

Information note – Evidence Base - Recapturing the environmental benefits of set-aside

Evidence base

1.1. There is already considerable high quality evidence of the environmental value of set-aside, which enabled the High Level Set-Aside Group (HLSAG) to reach a decision in July 2008 that action was necessary to recapture the environmental benefits.¹ Four studies of environmental impacts, commissioned to inform the work of the HLSAG, were peer-reviewed in autumn 2008 and ranked within the two highest possible categories in terms of the overall quality of the research.² The evidence indicates that set-aside had:

- benefited farmland bird populations: Average densities of declining bird species on set-aside compared to winter cereals c. 10 times higher in summer and almost 90 times higher in winter (British Trust for Ornithology (BTO)).
- benefited a range of plant and mammal species: After 5-10 years, food plants were found on set-aside for over 10 butterfly species and around 85% of the 14 bird species analysed (Central Science Laboratory (CSL)).
- reduced sediment and phosphate run-off in catchments where there were significant areas of farmland at high risk of erosion.
- In addition a literature review by the Institute of European Environmental Policy (IEEP) showed a range of other benefits including benefits for species such as vole, other small mammals, and brown hare.³
- This evidence is supported by a recent farmer phone survey, which found that 64% of farmers think set-aside benefited farmland birds, and over four times as many (73%) thought it brought environmental benefits as disagreed (17%).

1.2. These benefits related to whether set-aside was longer term or rotational/short term, as set out in Table 1.

¹ Further information on the environmental benefits of set-aside are in the consultation document and consultation stage Impact Assessment available at:

<http://www.defra.gov.uk/corporate/consult/gaec/index.htm>

² Reports commissioned by the HLSAG available at:

www.defra.gov.uk/farm/policy/sustain/deliverygroup/

³ IEEP report available at: <https://statistics.defra.gov.uk/esg/ace/research/pdf/ieepfeb08.pdf>

Table 1: Key benefits of rotational set-aside and longer term set-aside

Longer term set-aside/uncropped land	Rotational/short term set-aside/uncropped land
<ul style="list-style-type: none"> • Resource protection – especially use of buffer strips/green cover adjoining water courses <ul style="list-style-type: none"> ○ Mitigation of overland flow, sediment etc ○ Phosphates ○ Reduced/nil inputs of fertiliser/pesticides close to water courses • Increasing diversity of plants, often more typical grassland plants over time - mainly 'common' species not well represented elsewhere in predominately arable areas • Food plants for butterflies/moths, other invertebrates • Vegetation cover/habitat for range of small mammals e.g. voles, and larger mammals such as deer • Winter food/cover for some farmland birds • Summer food/cover especially for birds nesting in adjoining hedges 	<ul style="list-style-type: none"> • Significant benefit for many farmland birds from <ul style="list-style-type: none"> ○ Winter food ○ Summer food ○ Nest sites for open ground species • Weed species of plants – e.g. seeds - food source for birds • Food plants for some invertebrates/butterflies • Open ground mammals e.g. brown hare

What would happen if no action were taken?

1.3. There has been a considerable drop in the amount of uncropped land since the 0% set-aside rate was introduced in 2007. Several farmer surveys show that the amount of uncropped land fell by over half as a result of the drop from an average of 8% to the 0% set-aside rate in 2007, although this may rise a little in 2009 compared to 2008.⁴ Of this overall fall in uncropped land, over 80% of rotational set-aside and 50% of longer term set-aside has been lost, which generated the environmental benefits set out in Table 1 above.

1.4. A study by BTO⁵ concluded that a reduction in the set-aside rate from 10% to 0%, leading to a 75% reduction in the area of uncropped land, would cause a 30% density reduction in 11 farmland bird species in summer and a 65% reduction in density of 9 farmland bird species in winter. This scenario (in terms of land use) is not that dissimilar to what we have actually experienced since 2007 under a 0% set-aside rate and recent commodity prices, thus we should expect a broadly comparable impact on farmland bird species.

1.5. Defra consider that about 160,000ha to 240,000ha of additional land is needed to recapture the environmental benefits of set-aside. This is additional to the

⁴ Farm Business Survey February 2008 results available at: <https://statistics.defra.gov.uk/esg/ace/research/pdf/observatory13.pdf>

⁵ BTO (2008) Zero rate of set-aside: evaluating the potential impact on farmland birds and the implications for requirements for ELS uptake and related matters, Draft Report.

area likely to be voluntarily uncropped. In 2008, despite incentive for increased production, around 3% (160,000 ha) of land was voluntarily uncropped and this is likely to be more in 2009 (175,000 ha), based on the autumn 2008 survey.

- 1.6. On the current basis, it is not possible for Entry Level Stewardship (ELS) alone to deliver the scale and geographic spread of benefits provided by former set-aside land. About 54% of available agricultural land (and about half of all arable land) in England is currently covered by ELS agreements. The Government target is for all agri-environment schemes (Environmental Stewardship (ES) plus the now closed schemes, CSS and ESAs) to cover 70% of farmland in England by March 2011. This target, on current indications, will be challenging but possible. However, the figures for land in ELS could be open to misinterpretation as even though the whole of the farm under agreement will be delivering environmental benefits, in practice only about 7% of the arable land in ELS is being specifically managed to deliver benefits similar to set-aside such as for farmland birds and resource protection. Therefore, even if we do reach the target of 70% of arable land in agri-environment agreements, this does not represent a significant increase *on the ground* in measures that will mitigate the loss of set-aside.

- 1.7. To conclude, without taking any action to recapture the benefits of set-aside we will not be able to reverse the decline in farmland bird numbers in England. After a period of stability, there has been a 3% fall in populations between 2006 and 2007 when set-aside was in place and after substantial expansion of ELS. Breeding farmland bird numbers in England are 52% lower than 1966 levels. As explained above, farmland birds can be seen as an indicator of the wider health of the countryside and reversing the decline is a key component of the Government's overall Public Service Agreement target of securing a healthy natural environment for today and the future. We would also be unlikely to make the necessary headway on meeting the Water Framework Directive, which entails moving from the current 21% of watercourses in good ecological status to 100% by 2015.