



Project to predict climate change in Ireland

Weather patterns suggest climate change will result in Irish precipitation levels being heavier in the winter and lighter in the summer, which could have a particular impact upon agriculture, a leading meteorologist has said.

Prof Peter Lynch, a Met Éireann Professor of Meteorology at University College Dublin, said the work he is conducting with Met Éireann on the Community Climate Change Consortium of Ireland project shows signs that the annual Irish weather cycle is being amplified.

"This could result in increased flooding in the winter and drought or at least water shortages in the summer. Models suggest these stresses are more likely to affect the eastern side of Ireland more so than the West."

Under the project Prof Lynch and his colleagues have been running regional climate models focusing on Ireland. Once the weather and atmospheric models are recorded, they are studied and used to estimate what will happen to the Irish climate and to gauge the implications of climate change.

Prof Lynch said the occurrence of extreme weather, such as storms and flooding, is increasing and the indications suggest these will become more frequent in the future.

"The indications from Europe are already there and are a cause for concern.

"We have seen major flooding events, such as those in England last summer and there have been other major flooding episodes in

Central Europe over the last five years.

"There have also been major heat waves and 2003 was exceptionally warm. The number of excess deaths occurring because of this was measured and it was some 25,000 in Europe that summer," he said.

Prof Lynch is a member of the EC-Earth Programme, an international collaborative project aiming to create a system to predict and simulate the global climate system.

Along with climate-prediction experts from 10 other European countries, Prof Lynch and the Head of Research at Met Éireann, Ray McGrath, hope they can develop a programme that will improve global climate predictions for the rest of this century and further into the future.

"In addition to the Earth's atmosphere, the computer model will incorporate factors relating to the ocean, land and ice. We will also include modules for marine and terrestrial biogeochemical cycles later in the project."

The next task for EC-Earth is to develop a picture of exactly what is happening and evaluate conditions and changes that have occurred over time and he expects results from the research this year.

Prof Lynch said through his work the signs of climate change are already apparent in the melting of Arctic ice, which he said has been "quite dramatic".

"People have criticised America for its involvement in climate change but in Europe we have not done a whole lot and Ireland in fact has been quite bad. We are very much in excess of the levels of the Kyoto agreement and I think it will be extraordinarily difficult for us to cut back enough."

Steven Carroll

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