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## BIBLIOMETRIC ANALYSIS ON SUSTAINABILITY ASSESSMENT METHODS IN THE BIOECONOMY

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**Abstract** – Sustainability is meeting the needs of today without compromising the ability of future generations to meet their own needs. Sustainability assessment is a complex process because it needs to cover multidisciplinary aspects – environmental, economic, and social. The sustainability assessment is created by combining different indicators, and the resulting single holistic value can be used as an indicator for comparison. A successful economic transition towards a bioeconomy can contribute to the achievement of many sustainability goals. In this paper, a bibliometric analysis method is used to analyse Open Access articles from the Web of Science database using bibliometric *VOSviewer* software. The relationship between sustainability assessment methods and associated keywords is explored through a biometric analysis. A literature review is conducted on the methods and tools of assessing the sustainability of bioresources. The authors have summarised the use of sustainability assessment methods and tools, and their characteristics. The obtained results show that keywords' sustainability assessment methods, in publication have become particularly popular since 2015, as the number of publications increases by more than 100 publications every year. The biggest connection with keywords are keywords 'life-cycle assessment', 'performance', 'management', 'framework', 'model', and 'impact'. Life-cycle assessment, material flows analysis, multi-criteria decision analysis, system dynamics and modelling are popular for assessing sustainability. Each method has advantages and disadvantages; however, it is possible to combine several tools to improve the assessment.

**Keywords** – *Bibliometric analysis; bioeconomy; evaluation methods; sustainability assessment*

