

# Report reveals extreme impact of global warming on Europe

July 7 2005

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Spaniards could be sunning themselves on British beaches and Greeks could be cruising down the Rhine if global warming patterns continue, a report revealed today.

Southern Europeans could be heading northward for their summer break and British holidaymakers could be boycotting Benidorm as temperatures rise to unbearable levels within the next twenty years.

Scientists from eight European countries have spent the past three years estimating extreme climate change and its impact on six specific economic sectors over the next eighty years.

The comprehensive MICE report “Modelling the Impact of Climate Extremes” is published this week by the University of East Anglia’s Climatic Research Unit and concludes that the issue of global warming tends to be ignored by decision makers in business and governments because of the long-term predictions.

It comes as leaders gather for critical discussions on the levels of carbon emissions at the G8 summit on Thursday. (July 7)

The team gathered data from new climate models “a computer representation of the atmosphere, ocean and land surface” to predict the changing weather patterns across Europe. (quote from Professor Jean Palutikof at end)

Their findings confirm that, in the future:

- â€¢ Heat waves will become hotter and last longer over much of Europe
- â€¢ The cold season will become much shorter
- â€¢ Cold days with temperatures below freezing will decrease by up to 4 months in Northern Europe by 2070
- â€¢ Southern Europe and the Mediterranean will experience drier prolonged droughts and reduced rainfall
- â€¢ Northern Europe will be wetter in winter but periods of drought are likely to become more frequent in summer
- â€¢ There will be an increase in winter rain over most of Europe leading to greater flood risk and water pollution
- â€¢ The number of severe winter storms over Western Europe will increase

The impact of climate change was studied in six sectors â€“ tourism, Mediterranean agriculture, forestry, water and property insurance. It consulted working parties of Europeans directly involved in the industries rather than policy makers.

The consultations revealed the following:

#### â€¢ Tourism

Winter sports in Alps - Snow depth is expected to decrease by about 20 â€“ 30 per cent by 2020.

Summer holidays - more frequent and more intense droughts are likely to discourage Mediterranean holidays as more southern Europeans head north or take their holiday in spring. Observed globally average temperatures indicate that the six warmest years on record have all occurred since 1997. Across Europe the warmest ever summer since 1500 was 2003.

A possible indication of what is to come was experienced in Paris,

France during the European heat wave of 2003. Parisian temperatures on most days in early August exceeded 40 degrees Celsius.

#### â€¢ Water

Floods, droughts and episodes of water pollution are likely to become more severe and more common in the future during wetter and warmer winters - rainfall will be delivered to rivers more rapidly due to more frequent rain and less frequent snow.

#### â€¢ Agriculture

Reductions in yields are expected due to a shorter growing season and extreme events during development stages including higher risk of heat stress during flowering period and higher risk of rainy days during sowing dates. This impact will be felt over the southern Mediterranean and North Africa.

#### â€¢ Forestry

An increased risk of forest fire is expected due to a higher number of dry and hot days in continental and upland areas. Half a million hectares of forest in Mediterranean Europe was destroyed in summer of 2003 â€“ each hectare costing European economy 1000 and 5000 euros. In northern forests, increases in tree damage due to warmer winters and summer droughts. Spruce, the most economically important tree species in Europe, is facing increased risk of bark beetle and wind throw damage.

#### â€¢ Energy

Energy production in Europe is sensitive to extremes of temperature. High temperatures can lead to the shut down of power plants due to

overheating. There will be lower demand in winter (space heating) and higher in summer (space cooling)

German nuclear power plants on the Upper Rhine and the Neckar River were forced to reduce their power production by 20 per cent for several days in August 2003 due to river cooling water temps in excess of 26 degrees.

â€¢ Property Insurance

Property damage from windstorm in the UK is expected to increase by 15 per cent by 2070- 2099.

Prof Jean Palutikof, coordinator of MICE who worked on the project while at the Climatic Research Unit at UEA, said:

â€œWe hope that this report helps inform decision makers in business and government so that they can deal with the effect of climate change on economic activities in Europe.â€?

â€œEmerging evidence suggests that the impact of climate change on economic activity such as tourism will be rather sooner than initially thought action will be required within the next twenty years,â€?  
Professor Palutikof added.

Source: University of East Anglia

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