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**ENVIRONMENTALISM AND ECONOMIC DEVELOPMENT:  
THE INTERCONNECTION PROBLEMS**

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**Abstract**

**Introduction.** *Modern world development is being influenced by global processes, which reflect the specifics and directions of its functioning. First and foremost, it is a matter of interconnecting the interests of the world community to achieve common goals of economic, political, environmental, social, and cultural development. The discrepancy between the system of economic activity and the ecological capabilities of the world requires justification of such implementation directions on a global scale, which would take into account the need to ensure the rational development of the ecological component of this process.*

*The current crisis is the result of modern industrial civilization, which, unfortunately, does not guarantee humanity a decent eco-future and the prospect of self-preservation of the ecosystem and reproduction of resources, taking into account the needs of future generations in a planetary dimension.*

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**Purpose.** *This research was conducted to investigate and identify the relationship between 'greening' and economic development. The article traces the dependence of the Gini index on the Environmental Performance Index. It is proved that the natural environment not only influences, but is crucial for social life.*

**Methods.** *Research methods that examine and investigate the problem of environmentalism and economic development are an analysis of their relationship; comparison to describe the Gini coefficient and income inequality; statistical for the calculation of the interdependence between EPI and NIGI.*

**Results.** *The results show that the lower the Environmental Performance Index is, the worse the situation is in the areas such as economic, environmental, social and others. Consequently, globalization has a statistically significant impact on economic growth. High- and middle-income countries benefit from globalization, while low-income countries do not.*

**Discussion.** *In fact, countries must receive an adequate level of income to benefit from globalization and ecologization. Globalization processes are making adjustments to global economic growth and, accordingly, to global economic development. Not only does globalization directly contribute to economic growth, but it also indirectly does so through various additional reforms.*

Keywords: *environmentalism, economic development, wealth distribution, income sharing, income inequality, Gini coefficient, Environmental Performance Index.*

**Formulas: 0, fig.: 1, tabl.: 3, bibl.: 12.**

**Problem formulation.** Environmental changes since the very beginning of humanity have had a direct impact on it. As a result of temperature fluctuations, people have changed their lifestyles, migrated, and made great adjustments to their collective and individual behavior. Until recently, special attention has not been paid to global variables. However, today the environmental changes have led to tremendous transformations in the global world.

**Analysis of recent research and publications.** The problems of the relationship between environmentalism and economic development have been explored by the following scholars: Tim Everett, Mallika Ishwaran, Gian Paolo Ansaloni and Alex Rubin. Parisa Samimi and Hashem Salarzadeh Jenatabadi investigated the effect of economic globalization on economic growth in OIC countries. Luca Ventura justified wealth distribution and income inequality.

**Setting objectives.** The aim of the research is to analyse the relationship between the Net Income Gini Index and Environmental Performance Index, to identify the impact of one variable relative to another, and to calculate correlation-regression analysis between these variables.

**Presenting the main material.** Choosing own development strategy, humanity, under the influence of a variety of factors, has changed life values, so gradually the need to take action to protect them has become increasingly important. Due to the uncertainty of how global environmental systems actually work, humanity is confronted with circumstances that are different from modern ones and may have different values for each individual in the future. Today, it is difficult to predict what the impact of environmentalism will be on current

global trends. To project or predict the effects of human global changes, at some point or in the remote perspective, you need to know at least the following:

- what will be the future state of the environmental environment;
- what will be the future socio-economic life;
- what will be the values inherent in members of future social groups;
- what will be the immediate results of global change in these values;
- what will be the answers to any expected global changes or responses to current global changes.

These elements form a dynamic, interactive system of the entire environment. However, there is still no clear and reliable answer to these questions.

For decades or centuries, human society has adapted to and directly influenced changes in the environment. Human values have changed over the years and, as a rule, have adapted to people's behavior and actions. Through their actions, humanity influenced world trends and made adjustments to global transformations, [1].

However, the man is unable to realize his individual potential and human rights in isolation because it requires favorable social conditions. These positions are derived from many international statements, including the Universal Declaration of Human Rights and the International Declaration of the Rights of the Child. Other international conferences and statements of particular relevance to this policy include:

- World Summit for Children – 1990;
- Conference on Environment and Development – Rio de Janeiro, 1992;
- Convention on Climate Change – Rio de Janeiro, 1992;
- World Conference on Human Rights – Vienna, 1993;
- International Conference on Population and Development – Cairo, 1994;
- Declaration on Social Development – Copenhagen 1995, Geneva 2000;
- Climate Change Protocol – Kyoto, 1997;
- World Conference Against Racism, Racial Discrimination, Xenophobia and Related Intolerance – Durban, 2001;
- World Summit on Sustainable Development – Johannesburg, 2002.

These are universal rights and basic elements of social policy codes of ethics. Poverty, social exclusion, alienation, pollution and violent conflicts undermine the ability to maximize human rights and are an insult to human dignity. They limit the life chances of those living in poverty and hinder their opportunities for personal realization.

However, despite the provisions of Article 25 of the Universal Declaration of Human Rights, which states that everyone is entitled to a decent standard of living for their health and well-being, the gap between rich and poor continues to widen worldwide. It is stepping up, economic and social injustice is increasing, environmental problems are worsening, and violent conflicts are continuing, [2].

Throughout the global environment, changes in weather and land use have a direct impact on people and communities. Economic events on one continent cause simultaneous transformational changes on the other. Conflicts in one region can provoke actions and responses in the other side of the world that are sometimes observed simultaneously around the world. The degradation changes in the global environment have significant

social and economic effects and negative consequences. Such transformations affect the ability of people and communities to reach their full potential.

Improvements in living and economic conditions are seen as fundamental to maintaining social stability, order, peace and prosperity. Social protection of the population is an important component of social harmony formation and integration. Over the last 20 years, we have seen a number of such positive changes, as there has been a rapid expansion of world trade called “globalization of trade”, made possible by the success achieved in the field of transport, technology and electronic information transmission.

People live and develop their potential in social groups and increasingly find themselves in a globalized world with economic, social and cultural influences on them.

The phenomenon of globalization began in a primitive form, when people first settled in different regions of the world. However, in recent times, this process has been steadily and rapidly progressing and is gaining international momentum on all five continents. Globalization is forcing us to adapt to different strategies, drawing on new ideological trends that seek to balance the rights and interests of both the individual and the community as a whole. The broad impact of globalization on various aspects of life has attracted great attention over the last three decades. Countries, especially developing ones, have been expanding their economic openness in recent years. Globalization impacts are exacerbated: poverty, inequality, the environment, cultural dominance, economic growth. That is, developing countries face the opportunities and risks of globalization. Globalization processes make adjustments to global economic growth and, accordingly, to global economic development. However, the world needs economic growth to meet the needs of the population with sufficient resources,[3].

Globalization has a statistically significant impact on economic growth. The positive effect is increasing in countries with more educated employees and well-developed financial systems. The impact of economic globalization also depends on countries' income levels. High- and middle-income countries benefit from globalization, while low-income countries experience adverse effect. In fact, countries must receive an adequate level of income to benefit from globalization. Not only is economic globalization conducive to growth, but it also indirectly does so through additional reforms.

Recently, researchers have argued that the effect of globalization on economic growth depends on the economic structure of countries in the process of globalization. The impact of globalization on the economic growth of countries can also be altered by a set of complementary actions such as improving human capital and the financial system. In fact, globalization alone does not increase or diminish economic growth. The impact of additional actions is very important as it helps countries succeed in the globalization process, [4].

It is widely recognized that the environment not only influences, but is crucial to social life now and will be in future. A harmonious social environment is impossible without a sustainable natural environment. Rapid global changes in the environment are complex and have a significant impact on the planet as a whole. Environmental degradation requires effective multilateral co-operation and policy measures that need to be addressed to all of the humanity. Lack of political and social power, limited access to economic alternatives intensify human impact on changes in the environment.

Structural impoverishment, environmental degradation, pauperization and social and economic injustice contradict basic human universal values and are not economically justified, ignore the interdependence between different sectors of society at national and international levels. The most important goal of human rights is to support and secure a stable environment, the right to work, the right to housing, food, clothing and medical care, the right to education, civil and political law and the right to protection under the law.

One of the many indicators that shows economic development of countries is the Gini coefficient. It measures the distance (difference) between the richest and poorest sections of the population. The higher the ratio, the deeper the gap – in other words, 1% indicates full income equality in all population groups, and 100% indicates that all income in the country belongs to one person. Thus, developing countries are characterized by more inequality than developed ones. The smallest difference in income is noticeable in the Scandinavian countries, where the Gini coefficient is about 29.3% (in Switzerland, for example). In countries with the highest inequality – South Africa 57.7%, Republic of Seychelles – this index is approximately 65.8% [5].

Among the 28 EU member states, Slovenia had the lowest value in 2018 – 25.90% and the highest – Latvia – 36.3%. The strange situation is with Ukraine with its Gini coefficient equal to 26.3% (especially taking into account the fact that in the last decades, inequality in the world has only grown), [6].

According to the World Economic Forum Index (WEFI), income inequality has increased or remained unchanged in 20 of the 29 developed countries, while the poverty rate has increased 17 times. Income inequality has grown faster in North America, China, India than anywhere else, according to the Global Inequality Report 2018, created by the World Inequality Lab, Research Center of the Paris School of Economics, [7].

According to a study by the International Monetary Fund, it was found that “if the share of income in the top 20 % (rich) increases, then GDP growth actually declines in the medium term, indicating that the benefits are not increasing”, and the “increase” in the share of income below 20 % (poor) is associated with GDP growth, [8].

Today, the Gini coefficient remains one of the most common tools for determining the economic gap in the richest and poorest sections of the country's population. The World Economic Forum (WEF) has collected data from the World Bank, the Organization for Economic Co-operation and Development and other sources, as well as indicators for the creation of the Inclusive Development Index 2018, which reflects the gap between rich and poor. We present the above indexes in table 1.

The idea that more wealth for some people will lead to more wealth for everyone is deeply rooted. But today, the data shows that the gap between the richest and the poorest has never been so large, [9].

Table 1

**Income sharing and income inequality by country in 2018**

Country	Net Income Gini Index	Wealth Gini Index	GDPper capita (USD)	Employment Rate (%)	Median Daily Income (USD PPP)	PovertyRate (%)	Life Expectancy (Years)
Ukraine	26.30	90.10	2,906	53.90	10.20	0.50	64.10
Bulgaria	33.90	52.90	7,929	49.80	15.30	3.80	66.40
Poland	32.10	71.70	15,049	53.20	20.50	0.30	68.70
Georgia	40.50	66.80	4,080	59.60	5.10	25.30	66.40
Latvia	36.30	53.60	14,715	54.50	25.20	0.90	67.10
Slovenia	25.90	55.10	24,387	52.30	30.90	9.40	71.10
Czech Republic	25.60	64.80	21,707	57.00	24.30	5.90	69.40
Mali	32.30	64.50	743	61.00	2.00	79.00	51.10
Zimbabwe	39.80	73.00	909	78.30	3.40	47.20	52.10
Cambodia	36.60	70.00	1,078	80.70	N/A	N/A	58.10
Mozambique	39.90	71.10	515	59.80	1.40	88.50	49.60
Uruguay	37.00	63.90	14,010	60.10	19.50	1.40	67.90
Namibia	55.00	91.00	6,021	44.50	3.50	47.00	57.50
Nigeria	39.00	69.50	2,458	53.60	1.80	77.60	47.70
Rwanda	44.30	73.00	739	82.70	1.60	81.50	56.6
South Africa	57.70	86.70	7,504	39.50	4.70	35.90	54.40
Canada	31.20	73.50	50232	60.80	49.20	12.60	72.30
Finland	25.60	76.70	45,709	53.00	43.50	6.30	71.00
Germany	29.00	79.10	45,552	57.70	45.30	9.50	71.30
Italy	33.30	66.00	34,284	42.70	34.30	13.70	72.80
Japan	29.90	60.90	47,608	57.20	34.80	16.10	74.90
Sweden	25.70	83.40	56,319	59.90	48.30	8.00	72.00
Switzerland	29.30	69.40	75,726	65.40	55.60	7.80	73.10
United Kingdom	32.80	73.50	41,603	59.60	39.40	10.90	71.40
United States	37.80	85.90	52,195	58.90	48.90	16.80	69.10

Source: [7]

Equally important for analysis is the comparative analysis between Net Income Gini Index (NIGI) and Environmental performance index (EPI).

The initial parameters for calculating the linear regression model are shown in Table 2.

Table 2

**Regression for the dependent variable**

Regression summary for dependent variable: EPI R= 0,55551197 R=0,30859355  
Adjusted R= 0,27853240 F(1,23)=10,266 p

	b*	Std.Err. - of b*	b	Std.Err. - of b	t(23)	p-value
Intercept			96,62766	10,64161	9,08017	0,000000
NIGI	-0,555512	0,173382	-0,94424	0,29471	-3,20399	0,003941

Source: made by authors

Data shows that according to the formula  $EP=a-bNIGI$ ,  $EP = 96, 62766-0.94424 NIGI$ , the significance factor is 1%. In Table 3, we present the initial parameters for analyzing the relationship between these values.

Table 3

**Parameters of a one-factor linear regression model**

Marked correlations are significant at $p < ,05000$ N=25 (Casewise deletion of missing data)		
	NIGI	EPI
NIGI	1,000000	-0,555512
EPI	-0,555512	1,000000

Source: made by authors

Regression coefficient is  $R = - 0,555512$ . This indicates that a 1% increase of NIGI results a decrease of EPI in 0.94424%.

In Fig. 1. we present a dendrogram by NetIncomeGiniIndex and Environmental-performanceindex.

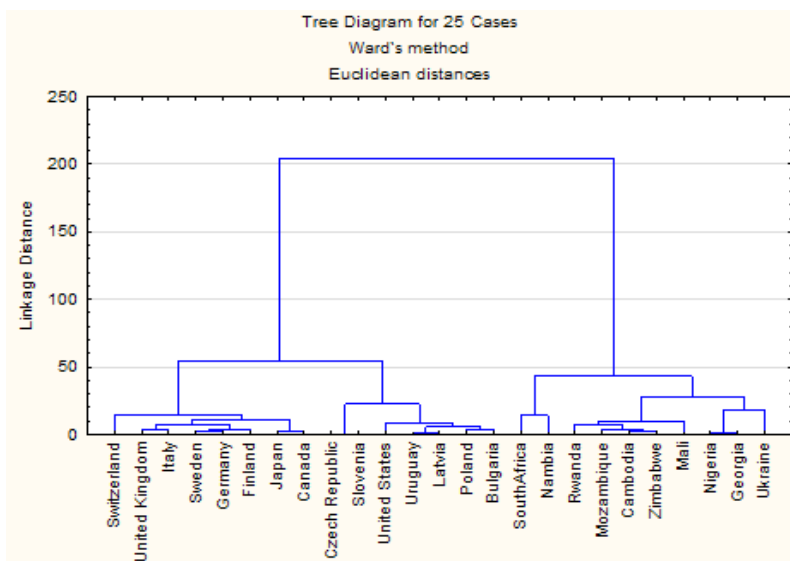


Fig. 1 Dendrogram of hierarchical agglomerative cluster analysis of countries by Net Income Gini Index and Environmental Performance Index

Source: made by authors

Conclusions. The human mind, ingenuity and activity have changed almost every part of our planet. In fact, we are deeply influenced by everything around us. Indeed, our ingenuity and activity are now the driving force behind all the global transformations and challenges we face. And each of these problems is accelerating, with rapid population growth. In fact, we can call the situation in which we now find ourselves as an unprecedented planetary emergency.

We have come to the point where such “events” are taking place that shape civilization and society, in particular the agricultural revolution, the scientific revolution, the industrial revolution and, in the West, the health revolution, [10].

There are some simple things that people can do every day to minimize their negative impact on the environment. For example, not using public transportation but cycling or walking will reduce carbon dioxide emissions. Reducing the amount of fertilizer applied to lawns and gardens will reduce the likelihood of contamination near water bodies, which is also beneficial for drinking water and human health. Using less energy in a house can reduce the amount of pollution emitted by coal-fired power plants. Any activity that reduces water and energy consumption can have a positive impact on the environment, [11].

The only solution we have left to make is to change our behavior radically and globally at every level. In short, we urgently need to consume less, much less, radically less. And we need to save more, much more. And such radical behavioral changes also require radical government action, [12].

Many scientists refer to the present period of the geological period as the “epoch of the anthropocentric”, which means “the new period of man”.

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**ЕКОЛОГІЗАЦІЯ ТА ЕКОНОМІЧНИЙ РОЗВИТОК: ПРОБЛЕМИ ВЗАЄМОЗВ'ЯЗКУ**

Карп І., Вірковська А. Екологізація та економічний розвиток: проблеми взаємозв'язку. *Вісник Тернопільський національного економічного університету*. 2019. Вип. 4. С. 19–28. DOI: <https://doi.org/10.35774/visnyk2019.04.019>

**Анотація**

**Вступ.** Сучасний світовий розвиток здійснюється під впливом процесів глобального характеру, які відображають специфіку та напрями його функціонування. Передусім, мова йде про взаємне переплетення інтересів світової спільноти для досягнення спільних цілей економічного, політичного, екологічного, соціального, культурного розвитку. Невідповідність системи господарської діяльності та екологічних можливостей світового простору вимагає обґрунтування таких напрямів реалізації у світових масштабах, які б враховували необхідність забезпечення раціонального розвитку екологічної складової цього процесу. Сучасна кризова ситуація впливає із сучасної індустріальної цивілізації, яка, на жаль, не гарантує людству гідне еко-майбутнє та перспективу самозбереження екосистеми й відтворення ресурсів з урахуванням потреб прийдешніх поколінь у планетарному вимірі.

**Мета.** Дане дослідження проводилося з метою вивчення та визначення взаємозв'язку між екологізацією та економічним розвитком. У статті простежено залежність індексу Джині від індексу екологічної ефективності. Доведено, що енвайронментальне середовище не тільки впливає, на суспільне життя але і має вирішальне значення.

**Методи.** Методами дослідження, які використані для вивчення проблему енвайронменталізму та економічного розвитку є: аналіз їх взаємозв'язку; порівняння – для опису коефіцієнта Джині та нерівності у доходах; статистичний для розрахунків взаємозалежності між EPI та NIGI.

**Результати.** Результати показують, що чим нижчий показник екологічної ефективності, тим гірша ситуація спостерігається у таких сферах, як: економічна, екологічна, соціальна та інші. В свою чергу і глобалізація має статистично значущий вплив на економічне зростання. Країни з високим і середнім рівнем доходу отримують вигоду від глобалізації, тоді як країни з низьким рівнем такої вигоди не отримують.

Існують кілька простих речей, які люди можуть робити щодня, щоб мінімізувати свій негативний вплив на енвайронментальне середовище. Наприклад, якщо не використовувати громадський транспорт, а їздити на велосипеді або ходити пішки, це зменшить викиди двоокису вуглецю. Скорочення кількості добрив, що застосовується до газонів, садів зменшить ймовірність забруднення поблизу водойм, що також є корисним для питної води та здоров'я людей. Використання меншої енергії у домі може зменшити кількість забруднення викинутого в атмосферу вугільними електростанціями. Будь-яка діяльність, яка зменшує споживання води та енергії, може призвести до позитивного впливу на енвайронментальне середовище.

**Перспективи.** Глобалізаційні процеси вносять корективи у глобальне економічне зростання, і, відповідно й у глобальний економічний розвиток. Людський розум, людська винахідливість та людська діяльність змінюють майже кожну частину нашої планети. Ми можемо назвати теперішню ситуацію, в якій знаходимося, як безпрецедентну планетарну надзвичайну ситуацію.

Єдине рішення, що залишилося нам виконати, полягає в тому, щоб змінити нашу поведінку радикально і глобально, на кожному рівні. Одним словом, нам терміново потрібно споживати менше. Набагато менше. Радикально менше. І нам потрібно більше заощаджувати. Набагато більше. І для здійснення таких радикальних змін у поведінці також потрібні радикальні дії уряду.

З огляду на ці основи буде здійснюватися подальше наукове дослідження, яке стосуватиметься оптимізаційних напрямків зменшення негативного впливу на енвайронментальне середовище й покращення економічного розвитку країн у світових масштабах.

Ключові слова: енвайронментальне середовище, екологізація, економічний розвиток, розподіл багатства, розподіл доходів, нерівність доходів, індекс Джині, індекс екологічної ефективності.

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