

ANNEX

Table A1 *Items and scales relating to environmental attitudes and behaviours used in the analysis*

<p>IS4G28 To what extent do you think the following issues are a threat to the world's future?</p> <p>To a large extent</p> <p>To a moderate extent</p> <p>To a small extent</p> <p>Not at all</p> <p>Scale: S_ENVCON—students' concern about threats to the global environment.</p> <p>Reliability for Poland: Cronbach's alpha = 0.69</p>	<p>IS4G28A Pollution</p> <p>IS4G28D Climate change</p> <p>IS4G28J Extinction of species, loss of biodiversity</p> <p>IS4G28K Water shortages</p>
<p>IS4G26 There are different views about what we should do to protect the environment. How much do you agree or disagree with the following statements?</p> <p>Strongly agree</p> <p>Agree</p> <p>Disagree</p> <p>Strongly disagree</p> <p>Scale: S_ATTENV – students' positive attitudes toward environmental protection.</p> <p>Reliability for Poland: Cronbach's alpha = 0.73</p>	<p>IS4G26A Governments should focus more on protecting the environment than on supporting economic growth</p> <p>IS4G26B Every citizen needs to contribute to the reduction of pollution</p> <p>IS4G26C Poland should contribute to protecting the environment in other countries</p> <p>IS4G26D All human beings should take responsibility for preserving the natural world</p> <p>IS4G26E Countries need to work together to preserve the world's natural resources</p>
<p>ES4G11 During the last twelve months, how often have you done each of the actions listed below?</p> <p>Often</p> <p>Sometimes</p> <p>Rarely</p> <p>Never</p> <p>Scale: E_SUSBEH—students' reports on their sustainable behaviours</p> <p>Reliability for Poland: Cronbach's alpha = 0.80</p>	<p>ES4G11A Purchase used instead of new clothing</p> <p>ES4G11B Reduce water use (e.g., when brushing your teeth, having a shower, washing dishes)</p> <p>ES4G11C Reduce the use of electricity (e.g., switching off the lights when leaving a room, turning down the heat when it is not too cold)</p> <p>ES4G11D Avoid buying products with plastic packaging (e.g., school supplies, groceries)</p> <p>ES4G11E Reuse old items in good condition instead of buying new ones</p> <p>ES4G11F Limit the use of plastic items (e.g., disposable plastic glasses, water bottles, plastic shopping bags)</p> <p>ES4G11G Reduce food waste (e.g., avoiding buying more food than necessary, eating leftovers)</p> <p>ES4G11H Repair rather than replacing items you have (e.g., fix your bike instead of buying a new one, mending a backpack instead of buying a new one)</p>

<p>ES4G10 During the last twelve months, how often have you done or have you asked your parents or guardians to do the following things?</p> <p>Often Sometimes Rarely Never</p> <p>Scale: E_ETHCON—students' reports on political consumerism behaviours—covers also items relating to other aspects of sustainable development not included in this analysis. Included items:</p> <p>ES4G10A Refuse to buy goods produced by companies using child labor ES4G10B Refuse to buy goods whose production has a negative impact on the environment ES4G10C Refuse to buy goods produced by a company violating social rights of their employees ES4G10D Buy only goods that can be recycled afterwards ES4G10E Buy environment-friendly products ES4G10F Get information on whether companies are socially responsible before buying their products</p> <p>Reliability for Poland: Cronbach's alpha = 0.89</p>	<p>ES4G10B Refuse to buy goods whose production has a negative impact on the environment ES4G10D Buy only goods that can be recycled afterwards ES4G10E Buy environment-friendly products</p>
<p>IS4G31 There are many different ways how citizens may express their opinions about important issues in society. Would you take part in any of the following activities to express your opinion in the future?</p> <p>I would certainly do this I would probably do this I would probably not do this I would certainly not do this</p> <p>Scale: S_ENVACT—students' expected participation in activities to protect the environment, Reliability for Poland: Cronbach's alpha = 0.83</p>	<p>IS4G31G Refuse to buy products that are harmful for the environment IS4G31H Tell someone to stop causing damage to the environment IS4G31I Participate in an organized protest to demand more action to protect our environment IS4G31J Encourage other people to make personal efforts to help the environment (e.g., through saving water)</p>

Source: own elaboration based on ICCS 2022 data

More information about scales, their construction, and parameters can be found in the ICCS 2022 technical report (Schulz, Friedman, Fraillon, 2024).

Table A2 *OLS regression results for students' concerns about threats to the global environment (s_envcon)*

Unstandardized coefficients with standard errors in parentheses.

Predictor	Model 1	Model 2
Gender (ref: boy)		
Girl	2.219 *** (0.393)	1.736 *** (0.259)
Socio-economic status (SES)		
SES (linear)	1.133 *** (0.213)	0.293 (0.152)
SES ² (quadratic)	-0.330 (0.198)	-0.079 (0.157)
Civic knowledge (z-score)		
Civic knowledge (linear)	—	1.754 *** (0.250)
Civic knowledge ²	—	-0.456 ** (0.167)
Interactions		
Girl × Civic knowledge	—	0.479 (0.316)
SES × Civic knowledge	—	-0.329 (0.202)
Constant	50.139 *** (0.318)	50.689 *** (0.253)
N	4345	4345
R²	0.039	0.097

Note: SES is measured using the National Index of Students' Socioeconomic Background (S_NISB).

Civic knowledge is standardized (z-score).

*p < 0.05, **p < 0.01, ***p < 0.001.

Table A3 *OLS regression results for students' positive attitudes toward environmental protection (s_attenv)*

Unstandardized coefficients with standard errors in parentheses.

Predictor	Model 1	Model 2
Gender (ref: boy)		
Girl	2.008 *** (0.471)	1.840 *** (0.325)
Socio-economic status (SES)		
SES (linear)	0.920 *** (0.219)	0.583 *** (0.166)
SES ² (quadratic)	0.188 (0.271)	0.256 (0.217)
Civic knowledge (z-score)		
Civic knowledge (linear)	—	0.443 * (0.211)
Civic knowledge ²	—	-0.011 (0.141)
Interactions		
Girl × Civic knowledge	—	0.744 * (0.329)
SES × Civic knowledge	—	-0.150 (0.206)
Constant	46.219 *** (0.486)	46.261 *** (0.410)
N	4344	4344
R²	0.030	0.039

Note: SES is measured using the National Index of Students' Socioeconomic Background (S_NISB).

Civic knowledge is standardized (z-score).

*p < 0.05, **p < 0.01, ***p < 0.001.

Table A4 OLS regression results for students' reports on their sustainable behaviours (e_susbeh)

Unstandardized coefficients with standard errors in parentheses.

Predictor	Model 1	Model 2
Gender (ref: boy)		
Girl	4.439 *** (0.415)	4.152 *** (0.293)
Socio-economic status (SES)		
SES (linear)	0.983 *** (0.197)	0.407 ** (0.147)
SES ² (quadratic)	-0.197 (0.196)	-0.157 (0.158)
Civic knowledge (z-score)		
Civic knowledge (linear)	—	0.974 *** (0.269)
Civic knowledge ²	—	-0.032 (0.159)
Interactions		
Girl × Civic knowledge	—	0.834 ** (0.308)
SES × Civic knowledge	—	-0.071 (0.194)
Constant	49.549 *** (0.400)	49.661 *** (0.288)
N	4353	4353
R²	0.089	0.114

Note: SES is measured using the National Index of Students' Socioeconomic Background (S_NISB).

Civic knowledge is standardized (z-score).

*p < 0.05, **p < 0.01, ***p < 0.001.

Table A5 OLS regression results for students' reports on political consumerism behaviors (e_ethcon)

Unstandardized coefficients with standard errors in parentheses.

Predictor	Model 1	Model 2
Gender (ref: boy)		
Girl	4.441 *** (0.445)	4.743 *** (0.316)
Socio-economic status (SES)		
SES (linear)	0.277 (0.258)	0.821 *** (0.198)
SES ² (quadratic)	0.130 (0.242)	-0.062 (0.172)
Civic knowledge (z-score)		
Civic knowledge (linear)	—	-1.903 *** (0.271)
Civic knowledge ²	—	0.192 (0.162)
Interactions		
Girl × Civic knowledge	—	1.224 *** (0.301)
SES × Civic knowledge	—	0.271 (0.201)
Constant	45.664 *** (0.428)	45.315 *** (0.341)
N	4346	4346
R²	0.055	0.079

Note: SES is measured using the National Index of Students' Socioeconomic Background (S_NISB).

Civic knowledge is standardized (z-score).

*p < 0.05, **p < 0.01, ***p < 0.001.

Table A6 OLS regression results for students' expected participation in activities to protect the environment (s_envact)

Unstandardized coefficients with standard errors in parentheses.

Predictor	Model 1	Model 2
Gender (ref: boy)		
Girl	4.857 *** (0.421)	4.737 *** (0.295)
Socio-economic status (SES)		
SES (linear)	0.440 * (0.217)	0.289 (0.161)
SES ² (quadratic)	-0.131 (0.240)	-0.201 (0.184)
Civic knowledge (z-score)		
Civic knowledge (linear)	—	-0.318 (0.224)
Civic knowledge ²	—	-0.291 * (0.135)
Interactions		
Girl × Civic knowledge	—	1.337 *** (0.319)
SES × Civic knowledge	—	0.230 (0.184)
Constant	49.063 *** (0.417)	49.294 *** (0.318)
N	4317	4317
R²	0.081	0.089

Note: SES is measured using the National Index of Students' Socioeconomic Background (S_NISB).

Civic knowledge is standardized (z-score).

*p < 0.05, **p < 0.01, ***p < 0.001.