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INTEGRATING SUSTAINABILITY INDICATORS FOR TRACKING ANTHROPOGENIC PRESSURE ON THE EARTH – THE FOOTPRINT FAMILY

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Abstract

Sustainability is considered a key issue for development and growth amongst governments, policymakers, researchers, and the public. In this context, indicators for sustainability are essential to measure and monitor progress and to indicate improvements that are needed, in order to achieve the sustainable development. Over the time many indicators were developed as individual or integrated indexes. Recently a new family of sustainability indicators were developed and used to assess the pressure of the anthropogenic activities put on the Earth and its resources. In this paper, a description of rationale and methodologies is carried out to highlight the relevance of the ecological indicators included in the group of footprints: ecological footprint, carbon footprint and water footprint. The footprints were characterized in terms of their ability to quantify the environmental impacts on human activities, specifically production and consumption. Also, a comparison of the relevance of the three footprints was made and their complementarity was considered in an integrated approach. A special focus was addressed to the footprint family of EU 27 and Romania. We performed a comparison between these three indicators and analyzed the values for each indicator for Romania and EU27 countries.

Key words: biocapacity, carbon footprint, ecological footprint, resource, water footprint

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