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Editorial

Towards Renewable Energy: Opportunities and Challenges

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In current times, when the rising demand for energy causes the deterioration of our planet, the transition towards renewable sources seems inevitable. Countries, irrespective of their continent, are putting forth efforts to diminish energy use via enhanced efficiency and transfer to renewables [1–4].

Although the direction is unquestionable, the path is complicated. Despite the tendency of the share of renewables in the energy mix increasing, the relationship between renewable energy consumption and economic output in many countries is still weak or nonexistent [5].

The transition towards more sustainable energy requires substantial investments. In addition, already functioning systems must be maintained or partially closed. For example, the Ukrainian energy sector can be provided. As Sabishchenko et al. (2020) state, the country's nuclear, thermal, and hydropower equipment is almost completely depreciated. Of course, this issue is less critical compared to the current conditions of Russian aggression. In terms of investments, it has to be taken into account that the transition towards a more renewable energy mix requires parallel investments into the already existing power energy sector, as well [6].

The introduction of renewable energy sources requires altering many areas of the economy.

One of the areas is finance. Green financing issues are widely discussed in economic literature. Nassar and Tvaronavičienė (2021) point to the risk caused by green financing and investment and suggest how to mitigate it. Green competitiveness [7–9] and green growth [10] remain goals since it is still not a reality; therefore, getting a return on green investment in the market is not easy.

The manufacturing sector has to be equipped with the newest technologies. Scientists unanimously agree that there is a direct relationship between digitalization and energy sustainability [11,12].

This opportunity is followed by a challenge related to the need for critical energy infrastructure protection [13].

The relationship between renewable energy and sustainable tourism is discussed in the scientific literature [14,15].

The impact of education on energy consumption patterns is highlighted in studies by Alkhateeb et al. [16], Ead et al. [17], and Nguyen and Tran [18].

The importance of energy policy was underlined by Marinescu [19], Igaliyeva et al. [20], and Bondarenko et al. [21].

The impact of trade openness on the development of renewable sources is explored in the papers of Zamil, Furqan & Mahmood [22] and Bayar, Sasmaz & Ozkaya [23].

Finally, it has to be stressed, that even if all economy of a country transforms to facilitate transition towards wider use of renewables, as Wang, Tibo & Duong (2020) claim, the renewable energy has to be used efficiently, since inefficient use can lead to environmental damage [24]. Equipment needed for use of renewable energy sources will have to be utilized responsibly, otherwise it can potentially cause huge damage to environment. The consequences of such utilization must be prevented today [25].

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