



SID 5 Research Project Final Report

Note

In line with the Freedom of Information Act 2000, Defra aims to place the results of its completed research projects in the public domain wherever possible. The SID 5 (Research Project Final Report) is designed to capture the information on the results and outputs of Defra-funded research in a format that is easily publishable through the Defra website. A SID 5 must be completed for all projects.

This form is in Word format and the boxes may be expanded or reduced, as appropriate.

ACCESS TO INFORMATION

The information collected on this form will be stored electronically and may be sent to any part of Defra, or to individual researchers or organisations outside Defra for the purposes of reviewing the project. Defra may also disclose the information to any outside organisation acting as an agent authorised by Defra to process final research reports on its behalf. Defra intends to publish this form on its website, unless there are strong reasons not to, which fully comply with exemptions under the Environmental Information Regulations or the Freedom of Information Act 2000.

Defra may be required to release information, including personal data and commercial information, on request under the Environmental Information Regulations or the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality or act in contravention of its obligations under the Data Protection Act 1998. Defra or its appointed agents may use the name, address or other details on your form to contact you in connection with occasional customer research aimed at improving the processes through which Defra works with its contractors.

Project identification

1. Defra Project code
2. Project title
3. Contractor organisation(s)
4. Total Defra project costs (agreed fixed price)
5. Project: start date
end date

6. It is Defra's intention to publish this form.
Please confirm your agreement to do so..... YES NO

(a) When preparing SID 5s contractors should bear in mind that Defra intends that they be made public. They should be written in a clear and concise manner and represent a full account of the research project which someone not closely associated with the project can follow.

Defra recognises that in a small minority of cases there may be information, such as intellectual property or commercially confidential data, used in or generated by the research project, which should not be disclosed. In these cases, such information should be detailed in a separate annex (not to be published) so that the SID 5 can be placed in the public domain. Where it is impossible to complete the Final Report without including references to any sensitive or confidential data, the information should be included and section (b) completed. NB: only in exceptional circumstances will Defra expect contractors to give a "No" answer.

In all cases, reasons for withholding information must be fully in line with exemptions under the Environmental Information Regulations or the Freedom of Information Act 2000.

(b) If you have answered NO, please explain why the Final report should not be released into public domain

Executive Summary

7. The executive summary must not exceed 2 sides in total of A4 and should be understandable to the intelligent non-scientist. It should cover the main objectives, methods and findings of the research, together with any other significant events and options for new work.

This project aims to support the development of a social science strategy for the Defra and Environment Agency FCERM R&D Programme. Through collaborative research and a focus on capacity building the project has developed a vision statement for FCERM R&D together with a series of opportunities to achieve that vision. The vision and identified opportunities provide the building blocks for embedding social sciences in the FCERM R&D Programme.

The vision statement reads:

'FCERM R&D focusses on research that puts people and places at the centre of its work, and locates technology and structures in a social and spatial context.'

This focus is on a **collaborative** approach to knowledge development that embraces and understands that FCERM has **many perspectives and knowledges**. FCERM R&D is a **learning system** such that all projects are evaluated in terms of: the benefits to FCERM's objectives and the **research quality**, to ensure its contribution to efficient use of research money and more effective practices in future.'

The **overall proposal is that the building blocks for embedding social sciences in FCERM research need to be taken forward by Defra and the Environment Agency**. More detailed identified opportunities are included below:

R1 Embedding the vision

We propose that the Vision statement and Narratives for each of the themes (and suggestions for projects within each narrative) are considered for further development by FCERM Science Theme Managers and Theme Advisory Group (TAG) members as appropriate.

R2 Embedding collaboration

We propose that collaboration should be a central part of the research programme in order to enable more cross-theme working. Greater co-operation between themes should ensure that the benefits of research projects are shared by the whole programme and more opportunities for cross disciplinary research are provided. This collaboration should extend to wider involvement of key FCERM stakeholders on project boards / TAGs e.g. representatives from local authorities, emergency services and voluntary groups.

R3 Capacity building through expertise

We propose that Defra and the Environment Agency develop both in-house social sciences research expertise and further links with research organisations. Approaches include: having dedicated social scientists within Defra and the Environment Agency, project managers with social science knowledge and experience and establishing links with the Economic and Social Research Council to enable wider research to be drawn upon. Additionally, capacity could be enhanced through the use of ESRC placement fellowships where 'in house' expertise can work alongside FCERM staff in Defra and the Environment Agency.

R4 Capacity building through structures

We propose that Defra and the Environment Agency establish a series of structures to facilitate access to social science knowledge and expertise, sharing of research results and collaboration with other organisations. These could include developing a social sciences network within Defra and the Environment Agency to access and share expertise.

R5 Capacity building through support

We propose that embedding the social sciences in FCERM is supported both upstream and downstream in Defra and the Environment Agency.

- **Upstream support** would involve key senior staff at the Environment Agency and Defra in FCERM policy engaged with discussions about how to embed social sciences together with perhaps one or two key people specifically keeping a watching brief on social sciences in FCERM;
- **Downstream involvement** would ensure that staff from the Environment Agency areas are involved in all aspects of the research process. They may be asked to implement results from a research project and will have practical ideas about social sciences research topics.

R6 Capacity building through resources

We propose that where possible there is an enabling of continuing professional development relating to social sciences for example through intranet-based resource materials based on the CD produced for this project. In terms of the wider issue of the proportion of research money spent on social sciences and interdisciplinary research projects we would encourage that a discussion is started on the possibility of increasing that proportion.

R7 Evaluation through benefit tracking

We propose that the framework for benefit tracking of all FCERM research is developed taking into account the evaluation framework developed for this project and should include arrangements for assessing the quality of social science and other research outputs. The evaluations of social science projects should also be discussed at TAG meetings (perhaps annually) so that members can develop a clear understanding of good examples of research.

R8 Developing a learning system as the basis for the next programme review

We propose that time is spent considering how lessons from evaluations can create learning. It will require either a separate process where the target audiences work through the evaluation findings and lessons to consider what these mean for them and their work, or an evaluation process that works with the potential target audiences for learning throughout. This project could be used as a case study by conducting a further evaluation in one year's time to assess how/if the learning from this project has been successfully embedded in organisations.

R9 Implications for the wider FCERM business

This propose has provided an in-depth examination of how social sciences research is and could be part of FCERM R&D. Throughout our work we have in mind that the issues raised within this project are wider issues for the FCERM business. The issue of the role of the 'social' is raised and examined within another FCERM R&D project 'Improving Institutional and Social Responses to Flooding'. As with this project, that project took as the starting point the strategy shift from flood defence to flood risk management, from holding back the water to making space for water and acknowledgement that solutions need to be social as well as technical. We suggest that discussion of how R&D contributes to that strategy shift is continued and reviewed.

Project Report to Defra

8. As a guide this report should be no longer than 20 sides of A4. This report is to provide Defra with details of the outputs of the research project for internal purposes; to meet the terms of the contract; and to allow Defra to publish details of the outputs to meet Environmental Information Regulation or Freedom of Information obligations. This short report to Defra does not preclude contractors from also seeking to publish a full, formal scientific report/paper in an appropriate scientific or other

journal/publication. Indeed, Defra actively encourages such publications as part of the contract terms. The report to Defra should include:

- the scientific objectives as set out in the contract;
- the extent to which the objectives set out in the contract have been met;
- details of methods used and the results obtained, including statistical analysis (if appropriate);
- a discussion of the results and their reliability;
- the main implications of the findings;
- possible future work; and
- any action resulting from the research (e.g. IP, Knowledge Transfer).

1. Introduction

This report provides a brief summary of the outputs of FD2604 Supporting the development of a social science strategy for FCERM R&D. Please refer to the two technical reports produced as part of the project for further detail: Twigger-Ross, et al, 2008 and Twigger-Ross and Tapsell, 2008.

2. Research Objectives

The project had the following objectives:

Objective 1: Develop a vision and facilitate development of a draft strategy for social science research within the FCERM R&D programme for the next five years in a way that builds on the understanding of social science research practices, and the institutional capacity to apply these from the outset.

Objective 2: Develop practical understanding and application of social science research practices within the context of the four themes of the new FCERM R&D programme.

Objective 3: Build institutional capacity for social science research practices by developing and working with a network of 'social science champions'.

Objective 4: Identify opportunities to embody the emerging understandings of social science research practice, and proposals within relevant strategy, policy and guidance documents.

Objective 5: Evaluate the whole project and establish a process to ensure post-project sustainability.

3. Research Approach

Project tasks

In order to achieve the objectives and draw suggestions to embed social sciences in FCERM R&D a number of activities were carried out:

- A review of current practice of social science research within the FCERM R&D programme which drew on three sources of information:
 - Interviews with Theme champions and managers (two interviews each with TC and TM)
 - Analysis of theme research objectives statements, workplans
 - Analysis of project lists between 2002 – 2007;
- A separate technical report provides the analysis of that review (Twigger-Ross and Tapsell, 2008);
- Drawing on the review of current practice a vision for FCERM R&D that embeds social sciences within FCERM together with narratives for each theme were developed by the project team in consultation with Defra and the Environment Agency;
- A suggested strategy or the building blocks to achieve the vision with a focus on developing both internal capacity and links with external expertise was developed and discussed with the project board;
- The trial of different methods for building social science research capacity in Defra and the Environment Agency. These methods included preparing a background paper, organising a seminar to showcase different case studies of social science research, a workshop to discuss the post project sustainability of this work and the production of a social sciences resources CD ROM;

- Preparation of an evaluation framework for social sciences research together with the evaluation of the project both of which are aimed at increasing learning and more transparent benefits tracking from research.

Research characteristics

The approach that this project has followed had the following characteristics:

Collaborative: both within the project team and with Environment Agency and Defra staff. This project has brought together social scientists with a variety of backgrounds (e.g. spatial planning, psychology, anthropology), research expertise (quantitative, qualitative) and experience in flood risk management. This variety has enriched both the research process and provided different perspectives.

Theme managers and champions have contributed to the research through interviews and their comments. Other relevant Environment Agency and Defra staff have been involved through specific events organised for this project (training seminar, project workshop), invitation to be part of the project's advisory group and also through links with other relevant projects and networks: e.g. Improving Institutional and Social Responses to Flooding, FLOODsite Liaison Work.

Building on what is already happening: It was realised early on that there was a need for this project to build on past and current social sciences input into FCERM R&D and it was in that spirit that the work was progressed. Much of the evidence for the propositions and the vision has been collected through interviews with theme managers and champions, review of social science contributions to past, present and future projects, etc.

This project has not been disconnected from other events that have taken place through the life of the project which have had an impact on policy and research priorities (e.g. summer floods and the Pitt review). The project team have also been linked to other relevant Environment Agency and Defra projects.

Emphasis on capacity building and providing examples: The research has provided specific examples of methods to build capacity of social sciences within the project (resources CD ROM, seminar). Rather than just saying that the programme needs more social sciences the research has endeavoured to provide examples to illustrate where the social sciences or interdisciplinarity can help solve some of the current issues with flood risk management. The examples have been provided as case studies (e.g. included in the CD ROM and presented at the seminar), suggestions for specific projects and suggestions for cross-theme collaboration.

Evaluation of the project

The evaluation of the project itself drew on two main sources of feedback from participants and the members of the team, reflecting on the effectiveness and value of the project:

- A workshop, held on 5 February 2008, designed to allow the team to present and discuss with participants the findings from the research to date, and consider proposals for a new 'socio-technical' approach to integrating social science into FCERM R & D in future using a trans-disciplinary perspective where appropriate. This workshop was attended by 10 participants from the Environment Agency and Defra plus six members of the research team. The workshop was facilitated by an independent facilitator.
- An evaluation discussion at the final advisory group and project board meeting for the project, held on 19 March 2008. This meeting was attended by four participants from Defra and the Environment Agency, plus 6 members of the research team. This discussion was facilitated by John Colvin (Open University / Environment Agency). Minutes of this final meeting were produced.

The workshop provided some valuable initial feedback on the value of the project and its key findings, and these have been incorporated into the final project report (Twigger-Ross et al, 2008).

4. Research Findings and Outputs

Please refer to the main technical report (Twigger-Ross, et al, 2008) for detailed information on the project findings and outputs. The findings of the project have been structured into three areas (see main report) which constitute the building blocks and suggestions for a way forward on the development of a social science strategy for FCERM R&D. These are:

1. **Direction - Vision and theme narratives:** setting out a vision statement for social sciences in FCERM R&D together with 'narratives' suggesting what social sciences might be appropriate for the four different themes within FCERM R&D.

2. **Approach - Strategy and resources:** focussing on the 'how' of developing social sciences in FCERM R&D and consists of:
 - Strategy statement with suggestions for approaches to embedding social sciences in FCERM R&D and
 - A discussion of possible approaches to training including:
 - i. Details of the training seminar held as part of the project
 - ii. Details of the CD of resources developed as part of the project
3. **Evaluation - Reviewing experience:** A key part of this project has been discussion of evaluation, in terms of how can social sciences research be meaningfully evaluated and this section of the main report (Twigger-Ross et al, 2008) discusses the key aspects of an evaluation framework.

The project was tasked with providing support to the development of a strategy for the social sciences and FCERM R&D and these three aspects will be useful as building blocks for that strategy. In themselves however they are not intended to be a strategy but suggestions on what may be part of such a strategy. Any vision and strategy will require further development and adoption by relevant personnel in Defra/Environment Agency.

6. Meeting the project objectives

One of the tasks of the project was to evaluate the research in terms of how it has met its original objectives. The result of that evaluation is included in the following table which also shows to what extent and how the project objectives have been met:

Indicators of success	How each objective has been met
Objective 1: Develop a vision and facilitate development of a draft strategy for social science research within the FCERM R&D programme for the next five years in a way that builds on the understanding of social science research practices, and the institutional capacity to apply these, from the outset.	
<ul style="list-style-type: none"> • Vision developed • Development of draft strategy facilitated • Draft strategy builds on understanding of current social science practices in FCERM R&D programme • Draft strategy builds on understanding of the institutional capacity needed to apply social science practice 	<ul style="list-style-type: none"> • The vision was drafted by the research team, and various drafts were then tested with the project board and in workshops with EA and Defra staff resulting in broad agreement to the vision. The vision was therefore completed at the end of the project, based on the research, and is described fully in the main technical report (Twigger-Ross et al, 2008). • The project focussed on the facilitation of thinking towards a draft strategy through work by the project team, workshops and advisory group discussions. The findings of these discussions, and the review of current practice, provide the 'building blocks' for the further development of a strategy as the future of flood risk science becomes clearer over the coming months. • The research included an extensive review of current social science practices in the four themes of the FCERM R & D programme (from interviews, one-to-one and workshops discussions). This provided detailed information that fed into the development of the strategy 'building blocks'. • The workshops involved assessments of current capacity, knowledge and understanding of Defra and EA staff on social science. This information was fed into the development of the strategy 'building blocks'.
Objective 2: Develop practical understanding and application of social science research practices within the context of the four themes of the new FCERM R&D programme.	
<ul style="list-style-type: none"> • Understanding developed within the project team and advisory group of social science research practices within the context of the four R&D themes and shared with the TAG members for each theme. • Applications of social science within the four R&D themes 	<ul style="list-style-type: none"> • The work of the project to complete an extensive review of current practice enabled the research team and advisory group to fully understand the current use of social science research practices within the FCERM R & D themes, and to see their relevance in that context. • The experience from the project has provided the research team with greater understanding of the problems and opportunities of presenting social science to non-social science audiences. • The advisory group confirmed that they had learnt a lot from the project. There was some disappointment that there were not more staff members from the EA and Defra involved in that group that could take learning forward in the longer term. • Although it was felt that the research did not tell the advisory group anything very surprising, they felt that having the evidence fully researched and documented was very useful and powerful. • It had been hoped to engage more EA and Defra staff more fully. There was a sense that the project remained slightly ahead of current staff interest, knowledge and understanding of social science. • Feedback from participants at workshops and within the TAGs provided evidence that building understanding takes a long time. The conclusion was that the project had been successful in raising awareness, and had achieved 'better' understanding, rather than developing deep understanding of social science research practices among those currently working on the FCERM R & D programmes. • It had been hoped to run some practical projects applying social science research practices directly within the four themes, but it had not been possible to develop these ideas due to lack of EA / Defra staff time.

Indicators of success	How each objective has been met
Objective 3: Build institutional capacity for social science research practices by developing and working with a network of 'social science champions'.	
<ul style="list-style-type: none"> • Network of social science champions developed • Activities by project team to build institutional capacity with the network 	<ul style="list-style-type: none"> • An 'emerging' network is developing, based on contacts made through the various workshops held during the project. • The bringing together of Defra and EA staff through the various project events was particularly highly valued by participants. • It had been a struggle to achieve a good attendance at the various events, given other pressures on EA and Defra staff time. However, some participants have stayed in touch with each other and have been involved throughout. It is hoped that these individuals will keep a watching brief and provide continuing support. It will be important that the two new social science staff in EA and Defra maintain the momentum of the network after the end of this project. • Capacity building in this context was seen to be the development of confidence and skills to use social science practices within the FCERM R & D programme. • The workshops were a key focus for capacity building, with an emphasis on staff learning from each others' experience as well as from the findings from the project and the expertise of the project team. • The CD ROM, trialled at the February 2008 workshop and completed for distribution with the final project outputs, contains extensive material on social science practices, and case studies, for research commissioners and users to access. It is expected that the CD will be a useful tool in supporting the network. • This final project report (Twigger-Ross et al, 2008) will also be an important resource for the network, and will need to be widely disseminated to spread awareness.
Objective 4: Identify opportunities to embody the emerging understandings of social science research practice, and proposals within relevant strategy, policy and guidance documents	
<ul style="list-style-type: none"> • Opportunities for embodying understanding of social science research practice and proposals in current key documents • Identification of the relevant strategy, policy and guidance documents 	<ul style="list-style-type: none"> • Suggestions have been drafted by the project team over the final stages of the project, based on the research findings. • The key issues have been raised with the TAGs, and it has been proposed that the identified opportunities (and vision) are included in the RO statements. • Draft ideas for identified opportunities were tested with participants in workshops as well as with the advisory group. The final proposal therefore seen to have wide support among this audience. This was seen to be a better mechanism for ensuring that the proposals are embedded in future strategy and policy than focussing attention on specific existing documents.
Objective 5: Evaluate the whole project and establish a process to ensure post-project sustainability	
<ul style="list-style-type: none"> • Evaluation of whole project designed and delivered • Define post-project sustainability, and how it will be ensured • Design and deliver process to ensure post-project sustainability 	<ul style="list-style-type: none"> • The evaluation of the project was designed in collaboration with the advisory group, and has been delivered as reported here and in the main technical report. • The first stage in post-project sustainability has been identified as wide dissemination of the final project reports. • It was proposed that a review of the extent to which social science research has become part of FCERM R & D should be undertaken 12 months after the completion of the project to help ensure better knowledge of post-project sustainability. It was also suggested that a review of this project could be included in the benefits tracking approach currently being developed by the EA to assess the impacts of research. • It was also proposed that this project could be a case study within the Defra response to the SAC report.

7. Possible future work and actions following from this research

The project has produced a series of suggestions which include future work and actions that should follow on from the research in order to ensure its post-project sustainability.

This project has begun a process of embedding social sciences within FCERM R&D. The research has found that there is a diversity of views and knowledge with respect to social sciences and FCERM R&D. We feel that we have provided some building blocks which could be used to take forward this area of work. However, it is clear that decisions on the status and role of social sciences within FCERM need to be made, otherwise progress in the development of social sciences for FCERM will be piecemeal. In addition, the findings and propositions from our project echo those of a wider review of the uptake and capacity of social research within Defra undertaken by the Defra Science Advisory Council Social Science Sub-Group (SAC-SOC) and are applicable to other aspects of the business, e.g. Flood Risk Management.

The overall proposal is that the building blocks for embedding social sciences in FCERM research, that this project has produced are taken forward by Defra and the Environment Agency. More detailed suggestions are included below and relate to the three areas mentioned in section 4 above:

- Direction
- Approach
- Evaluation

Our suggestions are aimed at embedding social sciences research within the FCERM R&D programme.

Direction: Vision

R1 Embedding the vision

We suggest that the Vision statement and Narratives for each of the themes (and suggestions for projects within each narrative) are considered for further development by research Theme Managers and TAG members as appropriate.

R2 Embedding collaboration

We propose that collaboration should be a central part of the research programme in order to enable more cross-theme working. Greater co-operation between themes should ensure that the benefits of research projects are shared by the whole programme and more opportunities for cross-disciplinary research are provided. This collaboration could extend to wider involvement on project boards / TAGs (e.g. representatives from local authorities and possibly local communities where appropriate).

Collaboration between themes could include:

- MAR working with IMCE in incorporating social interests into risk models, and in focussing on flood probabilities to complement IMCE's focus on consequences;
- SAM working on joint projects with IMCE for example on collaborative working and partnerships and perception issues and with SPD on development control and planning;
- IMCE Theme working with other Themes in encouraging stakeholder and community engagement throughout the programme.

Approach: Strategy and capacity

R3 Capacity building through expertise

We propose that Defra and the Environment Agency develop both in-house social sciences research expertise and further links with research organisations. Approaches to consider include:

- Having dedicated social scientists within Defra and the Environment Agency who would be drawn into the preparation stages of a new project to ask key questions and help write the specification. These people could also be sources of expertise and make links with wider social science working and events.
- Some FCERM project managers may well actively seek social science experience and knowledge as part of their remit. This should be part of their CPD/training to gain a greater understanding and awareness of methods and approaches. Project managers should also seek to involve internal expertise more widely on project boards (see also Structure R4 below)
- Further links are developed with the Economic and Social Research Council to enable wider research to be drawn upon. Additionally, capacity can be enhanced through the use of ESRC placement fellowships where 'in house' expertise can work alongside FCERM staff in Defra and the Environment Agency.

R4 Capacity building through structures

We propose that Defra and the Environment Agency establish a series of structures to facilitate access to social science knowledge and expertise, sharing of research results and collaboration with other organisations. These could include:

- The development of a social sciences network so that staff at all levels have the ability (through CPD) to access increased knowledge and expertise through a programme to share research knowledge through seminars, webpages and speakers from other social science projects. This would include sharing results and learning from evaluations of projects from both academic and other research projects.
- Theme managers and champions work with key FCERM partner organisations (e.g. Communities and Local Government, emergency services, voluntary services, Local Government Association) to hold research sessions on social sciences e.g. at the EA/DEFRA conference each year. It would be worthwhile specific project managers or social scientists talking with other organisations that are predominantly technical who have are also embedding social research within their research programmes e.g. Food Standards Agency, Forest Research
- Defra/Environment Agency hold yearly research network meetings of contractors to share expertise and ideas as is done in other areas of research e.g. road safety (DfT).
- Defra/Environment Agency to develop a stronger presence on the Government Social Researchers web site (<http://www.gsr.gov.uk/>)
- Carrying out a workshop in October 2008 similar to the one developed for this project carried out in October 2007.

R5 Capacity building through support

We propose that embedding the social sciences in FCERM is supported both upstream and downstream in Defra and the Environment Agency. **Upstream support** would involve key senior staff at the Environment Agency and Defra in FCERM policy engaged with discussions about how to embed social sciences together with perhaps with one or two key people specifically keeping a watching brief on social sciences in FCERM. **Downstream involvement** would ensure that staff from the Environment Agency areas are involved in all aspects of the research process as they may be asked to implement results from a research project and will have practical ideas about social sciences research topics.

R6 Capacity building through resources

We propose that where possible there is an enabling of CPD relating to social sciences, for example through intranet-based resource materials based on the CD produced for this project. In terms of the wider issue of the proportion of research money spent on social sciences and interdisciplinary research projects we would encourage that a discussion is started on the possibility of increasing that proportion.

Evaluation: A learning system

R7 Evaluation through benefit tracking

We propose that the framework for benefit tracking of all FCERM research is developed taking into account the evaluation framework developed for this project and should include arrangements for assessing the quality of social science and other research outputs. The evaluations of projects should also be discussed at TAG meetings (perhaps annually) so that members can develop a clear understanding of good examples of research.

R8 Developing a learning system as the basis for the next programme review

We propose that time is spent considering how lessons from evaluations can create learning. It will require either a separate process where the target audiences work through the evaluation findings and lessons to consider what these mean for them and their work, or an evaluation process that works with the potential target audiences for learning throughout. This project could be used as a case study through conducting a further evaluation in one year time to assess how/if the learning from this project has been successfully embedded in organisations.

Wider propositions and further research

R9 Implications for the wider FCERM business

This research has provided an in-depth examination of how social sciences research is and could be part of FCERM R&D. Throughout our work we have in mind that the issues raised within this project are wider issues for the FCERM business. The issue of the role of the 'social' is raised and examined within another project we are involved with 'Improving Institutional and Social Responses to Flooding'. As with this project, that project took as the starting point the strategy shift from flood defence to flood risk management, from holding back the water to making space for water and acknowledgement that solutions need to be social as well as technical. We propose that discussion of how R&D contributes to that strategy shift is continued and reviewed.

R10 Further research

We propose that FCERM, and Defra more widely, should initiate joint research to learn from other agencies/departments using social science in a largely natural science context e.g. Natural England, Forestry Commission, Food Standards Agency, Department of Health. As part of building the network and providing resources to support social sciences identifying and developing further illustrative examples from other agencies could be illuminating and help build greater capacity across the Defra 'family' and indeed the devolved administrations in Scotland, Wales and Northern Ireland.

We propose that Defra should commission long-term evaluation studies of key policy/practice changes over a 2-3 year period. This is the only way to get at the real lessons, including both formative and summative evaluation.

We propose that this project is evaluated in a year's time so as to assess the progress made towards the embedding of social sciences in FCERM.

We propose that one project within the science programme is focussed specifically on enabling collaborative/cross disciplinary working and from the outset involves social scientists in discussions and development. This project would be actively evaluated using the principles of evaluation elaborated on in this project.

References to published material

9. This section should be used to record links (hypertext links where possible) or references to other published material generated by, or relating to this project.

Defra Science Advisory Council (SAC) Social Science Sub-Group (SAC-SOC) Social Research in Defra – Final Report (1/11/2007)

TWIGGER-ROSS, C, TAPSELL, S, FERNÁNDEZ-BILBAO, A, WARBURTON, D, SHEATE, W, DAVOUDI, S, FIELDING, J (2008) Supporting the development of a Social Sciences Strategy for FCERM R&D: Social Science within FCERM Research: Practice and Future Prospects. R&D Technical Report FD2604/TR

TWIGGER-ROSS, C, TAPSELL, S, AND FERNÁNDEZ-BILBAO, A. (with DAVOUDI, S, FIELDING, J, SHEATE, W, WARBURTON, D) (2008) Supporting the development of a Social Sciences Strategy for FCERM R&D: Current Approaches to social sciences in FCERM R&D 2006/7. R&D Technical Report FD2604/TR2