



Biometeorology - a science supporting adaptation strategies

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Biometeorology as an interdisciplinary science deals with the interactions between atmospheric processes and living organisms (plants, animals and humans). If and in what way weather and climate affect the well-being of all the living creatures? This is the most important question biometeorology is answering.

The International Society of Biometeorology (ISB) has built an international forum for the promotion of interdisciplinary collaboration between meteorologists, health professionals, biologists, climatologists, ecologists and other scientists. The Society acts as a community of scientists with similar interests, and fulfills an important role in providing information, expertise and advice for international organizations requiring this assistance. The ISB represents the most comprehensive organization, which brings together people with expertise in these areas.

Another specific aim of the ISB is the stimulation of research. Therefore, groups of members are working on several topics organized in commissions for specific targets.

The recent five commissions are working in the several fields including climate change issues. Some of examples will be presented, which have been initiated by the members of the ISB and how they can be included as a solid scientific basis to develop efficient adaptation strategies.

One such example is a project combining natural and social sciences (in the fields of cooperation processes, tourism analysis and strategy, weather and climate change analysis, information and communication and knowledge transfer) in a transdisciplinary approach that includes players from tourism policy and business and which focuses on the North Sea Coast and the Black Forest. The project "Climate trends and sustainable development of tourism in coastal and mountain range regions was divided into four phases – diagnosis, assessment, strategy/design of solutions, and evaluation – where scientific subprojects and practical partners meet regularly to discuss the research activities, identify the needs of the actors and to jointly develop adaptation strategies at local scale. The anticipatory adaptation requires communication activities on the level of the individual tourism actors among themselves and with visitors as well as processes of cooperative learning and joint decision-making in tourism regions.

There are well known several examples of using heat budget models for assessing human thermal comfort and developing Heat Watch Warning Systems to prevent adverse effects of heat waves.