

Supplementary Information for:

Peeling back the label – Exploring sustainable palm oil ecolabelling and consumption in the United Kingdom

This supplementary file includes:

- Summary statistics and characteristics of respondents who include ecolabelled products in their weekly household shopping
- Phi coefficient of the variables used in the main estimation
- Additional estimations and robustness checks

One of the variables explored in this research is social grade, defined by the National Readership Survey (NRS):

- A – Higher managerial, administrative and professional
- B – Intermediate managerial, administrative and professional
- C1 – Supervisory, clerical and junior managerial, administrative and professional
- C2 – Skilled manual workers
- D – Semi-skilled and unskilled manual workers
- E – State pensioners, casual and lowest grade workers, unemployed with state benefits only

Variable	Whole sample			People who include ecolabelled products		
	Observations	Mean	Standard deviation	Observations	Mean	Standard deviation
Include at least one of the (real) ecolabelled products	1695	0.331	0.471	561	1.000	0.000
Gender: Female	1695	0.552	0.497	561	0.624	0.485
Vote in the last election: Conservative	1605	0.300	0.459	542	0.247	0.432
Vote in the last election: Labour	1605	0.260	0.439	542	0.327	0.469
Vote in the last election: Liberal Democrat	1605	0.069	0.254	542	0.087	0.282
Vote in the last election: UKIP	1605	0.107	0.309	542	0.059	0.236
Did not vote in the last election	1605	0.150	0.357	542	0.122	0.327
Age group: 18-24 years	1695	0.119	0.323	561	0.132	0.339
Age group: 25-49 years	1695	0.412	0.492	561	0.408	0.492
Age group: 50-64 years	1695	0.255	0.436	561	0.234	0.423
Age group: 60+ years	1695	0.214	0.410	561	0.226	0.419
Social grade: AB	1695	0.319	0.466	561	0.446	0.497
Social grade: C1	1695	0.316	0.465	561	0.287	0.453
Social grade: C2	1695	0.169	0.375	561	0.125	0.331
Social grade: DE	1695	0.196	0.397	561	0.143	0.350
Region: London	686	0.188	0.391	191	0.220	0.415
Region: Rest of South	686	0.271	0.445	191	0.272	0.446
Region: Midlands and Wales	686	0.204	0.403	191	0.194	0.396
Region: North	686	0.241	0.428	191	0.204	0.404
Region: Scotland	686	0.096	0.295	191	0.110	0.314
Gross household income per year: Under £29,999	1553	0.367	0.482	503	0.320	0.467
Gross household income per year: £30,000-£99,999	1553	0.355	0.479	503	0.400	0.490
Gross household income per year: £100,000 and over	1553	0.019	0.138	503	0.024	0.153
Household has at least one child	1615	0.246	0.431	533	0.242	0.429
Education: Bachelor's degree or higher	1689	0.279	0.449	559	0.379	0.486
Weekly amount spent on shopping: £20-£59.99	1542	0.482	0.500	520	0.471	0.500
Weekly amount spent on shopping: £60-£99.99	1542	0.299	0.458	520	0.294	0.456
Weekly amount spent on shopping: £100-£119.99	1542	0.091	0.288	520	0.094	0.292
Weekly amount spent on shopping: £120 or more	1542	0.054	0.227	520	0.081	0.273

S1. – Descriptive statistics and characteristics of respondents who include ecolabelled products in their weekly household shopping

	Include at least one of the (real) ecolabelled products	Female	Vote in the last election: Conservative	Vote in the last election: UKIP	Did not vote in the last election	Age group: 25-49 years	Social grade: AB	Region: North	Bachelor's degree or higher
Female	0.1014								
Vote in the last election: Conservative	0.0827	0.0389							
Vote in the last election: UKIP	0.1099	0.0136	0.2262						
Did not vote in the last election	0.0556	0.0182	0.2747	0.1448					
Age group: 25-49 years	0.006	0.0603	0.075	0.1175	0.0831				
Social grade: AB	0.1918	0.026	0.0066	0.0522	0.0923	0.0429			
Region: North	0.0528	0.0269	0.0518	0.0413	0.0281	0.0649	0.0161		
Bachelor's degree or higher	0.1564	0.0296	0.0584	0.1231	0.0788	0.1732	0.285	0.0436	
Weekly amount spent on shopping: £120 or more	0.0826	0.0208	0.0014	0.0564	0.0077	0.0047	0.108	0.0216	0.0131

S2. – Phi coefficient of the variables used in the main estimation

Note: Two binary variables are considered positively associated if most of the data falls along the diagonal cells (both variables are 1 or 0). In contrast, two binary variables are considered negatively associated if most of the data falls off the diagonal. ± 1 indicates perfect agreement or disagreement, and 0 indicates no relationship

Additional estimations and robustness checks

Following the initial specification, additional estimations carried out include:

1. Investigating whether the factors determining the likeliness to buy an RSPO product mirror those for all other eco-labels by running our main estimation on a dependent variable corresponding to individuals who actively include RSPO ecolabelled products only.
2. Investigating the issue of endogeneity in the case of voting¹, by instrumenting the corresponding variables.²
3. Investigating whether the results are the same if people claiming to know the fictitious ecolabel and oil are excluded from the estimation.

Other estimations performed in the context of the research (results not shown) include investigating potential social desirability biases.

These additional estimations, presented below with the initial estimation led to the following results:

- The determinants of seeking the RSPO label are similar to those of other ecolabels but given the small number (17) identifying and actively including this ecolabel in the sample, only two variables are significant: being a female (positive, yet smaller impact) and not voting in the last election (negative).
- When instrumenting political variables, we found the determinants of actively including ecolabels to have the same sign, but with a larger impact. Removing political variables from our initial estimation (not shown) also showed consistent results, and so did the *probit* approach.
- Excluding those claiming to know the fictitious ecolabel and oil from our analysis yields the same results as our baseline estimation. An additional robustness check not presented here factored in social desirability questions: we split the survey sample into two groups exhibiting either high or low social desirability and ran our baseline estimation. The reduced sample size reduces significance, but results were still in line with findings for both groups.

	(1)	(2)	(3)	(4)	(5)
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¹ A willingness to consume certified goods may influence voting patterns (reverse causality).

² We try to instrument the political variables (voting and non-voting), which requires using a *probit*/*ivprobit* command instead of the *logit* model. To do so, we needed to group Conservative and UKIP voters, otherwise the model would not converge.

Estimations	Baseline (including ecolabels, <i>logit</i>)	Including RSPO labels, <i>logit</i> ³	Baseline, <i>probit</i> ⁴	Instrumenting voting variables, <i>ivprobit</i>	Baseline, excluding people identifying fictitious ecolabel and oil
Gender: Female	0.114*** (0.0232)	0.00971** (0.00450)	0.115*** (0.0231)	0.324*** (0.0789)	0.103*** (0.0239)
Weekly amount spent on shopping: £120 or more	0.179*** (0.0592)		0.171*** (0.0578)	0.316* (0.177)	0.143** (0.0625)
Vote in the last election: Conservative	-0.136*** (0.0248)	-0.00498 (0.00354)			-0.140*** (0.0250)
Vote in the last election: UKIP	-0.195*** (0.0291)				-0.191*** (0.0292)
Vote in the last election: Conservative or UKIP			-0.160*** (0.0244)	-0.189 (0.262)	
Did not vote in the last election	-0.118*** (0.0282)	-0.00809** (0.00367)	-0.119*** (0.0289)	-0.887*** (0.297)	-0.118*** (0.0282)
Social grade: AB	0.144*** (0.0270)	0.00507 (0.00482)	0.145*** (0.0268)	0.376*** (0.0899)	0.134*** (0.0278)
Education: Bachelor's degree or higher	0.101*** (0.0285)	-0.00372 (0.00366)	0.105*** (0.0283)	0.234** (0.0930)	0.0893*** (0.0290)
Age group: 25-49 years	-0.0410* (0.0244)	-0.00181 (0.00370)	-0.0379 (0.0243)	0.0336 (0.0851)	-0.0258 (0.0250)
Region: North	-0.0913** (0.0364)	-0.00332 (0.00488)	-0.0951*** (0.0364)	-0.286** (0.135)	-0.0921** (0.0373)
Observations	1,695	1,454	1,695	1,248	
Standard errors in parentheses	0.0776	0.0778	0.0758		0.0725

*** p<0.01, ** p<0.05, * p<0.1,

S3. – Additional estimations and robustness checks

³ Variables on spending and on UKIP vote were dropped because they predict failure perfectly

⁴ We needed to group Conservative and UKIP voters together otherwise the IV model does not converge