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Past and current trends in defining and measuring poverty in the EU

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Past and current trends in defining and measuring poverty in the EU

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Abstract

In this research, we discuss the past and current trends in defining poverty to look at the topic from different perspectives and to provide an outline of future work that we aim to complete the picture on the qualitative and quantitative side. For this purpose, our focus here is to evaluate the diversity of definitions and to emphasize how important it is to combine subjective and objective approaches for practical policy analysis. As a first step of our future work, we also present the pilot study results to assess the results comparatively in the EU states and Türkiye.

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1 Introduction

The Sustainable Development Goals (SDGs) are a universal call to action for a better and more sustainable world for all. The SDGs, which are the continuation of the Millennium Development Goals and include new areas in addition to these goals, consist of 17 items set to be achieved by United Nations member states by the end of 2030. These goals can be listed as no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions, and partnerships for the goals. Each of the listed targets is interrelated, and development in one of the targets affects the other targets. Poverty, the first goal of the SDGs, has primarily been defined as not having adequate income or consumption to meet basic needs. Another definition can be made with the poverty line set at 60% or 50% of the median equivalised disposable income. Most countries define the national poverty line to determine the number of people living in poverty. However, the international poverty line is \$2.15 per person per day (see The World Bank, 2023). This means that people living below the line are in extreme poverty.

Identifying the poverty problem will complement the overall picture for evaluating the results in policy analysis. Thus, the term participatory poverty assessment has been included in the literature since the beginning of the 90s as a complementary approach to poverty measurement methods. Household surveys have been the primary tool to measure and define the different aspects of poverty such as the education level of household members, the size and type of household, income and consumption, and the gender of the household head. One of the reports pioneering this phenomenon in light of the participatory poverty assessment was published by the World Bank in 2003. As detailed in the Participatory Poverty Assessment Niger report (2003), poverty is the best-known phenomenon regarding the range of definitions the population mentioned. The funnel of poverty definition starts with penury and then evolves into an inability and dependency, respectively. Finally, it becomes deprivation at the final stage. The last remark here is that poverty is the result of a process and talking about the definition of poverty is the same as talking about the country itself for the countries like Niger. Nevertheless, the World Bank's *Voices of the Poor: Can Anyone Hear Us?* (2000) is the most extensive participatory poverty assessment conducted in the 1990s in 50 countries worldwide. The main message from the book is that poverty is not only associated with an indicator but also with many factors that affect people's definitions and

experiences of poverty.

The interviews with poor people allow us to reveal the dimensions of poverty with their definitions. To concretize the definitions, a few examples from the book are given as follows (Narayan et al., 2000):

“Often she has to decide who will eat, she or her son”.

—Ukraine 1996

“It’s the cost of living, low salaries, and lack of jobs. And it’s also not having medicine, food, and clothes”.

—Brazil 1995

“Being poor is being always tired”.

—Kenya 1996

“Poverty is lack of freedom, enslaved by crushing daily burden, by depression and fear of what the future will bring”.

—Georgia 1997

“Poverty means working for more than 18 hours a day, but still not earning enough to feed myself, my husband, and two children”.

—A poor woman, Cambodia 1998

The given definitions above prove that poverty is a multidimensional phenomenon since the definitions vary by country, region, and gender. Moreover, it consists of interlocked dimensions such as lack of food, psychological dimensions, infrastructure, education, poor health and illness, and a lack of clean water or electricity. However, people rarely define poverty as a lack of income. Amartya Sen (2000) expressed poverty as a deprivation of basic needs and an inability to use one’s full potential rather than a lack of income. Following Sen’s deprivation approach, the Oxford Poverty and Human Development Initiative (OPHI) states that income-poor individuals can not be multidimensionally poor and that individuals who are not income-poor can be multidimensionally poor. Furthermore, monetary-based poverty measurement methods are not sufficient to explain poverty (OPHI Summer School, 2017). Although income-based measurement methods have been used actively for some countries, especially developed countries such as Germany and many other countries in Europe, and developing countries like Türkiye, multidimensional measurement methods have attracted attention in recent years. Data availability and computational and methodological developments play an efficient role in the new emphasis on measurement methods. On the other hand, the demand for national and international policy development also significantly

affects the development of new approaches, along with the need for non-monetary measurement methods. OPHI has developed the Global Multidimensional Poverty Index (MPI) to capture the multidimensional aspect of poverty in developing countries. They also indicate the changes in multidimensional poverty over time, compare rural and urban poverty, and reveal the inequality among poor people. The MPI can be evaluated as a complementary method to the traditional monetary-based methods as an extension of participatory poverty assessment. Another example is the Human Development Index (HDI) hinges on the capability approach and measures multidimensional poverty in terms of income, health, and education (Decancq and Schokkaert, 2015).

The definition of poverty from the European Union (EU)'s perspective consists of three sub-indicators covering severe material deprivation, monetary poverty, and very low work intensity. This definition includes social exclusion as a Europe 2020 Strategy for smart, sustainable, and inclusive growth (Guio et al., 2016; Dudek and Sedefoğlu, 2019). Severe material deprivation is a multidimensional approach to measuring absolute poverty in the EU. The approach measures the percentage of the population that cannot afford at least four of the following nine items: to pay their rent, mortgage or utility bills; to keep their home adequately warm; to face unexpected expenses; to eat meat, fish or a protein equivalent every second day; to go on a week-long holiday away from home; to have a television set; to own a washing machine; to have a car; to own a telephone. The first five items represent the economic strain dimensions while the last four reflect the durables dimensions. However, most of the countries in the EU accept the monetary poverty measurement methods instead of applying multidimensional poverty methods. For instance, the official measure of poverty in Germany is the at-risk-of-poverty rate, the only indicator accepted by the government since 1998. However, multidimensional approaches have been developed by the researcher, such as the German Correlation Sensitive Poverty Index (see Rippin, 2012).

The rest of the paper is organized as follows: We briefly review the literature to evaluate the past and current trends in defining and measuring poverty in the EU in Section 2. A pilot study and concluding remarks are presented in Section 3.

2 Literature Review

In the EU member states, EU- Survey on Income and Living Conditions (SILC) data are preferred mainly by the researcher to define and analyze material deprivation. For instance, Martín et al. (2014) use multilevel techniques to assess the country differences in material deprivation from micro and macro-level perspectives. Their findings remark that the country-level factors explain the differences in material deprivation more relevant than individual factors. Kis and Gabos (2016) consider income poverty and material deprivation to investigate the consistent poverty in the EU using EU-SILC data from 2012. Their results indicate that consistent poverty is observed in all countries in the EU although its severity varies from country to country. The severe of the consistent poverty is highest in the new member states and southern countries. People living in consistent poverty are more likely to live in bigger families, have lower levels of education, and have weak or non-existent links to the labor market. Dudek (2019) applies the generalized estimating equations (GEE) methodology to the EU's country-level drivers of severe material deprivation. Results indicate that the severe material deprivation rate is affected by the median equivalised disposable income, relative median at-risk-of-poverty gap, long-term unemployment rate, gross domestic product (GDP) per capita, and share of social protection expenditure in GDP. Dudek and Sedefoğlu (2019) assess the impact of economic factors on severe material deprivation rates in EU regions different from Dudek (2019). The results remark that regional-level factors such as household income, at-risk-of-poverty rate, GDP per capita, long-term unemployment rates and also the country-level drivers such as relative median at-risk-of-poverty gap, income quantile share ratio, and share of social protection expenditure in GDP have a statistically significant effect on severe material deprivation rates.

Energy poverty has been an issue that concerns developing and developed countries under the multidimensional concept. It has been an issue to be addressed by policymakers to advance strategies and policies, especially after the economic crises. However, it draws attention today due to the ongoing energy crisis in the EU, although the foundations of the studies were laid by Brenda Boardman (1991) and Isherwood and Hancock (1979). For instance, Anastasiou and Zaroutieri (2023) examine the dynamic patterns of energy poverty using a log-t regression test to test the convergence hypothesis for 27 EU member states between 2005 and 2020. Results indicate that groups of countries converge to different steady states in the long run. Hasheminasab et al. (2023) apply a case study using real data for the EU sustainable development energy goal by using the Indifference Threshold-based Attribute Ratio Analysis (ITARA) and Measurement Alternatives

and Ranking according to COMpromise Solution (MARCOS) methodologies. Findings indicate that energy consumption is a highly considerable indicator in the energy poverty analysis. Countries such as Denmark, Sweden, and Estonia showed a considerable performance between 2015 and 2020. Carfora et al. (2022) assess the Covid-19 pandemic effect on energy poverty by carrying out dynamic factor models. The results show that the negative impact of the Covid-19 pandemic will not be reabsorbed before 2025 and widen the gap between countries with low levels and high levels of energy poverty.

Belaïd (2022) points out the effect of energy prices and the green transition on European energy poverty. In the research, it is argued that new types of inequalities may occur due to poorly planned climate policies, which must go hand in hand with reducing inequalities and energy poverty. Halkos and Gkampoura (2021) examine energy poverty between 2004 and 2019 for selected 28 European countries applying a consensual approach and a composite measurement method. Findings show that Bulgaria is found to have the highest energy poverty while the Scandinavian countries have the lowest levels of energy poverty. Electricity prices, unemployment, and the percentage of people at risk of poverty are the main drivers of energy poverty. Luczak and Kalinowski (2020) determine the level of material deprivation in EU countries from local and global perspectives. Research results remark that the people living in new EU members are more severely affected by material deprivation than people living in old EU members based on 2016 data. Primc and Erker (2020) highlight the importance of policies for reducing energy poverty in EU member states and apply a non-classical fuzzy-set qualitative comparative analysis. Their findings support that energy poverty is a product of the link between low or median household income and energy policy and high energy prices and energy policy. They suggest examining the issue of energy poverty and formulating effective procedures for the transition to a sustainable energy society. Kyprianou et al. (2019) compare energy poverty policies and measures in 5 EU countries by considering different geographical dimensions, conditions, and aspects. For this purpose, they put forth the strengths and weaknesses of national strategies. Castaño-Rosa et al. (2019) use a multiple-indicator approach to understanding fuel poverty beyond its traditional definition and argue about how energy vulnerability may be reflected in the policy decisions and methodological implications.

3 A pilot study on defining poverty and concluding remarks

Our analysis here is to conduct a pilot study to see people's reactions and perspectives on defining poverty and create an outline for future work. The objective of the future work is to explore the poverty problem from different perspectives: one is the perspective of women and men themselves and the other is the perspective of a focused group defined as poor regarding their income level. We aim to include the poor to uncover the crucial dimensions of poverty for them. We will also include people from different income groups to reveal if the definition or dimensions change among the income groups. This subjective way of defining poverty is an essential complement to the income-based and multidimensional approaches to creating social policies for a country or group of countries (Zelinsky et al. 2022; Veenhoven, 2002).

As a part of the pilot study, we asked people on Instagram how they define poverty with three keywords without giving prior knowledge about what we expect from them. In Türkiye, we received 31 answers from followers in a private account in June 2023. When we evaluate the results in terms of keywords, the most repeated words are shelter, education, hunger, lack of money, ignorance, unhappiness, helplessness, and inequality, respectively. However, some keywords were not repeated by everyone but are important to mention such as inflation, GDP, unemployment, disadvantage, lovelessness, marginalization, faith, fear, futurelessness, envy, extractive institutions, inaccessibility, social policies, neo-liberal growth, and restrictions. We can summarize the result of the pilot study as follows: the definition of poverty changes from person to person and people tend to define it multidimensionally instead of focusing on only income level. Another notable point here is that people determine poverty as marginalization such as helplessness, lovelessness, and unhappiness. These types of indicators are not a direct measure of poverty to reflect income poverty or material deprivation. However, these indicators are essential for understanding the overall picture of poverty with its causes and consequences.

As a result, extensive research is planned to analyze whether the definitions of poverty change according to demographic and socio-economic status. Furthermore, people living in the low-income category will be considered as the focus group to include the views of the poor in the analyses as a complement to the poverty measurement methods in the policy development process in Türkiye. It is believed that including people in the low-income category is an effective way to develop strategies to reduce poverty in Türkiye and other countries. For the second part of the

research, we will adapt the questions and consider the Turks living in Germany as a focus group to evaluate the results comparatively since poverty is an issue not only for developing countries but also for developed countries. In addition, we also see that the current trend in the literature for EU states is to consider energy poverty instead of focusing on all the indicators under the multidimensional concept such as severe material deprivation rates. It will also be interesting to see if it is reflected in people's definition of poverty as a subjective measurement method.

References

- Anastasiou, A., Zaroutieri, E. (2023). Energy poverty and the convergence hypothesis across EU member states. *Energy Efficiency* 16(38).
- Bárcena-Martín, E., Lacomba, B., Moro-Egido, A. I., Pérez-Moreno, S. (2014). Country Differences in Material Deprivation in Europe. *Review of Income and Wealth* 60(4): 802-820.
- Belaïd, F. (2022). Implications of poorly designed climate policy on energy poverty: Global reflections on the current surge in energy prices. *Energy Research & Social Science* 92.
- Boardman, B. (2009). *Fixing Fuel Poverty Challenges and Solutions*. 1st Edition, Routledge: London.
- Carfora, A., Scandurra, G., Thomas, A. (2022). Forecasting the COVID-19 effects on energy poverty across EU member states. *Energy Policy* 161.
- Castaño-Rosa, R., Solís-Guzmán, J., Rubio-Bellido, C., Marrero, M. (2019). Towards a multiple-indicator approach to energy poverty in the European Union: A review. *Energy and Buildings* 193: 36-48.
- Decancq, K., Schokkaert, E. (2016). Beyond GDP: Using equivalent incomes to measure well-being in Europe. *Social Indicators Research* 126(1), 21-55.
- Dudek, H. (2019). Country-level drivers of severe material deprivation rates in the EU. *Ekonomický časopis* 67(1) 33-51.
- Dudek H., Sedefoğlu G. (2019). Modelling severe material deprivation rates in EU regions using fractional response regression. *Regional Statistics* 9(2), 130-147.
- Guio, A. C., Marlier, E., Gordon, D., Fahmy, E., Nandy, S., Pomati, M. (2016). Improving the measurement of material deprivation at the European Union level. *Journal of European Social Policy* 26(3), 219–333.
- Halkos, G. E. Gkampoura E. C. (2021). Evaluating the effect of economic crisis on energy poverty in Europe. *Renewable and Sustainable Energy Review* 144.
- Isherwood, B. C., Hancock, R. M. (1979). *Household expenditure on fuel: Distributional aspects*. London: Economic Adviser's Office, DHSS.
- Hasheminasab, H., Streimikiene, D., Pishahang, M. (2023). A novel energy poverty evaluation: Study of the European Union countries. *Energy* 264.
- Kis, A. B., Gábos, A. (2016). Consistent Poverty across the Eu. (2016). *Corvinus Journal of Sociology and Social Policy* 7(2): 3-27.
- Kyprianou, I., Serghides, D.K., Varo, A., Gouveia, J.P., Kopeva, D., Murauskaite, L. (2019). Energy poverty policies and measures in 5 EU countries: A comparative study. *Energy and Buildings* 196: 46-60.
- Łuczak, A., Kalinowski, S. (2020). Assessing the level of the material deprivation of European Union countries. *PLoS ONE* 15(9).
- Narayan, D., Patel, R., Schafft, K., Rademacher, A., Koch-Schulte, S. (2000). *Can Anyone Hear Us?: Voices of the Poor*, Oxford University Press for the World Bank, New York.
- OPHI, Summer School 2017, Marrakech, Morocco <https://ophi.org.uk/ophi-summer-school-2017/>
- Primc, K., Slabe-Erker, R. (2020). Social policy or energy policy? Time to reconsider energy poverty policies. *Energy for Sustainable Development* 55: 32-36.
- Rippin, N. (2012). Operationalising the Capability Approach: A German Correlation Sensitive Poverty Index, Discussion Papers, No. 132, Georg-August-Universität Göttingen, Courant Research Centre - Poverty, Equity and Growth (CRC-PEG), Göttingen.
- Sen A., *Development As Freedom*, 1st Edition, New York: Anchor Books Edition, 2000.
- The World Bank, *Participatory Poverty Assessment Niger*, <https://documents1.worldbank.org/curated/en/451991468071328142/pdf/373930PAPER0NE0participatory0poverty.pdf> (25.06.2023)
- The World Bank, <https://www.worldbank.org/en/news/factsheet/2022/05/02/fact-sheet-an>

adjustment-to-global-poverty-lines (26.06.2023)

Veenhoven, R. (2002). Why social policy needs subjective indicators. *Social Indicators Research* 58: 33–46.

Želinský, T., Mysíková, M., Garner, T. I. (2022). Trends in Subjective Income Poverty Rates in the European Union. *The European Journal of Development Research* 34, 2493–2516.