A Framework for Coastal Research, Development and Dissemination (CoRDDi)

Project Summary SC090035/S

A new framework aims to boost collaboration between different researchers and organisations working in flood and coastal science, and those responsible for managing flood and coastal erosion risks along our coastlines. The framework also aims to boost local participation in the decisions made and measures adopted to protect or manage the coastline.

This Framework for **Co**astal **R**esearch, **D**evelopment and **Di**ssemination (CoRDDi) sets out research priorities for the next five years to improve Flood and Coastal Erosion Risk Management (FCERM). The framework is being promoted through the joint Environment Agency/Department for Environment, Food and Rural Affairs (Defra) Flood and Coastal Erosion Risk Management R&D Programme. It forms one of the detailed research frameworks which nest below the *Living with Environmental Change* (LWEC) UK FCERM Research Strategy.

CoRDDi is aimed at all those with an interest in managing flood and coastal erosion risk, including the Environment Agency, maritime operating authorities, Regional Coastal Groups, Natural England/Countryside Council for Wales, infrastructure owners who have assets on the coast, practitioners (engineers and scientists) and local communities living along the coastline.

The vision for CoRDDi is as follows:

- Those responsible for managing coastal flood and erosion should have access to useable tools and techniques that improve their ability to predict change.
- The opportunities and constraints of change on all important aspects of coastal flood and erosion systems should be understood and accounted for when making decisions. The decisions taken must be fully integrated, nesting UK priorities through to action, and maximise opportunities and minimise risks efficiently and effectively.
- There should be rapid uptake of research and development outputs into practice, while practical experience and pilot studies should routinely refresh research priorities.

The Framework was developed via a consultation exercise that included questionnaires, a user workshop, the formation of an advisory group and individual interviews. In addition, a review of existing science programmes (including government led and research council) was undertaken to identify gaps that could be filled by CoRDDi.

Throughout the development of CoRDDi, good science and supporting evidence was recognised as essential for good decision making on the management of coastal flooding and erosion. To support this goal the portfolio of RDD extends across a spectrum of activities, from basic coastal research (NERC, EPSRC and others), applied coastal research (European Commission), development of practical tools and guides (CIRIA and others) and dissemination and training to promote take-up and improve 'operational capability.

The Framework comprises four themes:

- 1: Understanding whole-system behaviour.
- 2: Valuing impacts and promoting innovative funding.
- 3: Decision making and operational practice,
- 4: Dissemination, education and training.

A prioritisation process was used to distinguish between 'essential' and 'desirable' needs, between needs of national importance and those of local value, and needs required to influence practice now against those which will be required at some stage in the future. The outcome of this process was a set of 18 priority projects, each with objectives mapped against the needs and costed over the next five years:

Theme 1

- Climate change impacts on coastal processes.
- Ecosystem service benefits to flood and coastal erosion risk management.
- Behaviour of mixed beaches and their management.
- Coastal sediment systems framework and model development.
- Asset performance tools integrated tiered framework and data management.
- Understanding and managing cohesive shorelines.
- Scoping and development of the potential to integrate multi-scale models and decisions.

Theme 2

- Valuing ecosystem services in flood and coastal erosion risk management.
- Innovation in coastal defence schemes.
- Attribution of benefits from flooding and erosion
- Developing a framework for inclusion of social choice.
- Best practice in local participation.

Theme 3

- Guidance on adaptation measures for managing coastal change.
- Scoping study to develop an integrated national appraisal of flood risk and erosion risk.
- Review of SMP2 and PPS25 influences on land-use planning decisions.
- Integrating flood and coastal erosion risk management with marine spatial planning.

Theme 4

- Dissemination of CoRDDi outputs.
- Review of data benchmarking and holdings.

To stay relevant, it is essential that the Framework should respond to changing user needs and innovation. Key to this, is the ability to monitor and evaluate success and the benefits achieved. This will enable the Framework to evolve and grow to incorporate advances in understanding and improved practices. Partnership working between researchers and users, scientists, engineers and planners, and coastal communities will be needed to achieve these aims.

This summary relates to information from project SC090035, reported in detail in the following output(s):

Report: SC090035/R
Title: A Framework for Coastal Research, Development and Dissemination

October 2012

Internal Status: Released to all regions
External Status: Publicly available

Project manager: Owen Tarrant, Evidence Directorate

Research Contractor: Royal Haskoning, Sayers and Partners, HR Wallingford

This project was commissioned by the Environment Agency's Evidence Directorate, as part of the joint Environment Agency/Defra Flood and Coastal Erosion Risk Management Research and Development Programme.

Email: fcerm.evidence@environment-agency.gov.uk.

Further copies of this summary are available from our publications catalogue: http://publications.environment-agency.gov.uk or our National Customer Contact Centre: T: 08708 506506
E: enquiries@environment-agency.gov.uk.