

A COMPARATIVE STUDY OF POSITIONS OF UKRAINE AMONG COUNTRIES OF THE WORLD FROM THE SUSTAINABILITY PERSPECTIVE

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This comparative assessment is a part of continuous research by the World Center for Geoinformatics and Sustainable Development (WDC-Ukraine) on global modelling of sustainable development for a large group of countries in the context of quality and security of life in the space of three dimensions, economic, environmental and social [1]. It is an attempt to assess positions of Ukraine using values of the sustainable development index and its components estimated by WDC-Ukraine for 2008-2017 decade [2]. The sustainable development index involves human life security component and human life quality component, last one consists of dimensions' indices which reflect economic, environmental, and social spheres of the society's development.

The values of the sustainable development index for Ukraine in comparison with the leaders and outsiders of the ratings during the 2008-2017 decade are presented in fig. 1. From 2008 to 2013, Ukraine ranked from 62nd to 67th among 137 evaluated countries, while from 2014 to 2017 its positions in I_{sd} rating shifted to 129-131. Key reasons are complexities of security and development, large-scale mixed migration from the ATO/JFO area, low birth rates, and significant public health problems. Another reason is the exclusion of life security component (according to the I_{sd} assessment methodology) from the sustainable development index assessment since the Heidelberg Institute for International Conflict Research estimations (Conflict Barometers 2014-2017 [3]) shows that Ukraine was in a state of war since 2014 till 2017. According to values of the quality of life component, during 2008-2017, Ukraine lost up to 12 positions (fig. 2), which can be explained mostly by the decrease in values of the economic dimension index and the relative position of the country in the rating of the countries of the world.

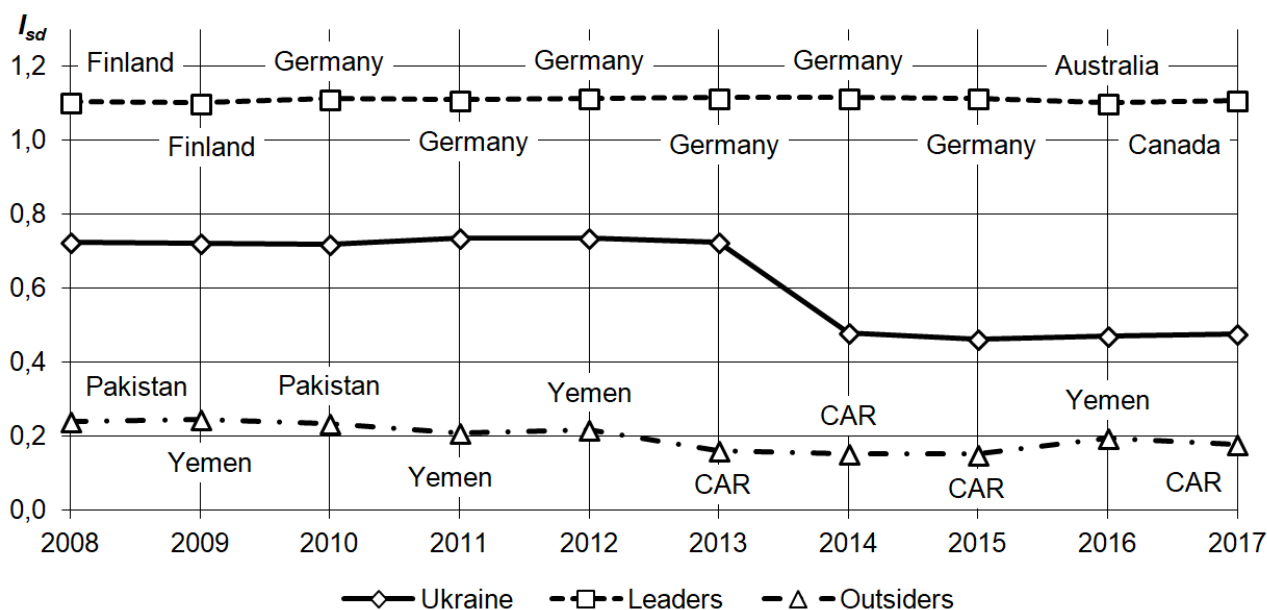


Fig. 1. The value of the sustainable development index, I_{sd} , for Ukraine, leaders and outsiders of ratings

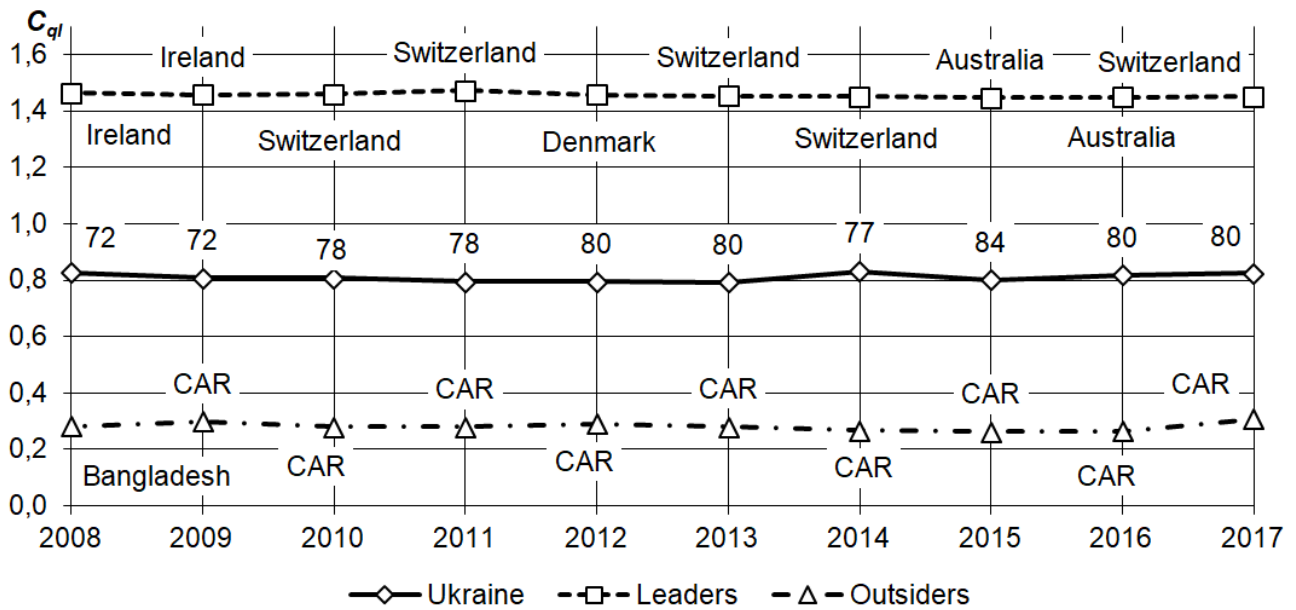


Fig. 2. The value of the quality of life component, C_{ql} , for Ukraine, leaders and outsiders of ratings

According to the values of the sustainable development index, Ukraine's position is closer to sub-Saharan Africa than to the European Union (fig. 3, the average I_{sd} values for the sub-Saharan Africa are estimated using the index values for the countries of this region covered in WDC-Ukraine studies). The same conclusion can be drawn for the relative position of Ukraine against the EU countries and sub-Saharan Africa for the component of the quality of people's life.

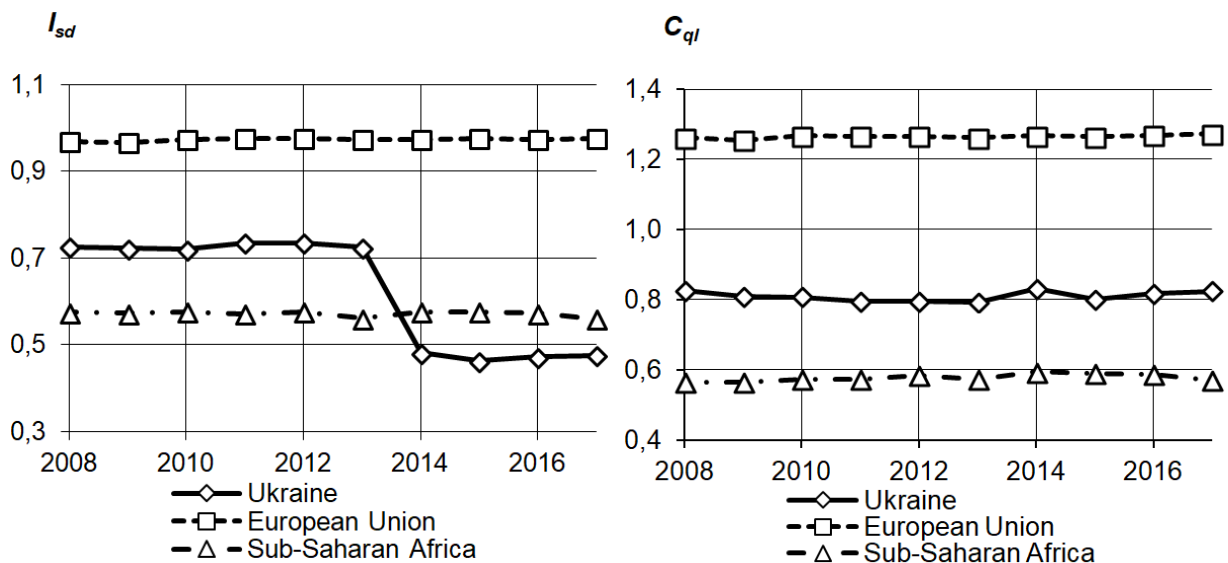


Fig. 3. Values of I_{sd} for Ukraine, average values of I_{sd} for the European Union and sub-Saharan Africa countries in 2008-2017 (left) and values of C_{ql} for Ukraine, average values of C_{ql} for the European Union and sub-Saharan Africa countries in 2008-2017 (right)

Ukraine's "remoteness" by the component of quality of people's life from EU countries by 2007 was significant but proportionate with its "proximity" to sub-Saharan Africa. This gap continued to widen until 2011-2012 and currently tending to narrow but insignificant. The component of quality of people's life for Ukraine (2008-2017) is more dependent on changing values of the economic dimension index rather than on relatively constant values of the social and institutional dimension index or slightly increasing values of the environmental dimension index (fig. 4).

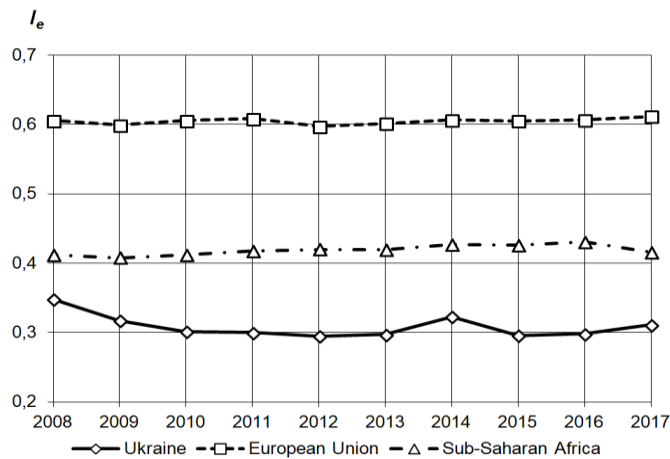


Fig. 4. Values of economic dimension index, I_e , for Ukraine, average values of I_e for the European Union and sub-Saharan Africa countries in 2008-2017

Considering some of the elements of quality of people's life and security of people's life components [2], one can observe both the fluctuation of values, for example, for the indicator of personal rights and freedom, and the tendency to increase or decrease the relative and absolute values of some indicators. In particular, following indicators have downward trend for Ukraine: personal safety (0.464 in 2008, 0.346 in 2016); access to potable water (96.9% in 2008, 96.2 in 2015); total carbon dioxide emissions (311 Mt CO₂ in 2008, 227 Mt CO₂ in 2014); energy security (0,568 in 2008, 0,505 in 2017); Gini coefficient (26.6 in 2008, 25 in 2016); the number of new cases and recurrence of tuberculosis (119 per 100,000 population in 2008, 87 in 2016); neonatal mortality (7.7 per 1000 live births in 2008, 5.4 in 2016) and other.

An analysis of the values of the sustainable development index and its aggregated components shows a significant lag of Ukraine from the developed countries of the world in security issues, including energy security, combat corruption, foster innovations, development of new technologies, cope with information challenges, and more.

References:

1. Analytical Reports, WDC-Ukraine, 2019, URL: <http://wdc.org.ua/en/sustainable-development/reports>
2. Sustainable Development Modeling, WDC-Ukraine, 2019, URL: <http://sdi.wdc.org.ua/global/>
3. Conflict Barometers 2011-2017, HIIK, URL: <https://hiik.de/download/conflict-barometers-2011-2017>