

Scientists call for new sea defences to save lives

By **Tim Bugler**

SCOTLAND'S coastal defences should be redesigned to withstand more powerful storms triggered by climate change, scientists have said.

Researchers at Edinburgh University said improved seawalls could limit loss of life and property damage as coastal waters become more stormy.

With colleagues at Hokkaido University in Japan, the team developed a way to predict what happens to the tons of water inside large waves when they hit cliffs, seawalls and buildings.

The scientists recreated stormy conditions in a wave flume to test the impact of waves on walls.

When a wave crashes into an upright structure, a jet of water is thrown straight up into the air. These sheets break apart into droplets, which hit people and property with great force.

The researchers used the findings to develop a way of calculating the spray pattern produced by waves which could inform the design of future sea defences.

The new model could help engineers to design coastal defences that are better able to stop water spilling on to land.

Professor David Ingram, of the University of Edinburgh's School of Engineering, said: 'With climate change increasing the intensity of storms, a better understanding of the interaction of waves and our coast is critical.'

