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## Sustainable Development and the Problems of Rural Poverty and Social Exclusion in the EU Countries

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**Abstract:**

**Purpose:** The article discusses the risk of poverty and social exclusion of rural residents in the context of sustainable rural development. Poverty is a social phenomenon that affects all socioeconomic groups; however, rural residents are impacted by this issue more than their urban counterparts. Rural areas are important because they constitute a large part of the European Union (80-95% of the area, depending on the member country) and almost a quarter of the population live there. The aim of the paper is to identify the level of poverty and social exclusion in rural areas of the EU and selected aspiring and EU-related countries.

**Design/Methodology/Approach:** The empirical data in the article come from the EU-SILC (the European Union Statistics on Income and Living Conditions). To realize the abovementioned goal, a multidimensional analysis of correspondence was used.

**Findings:** The Central, Eastern and Southern European countries are at much higher risk of poverty or social exclusion than Western Europe. The study showed that one in four rural residents in the EU were at risk of poverty or social exclusion, and one in five were at risk of poverty.

**Practical Implications:** Determining the proportion of people deprived of the possibility of satisfying their needs at a specific level is a voice in the discussion on further actions that should be undertaken to increase social cohesion and meet the expectations of contemporary sustainable development.

**Originality/value:** The poverty is not a one-dimension phenomenon. It involves many aspects of the everyday life, as proven by the material deprivation rate (also severe material deprivation rate) and the risk of poverty or social exclusion. The authors emphasize that there is a need to modify this indicator.

**Keywords:** Sustainable development, rural areas, poverty risk, social exclusion, European Union.

**JEL classification:** I32, P46, Q01.

**Paper Type:** Research study.

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## 1. Introduction

The concept of sustainable development was not used then, between 1975 and 1995 the European Economic Community introduced numerous projects and pilot programmes to increase social cohesion. However, these measures were not sufficiently effective. As some social groups (children, women, the disabled, rural inhabitants, the working poor) were pauperized in the 1990s, it was necessary to find and apply new solutions to reduce this problem. According to the Maastricht Treaty and the Treaty of Amsterdam, the fight against poverty and social exclusion was an objective of the European Union (Official Journal 2004 No. 90, Item 864/30, as amended). These issues turned out to be so important in the subsequent years that the Council of the European Union and the European Parliament announced 2010 as the European Year for Combating Poverty and Social Exclusion. In the same year, the European Union adopted the new Europe 2020 strategy (European Council: Conclusions, EUCO 13/10, Brussels, 17 June 2010), in which one of the operational objectives was to support social inclusion by reducing the number of Europeans living below the national poverty threshold by 25% and lifting at least 20 million people out of poverty. The eradication of all forms of poverty around the world is also a strategic goal of the 2030 Agenda for Sustainable Development.

For years researchers have been studying the problem of poverty itself and its consequences in various social groups (Sen, 1992; World Bank, 2005; Emerson, 2007; Lister, 2007; Stiglitz, 2009; Connelly *et al.*, 2014; Serneels and Dercon, 2014; Standing, 2014; OECD, 2015; ILO, 2016; Quy, 2016; UNICEF Office of Research, 2016; EC, 2017; Healy, 2017; Łuczak *et al.*, 2020). However, because some governments feared using the word poverty to describe people's difficult situation, the concept of social exclusion was introduced and established in public debates. The popularization of the term "social exclusion" comes from the desire to avoid "stigmatizing" various social groups, but also from the belief held by many researchers that the term is more politically correct. Among the countries of the western European Union, such as France, Germany or previously the United Kingdom, there is a firm conviction that is difficult for politicians and society to accept comparisons of poverty in third world countries with poverty in their countries.

The use of the term social exclusion has become an attempt to avoid the pejorative colouring of the word poverty. Kruszka (2008) believes that the concept of social exclusion is less appealing to the public than poverty and politicians are less blamed for the condition. According to Vleminckx and Berghman (2001), this was a compromise because *"the term social exclusion was introduced merely because the governments of some European member states had expressed reservations about the word poverty when applied to their respective countries [...] Some governments seemed to consider the word poverty too strong to describe the problems of low income and social inequality in industrialized European nations at the beginning of the 21st century. Social exclusion appeared to be a more adequate and less accusatory expression designated to existing problems and definitions"* (2001, pp. 28-29).

At the same time, it is a form of blurring the responsibility for the fact that in many countries certain groups are still unable to meet their needs. Frieske (2004) expressed a similar view and emphasized that poverty is a politically uncomfortable term in wealthy societies, whereas describing it disrupts the comfortable belief that the universalization of social rights solves the problem of poverty. The researchers investigating the problem of social exclusion strongly believe that the term social exclusion is more politically correct than poverty or destitution (Lepianka, 2002; Frieske, 2005; Karsz, 2014). Nevertheless, social exclusion is often identified with poverty in public debate, although it is impossible to put an equal sign between these phenomena. Exclusion has a multidimensional nature and refers not only to the lack of financial or tangible resources, but also to other restrictions concerning various aspects of the social, economic, cultural, or political life of an individual or society. Exclusion is the process that makes people more exposed to and affected by poverty (Mastropietro, 2001). As Jordan (1996) emphasizes, exclusion goes beyond the definition of poverty. Both phenomena are treated together in further considerations, but the distinctiveness of these concepts is also emphasized.

Although the problem of poverty and social exclusion applies to all socioeconomic groups, it is more suited to describing the situation of rural rather than urban residents. The risk indicators for poverty and social exclusion prove this. For most countries, these indicators report higher values for rural areas. However, it is worth stressing that poverty cannot be exclusively identified for the countryside and its inhabitants. It is due to the fact the countryside itself is a certain aggregate that encompasses gentrified areas (Zwęglińska-Gałecka, 2019), with social features like urban areas, as well as remote settlements displaying typically agricultural features (Kalinowski, 2020). It should be emphasized that this problem also occurs in large cities and metropolitan areas, occurring in the sphere of social housing, in poverty enclaves and container settlements. There is also a problem of poverty enclaves and quarters in many parts of the world, for example favelas in Brazil. As Tarkowska (2006) emphasizes, poverty in Poland has always been mainly rural poverty. The same applies to many Eastern European countries (Kalinowski and Kiełbasa, 2017).

Combating social exclusion and poverty and supporting social justice in rural areas is one of the most important tasks of today's world. These areas are particularly important because they constitute a considerable part of the European Union (80-95% of the area), depending on the member country) and are inhabited by almost a quarter of the EU population. Moreover, almost a third of the population live in intermediate – urban-rural areas – which also reveal peripheral features. The fight against exclusion in these areas results from the fact that social inequalities and material deprivation commonly occur in them and there is polarization on the rural-urban axis. Apart from this, many problems resulting from insufficient income and social exclusion in rural areas are more difficult to diagnose, and in consequence they are difficult to solve. This applies to limited educational opportunities, fewer career opportunities on the labour market, as well as limited consumption of goods and services. The social inequality level itself is determined by the lower scale of sustainable development,

which is the consequence of the relationship between inequality and development and results from the lack of developmental balance between social, natural, economic, and human capital (Neumayer, 2011; Makarewicz-Marcinkiewicz, 2015).

It is difficult to talk about an ideal world, as in More's Utopia, in which welfare is a permanent feature of society. Social inequality is a common phenomenon, but the task of states is to ensure adequate conditions for satisfying all their citizens' needs. The concept of sustainable development highlights that economic development cannot be separated from social cohesion, and that the suitable balance between economic, human, and natural capital should be a matter of primary concern for all societies. It is therefore worth outlining how important the risk of rural poverty and people's unsatisfied needs are for them.

The aim of the article was to identify the level of rural poverty and social exclusion in the EU. Determining the proportion of people deprived of the possibility of satisfying their needs at a specific level is a voice in the discussion on further actions that should be taken to increase social cohesion and meet the goals of sustainable development. This article does not provide ready-made solutions, but it only outlines the current situation in the EU rural areas in the EU.

## **2. Background and Literature Review – Social Inequalities and Poverty in the Concept of Sustainable Development**

Sustainable development is one of the most important challenges of the contemporary world (Prus, 2018; 2019; Giddings *et al.*, 2002; Hopwood *et al.*, 2005; Hediger, 2006; Djukanovic, 2008). Hák, Janoušková, and Moldan (2016) argued that the transformation of global society, the environment, and the economy into a sustainable one is one of the most uphill tasks the human race confronts today since it has to be done within the context of the planet's load-bearing capacity. Many authors have been critical of the idea of sustainable development and say that it is based on wishful thinking rather than practicality. Economic growth is not sustainable because it is accompanied by depletion of natural resources and deterioration of environmental service (Repetto *et al.*, 1989; Pearce and Atkinson, 1993; Hamilton and Clemens, 1999). At the same time, not everyone wants to comply with the recommendations of Agenda 21 – a document in the form of a resolution adopted at the Rio de Janeiro Earth Summit in 1992 (United Nations, 1997).

In highly developed countries, despite the successes in the field of greening industry, Agenda 21 does not stimulate the implementation of sustainable development in definition terms. Besides global implementation, problems include the lack of global information and educational tools, the lack of standards and measures of sustainable development, as well as the conflicting interests of individual countries (Rokicka and Woźniak, 2016). In the EU, the inconsistency of countries' interests, low readability of the Lisbon Strategy or excessive bureaucracy is evident. Additionally, it is important that the Agenda 21 is implemented at the local level, which in turn promotes

the fact that it remains in the sphere of plans, not implementation. The ambition of Agenda 21 is a safe and fair world in which every living being will be able to preserve their dignity (Borys and Chmielewski, 2003).

Development plays an important role in shaping the conditions for economic growth, social development, and environmental care. It is therefore one of the European Union's priorities. Although its assumptions were prepared between 1983 and 1987 by the Brundtland Commission on Environment and Development (United Nations General Assembly, 1987; WCED, 1987; Borowy, 2013; Bearth *et al.*, 2014), they were only adopted for implementation in June 1992, at the second Rio de Janeiro Earth Summit (Dernbach, 1998; 2003; Trzepacz, 2012). Five documents related to environmental, economic, and social issues were adopted at the conference, including Agenda 21, the Rio Declaration on Environment and Development (a kind of code containing 27 principles of human behaviour towards the natural environment), the Framework Convention on Climate Change, the Convention on Biological Diversity and the Declaration on Forests.

The preparation and adoption of the eight Millennium Development Goals at the UN summit in 2000 (one of which was to eliminate extreme poverty and hunger by halving the number of people whose income does not exceed one dollar a day) was also an important initiative. The implementation of the millennium goals was extremely laborious and required considerable financial outlays on investments in physical, human, natural, and social capital, as well as knowledge and infrastructure. They were financed by the governments of the richest countries in the world, belonging to the Development Assistance Committee (OECD-DAC), which declared the allocation of 0.7% of the GNP for development assistance.

In 2015 only five European countries exceeded the 0.7% GNP level – Sweden (1.4%), Luxembourg (0.93%), Denmark (0.85%), the Netherlands (0.7%) and the United Kingdom (0.71%). In 2016 these were Luxembourg (1%), Sweden (0.94%), Denmark (0.75%), Germany (0.7%) and the United Kingdom (0.7%). The goals were implemented through the cooperation between developed and developing countries, international organizations and non-public institutions. A year later the Sustainable Development Strategy was created, which was renewed in June 2006. Its main goal was to define and develop the actions that will enable the EU to ensure a steady increase in the quality of life for the present and future generations by creating communities based on the principles of sustainable development, i.e., communities that efficiently manage and use resources, make use of the economic potential for ecological and social innovations, and thus ensure prosperity, protection of the natural environment and social cohesion (GUS, 2011). Cohesion itself can be approached at both an international and interregional level. The latter should involve not only the levelling of differences in the development of regions, but also in the standard and conditions of living and income. However, according to Churski (2011), this approach may lead to contradictions in the classic approach to regional policy and the principles of regional competitiveness. We can therefore assume that cohesion itself should not

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be interpreted as egalitarianism but should be understood as the achievement of a socioeconomic level that is acceptable to society (Molle, 2015).

In 2015, 17 Sustainable Development Goals and 169 accompanying targets were enshrined in the UN Resolution “Transforming Our World: The 2030 Agenda for Sustainable Development.” The preparation and adoption of this document was an event that is inextricably linked with sustainable development. These goals are globally oriented. The first goal comprises actions that need to be taken to eliminate all forms of extreme poverty around the world. The agenda also includes other priorities such as health, education, nutrition, and food security. It indicates a wide range of economic, social, and environmental goals and strives to transform economies so that it is possible to lay the foundations for long-term, sustainable growth, which favours providing new jobs. As opined by Fasoli (2017), what needs to be noted is that the SDGs are not standalone goals. They are interconnected, which means that achieving one goal leads to achieving another.

Although all the goals set by the UN are extremely important, only the problem of poverty and social exclusion is discussed in this article.

Poland formulated the actions taken for sustainable and responsible economic development in the Strategy for Responsible Development (SRD), adopted by the Council of Ministers in February 2017. The main goal of all actions and undertakings listed in the strategy is to provide conditions for the growth of income of Polish residents and to increase social, economic, environmental, and territorial cohesion. The implementation of the strategy is expected to increase the wealth of people in Poland and to reduce the number of people at risk of poverty and social exclusion.

The World Commission on Environment and Development (WCED) has presented a widely accepted definition of sustainable development. This is a development that meets the needs of the present without compromising the ability of future generations to satisfy their needs. According to this theory of development, economic and social development are interrelated. Economic growth provides the resources that are necessary to satisfy one’s needs, create jobs and, consequently, it reduces poverty. Social development is a means supporting economic development. Sustainable development means social progress combined with economic growth without a rise in the entropy of the natural environment (Manteuffel-Szoege, 2013). Sustainable development is an economic issue that is included in environmental economics.

The main assumption of sustainable development within environmental economics is the analysis of choices between fighting poverty, complying with the principles of ethics policy, ensuring that the conditions of development for future generations will be analogous to the current ones, and maintaining cultural diversity (Pakulska and Poniatowska-Jaksch, 2010). Sadowski (2003) defines sustainable development as the type of development in which the increasing ecological costs of development, which threaten the living conditions of future generations all over the world, are eliminated

by the conscious targeting of people's economic activities towards environmental protection. According to Miłostan (2014), the goals of sustainable development should include the problems of biodiversity, existence (fighting poverty), fair access to environmental resources, access to information, and social participation. According to Fields (1999), economic development almost always reduces absolute poverty, but its influence on inequality may be diverse, and not everybody will benefit from it equally. Apart from this, it is necessary to stress the fact that each country that is interested in implementing the concept of sustainable development will have to adopt its own policy aimed at reducing poverty. It is extremely difficult and expensive to coordinate international, national, regional, and local actions to enable developing countries to pursue their goals in connection with internationally agreed goals and objectives concerning poverty (Lechwar, 2004). It is necessary to remember that sustainable development is supposed to ensure that the needs of the present generation are satisfied without excluding the possibility of satisfying the needs of future generations (Dernbach, 1998; 2003; WCED, 1991). The aim of sustainable development is to ensure a steady increase in the quality of life and well-being on Earth for the present and future generations.

Sustainable development is therefore associated with the promotion of a dynamic economy, full employment and a high level of education, health care, social and territorial cohesion, and environmental protection – in a world of peace, security, and respect for cultural diversity (Council of the European Union, 2006). The sustainable development of rural areas should be identified with the development of the rural community rather than with sustainable agriculture. This fact is emphasized by the importance of different types of knowledge in development (Zawalińska, 2009). It can be considered at two levels – not only as actions taken for the cohesion of excluded groups within the village with the rest of rural community, including rural inhabitants with precarious income, the rural group of freeters and NEETs. Above all, sustainable development should be understood as actions aimed at creating the same conditions of development for rural and urban inhabitants by providing the former group with opportunities to benefit from the positive effects of transformations resulting from membership of the EU.

The EU documents presented above clearly indicate that fighting poverty and social exclusion is one of the key goals of sustainable development. Deprivation of one's needs is a significant obstacle to social cohesion because it hinders sustainable development.

For further analysis, it is necessary to clarify what the definition of poverty is. Although there are many definitions of poverty, in the European Union countries, a standard methodology was adopted by EUROSTAT (Statistical Office of the European Union). People living in households whose disposable income is lower than the poverty line determined by 60% of the median income in each country are considered to be at risk of poverty. A parametric approach to measuring poverty has been adopted, which is linked to the standard of living in individual countries. It

should be noted that poverty defines a group of people with the relatively most difficult situation in each country. Thus, poverty in individual countries is not relevant to the level of income in other countries. It can be seen, therefore, that a poor inhabitant of the wealthiest countries can also be treated as a wealthy person in the poorest countries.

It should be noted that the article uses two concepts related to poverty. First is the at risk of poverty or social exclusion, the second is the at-risk-of-poverty threshold. At risk of poverty or social exclusion (AROPE) corresponds to the sum of persons who are either at risk of poverty or severely materially deprived or living in a household with a very low work intensity. Persons are only counted once even if they are present in several sub-indicators. The AROPE rate, the share of the total population at risk of poverty or social exclusion, is the headline indicator to monitor the EU 2020 Strategy poverty target. The at-risk-of-poverty rate is the share of people with an equivalized disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60% of the national median equivalized disposable income after social transfers (European Commission, 2003; Statistics Explained).

It is also worth noting that material deprivation refers to a state of economic strain and durables, defined as the enforced (rather than voluntary) inability to pay unexpected expenses, afford a one-week annual holiday away from home, a meal involving meat, chicken or fish every second day, the adequate heating of a dwelling, durable goods like a washing machine, color television, telephone or car, or being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments). The severe material deprivation rate is an indicator in the EU-SILC that expresses as the enforced inability to pay for at least four of the above-mentioned items. The indicator distinguishes between individuals who cannot afford a certain good or service and those who do not have this good or service for another reason, e.g., because they do not want or do not need it.

The second of the sub-category of social exclusion is persons living in households with low work intensity. This indicator is defined as the number of persons living in a household where the members of working age worked less than 20 % of their total potential during the previous 12 months. Additionally, the work intensity of a household is the ratio of the total number of months that all working-age household members have worked during the income reference year and the total number of months the same household members theoretically could have worked in the same period (Statistics Explained).

### **3. Materials and Methods**

The empirical data in the article come from the EU-SILC (the European Union Statistics on Income and Living Conditions), which are contained in the Eurostat materials (<http://ec.europa.eu/eurostat/data/database>). They are a reference point for comparing statistics on income distribution and social integration in the European



Union. They have been used since 2003 (in the beginning in Austria, Belgium, Denmark, Greece, Ireland, and Luxembourg, and since 2004 in all the EU member states) to monitor the social policy by means of the Open Method of Coordination (OMC). These surveys are a universal tool focused on income, especially personal income, poverty, social exclusion and living conditions. The EU-SILC surveyed all household members over the age of 16 in the individual countries. An employee's income was assumed to be the total remuneration paid to them in money or in kind in return for work done within a specific period.

At-risk-of-poverty thresholds (ARPT) broken down by each combination of dimensions (k) (ARPT<sub>at\_k</sub>) is calculated as the percentage of people (or thousands of people) in each k who are at-risk-of-poverty (calculated for different cut-off points) over the total population in that k. The weight variable used is the Adjusted Cross-Sectional Weight (RB050a).

$$ARPT_{at_k} = \frac{\sum_{i=j_{at,k}} RB050a_i}{\sum_{i_{at,k}} RB050a_i} \times 100 \quad (1)$$

where j denotes the population, or subset of the population, who is at risk of poverty. At-risk-of-poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, however, only the median threshold of 60% of the equivalent income is used in the research conducted in this article.

Ward's method was used in the cluster analysis. It is one of the more popular agglomerative grouping methods (Ward, 1963; Panek, 2009). The distance between clusters was estimated with the Euclidean distance, i.e., the geometric distance in multidimensional space. It is calculated as follows: distance (x, y) =  $[\sum_i (x_i - y_i)^2]^{1/2}$ .

This method is effective because it creates small clusters. As a result, it gives full control over the resulting number of groups and presents the most natural clusters of elements. Ward's method used the following order of procedures: 1) The calculation of a matrix sized n x n, which contains the distance of each pairs of objects. This matrix is symmetrical to the main diagonal, which are all zeros; 2) Finding pairs of objects (and later clusters) for which the mutual distance is the smallest. It is necessary to assume that these objects are marked p and q, where p < q; 3)

Combining p and q into one new cluster that occupies the p position. At the same time, the q object (cluster) with the q number is deleted. The numbers of clusters with a higher number are reduced by one. In this way, the dimension of the matrix is reduced by 1; 4) The distance of the new cluster from any other is calculated as follows:

$$D_{pr} = a_1 * d_{pr} + a_2 * d_{qr} + b * d_{pq}$$

where r – the numbers of clusters different from p and q, D<sub>pr</sub> – the distance of the new cluster from cluster r, d<sub>pr</sub> - distance of the original cluster p from cluster r, d<sub>qr</sub> – the

distance of the original cluster  $q$  from cluster  $r$ ,  $dpq$  – mutual distance of the original clusters  $p$  and  $q$ ,  $a_1$ ,  $a_2$ ,  $b$  – parameters.

## 4. Results and Discussion

### 4.1 Income as a Determinant of Poverty

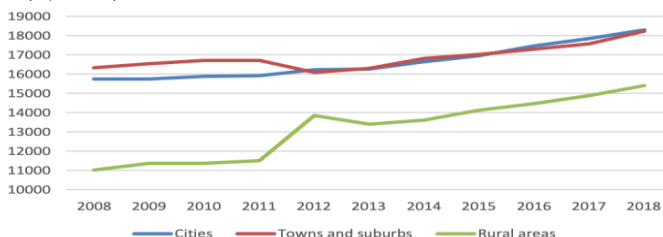
Sustainable income is an important factor affecting social cohesion. It is noteworthy that its level significantly affects people's ability to satisfy their needs and their purchasing capacity, and consequently it affects objective and subjective poverty. Insufficient income is an important premise for deprivation of one's needs. Numerous studies have confirmed the convergence of income with the poverty level and the inability to fully participate in social life. It is assumed that the dependence between income and the degree of deprivation of one's needs is so significant that this measure adequately describes people's living conditions (Golinowska, 1997; Milanovic, 2009; Ortiz and Cummins, 2011; Sałustowicz, 2014). While this may seem obvious, income-based research should be analysed with some caution. This is due to the tendency of respondents to hide or underestimate their income. When researching, it seems more important to consider expenses that constitute a crucial element of the broadly considered material factor. At the same time, income is also more likely to fluctuate than the expenses.

However, trends illustrating poverty and social exclusion are generally like the income tendencies. It is worth remembering the uneven redistribution of income within households and it is also important that the mere possession of income is not necessarily synonymous with satisfying needs at a certain level. It should be emphasized that income indicators do not reflect the value of collective consumption obtained free of charge. The weakness of income-based indicators is also that they do not take account of money transfers from abroad, which in many Central and Eastern European countries are the basis of subsistence. Given the high rate of labour outmigration, such estimates should be considered.

Increasing income may be a premise for greater cohesion. However, despite the gradual increase in the median equivalent income (in 2018 it was the highest in history and amounted to €17,441 per capita), it is hard to talk about cohesion within the EU. Although the income generated by the EU is growing, there are still large disparities both between and within the EU member states. Differences in income can be, to some extent, explained by the degree of urbanization. According to the Eurostat data, income in cities, towns and suburbs is much higher than in rural areas. The difference account for almost €3,000 (Figure 1). Such disparities cause polarization on the rural-urban divide. This hinders social cohesion, which is a goal of sustainable development. As mentioned above, income in Europe is spatially diversified. The highest average income was noted in Switzerland (on average €43,413 per capita), whereas the lowest was in Serbia (€2,739 per capita). The median equivalent income in cities was higher than in rural areas in almost all the EU member states. Only in a

few countries – mainly in western and northern Europe, i.e., Belgium, Germany, France, the Netherlands, Austria, and the United Kingdom – was rural inhabitants' income higher than that of urban inhabitants.

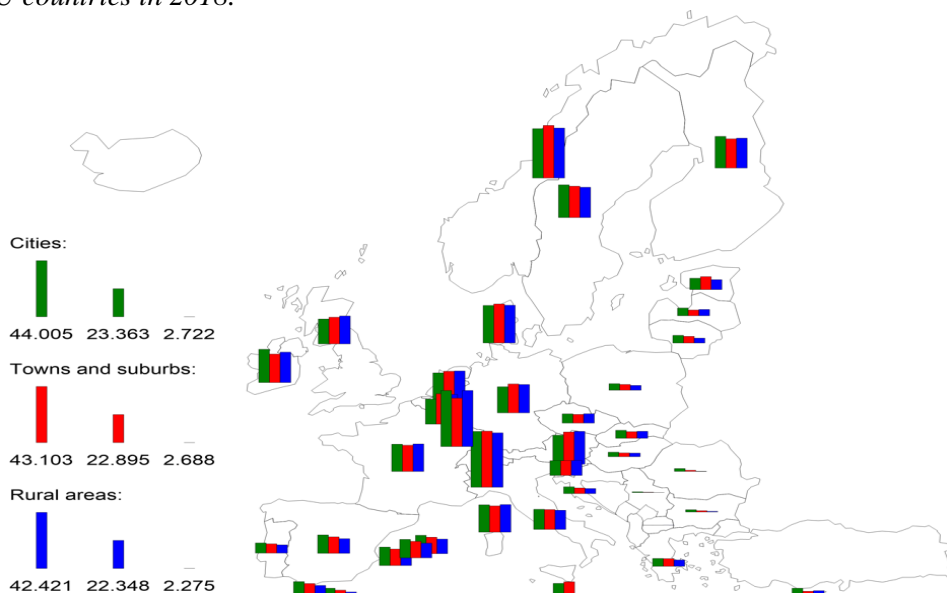
**Figure 1.** Median equivalized income by degree of urbanization between 2008 and 2018 (EU-SILC) (EUR).



*Source:* Eurostat data [ilc\_di17].

It is noteworthy that these countries are characterized by strong large-scale agriculture, which is subsidised under the CAP. In 2018 the lowest income of rural inhabitants in the EU-28 and countries aspiring to the EU was in Serbia – at €2,275 per capita. The median income was also relatively low in Macedonia (€2,343), Romania (€2,451) and Bulgaria (€2,689). The highest average income in rural areas was in Austria, Ireland and Belgium. The per capita income of Luxembourgnians (€42,421) was noticeably different from that in the other EU member states (Figure 2).

**Figure 2.** The income structure depending on the degree of urbanization in selected EU countries in 2018.



*Source:* Authors' compilation based on Eurostat data [ilc\_di17].

Although income (especially its constant growth) is important in the context of sustainable development, it cannot fully determine the degree of social cohesion. Nor did variation in income show the extent to which the goals of sustainable development are being implemented. For this reason, income is only one of the factors affecting the scale of objective poverty and social exclusion, which helps to determine the extent of implementation of the assumptions of sustainable development.

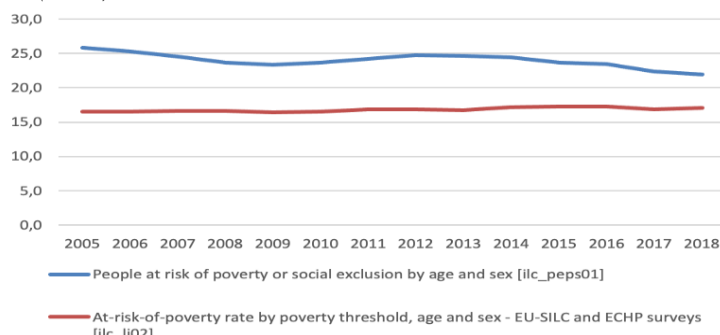
#### **4.2 Risk of Rural Poverty and Social Exclusion**

Poverty can be defined as the lack of adequate material resources to cover a certain level of expenditure on goods and services. As a result of poverty people are marginalized because they are unable to use goods and services to the extent that satisfies their needs. Poverty therefore refers to the people who limit their expenditure below the minimum accepted by the inhabitants of a particular country. The precedence of poverty over income in research on sustainable development results from the fact that poverty does not boil down solely to the lack of financial resources or to the level of individual consumption below an acceptable threshold. Poverty is primarily a matter of consumer convention as well as an objectively identifiable deprivation of one's needs, which hinders participation in social life. Nevertheless, although the income criterion, which is commonly used (Karnani, 2011), is not optimal, it is treated as a second-best solution. Transparency is an important advantage of poverty lines determined by means of specific income, because it is easy to separate a subpopulation of poor people from the whole society. However, it is noteworthy that the mere fact of having an income is not necessarily synonymous with the ability to satisfy one's needs. Some researchers have pointed to the uneven distribution of income in a household, others have indicated the inconsistency of the objective and subjective dimensions of one's life situation.

Relative (parametric) measures are commonly used in the EU to separate the poor from those who are not poor. One of these measures is the at-risk-of-poverty rate, which indicates the proportion of the people whose income is lower than 60% of the median equivalized income. In this approach, people whose income is lower than the income of other members of society are defined as poor. However, this measure determines the degree of income inequality rather than the scale of poverty. It is easy to see that people who are not poor may be below this line and vice versa. Research on poverty conducted by Eurostat also includes social exclusion, which also includes the people who are affected by severe material deprivation or who live in a household with low labour intensity. As this measure shows, in 2018, 21.9% of all EU inhabitants (about 109.2 million people) and 23.7% of rural inhabitants were at risk of poverty or social exclusion. If only the risk of poverty is considered, this indicator falls to less than 18% in the EU and 19.4% in rural areas (Figure 3). Detailed analysis of the Eurostat data shows that there were minimal changes in the poverty-risk indicator in almost all the member states except Greece, Portugal, and Romania, where it fell considerably, and in the United Kingdom, where it increased only slightly. The social situation in the EU countries improved because of the good economic situation

(economic recovery) and the situation on the labour market (reduction in long-term unemployment) as well as the higher proportion of elderly people and women in the labour market. However, although the indicator's value has been decreasing in recent years, it is rather unlikely that the target of the Europe 2020 strategy will be achieved, especially due to the effects of Covid-19 pandemic (Crespo Cuaresma *et al.*, 2018).

**Figure 3.** People at risk of poverty or social exclusion and at-risk-of-poverty threshold in 2005-2018 (in %).



**Source:** Authors' calculations based on Eurostat data [ilc\_li02] and [ilc\_peps01].

Many researchers have pointed to the feminization of poverty, both in urban and rural areas (Ward *et al.*, 1996; Daly and Rake, 2003; Stier and Mandel, 2003; Lister, 2007; Lewis and Campbell, 2008; Huber *et al.*, 2009; Szumlewicz, 2011). The households where the woman is the head of the family are at higher risk of extreme poverty than the households where the man is the head of the family (Armendariz and Morduch, 2010). These observations were partly confirmed by the Eurostat data (Table 1).

The research by Lister (2007), showed that females were affected by “hidden exclusion”, which resulted from unequal distribution of income in households. Another problem is women’s dependence on their partners and difficulties in becoming fully independent. This situation is particularly noticeable in rural areas (Kalinowski, 2015). According to Ward *et al.* (1996), even in households where the income is higher than indicated by objective poverty, the distribution of income and resources is not equal, and women’s needs are usually not sufficiently satisfied.

**Table 1.** People at risk of poverty or social exclusion and the at-risk-of-poverty rate by sex in 2018.

Specification	People at risk of poverty or social exclusion		At-risk-of-poverty rate	
	Males	Females	Males	Females
European Union	20.9	22.8	16.4	17.8
Euro area	20.7	22.4	16.4	17.6
Belgium	19.0	20.9	15.6	17.1
Bulgaria	30.8	34.6	20.4	23.4
Czechia	10.0	14.3	7.8	11.4
Denmark	17.5	17.3	12.6	12.8
Germany	17.6	19.8	15.2	16.8
Estonia	21.8	26.6	19.3	24.2

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Ireland	19.6	22.6	13.5	16.3
Greece	30.9	32.6	18.5	18.5
Spain	25.1	27.0	20.9	22.2
France	17.2	17.6	13.5	13.3
Croatia	23.6	25.9	18.1	20.4
Italy	26.1	28.4	19.4	21.2
Cyprus	23.1	24.7	14.8	15.9
Latvia	25.2	31.1	20.4	25.8
Lithuania	25.7	30.5	20.7	24.9
Luxembourg	20.2	23.6	17.0	19.6
Hungary	18.9	20.3	11.9	13.6
Malta	17.4	20.6	15.6	18.1
Netherlands	16.3	17.2	13.0	13.5
Austria	16.2	18.7	13.3	15.2
Poland	18.4	19.4	14.6	15.0
Portugal	21.0	22.1	16.6	17.9
Romania	31.0	33.9	22.5	24.5
Slovenia	15.2	17.2	12.6	14.0
Slovakia	16.0	16.6	12.2	12.3
Finland	16.2	16.7	11.7	12.3
Sweden	16.6	19.4	15.2	17.7
United Kingdom	22.3	24.8	17.6	20.1
Iceland	11.8*	12.6*	8.5**	9.1**
Norway	15.3	17.2	12.1	13.7
Switzerland	16.7	18.1	14.1	15.0
Montenegro	35.2*	34.0*	24.2*	23.0*
North Macedonia	41.2	41.1	21.8	22.0
Serbia	34.3	34.3	24.6	24.0

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*Note:* \* in 2017, \*\* in 2016.

*Source:* Authors' calculations based on Eurostat data [ilc\_li02] and [ilc\_peps01].

A quarter of rural inhabitants in the EU are at risk of poverty or social exclusion, whereas one in five are at risk of poverty. Those in Bulgaria and Romania are at the highest risk. The level of both indicators in Poland exceeds the EU average. The Czech Republic, Iceland and Malta are at the other extreme of exclusion (in both cases the data refer to 2016, and a year earlier in Malta the level was 35.5%) (Table 2). It is also worth looking at both levels in areas with different degrees of urbanization.

In the countries that joined the EU after 2004, the levels for rural areas were worse (except the Czech Republic). This situation was chiefly the consequence of lower agricultural subsidies, which are still the main source of income in rural areas. Apart from this, due to the fragmentation of agriculture and the lack of non-agricultural jobs, the economic situation of rural residents has not improved. According to Rosa & Jakubowska (2017), the Central and Eastern European countries are still at much higher risk of poverty despite the relatively favourable educational structure for rural inhabitants. According to the authors, the problem of rural poverty is more noticeable in the countries that joined the EU after 2004, because their economies underwent a transformation resulting from changes in the political system.

**Table 2.** *People at risk of poverty or social exclusion and at-risk-of-poverty rate by the degree of urbanization in 2018.*

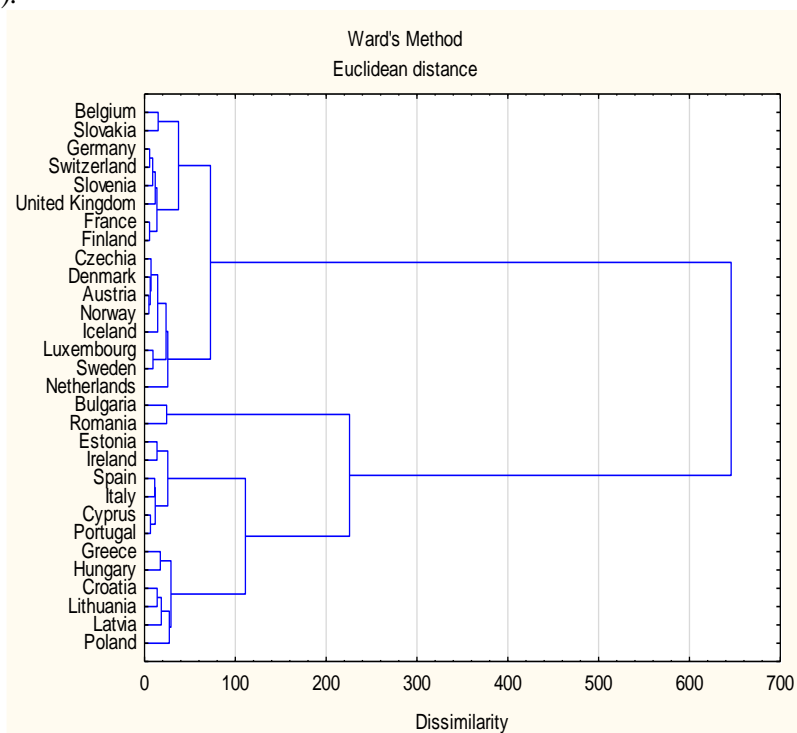
GEO/DEG_UR B	At risk of poverty or social exclusion rate			At-risk-of-poverty rate		
	Cities	Towns and suburbs	Rural areas	Cities	Towns and suburbs	Rural areas
European Union	22.0	20.0	23.6	16.8	15.5	19.4
Euro area	22.8	20.2	21.2	17.6	16.0	17.2
Belgium	29.2	15.6	18.8	25.5	12.1	15.3
Bulgaria	24.3	29.1	47.4	13.1	18.8	36.8
Czechia	12.0	12.9	11.6	9.5	10.2	9.2
Denmark	21.5	15.8	15.0	15.9	10.9	11.3
Germany	22.4	16.1	17.5	18.4	13.9	15.8
Estonia	22.1	20.4	29.5	19.8	19.1	26.5
Ireland	17.6	25.8	21.5	11.2	17.7	16.6
Greece	30.5	30.1	35.2	16.8	17.0	22.5
Spain	23.2	26.9	31.0	18.9	22.3	26.1
France	19.7	19.2	13.7	14.9	15.2	10.6
Croatia	18.3	23.5	30.9	13.0	17.1	25.9
Italy	29.2	26.1	26.7	20.9	19.8	20.4
Cyprus	20.4	28.3	26.4	12.9	17.9	18.1
Latvia	24.2	30.2	32.3	19.2	24.9	27.3
Lithuania	19.4	28.7	35.4	14.0	23.7	30.1
Luxembourg	24.2	25.1	17.4	21.8	21.2	13.8
Hungary	14.2	18.9	25.8	8.7	13.0	16.6
Malta	19.5	15.0	2.9*	17.2	13.8	2.9*
Netherlands	19.8	12.4	12.8	15.6	9.9	10.4
Austria	25.5	13.5	14.2	21.3	10.6	11.6
Poland	13.4	16.0	25.3	9.6	11.4	21.2
Portugal	20.0	19.8	26.3	15.3	15.6	22.5
Romania	18.6	24.9	45.5	6.6	14.9	39.0
Slovenia	16.3	15.6	16.6	13.8	12.8	13.4
Slovakia	10.4	16.4	19.1	6.8	12.3	14.8
Finland	16.6	16.2	16.6	11.2	12.2	12.8
Sweden	16.9	17.0	20.4	15.1	15.3	19.3
United Kingdom	24.9	21.2	23.3	19.8	16.5	20.2
Iceland	11.7*	14.3*	11.3*	8.7*	9.1*	8.3*
Norway	21.2	13.3	15.1	18.2	9.6	11.9
Switzerland	18.5	17.3	16.0	14.7	14.8	13.9
North Macedonia	41.4	37.4	47.0	21.1	20.2	25.8
Serbia	26.3	31.5	43.8	16.0	20.4	34.7

*Source:* Authors' calculations based on Eurostat data [ilc\_li43], [ilc\_peps13].

It is worth taking a closer look at similarities between individual countries. This can be done by means of cluster analysis and Ward's method. The countries can be grouped by estimating the distance between clusters using an analysis of variance approach. A period of 14 years was analyzed (2005-2018). The method enabled the

separation of five groups of countries. The first group (I) included Austria, the Czech Republic, Iceland, Denmark, Luxembourg, Norway, the Netherlands, and Sweden. It was characterized by the lowest risk of poverty or social exclusion (15.1%), which has decreased even more in recent years. The second group (II) included Belgium, France, Finland, Germany, Slovenia, Slovakia, Switzerland, and the United Kingdom, where the average risk of rural poverty or social exclusion did not exceed 19.7%. The third group (III) consisted of Cyprus, Spain, Portugal, Italy, Ireland, and Estonia. In this group the poverty level was like the EU average at 28.9% on average. The fourth group (IV) consisted of Poland, Hungary, Greece, Lithuania, Croatia, and Latvia. In these countries on average 36.4% of the rural population was risk of poverty. The fifth group (V) included Bulgaria and Romania. In these countries the level of rural poverty or social exclusion was the highest, i.e., 54.6%. It is noteworthy that not only the EU countries were analysed, but also three countries that do not belong to the EU but have strong relations with it. The cluster analysis showed the greatest similarity between the first and second, and the third and fourth groups. The long linkage distance between the first two groups and the third, fourth and fifth groups proved that they were not similar (Figure 4). It is also noteworthy that the risk of poverty or social exclusion fell regularly in almost all countries. This observation was optimistic in the context of sustainable development.

**Figure 4.** Cluster analysis – bonds tree diagram, Ward’s method (Euclidean distance).



Source: Authors' calculations based on Eurostat data.

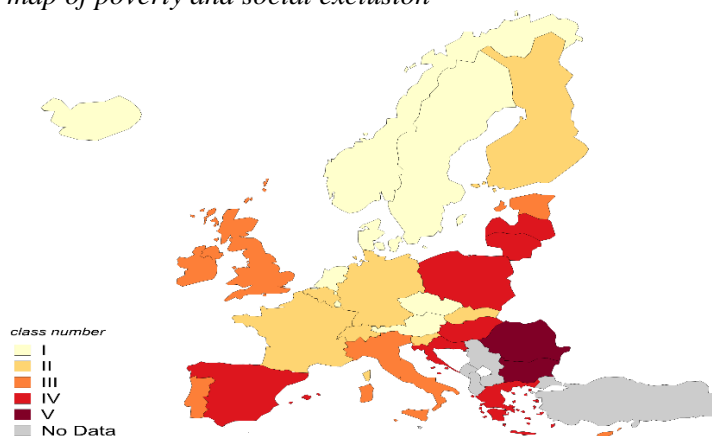


Based on Ward's method (Figure 4) the countries were grouped according to their risk of poverty or social exclusion. The first two groups are countries with a relatively low level at risk of poverty or social exclusion. These are similar in both the level of poverty development and dynamics of poverty.

Also, countries in groups III and IV, where the risk of poverty or social exclusion is significantly higher than in the first two groups, are quite similar. The worst situation and the most different nature of changes in both poverty and its level are observed in group V. The use of the Ward method and its subsequent application to the map of Europe allows us to note specific dependencies: the countries of the former Eastern Bloc as well as southern Europe are at the highest risk, as shown in Figure 5. It is worth noting that in some countries – e.g., Germany or Switzerland (in group III) – high incomes in general and at the same time relatively high incomes in the last income bracket (among the richest) cause an increase in the median equivalent income. The percentage of people at risk of poverty and social exclusion is therefore increasing.

The significant differences in income wealth in individual countries mean that the allocation to particular groups solely according to the risk of poverty or social exclusion distorts the comparability. It would be worth considering whether this indicator would not be better if we adopted an arbitrary basket of goods for the EU, calculated in national prices. Another way to increase comparability might be to use the average of statutory poverty lines in individual countries. In this case, however, new difficulties would arise, such as the size of a given country, or the differing purchasing power of individual quotas determined in this way. The inclusion in these cases of the deepened material deprivation index or the low labour-intensity index (which is part of social exclusion) allows for a slight increase in comparability between countries. It provides an opportunity for a broader view of the situation of people on the lowest incomes. The question, however, is whether this comparability is possible when relative and objective indicators are considered together.

**Figure 5.** *A map of poverty and social exclusion*



**Source:** *Own calculations based on Eurostat data.*

When analyzing the risk of poverty and social exclusion, attention should be paid to the questionability of some indicators. In the case of increased material deprivation, some of the goods that are common in Europe are considered even in poor households, such as a colour TV, a telephone or a washing machine. On the other hand, there are groups of people who consciously give up these goods – “zero waste” groups or environmental groups. Such people can be mistakenly assigned to exclude people who are not poor. Perhaps it would be worth considering whether these goods should not be replaced by others in the study of material deprivation: a dishwasher, access to the Internet (preventing digital exclusion), or perhaps the possibility of accessing and using services – hairdressing, finance, and access to public transport – or the possibility of buying food-away-from-home several times a month, which is still treated as an element of wealth in many countries. It is also worth considering whether a factor of social exclusion is inadequate provision of technical infrastructure or limited access to sewage and water supply. The question of selecting goods and services remains open. There is a need for social politicians and researchers of poverty to discuss which of these are more decisive for today’s poverty. It is worth stressing that contemporary poverty is changing, so indicators should be constantly changing too. And although this will make comparability over time difficult, it will be the current reality of poverty.

Regardless of which indicators should be represented in the sub-indicator of deprivation of needs, the very idea of increased material deprivation combined with income (parametric) poverty is valid. It underlines the broad view of contemporary poverty. It shows that not only is lack of income a problem but so is deprivation of specific needs. In addition to these problems, if the lack of work or a form of work that is inadequate for expectations is added, the criterion of poverty and social exclusion becomes somewhat more complete. It also seems necessary for the group of excluded people to include people in work but whose income does not allow them to meet their needs at a certain level – the so-called working poor. It is evident that the more extensive and comprehensive the indicator, the more difficult it is to interpret. In considering poverty, one should therefore indicate the breadth of the problem itself by analyzing several aspects of it. Just considering further factors or sub-indicators would require the creation of a research model that is necessarily prone to a high degree of subjectivity. At the same time, we would like to stress that the aspects related to the material deprivation of needs and the significance of this indicator in research on poverty and the deepened deprivation of needs will soon appear in another paper. The authors have undertaken to create a classification of EU countries using the TOPSIS method.

It is necessary to remember that poverty and social exclusion are multidimensional phenomena. They cause the inability to satisfy various needs – healthcare, education, housing, culture, and leisure. The lack of adequate income causes a feedback loop, and it is both the cause and consequence of deprivation of one’s needs. It leads to the inheritance of attitudes and strengthens the culture of poverty (Kabaj and Danecka, 2005). An unfavourable income situation is conducive to lower social cohesion and

makes it difficult to involve people into the social life. It is also noteworthy that the inability to satisfy one's needs causes feedback and one's funds determine the range of real consumption. Insufficient individual demand and possessions (fragmentary consumption) thus usually causes dissatisfaction due to an unacceptable standard of living and deprivation of needs. In consequence, it results in a sense of lack of cohesion. Deprivation of the ability to satisfy one's needs weakens social ties, which leads to disintegration. This is causally related to participation in social and public life. It is manifested both through participation in non-governmental organizations, activities for the benefit of other people, as well as participation in integration activities, including the ability to establish interpersonal relations. The way of spending free time is also related to this area.

## **5. Summary and Concluding Comments**

Sustainable development is a general trend in creating a better world by balancing social, economic, and environmental factors. The Europe 2020 strategy assumed a 25% reduction in the number of Europeans living below the national poverty line and lifting at least 20 million people out of poverty. This commitment translated into specific actions taken by individual countries to improve the standard of living of the poor. It is necessary to stress the fact that there is no uniform solution that can be used globally. The analysis of the data on the scale of poverty or social exclusion in the EU countries shows that this goal cannot be achieved. Although the rate of poverty and poverty combined with social exclusion has decreased, this fall was not impressive enough to say that the goals of sustainable development have been achieved. As there are still inequalities, provisions concerning the implementation of the unfinished fight against poverty were again included in the Agenda 2030 for Sustainable Development. This time they are a primary goal, which begins the agenda.

The fight against poverty, its elimination and reducing inequalities are still the biggest global challenge. Eradicating poverty is a necessary requirement to achieve sustainable development, especially for developing countries. The emergence of new challenges related to Covid-19, which has affected the labour market and socio-geographical convergence, will undoubtedly influence the economic situation, and pose a threat to sustainable development. The research led to the following conclusions:

- Income is a key measure of poverty. The income conditions in the entire European Union have a spatial dimension and they differ depending on the degree of urbanization of an EU member state. In nearly all the member states the median disposable income in cities was higher than in rural areas. This largely reflects the specificity of a country and its culture (suburbs in metropolitan regions, rural depopulation, the country size). The reason for this situation may be the fact that there is greater concentration of business activity in urban areas.

- The Central, Eastern and Southern European countries are at much higher risk of poverty or social exclusion than Western Europe.
- There are five groups of EU countries classified according to the risk of parametric poverty or social exclusion.
- People in Bulgaria, Romania, Lithuania, Greece, and Latvia are at the highest risk of rural poverty or exclusion, whereas those in the Netherlands, the Czech Republic, France, Iceland, and Malta are at the lowest risk.
- Although the poverty level has decreased, it is still higher than indicated in the assumptions of the Millennium Development Goals.

Comprehensive actions targeted directly at various social groups are necessary to improve the situation of the rural population. It is therefore necessary to take measures stimulating the activity of rural inhabitants as well as their multifunctional development. This will result in greater cohesion of these areas and generate higher income. It is important to realize that different solutions should be applied to different groups of poor people in rural areas, because, due to the specificity of these areas, uniform solutions have no chance of success. The understanding of this problem will help to develop and implement the strategies that will provide specific solutions for individual groups.

It is worth stressing that sustainable development is impossible without combating poverty and social exclusion. Further work is needed on modifications to the sub-indicator of material deprivation so that it takes European context into account. It should take account of goods and services that are more relevant to the description of the situation of the European citizens. At the same time, it must not be a complex model, otherwise it would be understandable only to a small group of people (mainly analysts or scientists). According to criteria formulated by the EU, such an indicator should be easy to understand and count.

Moreover, this indicator is policy-relevant, available in most EU Member States, based on reliable and trustworthy sources, and does not impose a heavy burden on statistical institutions in the countries in question. Taking these guidelines into account, it is worth reflecting on and asking what needs should be removed from the list of material deprivation indicators? On the other hand, which goods and services, in addition to this indicator, should be considered? This is a question that should be asked both the readers and researchers dealing with the issue of poverty.

Then, another question arises of whether the indicators presented in the article can be used to determine the sufficient implementation of the sustainable development policy in the field of poverty and social exclusion? The analysis of statistical data indicates that the assumption of the decrease in the number of the poor by 20 million people, remains illusory. On the one hand, it is not easy to show which indicator applies to it; on the other hand, what the starting point is. It therefore seems necessary to provide more precise guidelines in this respect. For authors dealing with the

problems of poverty, it seems crucial to eradicate not just income inequality itself, but also extreme poverty calculated by the minimum subsistence rate.

Narrowing the development gap, preventing, and eliminating poverty and eradicating the sources of social instability are imperatives for today's public policy. The growing importance of social policies results from society becoming increasingly polarised (including the differences in the extent to which individual needs are met) both at EU and national level.

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