

**Ministry of Education and Science of Ukraine
Sumy State University
Kaunas University of Technology, School of Economics and
Business
University of Bradford, School of Management
Riga Technical University
Czech University of Life Sciences Prague
University of New Brunswick
International Centre for Enterprise and Sustainable**



"ECONOMICS FOR ECOLOGY"

*("EU practices of education for sustainable
development")*

*Materials
International scientific-practical conference
(Ukraine, Sumy, May14–17, 2024)*

*Sumy
Sumy State University
2024*

УДК: 330.15:502/504

Авторський знак: S70

The conference is held within the Jean Monnet Modules “Fostering EU Practices of Education for Sustainable Development through the Brand Language: Interdisciplinary Studies” (101085708-ESDbrandEU-ERASMUS-JMO-2022-HEI-TCH-RSCH), Jean Monnet Module “Youth and Business: EU Practices for Cooperation” (101126538 — YouthBEU — ERASMUS-JMO-2023-HEI-TCH-RSCH) (2023-2026) and “Disruptive technologies for sustainable development in conditions of Industries 4.0 and 5.0: the EU Experience (101083435 — DTSDI — ERASMUS-JMO-2022-HEI-TCH-RSCH)”



Co-funded by
the European Union

Editor-in-Chief Prof., Dr. Oleksandra Karitseva, head of the economics, entrepreneurship and business administration, Sumy State University

Approved by the Academic Council of SSI BIEM of Sumy State University
(protocol №2, 5 September 2024)

Economics for Ecology : Proceedings of the International Scientific and Practical Conference, Sumy, May 14–17, 2024 / edited by Karitseva Oleksandra and Kubatko Oleksandr . – Sumy : Sumy State University, 2024 – 103 p. (*electronic edition*)

For scientists, scientists, students, graduate students, representatives of business and public organizations and higher education institutions and a wide range of readers.

TABLE OF CONTENTS

| | | |
|--|--|----|
| <i>Yevhen Mishenin, Inessa Yarova</i> | FACILITATION IN THE MANAGEMENT OF SUSTAINABLE SPATIAL DEVELOPMENT OF FORESTRY | 6 |
| <i>Yevhen Mishenin, Inessa Yarova</i> | ENVIRONMENTAL TAXATION IN THE SYSTEM OF SOCIO-ECOLOGICAL AND ECONOMIC SECURITY | 8 |
| <i>Konoplenko Andrii</i> | ANALYSIS OF THE IT OUTSOURCING MARKET: TRENDS AND FORECASTS | 11 |
| <i>Wenyan Liu</i> | A CITATION AND PUBLICATION PERFORMANCE ANALYSIS ON INNOVATION, BUSINESS AND DIGITALISATION | 13 |
| <i>Vladyslav Piven, Oleksadra Karintseva</i> | THE IMPACT OF DEMOCRACY ON SUSTAINABLE DEVELOPMENT: A CASE OF THE EU | 15 |
| <i>Raminta Vaitiekuniene, Kristina Sutiene, Rytis Krusinskas, Bohdan Kovalov</i> | FINANCIAL AND INNOVATION PERFORMANCE OF THE COMPANIES IN THE CONTEXT OF GREEN DEAL TARGETS | 17 |
| <i>Artem Borukha, Oleksandr Kubatko</i> | DISRUPTIVE TECHNOLOGIES TO ENSURE ECONOMIC AND RESOURCE SECURITY OF UKRAINE | 21 |
| <i>Iryna Burlakova, Anastasiya Kuzchenko, Zumrut Alic</i> | THEORETICAL AND INSTITUTIONAL FOUNDATIONS OF SOCIAL SOLIDARITY ECONOMY | 23 |
| <i>Chang Shengchun</i> | THE IMPACT OF THE DIGITAL ECONOMY ON CARBON REDUCTION POTENTIAL | 25 |
| <i>Mykhailo Chortok</i> | THE ROLE OF SOCIAL SOLIDARITY ECONOMY FOR SUSTAINABLE DEVELOPMENT ESTABLISHING | 29 |
| <i>Yuliia Chortok, Solodovnyk O.</i> | FAIR-TRADE AS A TREND FOR SOCIAL SOLIDARITY ECONOMY DEVELOPMENT | 31 |
| <i>Du Shutong</i> | ESG POLICY IN BANKING AND FINANCES SECTOR: CASES OF EUROPEAN COMPANIES | 33 |
| <i>Gawel Solowski</i> | MICROBIAL HYDROGEN PRODUCTION'S RECENT ACHIEVEMENTS | 35 |
| <i>Inna Koblianska</i> | TOWARDS PROACTIVE POLICY: A FRAMEWORK FOR SAFE AND SUSTAINABLE FERTILISER MANAGEMENT | 42 |

| | | |
|--|--|----|
| <i>Yuliia Lukianova</i> | PACKAGE LABELING AND SUSTAINABLE DEVELOPMENT | 45 |
| <i>Helena E. Myeya</i> | STAKEHOLDERS' ROLE IN IMPROVING SMALLHOLDER FARMERS' RESILIENCE TO CLIMATE CHANGE EFFECTS IN CENTRAL, TANZANIA | 49 |
| <i>Anna Shcherbak,</i> <i>Olena Nazarenko</i> | PROJECT-BASED LEARNING AS A METHOD OF FOREIGN LANGUAGE TEACHING | 53 |
| <i>Iryna Sotnyk,</i> <i>Maryna Nikulina</i> | STRATEGIC MANAGEMENT IN SMALL IT BUSINESS SECTOR | 55 |
| <i>Oleksandra Pavliv</i> | VIRTUAL EXCHANGE PRACTICE AS A PROCESS OF DEVELOPING SOCIOCULTURAL COMPETENCE | 57 |
| <i>Vladyslav Piven,</i> <i>Oleksandr Kubatko</i> | ECONOMIC GROWTH AND SUSTAINABLE DEVELOPMENT: THEORETICAL ANALYSIS OF KEY FACTORS | 59 |
| <i>Tetyana Sakhnenko,</i> <i>Viacheslav</i> <i>Voronenko</i> | STIMULATING BIOGAS PRODUCTION: ECONOMIC JUSTIFICATION | 61 |
| <i>Iryna Sotnyk</i> | DEVELOPMENT OF REMOTE EMPLOYMENT AS A RESPONSE TO MODERN SOCIAL CHALLENGES IN UKRAINE | 64 |
| <i>Iryna Sotnyk,</i> <i>Jan-Philipp Sasse,</i> <i>Evelina Trutnevyte</i> | SHAPING THE DECARBONIZED FUTURE OF THE ELECTRICITY INDUSTRY IN UKRAINE | 66 |
| <i>Iryna Sotnyk,</i> <i>Tetiana Kurbatova</i> | COST-EFFICIENT AND GREEN: TRANSFORMING HOUSEHOLD HEATING IN UKRAINE FOR A SUSTAINABLE FUTURE | 70 |
| <i>Iryna Ushchapovska</i> | FROM THE LANGUAGE THAT SUSTAINS TO THE LANGUAGE OF SUSTAINABLE DEVELOPMENT | 73 |
| <i>Vnuchkova</i> <i>Viktoriia,</i> <i>Chulanova Halyna</i> | GAMIFYING SUSTAINABILITY EDUCATION FOR CULTURALLY DIVERSE CLASSROOMS | 76 |
| <i>Wang Fujin</i> | KEY ELEMENTS OF SUCCESSFUL ESG POLICY: EUROPEAN EXPERIENCE | 79 |
| <i>Wang Yimeng</i> | THE IMPACT OF DIGITAL ECONOMY ON THE EFFICIENCY OF GREEN TRANSFORMATION IN CHINESE CITIES | 81 |
| <i>Kostiantyn</i> <i>Zavrachnyi,</i> <i>Anzhelika Kulyk</i> | HARNESSING GENERATIVE ARTIFICIAL INTELLIGENCE FOR SUSTAINABLE BUSINESS TRANSFORMATION | 84 |

| | | |
|--|--|----|
| <i>Amina Gura, Oleksandra Kubatko</i> | FUNCTIONING OF THE ENTERPRISE IN THE CONDITIONS OF WAR: SOCIO-ECONOMIC, ENERGY AND ENVIRONMENTAL CONSEQUENCES | 87 |
| <i>Ding Lin, Oleksandra Kubatko</i> | ECONOMIC, ECOLOGICAL AND RENEWABLE ENERGY ASPECTS OF PETROCHINA COMPANY ACTIVITY | 90 |
| <i>Tetyana Sakhnenko, Oleksandr Ponomarenko, Oleksandr Kubatko</i> | RESTRUCTURING OF ECONOMIC SYSTEMS IN THE DIRECTION OF ENSURING SUSTAINABLE DEVELOPMENT | 94 |
| <i>Jerzy Gilarowski</i> | TOURISM AS A WAY OF DEVELOPMENT AND INTEGRATION OF SUB-SAHARAN AFRICA | 96 |
| <i>Ponomarenko Ihor</i> | ECOLOGICAL TRANSFORMATION: CURRENT TRENDS IN THE IMPLEMENTATION OF GREEN TECHNOLOGIES | 98 |

PACKAGE LABELING AND SUSTAINABLE DEVELOPMENT

*Yuliia Lukianova, PhD student,
Sumy State University, Ukraine*

The challenge and imperative of sustainable development lie in the fact that even now humanity, by much overspending and without limiting the use of natural resources, can cause irreparable damage to the global system. Humanity has only two paths: a) sustainable development, in which national governments successfully cope with the task of effective resource management; b) unstable, unsustainable development, which inevitably leads to both national and global catastrophe.

Transitioning from these environmental concerns, it's clear that language plays a pivotal role in addressing sustainability challenges. As Ploof (2016) and Ezeh (2020) suggest, language – whether it is indigenous, universal, or politicized – can profoundly influence global sustainability initiatives. It achieves this by connecting with individuals on factual and emotional levels, molding personal and community convictions regarding sustainable ecological practices.

Without language, the concept of the Sustainable Development Goals (SDGs) would be inconceivable, highlighting its crucial role in conceptualizing and achieving these goals. Language experts contend that development is impossible without language, underscoring its importance in carrying out SDGs.

Words, like individual species, or elements, are essential to the composition and conservation of the world's endangered ecological niches and, equally important. The language, be it indigenous universal, or politicized, can effectively shape the future of global sustainability by engaging audiences on both factual and emotional levels.

Language is the foundation of sustainable economic development. Language is the basis of the skills, communication, and participation through which populations can play an active role in socio-economic development (Cheffy, Djité, and Mufwene) [2].

Language is essential in developing a sense of place and must be utilized effectively to foster sustainable choices' widespread appeal. Much like people “defend what they love,” human nature tends to resist change unless that change is directly beneficial or otherwise wholly attractive to it. Sustainability has, until recently, carried the unattractive stigma of compromise. Recycled and eco-friendly products are frequently less comfortable, ineffective, and expensive [5].

"Packaging" means a process or method used to protect goods, facilitate their preservation, transport, sale, and provide information to consumers. In a scientific context, packaging research often focuses on developing more sustainable or innovative solutions to reduce environmental impact, improve product biosafety, and optimize logistics and storage.

The connection between sustainable development and packaging is quite close, as the choice of packaging materials and their processing methods affects the

ecological footprint of products. Here are a few ways packaging can contribute to sustainability:

1. Use of sustainable materials: By choosing biodegradable or renewable materials for packaging, such as paper, cardboard, or plant-based plastics, companies can reduce their negative impact on the environment.

2. Minimizing the use of materials: Developing packaging that requires fewer materials without losing the effectiveness of protecting the product helps reduce waste and energy costs in production.

3. Improving the recycling of packaging: Designing packaging that can be easily disassembled into recyclable or reusable components supports the circular economy.

4. Innovation in packaging: Development of new packaging technologies that reduce environmental impact or improve packaging efficiency, for example through the use of smart packaging that can monitor product freshness and reduce food waste

5. Communication with the consumer: Offering information on packaging about proper disposal methods or its environmental advantages can educate consumers to be more responsible and conscious of sustainable consumption. These methods lessen the adverse effects of packaging on the environment and engage consumers in sustainable development through their daily decisions.

Business owners must commit to running their operations sustainably – powering stores and factories with renewable energy, using sustainably harvested raw materials, etc. – to provide consumers with “beautiful, functional, affordable, sustainable products” that enhance, rather than compromise efficiency [3]. Using language to change consumers' perspectives is crucial to maximize the impact of these business shifts. Sustainable products alone will be ineffective if people do not feel enticed or compelled to purchase them.

Studying the system of social values reflected on the packaging, it is possible to highlight the following components: health as a value, safety as a value, ecological values, social values, and geographical values.

Thanks to its exceptionally well-argued and informative potential of packaging, it has become the number of marketing element communication, therefore it has become the task of specialists in various fields identification, classify, and analyze the main indicators and elements of packaging, among which product labeling has a special place [4].

Labeling is a text, conventional designations (pictures) that are applied to the packaging and goods, as well as other auxiliary means that are intended for identifying the goods (its individual properties), proving information (about the manufacturer (executor), quantitative/ product quality characteristics, etc.) to the consumer [6].

Text as a form of written information is the most common element of production and trademarking. It signifies a high level of accessibility to product information for all market participants. The text can do all the basic labeling

functions, but to the greatest extent inherent to it, it is informative and identifying. In a text element, all forms of written information can be used for labeling: letter, digital, and verbal.

Sustainable labeling is the procedure of using informative labels on products that provide data on the environmental, social, and economic impact of products throughout their life cycle. This labeling allows consumers to make more informed choices based on sustainable development criteria. It may include information on resource use, greenhouse gas emissions, material disposal, and corporate social responsibility. Sustainable labeling can encourage producers to adopt more environmentally friendly and socially responsible practices.

Sustainability labeling is important because it helps consumers make more responsible choices. Here are some key aspects to look out for:

1. Sources of Ingredients: Labeling that indicates sustainable or organic sources of supplement ingredients can certify that they were produced without harming the environment. For instance, vitamins are made with organic plant extracts or derived from sustainably pure sources.

2. Certification and production responsibility: Certified labeling, for example, according to USDA Organic (for products grown in the USA) or EU Organic (for products grown in Europe) standards, ensures that products are produced using methods that support the ecosystem and reduce chemical load.

3. Packaging and its disposal: Labeling that indicates environmentally friendly or recyclable packaging is crucial for consumers who want to minimize their environmental impact.

Using packaging that is easily recycled or biodegradable contributes to the circular economy.

4. Production transparency: Clear labeling demonstrating where and how vitamins were produced helps consumers make informed choices. Labels indicating the ethical sourcing of ingredients, or the execution of eco-friendly production techniques can sway consumer choices. A key aspect of all these practices is raising consumer awareness and encouraging them to make more sustainable lifestyle choices.

Sustainability has become one of the main business and society topics. Translating sustainable principles into real behavior requires integrating them into society and business ideology as a core value. It takes time, investment, and consistency in all stages. A sustainable labeling management perspective is an effective approach that can bring sustainability to life and provide multiple benefits for consumers and companies.

The labeling communicates with its audience with the help of language – a set of verbal and non-verbal tools. Sustainable labeling is labeling that undertakes sustainable practices in the working of businesses and champions them. They use label communication tools to convey these benefits to their end consumer, enabling them to make conscious decisions while being associated with or buying from

those goods. Sustainable labeling, an emotionally influential communication tool, is powerful in achieving sustainable development goals.

References

1. Ezeh N. G. The role of language in achieving the world's sustainable development goals (SDGs). *European Journal of English Language and Literature Studies*, 2020. Vol.8, No.6, P.53-61.

2. Harding-Esch P. Languages and the Sustainable Development Goals after Covid-19. *Language and the Sustainable Development Goals: Selected proceedings of the 12th Language and Development Conference*, Dakar, Senegal. 2017. P. 7-15.

3. Howard, S. "Let's go all-in on selling sustainability." TED Talks. TEDGlobal. Jun 2013. Web. 10 Dec 2015.

4. Lukianova Yu. M. Markuvannia tovaru yak linhvistychnyi fenomen / nauk. ker. I. V. Ushchapovska // Chornomorski naukovi studii: materialy VIII Vseukrainskoi multydystrylinarnoi konferentsii, m. Odesa, 24 chervnia 2022 roku. Odesa: Mizhnarodnyi humanitarnyi universytet, 2022. S.198-202. (In Ukrainian)

5. Ploof M. The Language of Sustainability. *Student Showcase*. 17. 2016. URL: https://scholarworks.umass.edu/sustainableumass_studentshowcase/17

6. Zaverbnyj A. S., Krykavskyy Ye. Problemy ta potentsiini mozhlyvosti RFID-markuvannia tovariv yak zasobu identyfikuvannia za umov yevrointehratsii URL: <https://zenodo.org/records/3678870> (In Ukrainian)