

New Flood Risk Threatens UK

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Police on Duty before a crowd gathers to survey the damage in High Street, Uckfield

@Alan Thompson

Today sees the fiftieth anniversary of the devastating floods which hit the east coast of Britain. On the night of Saturday 31 January 1953, a massive storm surge in the North Sea breached coastal defences, leading to the evacuation of 32,000 people and the loss of 307 lives. The damage of the flooding was extensive. Its cost was estimated at £50 million in 1953 prices. However, the Netherlands were hit hardest by the surge which claimed 1,800 lives.

The unprecedented floods were caused by the combination of four crucial factors: a strong north-westerly gale; a deep depression (below 970 millibars); an unusually large spring tide and the topography of the North Sea. This last factor is

important as the North Sea becomes narrower and shallower towards the south. This means the effects of the first three variables were amplified to deadly effect.

The topography of the North Sea has wider implications when considering the effects that Global Warming may have on the UK. Rising global temperatures have increased the melt rates of the polar icecaps and caused a thermal expansion of sea water. This has led to rising sea levels. The south east of England is particularly at risk as it is sinking due to the "rebound" of Scottish mountains since the last ice age.

This scenario has caused a policy chance by the British government. With a budget of £400million a year for flood defences, the Environment Agency has to make difficult choices on where the money should be spent. It has just announced a "managed realignment" in its flood defence strategy. Under the new plan, flood protection for urban areas will be prioritised.

This will come at a high price as the sea will be allowed to reclaim 24,710 acres over the next 15 years. However, rural areas will not be unprotected as new cheaper defences will be built in front of this 'buffer zone'. The new areas of coastal marshes will accommodate millions of rare wildfowl. It is hoped that the increased income from tourism will offset agricultural losses.

The most significant proposal involves the Thames Barrier. A new project run by the Environment Agency, Planning for Flood Risk Management in the Thames Estuary, is aiming to increase the height of the barrier to accommodate a 1.2 metre sea level rise. The barrier was intended to protect London from flooding until 2030. It was estimated by this time it would have to close its gates around 30 times a year. However, in the winter of 2000-2001 it had to close 24 times. Under the latest plan, river walls will also have to be raised by between 1ft 8 in and 3 ft 2in. It is estimated that these moves will protect London for another 100 years.