



Recent climatic variability in Spain and its impacts on tourism

P. Domonkos (1), J.A. Duro (2), and X. Farré (2)

(1) Univ. Rovira i Virgili, Campus Terres de l'Ebre, Centre for Climate Change, Tortosa, Spain (peter.domonkos@urv.cat), (2) Univ. Rovira i Virgili, Dept. Economics, Reus, Spain

Recent climatic trends and occurrences of hot summers have been examined using observed data of the Spanish Meteorological Agency for 71 stations. Our goal was to assess the impacts of the climatic potential and its changes to the tourism industry. We used six monthly climatic variables, namely daily mean temperature, daily maximum temperature, number of precipitous day, precipitation amount, sunshine duration and wind speed. All data were quality controlled and temperature data were homogenised with ACMANT which is one of the best homogenisation methods. The climatic data shows that Spain has a very favourable climate for tourism in general: it is characterised by much sunshine all the year round and low number of precipitous or stormy days, except for the northern coastline where rainy days are relatively frequent. In summer, which is the high season for tourism, the frequent hot weather may worsen the attractiveness of the climate in Spain. A parallel analysis of climatic data and hotel occupancy data has shown that hotel users tend to highly tolerate heat stress. In spite of hot summers were more frequent in the last decade than in the twentieth century, the growth of Spanish tourism is still the most intensive in summer. The likely explanations are i) Spanish hotels are air-conditioned, ii) Most summer visitors are beach users, iii) The intensive nightlife of beach resorts in warm nights is appealing for tourists. For specific branches of tourism (cultural programs, rural tourism, etc.) the tourists' reaction on changing climate deviates somewhat from the mean tendencies, but no decline in summer tourism can be observed in connection with the recent warming tendency even for the hottest south interior of Spain.