

Sport Science

SPORT SCIENCE AT THE UNIVERSITY OF BERN

Sport and movement sciences focus on human movement and sport from a natural science as well as a social science and humanities angle, investigating sport in all its facets and its effects on the psyche and the body as well as on social coexistence [1]. Teaching and research at the University of Bern's [Institute of Sport Science](#) is characterized by its integrative and application-oriented focus on social and behavioural sciences. Topics are examined from various perspectives, including those of exercise and training science as well as of psychology and sociology.

How is sport science linked to sustainable development, and how has this influenced practice?

Sport is often put forward as a means of overcoming cultural and ethnic differences and promoting integration [2], and these goals are frequently achieved. However, there is little empirical evidence as to whether, or to what extent, this integration effect within sport is also transferred to other areas of life. Other beneficial effects of sport are better documented: Sports activities have a proven positive impact on physical and psychosocial health and thus on the population's performance. Furthermore, sport plays an important role in the holistic education of young people and in the development of their personalities. Finally, sport is also of considerable economic importance.

At the University of Bern, the study programmes in sport science are mainly geared towards future employment in the fields of school sport, sport management, and health promotion, but it also looks at sport tourism, for example. Sport affects all dimensions of sustainable development. Let's start with the environmental effects of sports activities: In the above-mentioned professional fields, nature usually serves as infrastructure and/or a backdrop for sports activities. Instrumentalizing nature in this way can lead to overuse of the landscape and to disturbance of wild animals and flora. The mobility associated with sports activities contributes to global warming, due to the resulting CO₂ emissions. In addition, many sports (e.g. snow sports, golf, football) are dependent on complex and land-intensive infrastructure with high levels of resource

use for construction, operation, and maintenance. The production of sports equipment is also extremely resource-intensive in some cases, and disposing of old equipment without polluting water, air, and ecosystems can turn into an environmental challenge. The staging of sporting events can also have a negative impact on sustainable development. Typically, the mobility triggered and the concentration of large crowds in a small space result in a wide variety of environmental impacts.

Sport also affects the social and economic dimensions of sustainable development, both positively and negatively. For example, while sporting events can generate additional income for people who live at the event location, the same inhabitants may be negatively affected by noise, waste, and damage to the land.

At the Institute of Sport Science, the topic of sustainable development is integrated into various areas of teaching, such as, for example, mobility and nature, social integration, and corporate social responsibility [3]. The Institute of Sport Science not only conducts, but also continuously expands and deepens the discourse on the interactions between sport and sustainable development.

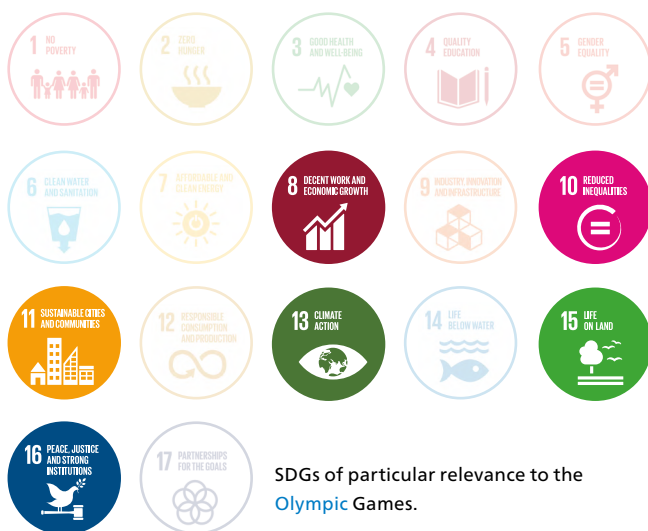
Example: The Olympics and the SDGs

As the most watched, most expensive event in the world, the Olympic Games could be trailblazers of sustainability. While they are advertised as that, their sustainability has never been systematically evaluated. In 2018, the United Nations adopted a resolution promoting "sport as an enabler" of sustainable development and signed a declaration of intent highlighting the contribution of the Olympics to the UN Sustainable Development Goals (SDGs). However, this contribution is ambivalent in many areas [4].

Large sporting events such as the Olympics can have many effects at the venue (or in the host country). From an economic perspective, there are positive tourism-related effects on the one hand, but on the other, host cities run the risk of having to bear a long-term financial burden, if for example building the infrastructure leads to a debt trap (such as occurred after Greece 2004) (**SDG 8**). This problem becomes apparent when the sports facilities built for the Olympics are no longer used once the Games are

over. Nonetheless, investments in local infrastructure have the potential for long-term positive impacts. For example, the event-related expansion of public transport can also benefit the local population (**SDGs 9, 10, and 11**).

The environmental impact of the Olympic Games should not be underestimated. It ranges from the ecological footprint of athletes and visitors to the construction of infrastructure (**SDGs 13 and 15**). Social aspects also play a key role. How participatory is the decision on where to hold the Olympics? Do the inhabitants of the host city agree? Are local people displaced from areas that benefited from infrastructural improvements? What about the working conditions of the people who build the infrastructure? Who will actually benefit from the Games in the end, and who may end up suffering (**SDGs 10, 11, and 16**)?



Other examples that can serve to show up the close link between sport and sustainability:

- A circular economy in sports clothing and equipment
- Embedding nature conservation and environmental protection in sports clubs
- Potentials and risks of sport in the context of climate change mitigation
- Considering sport-related needs in the development of urban areas
- Effects of sports activities on wildlife

How does the University of Bern's Institute of Sport Science incorporate the topic of sustainable development into research and teaching?

At the University of Bern's Institute of Sport Science, the Department of Sport Sociology and Management in particular deals with topics related to sport and sustainability in research and teaching (cf. [6]). Among other things, it carries out research projects on topics related to integration and inclusion, on sustainability in sports associations, and in the field of sports tourism and sports events. Furthermore, the Department of Health Science examines links to sustainable development in terms of promoting health and well-being. And the Department of Sport Pedagogy and Department of Sport Psychology and Research Methods deal with questions of holistic education and personality development, for example in the context of the "active schools" concept (German: "Bewegte Schule").

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English translation: Tina Hirschbuehl and Marlène Thibault (CDE)

Layout: Simone Kummer (CDE)

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Version 1.0

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This document was compiled within Project 7.9, Education for Sustainable Development (ESD), of the University of Bern. Project 7.9 supports the Vice-Rectorate Quality in incorporating sustainable development into teaching at the University of Bern. Project 7.9 focuses on disciplinary and interdisciplinary connections with sustainable development, helping the faculties and institutes to identify these connections and make them visible to a wider audience.

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