

Environmental Impacts of Holiday and Leisure Activities



Introduction

People are confronted with a wide range of possibilities how they can spend their holiday or leisure time. Travelling and exploring new cultures or landscapes is one thing many people like. Holiday can be spent out in nature far away from home or in a luxurious hotel nearby. But, also regarding leisure activities people need to make choices and select from several options like skiing, hiking, or visiting a zoo, cinema or museum. Many people recognize the environmental importance of travelling from one place to another by different means of transportation. But, tourism is more than this. It involves also accommodation as well as the activities with which one spends the day. These aspects cause environmental impacts as well.

Life Cycle Inventory

Investigated were different types of holiday, amongst others; winter holiday, all inclusive seaside tourism, cruises, hiking holiday, caravan holiday and staycation [1, 2]. The scenarios consider journeys with different means of transportation, different types of accommodations ranging from high-end hotels to camping sites, meals, and different leisure activities as e.g. skiing, heli-skiing, visits in zoo, museum, pool or spa, shopping, diving, jet-skiing, and a safari.

All scenarios are set up for reasonable time frames and number of persons. Starting point of all scenarios is Switzerland. The functional unit is defined as “one person spending one day of holiday”.



Results and Discussion

The scenarios are evaluated with different impacts assessment methods. Figure 1 shows the ecological scarcity points of different types of holiday per person and day. In general, holiday close to the living place exhibit relatively low impacts mainly because of the shorter travelling distance. Energy-intense journeys (by plane) and activities (heli-skiing, cruise) cause high impacts. A cruise liner consumes considerable amounts of diesel fuel per passenger as the diesel is not only used to move the ship but also to provide electricity and heat for the countless activities on board.

The average greenhouse gas emissions in Switzerland account for 12.5 tons per inhabitant and year. A two week’s heli-ski adventure in Canada already exhibits 4 tons CO₂-eq per person which is one third of the average total annual emissions.

Obviously, spending holiday at home and hiking close to the living place cause low impacts. However, impacts of staycation depend very much on the activities.

The journey is very important whereby flights exhibit highest impacts. With regard to accommodation no general conclusions are possible. The range of

impacts between hotels of different climate zones but also within one country can be significant. In general, holiday homes cause relatively low emissions compared to hotels because of the comparable lower luxury standard. If hotels are air-conditioned all year impacts increase considerably, depending very much on the electricity mix consumed. In cold regions the specific heating energy is an important issue.

Impacts of activities are very different (Figure 2). In case of helicopter flights fuel consumption and number of transported passengers are important. With regard to Safari and caravan holiday the type of transport and distance put back are the dominating factors.

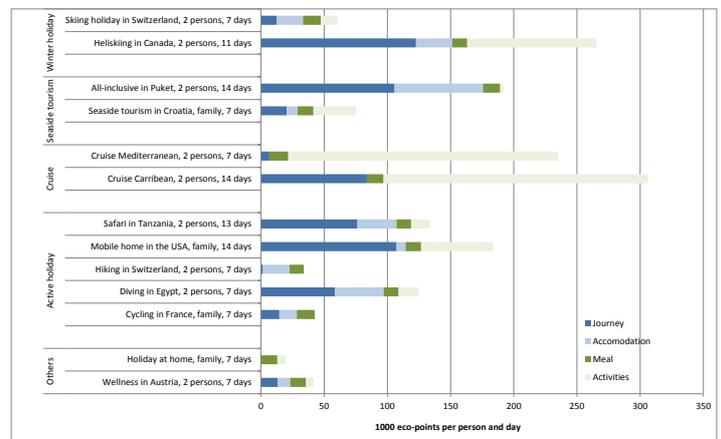


Figure 1 Ecological scarcity points per person and day for different holiday scenarios. Scenarios are defined for reasonable time frames and number of people (family means 2 adults and 2 children). Starting point is Switzerland (CH).

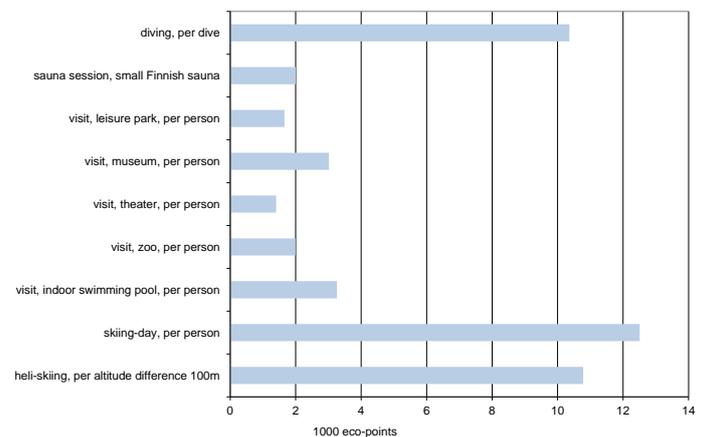


Figure 2 Ecological scarcity points of different activities.

Conclusions

Our investigations show that often the distance and mode of transportation are important for the environmental impacts caused. But, there are also activities like cruises or heli-skiing that can lead to considerable higher environmental impacts than other types of holiday activities. There are several activities which impacts are rather low, e.g. skiing, hiking, cycling, visits of pool, zoo or museum. With regard to accommodation the impacts of different options vary considerably and should thus not be neglected when evaluating environmental impacts of holiday.

References

- [1] Büsser S, Jungbluth N. 2010. Environmental impacts of holiday scenarios in Switzerland and aboard. Uster, Switzerland. ESU-services.
- [2] Stucki M, Jungbluth N. 2010. Carbon footprint of Swiss mountain railways and skiing. Uster, Switzerland. ESU-services.