academic integrity and their implementation in the educational and scientific activities of the university.

Surveys of TNPU students were conducted in the following areas: 1) familiarity with the norms of academic integrity at the university; 2) application of sanctions because of the violation of the norms of academic integrity; 3) monitoring satisfaction with the educational process; 4) learning the basics of academic writing.

The answers to the questions about the problems that TNPU students most often discussed with teachers during the school year were distributed as follows (Fig. 1): 50.1% noted the question of requirements for written research papers, 44.1% citation rules and reference rules on sources of information, 43% problems of plagiarism and cheating, 41.7% issues of ethics and academic integrity, 35.8% sanctions in case of plagiarism.

When a student copies from another student during a written task, 44.5% of TNPU teachers make only oral remarks, while 29.8% of teachers punish these cases using lower scores. However, when a student submits someone else's written work on his behalf, the sanctions of teachers are much stricter, and thus – 52.2% do not accept the work.

Only 9% of university students said that during the entire period of study they had to file a complaint to the teacher or the administration of TNPU due to dissatisfaction with the educational process.

35.2% of students asked teachers for clarification on the criteria for assessing tasks.

When asked how common it is to get extra points for completing additional tasks within the course, almost 54% of TNPU students answered in the affirmative (Fig. 2).

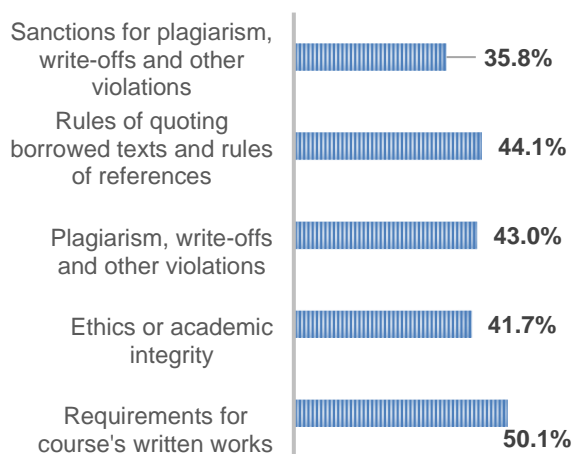


Fig. 1 Top 5 questions TNPU students discussed with academic and teaching staff

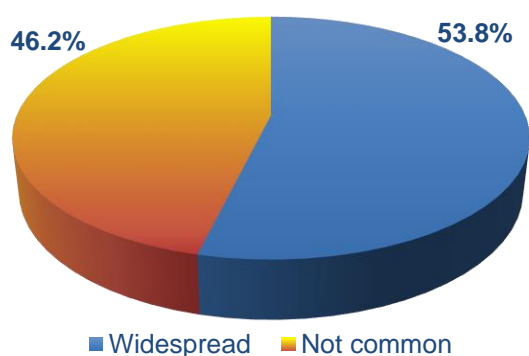


Fig. 2 Possibility to earn extra points for completing additional tasks in TNPU

To ensure the transparency of the student work evaluation process, only 29% of teachers provide detailed commentary on student work (Fig. 3).

53% of students said that they had taken a course or individual topics in academic writing at the university, while 47% did not remember it.

72.6% of surveyed students attended classes online and in classrooms during the semester.

Only 37.3% of students say that after each discipline they are surveyed about the level of satisfaction with the knowledge gained from it,

while 41.2% of students do not know about such a procedure.

Surveys of TNPU teachers were conducted in the following areas: 1) familiarity with the norms of academic integrity at the university; 2) tolerance to plagiarism; 3) criteria for assessing students; 4) availability of plagiarism detection software.

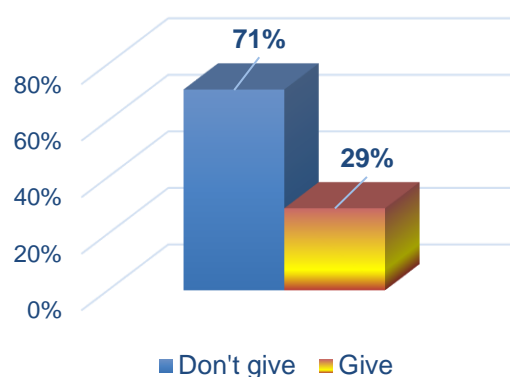


Fig. 3 Do university teachers comment on student work?

Thus, the results of the survey revealed that 82% of teachers took part in activities related to the clarification of the current legislation and policy of the institution regarding academic integrity. 78.9% of TNPU teachers understand their role and functions in the mechanisms of counteracting academic dishonesty. 66.1% have information on sanctions that can be applied to students in case they violate the rules of academic integrity. However, only 39.3% of respondents note that all university teachers follow a single procedure in case of detection of violations of academic integrity (Fig. 4).

Regarding the availability of plagiarism detection software, 62.6% of teachers said they had access to it, but only 56.5% used it to check students' term papers and dissertations.

To the question "In which cases can a teacher not respond to detected plagiarism?" the answers of the respondents were distributed as follows: 44.1% indicated that only if the amount of plagiarism turned out to be insignificant; 8.5% - if the student did not know about the sanctions for detected plagiarism; 6.8% - if the student does not understand the content of plagiarism; 5.1% - if the student has an excessive workload; 4.5% - if the

student does not understand the difficult task and only 5.1% - would never ignore the detected plagiarism (Fig. 5).

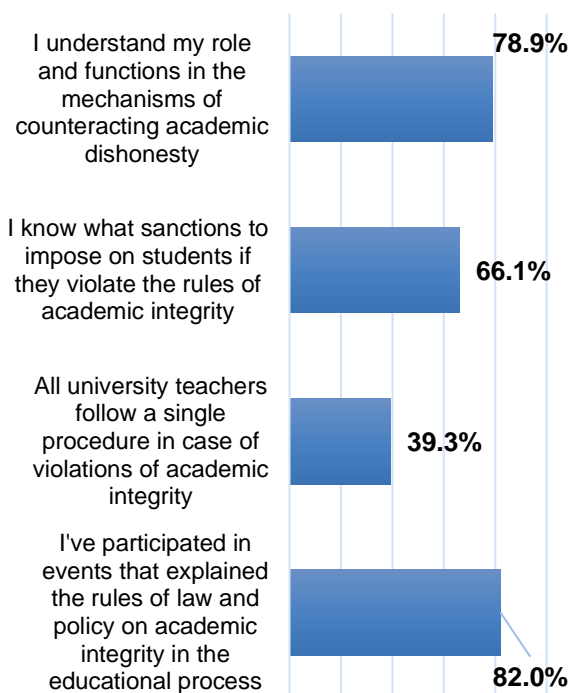


Fig. 4 Awareness of TNPU teachers with the norms of academic integrity

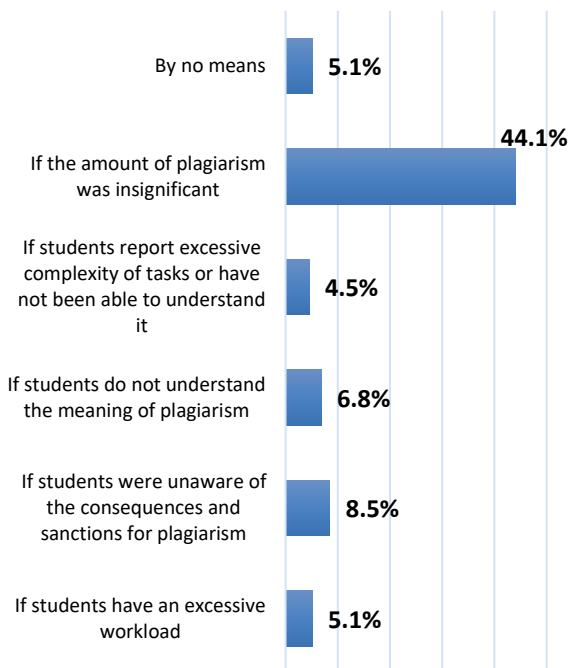


Fig. 5 In what cases can a teacher "close his eyes" to plagiarism?

To the question "What will you do if a student violates the principles of academic integrity in an exam or writing?" the answers of teachers were distributed as follows: 49.2% will follow the regular university procedures; 41.7% - do not accept and do not assess the student's work; 33.7% - will reduce the assessment points, and 8% indicate the lack of clear procedures and rules for responding to such things.

According to the responses of TNPU teachers, it will not be considered plagiarism when a student copied one sentence from another source for use in his work if (Fig. 6): 1) this sentence is quoted and the author and page of his work are mentioned (83.1%); 2) if it is only one sentence, then it is not enough to be considered plagiarism (16.9%); 3) if this sentence is taken from student's another work even without reference (14.6%); 4) if several words are replaced even without a reference (6.2%).

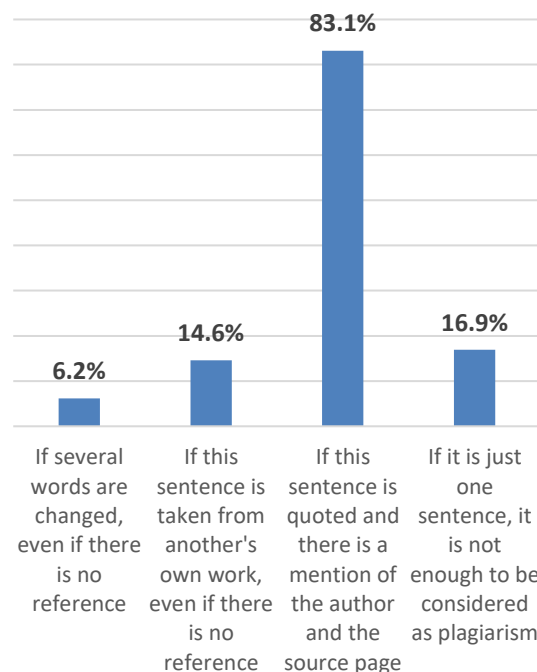


Fig. 6 Under what conditions is it not considered plagiarism for a student to copy one sentence from another source and use it in his work?

As for the criteria for assessing disciplines, mostly university teachers discuss them with students at the beginning of each course (64%), while only 36% of teachers prescribe "rules of the game" in discipline syllabi (Fig. 7).

89.5% of TNPU teachers take into consideration annual surveys on the quality of educational programs, and 95% note that according to the results of surveys, changes are made to educational programs.

66.1% of TNPU teachers have information on where to report violations of the rules of academic integrity by university students.

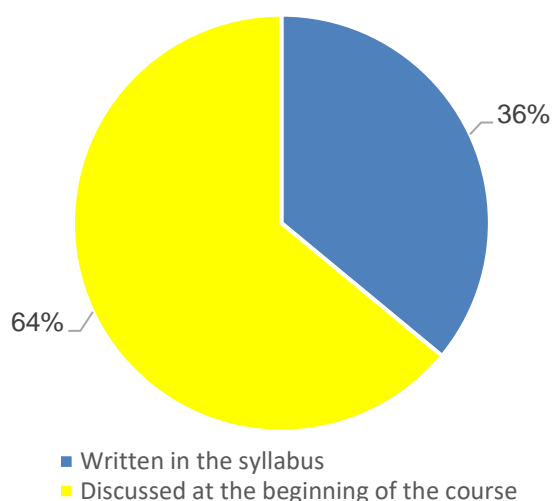


Fig. 7 The source of students' awareness of the general criteria for assessing the discipline?

74.3% of teachers consider the workload of TNPU students to be moderate, but only 43.7% of surveyed students hold a similar opinion. Regarding TNPU teachers' workload, 50.3% of the staff consider it excessive.

## 4 CONCLUSIONS

In summary, according to the results of the study, TNPU students are most familiar with the requirements for written work in the process of studying courses, with the rules of ethics and principles of academic integrity, rules of citation, references. Regarding the application of sanctions to violators of the principles of academic integrity, most teachers follow the regular procedures currently agreed at the university. TNPU regularly surveys students about their disciplines, and most teachers make changes to educational programs based on student surveys. Students are well informed about the procedure for appeals in violation of the rules of academic integrity. Survey data show that the teacher and the student communicate effectively with each other, and the percentage of classes attended by students (generally online and in classrooms) is 72.6%, which corresponds to a high level of attendance.

## WORKS CITED

- AcademiQ (2021). *About Academic IQ*. Available at: <https://academiq.org.ua>.
- American Councils (2021). *Our Programs*. Available at: <https://americancouncils.org.ua/en/programs>.
- Boyko M. (2020) Academic integrity in the educational process of pedagogical university: managerial aspect. *The Scientific Issues of Ternopil Volodymyr Hnatiuk National Pedagogical University. Series: Pedagogy*, (2), 172-180.
- NAQA (2021). *The National Agency for Higher Education Quality Assurance (NAQA)*. Available at: <https://en.naqa.gov.ua>.
- Stukalo, N., Dluhopolskyi, O. (2020). Educational programs accreditation in pandemic times: challenges for NAQA (Ukraine). *Revista Romaneasca pentru Educatie Multidimensionala*, 12(1Sup2), 167-172.
- TNPU (2021). *Ternopil Volodymyr Hnatiuk National Pedagogical University*. Available at: <http://tnpu.edu.ua>.

## ACKNOWLEDGEMENT

This paper was supported by American Councils' project "Academic IQ" 2020-2022

Received for publication: 06.06.2021  
Revision received: 24.06.2021  
Accepted for publication: 06.07.2021

### **How to cite this article?**

#### Style – **APA Sixth Edition:**

Boyko, M., & Dluhopolskyi, O. (2021, July 15). Academic integrity in Ukrainian universities: Case of academic IQ project in TNPU. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 1-6. doi:10.12709/mest.09.09.02.01

#### Style – **Chicago Sixteenth Edition:**

Boyko, Mariya, and Oleksandr, Dluhopolskyi. 2021. "Academic integrity in Ukrainian universities: Case of academic IQ project in TNPU." Edited by Zoran Cekerevac. *MEST Journal (MESTE)* 9 (2): 1-6. doi:10.12709/mest.09.09.02.01.

#### Style – **GOST Name Sort:**

**Boyko Mariya and Dluhopolskyi Oleksandr** Academic integrity in Ukrainian universities: Case of academic IQ project in TNPU [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 1-6.

#### Style – **Harvard Anglia:**

Boyko, M. & Dluhopolskyi, O., 2021. Academic integrity in Ukrainian universities: Case of academic IQ project in TNPU. *MEST Journal*, 15 July, 9(2), pp. 1-6.

#### Style – **ISO 690 Numerical Reference:**

*Academic integrity in Ukrainian universities: Case of academic IQ project in TNPU.* **Boyko, Mariya and Dluhopolskyi, Oleksandr.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 1-6.



# AN ANALYSIS OF SERBIA'S CYBER-POLITICAL HABITAT

**Begum Burak**

Independent Researcher, Istanbul, Turkey

<https://orcid.org/0000-0002-0071-7330>

©MESTE

JEL Category: **F52, H56**

## **Abstract**

*In the post-Cold War era, new strategies and approaches emerged in both political and security-related issues. Since the late 1990s, the notions such as “cyberspace” “cyberpolitics” and “cybersecurity” have taken a decisive role in the international political scene and the discourses of state elites. Today, nation-states do not only use military tools to fight terrorism. Cybersecurity instruments are also used, especially in intelligence. This study is an attempt to trace the cyberpolitics practices and cybersecurity policies in one of the Balkan states belonging to the post-communist state group, Serbia. For this attempt, this study will coin a new concept called “Cyber-political habitat”. Serbia has a considerable degree of instability in internal politics. Serbia has witnessed serious protests and social media has been the primary channel through which the protesters gained support. In this regard, the cyber-political habitat of Serbia needs a particular definition and attention. The main objective of the study is to shed light on the sui generis character of Serbia in pursuing the goals related to cyberpolitics and cybersecurity. Serbia as one of the Balkan states is a unique example because despite not being a member of NATO, Serbia has taken important steps in cooperation with NATO in the cyber-security area.*

**Keywords:** Serbia, cyber-security, NATO, post-Cold War era, cyber-political habitat

## **1 INTRODUCTION**

In the post-Cold War period, world politics has witnessed major changes in both structural and security-related dimensions. In today's world, not only military measures, but also unconventional methods like the establishment of cybersecurity units in state departments and cooperation with major technology companies like Google are required for protecting both the national security and internal order and peace. The main objective

of this study is to trace the cyberpolitics and cybersecurity practices in Serbia. Serbia has a considerable degree of instability in internal politics. The country has witnessed social uprisings and protests and social media have been the primary channel through which the protesters gained support and got organized. In this regard, this study also aims to shed light on the sui generis character of Serbia in pursuing the goals related to ensuring cyber-security. It is known that Serbia as one of the Balkan states is a unique example because despite not being a member of NATO, Serbia has taken important steps in the cooperation with NATO in cyber-security area.

*Address of the author:*

**Begum Burak**

[begumburak1984@gmail.com](mailto:begumburak1984@gmail.com)



The post-Cold War era refers to the end of the Cold War with the triumph of United States. In this era, the Soviet Union dissolved, and new countries emerged. As a result of the triumph of capitalism, a new concept called “post-communism” emerged. Post-communism is the period of political and economic transformation in former communist bloc states in which new governments aimed to create capitalist economies (King, 2000). Serbia is one of the post-communist states along with Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Montenegro, and Slovenia.

Nazli Choucri (2012) notes that in 1990 only a quarter of a million people used the Internet; today a third of the world population is connected to Internet and the number is growing day by day. In today's world, cyberspace is an important dimension of world politics along with national security dimension. The implications of this new cyberpolitical reality are not only important for technologically advanced countries such as United States, the newly independent states in 1990s also have their own concerns and methods to survive in such an international context. This study is an attempt to analyze how Serbia manages cyberpolitics and promotes security in cyberspace. Serbia is not a member of NATO, but this does not prevent the country from making cooperation with NATO in cyber-security issues.

This study argues that Serbia performs well in many areas of cybersecurity having a strong commitment to addressing the challenges of cybersecurity. The contribution of this study to the cyberpolitics literature is the concept of “*cyber-political habitat*” and the limitation of the study is the lack of enough academic research related with Serbia's cybersecurity policies. The study proceeds in three sections. The first part addresses how the concept of cyberspace changed in the aftermath of the Cold War. This part is also devoted to the definition of the concept of “*Cyber-political habitat*”. The second part addresses Serbia and Serbia's relationship with NATO in general from a historical perspective. The third part analyzes Serbia's cyber-political habitat and risks and threats the country faced. Moreover, this part addresses what kind of policies and initiatives Serbia has adopted in cooperation with

NATO and other international organizations in terms of cybersecurity.

## 2 CYBERSPACE IN POST-COLD WAR ERA AND THE CONCEPT OF “CYBER-POLITICAL HABITAT”

The concept of “Cyberspace” was first used by William Gibson in his 1984 book, *Neuromancer* to represent a virtual environment. The term has multiple meanings. For instance, the Oxford English Dictionary defines it as “the space of virtual reality; the notional environment within which electronic communication (esp. via the Internet) occurs”. Cyberspace can be defined as the interdependent network of information technology infrastructures including the Internet, telecommunications networks, and computer systems (Olsen, 2008).

The post-Cold War era denotes to the victory of United States and the collapse of communist bloc. In this newly shaped international system, the security parameters have changed in parallel to the rapid development of digitalization. The Cold War years were characterized by the nuclear armament. The weapons of mass destruction were the main tools of fight during this period. However, in the post-Cold War era, the types of warfare changed. In contemporary world, the concept of “cyber warfare” plays a key role in the analysis of threats and risks in world political arena. According to Geers (2008), there are five main tactics used in cyber warfare: (1) espionage, (2) propaganda, (3) data modification, (4) infrastructure manipulation, (5) denial of service.

Today, cyberspace has become a war zone for ideological combats. It can be said that there is a change in security perception in the post-Cold War era. Cultural, social, and environmental security issues have gained importance in addition to economic and military security. It is known that Eastern European countries and Western European countries cooperated handling environmental problems (Laakkonen et. al, 2016: 4-8). The steps taken in the realm of cyberspace and cybersecurity are significant while addressing social, cultural and environmental problems. Cooperation on cybersecurity and environmental issues requires different types of relationships, for instance among governments and their law enforcement institutions or stakeholders. These

different types of cooperation can be in the form of bilateral cooperation or formal multilateral cooperation, such as the Council of Europe with the European Cyber Crime Convention known as the "Budapest Convention" (Cassotta & Pettersson, 2019: 622-23).

The post-Cold War era has long been characterized by a bipolar international system dominated by Russia and USA. This bipolarity shows that these two countries have been leading countries not just in military terms but also in technological and cyberspace-related terms as well. Today, international system is considered to become a mixture of a multipolar and unipolar structure. The international system of the post-Cold War era has at least five major powers, Europe, the United States, China, Japan, and Russia (Yilmaz, 2008: 46). Hence, it can be argued that, today it is not possible for a single country to manage the global Internet network and globally accessed cyberspace in an effective way. Cooperation is vital and in this context the functions of international organizations such as European Union or NATO are increasing substantially to combat cybercrimes and cyberterrorism.

The post-Cold War era brought fundamental changes in world politics. The budgets saved for military spending started to decline while Internet-related security tools started to shape the behaviors of the actors. The military command-control networks and systems have begun to be organized according to the requirements of the concept of "cyberwar" (Bıcakcı, 2012: 210). The post-Cold War era witnessed the rapid progress in information technologies. Cyberspace has never been as important as before and threats also are more challenging and complex for nation-states. Cyberspace is anarchic having no central authority. Today, it is hard to detect what kind of risks and dangers are evident in cyberspace. NATO's Cooperative Cyber Defence Centre of Excellence unit based in Estonia distinguishes between "cybercrime," and "cyber warfare." (Moss, 2013). This can be a sign showing the diversification of threats for nation-states in the post-Cold War era.

This study coins the concept of "*Cyber-political Habitat*" to better explain Serbia's unique position in cyberspace and cyberpolitics. To define Cyber-

political habitat, it is important to cover the characteristics of cyberspace. Firstly, cyberspace has a trans-boundary nature. It is beyond physical border of nation-states. Secondly cyberspace enables participation as it decreases barriers to activism and expression. Thirdly, in terms of accountability, cyberspace bypasses the mechanisms of responsibility, so it is hard to control illegal actions in cyberspace (Choucri, 2012: 4).

Cyberpolitics can broadly be defined as the intersection of political sphere and cyberspace. The arena of cyberpolitics is located at the intersection of "*innovation in information and communication technology and applications to the discourse of political analysis and political inquiry*" (Chouri, 2000: 246). Cyberspace makes political participation easier as computer networks enable masses to interact and communicate freely. The intersection of politics and cyberspace has reinforced some of the fundamental precepts of politics. It has not just enhanced the potential for political participation, but also created new possibilities for expressing views. It is difficult to identify an area of politics that is devoid of cyber-related manifestations (Choucri, 2012: 10). In the post-Cold War era, the traditional political tools and methods are not sufficient for the states to guarantee sovereignty or retain control over instruments of force. In this regard, cyber-political instruments play a key role in world politics. International agreements protecting cyberspace and combating cybercrimes can be seen as examples of cyber-political instruments.

Based on the above-noted explanations, this study defines the concept of "*Cyber-political habitat*" as an arena consisting of the interactive and dynamic relationship between political space and cyberspace. Political space can be defined as the space shaped by governmental dynamics. Cyberspace refers to all the virtual and computer-related environments. The *Cyber-political habitat* is unique and distinct for every country depending on their economic, technological, and political conditions. It can be argued that the technologically- advanced, politically stable, and financially well-developed countries like USA has a convenient *Cyber-political habitat* for fighting against cybercrimes and ensuring cybersecurity while countries having internal instability and economic problems like that of Serbia does not

have a convenient *Cyber-political habitat* for ensuring cybersecurity. Thus, Serbia and similar countries need international cooperation for ensuring cybersecurity more and Serbia's cooperation with NATO can be seen as an example of this.

### 3 A SNAPSHOT OF SERBIA'S HISTORY AND SERBIA'S RELATIONSHIP WITH NATO

The Federal Republic of Yugoslavia was established in 1992 as a federation. In 2003, it was reconstituted as a political union called the State Union of Serbia and Montenegro. Serbia became a sovereign republic in 2006 after Montenegro voted in a referendum for independence (Recknagel, 2006). Serbia was part of two South Slavic states, including the interwar Kingdom of Serbs, Croats, and Slovenes and the Socialist Federal Republic of Yugoslavia from 1945 to 1992. Belgrade was the capital of both Yugoslav states, and Serbia was widely regarded as the dominant force in political, and military affairs. Serbia used to be at the center of the Balkan conflicts during the 1990s (The US Congressional Research Service Report, 2018). After the wars in the Balkans in the 1990s Serbia became one of the main destinations for refugees from Bosnia and Herzegovina and Croatia.

Regarding Serbia's relationship with international organizations, it is known that Serbia officially applied for European Union membership on 22 December 2009. Serbia is expected to complete its negotiations by the end of 2024, allowing it to join the EU in 2025 (Rettman, 2018). In terms of relations with United Nations, it is known that Serbia is a member of United Nations. Serbia joined the UN in 2000, as the Federal Republic of Yugoslavia. After gaining full independence in 2006 the President of Serbia informed the United Nations Secretary-General that the membership of Serbia and Montenegro in the UN was being continued by Serbia (Schneider, 2006).

Serbia's relationship with NATO can be considered as a very dynamic relationship. It is known that unlike other Western Balkan states, Serbia does not aspire to join NATO. As a result of NATO's intervention in Yugoslavia in 1999, Serbia today enjoys exceptionality in its relations with NATO that is being acknowledged by both

Serbia and NATO. According to Radoman (2012: 4) this exceptionality implies "*being the only Balkan state that has not either already achieved NATO membership, as is the case with Croatia and Albania, or declared that ambition, as Montenegro, Macedonia and Bosnia and Herzegovina have done.*" Serbia is known as the only Western Balkan country that is least interested in joining NATO, despite recent improvements in relations. It is noteworthy to state that, despite having a turbulent past with NATO, Serbia's security policies are tailored in accordance with the security concepts of NATO from the end of the Cold War onwards (Radoman, 2012: 18).

Before becoming a sovereign Republic in 2006 NATO had suffered from cyber-crimes committed by the Serbians. The Serbian computer hackers denied public access to the web server supporting the public affairs apparatus of the NATO operation in Kosovo, rendering the server virtually inoperable for several days in 1999 (Verton, 1999).

On the other hand, in recent years, Serbia has begun to deepen its cooperation with NATO on issues of common interest. Cooperation has deepened since 2015, when the country agreed its first two-year Individual Partnership Action Plan-IPAP. In July 2021, Serbia will complete its most recent IPAP, at which point it will either be renewed or transition to the new Individually Tailored Partnership Programme (NATO Analysis, 2021). NATO and Serbia make cooperation in various fields and cybersecurity is one of these fields. It is known that, in 2016, NATO recognized cyberspace as a domain of operations.

### 4 SERBIA'S CYBER-POLITICAL HABITAT: STRUCTURE, ACTORS, RISKS AND PRECAUTIONS

"*Cyber-political habitat*" as noted earlier can be defined as an arena consisting of the interactive and dynamic relationship between political space and cyberspace. The *Cyber-political habitat* of Serbia is dependent on the economic, technological, and political parameters. There were 6.89 million internet users in Serbia in January 2021 and Internet penetration in Serbia stood at 79.0% in January 2021. (Kemp, 2021).

In Serbia social media is used effectively during mass protests. One of these protests broke out in 2018. The "One of Five Million" protests lasted over a year. These protests represented the widest outbreak of popular discontent since the collapse of the Milosevic regime in 2000 and especially the left-wing groups used social media to increase their visibility (Pesi& Petrovic, 2020)

Serbian National Internet Domain Registry (RNIDS)<sup>1</sup> states that criminal offences against computer data security according to the Republic of Serbia Criminal Code are as follows: (1) damage to computer data; (2) computer sabotage; (3) computer viruses; (4) unauthorized access to personal computers; (5) electronic data processing denial; and (6) unauthorized use of computer networks. In the legislation of Serbia different dimensions of the right to personal privacy in digital platforms are guaranteed by the Constitution of the Republic of Serbia. Also, the Law on Personal Data Protection provides the conditions for collection and processing of personal data (cited in Vilic, 2018: 126).

Academic literature published in English on Serbia's cybersecurity is quite limited. One of the significant studies addressing Serbia's cybersecurity issue is a report published in 2016 by Diplo Foundation with the support of the Federal Department of Foreign Affairs of Switzerland. According to this report titled "Cybersecurity in the Western Balkans: Policy gaps and cooperation opportunities" Serbia's legal and institutional framework in cybersecurity is based on the Law on Information Security, which was adopted in early 2016. The Diplo Report (2016: 22) notes the following about Serbia's fight against cybercrimes:

*Like other countries in the region, the legal mechanisms to fight cybercrime are in place. The Criminal Code provides norms on criminal offences in accordance with legal frameworks of the CoE and the EU. The Criminal Code does not regulate cyber terrorism as an offence, although cyber terrorism can be prosecuted based on existing offences on terrorism and computer data."*

In terms of cybersecurity challenges in Serbia, it is documented that listening or control of the flow of information of nearly 400.000 people occurs on daily basis, of which only 15.000 legal, while others are under unauthorized supervision. In Serbia, the monitoring of communications has reached major proportions and that it is vital to establish a serious control system (cited in Sinteza Report, 2014). Apart from that, in 2014 Serbia witnessed another major cyber threat. Personal data of millions of citizens were leaked from the database of the Serbian Business Register Agency (Milatovic, 2015).

The World Bank Press Release (2020) notes that to combat threats and risks in cyberspace, Serbia has undertaken major steps. Serbia has a substantial commitment to addressing the challenges of cybersecurity providing a legal foundation and protection mechanisms. For example, in 2019, Serbia ratified and implemented the Council of Europe Convention on Cybercrime (Budapest Convention), including its additional protocol on xenophobia committed through digital platforms (Council of Europe iPROCEEDS, 2019). Despite not being a member of NATO, Serbia has made various cooperations with the Alliance in cybersecurity area. It is known that in 2007, Serbia joined NATO Science for Peace and Security Programme and it has become increasingly active over time (Andjelkovic, 2017). Also, in 2017, the civil servants from the Office of the National Security Council and Classified Information Protection of Serbia were trained to deal with information systems security. The training took place as part of NATO's Science for Peace and Security Programme (NATO News Release, 2017).

## 5 CONCLUSIONS

This article has aimed to address Serbia's cyberspace and cybersecurity policies through coining the concept of "cyber-political habitat". Following this aim, first the changing nature of international system and the emerging tactics and strategies used in the post-Cold War era have been put under scrutiny. The international system of the post-Cold War era has multiple actors

<sup>1</sup> The official web page of Serbian National Internet Domain Registry retrieved from

<https://www.rnids.rs/en/about-us/cyber-security>(15.05.2021)

shaping world politics. This makes it impossible for a single country to manage the global Internet network and protect cyberspace in an efficient way. Cooperation is vital and, in this regard, international organizations such as European Union or NATO have become more significant to combat cybercrimes and cyberterrorism. The concept of Cyber-political habitat can be defined as an arena consisting of the interactive and dynamic relationship between political space and cyberspace. The *Cyber-political habitat* of Serbia is dependent on the economic, technological, and political parameters of the country.

The emergence of cyber warfare and the increasing importance of information technologies for ensuring national security have been two

significant factors shaping today's world order. Serbia is not an exception in the post-Cold War order. The rising importance of cyberpolitics led Serbia to build partnerships with NATO despite not being a part of the organization. Serbia has established a substantial commitment to addressing the challenges of cybersecurity providing the legal foundation and protection mechanisms. It can be argued that Serbia performs well in many areas of cybersecurity having a strong commitment to addressing the challenges of cybersecurity. However, it should also be noted that the country has serious online data privacy problems, so a more robust protection mechanism is an urgent need for protecting online privacy.

## WORKS CITED

- Andjelkovic, K. (December 25, 2017). Cyber security: New area of cooperation between Serbia and NATO?, retrieved from <https://europeanwesternbalkans.com/2017/12/25/cyber-security-new-area-cooperation-serbia-nato/> (14.05.2021).
- Bıçakçı, S. (2012). Yeni Savas ve Siber Juvenile Arasında NATO'nun Yeniden Dogusu, Uluslararası Iliskiler, 9/ 34, 205-226
- Cassotta, S., & Pettersson, M. (2019). Climate Change, Environmental Threats and Cyber-Threats to Critical Infrastructures in Multi-Regulatory Sustainable Global Approach with Sweden as an Example. Beijing Law Review, 10, 616-642.
- Chouri N. (2000). Introduction: CyberPolitics in International Relations, International Political Science Review, Vol 21(3), 243-263
- Choucri N. (2012). Cyberpolitics in International Relations, The MIT Press.
- Council of Europe iPROCEEDS, (March 11-12, 2019). iPROCEEDS: Assessment of legislation on cybercrime and e-evidence in Serbia, retrieved from <https://www.coe.int/en/web/cybercrime/-/iproceeds-assessment-of-legislation-on-cybercrime-and-e-evidence-in-serbia> (14.05.2021).
- Diplo Foundation Report, (2016). Cybersecurity in the Western Balkans: Policy gaps and cooperation opportunities, retrieved from <https://www.diplomacy.edu/sites/default/files/Cybersecurity%20in%20Western%20Balkans.pdf> (11.05.2021)
- Geers, K. (2008). Cyberspace and the changing nature of warfare, SC Magazine, retrieved from <https://ccdcoe.org/library/publications/cyberspace-and-the-changing-nature-of-warfare/> (16.05.2021).
- Gibson, W. (1982). Neuromancer, New York, Ace Publishing
- Kemp, S. (February 11, 2021). Digital 2021: Serbia, retrieved from <https://datareportal.com/reports/digital-2021-serbia> (14.05.2021)
- King, C. (2000). Post-Postcommunism: Transition, Comparison, and the End of "Eastern Europe". World Politics, 53(1), 143-172.
- Laakkonen et.al (2016). The Cold War and environmental history: complementary fields, Cold War History, 4, 377-394.

- Milatovic, I. (July 8, 2015). Serbia's efforts to respond to cyber security threats, retrieved from <https://www.osce.org/mission-to-serbia/170361> (12.05.2021).
- Moss, T. (April 19, 2013). Is Cyber War the New Cold War?. retrieved from <https://thediplomat.com/2013/04/is-cyber-war-the-new-cold-war/> (9.5.2021)
- NATO Analysis (April 6, 2021). Relations with Serbia, retrieved from [https://www.nato.int/cps/en/natohq/topics\\_50100.htm](https://www.nato.int/cps/en/natohq/topics_50100.htm) (10.05.2021).
- NATO News Release (November 23, 2017). NATO trains Serbian civil servants in cyber defence, retrieved from [https://www.nato.int/cps/en/natolive/news\\_149194.htm?selectedLocale=en](https://www.nato.int/cps/en/natolive/news_149194.htm?selectedLocale=en) (14.05.2021)
- Olsen, Kelly L. (2008). *Cyberspace Domain: A Warfighting Substantiated Operational Environment Imperative*. Research paper, Carlisle Barracks, PA: U.S. Army War College.
- Pesic J. and Petrovic J. (2020). The Role and the Positioning of the Left in Serbia's "One of Five Million" Protests. *Balkanologie*, 15(2), 1-21.
- Recknagel, C. (May 22, 2006). Montenegro: Independence Referendum Turns into Cliffhanger, retrieved from <https://www.globalsecurity.org/military/library/news/2006/05/mil-060522-rferl03.htm> (10.05.2021)
- Rettman, A. (June 28, 2018). Macedonia to join next wave of EU enlargement, retrieved from <https://euobserver.com/enlargement/142220> (9.5.2021)
- Radoman, J. (2012). Serbia and NATO: From Enemies to (almost) partners, retrieved from [https://www.files.ethz.ch/isn/144512/nato\\_and\\_serbia\\_\(2\).pdf](https://www.files.ethz.ch/isn/144512/nato_and_serbia_(2).pdf) (10.05.2021)
- Schneider, D. B. (June 29, 2006), World Briefing | Europe: Montenegro: U.N. Makes It Official, retrieved from <https://www.nytimes.com/2006/06/29/world/world-briefing-europe-montenegro-un-makes-it-official.html> (10.05.2021)
- Sinteza Report, (2014). Impact of Internet on Business in Serbia and Worldwide, published by Singidunum University, retrieved from <http://eprints.ugd.edu.mk/10076/1/Sinteza-2014.pdf#page=705> (11.05.2021)
- The official web page of Serbian National Internet Domain Registry retrieved from <https://www.rnids.rs/en/about-us/cyber-security> (15.05.2021)
- The Oxford English Dictionary, retrieved from <https://www.oed.com/> (9.5.2021)
- The US Congressional Research Service Report, (2018). retrieved from <https://fas.org/sgp/crs/row/R44955.pdf> (10.05.2021)
- The World Bank Press Release (December 21, 2020). Serbia Has Undertaken Critical Steps in Cybersecurity, Says First Cybersecurity Capacity Maturity Model Assessment, retrieved from <https://www.worldbank.org/en/news/press-release/2020/12/21/serbia-has-undertaken-critical-steps-in-cybersecurity-says-first-cybersecurity-capacity-maturity-model-assessment> (12.05.2021)
- Verton, D. (April 4, 1999). Serbs launch cyberattack on NATO, retrieved from <https://fcw.com/articles/1999/04/04/serbs-launch-cyberattack-on-nato.aspx> (16.05.2021)
- Vilic, V. (2018). International and Serbian legal framework of the right to privacy in cyberspace, MEST Journal, 6(1), 119-131
- Yilmaz, M. E. (2008), Alternatives: Turkish Journal of International Relations, Vol. 7, No. 4, 44-58.
- Received for publication: 17.05.2021  
Revision received: 09.06.2021  
Accepted for publication: 06.07.2021

### **How to cite this article?**

#### Style – **APA Sixth Edition:**

Burak, B. (2021, July 15). An analysis of Serbia's cyber-political habitat. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 7-14. doi:10.12709/mest.09.09.02.02

#### Style – **Chicago Sixteenth Edition:**

Burak, Begum. 2021. "An analysis of Serbia's cyber-political habitat." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 7-14. doi:10.12709/mest.09.09.02.02.

#### Style – **GOST Name Sort:**

**Burak Begum** An analysis of Serbia's cyber-political habitat [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 7-14.

#### Style – **Harvard Anglia:**

Burak, B., 2021. An analysis of Serbia's cyber-political habitat. *MEST Journal*, 15 July, 9(2), pp. 7-14.

#### Style – **ISO 690 Numerical Reference:**

*An analysis of Serbia's cyber-political habitat.* **Burak, Begum.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 7-14.



# WOMEN'S EMPOWERMENT IN ACTION: FROM PAST TO PRESENT

**Sergii V. Dzholos**

Bohdan Khmelnytsky National University of Cherkasy, Cherkasy, Ukraine  
<https://orcid.org/0000-0002-0001-5523>

**Oksana Koshulko**

Alfred Nobel University, Dnipro city, Ukraine  
<https://orcid.org/0000-0003-1571-2695>

©MESTE

JEL Category: **E24, M5, J2, J8**

## **Abstract**

*The article presents the results of research concerning women's empowerment from the past to the present. In the article, the places, and actions of women in the ancient world, in the Middle Ages and Modern period, in the late XIX - early XX century, as well as in the present time have been explored. The methodology of the research consisted of primary and secondary sources of information. The primary data consisted of field research, collected in some countries of Europe and Asia during 2014-2020, as well as the secondary data that have been collected from the books, chapters of books, articles, web resources, and previous studies by an author on this topic. Besides, some important issues concerning women's empowerment in action in the present time have been analyzed. In conclusion, women's empowerment develops because some of the issues on women do not solve in some countries, among the issues are violence against women in general and domestic violence.*

**Keywords:** *Women's Empowerment, Women's Role, Ancient World, Middle Ages, Modern Period*

## **1 INTRODUCTION**

In different periods of the world's history, women played different roles (Koshulko, 2020; Koshulko, 2021). Sometimes, these roles were significant, sometimes not. The article is devoted to the exploration of the roles of women and women's empowerment in action from the past to the present: from the ancient world to the present day.

The methodology of the research consisted of primary and secondary sources of information. The primary data consisted of field research, collected in some countries of Europe and Asia during 2014-2020, such as Turkey, Ukraine, Poland, Belarus, and others, as well as the secondary data that have been collected from the books, chapters of books, articles, and web resources on this topic.

Address of the corresponding author:

**Oksana Koshulko**

[✉ oksanakoshulko2015@gmail.com](mailto:oksanakoshulko2015@gmail.com)



## 2 EXAMINATION OF WOMEN'S EMPOWERMENT IN THE PAST

### 2.1 The erroneous stereotype about the insignificant women's role in the old times

It is believed that for centuries and even millennia, women have been almost completely deprived of civil, political, social, economic, and cultural rights. The last German Emperor (Kaiser) and King of Prussia Wilhelm II formulated a classical formula describing the social role of women in the German conservative value system, known as the 3Ks: "Kinder, Küche, Kirche" ("children, kitchen, the church") (Paletschek, 2001).

In September 1934, German dictator Adolf Hitler told during his speech to the National Socialist Women's Organization that for the German woman her "world is her husband, her family, her children, and her home" (Doramus, 1990).

Therefore, it is believed that only after the Second World War 1939-1945, to wit in the middle of the XX century, the restoration of justice was started based on gradual equalization in the rights of men and women.

### 2.2 The role of women in the ancient world

At the same time, deep knowledge of history refutes the stereotype about the millennial rightlessness of women.

First, it is necessary to say that matriarchy was spread in prehistoric society. Some researchers even say that all human societies were matriarchal in the past (Eckstein-Diener, 1932).

Women played a significant role in Ancient Sparta (X – II centuries BC) because men were often away fighting. Plutarch wrote interesting information about Gorgo, Queen of Sparta and the wife of Leonidas: "When some woman, a foreigner presumably, remarked to her, "You Spartan women are the only women that lord it over your men", she replied, "Yes, for we are the only women that are mothers of men!" (Plutarch, 1961, p. 363).

According to Herodotus, Sarmatians (V century BC - III century AD) were descendants of Amazons and Scythians, so their females followed

their ancient maternal traditions and had rights, equal with men (The History of Herodotus, 1890).

In Ancient Rome, women played a significant role, even in the political aspect. This is confirmed even by numismatics: wives of many Roman Emperors were represented on the coins (Manila Scintilla, Julia Aquilia Severa, Claudia Octavia, Caecilia Paulina, Gaia Cornelia Supera, Egnatia Mariniana, Sulpicia Dryantilla, Licinia Eudoxia, Annia Galeria Faustina, etc.). The political activities of Valeria Messalina and Julia Agrippina are also well known.

Therefore, we may say that in many countries of the ancient world women played a great role and even ruled the state.

### 2.3 Women in the Middle Ages and Modern period

The situation was changed in the Middle Ages because Christianity could not forgive Eve the original sin, as it was described in the Bible, Gen. 3: 1-24. As one of the punishments, the woman was given under the rule of man (The Bible, 2005).

Therefore, the woman began to be perceived as a weak creature, and therefore not independent. Also, the physiological features and physical weakness (compared to a man) doomed a woman to dependence on a man.

At the same time, military duty was the main type of feudal service, so, naturally, in the Middle Ages men played the main role in the family, in society, and the state.

The Salic law was the ancient Salian Frankish written legal code, adopted at the beginning of the VI century, which included the rules of the folk right (customary law). The Salic law merely prohibited women from inheriting ancestral "Salic land" (Lex Salica, 1880).

In our time, it should be discrimination. However, it was a logical necessity in the period of the Dark Ages and Middle Ages because the lands were the main means of production in agrarian society and land ownership rights determined the personal status of a human. In such a way, a king (or a lord) received the military (or, sometimes, other) services of his vassals and had the opportunity to control the territory of the country. Of course, a woman, due to physical weakness and maternal functions, could not be a good warrior, could not

provide military service, and receive land for it. Therefore, her status was determined by the status of her husband or father.

At the same time, even in the Middle Ages, women were not oppressed beings, deprived of rights. There are few different systems of primogeniture in the monarchical states, which differ in the scope of women's rights to inherit the throne (the Salic, Semi-Salic, Quasi-Salic systems, Absolute primogeniture, Agnatic primogeniture, Male-preference primogeniture, even matrilineal primogeniture). However, even in medieval and early modern France, where the Salic law excluded women from the inheritance of thrones, they played a great role in the political processes. The experience of Diane de Poitiers, Catherine de' Medici, Marie de' Medici, Anne of Austria, Duchesse de Chevreuse, Marquise de Montespan, Marquise de Pompadour, and others prove it.

In the Middle Ages, famous women, such as Princess Olga of Kyiv, Duchesse Eleanor of Aquitaine, Queen Isabella I of Castile, Queen Elizabeth I of England, etc. ruled the states and played a significant role in politics. Therefore, noble women's fate was not sad in the Middle Ages.

Many women also were queens in Modern history, for example, Catherine I, Anna Ioannovna, Elizabeth Petrovna, and Catherine the Great of Russia, Maria Theresa of Austria, Queen Anne of Great Britain, Queen Christina of Sweden, etc.

Therefore, despite the widespread stereotype of the insignificant role of women in ancient times, history proves, that women have played a great role in social and political life in Antiquity, Middle Ages, and the Modern period.

## **2.4 Women in the late XIX - early XX century**

In the late XIX - early XX century women started an active struggle for their economic, political, social, and cultural rights, particularly in the form of suffragette and feminist social movements. At the same time, we should remember that such known as "the second generation of human rights" was formed only in the late XIX - early XX century (Vasak, 1977).

So, empowerment of women and their struggle for rights were one of the elements of the general expansion of human rights that took place in this period (next to the abolition of slavery and selfhood, prohibition of corporal punishments, adoption of democratic institutions in the field of justice and state governing, struggle of the labor people for the improvement of social and economic conditions of their work and life, etc.).

## **3 THE WOMEN'S ROLE ACCORDING TO THE MAIN POLITICAL IDEOLOGIES: LIBERALISM, CONSERVATISM, AND SOCIALISM**

The history of legal and political studies knows many different political doctrines, but, in general, there are three main political ideologies - liberalism, conservatism, and socialism (James, 2015).

Therefore, it is necessary to describe the women's role according to these three doctrines.

The main ideas of liberalism are enthusiasm for freedom, toleration, individualism, and reason, on the one hand, and disapproval of power, authority, and tradition, on the other (Dunn, 1993).

Therefore, according to the liberal ideology, women should have the widest freedom, be equal with men in all aspects, including participation in politics. It is necessary to note, that the extreme form of the liberal evaluation of women's role is such a known "childfree ideology", rather popular today, especially in the countries of the Western civilization, and especially among the highly educated women. It is well known, worldwide, higher educated women are statistically more often choosing voluntary childlessness (Water, 2020).

Modern researchers found that the higher the level woman's education, the less likely she is to bear children (or if she does, the fewer children she is likely to have). Childless couples are more educated, are employed in higher professional and management occupations, receive a higher salary and, as usual, live in urban areas. Also, they are not deeply religious, do not subscribe to traditional gender roles or conventional roles (Kristin, 2005).

Therefore, liberal doctrine gives preference to the unlimited women's freedom, her career ambitions,

refusal to perform the functions of motherhood assigned to her by nature, etc. The increase in the number of women with this worldview in the states of Western civilization led to the depopulation of a titular nation, a decrease in the population, and the level of education of the next generations. Therefore, millions of migrants from countries with low levels of culture arrive in Europe and America, and it leads to the rising of economic tensions and crime rates.

According to the liberal ideas of the social contract and natural law, women, besides the usual forms of political activity, have the right of rebellion against the men's despotism, political tyranny, and they may participate in different actions of protest, etc.

The next great ideology is conservatism. It was formed as the reaction to the events (horrors) of the French Revolution 1789-1799. Its main ideas were written in a famous book by Edmund Burke "Reflections on the Revolution in France" (Burke, 1999).

As Edmund Burke put it, we must see ourselves as involved in "a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born" (Burke, 1999).

Therefore, the main ideas of conservatism are the preservation of historical traditions; counteracting innovations and transformations in society because they may destroy it; coordination of selfish interests of a person with the needs of society; inadmissibility of social upheavals, the possibility of only a gradual change; a great role of the state and traditional values in the life of society (James, 2015).

Therefore, according to the conservative doctrine, the main role of a woman is to be a good wife, good mother, and preserver of the hearth. Nevertheless, as it was described above, in the period of a traditional society and feudalism the real role of a woman depended on her social status. Queens ruled states in the Middle Ages and the Epoch of Modern, and noblewomen were highly educated and ruled their manors when their husbands were involved in military or another service for the monarch. At the same time, women not of noble rank, of course, did not have the

fullness of modern human rights, however, as well as their self-husbands.

The last great ideology is socialism. Its main ideas are the critique of individualism, harmonization of personal and social interests, and the duty of the state to guarantee not only political but also economic equality and freedom of citizens (James, 2015).

At the same time, it should be noted that real equality between men and women takes place in countries with socialist ideology because it is not enough if the state only declares equality, but in fact, does nothing to implement this principle. According to the data of the European Institute for Gender Equality, Sweden and Denmark have the highest level of the Gender Equality Index (The Gender-Equality Index, 2019).

#### **4 DEVELOPMENT OF WOMEN'S EMPOWERMENT IN THE PRESENT IN SOME COUNTRIES OF THE FORMER USSR**

Now, women's empowerment continues to develop. In two decades of the 21st century, in the majority of countries worldwide, including the former USSR countries, women were or are a part of the top management of their countries.

For example, since the collapse of the former USSR, the majority of the countries had or currently have female leaders at the highest official posts.

In Lithuania, the former President of the country of 2009-2019 is Dalia Grybauskaitė. In Ukraine, a former prime minister of the country is Yulia Tymoshenko. In Georgia, a former Chairperson of the Parliament of Georgia is Nino Burjanadze.

At present time, Kersti Kaljulaid is the President of Estonia, Salome Zourabichvili is the President of Georgia, Mehriban Aliyeva is the 1st Vice President of Azerbaijan, Sahiba Gafarova is the Speaker of the Azerbaijan Parliament, Ināra Mūrniece is the Speaker of the Latvian Parliament, Zinaida Greceanii is the Speaker of the Moldavian Parliament, Valentina Matviyenko is the Speaker of the Russian Parliament, Natalia Kochanova is the Speaker of the Belarusian Parliament, Gülşat Mämmedowa is the Speaker of the Turkmen Parliament and Tanzila Norbaeva is the Speaker of the Uzbek Parliament.

At the same time, it is necessary to note that in the post-Soviet countries sometimes a woman may be a Chairperson of the Parliament or a President, but only in few cases, she may be the chief of the government and rule the executive branch of power.

In Belarus, in 2020, three women, among them Svetlana Tikhanovskaya, Maria Kolesnikova, and Veronika Tsepkalo are leaders and symbols of the Belarusian protests of 2020 (The Guardian, 2020).

However, of course, it is not enough for gender equality and women's rights. These and any other states of the world suffer from gender inequality, violence, discrimination, sexism, and any other kinds of challenges.

Moreover, some of the states even did not try to recognize some of the problems in their territories, in particular violence against women in Ukrainian families, i.e. domestic violence.

For example, in 2020 in Ukraine has been researching violence against women in that country because the level of violence against women there is very high, but the current Government of the country does not recognize the problem. The paper 'Exploration of importance of the ratification of the Council of Europe Convention on Prevention of Violence against Women by the Ukrainian Government' (Koshulko & Makazan, 2020) has been written to show the problem of violence against women, as well as the lack of reaction of the Ukrainian Government. To start solving this problem in the country, the Ukrainian Government should ratify the Council of Europe Convention on Prevention of Violence against Women:

*'From the 47 member countries of the Council of Europe, 45 of them have signed the Istanbul Convention, including Ukraine. From all members of the Council, only the governments of 11 countries have not ratified the Convention, and Ukraine is one of these. Ukraine needs to ratify this convention as soon as possible if it wants to uphold its international reputation. It is also important for Ukrainian families to be able to live without violence. Pervasive violence is destroying Ukrainian families and Ukrainian society. It must stop. It is for these reasons that representatives of international organizations in Ukraine, such as*

*ILO, UN Women, UN in Ukraine, and others have urged the Ukrainian President and Parliament to ratify the Istanbul Convention in Ukraine in 2020'* (Koshulko & Makazan, 2020).

Thus, existing of this and similar problems concerning women in some former USSR countries, and other countries worldwide stimulate and develop the women's empowerment in action for its solving.

## 5 CONCLUSIONS

In the article, the examination of women's empowerment in the past and the present have been conducted. History shows that even in the Ancient, Medieval, and Modern period women played a great role in political and social life. Moreover, the empowerment of women in the XX and XXI centuries is the logical continuation of the centuries-old process.

The main political ideologies (liberalism, conservatism, and socialism) evaluate women's roles in different ways. Liberalism pays attention to women's freedom, equality with men, career ambitions, etc. The conservatism says that women's fate is to follow the traditional role of a good wife and mother. The socialistic ideologies pay attention to the necessity of state activities to guarantee the real equality of all men and women in political, social, and economic aspects.

Nowadays, sometimes women are the presidents or the queens of the countries or the chiefs of the parliaments, but only in few cases, they rule the governments as the main organs of the executive power, which have the most importance on the real management of the state. Therefore, the main task of modernity is the development of women's empowerment.

Also, in the article, the development of women's empowerment in the present has been explored women's empowerment in some countries of the former USSR, including Ukraine.

The article also explained why women's empowerment develops in the example of Ukraine. It happens because some of the issues on women do not solve in some countries; among the issues are violence against women in general and domestic violence.

## WORKS CITED

- Burke, E. (1999). *Reflections on the Revolution in France*. Indianapolis: Liberty Fund.
- Doramus, M. (1990). *The Complete Hitler. A Digital Desktop Reference to His Speeches & Proclamations, 1932-1945*. Bolchazy-Carducci Publishers, 532 p.
- Dunn, J. (1993). Liberalism. In J. Dunn, *Western Political Theory in the Face of the Future*, 2nd eds. Cambridge: Cambridge University Press, pp. 29-56.
- Eckstein-Diener, B. (1932). *Mütter und Amazone: ein Umriss weiblicher Reiche*. Munich: Albert Langen, 305 p.
- James, A. (2015). The Major Ideologies of Liberalism, Socialism, and Conservatism. *Political Studies*. Vol. 63, Issue 5, pp. 980-994.
- Koshulko, O., & Makazan, E. (2020). Exploration of importance of the ratification of the Council of Europe Convention on Prevention of Violence against Women by the Ukrainian Government. *The Technium Social Sciences Journal*, Vol. 9, pp. 543-549, Romania.
- Koshulko, O. (2020). Examination of women's access to education and literacy in the framework of empowerment for women around the world. *Azure Magazine*. European Federation for UNESCO Clubs, Vol. 6, pp. 42-50, Bucharest, Romania.
- Koshulko, O. (2021). The examination of women's empowerment in Ukraine during two decades of the 21st century. *Proceedings of the Central Slavic Virtual Conference*, St. Louis, Missouri, United States, March 11-13.
- Kristin, P. (2005). Choosing Childlessness: Weber's Typology of Action and Motives of the Voluntarily Childless. *Sociological Inquiry*. Blackwell Synergy. Vol. 75 (3), pp. 372-402. DOI:10.1111/j.1475-682X.2005.00127.x.
- Lex Salica. (1880). *Ten Texts with the Glosses, and the Lex Emendanta*. Synoptically edited by J.H. Hessels. London: John Murray, Albemarle-street. Trübner & Co., Ludgate Hill.
- Paletschek, S. (2001). *Kinder, Küche, Kirche*. In: Étienne François, Hagen Schulze (Hrsg.): *Deutsche Erinnerungsorte*. Bd. 2. Beck, München, pp. 419-433.
- Plutarch. (1961). *Moralia, Volume III: Sayings of Kings and Commanders. Sayings of Romans. Sayings of Spartans. The Ancient Customs of the Spartans. Sayings of Spartan Women. The bravery of Women*. Translated by Frank Cole Babbitt. Loeb Classical Library. Cambridge, MA: Harvard University Press; London: William Heinemann Ltd.
- The Bible. (2005). *The New Cambridge Paragraph Bible, with the Apocrypha, King James Version*, ed. by David Norton. Cambridge, Eng.: Cambridge University Press.
- The Gender-Equality Index. (2019). The Index score for European Union for 2019. <https://cutt.ly/AfTMxuE>
- The Guardian. (2020). Women unite in a maverick attempt to unseat Lukashenko in Belarus. <https://cutt.ly/KfTMmd1>
- The History of Herodotus. (1890). Translated into English by G.C. Macaulay in two volumes. London: MacMillan and Co. and New York, Vol. 1. pp. 334-336.
- Vasak, K. (1977). *Human Rights: A Thirty-Year Struggle: the Sustained Efforts to give Force of law to the Universal Declaration of Human Rights*, UNESCO Courier 30:11, Paris: United Nations Educational, Scientific, and Cultural Organization.
- Water, S. (2020). Zijn er nu meer mensen die geen kinderen willen dan vroeger? *Quest*. <https://cutt.ly/KfTMT8Y>

Received for publication: 15.04.2021  
Revision received: 02.06.2021  
Accepted for publication: 06.07.2021

### ***How to cite this article?***

#### **Style – APA Sixth Edition:**

Dzholos, S. V., & Koshulko, O. (2021, July 15). Women's empowerment in action: From past to present. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 15-21. doi:10.12709/mest.09.09.02.03

#### **Style – Chicago Sixteenth Edition:**

Dzholos, Sergii V., and Oksana Koshulko. 2021. "Women's empowerment in action: From past to present." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 15-21. doi:10.12709/mest.09.09.02.03.

#### **Style – GOST Name Sort:**

**Dzholos Sergii V. and Koshulko Oksana** Women's empowerment in action: From past to present [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 15-21.

#### **Style – Harvard Anglia:**

Dzholos, S. V. & Koshulko, O., 2021. Women's empowerment in action: From past to present. *MEST Journal*, 15 July, 9(2), pp. 15-21.

#### **Style – ISO 690 Numerical Reference:**

*Women's empowerment in action: From past to present.* **Dzholos, Sergii V. and Koshulko, Oksana.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 15-21.



# CONTEMPORARY IDENTIFICATION OF FUTURE LEADERS IN THE AFFIRMATION OF HUMAN RESOURCES

**Aleksandar Gračanac**

The Faculty of Entrepreneurial Business and Real Estate Management,  
University "Union - Nikola Tesla", Belgrade, Serbia  
<https://orcid.org/0000-0002-3018-2912>

**Dragana Djokic**

University "Union - Nikola Tesla", Belgrade, Serbia  
<https://orcid.org/0000-0002-2974-384X>

**Vladimir Djokic**

University "Union - Nikola Tesla", Belgrade, Serbia

©MESTE

JEL Category: **O15**

## **Abstract**

*Globalization, the third phase of the internationalization process of capital, technological innovation, and human resources, has started the second decade of transitional changes in future business activities. Recently, such an environment of different levels of development and influence (capital, innovation, and human resources) has led to global challenges of risk management predictability and of developing next generation leaders in complex international business partnerships, in relation to both multinational companies and continents. Rapid technological innovation has raised living standards and improved the quality of life. On the other hand, it might also lead to imbalance between human resource and new job demands, based on entrepreneurship as a way of life, in all forms – social, female, youth entrepreneurship. These events might lead to implementing a start-up entrepreneurship methodology, to involve and inspire the next generation of numerous educated young entrepreneurs in the world. This increasing dedication to future young entrepreneurs, based on institutional, corporative, and strategic state measures, meant for the next decade of globalized economy, has inevitably initiated more humane and altruistic business management of the 21<sup>st</sup> century. At the same time, the activities of non-profit institutions have appeared, such as the foundations that are established to preserve, nurture, and increase altruism and corporate ethical values, in accordance with environmental protection and global ecosystem awareness.*

*The address of the corresponding author:*

**Aleksandar Gračanac**

[✉ agracanac@unionnikolatesla.edu.rs](mailto:agracanac@unionnikolatesla.edu.rs)

**Keywords:** globalization, leadership, human resource management, entrepreneurship, start-up business, business and the environment.



## 1 INTRODUCTION

Entrepreneurship and employment of micro, small and medium-sized enterprises account for 98% of the world-global economy and 99.9% of the EU, which follows the trends in resources, in accordance with the extent the countries are committed to entrepreneurship as a way of life. Differences in entrepreneurship development are a consequence of non-standard processes, which are not followed for multiple reasons; technical-technological, financial, and human resources performance, which inevitably reflected on employment. (Gracanac, 2012)

Entrepreneurship can help young leaders show their creativity, skills and acquired knowledge, speeding up their goal achievement. According to the current world economic situation, human resources are regarded as a decisive factor in the realization of business innovations and investment ventures. (Gracanac, 2019) Nowadays, the global economy is facing major challenges, like the lack of adequate business leaders. Numerous scientific institutions and foundations, established to improve human resources, have been applying a wide variety of methods and approaches, to eliminate the key employee risks.

Global business changes have imposed a new development policy, which is manifested in entrepreneurship by new professions, and according to the World Economic Forum, 97% of new jobs created from the needs of market demands will be distributed from the sector of micro, small and medium enterprises, which paves the way for future young leaders. The consequences of such events are predicted by the analyses conducted by the world consulting company Ernst & Young, claiming that new entrepreneurial occupations, within large and small enterprises, will increase business stability three times. The consulting firm McKinsey came up with the following research findings. Namely, for ten countries that were observed in the period of the last two years, the increase in the number of started start-up businesses brought 3 trillion dollars or a growth of economic activities of 20%. (Clark, 2020)

The imperative of globalized economy today is the availability of young leaders, the new generation managers who have been introducing new business models and occupations.

The mission of one of the world's leading foundations for youth entrepreneurship - (The Global Education & Leadership Foundation - tGELF USA) (Gracanac, 2001) is to affirm world future business leaders. Its primary goal is identifying and financially supporting young future leaders around the world, cultivating ethical and altruistic values of future leaders, promoting continuity of youth leadership competitions, as sporting events, with the branded digital platform ESG. The Foundation promotes the education of young leaders and the exchange of knowledge and experiences. For years, the Foundations has been present and successful in business, promoting entrepreneurship in more than 200 countries around the world. When it comes to its realized activities, the Foundation has promoted and empowered more than 175,000 young entrepreneurs around the world, especially in founding start-ups, and through the Entrepreneurship World Cup. (tGELF, 2020)

Regarding the application of the latest technological innovations, the management of the Foundation is ahead of similar foundations, and its exceptionality is reflected in the application of digital marketing. Nowadays, digital marketing is an indispensable part of business all over the world. It significantly affects the overall result. Without the application or use of digital marketing and skills, competitiveness and market visibility is quickly threatened. Digital marketing adds values to any business in a huge number of ways.

In the field of leadership, the emphasis of global companies is placed on the early detection of candidates with distinctive leadership characteristics and, through the organization of various programs, their orientation towards the development of leadership skills. The paper identifies three business practices as the most used and represented: travel and transfers, teamwork in heterogeneous teams and training programs.

Leadership is not merely management of an organization, although it is associated with it and is important for every company. It has been observed that there is too much management and too little leadership in most companies. A successful manager is usually a good planner, an organized manager but without necessary motivational skills of a leader. Successful leaders can stimulate the mood and commitment of their employees.

What people of some organization within a company want from their leader is to provide answers to the following questions: "Where are we going?" "How do we get there?" "What is my role?" Proper use of leadership skills and their improvement helps the team understand the responsibility of the work in an unpredictable business world. The Global Education and Leadership Foundation is also led by these principles in the Balkans and is currently expanding its mission to all continents.

In December 2020, the Global Education & Leadership Foundation (GELF), through the founded ESG Serbia, (a member of the international jury on behalf of Serbia is the University Union Nikola Tesla), began its mission in the Balkans, continuing its long-term mission, organized according to dynamics, competitions for future young leaders, which are to be held the next year. (tGELF, 2020)



Fig. 1 GELF & ESG partners - Serbia

Using the ESG platform, the Foundation animates, monitors, and invites potential future young business leaders - graduate managers, engineers, architects, from various universities, institutions and companies - to present their innovative ideas in a wide range of areas. Organized competitions include the process of applying, educational training, participation in competitions and final selective groups and winning prizes, in accordance with several different levels and criteria.

Based on their business activities and achieved career success, professors of the Faculty of Entrepreneurial Business and Real Estate Management create and deliver lectures and provide good practice teaching for future entrepreneurship leaders, within the organization mission of ESG Serbia.

Accordingly, the Faculty of Entrepreneurial Business and Real Estate Management conducted an initiative survey at the University Nikola Tesla, among the students of the third and fourth year, in the period from December 15, 2020, to February 1, 2021, in accordance with the activities of GELF Serbia.

It turned out that it is necessary to apply continuous learning and cooperation with companies to prepare future competition candidates, along with educational trainings, aimed at stimulating future managers to apply the acquired knowledge and skills and face the risks imposed by the current global economy.

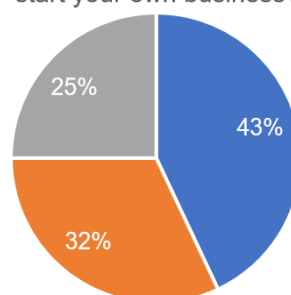
The objective of this research deals with the analysis of potential capacities of future graduate entrepreneurship managers, their awareness of the situation, requirements, and conditions of the market. Based on the answers, the conducted survey identified the candidates who could meet the criteria of the ESG competition in the coming period, in accordance with the priorities and market needs.

## 2 SURVEY

### Question 1:

When you graduate from the Faculty of Entrepreneurial Business and Real Estate Management at the University Union Nikola Tesla, what requirements do you think you would need to meet to achieve your goals and start your own business?

What needs to be fulfilled in order for you to start your own business?



- Financial support (parents, state institutions, foundations...)
- Ambience for entrepreneurship and starting your own business
- Technical support of institutions

Fig. 2 Graphical representation of the students' answers to the first question

Out of total number of survey participants (100), 91 answered. Based on the received responses, the following data were obtained:

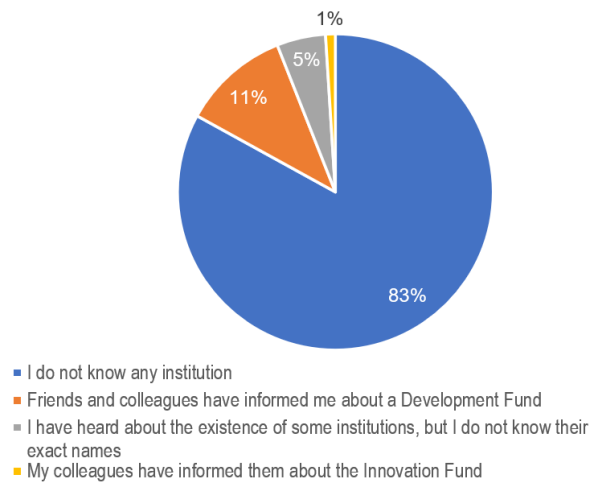
- Financial support (parents, state institutions, foundations...) 43%
- Ambience for entrepreneurship and starting your own business 32%
- Technical support of institutions 25%

**Question 2:**

Are you familiar with the institutions in the country that offer favorable financial resources to encourage graduate managers to start a business?

- I do not know any institution (83%)
- Friends and colleagues have informed them about a Development Fund, but it is not limited to financing the beginners (11%)
- They have heard about the existence of some institutions, but they do not know their exact names (5%)
- Their colleagues have informed them about the Innovation Fund (1%)

Are you familiar with the institutions in the country that offer favorable financial resources in order to encourage graduate managers to start a business?



**Fig. 3** Graphical representation of the students' answers to the second question

**Question 3:**

Have you ever thought about starting your own business?

- I have never thought about that (12%)
- I have an idea (31%)
- I am thinking about becoming an entrepreneur (39%)

I have been thinking about it, but start-up business risks are considerable (18%)

The survey showed that it is necessary to improve the institutional development of entrepreneurship, by creating an entrepreneurial environment at a higher

Have you ever thought about starting your own business?



**Fig. 4** Graphical representation of the students' answers to the third question 4

level and providing continuous activities to establish many financial and alternative institutions, aimed at financing start-up businesses. Special attention is paid to the examples of good practice. At the same time, future young entrepreneurs should be enabled to participate in new approaches, project activities of the faculty in business cooperation with entrepreneurs, to develop awareness of entrepreneurship and the spirit of entrepreneurship and become independent young entrepreneurs in the future.

**3 CONCLUSIONS**

According to the estimates of the World Economic Forum, the next third decade of Globalization will be marked by even more sophisticated technologies and entrepreneurship at the highest level, which will bring about 1 billion new jobs and occupations by 2030. The latest technological achievements in entrepreneurship will mark digital marketing as a necessary condition for development of individuals, companies and state-owned institutions, which will open new perspectives for future global young leaders in preserving and developing high ethical standards in business, in accordance with environmental protection and awareness.

Also, all the necessary activities in monitoring and financial empowerment of young leaders, based on education and experience, will continue, along with the support of numerous institutions - educational, state-owned, and non-profit ones - such as the Foundation for Stimulating Youth Entrepreneurship.

The leader is the creator of the mission and the visionary of the organization. A leader must enjoy absolute professional authority among employees. Leaders must be able to impose their authority on the team, build trust and be maximally

committed to their work. There is a great need for global leaders in global companies and it is mostly unsatisfied. There is a general opinion that the existing leaders of these companies should work on improving their skills and knowledge before dealing with leadership in a global context. It is becoming increasingly difficult for the companies to accept that human capital is regarded as the most important capital of the 21st century and that financial and material resources are needed but insufficient to reach a leading position in the global framework.

## WORKS CITED

- Clark, P. (2020, 03 26). *How managed services can free you to go out and create waves*. Retrieved from Innovation & Delivery Centre London: [www.ey.com/en\\_rs/managed-services](http://www.ey.com/en_rs/managed-services)
- Gračanac, A. (2012). Small Business Act, EU factor of successful management in small and medium-sized enterprises in Serbia. *Proceedings of the International Scientific Conference-MANAGEMENT 2012* (pp. 219-223). Belgrade: Univerzitet Union Beograd.
- Gračanac, A. (2001). *Svetskotržište u uslovima globalizacije / The World Market in Globalization*. Belgrade: Privredna Komora Jugoslavije.
- Gračanac, A. (2019, Jan 15). Technical specialism of human resources as condition for development of SME-s in Serbia, Chamber of Commerce of Serbia. (Z. Čekerevac, Ed.) *FBIM Transactions*, 7(1), 61-66.
- tGELF. (2020, 11 09). *Entrepreneurship Sports Generation*. Retrieved from Fakultet za preduzetnički biznis i menadžment nekretnina: <https://www.facebook.com/pg/FPBMN/posts/>

Received for publication: 09.06.2021  
Revision received: 23.06.2021  
Accepted for publication: 06.07.2021

### **How to cite this article?**

#### Style – **APA Sixth Edition:**

Gračanac, A., Djokic, D., & Djokic, V. (2021, July 15). Contemporary identification of future leaders in the affirmation of human resources. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 22-27. doi:10.12709/mest.09.09.02.04

#### Style – **Chicago Sixteenth Edition:**

Gračanac, Aleksandar, Dragana Djokic, and Vladimir Djokic. 2021. "Contemporary identification of future leaders in the affirmation of human resources." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 22-27. doi:10.12709/mest.09.09.02.04.

#### Style – **GOST Name Sort:**

**Gračanac Aleksandar, Djokic Dragana and Djokic Vladimir** Contemporary identification of future leaders in the affirmation of human resources [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 22-27.

Style – **Harvard Anglia**:

Gracanac, A., Djokic, D. & Djokic, V., 2021. Contemporary identification of future leaders in the affirmation of human resources. *MEST Journal*, 15 July, 9(2), pp. 22-27.

Style – **ISO 690 Numerical Reference**:

*Contemporary identification of future leaders in the affirmation of human resources.* **Gracanac, Aleksandar, Djokic, Dragana and Djokic, Vladimir.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 22-27.



# NATURAL LAW AND SOCIAL CONTRACT: CONSERVATIVE PHILOSOPHERS' VIEW (XVII – XVIII CENTURIES)

**Yurii S. Kononenko**

Bohdan Khmelnytsky National University of Cherkasy, Cherkasy, Ukraine  
<https://orcid.org/0000-0003-3703-7774>

**Sergii V. Dzholos**

Bohdan Khmelnytsky National University of Cherkasy, Cherkasy, Ukraine  
<https://orcid.org/0000-0002-0001-5523>

©MESTE

JEL Category: I30, K10, K38

## Abstract

*The article is devoted to the clarification of the essence of the conservative versions of the natural law and social contract theories, presented in the works of famous English and German philosophers of the XVII – XVIII centuries, such as T. Hobbes, E. Burke, S. Pufendorf, G.W. Leibniz, Ch. Thomasius, Ch. Wolff and others. The methodology of the research includes dialectic, metaphysics, hermeneutics, teleological, genetical, logical, comparative, historical, and legal methods. The authors say that the theory of natural law and social contract is not only the doctrine but also the approach to the understanding of the political and legal phenomena, which allows justifying the liberal and the conservative view on the state and law. The philosophers of the conservative worldview substantiated that people had handed over their freedom to the state by the social contract. So, the state should have supreme and unlimited power over its citizens, who lost the right of rebellion, but the state aims to ensure the welfare of people. So, the theory of the social contract and natural law may be used to justify the ideas of etatism, paternalism, monarchy, the police state, serfdom, and limitation of human rights, as well as the violent nature of any governance. The authors substantiated, that the theory of the social contract remains relevant to this day, and it may be organically combined with the patriarchal and class-materialist theory of the origin of the state, as well as with the theory of violence.*

**Keywords:** state, law, natural law, social contract, conservatism, liberalism, rebellion, power, violence, welfare.

*Address of the corresponding author:*

**Sergii V. Dzholos**

[debofor@gmail.com](mailto:debofor@gmail.com)

## 1 INTRODUCTION

The theories of the natural law and the social contract were especially popular in the XVII – XVIII centuries. It is considered that these theories became the fountainhead of democracy, human rights, rule of law, constitutional and law-bound state, civil society, and other ideas of the liberal

political and legal ideology of the Western civilization. At the same time, each philosopher of that great and glorious epoch created his original doctrine, and its main conclusions may differ significantly from the ideas of other thinkers of that period.

It is necessary to say that ideas of natural law and social contract have many supporters among philosophers, including Mozi (Demydenko, Petryshyn, 2009, p. 18), Socrates, Plato, Aristotle (Bobrovnyk, 2003), Epicurus, Hugo Grotius, Thomas Hobbes, Baruch Spinoza, John Locke, Jean-Jacques Rousseau (Romanyuk, 2003), Alexander Nikolayevich Radishchev, John Milton, John Lilburne, Algernon Sidney, Samuel Freiherr von Pufendorf, Christian Thomasius, Christian Freiherr von Wolff (Tymoshenko, 1998) and others. It should be noted that time and geographical boundaries, or, more precisely, the boundlessness of the popularity of these ideas show us that natural law and social contract are much wider than just ordinary political and legal theories, and are a kind of meta-concepts or, rather, approaches to understanding and interpreting the essence of state and legal phenomena. So, it is not surprising that the approach, based on the ideas of natural law and social contract, allows thinkers to do a variety of opposed conclusions on the state and law.

So, this article aims to show the peculiarities of the political and legal doctrines and to pay our respect to great English and German philosophers of the XVII – XVIII centuries, such as Thomas Hobbes (1588-1679), Edmund Burke (1729-1797), Samuel Freiherr von Pufendorf (1632-1694), Gottfried Wilhelm (von) Leibniz (1646-1716), Christian Thomasius (1655-1728), Christian Freiherr von Wolff (1679-1754), who created their original conservative approaches to the natural law and social contract theories, which are actually by the present time and help to understand better the essence of state and law.

## **2 THE “MAINSTREAM” IDEAS OF THE NATURAL LAW AND SOCIAL CONTRACT THEORIES**

In general, the heyday of the theory of natural law and social contract dates back to the XVII – XVIII centuries due to the crisis of the religious worldview in the Renaissance and Reformation,

the transition from feudalism to capitalism, the significant progress of the natural sciences and secular philosophy in this period.

Pavel Ivanovich Novgorodtsev says that the English school of natural law was closer to the practical events of the time, to the political struggle in which English political freedom was strengthened. As a result, English theories became much more radical (Novgorodtsev, 1898, p. 887), which is not surprising, if we remember many internal upheavals experienced by England in the XVII century, including such as the transition of power from Tudors to Stewarts (1603), the Gunpowder Plot (1605), the English Revolution and Civil War (1640-1649), the dictatorship of Oliver Cromwell (1649-1658), the Plot of the general George Monck and the Restoration of the Stuart monarchy (1660), the Monmouth Rebellion (1685), the Glorious Revolution (1688), etc.

Taking into consideration the piety of Voltaire and other French philosophers of the Age of Enlightenment to the English political system (Demydenko, Petryshyn, 2009, p. 99-100), as well as the British colonial expansion, the American neocolonialism of the Age of Globalization and the expansion of the Western civilization, it is not surprising that now the most popular versions of the theory of natural law and social contract are the teachings of the founder of liberalism John Locke (1632-1704) and the founder of political radicalism Jean-Jacques Rousseau (1712-1778).

On the grounds of the natural law and social contract, Jean-Jacques Rousseau developed the theory of popular sovereignty, which says that the just social contract should be concluded between the equal parties, but not between the ruler and serfs. Such contract should be based on the principle of popular sovereignty or the common will, which can rule by the strength of the state, according to the aim of its creation, which is the common welfare (Rousseau, 1762). The people create laws but are not bound by them for all time, and even the social contract is not obligatory to the people. The people have the right to change the form of government and even to terminate the social contract and to take back the natural freedom, so people have the right to rebellion against tyranny (Demydenko, Petryshyn, 2009, p. 104). At the same time, John Locke says that people, as the equal party of the social contract,

have the natural right to terminate it at any moment, especially if the authority breaks the laws and governs ineffectively or tyrannically (Locke, 1690).

### 3 THE CONSERVATIVE VIEW OF THE ENGLISH AND GERMAN PHILOSOPHERS OF THE XVII – XVIII CENTURIES ON THE ESSENCE OF STATE AND LAW, BASED ON THE THEORY OF NATURAL LAW AND SOCIAL CONTRACT

At the same time, it is necessary to say that many philosophers, especially German and English, had other understanding of the natural law and social contract. Thomas Hobbes (1588-1679) says that in the pre-state “natural conditions”, due to unbridled human passions and selfishness, the “war of all against all” prevailed. To overcome it, the people concluded a social contract and renounced their boundless natural freedom (including the right to rebellion) in favor of the state. And the last one has the aim to ensure peace, order, and prosperity, and, like the mighty sea monster Leviathan, should have unlimited power over its subjects (Hobbes, 1651; Kukhta, 2003).

Edmund Burke (1729-1797) writes: “Society is indeed a contract. Subordinate contracts for objects of mere occasional interest may be dissolved at pleasure – but the state ought not to be considered as nothing better than a partnership agreement in a trade of pepper and coffee, calico, or tobacco, or some other such low concern, to be taken up for a little temporary interest, and to be dissolved by the fancy of the parties. It is to be looked on with other reverence because it is not a partnership in things subservient only to the gross animal existence of a temporary and perishable nature. It is a partnership in all science; a partnership in all art; a partnership in every virtue and all perfection. As the ends of such a partnership cannot be obtained in many generations, it becomes a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born” (Burke, 1790).

So, Edmund Burke teaches that the social contract is the fundamental base of statehood,

and it aims to ensure political and economic stability as the guarantee of social development. At the same time, the philosopher says that the social contract should ensure the aristocratic rule: the creation of the state with the help of the social contract has the aim to guarantee the necessities of a human and to do it, it is necessary to limit human passions, and it may be done only by the authority, which does not have these passions, so this authority should be higher than a human (Burke, 1790).

...At the same time, the Holy Roman Empire of the German nation underwent significant upheavals during the Reformation of the XVI century and the Thirty Years' War of 1618-1648, so, naturally, German philosophers of the XVII – XVIII centuries sought to justify with the help of the natural law and social contract, not the right to rebellion (which would drive the last nail in the coffin of German statehood), but rather a strong state and absolutism, which would ensure order and prosperity. So, it is necessary to talk about the ideas of the German philosophers of that period in more detail.

Samuel Freiherr von Pufendorf (1632-1694) was the first German philosopher, who started to create secular juridical science. He believed that the law should be consistent with the laws of reason, regardless of religious dogmas and current legislation. According to the thinker, the increase in population has caused people to fear the possible harm that can be caused by human selfishness, so people create a state that would ensure mutual benefit and security. The state is formed as a result of a social contract consisting of two agreements. The first one is an agreement among people to unite and choose the form of government. The second one is an agreement between the people and their elected rulers, which prescribes people to obey their ruler, and to the ruler to take care of the people to ensure their safety and common welfare. At the same time, the best form of government is an unlimited monarchy, because it is the most suitable for ensuring public order and security of subjects. People lost their natural freedom during the formation of the state, which received the right to punish them in the name of the common good. A peculiar consequence of state formation and social contract is not only princely absolutism but also serfdom, which is a voluntary agreement between

lords and serfs, who, having no work and means of subsistence, voluntarily agreed to become serfs of the nobility for their benefit. However, even in such circumstances, people retain freedom of belief and religion, but not the right to resist the government (Kormych, 2009, p. 85-86). At the same time, the state is the main guarantor of human security (Demydenko, Petryshyn, 2009, p. 107-108).

Gottfried Wilhelm (von) Leibniz (1646-1716) developed the concept of natural law and advocated the unity of the German states. He combined reason and faith, the ideas of the law-bound state and the police state, democracy, and absolutism. According to the thinker, the state arises as a result of a social contract, and the subject of power is the state itself, but not the person of the ruler (Moshkovskaya, 1965, p. 531), so, there, if desired, we can see the echo of the doctrine of Jean Bodin on the state sovereignty...

Christian Thomasius (1655-1728) developed the political and legal science free from theology, but he believed that natural law was granted by God, at the same time, the state arises as to the result of the social contract, but not God's providence. According to the thinker, people are ambitious and selfish, which prevents them from living in peaceful communication among themselves (Kormych, 2009, p. 86-88). Morality is similar to the advice of a teacher and is provided by persuasion, while the law is the instruction of the ruler, which is provided by coercion (Demydenko, Petryshyn, 2009, p. 108). For wise people, advice is enough, while for fools, coercion is necessary, so the government saves people from fear of the harm that fools can cause. The state, according to Thomasius, arises as a result of two social contracts – the agreement on unification into the state and the agreement on the appointment of the ruler. The main aim of power is to preserve peace in society, and the best and greatest form of government is the monarchy. The precondition for the monarch's power is the consent of the people, so the last one has no right to resort to violence and resist the first one. At the same time, the government should not encroach on the freedom of thought, beliefs, religion, and personal life of citizens (Kormych, 2009, p. 86-88).

Christian Freiherr von Wolff (1679-1754) substantiated the ideas of enlightened absolutism,

the police state, and etatism with the help of the concept of natural law. According to the thinker, in the "natural conditions", people lived in families but did not have sufficient means to improve themselves and their life. The families decided to unite in the state to achieve common well-being, security, and improvement. The people handed over their supreme power to the government, so with the formation of the state, the people themselves restricted their freedom. In the same way, everyone has the right to restrict his freedom and to give himself into slavery, whence, appears the division of people into masters and serfs. The best form of government is the monarchy. The laws of the state are the practical implementation of the natural law, which gives the freedom, necessary to perform duties; at the same time, the limits of this freedom are determined by the power of the state, the power of the educated monarch, who cares for the common welfare and regulates all spheres of human activity. To ensure the general welfare, the monarch should have unlimited power in matters of war and peace, legislation, justice, the appointment of officials. The monarch should be virtuous, love his people, know the science of public administration, and have wise advisers, not act arbitrarily. People must unconditionally obey their monarch because the resistance to the state power threatens society to return to its "natural conditions" with all its imperfection and threats (Kormych, 2009, p. 88-90).

Thus, it should be noted that, in general, German thinkers of the Baroque era – Samuel Freiherr von Pufendorf (1632-1694), Gottfried Wilhelm (von) Leibniz (1646-1716), Christian Thomasius (1655-1728), Christian Freiherr von Wolff (1679-1754) – with the help of ideas of natural law and social contract legitimized and rationalized the existing monarchies, promoted the cult of the state and the law and order introduced by it (Demydenko, Petryshyn, 2009, p. 107-109; Kormych, 2009, p. 84-90), substantiated the princely and educated absolutism, the police state, etatism, serfdom, etc.

Also, it should be borne in mind that German pedantry, the desire for order, and conservative ideas were further reflected in the works of the philosophers of the German Historical School of Jurisprudence – Gustav Hugo (1764-1844), Friedrich Carl von Savigny (1779-1861), Georg Friedrich Puchta (1798-1846), – who, criticizing

ideas of natural law and social contract, defended the monarchy, feudalism, serfdom, customary law, denied the codification of law, separation of powers and the right of the people to rebellion (Kormych, 2009, p. 138-142), i.e. creatively developed and continued the anti-liberal ideas of Samuel Freiherr von Pufendorf (1632-1694), Gottfried Wilhelm (von) Leibniz (1646-1716), Christian Thomasius (1655-1728), Christian Freiherr von Wolff (1679-1754).

## 4 CONCLUSIONS

Thus, summarizing the above, we have made the following conclusions:

1. Theories of natural law and social contract were and remain the leading political and legal doctrines.
2. The theory of natural law and social contract, in essence, is much wider and substantial than the usual political and legal doctrine, and it is a kind of meta concept, or, more precisely, an approach to the understanding of state and legal phenomena.
3. The contractual and natural-legal approach to the understanding of the state and law allows to reveal their nature in all its diversity and multifacetedness and to substantiate opposed, both liberal and conservative, views on the essence of political and legal phenomena.
4. Nowadays, the most popular version of the theory of natural law and social contract is the teachings of J. Locke and J.J. Rousseau, who believed that the state arises as to the result of the social contract, and the people, as the party of this agreement, have equal rights with the government and even have the right to revolt and terminate the social contract if the government violates the treaty or rules tyrannically. This interpretation of the ideas of natural law and the social contract laid the foundations of liberalism, democracy, human rights, the rule of law, constitutional and law-bound states, civil society, and so on.
5. However, the liberal version of the natural law doctrine and contractual theory of the origin of the state is quite dangerous for the state and society, because it justifies the people's right of rebellion as well as the right to terminate the social contract for petty reasons, and this is the great threat to the stable development and legality. At the same time, we should not forget that the theory of natural law and social contract very clearly indicates that the main purpose of the state power is to ensure the common welfare, so rulers should not be perceived as executioners and satraps, and the state – as a suppressor of freedom and enemy of human rights.

6. In our opinion, the conservative interpretation of the ideas of natural law and social contract, presented in the doctrines of Thomas Hobbes, Edmund Burke, Samuel Freiherr von Pufendorf, Gottfried Wilhelm (von) Leibniz, Christian Thomasius, Christian Freiherr von Wolff, in the best way reveals the essence of political and legal phenomena and the nature of state and law.

Following these thinkers, it should be said that the pre-state period was characterized by chaos (which could be somewhat balanced due to the small population density, which, to some extent, reduced the frequency of clashes, but excluded the possibility of systematic development of society, as it is sometimes observed in our time in so-called “natural communities”, such as the American Indians).

The absence of the state and law during the period of the “natural conditions” led to the lack of the difference between legal and illegal, lawful and lawless. At that time dominated the animal orders of the wild world, based on natural selection, interspecific and intraspecific competition. The absence of the “unity and struggle of opposites” excluded the possibility of dialectical development. At some moment, ancient people understood the necessity of unity to ensure the achievement of the common welfare, but the “social contract”, probably, was not concluded at once by the formal bureaucratic procedure. The social contract, probably, was concluded spontaneously and in the form of the implicative actions, when the subjects simply agreed with (did not resist) the establishment of a certain power over them, which, on the one hand, restricted their natural freedom and, on the other hand, provided them with certain support and protection. Thus, the state arises as to the triad of classical attributes – the people, territory, and power.

The creation of the states by different peoples was connected with the family kinship, territorial factors, economical and production necessity of some contacts, also, with the internal (the class divide and domination of rich people over the poor)

and external (the conquest of the one tribe by another one) violence, which is the factual basis of the power and governing.

Thus, the social contract is not a historical event, but it is the political and legal concept, which is the basis of statehood. The concept of the social contract determines the main principles of the relations between the people and the ruler and says that people should bow to the rule of the state and the state should provide the people's interests and necessities. At the same time, the theory of the social contract, in any way, does not contradict but may be organically combined with the patriarchal and class-materialist theory of the origin of the state, as well as with the theory of violence.

We must agree with the opinion that when the state was created, the people renounced their natural freedom in exchange for care, assistance, and protection, provided by the state. It shows the inequality of the parties of the social contract, so the people are not the sovereign, but they are only the inhomogeneous group of liegemen. At the same time, one of the duties of the state is to protect people one from another with the help of the enforcement and punishments, based on the justice and the natural law, embodied in the positive law. It is necessary to say that the state power, as an arbiter in private conflicts and a governing force, must stand over the people, because otherwise the fundamental principle of justice "no one can be a judge in his case" will be violated, and, in general, the governance will be impossible, because the relations of subordination may not exist between the equal subjects.

The so-called "right of rebellion" was the ideological instrument in the era of the

bourgeoisie's struggle against the feudal system. In our time, especially under the conditions of the republican form of government, the periodic change of government with the help of the regular elections provides an opportunity to correct existing shortcomings without destroying the institution of statehood.

Thus, the right of rebellion has completely exhausted itself as an absurd idea, which suggests the possibility to break the social contract for petty reasons and destroying statehood. So, the right of rebellion threatens the society with much greater troubles than the troubles, which led to the uprising.

The correct understanding of the natural law (as the law of nature) and of the social contract (as the fundamental grounds for the subordination of the people to the ruler of the state, which should ensure the achievement of the common welfare) allows us not only to substantiate the cult of the state and law but also to disclose the useful etatistic and paternalistic essence of the state, the violent nature of the governance and the coercive nature of law, which are necessary to ensure the common welfare based on the reason, God, nature, and justice.

It is necessary to say that the conservative interpretation of the political and legal phenomena, made on the grounds of the natural law and the social contract by the certain English (Thomas Hobbes, Edmund Burke) and German (Samuel Freiherr von Pufendorf, Gottfried Wilhelm (von) Leibniz, Christian Thomasius, Christian Freiherr von Wolff) philosophers of the XVII – XVIII centuries, was continued by the thinkers of the next epochs and remains relevant to this day.

## WORKS CITED

- Bobrovnyk, S.V. (2003). *The natural law* // The legal encyclopedia: in 6 vol. / ed. prof. Yu.S. Shemshuchenko and others. Kyiv: Publishing house M.P. Bazhan "Ukrainian encyclopedia". Vol. 5. [https://leksika.com.ua/18990927/legal/prirodne\\_pravo](https://leksika.com.ua/18990927/legal/prirodne_pravo)
- Burke, E. (1790). *Reflections on the revolution in France, and on the proceedings in certain societies in London relative to that event*. In a Letter Intended to Have Been Sent to a Gentleman in Paris. London: Printed for James Dodsley, in Pall-Mall.
- Demydenko, G.G., Petryshyn, O.V. (2009). *History of legal and political studies*. Kharkiv: Law, 256 p.
- Hobbes, T. (1651). *Leviathan or The Matter, Forme and Power of a Commonwealth Ecclesiasticall and Civil*. London: Printed for Andrew Crooke.
- Kormych, A.I. (2009). *History of legal and political studies*. Kyiv: Legal unity. 312 p.

- Kukhta, B. (2003). *The Leviathan* // Political science. Dictionary: categories, concepts, and terms / edited by B. Kukhta. Lviv: Calvary. p. 218-219.
- Locke, J. (1690). *Two Treatises of Government: In the Former, The False Principles, and Foundation of Sir Robert Filmer, and His Followers, Are Detected and Overthrown*. The Latter Is an Essay Concerning The True Original, Extent, and End of Civil Government. London: Printed for Awnsham Churchill, at the Black Swan in Ave-Mary-Lane, by Amen-Corner.
- Moshkovskaya, Yu.Ya. (1965). *Leibniz* // The Soviet historical encyclopedia: in 16 vol. / Ch. ed. Ye.M. Zhukov. Moscow: The Soviet encyclopedia. Vol. 8. p. 530-532.
- Novgorodtsev, P. (1898). *The natural law* // The Brockhaus and Efron Encyclopedic Dictionary. Vol. XXIV-A. Saint Petersburg. Typo-lithography of I.A. Efron. p. 885-890.
- Romanyuk, A. (2003). *The social contract* // Political science. Dictionary: categories, concepts, and terms / edited by B. Kukhta. Lviv: Calvary. p. 132.
- Rousseau, J.J. (1762). *Du contrat social; ou, Principes du droit politique*. Amsterdam: Éditeur Marc-Michel Rey.
- Tymoshenko, V.I. (1998). *The contractual theory of the origin of state* // The legal encyclopedia: in 6 vol. / ed. prof. Yu.S. Shemshuchenko and others. Kyiv: Publishing house M.P. Bazhan "Ukrainian encyclopedia". Vol. 2.  
[https://leksika.com.ua/17190303/legal/dogovirna\\_teorija\\_pohodzhennya\\_derzhavi](https://leksika.com.ua/17190303/legal/dogovirna_teorija_pohodzhennya_derzhavi)

Received for publication: 16.06.2021  
Revision received: 24.06.2021  
Accepted for publication: 06.07.2021

### **How to cite this article?**

#### **Style – APA Sixth Edition:**

Kononenko, Y. S., & Dzholos, S. V. (2021, July 15). Natural law and social contract: Conservative philosophers' view (XVII – XVIII centuries). (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 28-34. doi:10.12709/mest.09.09.02.05

#### **Style – Chicago Sixteenth Edition:**

Kononenko, Yurii S., and Sergii V. Dzholos. 2021. "Natural law and social contract: Conservative philosophers' view (XVII – XVIII centuries)." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 28-34. doi:10.12709/mest.09.09.02.05.

#### **Style – GOST Name Sort:**

**Kononenko Yurii S. and Dzholos Sergii V.** Natural law and social contract: Conservative philosophers' view (XVII – XVIII centuries) [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 28-34.

#### **Style – Harvard Anglia:**

Kononenko, Y. S. & Dzholos, S. V., 2021. Natural law and social contract: Conservative philosophers' view (XVII – XVIII centuries). *MEST Journal*, 15 July, 9(2), pp. 28-34.

#### **Style – ISO 690 Numerical Reference:**

*Natural law and social contract: Conservative philosophers' view (XVII – XVIII centuries)*. **Kononenko, Yurii S. and Dzholos, Sergii V.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 28-34.



# IMMIGRATION AND LIBERTARIANISM: OPEN BORDERS VERSUS DIRECTIONALISM

**J. C. Lester**

Independent, London, UK

<https://orcid.org/0000-0002-3795-4612>

©MESTE

JEL Category: **P140**

## **Abstract**

*To explain the correct libertarian approach to immigration, a thought-experiment posits a minimal-state libertarian UK and then the introduction of several relevant anti-libertarian policies with their increasingly disastrous effects. It is argued that the reverse of these imagined policies, as far as is politically possible, must be the correct way forward. This framing is intended to counter the tendency for many articles to misapply libertarian principles to the current messy situation on the mistaken assumption that a state need only stop interfering without rectifying or adjusting for its previous interferences. The relevant parts of various open-border texts are then criticised in light of this and for other errors, in particular for overlooking the likely huge scale of immigration as indicated by Gallup surveys. Additional criticisms are addressed in footnotes throughout. The conclusion outlines three broad options on immigration and suggests that directionally-libertarian policies are both more libertarian and practical than having states open their borders. The readers that might be interested in this subject matter include those engaging in libertarian philosophy, economics, and political theory.*

**Keywords:** *libertarianism; immigration policy; philosophy; private property; open borders; directionalism; thought-experiment*

## **1 INTRODUCTION**

There has long been a debate in the libertarian literature as to the correct state policy on

*The address of the author:*

**J. C. Lester**

[✉ jclester@gmail.com](mailto:jclester@gmail.com)

immigration. This essay does not attempt a comprehensive account and evaluation of all the different arguments in that vast debate. It primarily compares directionally-libertarian policies with the open-borders option. It does this by first assuming, arguendo, a functional minimal-state UK and then how this might relevantly be undermined.<sup>1</sup> The inference is then made and defended that the reverse of this, as far as is practical, must be the

<sup>1</sup> A review suggests that a couple of paragraphs would have sufficed here. That might be so for most libertarians, but for those people largely unacquainted

with libertarianism (the vast majority) that would probably not give an adequate picture.



correct libertarian policy. Without such a libertarian framing there seems to be a tendency for many articles to misapply libertarian principles to the current messy situation. Next, various crucial parts of open-border texts are responded to in light of this argument and for other errors. This appears to be sufficient to constitute a *prima facie* refutation of open borders (a state with no immigration restrictions)<sup>2</sup> and defence of directionally-libertarian policies.

## 2 WORKING BACKWARDS FROM AN IMAGINED SOLUTION

Imagine that the UK has become a rapidly-developing, minimal-state, libertarian country.<sup>3</sup> This includes having the airports, ports, and all of the roads being privately owned, maintained, operated, and policed. Some roads have fairly indiscriminating access, especially where they have retail outlets that want to attract custom. Many roads are gated and guarded because the owners<sup>4</sup> don't want the nuisance or security-risk of people coming in uninvited. Thoroughfares have been negotiated, or court-imposed on liberty-theory<sup>5</sup> principles, to ensure access around the country.

Many people around the world want to move to libertarian-UK. Some of these people are invited to come to specific places to work. Other people meet the residency requirements to move into certain areas. And some come in as sponsored guests or tourists with personal or business guarantors that are liable for any necessary security costs or fines if any leave-dates are exceeded. There is a wide variety of similar options.

However, there are many more people who would like to move to libertarian-UK but they haven't been invited. Consequently, there are variously-funded private barriers and security measures to stop them. These are at airports, ports, along the coast, and as elaborate as seems desirable. A relatively small number of people do still manage to sneak in by some means, but it's not worth increasing airport and border security beyond a certain economic point. In any case, even after gaining entry, those people find that they still cannot go or live just anywhere they choose: there are private gates, barriers, and security systems across the entire country. Consequently, they either tend to be caught eventually (and fined, or put to work in prison to pay the fine, before being expelled) or they manage to become unobtrusive, productive members of the areas to which they have gained access. Peace, security, and ever-increasing abundance pervade the land. According to libertarians, at least, this is a model society—if not yet an anarchy—that the rest of the world can observe and, if they wish, emulate.

Then something unforeseen happens. The new government decides to compulsorily purchase all of the roads, ports, airports, and coastal security in order, says the prime minister, to “hold and maintain them in trust for the citizenry”. He assures us that a “very modest and temporary increase in overall taxation” (currently at around 5% of GNP) is all that is initially needed to cover their purchase then upkeep and operation at current standards. He confidently predicts that there will be “economies of scale due to having sole public ownership” (i.e., a state monopoly); hence “overall taxes will soon go down to lower than before”. Many people have their doubts that

---

<sup>2</sup> A review objects that this essay “does not even rigorously define the key terms that it debates”. Only if there is a significant possibility of confusion might a few clarificatory words be useful (but that is not to fall into the essentialist error of trying to “define” words, let alone “rigorously”). Does this “lead to a crucial flaw” namely, “an implicit contrast between private property rights and open borders”? The contrast is of a *state* having restricted versus unrestricted immigration. It is biased to assert only that “immigration restrictions are always opposed to libertarian principles”. They are opposed to some but defend others, because public property ought to be owned by the populace.

<sup>3</sup> A review asks why the UK is used and suspects a tendentious motive. Clue: the British spelling and the use of “we” anent the U.K.

<sup>4</sup> These will likely be the people living nearby with some procedure for deciding such things, or some company looking to offer what its main customers prefer.

<sup>5</sup> On the abstract theory of libertarian liberty and how its application implies property rules, see Lester (2021). In more detail see the relevant chapters or indexes in Lester ([2000] 2012); ([2011] 2016); (2014).

the free market has missed such alleged “economies of scale”, but it doesn’t seem worth most people’s while to campaign against this and they think that just maybe they will save some money eventually.

After a year or two overall taxation has risen beyond the “very modest and temporary increase”, and that still doesn’t appear to be enough (quelle surprise!). Rather than try to raise taxes still further, the prime minister announces that “in the interests of economy and the free movement of UK residents” he will be removing all of the gates and guards from UK roads. Many people are resentful of this. Some of them observe that such an argument could be used to remove people’s front doors so that anyone might enter their homes.<sup>6</sup> There ensues a significant increase in various crimes now that no UK resident can be denied access to any street in the country—with the mysterious exception of Downing Street, which remains gated and policed.

After another year or two the prime minister announces that “in the interests of economy and freedom of migration” he is removing all relevant border security from around the country, and its ports, and airports. In the following months many millions of people from around the world flood into the country. (According to Gallup data,<sup>7</sup> around 34 million people would come to the UK if possible as their *first* choice now; but presumably many more would actually choose to come if the UK *alone* had an open border). As economics implies, immigrants inevitably keep on arriving up to the

point that the UK is no better—all things considered by them—than the places from whence they come; and many of those places are awful for a variety of reasons. All of the country’s parks and squares have become shanty towns. All kinds of crime and other social problems are rife and increasing (far exceeding any problems that have been reported in Germany and Sweden, for instance, with relatively tiny recent immigration increases). Many native people have left the country and more are preparing to leave. Someone shot dead the prime minister, and the remaining native population celebrated. But there is no going back.<sup>8</sup>

What are we to make of this thought-experiment from a libertarian viewpoint? Everything the imagined government has done has been a move away from a libertarian society. This appears to suggest that the full libertarian policy now, in our real not-so-bad situation, should be to do the reverse of this thought-experiment and privatise everything among the existing population. But clearly that is not yet politically possible. Currently, all the roads, immigration controls, etc., are in effect held in trust (and maintained and operated at taxpayer expense) by the state on behalf of the existing citizens; or, at least, that is the only half-reasonable excuse the state could offer. And, as opinion polls consistently show, an overwhelming majority of the existing citizenry want controlled immigration.<sup>9</sup> Therefore, on no libertarian-account should the state do the very opposite of this and open the borders. It’s hard to see how allowing the country to fall to third-world standards—as

---

<sup>6</sup> A review implies that there is not “even one libertarian proponent of open borders who also favors abolishing private property rights in this way”. All open-border libertarian texts that do not advocate prior privatisation are in effect “abolishing property rights” for the legitimate owners of public property: the existing populace.

<sup>7</sup> Esipova et al. 2018.

<sup>8</sup> A review objects that this is “hypothesizing ridiculous scenarios [and] then taking them as standards for evaluating the real world”. As the disaster scenario appears (probably to most people) to be what would be likely to occur with open borders, it seems reasonable to assume it; and its likelihood is certainly explained. The review continues, “the entire example consists of unproven assertions and groundless claims about

economic and social decline, which are not even explained, let alone justified.” As all arguments and evidence rest on assumptions they logically amount to assumptions. Therefore, “assertions” cannot be “proven” given a “ground” or “justified”. However, they can be conjecturally explained and defended from criticism; and critically preferred if this appears to be successful. And this is what this essay does, despite the strange claim that they are “not even explained”. The review fails to critically engage with the actual explanations, arguments, and defences. It merely complains that there is no supporting justification—as though such a thing were possible.

<sup>9</sup> In fact, most probably want current immigration rates reduced (Migration Watch UK 2019).

opening the borders would ineluctably, eventually, cause—could have good long-run consequences even for most of the new immigrants or the rest of the world.<sup>10</sup> This is especially so because there is the very obvious libertarian alternative of practicing full free trade with the poor regions of the world and thereby raising their living standards to something that would relatively soon approach that of wealthier countries, and maybe even exceed it if they were themselves to become more libertarian than we currently are—which is not a very high bar to reach.

All of this might seem fairly obvious to many libertarians. However, some libertarian texts argue that the state should immediately have open borders for libertarian and humanitarian reasons. A variety of criticisms of open borders are dealt with in these texts. And some of the given answers are to varying degrees sound. However, they don't deal adequately—if at all—with the disaster scenario explained here, and they often commit significant other errors. A few relevant points and conclusions from some of these texts will now be criticised.

### 3 RESPONSES TO SOME OPEN-BORDER ADVOCACIES

All of the essays or authors cited here might have been dealt with at considerably greater length, even up to exclusive essays for each. But it seems more useful to cite what appear to be the crucial problematic passages and take a more

comprehensive approach.<sup>11</sup> In any case, *verbum sapienti satis est*.<sup>12</sup>

#### *Block 1998*

When there is virgin territory, there is no legitimate reason for immigrants (or domestic citizens) to be prevented from bringing it into fruitful production. (174)

The “domestic citizens” would already have taken over this land had they been, as they should, allowed to do so. Instead, they have been prevented—to their ever-compounding loss—and this has also been enforced to some extent at their own expense through taxation. This appears to be sufficient to give them a prior, restitutive, libertarian claim to be allowed to take it (issuing tradable shares to all citizens is one possible, if imperfect, solution). By small-scale analogy, suppose the state had long ago declared its ownership of the last third of everyone's gardens—where people have them, and before they have “homesteaded” them<sup>13</sup>—and mandated that these be left untouched for “environmental reasons”. The owners of the rest of the gardens would otherwise have taken them, and they have been greatly inconvenienced by not being allowed to do so. Hence, they should now have first claim to them. It is not libertarian to allow what are, predominantly, non-victims in either case to engage in a sort of land rush.<sup>14</sup>

... either migration is totally legitimate, in which case there should be no interferences

---

<sup>10</sup> A review mistakenly alleges that the “discussion assumes throughout that the arrival of immigrants is a net drain on the economy and leads to net decline (stated clearly on [this page]).” So where is the quotation? No such assumption is made or implied. The account given here is dealing with open borders, not limited immigration. Of course limited immigration can be beneficial on balance. Perhaps it is the review that is perpetrating a “kind of bait-and-switch move” by extrapolating the beneficial effects of limited immigration to unlimited immigration.

<sup>11</sup> A review complains that this approach doesn't “develop [its own] criticisms” or address “the bulk of the arguments” in the articles. But the criticisms are as long as seems sufficient to make the relevant points and the “bulk of the arguments” are either not particularly relevant or not disagreed with.

<sup>12</sup> A review objects to difficult language, especially Latin, in a scholarly essay. *O tempora, o mores*. *Verb. sap. is the mot juste*, and some reviews are on the wrong side of it.

<sup>13</sup> If necessary, assume that the state had “homesteaded” them by “by first capturing worms and bugs and mice, elsewhere, and then setting them loose” (Block 2019, footnote 19).

<sup>14</sup> A review asserts that this is “implicitly [...] assuming that all land was previously claimed. But this is not realistic for massive amounts of state-controlled land around the world”. But all non-private land has been state-claimed, and otherwise it would by now mostly have been claimed by citizens. Only where it possibly would not (Polar regions, deserts, etc.) is there a case for non-citizen, first-user ownership.

with it whatsoever, or it is a violation of the non-aggression axiom, in which case it should be banned, fully. I have argued in this paper that the former position is the only correct one. (185)

*Immigration*, in particular, is neither “*totally* legitimate” (in libertarian terms) nor *totally* a “violation”. In a fully libertarian society, there would be no state borders and so no overall immigration control as such; there would be only private-owner control of entry. But when we have the state owning buildings, roads, ‘national’ parks, etc., supposedly on behalf of the existing population—as we currently do—then a compromise is all that is possible in practice. And given the utter disaster of open borders for the existing population, having some restrictions on immigration is more libertarian—however imperfect this is compared to a fully libertarian ideal.

*Block and Callahan 2003*

the profit motive, if nothing else, will lead to the mass invitation of foreigners to our shores. (67)

“Mass invitation of foreigners” into private property alone is not the problem. The problem is a devastating deluge of uninvited foreigners also coming into territory that is in effect held in trust for the existing population. If there are ‘open borders’, then no invitations are required. People can simply escape a less-desirable country by entering a known much better one. In the UK some immigrants do start as beggars, but beggars in a richer country.

Hoppe maintains that in the present context the U.S. government is in effect a manager for the private property owners who live within the borders of the country. We maintain, in contrast, that the state cannot properly take on any such role. (67)

Correct, it cannot do it “properly”, i.e., efficiently and according to libertarian principles. But it can do a better job or a worse job, and allowing

unlimited immigration is close to doing the worst possible job.

States Higgs in this regard: “[...] If the state cannot legitimately create borders in the first place, because its very existence is illegitimate, then it manifestly cannot promulgate just rules with regard to how open or closed any such borders will be.” (67-68)

Correct, the state cannot provide *fully* “just rules”. But open borders are even more unjust than restrictions that prevent a libertarian and welfare disaster.

*Gregory and Block 2007*

there is no way for government immigration controls to keep out the “uninvited,” let in the “invited,” or even determine who would fall into each category. The state simply cannot mimic the market, and directing its coercive mechanism in such an attempt will prove ineffective in achieving desired goals, wasteful of wealth created in the private sector, and destructive to liberty. (25)

All completely true. But it misses the big picture, which is one of utter libertarian and welfare disaster. The state can, and currently does, protect us from that.<sup>15</sup>

Inevitably, of course, immigration controls violate the property rights of those inside, as well as outside, [...] who wish to exchange with each other, and who can indeed maintain the costs of the immigrant’s stay. (38)

Then some type of sponsorship may be one more-libertarian way to deal with that. “Inevitably, of course, [having no] immigration controls violate [what ought to be] the property rights of those inside”—up to the point of national disaster (i.e., a disaster for the people that comprise the actual nation, not necessarily a disaster for the state).

*Caplan 2012*

Proponents of immigration restrictions have to show why, moral appearances

---

<sup>15</sup> A review objects that “all of the authors [...] just cited in defense of open borders have spent their entire careers showing quite clearly that states cannot protect us in this way”. They have *occasionally* published

articles *defending* open borders. For the reasons given, these articles fail as regards “showing quite clearly” that open borders are better than prior privatisation among citizens, and failing that cautious immigration controls.

notwithstanding, immigration restrictions are morally justified. (20)

As all arguments rest on assumptions, and thereby amount to assumptions, there are no supporting justifications.<sup>16</sup> However, immigration restrictions here appear to be moral because they are more libertarian and avoid a national disaster. Therefore, “proponents of [abolishing] immigration restrictions have to show why, moral appearances notwithstanding, immigration restrictions are [not] morally [defensible]”.

Most Americans benefit from immigration, and the losers don’t lose much. (20)

Because the unlimited deluge of immigrants is not allowed.

Immigration restrictions are not necessary to protect American culture. ... [or] to protect American liberty. (21)

As long as very limited numbers can immigrate.

Even if all these empirical claims are wrong, though, immigration restrictions would remain morally impermissible. Why? Because there are cheaper and more humane solutions for each and every complaint. If immigrants hurt American workers, we can charge immigrants higher

taxes or admission fees, and use the revenue to compensate the losers. (21)

Any “admission fees” would be prior to admission and thereby a form of immigration restriction.

If immigrants hurt American culture, we can impose tests of English fluency and cultural literacy. (21)

Any prior “tests of English fluency and cultural literacy” would be a form of immigration restriction.

Whatever your complaint happens to be, immigration restrictions are a needlessly draconian remedy. (21)

All of this simply overlooks the big picture. Assuming that there are no immigration restrictions, then all policies—libertarian and otherwise—would simply be swept away by the tide of incoming people.<sup>17</sup> The same Gallup survey as cited earlier shows around 160 million foreigners had the U.S. as their *first* preference for migration *now* (not that they might want to migrate to the U.S. at some future time if the conditions sufficiently improve in some way).<sup>18</sup> And even more would initially want to come if the U.S. *alone* opened its borders. However, they would only keep arriving until the U.S. were no better, all things considered by them, than where they were

---

<sup>16</sup> For explanations of critical rationalist epistemology see, for instance, Popper [1963] 1978 and Miller 1994. A review asks, “So what exactly are the authors trying to do with their own arguments? Isn’t their disaster scenario intended to justify opposition to open borders?” This essay is intended to conjecturally explain and defend why there should be a critical preference for not simply opening state borders. That is not a naïve attempt to “justify”.

<sup>17</sup> A short piece elsewhere, Caplan 2014, assumes that Puerto Ricans are a good model for how immigration is typically likely to be. However, as the various comments on this point out, *inter alia*, Puerto Rico “is classified as a high income economy by the World Bank”, “The central argument for supporting the idea ‘swamping’ will occur is the ease of transportation today”, and “New Yorkers considered the Puerto Rican influx a major contributor to the decline in New York City in the third quarter of the 20th Century”.

<sup>18</sup> A review found it “bizarre” that this essay had formerly cited a 2012 poll and claims that “trends have shifted dramatically in many countries since 2012”. In fact, this

more recent poll states that “The countries where potential migrants say they would like to move—if they could—have generally been the same for the past 10 years” (Esipova et al. 2018). But there is now a 10 million increase for the U.S. since the 2012 poll: “Nearly 160 Million People Want To Move To The U.S.” (McCarthy 2018). The review then argues that “presumably Gallup didn’t poll [all of these] people, so there may be issues in the estimates they provide”. The survey methods are explained as follows: “These results are based on aggregated telephone and face-to-face interviews with 453,122 adults, aged 15 and older, in 152 countries from 2015 to 2017. One can say with 95% confidence that the margin of sampling error for the entire sample, accounting for weighting and sample design, is less than ±1 percentage point.” Next, the review objects that this is to “ignore the possibility that anything other than disaster can pause the flow of immigrants”. Like what? Without a suggestion it is hard to reply. We are also told that this ignores the “relevant comparison: [...] the two most preferable locations, wherever those might be”. *Ex hypothesi*, there is only one country with open borders.

coming from.<sup>19</sup> And that might happen well before all of them were to arrive.<sup>20</sup>

Huemer 2010

In a late-added footnote, Huemer 2010 notices a similar earlier Gallup survey and merely observes (without citing any evidence): “most of these individuals have not made an observable effort to migrate to the U.S.”<sup>21</sup> When there are not open borders that is probably because most of them would rightly regard this as almost certainly a wasted effort. By analogy, many film stars’ fans might like to move in with their favourite star but “most of these individuals have not made an observable effort” (and some of the few that have were arrested). However, in light of the possibility of a disastrous influx, Huemer 2010 does “grant that it may be wise to move only gradually towards open borders”. But why not, instead, move quickly to giving the citizens the roads, buildings, land, etc., they ought to own so that no state borders will be necessary?

Huemer 2010 summarises its arguments in the conclusion:

1. Individuals have a prima facie right to immigrate (that is, a right not to be prevented from immigrating).

On the contrary, in a libertarian world people would need to be invited in by property-owners. And without the state all so-called ‘public property’ would have been owned by the current citizens. Therefore, saying there is a prima facie right to come into a country sounds relevantly and sufficiently as mistaken as saying that people have a prima facie right to enter someone else’s land or even house without being invited in.<sup>22</sup>

This is because:

a. Individuals have a prima facie right to be free from harmful coercion.

This cannot be correct: it is sometimes necessary to use “harmful coercion” against violators of liberty (i.e., the violators are *reactively* made worse off by the use of force or the threat of force). What individuals “have a prima facie right to be free from” is *proactive* interference with their person and libertarian property.<sup>23</sup>

b. Immigration restrictions are harmful and coercive.

---

<sup>19</sup> If immigration to the U.S. would continue until the U.S. is no better (all things considered *by the potential immigrants*) than the places from whence the immigrants come, then why doesn’t migration between states within the U.S. continue until all the states are no better (all things considered *by the potential migrants*) than the states from whence they come? The answer is simply that it does. The question is failing to understand the subjective utility-evaluation of the potential migrants. If someone in a relatively poor state decided that—on balance given his preferences—he would be better off moving to New York, then he would move to New York. There is some tendency for the ‘objective’ economic circumstances to be damaged in this way. But the U.S. states are not so different, given the various preferences of its many inhabitants, that a dangerously large number of people are likely suddenly to choose to go to what might appear to be a ‘better’ state as judged by ‘objective’ economic standards. However, as the Gallup survey shows, that situation is completely different when the whole world is considered. There is a vast pent-up demand to move to the U.S. that would do serious damage to the U.S. as measured by the preferences of its current inhabitants, and by ‘objective’ standards too.

<sup>20</sup> Vast numbers seem likely to arrive in a matter of months. When people have the opportunity to escape a poverty-stricken and dangerous country for a rich and safe one, then most of them are unlikely to wait for years. And this could not all be at their own expense, as they would be making use of all the ‘public resources’ to which the existing population have a prior claim: their taxes have paid for their production and upkeep and they would have already owned them but for state monopolisation.

<sup>21</sup> Quotations are from an online version, which does not have the journal pagination: <http://www.owl232.net/papers/immigration.htm>

<sup>22</sup> Of course, as argued, it would solve the problem if there were first to be full libertarian privatisation of all state-owned assets among the existing population. But Huemer 2010 is not advocating that. It is advocating that the borders be opened without this happening.

<sup>23</sup> When the country has not first been fully privatised there will always be some proactive interference: using the property that the existing population would otherwise, and should, own but which the government has claimed. Even invited immigrants will cause negative externalities if ‘public property’ exists.

One is not *proactively* interfered with by being denied access to things that other people own, or should rightfully own, however much one wants or needs them. And immigration controls are (by general intention, at least, and however imperfectly) *reactively* coercive. Such reactive coercion is in principle defensive and to that extent libertarian.

The argument for free immigration ought to be persuasive to nearly everyone, regardless of ideological orientation.

The argument ought not to be persuasive even to most libertarians; and not to any welfare consequentialists either.<sup>24</sup>

## 4 CONCLUSION

Consider three broad options on the issue of immigration.

1. Privatise everything along libertarian lines among the existing national citizens (who

would already own it all, but for the state), and then let liberty and free markets sort things out: this is the only fully libertarian and economically efficient option; but it's not going to happen before most intellectuals become libertarians.

2. Open the state borders and let unlimited numbers of people enter: this would be a libertarian and welfare disaster; but it is so obviously awful (except, apparently, to some well-known libertarians) that it's never going to happen.
3. Have state controls on immigration: this is highly imperfect as regards liberty or welfare; but at least it avoids a national disaster and it can slowly be moved in a more-libertarian direction. And that is what libertarians should be promoting: specific, practical, immigration policies that increase people's liberty and thereby also their welfare.<sup>25, 26</sup>

## WORKS CITED

- Block, W. E. (1998). "A Libertarian Case for Free Immigration", *Journal of Libertarian Studies* 13:2: 167–186.
- Block, W. & Callahan, G. (2003). "Is There a Right to Immigration?: A Libertarian Perspective", *Human Rights Review*, October-December 2003: 46-71.
- Caplan, B. (2012). "Why Should We Restrict Immigration?" *Cato Journal*, 32:1: 5-24.

---

<sup>24</sup> It is necessary to take seriously the Gallup survey and the vast amount of illegal immigration despite huge deterrents, including the very real risk of death in many cases. And one must not conflate the libertarian privatise-among-the-citizens solution with opening the borders in the current situation. In principle, the free market can sort out any problems without serious negative externalities. But there can be nothing like a free market while the state owns almost all of the roads, parks, etc., that the existing populace ought to own.

<sup>25</sup> Quoted by Lee Waaks (personal communication, 2nd October 2019) with responses. Stephen Davies: "Fundamentally there is no meaningful difference between free movement within geopolitical borders (a hard fight for 19th century liberals) and free movement that goes across geopolitical borders." In terms of abstract economic theory, they may be the same thing. But in terms of practical reality, the introduction of the latter would be a disaster. In any case, it would be more

apposite to observe that, to be consistent, this essay should hold that the former is a similar problem (albeit on a much lesser scale) until all the 'public property' is allocated to its just private owners within the geopolitical borders. And that is true. It is simply not the crux of the debate here, and so was not discussed. "You can only make the argument that there is if you make the political community something that exists above and beyond the autonomous individual[s] and has prior claims upon them." It is the state that "exists above and beyond the autonomous individual[s]". However, by libertarian rights, it has no "prior claims upon them". Rather, they have a claim on it to the property that it has taken by proactive coercion.

<sup>26</sup> Comments from Mark Brady and David McDonagh have improved this essay. No blame can be attached to them for any faults.

- Caplan, B. (2014). "The Swamping that Wasn't: The Diaspora Dynamics of the Puerto Rican Open Borders Experiment", *The Library of Economics and Liberty*, accessed 15th Dec. 2020: [https://www.econlib.org/archives/2014/03/the\\_swamping\\_th.html](https://www.econlib.org/archives/2014/03/the_swamping_th.html).
- Clifton, J. (2012). "150 Million Adults Worldwide Would Migrate to the U.S.", *Gallup.com*. <https://news.gallup.com/poll/153992/150-Million-Adults-Worldwide-Migrate.aspx>
- Esipova, N. Pugliese, A. & Ray, J. (2018). "More Than 750 Million Worldwide Would Migrate If They Could" Gallup website, accessed 2<sup>nd</sup> Dec. 2020: [https://news.gallup.com/poll/245255/750-million-worldwide-migrate.aspx?g\\_source=link\\_NEWSV9&g\\_medium=NEWSFEED&g\\_campaign=item\\_&g\\_content=More%2520Than%2520750%2520Million%2520Worldwide%2520Would%2520Migrate%2520If%2520They%2520Could](https://news.gallup.com/poll/245255/750-million-worldwide-migrate.aspx?g_source=link_NEWSV9&g_medium=NEWSFEED&g_campaign=item_&g_content=More%2520Than%2520750%2520Million%2520Worldwide%2520Would%2520Migrate%2520If%2520They%2520Could)
- Gregory, A. & Block, W. E. (2007). "On Immigration: Reply to Hoppe," *Journal of Libertarian Studies*, 21: 3: 25–42.
- Heumer, M. (2010). "Is There a Right to Immigrate?", *Social Theory and Practice*, 36:3: 429-61
- Lester, J. C. ([2000] 2012). *Escape from Leviathan: Libertarianism Without Justificationism*. Buckingham: The University of Buckingham Press.
- Lester, J. C. ([2011] 2016). *Arguments for Liberty: a Libertarian Miscellany*. Buckingham: The University of Buckingham Press.
- Lester, J. C. (2014). *Explaining Libertarianism: Some Philosophical Arguments*. Buckingham: The University of Buckingham Press.
- Lester, J. C. (2021). "Eleutherological-Conjecturalist Libertarianism: a Concise Philosophical Explanation", *PhilPapers*: <https://philpapers.org/rec/INDNLA>.
- McCarthy, N. (2018). "Nearly 160 Million People Want To Move To The U.S." Gallup website, accessed 2<sup>nd</sup> Dec. 2020: <https://www.statista.com/chart/10146/150-million-people-would-move-to-the-us-if-they-could/>.
- Migration Watch UK (2019). "Evidential basis for MWUK's '30 Million' claim", accessed 4<sup>th</sup> Dec. 2020: <https://www.migrationwatchuk.org/briefing-paper/464/evidential-basis-for-mwuks-30-million-claim>.
- Miller, D. W. (1994). *Critical Rationalism: A Restatement and Defence*. Chicago and La Salle, Ill.: Open Court.
- Popper, K. R. ([1963] 1978). *Conjectures and Refutations*. London: Routledge and Kegan Paul.

Received for publication: 22.12.2020  
Revision received: 22.02.2021  
Accepted for publication: 06.07.2021

### **How to cite this article?**

#### **Style – APA Sixth Edition:**

Lester, J. C. (2021, July 15). Immigration and libertarianism: Open borders versus directionalism. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 35-44. doi:10.12709/mest.09.09.02.06

#### **Style – Chicago Sixteenth Edition:**

Lester, J. C. 2021. "Immigration and libertarianism: Open borders versus directionalism." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 35-44. doi:10.12709/mest.09.09.02.06.

Style – **GOST Name Sort**:

**Lester J. C.** Immigration and libertarianism: Open borders versus directionalism [Journal] // MEST Journal / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 35-44.

Style – **Harvard Anglia**:

Lester, J. C., 2021. Immigration and libertarianism: Open borders versus directionalism. *MEST Journal*, 15 July, 9(2), pp. 35-44.

Style – **ISO 690 Numerical Reference**:

*Immigration and libertarianism: Open borders versus directionalism.* **Lester, J. C.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, MEST Journal, Vol. 9, pp. 35-44.



# HUMAN CAPITAL OF UKRAINE: INCLUSIVE DEVELOPMENT

**Svitlana Luchyk**

Chernivtsi Institute of Trade and Economics of Kyiv National University of Trade and Economics, Department of Accounting and Taxation, Chernivtsi, Ukraine

<https://orcid.org/0000-0003-0757-1140>

**Margaryta Luchyk**

Kyiv Cooperative Institute of Business and Law, Economics and Law Faculty, Kyiv, Ukraine

<https://orcid.org/0000-0002-4822-5407>

©MESTE

JEL Category: **I24, I25, J24**

## **Abstract**

*The article is devoted to the problems of inclusive development of human capital in Ukraine. It was found out that the level of inclusiveness of economic development in Ukraine is low and has decreased in recent years. One of the reasons for this is the lack of assessment of the impact of economic reforms on the development of human capital in the country, which is a competitive advantage of Ukraine. As the result, we observe the decline in labor and social activity of the population. However, the development of a new generation of digital technologies translates into the virtual environment a significant part of labor relations and entire segments of employment, the flexibility of which is greatly increased. Digitization requires the formation of new competencies in the labor market, which entails the restructuring of the entire system of education. Ukrainian human capital is characterized by high mortality among the working population, deepening on demographic aging and depopulation, migration of the highly educated population, and increasing labor migration. It has been investigated that the population of Ukraine has a high level of education, especially a high proportion of young people with higher education. The level of inclusive education at all levels is gradually increasing. The need for significant investment in human capital to restructure all levels of education according to the requirements of inclusiveness and the formation of inclusive human capital policy, in general for economic growth and strengthening of Ukraine is substantiated.*

**Keywords:** human capital, inclusive growth, inclusive education, inclusive society, inclusive policy

*The address of the corresponding author*

**Svitlana Luchyk**

[✉ luchiksvitlana@gmail.com](mailto:luchiksvitlana@gmail.com)

## **1 INTRODUCTION**

Human capital is the main value of modern society, as well as one of the main factors of



economic growth. It affects the development of the labor market and the economy as a whole. The digital economy is radically changing the requirements for professional and personal qualities of employees, the organization of their jobs. The challenges of the XXI century from the socio-economic environment necessitate timely changes in thinking, behavior, leadership skills, revision of the usual tools used to maintain sustainable motivation and increase productivity.

However, according to Professor K. Pissarides (Pissarides, 2017), the impact of human capital on economic development may not always be positive - much depends on what tasks the population of the country uses its skills and knowledge. Incentives that encourage people to apply their existing knowledge and skills to specific goals are important. These incentives, in turn, are largely determined by the institutional structure of the economy, but it varies greatly from country to country, making it even more difficult to measure.

The experience of the United States, many leading European and East Asian countries shows that they achieve modern success through the inclusion of human capital. At the same time, the state plays a leading role in inclusive development. It not only redistributes the results of economic and social growth but also ensures the creation of institutions of the relationship between the economy and society, between economic and social development. According to some foreign researchers (Roy, 2011), the growth of countries can be considered as inclusive only if the conditions are maintained, when simultaneously with the increase in the country's GDP is an increase in the index of human development. Under this condition, the role of the state in achieving a balance between investment policy and the development of the national innovation system increases.

According to the Inclusive Economic Development Index 2018, Ukraine ranked 49<sup>th</sup> among 74 developing countries. According to the World Economic Forum, the inclusiveness of economic development in Ukraine has decreased by 6,8% over the past 5 years. The reasons for such negative dynamics, according to M. Novikova (Novikova 2020) is that all the reforms that have been carried out in Ukraine in recent years have begun without a proper preliminary assessment of

their impact on human potential and human capital. The consequence of this is a decrease in labor and social activity of the population and a reduction in opportunities for the development of almost all sectors of the national economy. Therefore, the analysis of the process of human capital development is relevant in the context of the introduction of a new inclusive model of socio-economic development of Ukraine and its society.

## 2 INCLUSION OF HUMAN CAPITAL: THEORETICAL ASPECT

The concepts of "inclusion", "inclusive development", "inclusive growth", "inclusive society" are widely used today. Though, Mikheev V.O. (Mikheev, 2018) under inclusion (from Latin - inclusion, include, include) means the process of participation in certain actions, in politics, which allows individuals, social groups to participate equally in public life, and in decision-making. Inclusion increases the participation of all citizens in society, including people with disabilities and other low-mobility groups (the elderly, pregnant women, etc.).

The World Bank (2015) defines "inclusive growth" as high and sustainable (an important condition for poverty reduction), widespread in all sectors of the growth of the economy, which attracts a significant part of the labor force and is characterized by equal access to market and resources.

The European Commission (2010) while developing the Europe 2020 strategy emphasized that inclusive growth includes full use of labor potential through high employment and investment in skills, poverty reduction and its outcome, development of social will through education and social protection, development of regional disparities.

Thus, the key points in determining inclusive growth are broader goals than income or GDP growth; comprehensive development of human capital; reducing inequality and poverty; the importance of active participation in economic life, not only in the distribution of income; benefiting the general population, especially children, women, the elderly.

Legislation concerning Ukraine's inclusive policy is based on and may not contradict the Convention on the Rights of Persons with Disabilities (2006).

The inclusive policy is also regulated by the Council of Europe Strategy on the Rights of People with Disabilities for 2017-2023. The Strategy for Inclusive Growth in Ukraine is presented in the form of the Draft Strategy for Sustainable Development of Ukraine until 2030, which defines "inclusiveness", "inclusive growth", and "inclusive institutions and inclusive society". Inclusive growth is defined as economic growth that creates maximum opportunities for all segments of the population for employment and participation in all spheres of life of the country, as well as ensures a fair distribution of labor results. Inclusive society - a society that does not focus on racial, gender, class, age, and geographical differences of individuals and social groups and provides equal opportunities and involvement of all members of society in creating social institutions that regulate social interaction (UNDP, 2017). The draft Strategy contains many tools and mechanisms for creating an appropriate legal framework for inclusive growth.

The document "Ukraine 2030: The Doctrine of Balanced Development" (2017) developed by Ukrainian scientists is interesting, as it presents a model of balanced development of a fundamentally new trajectory of Ukraine's economic growth until 2030. The Doctrine states that human capital is a key competitive advantage of our country. It is interpreted as "an economic category that characterizes the set of formed and developed productive abilities, personality traits and motivations of a person due to the acquired knowledge and abilities that are implemented in work. An individual is the goal for which wealth exists. The presence of educated able-bodied human capital in the country is evidenced by the 34<sup>th</sup> ranking position of Ukraine out of 140 countries according to the World Economic Forum. On the "Quality of Mathematical and Fundamental Natural Training" – 27<sup>th</sup> ranking position, on "Coverage of Higher Education" – 11<sup>th</sup> ranking position, on the presence of scientists and engineers - 29<sup>th</sup> place, while on the level of primary education - only 51<sup>st</sup> rating position" (Ukraine 2030, 2017). But, unfortunately, in the document when developing a human-centered model of national economy development, the authors do not use the index of inclusive growth as a mega-indicator. We believe that all aspects of social production and its economic growth should be

considered in terms of inclusiveness. Moreover, it is inclusive changes through the transition from meeting mass are required to meet individual needs that will contribute to the development of civil society.

### 3 INCLUSIVE HUMAN DEVELOPMENT IN UKRAINE

According to the UN, which annually evaluates the Human Development Index (HDI), its indicator for Ukraine in 2019 is 0.779, which makes it belong to the countries of a high level of human development (74<sup>th</sup> place among 189 countries and territories). In the period from 1990 to 2019, the value of Ukraine's HDI increased from 0.725 to 0.779, increasing by 7.4 percent. According to the components of the index, the situation is as follows:

- the life expectancy of Ukrainians is 72.1 years.
- the mean years of schooling of the population in Ukraine are 11.4 years, and the expected time of schooling is 15.1 years.
- gross national income per capita (GNI) is 13216 dollars (United Nations Development Program, 2020).

Comparison of Ukraine's HDI with a similar indicator in neighboring countries allowed us to draw the following conclusions.

The lowest human development indicators are recorded only in Moldova, which ranked 90<sup>th</sup> in the ranking with a total index of 0.750 with a life expectancy of 71.9 years, expected years of schooling is 11.5 years, mean years of schooling – 11.7 years. However, GNI per capita in the country exceeds the Ukrainian figure and is 13,664 USD (Human Development Reports, 2020).

GNI in Belarus exceeds the same figure in Ukraine by 40.3% (is 18,546 USD), in the Russian Federation - by 97.9% (26,157 USD), Romania - by 122% (29,344 USD), Hungary - by 137.1% (31,329 USD), Poland - by 139.3% (31,623 USD), Slovakia - by 143.0% (32,113 USD).

While globally Ukraine is in the category of high human development countries (HDI higher than 0.753), within the region of Europe and Central Asia it shows a lower-than-average figure (0.791) and lags behind other major countries in the region - Kazakhstan (0.825) and Russia. (0.824) (Human Development Report 2020).

It should be noted that the procedure for determining the HDI in 2019 contains some amendments to consider inequalities in society, which means that the components of the index cannot be directly compared with those in previous reports. Thus, to reflect the impact of inequality on human development, the 2010 Human Development Report introduced a socio-economic inequality-adjusted human development index (HDI), which considers inequality in all components of HDI (by “reducing” the average of each component according to the degree of inequality).

With this adjustment, Ukraine has an HDI of 0.728, considering the “loss” of development due to inequality of 6.5%. Even though Ukraine still lags both Kazakhstan (0.766) and Russia (0.740), their losses are higher by 7.2% and 10.2%, respectively, which reflects the higher degree of inequality in these countries. Ukraine is also ahead of the average HDI in Europe and Central Asia (0.697), where the average loss of development due to inequality is 11.9%.

Let us try to assess the above indicators. Does the improvement of Ukraine's human development indicators in the global ranking indicate an improvement in the quality of human potential in the country in the context of implementing an inclusive human capital policy?

From 1950 to 2020, the life expectancy of the planet's population has increased from 46 to 73 years and is projected to increase by another four years by 2050. Moreover, David I. Bloom (David E. Bloom, 2020) claims that by 2050 life expectancy will have to exceed 80 years in at least 91 countries, where then they will live 39 percent of the world's population.

Longer life is one of the colossal achievements of humanity, which is due to improved survival conditions throughout the life cycle, but especially in infants and children. During the years of independence, life expectancy at birth in Ukraine increased from 70.42 years (1990) to 72.01 years (2019). According to the State Statistics Service of Ukraine (2020), the highest value of the indicator was determined in Kyiv – 73.96 years, the lowest in the Zhytomyr region – 70.28 years. With the positive dynamics of life expectancy in all groups of the population in the country continues to remain high mortality. If in 1990 the mortality rate

was 1220.4 per 100 thousand people, in 2019 – 1472.7. The situation is particularly threatening in the age groups: 35-39 years, where mortality increased by 35.3%, 30-34 - by 26.1%, 40-44 – 23.3%. As a result, there were changes in the age structure of the Ukrainian population. In 2019, the share of the working population aged 16-59 decreased to 54.8% against 58.8% in 1990 and 54.8% in 2010. The age group of 60 years and older increased from 18.3% (1990) to 20.9% (2010) and again to 21.9% (2019).

Thus, demographic aging of the population is observed in Ukraine. This situation is typical for most countries. Currently, the world leader is Japan: 28 percent of its population (three times the world average) are people aged 65 and older. According to David E. Bloom (David E. Bloom 2020), by 2050, 29 countries and territories will have a larger share of the elderly population than Japan today. The study of the demographic burden per 1,000 people aged 16-59 in Ukraine revealed the following trends: from 1990 to 2008-2009 there was a decrease from 708 to 553-554 people. Since 2010, the figure is gradually increasing and has reached 671 people by the end of 2019, including 272 people under the age of 16 and 399 people over the age of 60. In the regions of the country, the worst situation is in Chernihiv (717 people with a distribution of 247 and 470 people, respectively) and Donetsk regions (716 people with a distribution of 213 and 503 people). The best value of the load indicator in the Kharkiv region is 633 people (239 and 394 respectively).

Changing age dynamics and increasing demographic burden have a serious impact on economic growth, social stability, and geopolitics. All this affects how people save, spend and where they invest money. Ukrainian experts (The National Academy of Sciences of Ukraine, 2020) say that the aging population poses many challenges, primarily related to public finances including increasing the need for pension funds; functioning of the labor market (with an aging workforce and declining working population) in general), development of the health care system and social services aimed at the elderly, etc.

The economic burden of an aging population can be reduced through various appropriate measures. Thus, migration between countries is of some importance for population growth. In some

countries, such as Tonga, Samoa, and Guyana, where net emigration has been felt for the past 30 years, its effects are significant. Qatar, the United Arab Emirates, and Bahrain have the highest levels of net immigration. Besides, among the world's ten demographic superpowers, the relative presence of migrants is highest in the United States (15 percent in 2019) (David E. Bloom, 2020). According to United Nations estimates by M. Petrakis (2020), due to the aging and migration of the population of Central, Eastern, and South-Eastern Europe will be reduced by 2050 by 12%. The number of labors will decrease by a quarter over the same period.

The migration movement in Ukraine since 2005 has a positive balance in Ukraine (State Statistics Service of Ukraine, 2020). At the end of 2019, the migration increase amounted to 21512 people, including 18,222 interstate migrants. 8 regions of Ukraine had an increase in migration, among them the largest inflows of migrants took place in the Kyiv region 27,343 people, Kyiv – 17,175 people, and Odesa region – 9075 people. In other regions, there was a reduction in migration Donetsk and Luhansk regions lost 7680 and 4940 people, respectively, Kirovograd and Vinnytsia regions – 3345 and 2724 people, respectively.

Labor migration, which is an integral part of the labor market, can, on the one hand, increase the inclusiveness of a country's economic growth, while, on the other hand, contribute to its reduction. This will depend on the level of quality of the migrant workforce.

Migrants are usually people of working age. They increase the employed population of the host country, thereby compensating for its natural decline. Also, the infusion of highly skilled migrants into knowledge-intensive industries contributes to the rapid development of the latter. While the influx of low-skilled immigrants, according to many scientists (Chepel, Tukhtarova Neklyudova, 2018), contributes to attracting capital to labor-intensive medium and low-tech sectors of the economy, which can lead to its stagnation due to intensive infrastructure without modernization. In other words, capital is being replaced by labor and the country's development is being carried out at the expense of extensive sources.

Thus, the influx of qualified personnel has a positive effect on the economic growth of the recipient country. However, the donor country remains in a difficult position. The large-scale outflow of skilled labor in the medium term begins to have a negative impact on the development of certain sectors of the economy, and the long-term consequences of the outflow of skilled workers are reflected in changes in qualitative and quantitative indicators of human capital in the country. This triggers a negative multiplier effect and reduces the scientific and economic, we believe, inclusive, potential of the donor country.

A necessary condition for the inclusiveness of society is the general access of the population to education. Well-educated citizens have higher productivity, helping their countries to prosper, while differences in accumulated human capital explain much of the differences in income levels between countries and over time.

According to the ranking of countries according to the HDI (Humanitarian Portal, 2020), the average duration of education in Ukraine in 2019 was 11.4 years, and the expected duration of education – 15.1 years. Compared to the leaders of the rating, the highest average duration of training was achieved in Germany – 14.2 years, Switzerland – 13.4 years. The highest values of the expected duration of training are in the ranking leaders Norway (18.1 years) and Ireland (18.7 years). According to the level of education (World Bank Development Research Group, 2020), Ukraine ranks high 46<sup>th</sup> with a score of 0.797. Compared to neighboring countries, the highest rating is Poland (23<sup>rd</sup> position), followed by Belarus (30), Russia (33), Slovakia (35), Hungary (39). Moreover, countries such as Romania and Moldova are behind in 55<sup>th</sup> and 79<sup>th</sup> positions.

Inclusiveness in education means providing a situation in which every student sees that he or she is valued and respected. However, discrimination, stereotypes, rejection led to the alienation of many students. These mechanisms of alienation are essentially always the same, regardless of gender, place of residence, income, disability, ethnicity and language, migration, displacement, sexual orientation, imprisonment or freedom, religious and other beliefs, and attitudes.

Inclusive education is being developed in Ukraine. We consider the development of the draft National

Strategy for the Development of Inclusive Education until 2030 to be a significant achievement in this direction. According to the project, a domestic inclusive educational environment and the system of educational services must meet international standards. This will guarantee students the opportunity to learn, regardless of their special educational needs, at all levels of education throughout life. At the end of 2020, there were 18,687 inclusive classes in Ukraine (The Ministry of Education and Science of Ukraine, 2020), and 30.9 thousand children with special educational needs were enrolled. In the field of inclusive education, 17.2 thousand teacher assistants were trained to work in inclusive classrooms. Despite the quarantine restrictions caused by COVID-19, inclusive education funding of UAH 504 million was maintained, and for the first time, the budget financed the purchase of equipment for special schools and training and rehabilitation centers. For the first time, a mobile application of the IRC AS was introduced to help parents of children with special educational needs.

Regarding higher education, according to the State Statistics Service of Ukraine (State Statistics Service of Ukraine 2020) in the 2019/2020 academic year 13,988 people with special educational needs studied in higher education institutions of the country, which is less than 1% of the total number of students. It should be noted that 76.6% of them studied in universities, academies, institutes, and others - in colleges, technical schools. For comparison: in the United States in 2019, among students with a bachelor's degree, young people with special educational needs accounted for 19.4%, and among graduate students – 11.9%. In British universities, the share of students with special needs was 14.3%. The Covid-19 pandemic has radically changed the format of the educational process. Not all participants in this process were ready to receive information in the context of distance learning. Students with disabilities need special attention during this period. Long-term online learning for students with disabilities can be a particularly difficult task, given that students' disabilities can range from mild to severe. Many of them need special tools, special tasks, and individual support to help them succeed. Teachers need to keep students with disabilities at the forefront when developing and teaching courses, creating

curricula. Inclusive education involves not only the creation of appropriate educational space but also the provision of psychological and pedagogical support, the involvement of specialists with many years of experience in working with people with special needs.

It should be noted that currently all levels of education are being restructured to include inclusiveness. According to O. Mamedov (Mamedov, 2017), "the sphere of education is the primary local model of future changes, which later covers all spheres of society. In this aspect, inclusive training of high school graduates makes sense only if they are waiting for inclusive-reorganized production. However, the inclusion of society is not limited to education. According to the scientist (Mamedov, 2017), inclusive-reorganized production entails a corresponding transformation in distribution, exchange, and consumption. At the same time, inclusive changes will cover health care, science, the social sphere, recreation, and tourism - almost all public life. This is the system in practice. "

Thus, investing in human capital development, in education, promotes inclusive growth and development, which is also influenced by the availability of medical infrastructure for the population. All members of society must be provided with the means to form the basic human capabilities that are the most important foundation of social integration.

## 4 CONCLUSIONS

Human capital is the most valuable economic resource, so its growth in the country's economy is one of the key factors of strategic growth. Carriers of human capital, who can use it effectively in their work, are key creators of added value. Moreover, it gives both a direct contribution to GDP and an indirect one, i.e., due to the growth of total factor productivity - the ability to produce more and cheaper per unit cost of labor and capital. Another thing is that the size of this contribution is determined not only by human capital itself but also by the actions of those who use it. Among the external effects of human capital should be noted the higher quality of social ties, civic activism, and culture of society.

Countries that have a higher quality of human capital and have learned better than others to form

and use the knowledge, skills, competencies of people, their ability to further study, gain significant competitive advantages. Ukraine remains a country with a high level of human development. Its human capital is of high quality and is a competitive advantage of the country. However, it is gradually becoming a scarce economic resource. Among the reasons: high mortality of the working population, deepening demographic aging, and depopulation, migration of highly educated population, increasing labor migration.

The pandemic of coronavirus infection COVID-19 has dealt a significant blow to the human capital of our country, as well as the whole world. The disease claimed the lives of tens of thousands of Ukrainians. The closure of schools has reduced the level and loss of quality in education and exacerbated inequality. The crisis caused by the

pandemic has highlighted the urgent need to invest in the development of digital skills and technologies to facilitate distance work and provide distance learning, especially for groups with special educational needs.

We believe that to preserve its most valuable economic resource, Ukraine needs to significantly increase investment in human capital, as currently, the per capita income of Ukrainians in real terms is lower than in neighboring European countries. Inclusive human capital development policy must become a systemic object. Such a policy will help to overcome the increase in labor productivity, create conditions for increasing the activity of citizens, their responsibility. The widespread use of computer technology and the Internet has revealed an interesting relationship: the higher the creativity of production, the stronger the trend towards inclusiveness.

## WORKS CITED

- Bloom, D. E. (2020). Population 2020. Demographics can be a powerful driver of the pace and process of economic development. *Finance & Development*, March 2020, 4-9. Retrieved from <https://www.imf.org/external/russian/pubs/ft/fandd/2020/03/pdf/changing-demographics-and-economic-growth-bloom.pdf>
- Chepel, S. V., Tukhtarova, E. Kh., Neklyudova, N.P. (2018). Migration: A factor or a barrier to inclusive economic growth in the post-soviet states. *Journal of economic theory*, 15(4), 579-591. Retrieved from [https://elibrary.ru/download/elibrary\\_36715942\\_88155038.pdf](https://elibrary.ru/download/elibrary_36715942_88155038.pdf). doi: 10.31063/2073-6517/2018.15-4.4.
- Economic Growth: The Role of Human Capital. (2017). Retrieved from <https://www.hse.ru/news/science/211875128.html>
- European Commission. (2010). Europe 2020 A strategy for smart, sustainable, and inclusive growth. Retrieved from <https://ec.europa.eu/eu2020/pdf>
- Human Development Report 2020. (2020). The next frontier Human Development and the Anthropocene. Retrieved from <http://hdr.undp.org/sites/default/files/hdr2020.pdf>
- Human Development Reports (2020). Latest Human Development Index Ranking. Retrieved from <https://hdr.undp.org/en/content/latest-human-development-index-ranking>
- Humanitarian Portal. (2020). Ranking of the countries of the world according to the index of education level. Retrieved from <https://gtmarket.ru/ratings/education-index>.
- Mamedov, O. (2017). Ekonomika inklyuzivnoy tsivilizatsii (Engl. The economy of an inclusive civilization). *Terra Economicus*, 17(3), 6-18. Retrieved from <https://cyberleninka.ru/article/n/ekonomika-inklyuzivnoy-tsivilizatsii>. (In Russian)
- Mikheev, V. A. (2018). Inclusive Policy of the Human Capital Development. *Vlast (The Authority)*, 26(1), 30-36. Retrieved from <https://www.jour.fnisc.ru/index.php/vlast/article/view/5628>.
- Novikova M. M (2020). The influence of human capital on the inclusive growth of the national economy. Proceedings from Inclusive economic development in the face of global challenges of today. 2020: *International scientific and practical Internet conference (1-28 February 2020)* (pp. 66-68)

- Kharkiv: KhNUMG them. OM Beketova. Retrieved from <https://science.kname.edu.ua/images/dok/konferentsii/2020konf/1-28.pdf>
- Petrakis M. (2020). The exodus from Eastern Europe. *Finance & Development*. March 2020, 24-25. Retrieved from <https://www.imf.org/external/russian/pubs/ft/fandd/2020/03/pdf/future-of-aging-populations-and-economic-growth-in-eastern-europe-petrakis.pdf>.
- Roy A. (2011). Inclusive Growth through MFIs' Outreach in Assam. *Asia-Pacific Business Review*. 7(3), 47–62. doi: 10.1177/097324701100700305.
- State Statistics Service of Ukraine. (2020). Higher education in Ukraine. Retrieved from <http://www.ukrstat.gov.ua/>.
- State Statistics Service of Ukraine. (2020). Migration of population by region (2002-2019). Retrieved from <http://www.ukrstat.gov.ua/>.
- State Statistics Service of Ukraine. (2020). Tables of births, deaths, and average life expectancy for 2019: a statistical collection. Retrieved from [http://database.ukrcensus.gov.ua/PXWEB2007/ukr/publ\\_new1/2020/zb\\_tabl\\_nar\\_2019.pdf](http://database.ukrcensus.gov.ua/PXWEB2007/ukr/publ_new1/2020/zb_tabl_nar_2019.pdf)
- Stratehiya staloho rozvytku Ukrayiny do 2030 roku (Engl. The strategy of sustainable development of Ukraine for the period up to 2030). Project-2017. Retrieved from [https://www.undp.org/content/dam/ukraine/docs/SDGreports/UNDP\\_Strategy\\_v06-optimized.pdf](https://www.undp.org/content/dam/ukraine/docs/SDGreports/UNDP_Strategy_v06-optimized.pdf).
- The Ministry of Education and Science of Ukraine. (2020). The Ministry of Education and Science presents the achievements of inclusive education in 2020. Retrieved from <https://mon.gov.ua/ua/news/mon-prezentuye-dosyagnennya-inklyuzivnoyi-osviti-u-2020-roci>.
- The National Academy of Sciences of Ukraine. (2020). Ukraine on the demographic map of the world: can there be 52 million of us again? Retrieved from <http://www.nas.gov.ua/UA/Messages/Pages/View.aspx?MessageID=6659>.
- The World Bank. (2015). Ending Poverty and Sharing Prosperity. Global Monitoring Report 2014/15. Washington DC: International Bank for Reconstruction and Development. Retrieved from <http://pubdocs.worldbank.org/en/637391444058280425/GMR-2014-Full-Report.pdf>
- Ukraine 2030: The Doctrine of Balanced Development (2017). Retrieved from <http://econom.chnu.edu.ua/wp-content/uploads/2018/03/E-Book-Doctrine-2030.pdf>
- United Nations Development Programme. (2020). Human Development Index (HDI) Ranking From the 2020 Human Development Report (2020). Retrieved from <http://hdr.undp.org/en/content/latest-human-development-index-ranking>

Received for publication: 11.02.2021  
Revision received: 24.02.2021  
Accepted for publication: 06.07.2021

### **How to cite this article?**

#### **Style – APA Sixth Edition:**

Luchyk, S., & Luchyk, M. (2021, July 15). Human capital of Ukraine: Inclusive development. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 45-53. doi:10.12709/mest.09.09.02.07

#### **Style – Chicago Sixteenth Edition:**

Luchyk, Svitlana, and Margaryta Luchyk. 2021. "Human capital of Ukraine: Inclusive development." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 45-53. doi:10.12709/mest.09.09.02.07.

Style – **GOST Name Sort**:

**Luchyk Svitlana and Luchyk Margaryta** Human capital of Ukraine: Inclusive development [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 45-53.

Style – **Harvard Anglia**:

Luchyk, S. & Luchyk, M., 2021. Human capital of Ukraine: Inclusive development. *MEST Journal*, 15 July, 9(2), pp. 45-53.

Style – **ISO 690 Numerical Reference**:

*Human capital of Ukraine: Inclusive development*. **Luchyk, Svitlana and Luchyk, Margaryta**. [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 45-53.



# MANAGING THE STATUS OF SUFFERING PILGRIMS IN MAKKAH VIA MOBILE APPLICATION

**Alaa Mohammed**

Al-Nahrain University, Dept. of Computer Engineering, Baghdad, Iraq  
<https://orcid.org/0000-0002-8400-269X>

**Fawzi Al-Naima**

Al-Ma'moon University College, Dept. of Computer Engg, Baghdad, Iraq  
<https://orcid.org/0000-0003-0930-5073>

©MESTE

JEL Category: **H12, M15**

## Abstract

*The gathering of many people for pilgrimage in sacred places has been increasing in recent years worldwide. With the growing number of pilgrims, the difficulties facing the authorities are also expanding in the form of crowd control and accident avoidance. In such a huge gathering of people and the expected resulting stampede, many pilgrims, including young children and old people, get lost and many pilgrims die because of both natural causes and the stampede. This paper proposes a dedicated mobile solution to identify Muslim pilgrims to Makka experiencing such abnormal situations using QR Code with a mobile application called (Hajj ID). Each practicing pilgrim must wear all time an assigned QR Code containing all his/her necessary personal information, which can be retrieved to access the personal and medical information of the pilgrim in an emergency. The QR Code can only be read by authorized personnel using a mobile application specially designed for this purpose and the pilgrim status will change and be saved to the database and shown on the Hajj website.*

**Keywords:** Hajj, pilgrim identification, QR Code, lost pilgrim, crowd control, stampede

## 1 INTRODUCTION

One of the biggest religious activities worldwide is the annual Muslim Pilgrimage to Makkah, (Hajj). This event is undertaken by very large number of Muslims reaching a few million people speaking different languages and come from different background cultures. Managing such an

occurrence becomes a very complicated and challenging job for the authority in Saudi Arabia.

These Hajj rituals must be held on the same number of days in the last month of each lunar year. With such a huge crowd, where people walk shoulder to shoulder, there is a high risk that many people will break from their communities and get lost. Dangerous conditions may also arise due to different factors such as traffic crashes, overcrowding, human delays, stampeding, and death (Osman, 2018) . The first step to assist pilgrims in such emergency is to define the

*Address of the corresponding author:*

**Fawzi Al-Naima**

[fawzi.alnaima@ieee.org](mailto:fawzi.alnaima@ieee.org)



"pilgrim's identity" so that the responsible authorities can properly provide assistance.

One of the modern technologies that can be used to identify pilgrims without having to talk to them is by using the QR Code with the mobile application (Hajj ID).

## 2 SYSTEM ARCHITECTURE

The proposed layout of the QR Code based identification system architecture is illustrated in Fig. 1. The flowchart of the working mechanism of this system is shown in Fig. 2.



Fig. 1 Identification system architecture

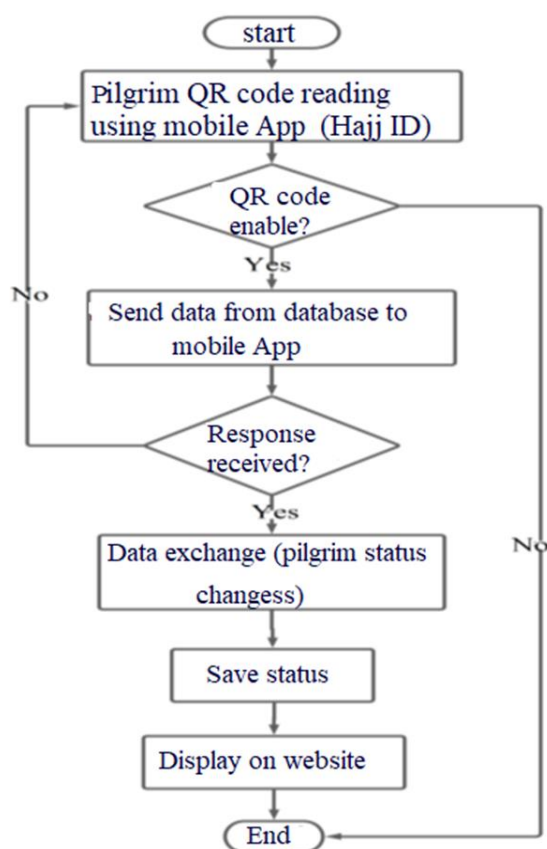


Fig. 2 System flowchart

The basic idea of the working of this system is to have the front end and the back end interfaced with each other. The front end includes the pilgrim QR Code, mobile application, and a website, while the backend includes the system database.

### 2.1 Pilgrims QR code

Each pilgrim wears a wrist QR Code that contains the important basic information of the pilgrim through which the authority can recognize the pilgrim to provide assistance if needed. The information in the QR Code may include the following:

- Pilgrim name
- Age
- Country
- The convoy that the pilgrim came with
- Hajj blood type
- Chronic diseases present at the pilgrim if any
- Pilgrim passport number
- State (which is changed according to the condition of the pilgrim, whether being missing, injured or dead)

### 2.2 Mobile Application

The "Hajj ID" mobile application is a program that can be downloaded on the phones by the people responsible for providing assistance and protecting pilgrims, whether being security or medical authorities. This program reads the QR Code of the pilgrim to obtain the identifying and basic information of the pilgrim from the database.

"Hajj ID" is built using Flutter framework. Flutter is a Google-based mobile SDK and UI tool built based on Dart's programming language, which was publicly released in 2018 (Olsson, 2020). Flutter is an open-source SDK for high-performance, high-fidelity mobile applications development for both Android and iOS (Madhuran, 2019).

The mobile application icon (Hajj ID) appears on the Android system and the first interface in this application is the welcome interface as shown in Fig. 3.

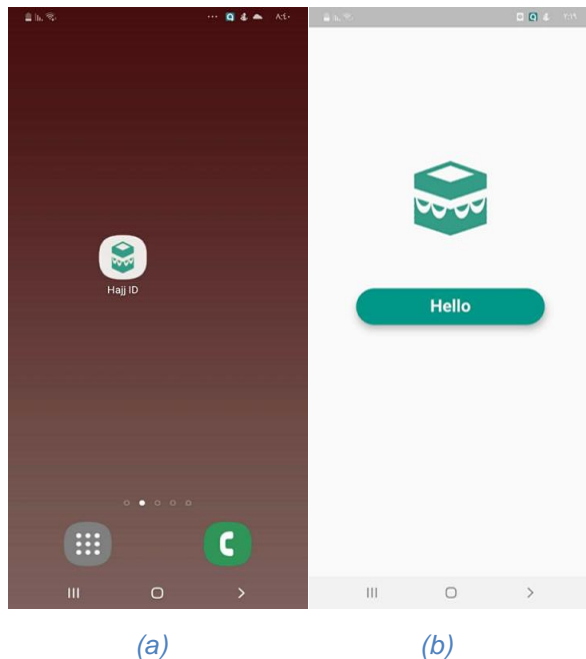


Fig. 3 (a) Hajj ID application icon, (b) Welcome interface of the application Hajj ID

The second interface that appears to the user after the welcome interface in the application is the interface that requests entering a PIN as shown in Fig. 4. The user of the application must possess the PIN of the security authorities or the PIN of the health authorities to be able to use the application because the presence of a PIN is necessary for the use of the application to be limited to certain parties.

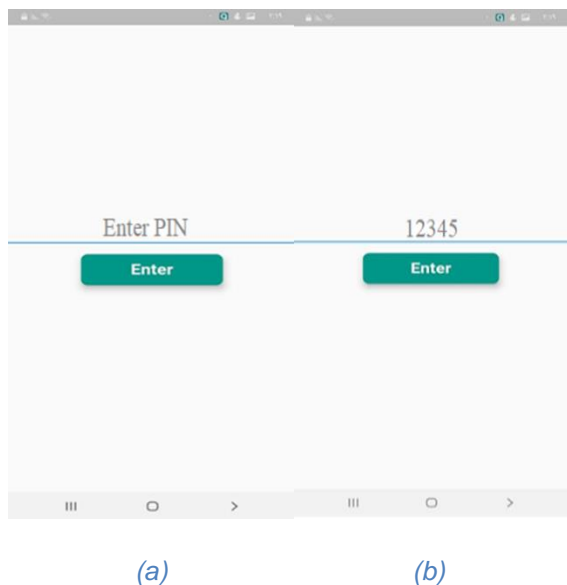


Fig. 4 (a) The application asks for a PIN, (b) Entering a PIN

After entering a PIN, it will move to an interface that enables the user to scan the QR Code for pilgrims as shown in Fig. 5, which is the third interface of the application and is considered the most important interface that will work with the database because when a QR Code scanner is made there will be a link to the database to fetch private QR Code information.

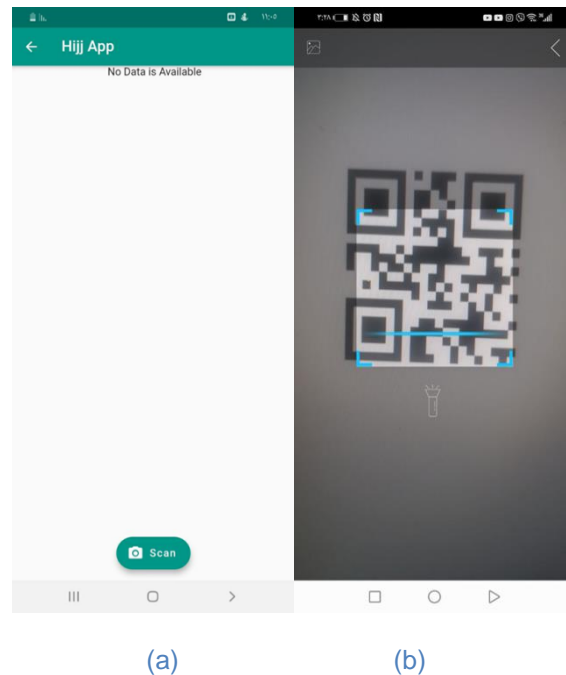


Fig. 5 (a) The third interface of the application to request a QR code scan, (b) Scanning QR code

## 2.3 Website

It is a site of the pilgrim identification system on which the names of missing, injured and deceased pilgrims appear so that families can verify pilgrims during the Hajj season, as well as the authorities responsible for Hajj to monitor the number of dead, injured and lost pilgrims. Updates are made to this site in the event of a new case occurring through the phone application and after saving it in the database it appears on the site. This site consists of two interfaces, the first page is the main page as in Fig. 6 to define the site and contains pictures of some emergency cases. The second page is for pilgrims and contains the names and information of pilgrims who have suffered one of the cases of loss, injury or death, as shown in Fig. 7. This website is designed using HTML, JS.



*What is the Hajj ID application site? Many emergency cases are recorded during the Hajj season, such as the injury or death of the pilgrim, or even the loss of pilgrims in the holy sites, as in the pictures above. They are recognized by a mobile QR code on the wrist of the pilgrim's hand by the Hajj ID app and then displayed on this website*

Fig. 6 Home page content

NO.	name	age	country	state
1	Ali Ahmed Fadel	78	Iraq	Missing
2	Abass Mohammed Ali	88	Jordan	Dead
3	Enas Omar Sheban	54	Palestine	Missing
4	Khalil Ibrahim Abdullah	76	Iraq	Dead
5	Amal Abbas Mahimid	58	United Arab Emirates	Injured
6	Aisha Othman Ahmed	66	Turkey	Missing
7	Salman Mohammed Nasser	70	Kuwait	Dead
8	Qasim Ali Hadi	63	Lebanon	Missing
9	Ahmed bin Hisham	79	Morocco	Dead
10	Ahmed Abbas Amin	67	Tunisia	Injured
11	Al Hassan Salem Ahmed	74	Algeria	Injured
12	Bakr Saladin Ayoub	80	Indonesia	Dead
13	Zaid Anas Abdullah	55	Jordan	Injured
14	Ismail Sabah Muhammad	65	Palestine	Injured

Fig. 7 Content of Pilgrims page

## 2.4 Database

The database is the back end of the system, and it is the pivotal and essential part of the pilgrim identification system, where data are collected for all pilgrims who enter the Kingdom of Saudi Arabia to perform the Hajj, and the database was built using Firebase. Firebase is a backend platform for Web, Android, and iOS applications. It offers a database in real-time, different APIs, multiple types of authentication, platform hosting and much more ( Mehta, Madhani, & Patwardhan, 2017) .It helps developers build high-quality apps and stores data in the JavaScript Object Notation (JSON) format that does not allow the query to be used to insert, update, delete or add data to it. This is the backend of a system that is used as a database for storing data (Khawas & Shah, 2018). Firebase was launched in April 2012 and purchased in 2014 by Google to provide the backend developer solution. Google officially released Firebase in the summer of 2016 to earn revenue for developers, creating a successful application, and promoting business growth (Tram, 2019) . Several useful mobile tools are provided by the Google Firebase suite.

Developers of around 1.2 million applications were using the Firebase SDK as of May 2018 (Gonsalves, 2018). The following three characteristics can be performed in this application: develop, grow and earn. The structure of the hajj database consists of two children named (pin, user) as shown in Fig. 8.

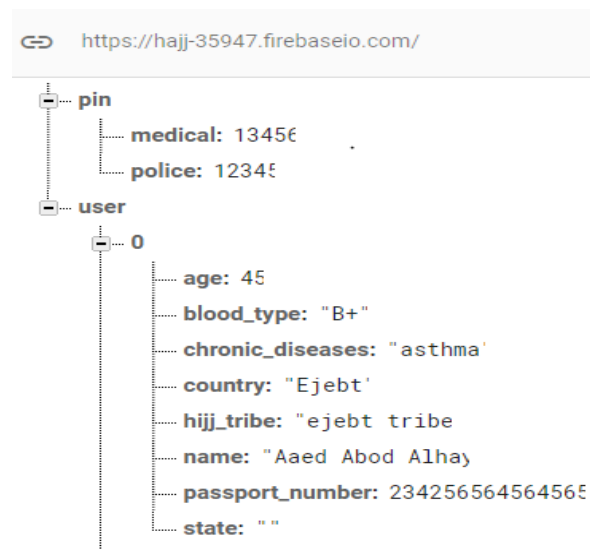


Fig. 8 Hajj database structure

### 3 RESULTS

The running application for a typical pilgrim identification carrying the QR Code is shown in Fig. 9.

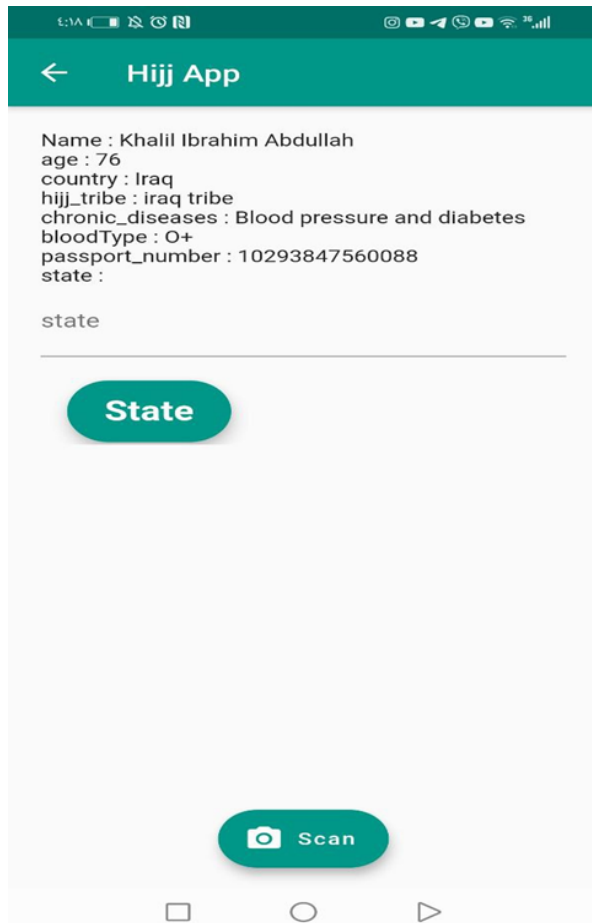


Fig. 9 After scanning the QR code, the result is the pilgrim's information

```

6
  age: 76
  blood_type: "O+"
  chronic_diseases: "Blood pressure and diabetes"
  country: "Iraq"
  hijj_tribe: "iraq tribe"
  name: "Khalil Ibrahim Abdulla"
  passport_number: 1029384756008
  state: ""

```

Fig. 10 Information about one of the pilgrims in the database

In the resulting interface that appears after performing a QR Code scan, there is a state which is to add the pilgrim's current situation if it is being affected, missing, or dead. In Fig. 10, the pilgrim's information in the database shows an empty state, meaning that the pilgrim was not exposed to any emergency.

Assuming that an emergency has occurred and led to the pilgrim's death, and his state changed to dead as in Fig. 11, the system will then add the word "dead" in the state in the application and send it to the database. We go back to the database to see the pilgrim status changed as in Fig. 12.

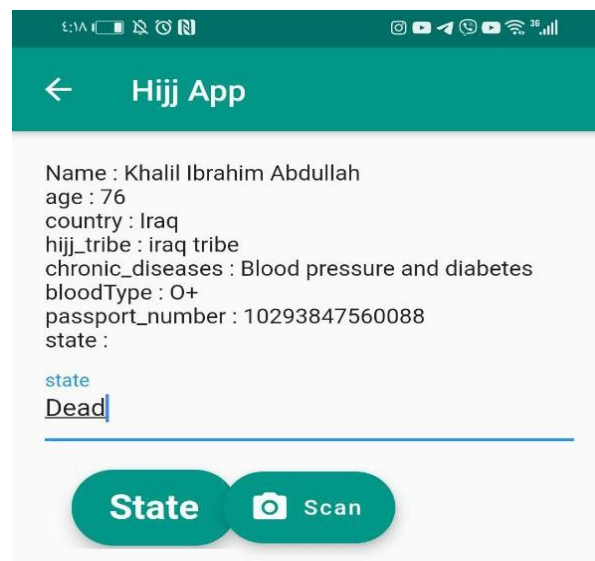


Fig. 11 Change pilgrim's State

```

6
  age: 76
  blood_type: "O+"
  chronic_diseases: "Blood pressure and diabetes"
  country: "Iraq"
  hijj_tribe: "iraq tribe"
  name: "Khalil Ibrahim Abdulla"
  passport_number: 1029384756008
  state: "Dead"

```

Fig. 12 State change in the database

After saving the changes in the database, the status update will appear on the web site and the pilgrim name, age and status will be displayed as in Fig. 13.



NO.	name	age	country	state
1	Ali Ahmmed Fadel	78	Iraq	Missing
2	Abass Mohammed Ali	88	Jordan	Dead
3	Enas Omar Shaban	54	Palestine	Injured
4	Aisha Othman Ahmed	66	Turkey	Missing
5	Salman Mohammed Nasser	70	Kuwait	Dead
6	Qasim Ali Hadi	63	Lebanon	Missing
7	Ahmed bin Hisham	79	Morocco	Dead
8	Ahmed Abbas Amin	67	Tunisia	Injured

Fig. 13 Pilgrim status update

## 4 CONCLUSIONS

The paper presents the utilization of QR code technology with a mobile application named (Hajj ID) to identify pilgrims in need of help during the Hajj season in Makkah. The Hajj ID apart from being of low cost it achieved the following important goal. The design is based on the Flutter framework, which is being one of the advanced and effective mobile applications. In the first instance, it adopts the Dart language which has behind it a giant company that oversees its development, i.e, Google. One other feature that made us use Flutter in this project is that you can program an application that works on the Android operating system and the iOS operating system. This is unlike other programs specialized in programming to run on either Android or iOS only but not support both.

For future enhancements of this project, programming by Flutter is to be extended to be configured on both Android and iOS operating systems. Also, it is possible to apply the idea of identifying pilgrims by QR code for emergencies for both Umrah and Hajj in in Saudi Arabia, and not only during the Hajj season.

## WORKS CITED

- Gonsalves, M. (2018). *Evaluating the Mobile Development Frameworks Apache Cordova and Flutter and their Impact on the Development Process and Application Characteristics*. MSc Thesis, Faculty of California State University, Chico.
- Khawas, C., & Shah, P. (2018). Application of Firebase in Android App Development-A Study. *International Journal of Computer Applications*, 179(46), 49–53.
- Madhuram, M., Kumar, A. & Pandyanmanian, M. (2019). Cross Platform Development using Flutter. *International Journal of Engineering Science and Computing*, 9(4), 21497–21500.
- Mehta, B., Madhani, N., & Patwardhan, R. (2017). Firebase: A Platform for your Web and Mobile Applications. *International Journal of Advance Research in Science and Engineering*, 6(4), 45–52.
- Olsson, M. (2020). *A Comparison of Performance and Looks Between Flutter and Native Applications development*. Final Year Project, Faculty of Computing Blekinge Institute of Technology SE-371 79 Karlskrona, Sweden.
- Osman, M. A. (2018). *A Design of Smart Hajj Guide System for Pilgrim Identification and Location Services*. PhD Thesis, Sudan University of Science and Technology, College of Graduate Studies, Sudan.
- Tram, M. H. B. (2019). *FIREBASE*. Final Year Project in Information Technology, Centria University of Applied Science, Finland.

Received for publication: 27.04.2021  
Revision received: 03.06.2021  
Accepted for publication: 06.07.2021

### **How to cite this article?**

#### **Style – APA Sixth Edition:**

Mohammed, A., & Al-Naima, F. (2021, July 15). *Managing the status of suffering pilgrims in Makkah via mobile application*. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 54-60. doi:10.12709/mest.09.09.02.08

#### **Style – Chicago Sixteenth Edition:**

Mohammed, Alaa, and Fawzi Al-Naima. 2021. "Managing the status of suffering pilgrims in Makkah via mobile application." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 54-60. doi:10.12709/mest.09.09.02.08.

#### **Style – GOST Name Sort:**

**Mohammed Alaa and Al-Naima Fawzi** *Managing the status of suffering pilgrims in Makkah via mobile application* [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 54-60.

#### **Style – Harvard Anglia:**

Mohammed, A. & Al-Naima, F., 2021. *Managing the status of suffering pilgrims in Makkah via mobile application*. *MEST Journal*, 15 July, 9(2), pp. 54-60.

#### **Style – ISO 690 Numerical Reference:**

*Managing the status of suffering pilgrims in Makkah via mobile application*. **Mohammed, Alaa and Al-Naima, Fawzi**. [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 54-60.



# STRATEGIC PRIORITIES FOR THE PROVISION OF AGRICULTURAL ENTERPRISE DEVELOPMENT

**Maryna Resler**

University of Economics and Public Administration Management in  
Bratislava, Bratislava, Slovakia  
<https://orcid.org/0000-0002-3787-9472>

**Diana Maksymenko**

Mukachevo State University, Mukachevo, Ukraine  
<https://orcid.org/0000-0003-2053-8070>

©MESTE  
JELCategory: L30

## **Abstract**

*For agrarian production from possible risks, there is a risk that is related to a reduction of demand on agrarian products from the side of the world agrarian market. Also, world prices on the basic export products of the Ukrainian agrarian enterprises grain-crops diminished considerably, which practically did unprofitable the modern Ukrainian agrarian. Contradictions that arise in the internal and external environment, complicate their activities and reduce their effectiveness. It is difficult for enterprises to adapt to fast and inadequate market requirements. Under such conditions, survive only those enterprises that pay enough attention to strategic analysis, to the choice of directions of activity, to the formation of goals, and to strategic planning. So, strategic management becomes an indispensable tool for the existence of enterprises, and it is the means of achieving equilibrium and finding new factors for competitiveness in the future. Agriculture remains the basis of agrarian production today. The spread of negative trends in agriculture, increased competition, worsening of the social position of commodity producers, and the ineffectiveness of existing methods of managing economic processes require new approaches to improving the efficiency of agribusiness management and the formation of a new type of thinking from managers.*

**Keywords:** *strategy, agricultural sector, strategic management, diagnostics, strategic goals.*

## **1 INTRODUCTION**

Dynamic external environment and sharp competition imply a need to develop an effective

strategy in agricultural enterprises. However, the strategy is associated with many problems.

On the one hand, strategic management as a branch of scientific research today is characterized by the plurality that acts of conceptual approaches, which explains the lack of unified conceptual and methodological apparatus.

*Address of the corresponding author:*

**Maryna Resler**

[marynaresler@gmail.com](mailto:marynaresler@gmail.com)



On the other hand, the strategy of agricultural enterprises due to the specificity of business entities (complex, multi-functional orientation), and increases the uncertainty surrounding the business environment. Timely identification of problems in the field of strategic management in agricultural enterprises helps them to maintain market positions. The correct diagnosis strategy of agricultural enterprises will facilitate the systematization of existing conceptual approaches to the formation of strategy and, therefore, the unification of the conceptual apparatus of strategic management, as well as the development of relevant methods and tools of diagnosis of the agricultural strategy of the enterprise. At the present stage of development of the theory of strategic management is dominated by resource approach to strategy, the main thesis of which is that the competitive advantages of the enterprise caused by the presence in it of unique resources that are a source of economic rent. The unique resources, in turn, determine the uniqueness of the new strategy. The choice of this approach as a conceptual platform makes clear the need to diagnose problems of formation and realization of the strategy of agricultural enterprises based on effective tools. The strategic direction in the theory of enterprise management at the present stage is characterized by the absence of a single conceptual-methodological apparatus, as well as by the plurality of conceptual platforms. The theoretical foundations of the formation of the strategy of the company are laid in the works of many scientists as Ansoff I., Baye M., Porter M., Ivanuch R., Laburtseva O., Higgins J., and many others.

## 2 RESEARCH METHOD

The research methodology is based on the systematic approach and the scientific apparatus of the method of economic analysis, abstract-logical, comparative-historical, monographic, historical-logical, and other methods of conducting analytical research. In particular, the following methods were used in the research process: generalization for the study of the content and nature of the strategic management category; comparative analysis for the evaluation of the activities of agrarian enterprises; expert

assessments were used to study the practice of strategic management in agrarian enterprises.

## 3 RESEARCH RESULTS

Agriculture remains the basis of agrarian production today. The spread of negative trends in agriculture, increased competition, worsening of the social position of commodity producers, and the ineffectiveness of existing methods of managing economic processes require new approaches to improving the efficiency of agribusiness management and the formation of a new type of thinking from managers.

Achievement of goals related to ensuring the rational functioning of agrarian organizations requires the development of the strategic management system, positively affects the increase of the efficiency of the agro-industrial complex in general. Management is an objective necessity, which stems from the essence of enterprise strategy and provides for effective achievement of economic methods and means. A timely diagnosis of agricultural enterprises strategy avoids typical strategic management mistakes. The primary objective of the formation of effective methods of diagnosis agricultural enterprise strategy is to define its scope. The advantage of using as the basis of the diagnostics of business processes occurring in the enterprise is their characteristic dynamics, which stipulates the requirement for their continuous improvement. Focusing on the business process allows to better understand the strategic goals and performance of the enterprise (Ansoff, 2006).

An analysis of existing approaches to strategy formation has shown that the development of a modern conceptual platform proceeds from the following prerequisites. First, the revitalization of finding sustainable competitive advantage within the framework of a resource approach that arose in strategic management in the '80s of the twentieth century. At the present stage, the resource approach applied to the strategy of agricultural enterprises offers strategic advantages that define the basic competencies that help to justify the direction of the diagnostic strategy of the agricultural enterprise. Secondly, the effective strategies of agricultural enterprises

must accumulate in themselves achievements and position of key concepts. During the developing strategies in the agrarian sector, one should consider the specifics characteristic of this sphere of the economy: seasonality, incomplete production in agriculture, cyclical of the animal products; increased riskiness of agricultural production; uneven revenue and the need for lending operating costs; slow capital turnover (Laburtseva, 2014).

The priority objectives of agrarian enterprises within the framework of strategic management are:

1. Strengthening of positions in the agro-industrial complex, including through diversification of production, development of new markets.
2. Improving the overall financial and economic situation, which is achieved not only by increasing production volumes but also a mode of economy, maneuvering of their assets, streamlining financial calculations, and several other actions.
3. The achievement of high business reputation, which requires the implementation of an irreproachable internal organization policy, where among the priorities is the timely performance of contracts, honesty in the calculations, high quality of goods and services.
4. Ensuring high reliability in production and economic activity by creating powerful and resource reserves, insurance reserve funds, developed risk insurance system (Baye M. 1999).

Agriculture is a complex of technologically and organizationally interconnected industries, which in their totality forms a balanced, integrated, and structurally completed system, its functional-component structure is subordinated to a stable increase in agricultural production and livestock production. Each branch of agricultural production is a collection of companies that produce certain similar products or provide services that meet the specific needs of the population in food and industry in raw materials (Ansoff, 2006). Agricultural production includes growing crop production, livestock farming, including cultivation, livestock breeding, and care, gardening, forestry,

primary processing of agricultural products by land users, etc. The specificity of the agrarian sector determines the peculiarity of the tasks of management of agricultural production, which, in its turn, presupposes the uniqueness of the principles, functions, and methods of strategic management. Differentiation of agrarian enterprises objectively requires different development strategies, which can only be justified based on identifying and exploring the factors that determine the possibilities for their implementation (Higgins J.M., 1983). The main factors include the degree of economic independence in making strategic decisions, financial status, resource availability, investment attractiveness, the availability of competitive advantages, and the possibility of their implementation. Agricultural enterprises that can be attributed to small-scale land use to small enterprises, as well as large enterprises, have both advantages and disadvantages that will influence the chosen strategy. In farms, at first, high motivation for labor behavior and low production management costs. At the same time, there are problems with the effective use of high-tech equipment, there are no conditions for diversification of production (Ivanukh, 2003). All large farms always have problems with providing high labor motivation, high costs of production management. According to the results of the survey of agricultural enterprises in the Transcarpathian region, it was found that strategic management in domestic farms, answering, in general, the basic requirements of production, finally, as the system has not yet developed (Ansoff, 1999).

In the possession and use of agricultural enterprises in Transcarpathia in 2016, there were 404.2 thousand hectares of agricultural land, of which 324.0 thousand hectares of arable land. The share of the population employed in agriculture reached 30%. During this period, there were 1189 agricultural enterprises of different forms of ownership and management operating in the region, which engaged in the production of crop and livestock products (Table 1). The share of gross agricultural production in them for 2012-2016 years had a steady decline and in 2016 it was 96.8% of the total volume.

Table 1 Characteristics of agriculture in the Transcarpathian region \*

Indication	2012	2013	2014	2015	2016	2016 to 2012 in%
The number of active agricultural enterprises	1116	1144	1173	1119	1189	106.5
The volumes of sold products of agriculture, UAH	633,042	680,090	841,927	1,371,747	1,724,768	272.4
The share of agricultural production in agricultural enterprises, in% of total	104.0	102.5	99.9	95.1	96.8	93.1
incl. Products						
The plant growing	105.6	102.4	103.3	95.4	101.8	96.4
Animal husbandry	102.5	102.6	96.5	94.7	91.5	89.3

\* Source: according to the data of the Main Directorate of Statistics in the Transcarpathian region

The economic efficiency of agricultural production at Transcarpathian enterprises during 2012-2016 was characterized by stable growth (Table 2), which in turn indicates an increase in the efficiency of the management system in agricultural enterprises. The situation has changed in 2013 when there is a sharp decline in efficiency (a decrease in the profit from sales of agricultural

products in comparison with 2012 by 23.4%), which is explained by the historical events in Ukraine, which began in November (the period when the harvest was harvested "Went out" to the market or was supplied for processing). However, the situation was equalized in 2014, which was reflected in the growth of profitability compared to 2013.

Table 2 Economic efficiency of production in agricultural enterprises of the Transcarpathian region\*

Indication	2012	2013	2014	2015	2016	2016 to 2012 in %
The share of firms that received net income in the total number of enterprises, %	89.1	90.0	90.1	91.2	91.8	103.0
Profit, loss (-) from the sale of agricultural products by agricultural enterprises, MM UAH	9.0	6.9	16.2	16.1	16.8	186.7
Labor productivity by 1 employed in agricultural production, UAH	55,723.6	52,789.3	75,071.0	68,901.0	72,431.1	130.0
Level of profitability of agricultural production, %	6.3	4.5	7.2	30.9	26.0	412.0

\* Source: according to the data of the Main Department of Statistics in the Transcarpathian region

The especially noticeable political situation reflected the efficiency of crop production, such as potatoes and vegetables, production of which has tended to decrease (Table. 3). The

efficiency of livestock production was characterized by a decrease in meat against the background of egg growth.

Table 3 Production of basic crops at the enterprises of the Transcarpathian region\*

Indication	2012	2013	2014	2015	2016	2016 to 2012 (+, -)	2016 to 2015 (+, -)
<b>Crop production</b>							
cereal crops	3220.5	3250.2	3433.9	3323.7	4124.4	903.9	800.7
sunflower seeds	64.8	97.0	60.2	46.8	68.8	4	22
potato	6086.1	6148.9	6108.6	5458.2	5342.7	- 743.4	-115.5
vegetable crops	2877.2	2890.0	2970.2	2672.5	2671.7	- 205.5	- 0.8
fruit crops and berries	1141.2	1184.5	1330.7	1384.1	1285.5	144.3	- 98.6
<b>Animal husbandry</b>							
meat, thousand tons	58.4	58.6	59.7	53.2	51.3	- 7.1	- 1.9
milk, thousand tons	401.1	410.3	409.6	358.1	320.4	- 80.7	- 37.7
chicken eggs, million pcs.	332.6	337.5	339.3	339.9	349.4	16.8	9.5
wool, tons	213	216	205	185	181	- 32	- 4

\* Source: according to the data of the Main Department of Statistics in the Transcarpathian region

In practice, an enterprise can simultaneously implement several strategies. But at the same time, the company can predict a certain sequence in the implementation of strategies. In both cases, it is said that the company is implementing a combined strategy. The economic strategy most often used in the work of agrarian enterprises is based on:

- resource concept as an information system that characterizes the aggregate of resources, that is the ability of the enterprise to determine long-term goals and achieve them.
- the theory of competitive advantage as a conceptual basis for the formation of global and local strategic goals of the enterprise and cost-effective means of their achievement.
- the theory of transaction costs as a concept, which allows specifying strategic goals with the greatest efficiency for the enterprise.

The process of determining competitive strategies for agricultural enterprises can be divided into the following consecutive steps:

1. A strategic analysis of the existing situation and identify the key success factors.
2. The development of appropriate indicators for selected key success factors.
3. Development of an adequate information system for providing strategies and reporting on key success factors (Vyatkina T, 2014).

In the conditions of market relations, the only effective management system can provide the enterprises with agro-industrial production, successful businesses, and competitive advantages. Today the company independently determines and predicts the parameters of the environment, the range of products the price proposals, suppliers, markets, etc., and has fast and, most importantly, react to any changes in the external and internal environment and accordingly adjust its activities. While the implementation of strategic management should consider the types of strategies and methodological support of the management process at the level of both businesses and substantiations of the effectiveness of its strategic choice. The need to support the strategic orientation of the company makes the strategic management of the process continuous and dynamic, therefore, one-time analysis and diagnostics cannot be the basis of such a process, because they provide information limited by a specific period.

Strategic management in agrarian enterprises should consider peculiarities of the agro-industrial production, which are in the following. First, product creation in agricultural production is under the influence not only of tools of labor and manpower but also the natural environment.

Making managerial decisions is an extremely complicated process that occurs in conditions of increased uncertainty and risk. Secondly, the technology of growing agricultural products has a clear sequence of execution of certain stages of work and is complicated. The result of the agro-industrial enterprises depends on timely and strict compliance with the technology. Therefore, management decisions are made within the limits of technological maps. Thirdly, the length of the agricultural production cycle, which can be several years (when planting perennial plantations), affects the duration of their exit from the crisis (more than two years) and the complexity of managing it. Fourth, a significant increase in product volumes can be achieved by intensive technology and efficient operation of the operating system. In this case, an important role should play operational accounting, analysis, and control, which should be carried out by managers at each stage of the technological process. Fifth, the nature of products plays an important role in managing agro-industrial formations. Managers need to identify low-cost production on time, reduce it and at the same time deploy production of highly profitable products and timely diversify its activities. The formation of a strategy for the development of agrarian enterprises should be based on ensuring the competitiveness of agricultural products through the promotion of industry, inter-cooperative associations of commodity producers and raising their level of responsibility for the formation and observance of industry balances, for the quality and safety of products produced by its members, including by creating a collective brand of products introduction of a system of coordination of economic interests in the chain "production-processing-trade"; assistance in the establishment of a system for the joint sale of products of the national agrarian

sector on target foreign markets; formation of efficient infrastructure of the agrarian market and ensuring the increased access of producers to organized channels of agricultural products sales, in particular the network of storage and elevator capacities, as well as expansion of opportunities for participation of small forms of management in the organized market; stimulation of rational placement and specialization of agrarian production in accordance with natural climatic conditions (Laburtseva, 2014).

#### 4 CONCLUSION

The formation of a strategy for the development of agrarian enterprises should be based on ensuring the competitiveness of agricultural products through the promotion of industry, inter-cooperative associations of commodity producers and raising their level of responsibility for the formation and observance of industry balances, for the quality and safety of products produced by its members, including by creating a collective brand of products introduction of a system of coordination of economic interests in the chain "production-processing-trade"; assistance in the establishment of a system for the joint sale of products of the national agrarian sector on target foreign markets; formation of efficient infrastructure of the agrarian market and ensuring the increased access of producers to organized channels of agricultural products sales, in particular the network of storage and elevator capacities, as well as expansion of opportunities for participation of small forms of management in the organized market; stimulation of rational placement and specialization of agrarian production in accordance with natural climatic conditions

#### WORK CITED

- Ansoff, I. (1999). *Nova korporativna strategiya [New corporate strategy]*. Piter, 416p.
- Ansoff, I. (2006). *Strategichne upravlinnya [Strategic management]*. Kiyv : Ekonomika, p.358
- Baye, M. (1999). *Upravlinska ekonomika i strategiya biznesu [Management Economics and Business Strategy]*. Moscow: Yuniti –Dana, 743p.
- Higgins, J.M. (1983). *Organizational Policy and Strategic Management: Text and Cases*. The Dryden Press, p.3.
- Ivanukh, R. A., Dusanovs'kyy S. L., & Bilan YE. M. (2003). *Agrarna ekonomika i rynek [Agrarian economy and market]*. Ternopil, 305 p.

- Laburtseva, O. (2014). Stratehichna hnuchkist' pidpryyemstva v konteksti orhanizatsiynoho rozvytku [Enterprise strategic flexibility in context of organizational development]. *Investytsiyi: praktyka ta dosvid*, (4), pp. 29-31.
- Porter M.E. (1980). *Competitive strategy: techniques for analyzing industries and competitors*. New York: FreePress. p. 396
- Sait Golovnoho upravlinnya statystyky v Zakarpatskiy oblasti [Site of the Main Department of Statistics in the Transcarpathian Region]. [www.uz.ukrstat.gov.ua/](http://www.uz.ukrstat.gov.ua/) Retrieved from <https://www.uz.ukrstat.gov.ua/>.
- Stratehiya rozvytku aharnoho sektoru ekonomiky na period do 2020 roku [Strategy for the development of the agricultural sector of the economy until 2020]. (2017, Oct 17). <http://www.uaan.gov.ua> Retrieved from <https://zakon.rada.gov.ua/laws/show/806-2013-%D1%80#n7>.
- Vyatkina, T. (2014). *Vykorystannya systemnoho pidkhodu do otsinky stratehichnoho upravlinnya resursnym potentsialom pidpryyemstva [The use of a systematic approach to assessing the strategic management of resource potential of the enterprise]*. Kiyv: Libra, p. 62-71.

Received for publication: 18.01.2021

Revision received: 27.02.2021

Accepted for publication: 06.07.2021

#### **How to cite this article?**

##### **Style – APA Sixth Edition:**

Resler, M., & Maksymenko, D. (2021, July 15). Strategic priorities for the provision of agricultural enterprise development. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 61-67. doi:10.12709/mest.09.09.02.09

##### **Style – Chicago Sixteenth Edition:**

Resler, Maryna, and Diana Maksymenko. 2021. "Strategic priorities for the provision of agricultural enterprise development." Edited by Zoran Cekerevac. *MEST Journal (MESTE)* 9 (2): 61-67. doi:10.12709/mest.09.09.02.09.

##### **Style – GOST Name Sort:**

**Resler Maryna and Maksymenko Diana** Strategic priorities for the provision of agricultural enterprise development [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 61-67.

##### **Style – Harvard Anglia:**

Resler, M. & Maksymenko, D., 2021. Strategic priorities for the provision of agricultural enterprise development. *MEST Journal*, 15 July, 9(2), pp. 61-67.

##### **Style – ISO 690 Numerical Reference:**

*Strategic priorities for the provision of agricultural enterprise development. Resler, Maryna and Maksymenko, Diana.* [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 61-67.



# PROPERTY RIGHTS IN THE POSTCOLONIAL WORLD

**Richard de Schweinitz**

Loyola University New Orleans, New Orleans, LA, USA  
<https://orcid.org/0000-0003-1233-289X>

**Walter E. Block**

Loyola University New Orleans, New Orleans, LA, USA  
<https://orcid.org/0000-0003-2215-4791>

©MESTE  
JEL category: **F54**

## **Abstract**

*Private property rights are the key to economic development. They assist economic actors in forming reasonable expectations in their transactions with others and incentivize users of property to internalize the costs of their operations. However, in many cases, and especially in the case of land, private property rights must be carved out of preexisting communal property rights. Some enclosure of the commons, some divvying up of the common lot into private parcels is required. Doing so incurs vast administrative costs to appraise the value of the property and assign it to private individuals. Most often, the only apparatus capable of carrying out such a project is that institution that holds a monopoly on the use of force. Thus, major shifts in property rights regimes tend to be carried out by government bureaucracies. It is at this juncture that the historical development of property rights regimes between non-colonized and colonized societies is split. In non-colonized societies, the process of enclosure was carried out over long periods by domestic governments; but in colonized societies, the communal property was privatized all at once, and generally for the benefit of colonizers, not natives. The shock of imperialist violence creates an antipathy toward colonizers and, by extension, their economic regimes. Thus, when independence is achieved by colonized people and a new redistribution of property is required, the practice of privatization is maligned, and the collectivization of property is favored. However, such regimes reproduce the incentive structure of the commons, leading inevitably to the tragedy of underdevelopment.*

**Keywords:** *Property rights; colonialism; economic development.*

## **1 INTRODUCTION**

The question of economic development generally centers around a small set of key factors: resource richness, concentration of physical and human

capital, and property rights regimes. The former qualities are typically products of a country's particular endowment of resources. However, the development of property rights is often complicated by a vast array of historical and political contingencies. For underdeveloped countries, the legacy of colonialism is often deeply implicated in these questions. From the shaping of borders to the building of institutions that last into

*Address of the corresponding author:*

**Richard de Schweinitz**

[rgdeschw@my.loyno.edu](mailto:rgdeschw@my.loyno.edu)

the present day to the political, social, and economic discourse that is undertaken within these institutions, the impact of a colonial past cannot be understated. In this paper, we trace the effects of colonialism on the development of property rights regimes within the postcolonial world.

## 2 ANALYSIS

Before discussing the actual process and difficulties of instituting property rights regimes, however, let us consider the nature of property rights themselves. Harold Demsetz (1967, p. 347) described property rights as an “instrument of society” which “derive their significance from the fact that they help a man form those expectations which he can reasonably hold in his dealings with others.” (Demsetz, 1967, p. 348) In simple terms, property rights are basic terms of trade, a sort of ‘rules of the game’ that set the boundaries of negotiation. According to Demsetz, the extension of property rights into new areas of social life allows society to interact more smoothly, by giving actors a basis from which to make their economic calculus. When things can be reliably ‘owned’, economic actors are given a common referent to use in negotiating their value and use. Demsetz further argues that due to the shared understanding they allow for, property rights provide a useful avenue for entrepreneurs to internalize the externalities of their behavior.

To illustrate this, he offers the example of the development of the transition from serf to freeman, or from slave to free man: feudal lords, like slave owners, are not able to recognize all the costs of their operations, but if serfs or slaves are able to negotiate to purchase their freedom, market operations will allow the costs of serf or slave labor to be internalized. While illustrative of the value of property rights, this hypothetical describes only *private* property rights – but not all property rights are exclusively private. Property rights may be *communal* in their practice, which means that the property belongs in some form to all the members of a community, not just to an individual. Examples

of communal property include public parks or sidewalks, which are open for use by anyone.<sup>1</sup> Often, communal property rights persist simply because, a) nobody has laid claim to the thing in question (for example, a field in the wilderness), or b) the transaction costs involved in the production of private property rights is too high (for example, a sidewalk utilized by many people, none of whom has a particular exclusionary claim over it). Communal property rights are a useful and natural form, so long as an individual does not need exclusive rights to the things held under them.<sup>2</sup>

However, if there is some reason an individual would need to exclude the public from free use of some property – for example, if a slave wanted exclusive claim over his or her own body – then negotiations for the establishment of private property rights would have to occur. It is for this reason that private property rights are a necessary aspect of social and especially economic life. If an entrepreneur could not forcibly exclude the community from freely reaping the benefits of his business, he would have no incentive to start a firm in the first place. Conversely – and this part is especially important – not only are private property rights conducive to the economic productivity of the property in question but their absence also often have the very opposite effect.

When a property is communally owned, each user of the property faces diffuse costs but concentrated benefits from its use. This often leads to the degradation of the property in question. The typical example of this phenomenon is known as the “tragedy of the commons”. In English towns, there existed historically a patch of land set aside for common grazing. Because this land – known as the ‘commons’ – was open to all, anyone who chose to let his flock graze there was able to (potentially) reap all the benefits of the land, but would face only a fraction of the costs, roughly proportionate to the fraction of the population he represented. Unsurprisingly, the average grazer typically took more than his fair share, ultimately leading to the tragic deterioration of the

---

<sup>1</sup> Private versions of communal property rights include the nunnery, convent, kibbutz, commune, collective, syndicalist, cooperatives, monastery, abbey, priory, friary, religious community, family.

<sup>2</sup> For the case in favor of privatizing public parks, sidewalks, roads, streets, highways, see Block (2009).

commons.<sup>3</sup> The only solution to this problem, Demsetz suggests, is the establishment of private property rights over the land which was communally owned – which, historically, is exactly what happened. As Demsetz explains, “property rights arise when it becomes economic for those affected by externalities to internalize benefits and costs.” (Demsetz, 1967, p. 354) In other words, individual actors will take it upon themselves to establish and, if necessary, to change property rights regimes whenever a property is being misused. Therefore, the ability of individuals to establish private property rights regimes is so important for economic development.

Unfortunately, in examining postcolonial economic development, it is at this juncture, the transition between property rights regimes, that the first long-term consequences of colonialism become apparent. Banner (2002) explains that communities seeking to establish new property rights regimes face two primary obstacles – the difficulty of mass collective action and high transition costs. Collective action is complicated by the effort needed for everyone to reassess and redistribute his property, and high transition costs can be found in the difficulties of “ascertaining the value of everyone’s rights under the old system and locating equivalent rights under the new one.” (Banner, 2002, p. 364) When left up solely to the will of scattered individuals, the challenge of overcoming these obstacles can often be insurmountable. Banner concludes that instead, one way for societies to solve this is to turn to the government to forcibly change property rights regimes.<sup>4</sup> The force carried by government bureaucracies can overcome the obstacle of collective action – but the administrative costs of appraising all of the property affected by the regime change remain. Banner explains that to

overcome this, “the managers of transitions had to cut some corners... [bureaucracies] had to adopt some rules of thumb that would drive the costs of valuation and assignment low enough to make transition feasible.” (Banner, 2002, p. 368) These necessary rules of thumb inevitably ended up aligning with the values of the elite and influential.

In non-colonial states, benefits generally fell along the lines of nobility and peasantry; in colonial states, the colonists were the main beneficiaries. Banner gives the example of British authorities dividing up land into private plots in colonial New Zealand. As he explains: “Native Land Court judges fell into the habit of registering blocks of land to a maximum of 10 Maori, regardless of the true number of people with rights to resources within the block. This kind of corner-cutting no doubt served its twin purposes of curbing the cost of ascertaining the owners and facilitating land sales to British settlers by reducing the number of Maori with standing to object.” (Banner, 2002, pp. 368-369) The dynamic Banner describes here is complex. Though societies need to establish private property rights regimes to develop economically, the difficulties of doing so mean that only government, with its exclusive right to force, can affect the necessary changes.<sup>5</sup> In the case of a colonial holding, like New Zealand, gains from property regime transitions tend to be directed disproportionately towards colonial property owners and away from colonial subjects.<sup>6</sup>

Ault and Rutman (1979, p. 181) show that, contrary to the popular beliefs of colonizers, many tribal communities in Africa developed private property rights regimes independently of colonial influence. They explain that according to the typical colonial scholar, private property rights were seen as incompatible with the native ‘customary law’, or tribal law, that prevailed in

---

<sup>3</sup> Ostrom (1990) mistakenly defends this system. For a critique of her views on this matter, see Block (2011A), Jankovic and Block (2016)

<sup>4</sup> Of course, there are the well-known problems of “government failure” that mitigate against any such “solution.” See on this Buchanan and Tullock (1962)

<sup>5</sup> It all too often the case that, in fact, governments forcibly coopt movements for social change in order to maintain power – but for our purposes, the

result, bureaucratically led transitions in property regimes, remains the same.

<sup>6</sup> But this does not mean that the colonial subjects, even though given only “the short end of the stick” compared to their overlords, do worse than in cases where there is no colonialism at all. See below on this.

many communities in Africa. Customary law generally guarantees communal rights to all land – by then seen by liberal Europeans as an antiquated convention – leading many of the British scholars and administrators studying their new subjects to consider customary law to be the primary economic obstacle for underdeveloped tribal societies. Some development economists saw the creation of private property rights as a positive aspect of the legacy of colonialism. Development economist Peter Bauer mentioned “The relative backwardness of areas with few foreign contacts...” (1972, p. 230.)<sup>7</sup> However, as Ault and Rutman point out, “customary tribal law is a flexible code that responds to changing economic conditions.” (Ault & Rutman, 1979, p. 181) Just as Demsetz predicted, property rights regimes change when the economic incentives which surround them do – and, predictably, Ault and Rutman perceived exactly this. Customary ownership rights were only communal for as long as the supply of land exceeded the demand for it – but once disputes for control of land began to arise, individual rights to plots of land would then be formulated by proceedings in tribal courts. Of course, as in other societies, the development of private property rights in tribal Africa was not easy. Ault and Rutman identify three main obstacles: firstly, the dearth of written contracts, with many communities relying solely upon oral agreements, and secondly, the lack of predictability on the part of the courts (Ault & Rutman, 1979, p. 176). The third is more complex; after the colonial period, once independent, self-governing states were formed, the development of private property rights was often shut down or even reverted by government institutions. (Ault & Rutman, 1979, p. 178)

To review: societies tend toward the creation of private property rights, and when these rights are established by colonial governments, they tend to disadvantage colonial subjects for the benefit of colonists. This disadvantage (among many others) tracing from the colonial period may explain some aspects of the generational inequality that has lasted until the current post-colonial period. However, this is where a

distinction between postcolonial countries must be made. In countries with significant populations descendant from both colonists and natives, such as New Zealand or South Africa, these inherited issues may continue to develop – but, once they have been set in place, rarely does the issue of property rights regimes resurface. Now consider those postcolonial territories which were more or less entirely vacated by colonizers. It is these countries that have seen the most conflict on the subject – and, coincidentally, it is these countries that are often the most direly underdeveloped. Many communities in these countries, despite possessing a high population and great potential for economic development, either maintain a traditional communal property rights regime or are stuck in some nebulous state in between. Many others, having had established private property rights during the colonial period, have, since independence, abolished it. Why is this? If Demsetz is correct in claiming that societies tend toward the establishment of private property rights, why have many postcolonial societies failed to do so, and even actively moved in the opposite direction? The answer lies in the historically contingent formational ideologies of the postcolonial state.

One such postcolonial ideology was the African Socialist ideology of Ujamaa conceived by Julius Nyerere, the first President of the newly independent Tanganyika/Tanzania. The basis of Ujamaa was the ideal of African self-reliance, a value which he saw as diametrically opposed to the notion of private property. (Bjerk, 2015, p. 104) Seen through the lens of a traditional economic theorist such as Demsetz, such a position seems confusing. How could individual rights to the property be seen as opposed to the notion of self-reliance? It is at this point where the legacy of colonialism sees its most sinister revival. Even after colonial powers have vacated their holdings, the societies they leave behind are still affected by the memory of their colonial past. The notion of private property – extricated from the historical context of the logical transfer from public to private in which Western thinkers like Demsetz understood it – came to the colonial subject not as a natural development, but as a sudden and

---

<sup>7</sup> Bauer, 1954, 1972, 1981, 1982, 1984, 1987; Bauer and Yamey, 1957

forceful imposition. Free enterprise as a whole was associated with the imported ideology of colonizers, who came with the empire in one hand and capital in the other. Capitalism was therefore perceived as inseparable from imperialism and, by extension, exploitation, which tracked quite cleanly with the attractively anti-colonial ideology of socialism. After independence, state builders and politicians sought to distance themselves from anything that could be interpreted as colonial – so socialism was the most obvious route. It did not escape early postcolonial state builders that, like capitalism, socialism was a foreign ideology as well. To reconcile this, Nyerere formulated Ujamaa as natively African socialism, rooted in what he considered ancient African values, such as family, ancestry, and connection to the land (Bjerk, 2015, p. 101). Dispelling any notion that he might be carrying out some internalized paternalism, Nyerere declared, “We, in Africa, have no more need of being ‘converted’ to socialism than we have of being ‘taught’ democracy. Both are rooted in our own past.” (Bjerk, 2015, p. 107) In the process of this national mythmaking, all memory of self-determined African private property rights is obliterated – and any postcolonial attempts at privatization can be accused of betraying true African values.

Ault and Rutman ascertained from their studies, “the failure of several independence leaders to recognize that the incipient forms of capitalism they observed were the results of changes in economic conditions rather than colonialism led some of them to attempt to reestablish communal land systems”. (Ault & Rutman, 1979, p. 181) Obviously, this interference with individual human action has not had a positive effect on the economy; they continue, “because this land tenure system is based upon ... conditions that no longer exist and is inherently unstable as land becomes scarce, incentives have created that lead to inefficient... and less than optimal investment in land and agriculture”. (Ault & Rutman, 1979, pp. 181-182) The process completes its revolution in a tragic full circle; the lingering influence of colonialism manages even to destroy the notions of individualism and economic liberty that lay at the center of its paternalistic motivations. By 1979, the economy of Tanzania, dominated by the ideology of Ujamaa since independence, was in

dire straits; Nyerere’s collectivized villages held 90% of the rural population but produced only 5% of the country’s agricultural output. (Martin, 2005) Nyerere stepped down in 1985, giving the country over to structural adjustment under the IMF and the World Bank as it began to liberalize. Since privatization, the economy of Tanzania has been steadily improving. The country’s GDP, as measured by the World Bank, rose from \$5.1 billion in 1988 to \$9.3 billion in 1998, and then to \$27.4 billion in 2008. (The World Bank, 2017)

### 3 CONCLUSIONS

To have a functioning economy, a society requires some system of private property rights. Demsetz showed that this rights regime must exist to allow for the exclusionary ownership of property when it becomes profitable for individuals to internalize their benefits and costs. In practice, however, due to the towering administrative costs of inspiring collective action as well as the cost of appraising the value of all property and assigning it to private individuals, this also means that societies must have some apparatus in place for the establishment of these property rights. For most societies, this apparatus is found in the coercive power of government, and so property rights regime changes are carried out by government bureaucracies. In non-colonial societies, this regime change was carried out over time; but in colonial societies, it came all at once, and not as a natural development from within, but as an imposition from without. The inherent bias in bureaucracies leads them to appraise and assign property rights, by and large, to the powerful and privileged – which, in colonial societies, were colonizers, not natives. This, understandably, breeds in many colonized people great resentment towards colonizers and their political ideologies. Thus, when colonized people attain independence from their conquerors, in undertaking their reorganizations of property and policy, the establishment of private property regimes is not embraced, but instead avoided, and in many cases, reversed. Instead of carving communal property into private property, private property is collectivized into the communal property, leading inevitably into a state of underdevelopment.

## WORKS CITED

- Ault, D., & Rutman, G. (1979). The Development of Individual Rights to Property in Tribal Africa. *The Journal of Law & Economics*, 22(1).
- Banner, S. (2002). Transitions between Property Regimes. *The Journal of Legal Studies*, 31(S2).
- Bauer, P. T. (1954[1967]). *West African Trade*. New York, N.Y.: Augustus M Kelley Pubs
- Bauer, P. T. (1972). *Dissent on Development*. Cambridge, MA: Harvard University Press
- Bauer, P. T. (1981). *Equality, the Third World, and Economic Delusion*. Cambridge: Harvard University Press
- Bauer, P. T. (1982). Ecclesiastical Economics is Envy Exalted. *This World*, 1 (Winter/Spring).
- Bauer, P. T. (1984). *Reality and Rhetoric: Studies in the Economics of Development*. Cambridge Mass.: Harvard University Press.
- Bauer, P. T. (1987, Nov). Population Scares. *Commentary*, 84(5), 39-42
- Bauer, P. T. (1991). *The Development Frontier: Essays in Applied Economics*. Harvester Wheatsheaf
- Bauer, P. T., & Yamey, B. S. (1957). *The Economics of Under-developed Countries*. The University of Chicago Press, Chicago, Il.
- Bjerk, P. (2015). *Building a Peaceful Nation: Julius Nyerere and the Establishment of Sovereignty in Tanzania, 1960-1964*. Rochester: University of Rochester Press.
- Block, W. E. (2009). *The Privatization of Roads and Highways: Human and Economic Factors*. Auburn, AL: The Mises Institute.
- Block, W. E. (2011A). Review essay of Ostrom, Elinor. 1990. Governing the commons: The evolution of institutions for collective action. Cambridge, UK and New York, NY: Cambridge University Press; in *Libertarian Papers*, 3, Art. 21; <http://libertarianpapers.org/2011/21-block-review-of-ostroms-governing-the-commons/>
- Buchanan, J. M., & Tullock, G. (1962). *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. Ann Arbor: University of Michigan.
- Demsetz, H. (1967). Toward a Theory of Property Rights. *The American Economic Review*, 57(2), 347.
- Jankovic, I., & Block, W. E. (2016). Tragedy of the Partnership: A Critique of Elinor Ostrom. *American Journal of Economics and Sociology*, 75(2), 289–318. <https://onlinelibrary.wiley.com/doi/10.1111/ajes.12141/full>.
- Martin, M. (2005). *The Fate of Africa: From the Hopes of Freedom to the Heart of Despair*. Nowy Jork: PublicAffairs.
- Ostrom, E. (1990). *Governing the Commons*. Cambridge Press
- The World Bank. (2017). *Tanzania GDP*. Washington, D.C.: The World Bank. Retrieved from <https://data.worldbank.org/country/tanzania>

Received for publication: 22.01.2021  
Revision received: 27.02.2021  
Accepted for publication: 06.07.2021

**How to cite this article?**

Style – **APA Sixth Edition:**

Schweinitz, R. d., & Block, W. E. (2021, July 15). Property rights in the postcolonial world. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 68-74. doi:10.12709/mest.09.09.02.10

Style – **Chicago Sixteenth Edition:**

Schweinitz, Richard de, and Walter E. Block. 2021. "Property rights in the postcolonial world." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 68-74. doi:10.12709/mest.09.09.02.10.

Style – **GOST Name Sort:**

**Schweinitz Richard de and Block Walter E.** Property rights in the postcolonial world [Journal] // MEST Journal / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 68-74.

Style – **Harvard Anglia:**

Schweinitz, R. d. & Block, W. E., 2021. Property rights in the postcolonial world. *MEST Journal*, 15 July, 9(2), pp. 68-74.

Style – **ISO 690 Numerical Reference:**

*Property rights in the postcolonial world.* **Schweinitz, Richard de and Block, Walter E.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 68-74.



# WATER SECTOR MANAGEMENT AND SUSTAINABLE DEVELOPMENT OF BULGARIAN REGIONS

**Nikolay Tsonkov**

Scientific and Research center of regional studies, University of National and World Economy, Sofia, Bulgaria

<https://orcid.org/0000-0002-9169-6511>

©MESTE

JEL Category: **Q01, R58**

## **Abstract**

*When speaking about facilitating normal conditions for living and working, in the modern world, water resources are significant. We need to maintain water safety according to the specific environment and particular territory demands. Water resources are renewable natural resources, but they are unevenly distributed in the world territory. This fact turns water resources into priceless valued property. In the future, most conflicts will occur because of the limited amount of water resources and their unbalanced distribution in the world. That is why water resources and water sector management become the most dominant activities in the sustainable development of regions. This research is to outline the role of water sector management in the context of sustainable and regional development. The author uses systemic, and territory approaches and systemic, descriptive, analytic, comparison, and other methods for purpose achievement. The specific aim of this research is to point out the problems and challenges of Bulgarian water resources management through an analyze the system of water sector management. The null hypothesis of the author is that there is a strong connection between water resources and water sector management and sustainable development of the regions, concerning regional development. The author fulfills the research aim using systemic and territorial approaches and different scientific methods as descriptive, comparison, analytical, expert opinion citation, and others.*

**Keywords:** water resources, water sector, management, sustainable development, regional development, region

## **1 INTRODUCTION**

Water scarcity affects more than 40% of the global population. Water-related disasters account for 70% of all deaths related to natural disasters. The World Bank helps countries ensure the sustainability of water use, build climate

resilience, and strengthen integrated management. Today, most countries are placing unprecedented pressure on water resources. The global population is growing fast, and estimates show that with current practices, the world will face a 40% shortfall between forecast demand and available supply of water by 2030. Feeding 9 billion people by 2050 will require a 60% increase in agricultural production, (which consumes 70% of the resource today), and a 15% increase in water withdrawals. Besides this increasing

*Address of the author:*

**Nikolay Tsonkov**

[✉ n.tsonkov@unwe.bg](mailto:n.tsonkov@unwe.bg)



demand, the resource is already scarce in many parts of the world. Estimates indicate that 40% of the world population lives in water-scarce areas, and approximately one-quarter of the world's GDP is exposed to this challenge. By 2025, about 1.8 billion people will be living in regions or countries with absolute water scarcity. Water security is a major and often growing challenge for many countries today. (IBRD-IDA, 2017)

Bulgaria is traditionally rich speaking about water resources - land and underground rivers, mineral springs, the infrastructure of dams, and other facilities that are built to meet the needs of the population for water for domestic and industrial needs.

Due to climate change, the state of water resources in Bulgaria is gradually changing. In recent years, there has been a decline in rainfall, which affects the levels of drinking water sources - rivers, dams, and others. That is why the management of water resources, and the related sector is gaining more and more importance.

## **2 DISCUSSION**

### **2.1 Water resources and water sector in Bulgaria**

The water resources of the state are vital for the normal course of the reproductive, economic, spatial-urban, and other processes. For example, cities and countries arise naturally near a water source. Water is an objective necessity for man and without the availability of resources man cannot exist. In this sense, the main requirement of the human population for the environment is the availability of food and water. One example of a settlement that has grown into a city is in Australia. This continent is not rich in freshwater resources. The settlement arises near a gold mine, which determines the economic profile of the region. But there is an objective problem. There is no water source to meet the vital needs of the habitants. Because of this reason, it was decided to build a water supply system, which is still one of the longest water facilities ever built. Its length is around 400 km.

In Bulgaria, the relative distribution of water resources is balanced. It is formed because of natural land and underground rivers, and the built infrastructure of dams, water intakes, catchments, and other facilities. In recent years, there has

been a decline in the total amount of water resources, including the Danube. The use of water resources is an exclusive competence of the state through the built infrastructure, its maintenance, and public institutions for management. The totality of all elements of the infrastructure forms the water sector in Bulgaria.

Water resources change their quantity depending on climatic factors. They depend largely on the annual rainfall, snowmelt, and their use. From 2013 to 2017 we see a decline. In 2013, the total water resource of the Bulgarian state was 114,322 million m<sup>3</sup>. In 2015, this resource was 110,775 million m<sup>3</sup>, and in 2016, 107,217 million m<sup>3</sup>. At the end of the period under review in 2017, the total resource fresh water and available groundwater available for annual use are 87,488 million m<sup>3</sup> (Kolcheva, 2019).

Bulgaria is divided into four regions - Danube, Black Sea, East Aegean, and West Aegean. The water sector in Bulgaria includes - dams, water intake facilities, drinking water treatment plants, water supply network, water supply network facilities, sewerage network, and network facilities, wastewater treatment plants, and hydro-ameliorative facilities. The Bulgarian state has 53 significant dams with a volume of 6,697.8 million m<sup>3</sup>. The smaller dams in Bulgaria are 2,736 with a total volume of 1,436 million m<sup>3</sup> (Kolcheva, 2019).

### **2.2 Water sector and resources management and regional development**

Each country has many different social systems to meet the needs of the population. The water sector is especially important even for the development of the country. Logically, the normal, efficient, and proper functioning of this system depends on its management. In recent years we have witnessed several cases of improper management of the water sector, which has led to water regimes in some areas of Bulgaria.

The development of the water sector of the Bulgarian state is related to the territorial development of the individual regions. There is a strong connection between the management and development of the Bulgarian water sector, the spatial and regional development of Bulgaria.

The availability of water resources and the management of the water sector in Bulgaria are

part of the strategies for the sustainable development of the regions. Water is a key resource for the maintenance and normal functioning of human communities in Bulgarian regions. Proper water management and conservation for future generations is an important priority of the state and municipalities. The development of the regions is inconceivable without the availability of water resources. On the other hand, land improvement and spatial development of the territory are also directly dependent on water sources and their use.

Not only the population and the creation of living conditions but also the regional economy and food play a role in the rational and sustainable development of the territory. Agriculture, a large part of industrial and processing enterprises also needs water for their normal operation. That is why another important condition, which is a link between regional development and water

resources, is infrastructure. We could say that the water sector of Bulgaria covers tangible and intangible elements. The material component is the infrastructure, and the intangible component is related to water management.

The management of the water sector in Bulgaria concerns the renewal of water in terrestrial sources, maintenance of sufficient quantities of water, consumption of the resource, feeding the population of the respective territory, production, and agriculture. That is why it is important to analyze the process of water resources recovery and consumption. Related to this are the forecasts for the expected quantities of water from different sources, the development of the population and the economy in the regions. As can be seen in Table 1, demographic projections show a population decline, which means a decline in consumption in the long run.

*Table 1. Demographic forecasts by regions of water management.*

No		2010	2011	2012	2015	2021	2027	2035
1.	Total, residents	7,528,103	7,490,705	7,453,040	7,337,862	7,094,897	6,839,791	6,534,980
1.1.	Danube region	3,306,524	3,289,059	3,271,532	3,218,307	3,107,857	2,995,261	2,871,430
1.2.	Black sea region	1,336,992	1,335,024	1,333,027	1,326,815	1,313,964	1,294,195	1,270,867
1.3.	Eastern Aegean region	2,268,520	2,254,834	2,241,012	2,198,525	2,107,434	2,013,366	1,892,227
1.4.	West Aegean region	616,067	611,788	607,469	594,216	565,642	536,969	500,456

*Source: National Statistical Institute, Bulgaria*

In the following table, we see the ratio between future water consumption and expected quantities following the synonymous forecasts. As is clear from the long-term data, there is a

decrease in water resources in the dams, which increases the percentage of water consumption about the quantities of water resources.

*Table 2. Comparison between future water consumption until 2035 and water quantity in dams in Bulgaria*

No		Total water volume, Million m <sup>3</sup>	Future consumption In the year 2015		Future consumption In the year 2021		Future consumption In the year 2035	
			Quantity, Million m <sup>3</sup>	Percentage of total volume, %	Quantity Million m <sup>3</sup>	Percentage of total volume, %	Quantity Million m <sup>3</sup>	Percentage of total volume, %
1.	Total	8,134.8	2,759	34	2674	32.9	2,549	31.3
2.	Danube region	2,346.38	400	17	429	18.0	500	21.0
3.	Black sea region	1,547.0	699	45	682	44.0	717	46.0
4.	Eastern Aegean region	3,628.5	1,574	43	1,469	40.0	1,218	33.0
5.	West Aegean region	612.9	85	14	94	15.0	114	18.6

*Source: National strategy for management and development of the water sector in the Republic of Bulgaria*

There are still places in Bulgaria, including in the capital, where there are no sewerage or treatment facilities. This is a serious problem in the Bulgarian state, which is slowly being solved thanks to European funding. The data show that

the percentage for Bulgaria is exceptionally low compared to other European countries (National strategy for management and development of the water sector in the Republic of Bulgaria, 2012)

*Table 3. Percentage of population, related to domestic wastewater treatment.*

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007
Belgium	:	41	46	48	52	53	55	56	60
Bulgaria	36	36 <sup>E</sup>	37 <sup>E</sup>	38 <sup>E</sup>	38 <sup>E</sup>	38 <sup>E</sup>	38 <sup>E</sup>	38 <sup>E</sup>	39
Czech Republic	:	:	:	70	71	71	73	73	75
Germany	:	:	93	:	:	94	:	:	95
Estonia	68	68	68	70	70	71	73	73	74
Greece	:	:	:	:	:	:	:	:	85
Latvia	:	:	:	63	68	64	64	63	63
Lithuania	:	:	:	25	28	:	57	59	61
Hungary	25	30	29	36	39	41	52	55	:
Malta	13 <sup>E</sup>	13 <sup>E</sup>	13 <sup>E</sup>	13 <sup>E</sup>	13 <sup>E</sup>	13 <sup>E</sup>	13 <sup>E</sup>	13 <sup>E</sup>	13 <sup>E</sup>
Nederland	98	98	98	99	99	99	99	99	:
Poland	48	50	52	54	56	57	58	61	62
Portugal	:	:	:	27	32	:	:	37	48
Romania	:	:	:	:	:	17 <sup>E</sup>	17 <sup>E</sup>	:	:
Slovenia	14	14	16	19	20	29	31	48	47

<sup>E</sup> – Estimated value

Source: (Eurostat, 2021)

### 2.3 Investments in regional ecological infrastructure

The improvement of the water infrastructure is especially important for the Bulgarian regions and municipalities. Analyses show that the infrastructure is very morally and technically outdated, which requires a lot of maintenance. Due to the state of infrastructure, the losses of drinking water are significant. That is why investments in such infrastructure are an objective necessity. Theoretically, investments in water supply and sewerage facilities are characterized by long-term returns. This circumstance makes resolving this issue even more difficult. Usually, economic logic requires that in the long run, the projected consumption be large enough to be able to recoup the investment through the price of water and its consumption. On the other hand, consumption is related to the population of the regions. Demographic forecasts point to a decrease in the Bulgarian population and depopulation of large areas, which makes the

improvement of water infrastructure difficult to implement.

According to some Bulgarian experts, investments in water infrastructure for renovation and rehabilitation, as well as for the construction of a new one, amount to BGN 12 billion (Gradat, 2010). This infrastructure in the capital city needs rehabilitation and a new one around BGN 2 billion. The annual city budget is BGN 1.7 billion. These data illustrate the other problem related to the financial provision of these large infrastructure projects in the regions.

Infrastructure investments are important for another reason. Due to climate change and the reduction of the estimated amounts of precipitation and drinking water in the reservoirs, it is necessary to use the water resource rationally. Otherwise, we risk reaching water regimes in many places in Bulgaria. This implies effective management of the water sector and prudent investment in environmental infrastructure. The main sources of financing are

the taxes from the consumers, the funds of the EU, the loans from the banks, the funds from the state budget, and the public-private partnership.

## 2.4 Legislation and water sector management strategies

The water sector in Bulgaria is characterized by a complex system of management and subordination. The Ministry of Environment and Water and the Ministry of Regional Development and Public Works have responsibilities and powers in this area. The quantities of water that are consumed, are managed and authorized by the Ministry of Environment and Water, while the infrastructure is owned by the water supply and sewerage companies, which are subordinated to the municipalities and the Ministry of Regional Development and Public Works.

Drink water and water resources are exclusive state property and state wealth. Because of this reason, the regulations on the use of water resources find material expression in the Constitution of the country, and specifically in Art. 18, paragraph 1 of the Constitution of the Republic of Bulgaria 9 (Constitution of The Republic of Bulgaria, 1991). In the basic normative act of the Bulgarian state, the underground resources and the land drink water are defined as an object of the exclusive state property. Based on the Constitution, specialized legislation has been adopted. This legislation includes the Water Act, the Environmental Protection Act (Water Act, 2000, Regulation' Act of water supply and sewerage companies' services, 2005, Environmental Protection Act, 2002). At the European level European commission has adopted The EU Water Framework Directive 2000/60 (EU Water Framework Directive 2000/60).

The strategies for the development of the water sector in Bulgaria and the operational management are subordinated to both the

legislation and the need for financing of the sector. When we talk about the management of the sector, the question arises with the ownership of water and sewage companies. Here we can have different options, such as ownership to be state, municipalities, private sector on concession or public-private partnership.

In 2012, the National Assembly of the Republic of Bulgaria adopted a National Strategy for Management and Development of the Water Sector (National Strategy for Management and Development of the Water Sector, 2012). The strategic document aims to start solving the problems in the water sector. In this regard, plumbing associations were established. They had to unite all municipal companies to improve funding and governance. But the consolidation did not lead to highly positive results. Thus, small municipalities and settlements were neglected because of the central and regional cities.

## 3 CONCLUSIONS

In recent years, the Commission for State and Water Regulation in the Republic of Bulgaria has been gradually increasing the prices of water for domestic and economic needs. There is a chronic underfunding of the Bulgarian water sector. The state of the water sector in Bulgaria has not changed radically. Due to poor management, lack of funds, and postponement of capital investments, the condition of the water management infrastructure is drastically deteriorating. This leads to a significant increase in future costs. Much of the water supply network is morally and technically obsolete. Another major problem is the low percentage of the constructed sewerage network. These and many other problems require a change in the strategic and operational management of the water sector in Bulgaria. This is related to rational and efficient financing of the system, which will counteract the rapid increase in the price of water.

## WORKS CITED

- Eurostat. (2021, 02 08). *Population connected to urban wastewater collecting and treatment systems, by treatment level*. Retrieved from Eurostat: <https://ec.europa.eu/eurostat/databrowser/view/ten00020/default/table?lang=en>
- Gradat. (2010, 03 31). *12 mlrd. leva sa nuzhni za investitsii vuv vodniya sektor*. Retrieved from Gradat: [https://gradat.bg/infrastructure/2010/03/31/881247\\_12\\_mlrd\\_leva\\_sa\\_nujni\\_za\\_investicii\\_vuv\\_vodniia\\_sektor](https://gradat.bg/infrastructure/2010/03/31/881247_12_mlrd_leva_sa_nujni_za_investicii_vuv_vodniia_sektor)

IBRD-IDA. (2017, Sep 20). *Water resources management*. Retrieved from The World Bank: <https://www.worldbank.org/en/topic/waterresourcesmanagement>

Kolcheva, K. (2019). Vodnite resursi v Bŭlgariya i tyakhното izpolzvane (Engl. Water resources in Bulgaria and their use). *Proceedings of the Scientific Conference: Climate, atmosphere and water resources in the conditions of climate change* (pp. 1-33). Sofia: Bulgarian Academy of Sciences.

Ministers Council. (2012). National Strategy for Management and Development of the Water Sector, Sofia.

Ministers Council. (2020). National report on the state and protection of the environment in 2020, Sofia.

State paper. (1991). Constitution of The Republic of Bulgaria, Sofia.

State paper. (2000). Water Act, Vol. 12, Sofia.

State paper. (2002). Environmental Protection Act, Vol. 91, Sofia.

State paper. (2005). Regulation' Act of water supply and sewerage companies' services, Vol. 18, Sofia.

Received for publication: 14.06.2021

Revision received: 25.06.2021

Accepted for publication: 06.07.2021

### **How to cite this article?**

#### **Style – APA Sixth Edition:**

Tsonkov, N. (2021, July 15). Water sector management and sustainable development of Bulgarian regions. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 75-80. doi:10.12709/mest.09.09.02.11

#### **Style – Chicago Sixteenth Edition:**

Tsonkov, Nikolay. 2021. "Water sector management and sustainable development of Bulgarian regions." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 75-80. doi:10.12709/mest.09.09.02.11.

#### **Style – GOST Name Sort:**

**Tsonkov Nikolay** Water sector management and sustainable development of Bulgarian regions [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 75-80.

#### **Style – Harvard Anglia:**

Tsonkov, N., 2021. Water sector management and sustainable development of Bulgarian regions. *MEST Journal*, 15 July, 9(2), pp. 75-80.

#### **Style – ISO 690 Numerical Reference:**

*Water sector management and sustainable development of Bulgarian regions*. **Tsonkov, Nikolay**. [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 75-80.



---

# IMPROVING EFFICIENCY OF COURTS AND OTHER INSTITUTIONS BY SMART AV RECORDING SYSTEM

---

## **Dragan Vujovic**

Sustainable Development Management, The University "Union - Nikola Tesla", Belgrade, Serbia

<https://orcid.org/0000-0002-3785-4929>

## **Aleksandar Gracanac**

Faculty of Entrepreneurial Business and Real Estate Management, The University "Union - Nikola Tesla", Belgrade, Serbia

<https://orcid.org/0000-0002-3018-2912>

## **Andrej Spirkovski**

Faculty of Business in Belgrade, Singidunum University, Belgrade, Serbia

<https://orcid.org/0000-0001-8136-5666>

©MESTE

JEL Category: **H83, O33**

### **Abstract**

*The right to a fair trial is at the top of the human rights hierarchy in all democracies. In the past, primarily due to a lack of modern technical solutions that are available today, it was difficult to ensure a fair trial, as well as to check the correctness of the decision made in the courtroom if necessary. Today, audio/video recording of the court hearings is implied in many developed countries worldwide, precisely because of the transparency of the processes in which important decisions concerning human rights and freedoms are made, all with the goal of justice being absolutely and uncompromisingly served. The goal of this research is to present the solution for the development and integration of a secure and accessible ICT smart system primarily intended for recording court hearings, but also recording for any established legal institutions that need for it, such as prosecutors' offices, police stations, social work centers, shareholders' assemblies, notary offices, etc. As far as joint-stock companies are concerned, such a system would ensure the necessary transparency in companies and facilitate the successful implementation of all other elements of corporate governance.*

**Keywords:** Court Hearing, recording, corporate governance, ICT, fair trial

*Address of the corresponding author:*

**Dragan Vujovic**

[dragangagivujovic@gmail.com](mailto:dragangagivujovic@gmail.com)

## **1 INTRODUCTION**

The Law on Ratification of the European Convention for Protection of Human Rights and Basic Freedoms which was signed on November



4, 1950, in Rome and ratified in Serbia and which was adopted to protect human rights and basic (fundamental) freedoms, as the very title reads, among other things, refers to the Right to Fair Trial (Council of Europe, 1950). To have a truly fair trial and not to impair the basic human rights of affected parties within the judicial proceeding, it is also necessary to make a video and audio recording of the court hearing. Nowadays, when whole cities are covered with video surveillance systems and when cameras cover public areas, streets, and squares to provide a higher level of security for citizens and to prevent law disobedience and record cases of law violations, it is illogical not to implement such systems in areas where final decisions are made on whether the law was truly violated, where human destinies are decided on and where justice is enforced, i.e. in the courtroom. The judicial system cannot and must not stay aside from technological progress in all social spheres (Fabri & Contini, *Justice and Technology in Europe: How ICT is Changing Judicial Business*, 2001). In addition to the necessity of system efficiency, justice must be available while citizens must be aware that it was served (Andrade & Joia, 2012). As early as October 25, 2018, the Belgrade Bar Association (AKB) requested amendments of the Criminal Procedure Code and Civil Procedure Code to enable mandatory sound recording of all trials in Serbia and they announced that they would file an initiative to the Ministry of Justice which was filed on December 4, 2019. However, no further steps were made. Regarding the criminal procedure, the authority conducting proceedings may adopt a decision to record the evidentiary action or other actions via devices for sound or optical recording, but the sound recording of defendants and witness and expert witnesses questioning within the procedure is obligatory only for criminal offenses referred to in a specific Code article (National Assembly of the Republic of Serbia, 2019). With regards to civil procedures, either *ex officio* or upon an affected party proposal, the Court may adopt a decision to have sound or optical recording of the hearing (National Assembly of the Republic of Serbia, 2020), and, therefore, in most cases, it is legally possible to record a court hearing, but it is necessary to implement the system to make it technically viable. The Law

prescribes drafting a record where only important content of the given statements is included and all that only in the form of narration which entitles the court to retell and paraphrase the statements of affected parties and witnesses in a manner record-keepers understood and heard them. It is very easy to misuse this right in practice since, by paraphrasing, the statements, details which are seemingly unimportant while they are crucial are lost in the further trial. The introduction of a smart system for optical and sound recording of court hearings would remove the possibility for accidental or intended misuse during the record drafting procedure while court hearings would take fairly less time and a possibility to have a higher court efficiency would be created. Regarding corporate governance, for sure it has an important role in the sphere of management, and the investigation of occurrences resulting from corporative management require a definition among which the most famous would be the one from the Cadbury Report which indicates that corporate governance is the system where companies are directed and controlled (Cadbury, 1992). While Serbian corporate governance is on a decent level in companies owned by foreign companies, for sure there is plenty of room for progress in locally-owned companies. The introduction of such control systems would accelerate the transition to corporate governance considerably and it would upgrade the communication between shareholders' groups and the controlling shareholder, i.e. of the company management.

## 2 INNOVATIVE TECHNOLOGICAL SOLUTION

The implementation of the ICT solution into the judicial system should bring not only a higher efficiency of the system, but it should open the door for potential further innovations (Fabri, 2009). An innovative technological software and hardware solution has to be primarily reliable, efficient, and user-friendly. The idea is to make the technology mobile, easy to be installed and, in such a way, it should represent a comprehensive solution for digital recording of court procedures, e.g. interrogations in the police and the prosecution office. The solution also has to be

affordable in the financial sense since technological solutions offered by foreign companies are very expensive. It should be particularly noted that those solutions also bring problems that stem from the technology and which are overcome in the solution presented in the paper. Those solutions which have been known so far face problems with synchronizing streaming of video databases from cameras and audio databases from microphones. In practice, it means that there is a time gap between the video and the sound of one to three seconds which creates a big problem during the recording reproduction. Calibration is performed during, in this case necessary, post-production which implies an additional use of time during the hearing. During this period which approximately lasts 20 minutes, during which post-production is performed (synchronization of video and audio recording), the hearing room is occupied and another hearing cannot be held which is why, in case this solution is implemented, the possibility to save time and increase the productivity of the whole system is completely missed. Lawyers, prosecutors, and judges also have to wait for this process to end. If multiplexing of audio and video channels with encryption and compression is not done in real-time for a hearing which lasted e.g. 60 minutes, further processing (processing, compression, and encryption) could take even over 30 minutes which means that the copy of the recording could be available to affected parties only 30 minutes after the end of the hearing. In line with the provisions of the Civil Procedure Code, a copy of an audio and video recording must be submitted to affected parties immediately upon the session. Since audio and video recording from hearings in case of this innovative solution is created in real-time, it is available to participants in a digital medium (e.g. USB stick, the link for download, etc.) immediately upon the end of the hearing.

In the case of the innovative techniques presented in this paper, many problems faced with the existing technological solutions do not exist. The technology is based on SIP protocol which is also used in telecommunications for VoIP conferences and IP telephony, where SIP protocol ensures the compression in real-time and multiplexing of

audio/video channel/databases. This smart and secure multi-channel A/V recording system includes several additional innovations. Since it is necessary to comply with the rights of protected witnesses, minors, and other persons whose identity should be hidden in line with the law, all audio recordings of the above-mentioned persons are scrambled in real-time which is why it is impossible to recognize the identity of the speaker. The voice is motorized but it remains completely understandable to a listener and a part of the video recording is blurred. During this process, not one important segment of the recorded material is lost. Such systems are used in some countries for hearings of prisoners or protected witnesses which are in safe locations (Bailey, 2012).

The Civil Procedure Code reads that the hearing recording must also include the court title and the court composition, venue, date and time of the hearing, dispute subject and names of affected parties and other persons as well as of their legal representatives and plenipotentiaries. In addition, it has to include the data on the identity of persons whose statement is being recorded and their role in the procedure. In cases when statements of several people are recorded, the recording must provide a clear understanding of which person gave the statement. This technological solution enables these data to be included as an audio statement in an audio recording, in contrast to the solutions which have been used so far where such information had to be inserted as a title of a video database. This is very important because audio recordings are mobile phone-friendly which is why this solution is more convenient since it is generally accepted practice for judges to listen to audio recordings for days before the adoption of the final verdict. Since all the necessary information is included in the audio recording in case of this technological solution, it enables the listener with authorized access to follow the course of the hearing without any problems because the audio database with the above mentioned necessary information which is in this case given at the beginning of the audio database, also includes the information about the person who is speaking at that moment (e.g. 14:41, the judge Mitrovic is speaking).

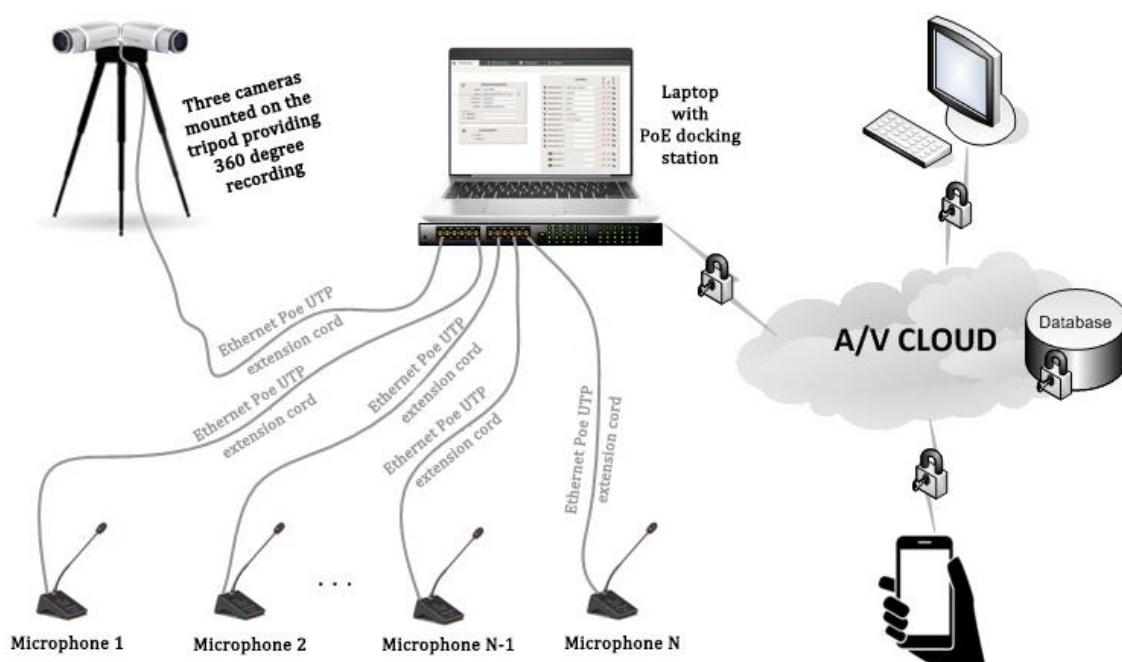


Figure 1. Scheme of the system for audio and video recording of hearings

Another innovation in such systems would be smart microphones adjusted to the specific needs of end-users. Smart microphones would compress the audio databases locally on the microphone, instead of doing this on the laptop which enables a less time-consuming subsequent processing for the audio recording. This would reduce the time for subsequent processing of audio and video recording since all authorized participants would be enabled to save their databases on USB memory at the same time. All these smart microphones would include a USB connector on the front side by which users (judges, lawyers, defendants, prosecutors, etc.) can download the audio recording of the hearing on their USB memory.

It is important to stress that this system would enable modular and very simple installation via only Ethernet communication cables and PoE (Power over Ethernet) system

All microphones, cameras, and other specific equipment are SIP clients and they are connected to an audio/video conference via soft switch (FreeSWITCH - freeswitch.org). The safety of the system is crucial in these projects which is why the idea is to have a system for databases coding which enables access to private recordings exclusively to persons who were given this access by the decision of the judge which is a common

practice in both local and international judicial systems. All courts and other entities may search through notes and recordings with a strong mechanism for identity confirmation and protection on the web portal. Persons with authorized access will be in a position to watch the recordings via desktop computers, laptops, and mobile phones.

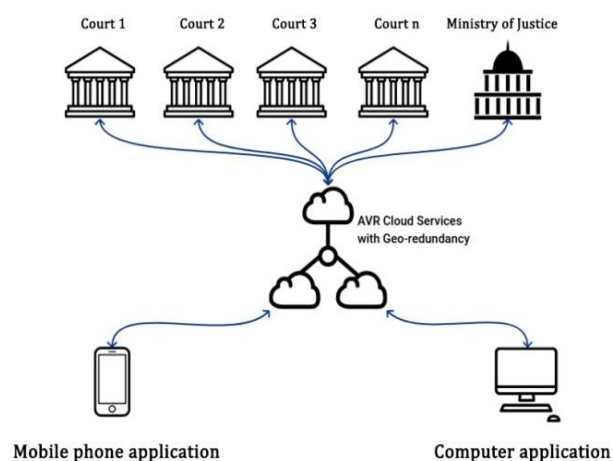


Figure 2. Availability of audio and video recordings and documents via cloud service

### 3 ICT SYSTEM COMPONENTS AND SPECIFICATIONS

The components of this smart system are the master unit (local server), central server, judge (master) audio unit, and audio (microphone) unit of a participant (slave).

The master unit (local server) includes software that enables system management and administration in the courtroom. The use of this software requires the authentication of users by the use of eligible electronic certificates of the Republic of Serbia. The master unit includes the following hardware components:

- Motherboard.
- Processor.
- HDD.
- Power unit.
- RAM.
- Accompanying electronics.
- Ethernet 10/100/1000 BaseT connection.
- 5 x RJ-45 FTP connector (concentrator of the signal from audio units).
- Monochromatic touch screen (used for interaction during audio recording on a USB stick and other control operations).
- USB connector which provides for recording and notes download during the session with the permission of an authorized system user (role) on the USB memory stick.
- AUX audio output for forwarding audio signal which is currently recorded to an external amplifier.
- Possibility to assemble it to the wall or a desk.
- etc.



Figure 3. Master unit (local server)

As far as the functionality is concerned, this software includes at least:

- The functionality of the software in the system is individually enabled to user roles.
- All functionalities enable the use of the master unit instead of the audio unit of the judge.

- Definition of users, their cards, and user roles (judge, stenographer, etc.) in the system.
- Definition of data on the trial which is being recorded: Hearing Title, File Number, Trial Participants with Roles (Prosecutors, Defendants, Lawyers, Witnesses, etc.), Audio/Video Recording Access/Listening Rights, etc.

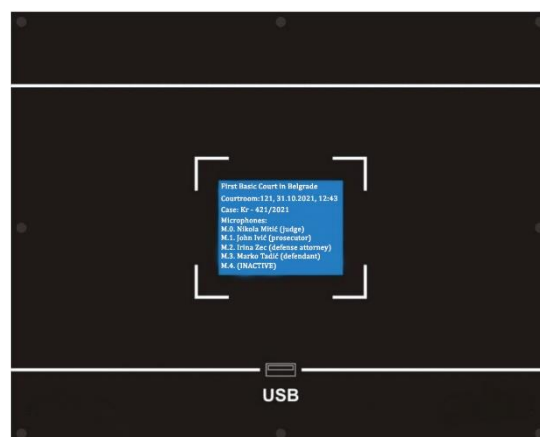


Figure 4. Master unit user interface

- Definition of parameters of system operations on the session: Via web browsers, the data defining the trial are inserted: file number, procedure participants (judge, affected parties, lawyers, witnesses, etc.); Persons entitled to listen to the audio recording of the given hearing are defined; Definition of an audio introduction on trial participants (sound identifier is recorded for each microphone by the use of microphone and web browsers and it is inserted into the sound recording in line with the principle “12.46, lawyer Petar Petrović is speaking...”
- Drafting and creation of the hearing record.
- Activating recording and inserting notes related to the time in the recording by a stenographer.
- Digital signing of recorded audio/video files (protection of possible subsequent corrections by third parties) enables audio/video recordings to be used as evidence material in judicial proceedings.
- Noting time information on the active microphone, i.e., on the trial participant which was given the floor during hearing recording and noting parts of recording acknowledge as important by the judge.

- Listening/watching the recordings with indicated related notes at a certain point of time within a recording with a possibility to start listening/watching those moments by choosing them from the list of notes.
- Etc.

All authorized users will be enabled by the central server to watch, listen and download recorded trial material via the internet, via standard web

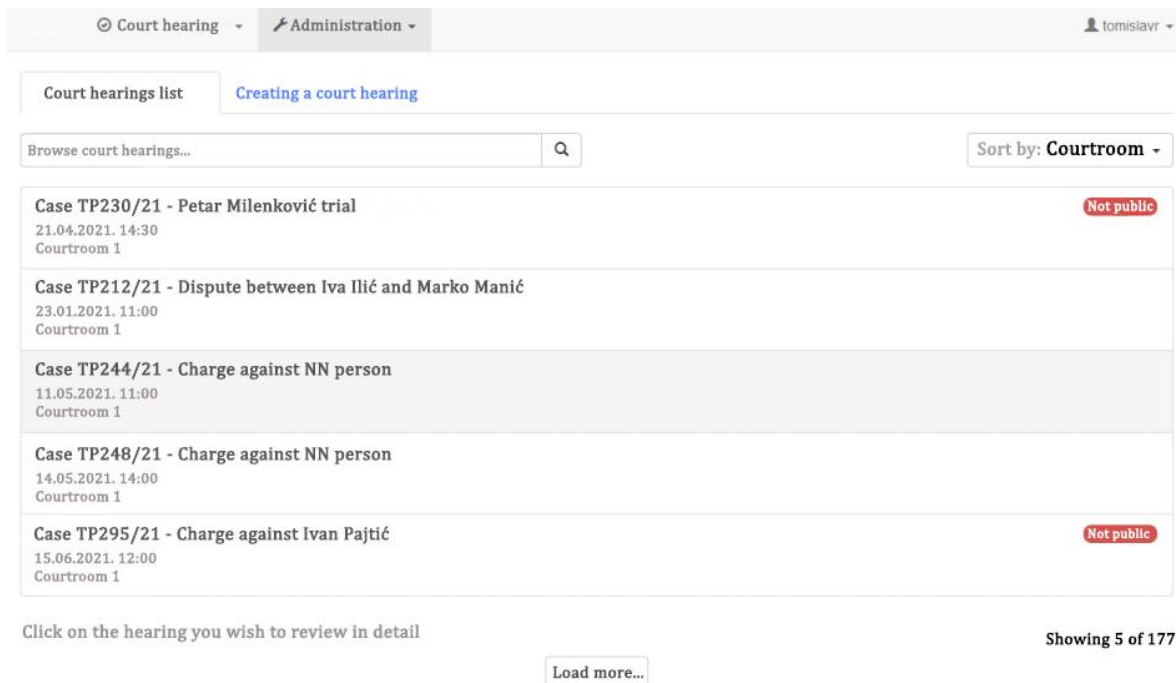


Figure 5. Software solution example 1

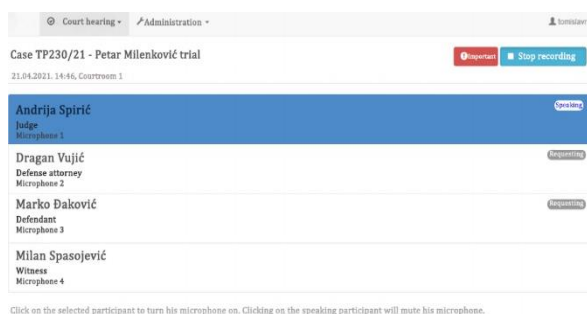


Figure 6. Software solution example 2

- Listening/watching only important parts of the recording or parts with related notes.
- Listening of the recording with inserted sound introductions before a participant's involvement.
- Possibility to listen to the parts of recordings described in the 7<sup>th</sup>, 8<sup>th</sup>, and 9<sup>th</sup> bullet via the use of a web browser and enabling web access with certificate authorization to the authorized system users.
- Activating USB connection where USB stick can be inserted which is used for downloading audio recording with anti-virus protection.

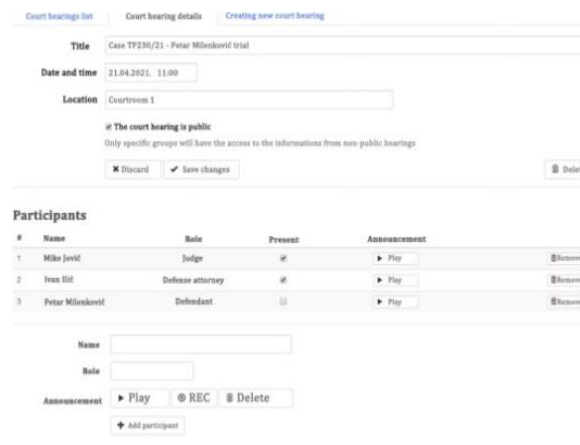


Figure 7. Software solution example 3

browsers. Listening is considerably facilitated by visual and sound signaling to make it clear who is speaking at the given moment. Users who need remote access to audio recordings will have to sign in either via eligible electronic certificates of the Republic of Serbia or via logging in by their username and a code. The access to the central server which is in this case in a demilitarized zone of the Ministry of Justice of the Republic of Serbia is provided via the internet by logging in and with

encryption, via eligible electronic certificates which are used on the territory of the Republic of Serbia.

The judge (master) audio unit enables the judge to manage all audio units of participants and basic system operations. The Judge audio unit includes:



Figure 8. Judge unit with a microphone

- Professional microphone.
- The speaker emitting the sound from the microphone which is currently active (the microphone from which the sound is currently being recorded).
- Potentiometer for volume up/down of the speaker.
- Monochromatic touchscreen or 4 metal anti-vandal buttons activate microphone units of participants where each button is marked with an ordinal number (1-4) with background LED lighting which indicates the status of the microphone unit of a participant.
- Button marking a segment of the session which is particularly important (if marked “important”, the trial segment is signaled by red background LED lighting behind a big “!” mark).
- Button for activating/deactivating the judge microphone unit.
- On/off switch for turning on and turning off the recording system.
- FTP RJ-45 connection for connecting by FTP cable to a central master unit (local server). Since the microphone is placed on a metal holder, it is necessary to provide adequate grounding of the audio unit by a metal shell of the FTP cable.

The buttons on audio units are anti-vandal (metal) and their function is properly marked with clear

and visible signalization of the state of the action performed by the button. Background LED lighting provides information on the activities of participants' (slave) audio units to the judge via different colors. The green background light marks that the microphone under that ordinary number is active and that the signal from that microphone is being recorded. The red background color marks that the microphone under that ordinary number is inactive. The red blinking light marks that the microphone under that ordinary number asked to take the floor. The lack of the background light marks that the microphone under that ordinary number is turned off.

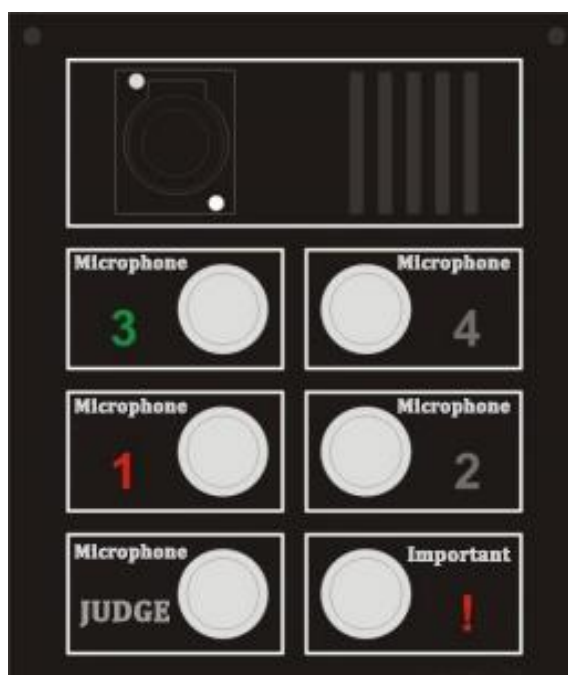


Figure 9. Judge master unit

The audio (microphone) participants' (slave) unit has a button for notifying the control microphone judge unit on a request to take the floor and a speaker emitting the sound from the microphone of the unit when the unit is active. The button on the unit has to be mechanical, its function has to be properly marked and the state of the action which the button performs has to be signaled. The unit includes:

- Professional microphone.
- The speaker emitting the sound from the microphone which is currently active (the microphone from which the sound is currently being recorded).
- Potentiometer for volume up/down of the speaker.

- One metal anti-vandal button enables a participant to ask to take the floor i.e., sends a request (or annuls the request).
- LED background lighting indicates the status of the microphone unit.
- On/off switch for turning on and turning off the microphone unit.
- FTP RJ-45 connection for connecting by FTP cable to a central master unit (local server). The same as with the judge's unit, the microphone is placed on a metal holder, which is why it is necessary to provide adequate earthing of the audio unit by a metal shell of the FTP cable here as well.

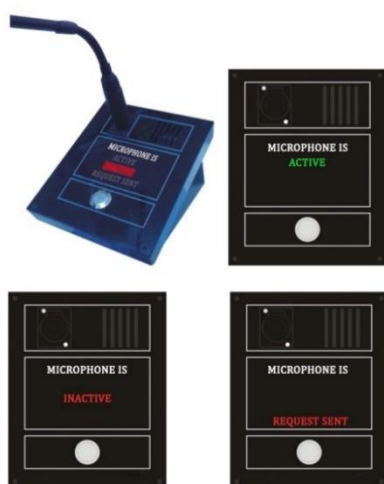


Figure 10. Participants' audio unit (slave)

The LED lights principle functions the same as on the judge master unit. The green background light (ACTIVE) marks that the microphone is active and that the signal from this microphone is being recorded. The red background color (INACTIVE) marks that the microphone under that ordinary number is inactive while the red background light under the title "REQUEST SENT" marks that the participant sitting by the microphone under that ordinary number asked to take the floor.

#### 4 SYSTEM APPLICABILITY IN THE REPUBLIC OF SERBIA

Primarily, this solution would be implemented with all legal institutions which require automation of trial/hearing records and where it is necessary to have a 100% correlation between the audio/video recording and the record. The system would be implemented in courts, prosecution offices, police stations, social work centers, joint-stock companies' shareholders' assemblies, notary

offices, etc. The system is also designed to serve as a video and audio conference system which can be used as a communication channel for remote witness hearing which is very important for witnesses such as minors, people with disabilities, old people, and witnesses in prisons. It would be important to implement the system in courtrooms and hearing rooms in the police and the prosecution office. Securing the transparency in these institutions is necessary to exercise the given right to a fair trial. Free recording service in cases of criminal proceedings for offenses for which it could be required to serve less than 5-7 years is the general practice in democratic societies and, in this case, the state bears all costs of audio and video recordings. With criminal proceedings for offenses for which it could be required to serve longer than 5-7 years and for those convicted as well as in cases of civil proceedings, the recording cost should be borne by one of the proceeding participants which should be considered as legal costs which should be compensated depending on the decision of the judge. There are 159 courts in the Republic of Serbia (with between 5 and 25 courtrooms), twice as high a number of police stations with 1-3 interrogation rooms and 83 public prosecution offices (each with 3-5 hearing rooms). The system implementation in each of the given institutions would represent a high cost at the beginning. The solution for a successful implementation of this system in practice would be the establishment of the Chamber of Authorized Recorders which would function according to a similar model as e.g. the Chamber of Bailiffs or Notaries. In addition, it is necessary to create a portal for recording booking. All court procedure parties should be provided with a possibility to book/notify in advance that they would like to have audio and video recordings of the court procedure on the booking portal. The party who expressed their interest in audio and video recording of the court proceedings should pay the recording costs in advance and these funds would be referred to as "court expenditure". Those costs should be compensated to the affected party if the party turns out to be the prevailing one in a similar manner as it is done with the lawyer expenditure at the end of the trial. Average recording costs should amount to 40% of the lawyer costs indicated in the price list of the Bar Association of Serbia.

## 5 CONCLUSIONS

The smart ICT solution presented in this paper would settle numerous problems faced by the judicial system as well as by the citizens of the Republic of Serbia. The crucial thing is that, in the first place, the implementation of this system would provide for the respect of fundamental human rights and secure the transparency of judicial procedures which would increase the trust in state institutions of the citizens of the Republic

of Serbia. Courts productivity would be also increased considerably since the problem faced during the use of other systems related to the synchronization of audio and video recordings would be solved. The implementation of this system would secure the increase in the number of trials on the annual level and the correctness of reached verdicts could be checked easily by watching, listening, and analyzing the recordings and the discussions on who said what and when would be a matter of the past.

## WORKS CITED

- Andrade, A., & Joia, L. A. (2012). Organizational structure and ICT strategies in the Brazilian Judiciary System. *Government Information Quarterly*, 29. 10.1016/j.giq.2011.08.003. .
- Bailey, J. (2012, October 23). Digitization of Court Processes in Canada. *Laboratory of Cyberjustice Workin Paper n°2*.
- Cadbury, A. (1992). *Report of the Committee on the Financial Aspects of Corporate Governance*. London: Gee and Co Ltd.
- Council of Europe. (1950). *European Convention for the Protection of Human Rights and Fundamental Freedoms In Council of Europe Treaty Series 005*. Council of Europe. <https://www.refworld.org/docid/3ae6b3b04.html>
- Fabri, M. (2009). E-justice in Finland and in Italy: enabling versus constraining models. *Palgrave Macmillan UK*.
- Fabri, M., & Contini, F. (2001). *Justice and Technology in Europe: How ICT is Changing Judicial Business*. Kluwer Law International.
- National Assembly of the Republic of Serbia. (2019). CRIMINAL CODE. "Official Gazette of the Republic of Serbia", No. 72/2011, 101/2011, 121/2012, 32/2013, 45/2013, 55/2014 and 35/2019.
- National Assembly of the Republic of Serbia. (2020). CIVIL PROCEDURE CODE – Decision of the Constitutional Court, 74/2013 - Decision of the Constitutional Court, 55/2014, 87/2018, and 18/2020). *Official Gazette of the Republic of Serbia*", No. 72/2011, 49/2013.

Received for publication: 27.05.2021  
Revision received: 07.06.2021  
Accepted for publication: 06.07.2021

### How to cite this article?

#### Style – APA Sixth Edition:

Vujovic, D., Gracanac, A., & Spirkovski, A. (2021, July 15). Improving efficiency of courts and other institutions by smart AV recording system. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 81-90. doi:10.12709/mest.09.09.02.12

#### Style – Chicago Sixteenth Edition:

Vujovic, Dragan, Aleksandar Gracanac, and Andrej Spirkovski. 2021. "Improving efficiency of courts and other institutions by smart AV recording system." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 81-90. doi:10.12709/mest.09.09.02.12.

Style – **GOST Name Sort**:

**Vujovic Dragan, Gracanac Aleksandar and Spirkovski Andrej** Improving efficiency of courts and other institutions by smart AV recording system [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 81-90.

Style – **Harvard Anglia**:

Vujovic, D., Gracanac, A. & Spirkovski, A., 2021. Improving efficiency of courts and other institutions by smart AV recording system. *MEST Journal*, 15 July, 9(2), pp. 81-90.

Style – **ISO 690 Numerical Reference**:

*Improving efficiency of courts and other institutions by smart AV recording system. Vujovic, Dragan, Gracanac, Aleksandar and Spirkovski, Andrej.* [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 81-90.



# ELEMENTS AND INDICATORS OF INCLUSIVE ECONOMIC DEVELOPMENT

**Alina Zhukovska**

West Ukrainian National University, Ternopil, Ukraine  
<https://orcid.org/0000-0003-0891-1952>

**Oleksandr Dluhopolskyi**

West Ukrainian National University, Ternopil, Ukraine  
<https://orcid.org/0000-0002-2040-8762>

©MESTE

JEL Category: I14, I38, J11, J21, O15, O38, O43, O44

## Abstract

*The concept of inclusive economic development and the basic concepts that underlie it are examined in the scientific paper. The definitions of “inclusive growth” offered by the leading international organizations and scientists are studied. The methods of inclusive economic development assessment are analyzed: the methodology of the Asian Development Bank, the method of calculating of inclusive development index offered by the World Economic Forum in Davos (Switzerland) likewise the method of inclusive rural development assessment is substantiated. Their main advantages and disadvantages are revealed. The policy of inclusive growth should be based on institutional support and good governance policy. To determine the level of inclusive economic development the key components should be considered: political, economic, social, and environmental. The need to improve the existing methods by including the environmental component and indicators that determine the degree of equal opportunities for the citizens regardless of their age, gender, physical abilities, religion, nationality, and place of residence is shown.*

**Keywords:** *inclusive development, inclusive growth, inclusive development concept, inclusive development index*

## 1 INTRODUCTION

The thesis of the insufficiency of economic development to ensure the full effective economic growth was firstly voiced during the 2014 UN report «Ensuring Sustainable Human Progress: Reducing Vulnerability and Building

Sustainability», which states that 2.2 billion people live in poverty (Human Development Report, 2014). Under the World Bank estimates, 12% of the world’s population lives in poverty; almost 1 billion people live on less than \$ 1.25 a day (World Bank President Outlines Strategy, 2015); more than a billion people in the world do not have access to the clean water, 1.6 billion – to electricity and 5.4 – to the Internet; 2.5 billion people do not have accounts in the financial institutions. Thus, with the dominant model of economic development, which is practiced by most countries

*Address of the corresponding author:*

**Oleksandr Dluhopolskyi**

[✉ dlugopolsky77@gmail.com](mailto:dlugopolsky77@gmail.com)



of the world, the economic and social inequality grows, the absolute poverty deepens, and the significant part of the population does not improve welfare. The famous American economist T. Piketty warns that such deepening inequalities pose a threat not only to innovation but also to the market democracy, public confidence, and the free market system of capitalism (Piketty, 2014).

That is why in 2017 at the 48th World Economic Forum in Davos (Switzerland) it was proposed to change the priorities of the economic policy, which should be reoriented on more effective counteraction to insecurity and inequality that accompanies the technological change and globalization. It is the sustainable all-encompassing progress, accompanied by an increase of the people's incomes together with the simultaneous increase of the economic opportunities, security, and quality of life that should be recognized as the main goal of economic development, rather than GDP growth as it was previously considered. The analysis of the main macroeconomic indicators of the country may show the achievement of a high level of economic development, but a significant part of the population will not be "included" in the process of GDP and, consequently, in the distribution of public goods. Poverty becomes one of the topical issues (Zhukovska, 2019; Koziuk, et al., 2021; Koziuk, et al., 2020).

## 2 LITERATURE REVIEW

The concept of inclusive economic development is a new approach to ensure the effective functioning of the state, which emerged in the XXI century. The main provisions of this concept were developed in 2008 by the members of the Commission for Growth and Development under the leadership of the Nobel Laureate M. Spence and published in the work «The Growth Report. Strategies for Sustained Growth and Inclusive Development» (The Growth Report, 2008). This concept was further developed in 2009 in the paper (Ianchovichina, Lundstrom, 2009), in which the authors studied the conceptual foundations of inclusive growth and identified the constraints that can influence sustainable and inclusive growth on the example of the Zambian economy.

Today, both international organizations and individual scholars are working on the issues of ensuring inclusive economic growth. Table 1 provides some definitions of «inclusive growth» proposed by the leading international organizations.

*Table 1. Definitions of «inclusive growth» offered by the leading international organizations*

International organization	Definition
World Bank	<i>Inclusive growth</i> is rapid sustainable growth, spread to all sectors of the economy, which attracts a significant part of the country's labor resources and is characterized by equal opportunities in access to the labor market and resources
Organization for Economic Co-operation and Development (OECD)	<i>Inclusive growth</i> is stable and comprehensive growth in terms of employment opportunities, which needs support from public institutions to solve problems in the labor market
European Commission	<i>Inclusive growth</i> is the provision of high levels of employment, investment in education, the fight against poverty and the modernization of labor markets, social protection systems, and the promotion of greater social cohesion.
International Monetary Fund (IMF)	<i>Inclusive growth</i> is an increase in growth by providing a single space for investment and productive employment
United Nations Development Program	<i>Inclusive development</i> is a development that complements human development and includes a wide range of changes - from environmental sustainability (ie climate change, environmental pollution, energy scarcity) and natural disasters to the development of rural communities, citizens' incomes, health care costs, education, and recreation.

Along with the international organizations, some scientists are working on the issues of ensuring inclusive economic growth. Table 2 lists several definitions of "inclusive growth" proposed by the leading researchers.

Table 2. Definitions of «inclusive growth» proposed by the leading researchers

Researchers	Definition
Ifzal Ali, Hyun Hwa Son (2007)	<i>Inclusive growth</i> is growth that expands the social opportunities and depends on two factors: the average opportunities available to the population and the way they are distributed (Ali, Son, 2007).
Cielito F. Habito (2009)	<i>Inclusive growth</i> is the growth of gross domestic product (GDP), which leads to a significant reduction in poverty (Habito, 2009).
Ianchovichina Elena, Lundstrom Susanna (2009)	<i>Inclusive growth</i> is an increase in the growth of the economy, as well as equalization of conditions for investment and productivity growth in the employment opportunities (Ianchovichina, Lundstrom, 2009).
Ganesh Rauniyarand, Ravi Kanbur (2010)	<i>Inclusive growth</i> is growth that is accompanied by a reduction in income inequality so that benefits are accrued disproportionately and primarily to those with lower incomes (Rauniyarand, Kanbur, 2010).
Terry McKinley (2010)	<i>Inclusive growth</i> is the achievement of sustainable growth that creates and expands the economic opportunities and provides greater access to them to all members of society in the form of participation in the growth and benefit from it (McKinley, 2010).
Stephan Klasen (2010)	<i>Inclusive growth</i> is growth that benefits all sections of society, including the poor, the middle-income, and even the rich (Klasen, 2010).
Joyeeta Gupta, Courtney Vegelin (2016)	<i>Inclusive growth</i> is growth that not only creates new economic opportunities but also provides equal access to opportunities created for all segments of society, especially the poor (Gupta, Vegelin, 2016)
Zsolt Darvas, Guntram Wolf (2016)	<i>Inclusive growth</i> is growth that goes beyond the one-dimensional growth of gross domestic product (GDP) and includes employment opportunities, access to education, health care, care for the environment, active participation in the economy and society (Darvas, Wolf, 2016).

Even though the study of the concept of “inclusive growth” is widely represented in the scientific literature, the problem of its measurement, definition of its components, and indicators have not been examined enough.

### 3 PROBLEM STATEMENT

The first attempt to measure inclusive economic growth is the concept of inclusive growth, developed by the staff of the Asian Development Bank (ADB) and documented in detail by I. Ali and J. Zhuang in 2007 and 2010 under the 2020 Strategy (Ali, Zhuang, 2007). It is suggested to measure inclusive growth under the following strategies:

1. economic growth and employment opportunities. Rapid, efficient, sustainable economic growth and employment opportunities expand economic opportunities for all members of society, absorb surplus labor in highly skilled jobs, create resources for governments to improve access to education and health services, infrastructure, and social protection systems.
2. social inclusion and ensuring equal access to economic opportunities. Social inclusion implies that all segments of the population, including those in difficult life circumstances, have equal opportunities. Ensuring access to education, medicine, and infrastructure for all citizens without exception is a key component of an inclusive growth strategy.
3. a system of social protection, which is designed to support the poor and help citizens in difficult life circumstances. The special role of the social protection system is to meet the needs of the poor and those who, due to circumstances beyond their control, are unable to take advantage of available opportunities.

The policy of inclusive growth is offered to be based on the institutional support and good governance that promotes inclusive growth, in which all members of society can benefit and promote growth (fig. 1).

The system of inclusive growth indicators developed by the staff of the Asian Development Bank (ADB) includes 35 indicators that characterize: 1) poverty and inequality (income and lack of income); 2) economic growth and

employment; 3) accessibility to key infrastructure facilities; 4) access to education and health care; 5) access to infrastructure and utilities; 6) equality and opportunities regardless of gender; 7) social protection system; 8) proper public administration.

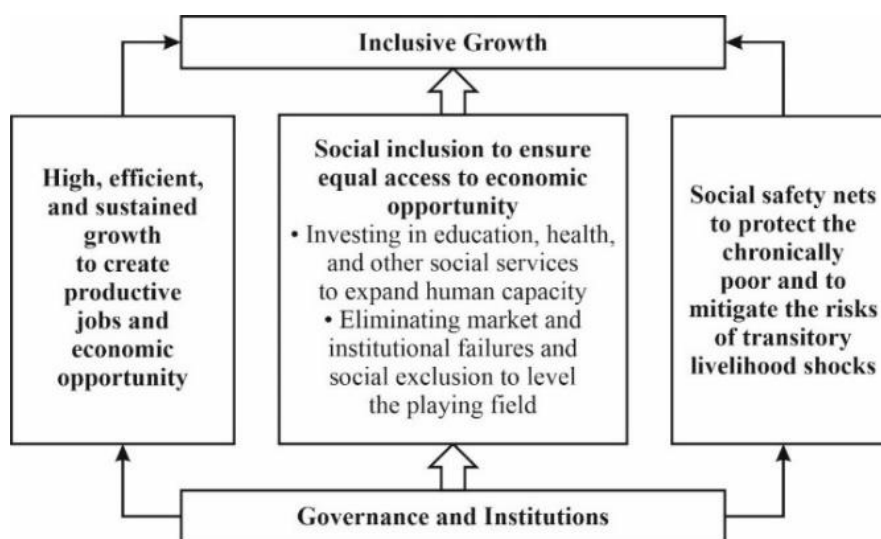


Fig. 1 Policy pillar of inclusive growth

Source: (Ali, Zhuang, 2007)

The presented approach to measuring inclusive growth, although quite thorough, is somewhat limited. Thus, the sixth group of measurement indicators includes indicators that characterize the degree of equal opportunities for citizens regardless of their gender. But you can limit opportunities not only by gender, but also by age, physical ability, religion, nationality, place of residence, and so on. Also, the mentioned system of indicators does not consider the environmental component, which is extremely important for ensuring inclusive economic development and the formation of an inclusive society.

The next attempt to measure the inclusive growth was made at the World Economic Forum in Davos (Switzerland), where the Inclusive Development Index (IDI) (The Inclusive Development Index, 2018), developed by four economists: R. Semans, M. Hanus, G. Corrigan, and M. Berk was presented. The authors developed this index as an alternative to the gross domestic product (GDP) – the main economic indicator that determines the country's position in the world. According to the developers, even though GDP correlates well with the level of employment, it “is not able to reflect the expansion of the digital and globalized economy. In an environment where there is a great variety of goods and services when a significant number of companies operate abroad, it is difficult to correctly determine the

amount of the value-added. The growth of the sharing economy increases the number of types of economic activity that are not subject to accounting” (The Inclusive Growth and Development Report, 2017). The authors also emphasize that it is important to consider how GDP is distributed among this population, whether it has a middle class, how freedom of speech is developed, what is the level of education, what is the education system, life expectancy, what is the health care system, dynamics of the country's development and so on. It should be noted that the developers of the inclusive development index do not level the value of GDP but use it as one of the indicators that determine the index of inclusive development of the country.

In addition to GDP estimating, this index measures 11 additional parameters. IDI consists of 12 indicators, which are divided into 3 major groups: 1) growth and development (GDP per capita in US dollars, productivity, healthy life expectancy, employment); 2) inclusiveness (income inequality, poverty level, wealth inequality, median dollar income per day (at purchasing power parity) per capita); 3) equality between generations and sustainability (net savings, CO2 emissions per unit of GDP, public debt, the ratio of the working-age to the working-age population). First, group indices are calculated, and the final is calculated as the arithmetic mean. Thus, an indicator that

shows not only the level of production in the country but also the prospects and quality of life is calculated. IIR clearly illustrates how deceptive

success can be, measured only by the production capacity (Fig. 2).

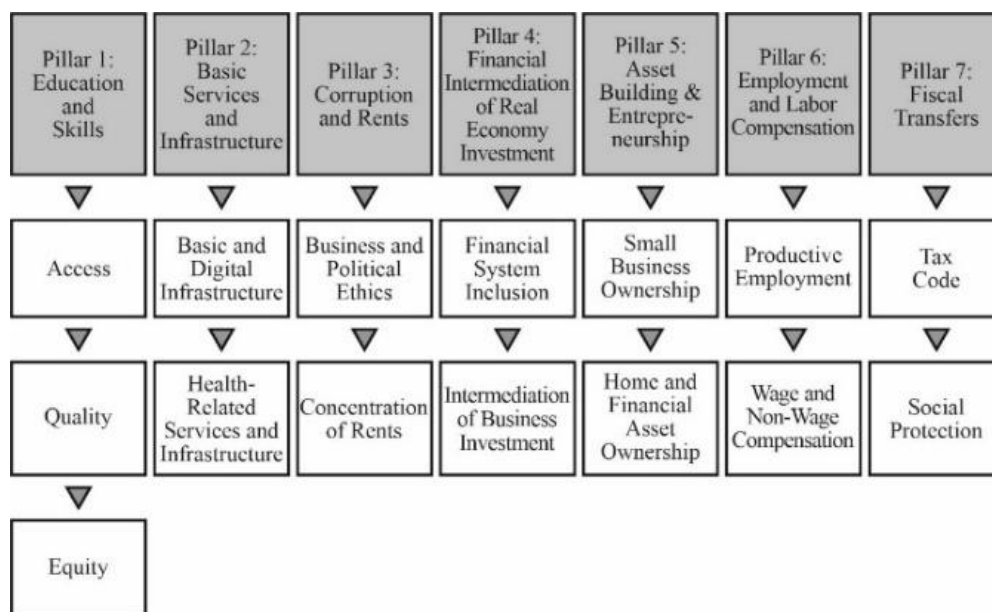


Fig. 2 The concept of inclusive growth and development

Source: (The Inclusive Development Index, 2018)

This system of measuring inclusive economic growth, like the previous one, does not consider the environmental component and the fact that discrimination and disability can occur not only based on gender and age but also based on religion, nationality, place of residence, and physical capabilities.

in (Kyrzyziuk, 2020), developed the consolidated indicators of sectoral and component inclusion, which allow the assessment of integrated indicators of inclusive rural development (fig. 3).

Ukrainian researchers also have some experience in inclusive growth estimating. Thus, S.V. Kyrzyziuk

The advantage of this system of indicators is that it includes three types of inclusion – political, economic, and social. However, the ecological component was passed over the researcher's attention.

		Types of inequality				
		Access to goods	Quality of goods	Divide of goods		
Sectoral approach	Political	Indicators	Indicators	Indicators	Political inclusion	Sectoral inclusion
	Social	Indicators	Indicators	Indicators	Social inclusion	
	Economic	Indicators	Indicators	Indicators	Economic inclusion	
		Total access to goods	Total quality of goods	Total divide of goods		
		Component inclusion				

Fig. 3 Conceptual framework for measuring the inclusiveness of the rural development

Source: (Kyrzyziuk, 2020)

Thus, the analysis of the existing methods has shown that none of them provides a comprehensive, unified, and integrated approach to inclusive economic development estimating. To determine the level of inclusive economic development, four main components should be considered: political, economic, social, and environmental. Also, the method of determining the level of inclusive economic development should consider not only the degree of equal opportunities for citizens regardless of their age and gender but also the physical capabilities, religion, nationality, and place of residence.

#### 4 CONCLUSIONS

In recent years, the inclusive economy and inclusive sustainable growth have become one of the topical issues in the documents of the leading international organizations, as well as in the research of scientists. World practice has developed several methods for inclusive

development estimating, the best of which is the method for calculating the index of inclusive development (IID), suggested in 2017 at the 48th World Economic Forum in Davos (Switzerland). There is a controversial thought among the scientists about the feasibility and prospects of using the Inclusive Development Index (INC) as an alternative to the already existing GDP per capita. In our opinion, if the GDP per capita allows us to assess only the level of economic development of the country, the IIR is a much broader indicator, which allows us to assess not only the economic but also the social level of development of the country. However, to calculate the level of inclusive economic development comprehensively, it is expedient to consider the environmental indicators and indicators that determine the degree of equal opportunities for citizens regardless of their age, gender, physical abilities, religion, nationality, and place of residence.

#### WORKS CITED

- Ali, I., & Son, H.H. (2007). Measuring Inclusive Growth. *Asian Development Review*, Vol.24, №1, pp.11-31.
- Ali, I., & Zhuang J. (2007). Inclusive Growth toward a Prosperous Asia: Policy Implications. *ERD Working Paper Series*, Vol.97. Manila: Asian Development Bank.
- Ending Poverty and Sharing Prosperity (2015). *Global Monitoring Report*. Washington DC: The World Bank. 240 p. Available at: <http://www.worldbank.org/en/publication/global-monitoringreport>.
- Exploring and Strengthening the Intersections between Social Protection, Employment and Inclusive Growth (2013). *Issues Paper for G20 DWG on Growth with Resilience*. Brasilia DF, Brazil: International Policy Centre for Inclusive Growth. 47 p. Available at: <http://www.ipc-undp.org/publication/26527>.
- Gupta, J., & Vegelin C. (2016). Sustainable development goals and inclusive development. *International Environmental Agreements: Politics, Law and Economics*, Vol.16, Issue 3, p.433-448. DOI 10.1007/s10784-016-9323-z.
- Habito, C.F. (2009). Patterns of Inclusive Growth in Asia: Insights from an Enhanced Growth-Poverty Elasticity Analysis. *ADB Working Paper Series*, Vol.145. Tokyo, Asian Development Bank Institute. 55 p.
- Human Development Report (2014). *Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. Available at: <http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>.
- Ianchovichina, E., & Lundstrom, S. (2009). Inclusive Growth Analytics: Framework and Application. *Policy Research Working Paper*, Vol.4851. Washington, DC, World Bank.
- Key Indicators for Asia and the Pacific (2011). *Framework of Inclusive Growth Indicators*. Mandaluyong City, Philippines: Asian Development Bank. Available at: <https://sustainabledevelopment.un.org/content/documents>.

- Klasen, S. (2010). Measuring and Monitoring Inclusive Growth: Multiple Definitions, Open Questions, and Some Constructive Proposals. *ADB Sustainable Development Working Paper Series*, Vol.12. Mandaluyong City, Philippines, Asian Development Bank.
- Koziuk, V., Dluhopolskyi, O., & Voznyi, K. (2021). Environmental taxes and emissions of pollutants in the EU: empirical analysis. *MEST Journal*, Vol.9(1), pp. 68-74.
- Koziuk, V., Hayda, Y., Dluhopolskyi, O., & Kozlovskiy, S. (2020). Ecological performance: ethnic fragmentation versus governance quality and sustainable development. *Problemy Ekorozwoju / Problems of Sustainable Development*, Vol.15(1), 53-64.
- Koziuk, V., Hayda, Y., Dluhopolskyi, O., Martynyuk, V., & Klapkiv, Y. (2020). Efficiency of environmental taxation in EU countries: comparative analysis. *Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu*, Vol.5, pp. 115-121.
- Kyryziuk, S.V. (2020). Methodical approaches and empirical evaluations of inclusive urban development. *Economics of AIC*, Vol.6, pp.113-121. Available at: <https://doi.org/10.32317/2221-1055.202006113>
- McKinley, T. (2010). Inclusive Growth Criteria and Indicators: An Inclusive Growth Index for Diagnosis of Country Progress. *ADB Sustainable Development Working Paper Series*, Vol.14. Mandaluyong City, Philippines, Asian Development Bank.
- Piketty, T. (2014). *Capital in the Twenty-First Century*. Cambridge, MA: The Belknap Press.
- Rauniyar, G., & Kanbur, R. (2010). *Inclusive Development: Two Papers on Conceptualization, Application, and the ADB Perspective*. Mandaluyong City, Philippines, Asian Development Bank.
- The Growth Report. Strategies for Sustained Growth and Inclusive Development (2008). Available at: <http://gtmarket.ru/news/state/2008/05/25/1686>.
- The Inclusive Development Index (2018). Summary and Data Highlights. World Economic Forum. Committed to improving the state of the world. Available at: [http://www3.weforum.org/docs/WEF\\_Forum\\_IncGrwth\\_2018.pdf](http://www3.weforum.org/docs/WEF_Forum_IncGrwth_2018.pdf).
- The Inclusive Growth and Development Report (2017). World Economic Forum. 135 p.
- World Bank President Outlines Strategy to End Poverty, Welcomes New Development Partners (2015). Available at: <http://www.worldbank.org/en/news/pressrelease/2015/04/07>.
- Zhuang, J. (2010). *Poverty, Inequality, and Inclusive Growth in Asia: Measurement, Policy Issues, and Country Studies*. Manila: Asian Development Bank.
- Zsolt D., Guntram B., & Wolff B. (2016). An anatomy of inclusive growth in Europe. Blueprints, Vol.17266. Available at: [https://www.bruegel.org/wp-content/uploads/2016/10/BP-26-26\\_10\\_16-final-web.pdf](https://www.bruegel.org/wp-content/uploads/2016/10/BP-26-26_10_16-final-web.pdf).
- Zukovska, A. (2019). An inclusive approach to economic development: genesis and key points. *Herald of Ternopil National Economic University*, Vol.2, pp.7-23

Received for publication: 14.06.2021  
Revision received: 26.06.2021  
Accepted for publication: 06.07.2021

**How to cite this article?**

Style – **APA Sixth Edition:**

Zhukovska, A., & Dluhopolskyi, O. (2021, July 15). Elements and indicators of inclusive economic development. (Z. Cekerevac, Ed.) *MEST Journal*, 9(2), 91-98. doi:10.12709/mest.09.09.02.13

Style – **Chicago Sixteenth Edition:**

Zhukovska, Alina, and Oleksandr Dluhopolskyi. 2021. "Elements and indicators of inclusive economic development." Edited by Zoran Cekerevac. *MEST Journal* (MESTE) 9 (2): 91-98. doi:10.12709/mest.09.09.02.13.

Style – **GOST Name Sort:**

**Zhukovska Alina and Dluhopolskyi Oleksandr** Elements and indicators of inclusive economic development [Journal] // *MEST Journal* / ed. Cekerevac Zoran. - Belgrade – Toronto : MESTE, July 15, 2021. - 2 : Vol. 9. - pp. 91-98.

Style – **Harvard Anglia:**

Zhukovska, A. & Dluhopolskyi, O., 2021. Elements and indicators of inclusive economic development. *MEST Journal*, 15 July, 9(2), pp. 91-98.

Style – **ISO 690 Numerical Reference:**

*Elements and indicators of inclusive economic development.* **Zhukovska, Alina and Dluhopolskyi, Oleksandr.** [ed.] Zoran Cekerevac. 2, Belgrade – Toronto : MESTE, July 15, 2021, *MEST Journal*, Vol. 9, pp. 91-98.



## Reviewers of the MEST Journal – alphabetically

1. Dr. **Svetlana Anđelić**, Prof.v.s., Information Technology School - ITS, Belgrade, Serbia
2. **Dragan Anuđojić**, Mgr., Fakultet za pravne i poslovne studije, Novi Sad, Serbia
3. Dr. **Dragutin Ž. Arsić**, Assoc. Prof., Faculty of Business and Law of the "MB" University Belgrade, Belgrade, Serbia
4. Dr. **Suat Askin**, Asst. Prof., Adiyaman University, Adiyaman Merkez/Adiyaman, Turkey
5. **Olga Artemenko**, PhD, Bukovinian University, Faculty of Computer Sciences and Technologies, Chernivtsi, Ukraine
6. Dr. **Daniel Badulescu**, Assoc. Prof., Faculty of Economic Sciences, University of Oradea, Romania
7. Prof. Dr. **Milan Beslać**, Faculty of Business Economy and Entrepreneurship in Belgrade, Belgrade, Serbia
8. Dr. sc. **Mario Bogdanović**, research associate, Faculty of Economics, University of Split, Croatia
9. Dr. **Nikola Bračika**, Assoc. Prof., Business School Čačak, Belgrade, Serbia
10. Mr **Nemanja Budimir**, Agency for Bookkeeping "Budimir", Banja Luka, Bosnia and Herzegovina
11. CSc. **Anastasia Bugaenko**, "UkrGasbank", Kyiv, Ukraine
12. Prof. **Justyna M. Bugaj**, Jagiellonian University, Krakow, Poland
13. Prof. Dr. **Ana Čekerevac**, University Belgrade Faculty of Political Sciences, Belgrade, Serbia
14. Prof. Dr. **Zoran Čekerevac**, Faculty of Business and Law of the "MB" University Belgrade, Belgrade, Serbia
15. **Sanja Čukić**, MA, Faculty of Business and Law, "MB" University, Belgrade, Serbia
16. Dr. **Dražen Čučić**, Assistant Professor, Faculty of Economics in Osijek, Osijek, Croatia
17. Dr. **Radmila Čurčić**, Ass. Prof., Faculty of Business and Law, "MB" University, Belgrade, Serbia
18. Prof. Dr. **Sreten Ćuzović**, Faculty of Economics, University of Niš, Niš, Serbia
19. Prof. Dr. **Predrag Damjanović**, Business School Čačak, Belgrade, Serbia
20. Prof. Dr. **Branko Davidović**, Technical College, Kragujevac, Serbia
21. Dr. **Derya Dispinar**, Asst. Prof., Istanbul University, Metallurgical and Materials Engineering, Avclar, Istanbul, Turkey
22. Prof. Ing. **Zdenek Dvorak**, PhD, Faculty of Special Engineering University of Žilina, Žilina, Slovakia
23. **Bela Yu. Dzhamirze**, PhD, Assoc. Prof., Maikop State Technological University, Maikop, Russia
24. Prof. Dr. **Branislav Đorđević**, Emeritus, Belgrade, Serbia
25. Prof. Dr. **Branko Đurović**, Medical Faculty, University of Belgrade, Belgrade, Serbia
26. **Ljupčo Eftimov**, PhD, Asst. Prof., Faculty of Economics - Skopje, Skopje, R. Macedonia
27. Prof. **Valeriy Eudokymenko**, DrSc, Bukovinian State Finance and Economics University, Chernivtsi, Ukraine
28. Ing. **Stanislav Filip**, PhD, Assoc. Prof., School of Economics and Management in Public Administration in Bratislava, Slovakia
29. **Jelena Fišić**, MA, "Pro-elektro" doo, Belgrade, Serbia
30. **Milena Gajic-Stevanovic**, DMD, MSc.SM, PhD, Institute of Public Health of Serbia, Belgrade, Serbia
31. **Bogdan Gats**, Chernivtsy Trade and Economics Institute of the Kyiv National Trade and Economics University, Chernivtsy, Ukraine
32. Prof. Dr. **Sonja T. Gegovska-Zajkova**, Ss Cyril and Methodius University, Faculty of Electrical Engineering and Information Technologies, Skopje, Macedonia
33. **Mariya P. Hristova**, PhD, Assoc. Prof., "Todor Kableshkov" University of Transport, Sofia, Bulgaria
34. Dr. **Miroljub Ivanović**, Prof.v.s., Higher School of Vocational Studies in Education of Tutors in Sremska Mitrovica, Sremska Mitrovica, Serbia
35. Dr. **Aleksandra M. Izgarjan**, Assoc. Prof., Faculty of Philosophy, University of Novi Sad, Novi Sad, Serbia
36. Dr. **Miloje Jelić**, Preduzeće za proizvodnju "Klanica" d.o.o. Kraljevo
37. Prof. Dr. **Zoran Jerotijević**, Faculty of Business and Law of the "MB" University in Belgrade, Belgrade, Serbia
38. Dr. **Bisera S. Jevtić**, Assoc. Prof., University of Niš - Faculty of Philosophy, Niš, Serbia
39. Prof. Dr. **Natalija Jolić**, Faculty of Transport and Traffic Sciences, University of Zagreb, Zagreb, Croatia



40. Prof. Dr. **Svetlana Kamberdieva**, North Caucasian Institute of Mining and Metallurgy (State Technological University), NCIMM (STU), Vladikavkaz, Republic of North Ossetia – Alania, Russia
41. Prof. Dr. **Zvonko Kavran**, Faculty of Transport and Traffic Sciences, University of Zagreb, Zagreb, Croatia
42. Prof. **Antoaneta Kirova**, PhD, "Todor Kableshkov" University of Transport, Sofia, Bulgaria
43. Ing. **Jozef Klučka**, PhD, Assoc. Prof., Faculty of special engineering University of Žilina, Žilina, Slovakia
44. Prof. **Petar Kolev**, Dr, "Todor Kableshkov" University of Transport, Sofia, Bulgaria
45. **Oksana Koshulko**, PhD, Assoc. Prof., Polotsk State University, Novopolotsk, Republic of Belarus
46. Prof. Dr. **Boris Krivokapić**, Faculty of Business and Law of the "MB" University Belgrade, Belgrade, Serbia
47. Dr. **Evelin Krmac**, Asst. Prof., University of Ljubljana, Faculty of Maritime Studies and Transportation Portorož, Slovenia
48. Prof. Dr. **Adil Kurtić**, University of Tuzla - Faculty of Economics, Tuzla, Bosnia and Herzegovina
49. Dr. **Aleksandar Lebl**, Iritel AD, Beograd, Serbia
50. Prof. Dr. **Branko Ž. Ljutić**, certified auditor, University Business Academy, Novi Sad, Serbia
51. Ing. **Maria Luskova**, PhD, Faculty of special engineering University of Žilina, Žilina, Slovakia
52. CSc. **Elena S. Maltseva**, Assoc. Prof., Maykop State Technological University, Maykop, Russia
53. Dr. **Dubravka Mandušić**, University of Zagreb - Faculty of Agriculture, Zagreb, Croatia
54. **Milorad Markagić**, University of Defense - Military Academy, Belgrade, Serbia
55. **Željko Mateljak**, PhD, University of Split, Faculty of Economics, Split, Croatia
56. Prof. Dr. **Dobrivoje Mihailović**, University of Belgrade, Faculty of Organizational Sciences, Belgrade, Serbia
57. Prof. Dr. **Božidar Mihajlović**, College of Business Economics and Entrepreneurship in Belgrade, Belgrade, Serbia
58. Dr. **Ivo Mijoč**, Assistant Professor, Faculty of Economics in Osijek, Osijek, Croatia
59. Dr. **Živanka Miladinović Bogavac**, Asst. Prof., Faculty of Business and Law of the "MB" University Belgrade, Belgrade, Serbia
60. Dr. **Zoran Milenković**, Prof.v.s., College of Tourism, Belgrade, Serbia
61. Dr. **Živorad Milić**, Prizma, Kragujevac, Srbija
62. Dr. **Milorad Milošević**, Prof.v.s., Business School Čačak, Belgrade, Serbia
63. Dr. **Aleksandar Miljković**, Assoc. Prof., Faculty of Business and Law of the "MB" University Belgrade, Belgrade, Serbia, and FORKUP, Novi Sad, Srbija
64. **Piotr Misztal**, PhD, Assoc. Prof., Jan Kochanowski University in Kielce, Kielce, Poland
65. Prof. Dr. **Dragan M Momirović**, Faculty of Business and Law of the "MB" University Belgrade, Belgrade, Serbia
66. Dr. **Saša Muminović**, Julon d.d. Ljubljana, Slovenia
67. Prof. Dr. **Predrag M. Nemeč**, Faculty of Management in Sport, "Alfa" University, Belgrade, Serbia
68. Prof. Dr. **Nevenka Nićin**, Faculty of Business and Law of the "MB" University Belgrade, Belgrade, Serbia
69. Ing. **Ladislav Novak**, PhD, Assoc. Prof., Faculty of special engineering University of Žilina, Žilina, Slovakia
70. Dr. **Srećko Novaković**, Assistant Prof., High Business and Technical School Doboj, Bosnia and Herzegovina and College of Vocational Studies for Education of Tutors and Coaches, Subotica, Serbia
71. Prof. Dr. **Saša Obradović**, Fakultet za ekonomiju i inženjerski menadžment, Novi Sad, Serbia
72. Dr. **Milorad Opsenica**, Assistant Prof., Traffic Engineering Faculty of the International University, Brcko District, Bosnia and Herzegovina
73. CSc. **Tatiana Paladova**, Assoc.Prof., Maikop State Technological University, Maikop, Russia
74. Prof. Dr. **Yurij Vasylyovych Pasichnyk**, Cherkassy State Technological University, Cherkassy, Ukraine
75. Prof. **Dinara Peskova**, PhD, Bashkir Academy of Public Administration and Management under the Auspices of the Republic of Bashkortostan, Ufa, Russia
76. Prof. Dr. **Šemsudin Plojović**, University of Novi Pazar, Novi Pazar, Serbia
77. Prof. Dr. **Lyudmila Prigoda**, Maikop State Technological University, Maikop, Russia
78. Prof. Dr. **Vlado N. Radić**, Faculty of Business Economics and Entrepreneurship, Belgrade, Serbia
79. Dr. **Dragan Radović**, Assoc. Prof., Faculty of entrepreneurial business and management of the real estate of the "Union – Nikola Tesla" University, Belgrade, Serbia
80. Prof. Dr. **Dušan Regodić**, Faculty of Business and Law, "MB" University, Belgrade, Serbia
81. Dr. **Bojan Ristić**, Prof., Information Technology School, Belgrade, Serbia



82. Dr. **Slobodan Ristić**, University Belgrade, Faculty of Organizational Sciences, Belgrade, Serbia
83. **Muzafer Saračević**, PhD, Assistant Prof., University in Novi Pazar, Novi Pazar, Serbia
84. Dr. **Drago Soldat**, Prof.v.s., Technical College, Zrenjanin, Serbia
85. Prof. Dr. **Dragan Dj. Soleša**, Faculty of Economics and Engineering Management, University Business Academy, Novi Sad, Serbia
86. Ing. **Katarina Stachova**, PhD, School of Economics and Management in Public Administration in Bratislava, Slovakia
87. **Jasmina Starc**, PhD, Assistant Prof., School of Business and Management Novo Mesto na Loko, Novo Mesto, Slovenia
88. **Bohdana Stepanenko-Lypovyk**, MA, Institute for Economics and Forecasting of the Ukrainian National Academy of Sciences, Kyiv, Ukraine
89. Ing. **Eva Sventekova**, PhD, Assoc. Prof., Faculty of Special Engineering, University of Žilina, Žilina, Slovak Republic
90. Prof. Dr. **Radomir Šalić**, "Metropolitan" University in Belgrade, Belgrade, Serbia, and "Synergy" University in Bijeljina, Bijeljina, Bosnia and Herzegovina
91. Prof. Dr. **Dubravka Škunca**, Faculty of Business and Law, "MB" University, Belgrade, Serbia
92. **Daniela Todorova**, PhD, Assoc. Prof., "Todor Kableskov" University of Transport, Sofia, Bulgaria
93. Prof. Dr. **Miomir Todorović**, Faculty of Business and Law, "MB" University, Belgrade, Serbia
94. Prof. Dr. **Zoran Todorović**, "Mediteran" University Podgorica – MTS "Montenegro Tourism School", Bar, Montenegro
95. Dr. **Janusz Tomaszewski**, Assoc. Prof., Eugeniusz Kwiatkowski University of administration and business, Gdynia, Poland
96. **David Ramiro Troitino**, Assoc. Prof., Tallinn University of Technology, Tallinn, Estonia
97. Dr. **Kristian Ujvary**, Ministry of Interior of the Slovak Republic, Bratislava, Slovak Republic
98. Dr. **Detelin Vasilev**, Assoc. Prof., "Todor Kableskov" University of Transport, Sofia, Bulgaria
99. Prof. Dr. **Dragan Vučinić**, Higher school of modern business, Belgrade, Serbia
100. **Branko Vujatović**, Center for Applied Mathematics and Electronics - Belgrade, Serbia
101. Prof. **Yaroslav Vykylyuk**, DSc, Bukovinian University, Chernivtsi, Ukraine
102. Dr. hab. Eng. **Zenon Zamiar**, Assoc. Prof., Wroclaw University of Environmental and Life Sciences, Wroclaw, Poland
103. Prof. Dr. **Nada Živanović**, Faculty of Business and Law, "MB" University, Belgrade, Serbia
104. Prof. Dr. **Dragan R. Životić**, Faculty of Management in Sport, "Alfa" University, Belgrade
105. **You? . . . . . To apply, fill-up the form, and return it to [meste@meste.org](mailto:meste@meste.org)**



## Editorial procedure

<https://www.meste.org/ojs/index.php/mest/about/submissions#authorGuidelines>

### Peer review

All manuscripts submitted to MEST Journal will be reviewed by up to three experienced reviewers. At least two reviewers must recommend the article for publication. The selection of reviewers for each of the submitted works will be carried out by the editor-in-chief. In cases where the editor-in-chief is the author or coauthor, for submitted work reviewers will be selected by the deputy chief editor or one of the members of the Scientific Committee. The names of the reviewers will be published in the journal in the special list without specifying the titles of the papers that they reviewed. For the reviewing, authors are requested to submit all documents at once at the time of their submission with the following structure:

- A title page, which includes:
  - The title of the article
  - The name(s) of the author(s) with the concise and informative title(s)
  - The ORCID identifier(s) of the author(s)
  - The affiliation(s) and address(es), and e-mail address of the author(s)
  - The e-mail address, and telephone and fax numbers of the corresponding author
  - Abstract (The abstract should be in the range of 150 to 250 words, and should not contain any undefined abbreviations or unspecified references.
  - Keywords (4 to 6 keywords which can be used for indexing purposes)
- A blinded manuscript without any author names and affiliations in the text or on the title page. Self-identifying citations and references in the article text should either be avoided or left blank.

Authors must honor peer review comments in order of the manuscript improvement. All changes must be elaborated, and an improved manuscript should be submitted to the Editor-In-Chief. Of course, authors can argue peer review comments by giving reasons/references to counter peer review comments. After receiving of resubmitted manuscript Editor-in-Chief will choose whether the manuscript will be published or sent to the old/new reviewers.

### Manuscript submission

MEST accepts the only manuscripts that use the template MEST\_Template.docx from the web address: [https://meste.org/documents/MEST\\_Template.docx](https://meste.org/documents/MEST_Template.docx) with un-modified format only.

Submission of a manuscript implies that the corresponding author responsible declares:

- that the submitted article is an original work and has not been published before;
- that it is not under consideration for publication anywhere else;
- that its publication has been approved by all co-authors if any; and
- that there are not any legal obstacles for the article publishing.

The publisher will not be held legally responsible should there be any compensation claims.

### Permissions

Authors, who wish to insert figures, tables, or passages of text that have previously been published elsewhere, are required to obtain permission from the copyright owner(s), and to attach the evidence that such permission has been granted when submitting their papers. Any material received without such evidence will be considered as authors'.



## Submission

Authors should submit their manuscripts by e-mail to the address: [mest.submissions@meste.org](mailto:mest.submissions@meste.org).

E-mail should contain the following items:

1. **Declaration and copyright transfer**, which should include that:
  - the submitted article is an original work and has not been published before;
  - the submitted article is not under consideration for publication anywhere else;(s)
  - the submitted article publication has been approved by all co-authors if any; and
  - there are no legal obstacles to article publishing.
2. **Title Page**, which should include:
  - Full title of the article (no more than 12 words)
  - The name(s) of the author(s)
  - The affiliation(s), email address(es), and address(es) of the author(s)
  - The short title (a concise and informative title, no more than 50 characters with spaces)
  - The e-mail address, and telephone and fax numbers of the corresponding author
  - **Abstract** (The abstract, paper summary, should be in the range of 150 to 200 words, and should not contain any undefined abbreviations or unspecified references. The Summary needs to hold all essential facts of the work, as the purpose of work, used methods, basic facts, and specific data if necessary. It must contain a review of underlined data, ideas, and conclusions from text, as well as recommendations for a group of readers that might be interested in the subject matter. The Summary must not have quoted references.
  - **Keywords** (4 to 6 keywords which can be used for indexing purposes need to be placed below the text)
3. **Manuscript**, which should be prepared as a camera ready, but without any data that can make a connection between author and the submitted article, such as author(s) name(s) and affiliation(s). Author(s) should avoid self-identifying citations and references. Manuscripts should be submitted in MS Word, following the template MEST\_Template.docx, which can be downloaded from:

[https://meste.org/documents/MEST\\_Template.docx](https://meste.org/documents/MEST_Template.docx)

Manuscripts are not limited in length, but precise and concise writing should result with the article length of 8 to 14 pages, prepared according to the proposed MEST template.

Authors have to:

- use a normal, plain 10-point Arial font for text;
- Italics for emphasis;
- use the automatic page numbering function to number the pages;
- use tab stops or other commands for indents, not the space bar;
- use the table function, not spreadsheets, to make tables;
- use the equation editor or MathType for equations;
- save their manuscript in .docx format (Word 2007 or higher);
- use the decimal system of headings with no more than three levels;
- define abbreviations at their first mention and use them consistently thereafter;
- avoid footnotes, but, if necessary, footnotes can be used to give additional information about some term(s). Footnotes should not be used to referee citations, and they should never include the bibliographic details of a reference. Footnotes have not contained figures or tables. Footnotes to the text are numbered consecutively, automatically by the text editor. Endnotes are not intended for use in the article.
- avoid the use of "the above table" or "the figure below";
- use the SI system of units as preferable.



**References – Works Cited** (New up-to-date information should be used and referenced. References should be cited in the text by name and year in parentheses, according to the APA Sixth Edition.

The citation should be made using *References --> Citations & Bibliography* in MS Word®, and we strongly recommend that the **Work Cited** list should be made automatically using MS Word® option: *References --> Citations & Bibliography --> Bibliography --> Works Cited*. A more detailed explanation can be found in the tutorial at:

[Create a bibliography, citations, and references - Word \(microsoft.com\)](https://support.microsoft.com/en-us/office/create-a-bibliography-citations-and-references-17686589-4824-4940-9c69-342c289fa2a5)  
<https://support.microsoft.com/en-us/office/create-a-bibliography-citations-and-references-17686589-4824-4940-9c69-342c289fa2a5> .

4. **Acknowledgments** (All acknowledgments, if exist, should be placed on a separate page after the **Works Cited** list. The names of funding organizations or people should be written in full, unambiguously.)
5. **Tables** (All tables should be sent as separate files in .docx or .xlsx format.)
  - All table files must be named with "Table" and the table number, e.g., Table 1.
  - All attached tables have to be numbered using Arabic numerals, and for each table, a table caption (title explaining the components of the table) should be provided.
  - Tables should always be lined in text in consecutive numerical order.
  - Previously published material should be identified by giving a reference to the source. The reference should be placed at the end of the table caption.
  - Footnotes to tables (for significance values and other statistical data) should be indicated by asterisks and placed beneath the table body.
6. **Photographs, pictures, clip arts, charts, and diagrams** should be numbered and sent as separate files in the .JPEG, .GIF, .TIFF or .PNG format in the highest quality. MS Office files are also acceptable, but font sizes and the size of the figure must suit the size in the published article. The quality of submitted material directly influences the quality of published work, so the MEST may require authors to submit figures of higher quality. All figure files must be named with "Fig" and the figure number, e.g., Fig. 1

**Remarks:**

- All figures can be made as colored and will be published free of charge as colored in the online publication.
- Paper version of the document will be published as the grayscale document (black-white) so authors are kindly asked to check how their contributions look printed on black-white printers.
- All lines should be at least 0.1 mm (0.3 pts) tick.
- Scanned figure should be scanned with a minimum resolution of 1200 dpi.
- For lettering, it is best to use sans serif fonts Helvetica or Arial.
- Variance of font size within an illustration should be minimal (the sizes of characters should be 2–3 mm or 8-12 pts).
- To increase clarity author(s) should avoid effects such as shading, outline letters, etc.
- Titles and captions should not be included within illustrations.

## MESTE does not provide English language support

Manuscripts that are accepted for publication will be checked by MESTE lectors for spelling and formal style. This may not be sufficient if English is not the authors' native language. In most cases, these situations require substantial editing. MEST suggests that all manuscripts are edited by a native speaker before submission. A clear and concise language will help editors and reviewers to concentrate on the scientific content of the submitted paper. Correct language may allow a faster and smoother review process.

Authors are not obliged to use a professional editing service. Also, the use of such a service is not a guarantee of acceptance for publication.



## Copyright transfer

By submitting a paper, authors, transfer the copyright of the article to the Publisher (or, authors grant the publication and dissemination rights exclusively to the Publisher). This ensures the widest possible protection and dissemination of information under copyright laws.

Under this copyright transfer authors can:

- use part of the work as a basis for a future publication
- send copies of the work to colleagues
- present the work at conference or meeting and give copies of the work to attendees
- use a different or extended version of the work for a future publication
- make copies of the work for personal use and educational use
- self-archive the work in an institutional repository
- use graphs, charts, and statistical data for a future publication
- post the work on a laboratory or institutional website
- use the work for educational use such as lecture notes or study guides
- deposit supplemental data from the work in an institutional or subject repository
- place a copy of the work on electronic reserves or use for student course-packs
- include the work in future derivative works
- make an oral presentation of the work
- include the work in a dissertation or thesis
- use the work in a compilation of works or collected works
- expand the work into a book form or book chapter
- retain patent and trademark rights of processes or procedures contained in the work

## Proofreading

After the decision that the paper will be published, the processed article will be returned to the author for approval. The aim of the approval is that the author checks if some incorrectness appeared during the processing. Also, the author checks the completeness and accuracy of the text, tables, and figures. Any change must be noted and returned to MEST. After online publication, further changes can be made only in the form of an Erratum, which will be hyperlinked to the article. All changes must be specified and returned to MEST. Any substantial change can be done only with the approval of the Editor.



## Submission Checklist

Before submitting your manuscript, please, check if you prepared all your attachments.

### Submission Checklist:

- The declaration and copyright transfer that:**
  - the submitted article is an original work and has not been published before;
  - the submitted article is not under consideration for publication anywhere else;
  - the submitted article publication has been approved by all co-authors if any; and
  - there are no legal obstacles to article publishing.
  
- Title Page**, which should include:
  - The full title of the article (no more than 12 words)
  - The name(s) of the author(s)
  - The ORCID identifier(s) of the author(s)
  - The affiliation(s), email address(es), and address(es) of the author(s)
  - The e-mail address, and telephone and/or fax numbers of the corresponding author
  - The short title (a concise and informative title, no more than 50 characters with spaces)
  - Abstract
  - Keywords
  
- Manuscript** prepared as a camera ready, but without any data that can make a connection between author and the submitted article.
  
- Acknowledgments** (if any)
  
- All tables** – Each table has to be saved as a separated .docx file and attached to the e-mail. All table files must be named with "Table\_" and the table number, e.g., Table\_1, Table\_2, etc.
  
- All figures** – Each figure has to be saved as a separated .jpg, .gif, .tif, or .png file and attached to the e-mail. All graphic files must be named with "Figure\_" and the table number, e.g., Figure\_1, Figure\_2, etc.

**If everything is checked you can send your article to us to the address:**

[mest.submissions@meste.org](mailto:mest.submissions@meste.org)

**You can also use the online submission through**

<https://www.meste.org/ojs/index.php/mest/about/submissions#onlineSubmissions>



## Review MEST- M...

**PART A:****SECTION I**

Name and surname of the reviewer	
Reviewer's ORCID (optional)	
E-Mail	
Phone (optional)	
Manuscript No.	M_...
Title	
Author / Authors	----
Sent to reviewer	
The expected date of receipt of reviews	

**PART B: *Reviewer only*****SECTION II: Comments of manuscript**

<b>General comment</b>	
Introduction	
Methodology	
Results	
Discussion	
Findings	

**SECTION II (continue)** (Click on the box next to the appropriate answer and check in one of the categories, or delete unnecessary if you are unable to check the desired box)

Bibliography / References	<b>Literature is relevant</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<b>Citation is following the requirements</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Figures	<b>Figures are appropriate</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Tables:	<b>Tables are appropriate</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>



**SECTION III**

Please rate it from one of: (1 = Excellent) (2 = Good) (3 = Correct) (4 = Poor)

Originality	
Scientific contribution	
Technical quality of the article	
Clarity of presentation	
Depth of study	

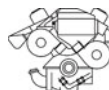
**SECTION IV – Recommendations for publication:**

(Please select one of the options with an X)

Accept the article "as it is"	
The work requires minor repairs	
The work requires small-scale changes	
The work requires large-scale changes	
The work is good but it is not for publishing in the MEST Journal. It could be published in another journal, for example (propose)	
Work has to be rejected because (please specify the particular reason)	

**SECTION V: Additional comments**

This part of the review is confidential and will be available only to editors of the MEST Journal. If you have any special comment to the editors, you can enter it here.



## Templates

The template for the MEST Journal articles preparing and submission can be found at the web address:

[https://www.meste.org/mest/documents/MEST\\_Template.docx](https://www.meste.org/mest/documents/MEST_Template.docx)

*THIS PAGE INTENTIONALLY LEFT BLANK*

*THIS PAGE INTENTIONALLY LEFT BLANK*

**4D414E4147454D454E54**

**454455434154494F4E**

**534349454E4345**

**544543484E4F4C4F47**

**45434F4E4F4D494353**



**ISSN 2334-7058 (Online)**  
**DOI 10.12709/issn.2334-7058**