

## How (un)-sustainable are sporting events? The case-study of the National University Championship in Cassino

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**Purpose:** Regardless sport has been recognized by the United Nations as an important player in sustainable development, to date, research on environmental sustainability of small and medium-sized sporting events is limited and there is a clear lack of effective methods of environmental impact assessment. Consequently, the purpose of this case study was to evaluate the impact of a multi-sport university event that was held in Italy in May 2022.

**Methods:** A literature review was performed to identify an appropriate method to study the case and the areas of interest to be explored. This document attempts to quantify and analyze the environmental impact associated with participation in the National University Championship by evaluating as input source transport and accommodation. A questionnaire was designed for athletes (n=502), companions (n=24), managers (n=25) and coaches (n=84) to gather information about transport and accommodation, while the information on urban waste was obtained through data provided by the municipality of Cassino. Interviews were also conducted with some executives (n=3) to assess the measure to which sustainability is taken into account by the central organization.

**Results** The quali-quantitative analysis of the different research tools allowed to detect different information, in line with others, the results indicated that one of the analyzed inputs that had a great impact is determined by travel behavior. In addition, a moderate level of commitment to environmental sustainability has emerged from the sports body in charge of organizing university sports activities.

**Conclusions:** Often the measurements, evaluation and analysis of environmental sustainability within the sports sector are rare due to the difficulty of collecting data, the complexity of data, and the lack of a standardized method. This study contributes to the literature in this research's area highlighting a methodological framework for assessing a sporting event with data that can be obtained quickly and with very limited costs. It also allows to identify the activities that have contributed most to the environmental impact so as to be able to outline guidelines that the organization could adopt in order to create future sporting events that may have less impact on the environment. Further analyzes are underway in order to translate the data collected into Carbon Footprint, facilitating comparisons of different sporting events.