

iCASP Response to consultation on “Health and Harmony: the future for food, farming and the environment in a Green Brexit”

May 2018

iCASP

1. Yorkshire Integrated Catchment Solutions Programme (iCASP) is a five-year (2017-2022) Natural Environment Research Council-funded partnership established to support the UK Industrial Strategy. iCASP aims to generate £50 million+ of benefits to Yorkshire’s economy by influencing investments, informing policies and strategies, identifying cost savings, and creating new products and jobs. It will do this through projects that support the use of environmental science in catchment management. As well as regional impact, iCASP is aspiring for national and international influence through sharing the experience of regional projects at the national level, and by exporting catchment management expertise and products internationally.
2. iCASP partners are: University of Leeds, University of Sheffield, University of York, National Centre for Atmospheric Science, Arup, Bradford Metropolitan Borough Council, City of York Council, Dales to Vales River Network-Yorkshire Dales Rivers Trust, Environment Agency, IUCN UK Peatland Programme, JBA Trust, Leeds City Council, Linking Environment and Farming, Met Office, Natural England, National Farmers’ Union, Pennine Prospects, Yorkshire Water, Yorkshire West Local Nature Partnership, and Yorkshire Wildlife Trust. iCASP is also looking to work with additional organisations through its projects.
3. iCASP is based out of water@leeds at the University of Leeds, one of the largest interdisciplinary centres for water research in any university in the world.
4. iCASP has already had success in providing evidence for major flood risk mitigation business cases in Yorkshire, and supporting the development of the Leeds City Region Green and Blue Infrastructure Strategy.
5. Further information about iCASP can be found at <https://icasp.org.uk/>
6. **This response is from the iCASP Programme Office based at the University of Leeds, rather than on behalf of the iCASP partners, many of whom will be making their own submissions to this consultation.**

Future work to support the development of a new, post-Common Agricultural Policy domestic settlement for agriculture / new environmental land management system

7. iCASP is in the process of setting up a project to review/consolidate the scientific evidence on different land management activities and best management practices and their delivery of public goods within a catchment science framework. The focus of this review will be the public goods of: improved water quality, soil health (including carbon sequestration), and flood risk mitigation. These have been chosen given the world-leading expertise offered by the iCASP partner universities (Universities of Leeds, Sheffield and York) related to these areas, in particular on peatland restoration for water quality and carbon sequestration, and sustainable agriculture, including tillage and land management effects

on soil fertility, soil structure, organic matter, hydrological functioning, and yields. The review will also take into account the area of food and fibre production that may be lost under such land management interventions and their impact on biodiversity. The evidence reviewed will include academic and grey literature.

8. The main questions that the review will address are:
 - What land management activities deliver public goods whilst also producing sustainable food and fibre yields?
 - What conditions are necessary for these activities to deliver public goods?
 - How confident are we in the evidence?
9. The review will focus on a selection of land management activities currently undertaken in the River Ouse drainage basin area of Yorkshire, including those supported through Countryside Stewardship.
10. The aim of this evidence review is to provide easier access to evidence, and greater awareness of the levels of certainty/uncertainty associated with that evidence, that can inform the debate on the future of land-use policy and practice post-Brexit. Currently the evidence-base that does exist is available in a wide range of academic literature and reports (some more widely available than others) which has not been consolidated, nor packaged in a way that is easily accessible to stakeholders/policy-makers. This means that the business case for land owners to deliver public goods is not clear, which will hinder access to new funding mechanisms, and hinder capacity building efforts (including demonstrator sites) to support the delivery of public goods.
11. By bringing this evidence together (a lot of which focuses on individual land management activities and/or individual public goods, and farm and field scale), insights will be revealed into how to produce multiple-benefits to flood risk, soil health and water quality, whilst ensuring that farm profit and yields are not negatively impacted, as well as the implications of certain activities on the delivery of public goods across a catchment scale. For landscape-scale processes to be better managed across the UK under any new environmental land management system, it is essential that the system implemented has effective outcomes at catchment scale since these are the scales at which pollutants, soil erosion and flooding impact many public goods. The review will consider uplands and lowlands separately, as future land use and management in these areas are likely to be different, but it will highlight where upland land use/management is likely to impact upon public goods in the lowlands.
12. This review will provide supplementary evidence to that included in *The future farming and environment evidence compendium*. It will be written in policy neutral terms and designed to be read by an informed but not technically specialist audience.
13. It will also provide answers to the consultation question: 'What are the priority research topics that industry and government should focus on to drive improvements in productivity and resource efficiency?'
14. Environment Agency, Natural England, Yorkshire Water and National Farmers' Union, will be some of the organisations advising the scope and format of the review.
15. The review will also benefit from working closely with the Resilient Dairy Landscapes project <https://www.resilientdairylandscapes.com/>, which is reviewing the evidence associated with dairy farming interventions and public goods delivery, involving stakeholders from across the dairy industry.

16. The review will be completed by August 2018 and will be submitted to Defra. Summaries will be produced for policy makers (including the Secretariat of State for Environment, Food and Rural Affairs, Ministers, Members of Parliament and Defra staff), as well as for farmers and the agricultural supply chain. Initial conversations with Defra staff have revealed that they would welcome such a review.
17. This review will inform the next phase of iCASP's work on the topic of agri-land management and public goods delivery: a project to value potential public goods delivery as part of considering where and what combination of land management activities (given certain scenarios) would optimise public goods delivery in Yorkshire.