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Theme -Theme 2: Observing in Support of Adaptation and Mitigation

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Poster title (brief) Arctic and tourism: adaptation aspects of transcontinental travels and mitigation of climate threats

Abstract - text box
Weather and climate have long been considered important for health tourists in terms of destination, travel times, and perceived thermal comfort. Among various facets of tourism climate, its thermal side is one of the most important for health tourists. Its significance is estimated through thermal comfort, which considers integrated effect of weather variables and personal parameters. Another problem arises when travellers are exposed to climates that are quite different from what they experience at home: when contrasts in climatic environment increase, the intensity of the adaptation processes becomes more pronounced. The aim is to offer a method for quantitative assessment of the impact of climatic contrasts on human body on the example of travels directed to the Arctic Zone and back. We propose to use the Acclimatization Thermal Strain Index for Tourism (ATSIT), which characterizes the potential physiological response of the human body in terms of the adaptive strain of the thermoregulatory system. The calculations are carried out for summer (July) – the best season for active tourist movements to the Arctic, and for winter (January) – the time when the North residents try to move to less extreme climatic conditions. Climatic data on the maximum average monthly temperature and relative humidity were used for calculations. It is revealed that when moving to the North from hot humid conditions, the acclimatization load varies from large to excessive. At the same time, when residents of the Arctic plan recreational activity in the winter season in a more favorable environment, they should take into account the possible negative physiological impact of new weather and climatic conditions. Preliminary calculations can be used to design the route and time of transcontinental movements according to the criterion of minimum acclimatization strain. For mitigating climate risks when planning and making decisions about the place and time of recreational activities, Geo-information systems publicly available for tourists, stakeholders, public health and medical services, and tourism sector industries can be of help in locating climate information. The purpose of these systems is to deliver information to end-users about the actual and prognostic information on thermal bioclimate in new destinations, possible contrasts of climatic conditions and to forecast the expected acclimatization load on the human body for health tourists to mitigate adaptation process risks.