

## **Crowding-out and moral licensing effects in environmentally friendly farming practices – a dictator game with European farmers**

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### *Context and objectives*

One of the main aims of the European Union's Common Agricultural Policy (CAP) is to help tackle climate change and the sustainable management of natural resources (European Commission, 2020). There are two main tools to incentivise European farmers to adopt more environmentally friendly practices: *mandatory* requirements (through the so-called 'conditionality' component) and farmers' *voluntary* enrolment into financially compensated programmes (through the 'agri-environmental' and 'eco-schemes' components). The next reform of the CAP (European Commission, 2018) envisions (1) increasing the mandatory environmental requirements while (2) decreasing farmers' income through lower direct payments. The impact of these two changes on farmers' voluntary adoption of environmentally friendly practices and the ideal split between mandatory and voluntary schemes are the subject of intense political debates (Matthews, 2018).

Emerging evidence suggests that making some environmentally friendly practices mandatory for farmers may lead to a positive crowd-out effect once this obligation is removed (Kaczan, Swallow, & Adamowicz, 2019), as mandatory contributions exert a norm-giving character (Keser, Markstädter, & Schmidt, 2017). The compensation for voluntary adoption of environmentally friendly practices may also lead to similar crowding out effects (Kits, Adamowicz, & Boxall, 2014). Despite this growing literature conducted in developing countries, research is needed to assess the robustness of the crowding-out effect in a European context. In addition, the effect of increasing mandatory adoption on voluntary adoption may be different according to the magnitude of the former.

In this context, the objective of this research is to assess the effect of the following three variables on farmers' voluntary adoption of environmentally friendly practices: (1) level of mandatory adoption, and (2) level of income.

### *Method*

To investigate these effects, farmers from three European countries ( $N = 600$ ) participated in an online, contextualised dictator game with an environmental charity as recipient. Participants were asked to split an

endowment (representing their farm income) between themselves and an environmental charity related to reforestation (representing their adoption of environmentally friendly practices) – see Figure 1. The experiment was incentive-compatible thanks to a random draw of 5% participants, for whom decisions were implemented through a bonus payment for them and/or for the environmental charity. The experiment had a 2 (source of variation: mandatory contribution vs. endowment) x 4 (variation: 0, ± 35 tokens, ± 85 tokens) mixed factorial design. The main outcome variables are the relative voluntary contribution to the environment and the total contribution combining mandatory and voluntary contributions.

A pilot (online and face-to-face) experiment took place in November 2019. Data was collected in September-October 2020 and was analysed, confirming the presence of crowd-out effects.

Figure 1. Visualisation of token allocation task

FOR YOU

Your initial net farm income is \_\_\_ tokens.

Your CONTRIBUTION TO THE ENVIRONMENT  
(will be deducted from your initial net farm income on the next screen)

**MANDATORY**

You **must give** \_ tokens to the environment.

No compensation for this mandatory contribution.

**VOLUNTARY**

You **can decide to give more tokens** to the environment.

You will receive a compensation corresponding to 90% of the number of tokens that you voluntarily give to the environment.

**YOUR VOLUNTARY CONTRIBUTION TO THE ENVIRONMENT:**  
Please enter a number between 0 and .

**XXX**

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