Preferences for (CAP-pillar-2-type) changes in high intensity agricultural landscapes in Great Britain

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NERC SCIENCE OF THE ENVIRONMENT

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BTO Looking out for birds

WHY: Motivations for research

- Agriculture contributes (only) 0.5% to UK's GDP
- BUT responsible for 70% of land use in UK (Defra et al. 2016)
- Intensification of agriculture main driver of biodiversity loss in the UK (Hayhow et al. 2016)

- Current system / status quo of farm subsidies
  - Rewards come (mostly) **per hectare** basis (HM Government 2018)
  - Income vs **public good** payments
  - **Only 20%** for environmental stewardship programme (HM Government 2018)
  - 25% farms capture 75% of current funds (Bateman 2017)

References:

- Defra et al (2016) *Agriculture in the United Kingdom 2015.*
- Hayhow D, Burns F, Eaton M, et al (2016) *State of Nature 2016*. The State of Nature partnership.
- HM Government (2018) *A Green Future: Our 25 Year Plan to Improve the Enviornment.*
- Bateman, I.J. (2017) *Recommendations for a post-Brexit agricultural policy: A fair deal for farming and forestry, Putting down new roots: woods, trees and the post-CAP landscape, Woodland Trust, Grantham, Lincolnshire.*

WHY: agri-environmental policy Post-Brexit

- Agri-environmental policy reform an opportunity for a major improvement over existing CAP system (e.g. HM Government 2018; NCC 2017, 2018)

- Natural Capital Committee's recommendations (NCC 2017 2018)
  - Funding should be targeted for **delivery of public goods**
  - Spatially target to areas **where highest welfare generated**
  - '**Payments for results**' rather than 'payments for action'

- As such, need an understanding/data on
  - What are the public good benefits of agriculture
  - What people value / care about
  - Where to target interventions

References:

- HM Government (2018) *A Green Future: Our 25 Year Plan to Improve the Environment.*
- Natural Capital Committee (2017) *Advice to Government on the 25 Year Environment Plan.*
- Natural Capital Committee (2018) Annual Report 2018: *Fifth report to the Economic Affairs Committee.*

Looking at the map below and tables on the right, please select from LOCATION A, B, C or NO CHANGE, which one you prefer. (please scroll down to see all four options)

Show instructions | What do the icons mean? | Prefer not scroll to answer the question? Click here.

Choose a location below to select as your answer:

LOCATION A — 410 miles

NO RECREATION | 10 FOOTBALL PITCHES | WILDLIFE | £70 PER ACRE

Click here to CHOOSE LOCATION A

Future land use:

LOCATION B — 60 miles

RECREATION | 150 FOOTBALL PITCHES | WILDLIFE | £200 PER ACRE

Click here to CHOOSE LOCATION B

Future land use:

LOCATION C — 50 miles

RECREATION | 500 FOOTBALL PITCHES | WILDLIFE | £15 PER ACRE

Click here to CHOOSE LOCATION C

Future land use:

NO CHANGE

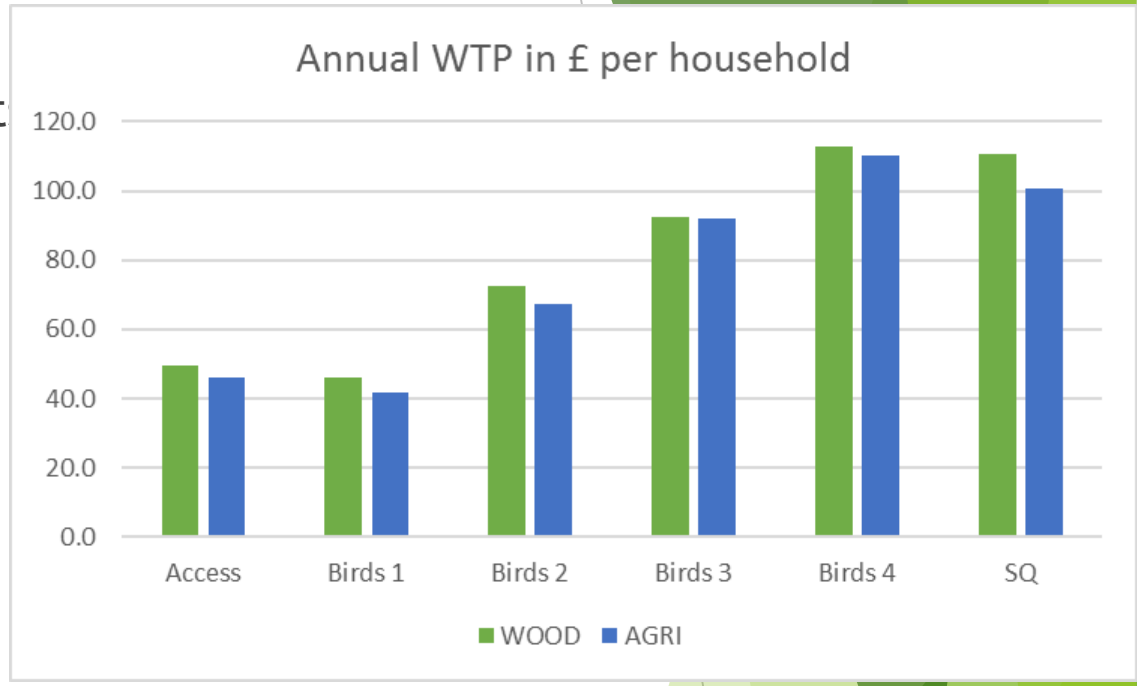
NO RECREATION | No Change SIZE | No Change WILDLIFE | £0 PER ACRE

Click here to CHOOSE NO CHANGE

Future land use:

WHAT people value: Results 1

- Majority of sample support financing env. enhancement
- Common results for both scenarios (WOOD & AGRI)
  - Biodiversity most important, accessibility follows
  - WTP/preference for change from current land use
  - Location matters
- Main differences
  - Distance decay stronger for WOOD than AGRI
  - WTP for change from status quo larger for new woodland
- WOOD likely to associated more strongly with potential recreation

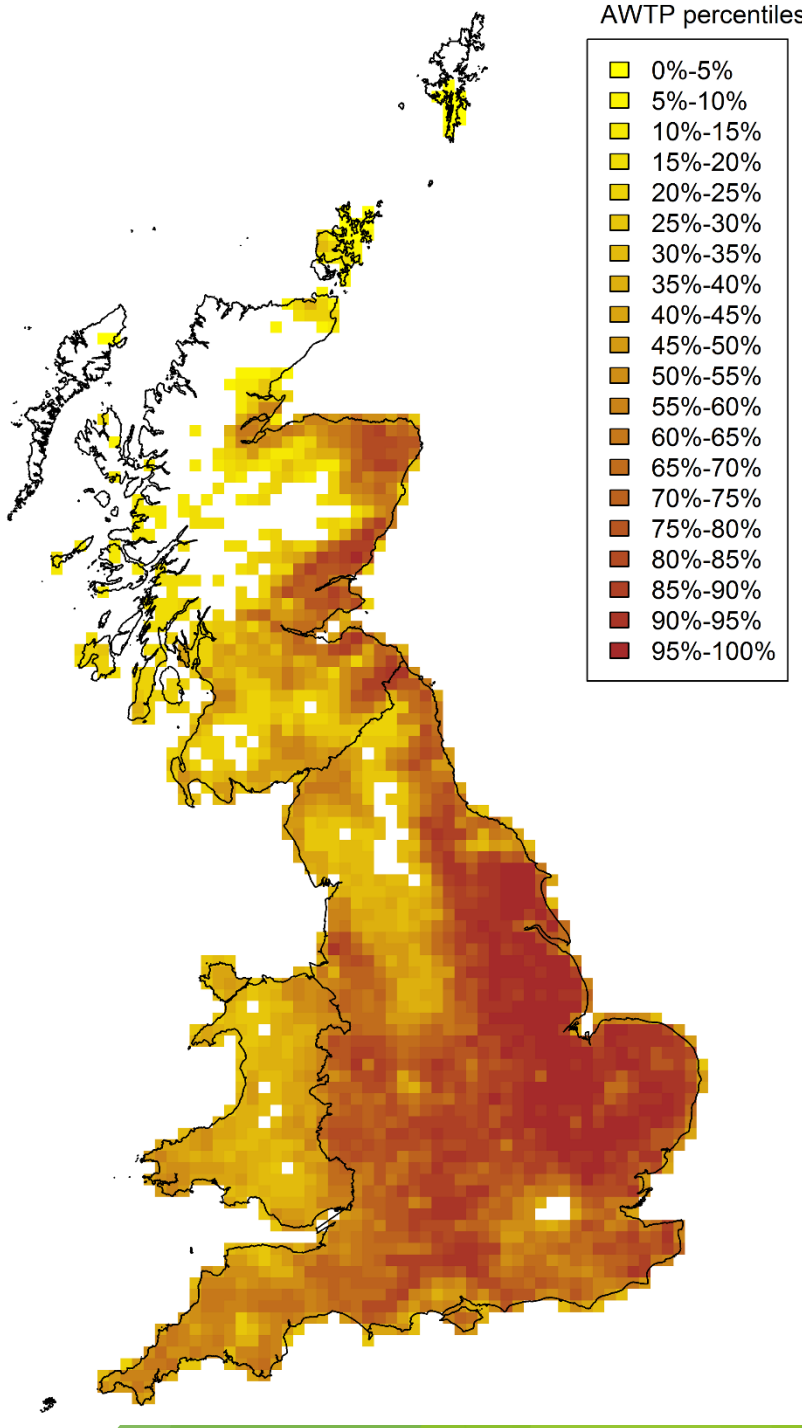


WHERE are the “best” sites for interventions: Results 2

- Map of interventions generating highest welfare to GB population
  - Assumes only one site being changed at a time (median = 1500 ha)
  - Reflects availability of sites for interventions (only high intensity agri)
  - Reflects distance effect
  - Reflects distribution of population

- Greatest value where there is
  - most of high intensity agriculture
  - population centers nearby

- Can help to understand where are areas with highest welfare impacts



Application of CE (& presented) methodology

- CE in general
  - Understanding of relative importance that people put on CAP (esp. Pillar 2) outcomes and characteristics
  - Both from demand side (what people want?) and supply side (what can farmers do?)
  - Might be very useful for informing national CAP Strategic Plans (as per EC 2017)

- Our methodology
  - Reflects the on-the-ground reality, however applicable on large areas
  - Incorporates spatial dimensions of public good benefits
  - Choices presented on personalised maps, tailored to respondent's location

- Application
  - Targeting -> Welfare impacts of a range of spatially explicit policy scenarios
  - Can help to understand the spatial distribution of the benefits/welfare

References:
- European Commission (2017) *The Future of Food and Farming*. Communication

Summary & WHAT next?

- Our results (and sample opinion) support move towards public good funding
  - Biodiversity and recreation/access important
  - It matters where interventions are relative to populations
- Further analyses
  - Welfare impacts of a range of policy scenarios
  - Substitution effects
- Further projects:
  - Current CE in four countries of the EU on biodiversity enhancements in agricultural lands
  - Another CE in Czech Republic on public preferences for ecosystem services from agricultural lands
- Interest in cooperation
  - Application of the spatial CE methodology in the EU – let us know if interested

Thank you for your attention.

Questions/comments?

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