

Land Use Efficiency in Poland: A Change Analysis from the Point of View of Sustainable Development Goals

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SUMMARY

Sustainable development represents a guiding principle for the advancement of numerous countries and regions in the 21st century. It emphasizes the need to consider the long-term wellbeing of the environment, society, and economy, ensuring a balanced approach to progress and the enhancement of living standards. Identifying areas where land consumption exceeds demographic growth encourages public authorities to initiate recovery strategies. This study focuses on Poland as the case study, utilizing CORINE Land Cover data alongside population statistics to analyze shifts and regional variations in land use efficiency from 2000 to 2018. The assessment was based on the SDG11.3.1 indicator, which evaluates the ratio of land consumption rate to population growth rate (LCRPGR). The findings reveal that land consumption patterns were more varied during 2006–2018 compared to 2000–2006. These variations pertain both to the indicator values and the spatial disparities between regions. From 2000 to 2006, fourteen out of sixteen regions exhibited a more balanced population increase relative to urban expansion, whereas in 2006–2018, land consumption surpassed demographic growth in six regions. The observed trends in land consumption were shaped by efforts under EU and Polish policies aimed at achieving territorial cohesion and fostering the development of less central regions. Rapid population growth and urbanization exert significant pressure on natural resources, hindering improvements in living conditions. Therefore, sustainable development requires alignment between population dynamics and the ecosystem's evolving productive capacity. Ultimately, sustainable development is not a static state of equilibrium but an ongoing process of adaptation, where resource use and investment priorities must be harmonized to safeguard the environment, society, and economy for present and future generations.

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