

Rural Economy and Land Use

Integrated Land and Water Management in Floodplains: Revisiting Agricultural Flood Defence Schemes in England and Wales.

Cranfield University and The Open University

1 Context

Agricultural Flood Defence Schemes in floodplain and coastal areas have been an important component of Government support for farmers in Britain. More recently, however, changing priorities in rural and environmental policy, evident for example in the Reform of the European Common Agricultural Policy and the Water Framework Directive, are encouraging a re-appraisal of land management options for floodplain areas.



2 Research Aim

This project explores opportunities to integrate farming, nature conservation and flood management in lowland floodplain areas which were previously engineered for flood defence purposes. The broad aim is to help provide guidance to organisations involved in the design and promotion of sustainable land and water management in these important areas.

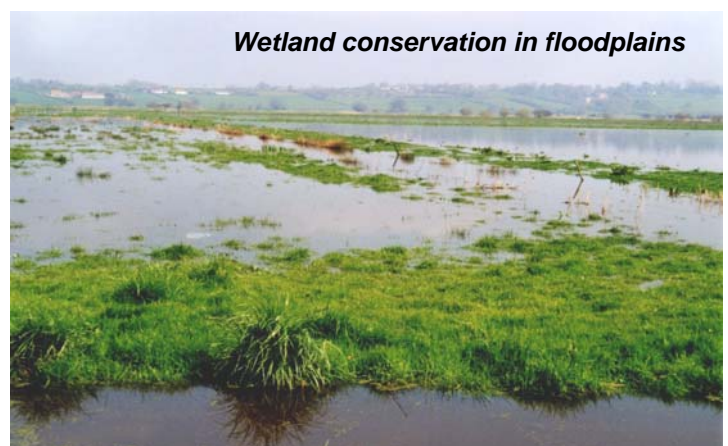
3 Approach

Eight out of 22 agricultural flood defence schemes throughout England and Wales that were previously studied by members of the research team in the early 1980s will be selected in order to determine changes in land and water management that have occurred over a 40-year period. Stakeholder and institutional analysis, farmer interviews, field observations, economic analysis and modelling of hydrological and related ecological processes will identify factors associated with and/or responsible for these changes.

The effects of changing agricultural policy, interacting with farmer circumstances and motivation, will also be explored. By combining the perspectives of social, natural and physical sciences, the consequences for agricultural production, farm livelihoods, nature conservation and the management of flood risk will be assessed.

4 Outcomes

Drawing on historical and current evidence, generic scenarios will be produced for each study site and their outcomes predicted for 20 years hence. These scenarios will consider management options focussed on single objectives, such as maximising agricultural production, maximising biodiversity and minimising flood risk to build development in the catchment, as well as options which attempt to combine multiple objectives. In this way a critical analysis of the past will help to inform future policy and practice for floodplain management, hopefully in ways that will appeal to the key stakeholders.



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