

Task 11: Risk perception, community behaviour and social resilience

The aim of Task 11 is to understand flood risk from the perspective of communities, by looking at the impact of flooding on these communities and their ability to respond and recover from such events.

This task takes account of Environment Agency work on vulnerable groups, but does not consider other work on projects such as *Environmental inequalities* or *Public response to flood warnings*. The report recommends that Environment Agency social policy staff become involved in this task.

Task 19: Development of a framework for flood event management planning

The aims of Task 19 are to:

- design a decision support system (DSS) which makes use of computer model results and other information to support emergency management planning, in particular evacuation and rescue planning;
- test this system on pilot sites;
- narrow down the number of forecasts by rejecting unlikely scenarios using probabilistic techniques to identify the most likely inundation scenarios, to reduce the false alarm rate;
- optimise safe escape plans in the case of disaster, for example by determining safe access routes for rescue personnel where flood warning time is minimal.

The DSS aims to provide support to authorities in deciding on evacuation instructions to the community. The DSS needs to be simple and easy to use, but sufficiently flexible to be practical for all emergency personnel, from event planners to rescue services.

The Environment Agency's vision of the DSS is a system that helps to automate procedures, allowing forecasters to make better and more rapid assessments of flood warnings. The DSS should also help to rapidly disseminate flood warnings to professional partners and the public in a clearly understandable form.

However, partners may have their own strategies for flood events, and it is not clear whether they should use the same DSS or whether separate systems might be needed which link with systems already operated by those partners. For example, the fire and rescue services may have their own systems for deciding how to deploy their resources during flood events.

This task links with work areas within the FRMRC programme. The Thames estuary will be used as a trial site, so there are also links with the Environment Agency's National Flow Forecasting System (NFFS). This is considered an important task for the Environment Agency and the report recommends that its flood risk management staff should be involved.

Task 20: Development of a framework for the influence and impact of uncertainty

The main aims of Task 20 are to:

- enable uncertainty to be propagated through integrated flood risk models, by developing uncertainty propagation software;
- provide guidance on scale, complexity and credibility in composite models of flood risk;
- provide support to decision-making in policy and emergency situations.

This task was considered important to the Environment Agency, as there are overlaps with areas within the FRMRC programme. The Environment Agency should aim to influence the outcomes of this work and should involve its flood forecasting staff.

The report further recommends that a small network of Environment Agency/Defra staff and academics be set up, to provide clear channels through which information could be disseminated. These people could be called 'social science champions'.

The Environment Agency could then liaise with these 'champions' to find out how best to disseminate information, for example by making use of Defra Flood and Coastal Erosion Risk Management R&D publication "Research News", or other information routes.

This summary relates to information from Science Project SC040035, reported in detail in the following output:-

Science Report: SC040035/SR

Title: FLOODsite liaison – Interim report February 2006

ISBN: 978-1-84432-805-5

August 2007

Report Product Code: SCHO0807BNAV-E-P

Internal Status: Released to all regions

External Status: Publicly available

Project manager: Marianne Copeland

Research Collaborators:

Chris Collier, University of Salford; David Ramsbottom, HR Wallingford; Kevin Sene, Atkins; Clare Twigger-Ross, Collingwood Environmental Planning

This project was funded by the Environment Agency's Science Department, which provides scientific knowledge, tools and techniques to enable us to protect and manage the environment as effectively as possible.

Further copies of this summary and related report are available from our [publications catalogue](#) on or our National Customer Contact Centre T: 08708 506506 or E: enquiries@environment-agency.gov.uk.

© Environment Agency