Farmers’ Preferences for Biodiversity Offset Contracts on Arable Land: A Choice Experiment Study

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Abstract

Biodiversity Offsetting (BO) is, in principle, aimed at achieving No Net Loss (NNL) of biodiversity in the context of economic development projects, plans or programs. Agricultural landscapes sometimes have low levels of biodiversity, with good potential for ecological gains through ecological restoration or enhancement of arable land. However, one could wonder if the implementation of long term BO contracts, satisfying restrictive conditions in terms of ecological performance, can match farmers’ preferences and constraints. Our study aims at identifying key factors that explain decisions by farmers to sign a BO contract. We conduct a Choice Experiment (CE) study at the scale of Picardy, a French agricultural region. Four attributes, describing different scenarios of BO contracts, were selected: the actual enhancement activities (in a management plan), the contract duration, the annual payment, as well as the option of receiving a monetary bonus for the spatial extent and distribution of enhanced land. Farmers have a clear preference for status quo situations. However, our results show that all the attributes have a significant effect on the likelihood of choosing a BO contract. We show that higher levels of payment and the addition of a bonus improve the likelihood of farmers to sign-up to a BO contract. The likelihood of signing-up decreases with increased ecological requirements and contract duration. This means that contracting farmers to enhance arable land for biodiversity is suitable for offsetting temporary impacts on already degraded areas of natural habitat, but may not be suitable for permanent impacts on high quality habitat.

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