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1. Descriptive statistics

In this section, we describe the frequency of answers to the main questions of our survey in the countries covered so far. We restrict the sample to the control group and reweight answers so that the samples' characteristics exactly matched each country's quotas.

The first questions cover socio-demographics and climate-related behavior. Figure 1 report the insights most relevant to climate change from these questions. For example, only 21% (US) to 32% (France) of people talk of things of climate change (CC) at least several times a month. Combined with the ingrained polluting behaviors (driving, flying, eating beef), one understands the challenge to make climate policies accepted, as such policies will necessarily impinge on polluting behaviors.

Before showing the informational treatments, respondents are invited to write down their main considerations about climate change and what their government should do about this issue. We read one by one a random fourth of these open fields and recoded them in several categories in function of what they mention. Figure 2 presents the percentage of occurrences of our broader set of categories. Almost every respondent leaves a meaningful (i.e. not "Empty") text, be it "I don't know". A majority of people either expresses concern for climate change, willingness for climate action, or mentions a sector where decarbonisation is particularly needed: we recode this type of answers as "Action needed". Conversely, few people express doubts against the reality of climate change, its gravity, or the need for climate action: we recode them as "No action needed". That being said, those who mention a specific decarbonisation measure are also quite few. Overall, it seems that many people support changes in various sectors but are not fully aware of nature of these changes, let alone the policies that could bring them about.

	Denmark	France	United States
At least one flight between 2017 and 2019	62	50	68
More than one flight per year on average	40	28	46
Eat beef at least once a week	66	45	59
Commutes by car/motorbike	39	44	57
Talks or thinks of CC several times a month	26	32	21
Is member of an environmental organisation	8	4	11

Figure 1. Climate-related behaviors (in %).

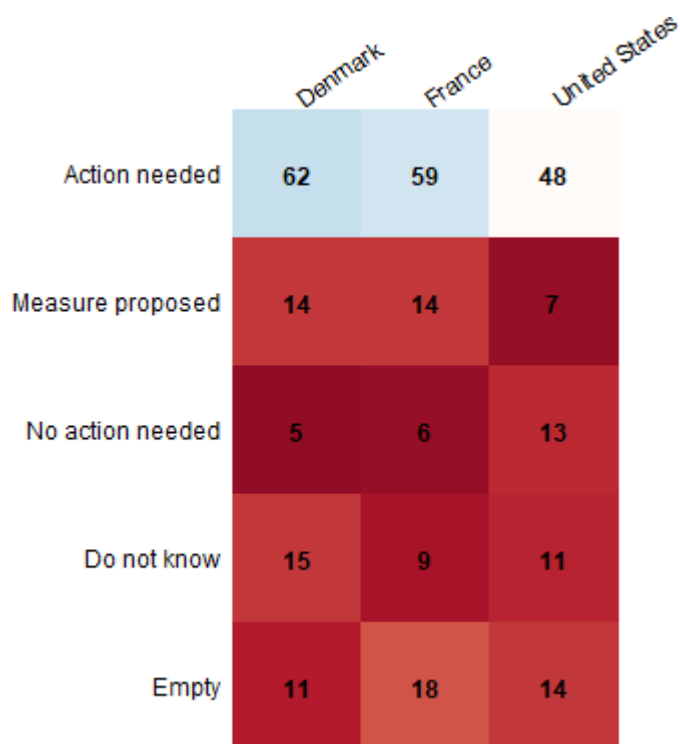


Figure 2. Themes mentioned in the open field – When thinking about climate change, what are your main considerations? What should [country] government do regarding climate change? (in %)

Although about 60% of respondents attribute climate change to human causes, Figure 3 shows that only a quarter knows that most (if not all) of climate change is anthropogenic. When looking for the principal components within knowledge questions, this question singles out at the most important factor that predicts knowledge relative to climate change.

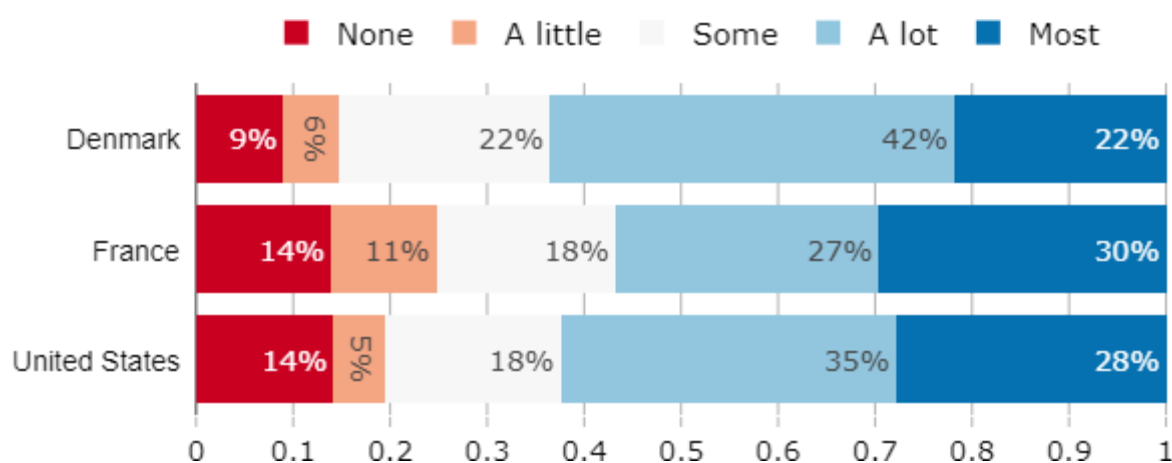


Figure 3. CC anthropogenic – What part of climate change do you think is due to human activity? Correct answer: Most. Those who do not believe that climate change is real are recoded as None.

Despite widespread ignorance of the climate science, about 80% of people agree that climate change is an important problem, and a majority even strongly agrees (Figure 4).

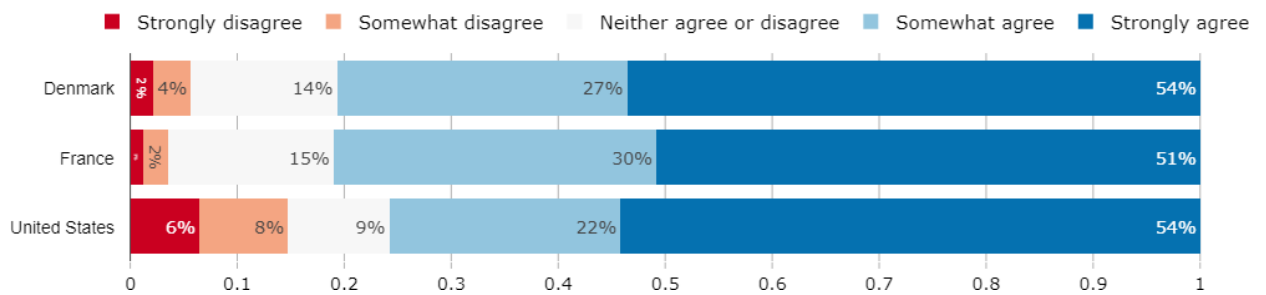


Figure 4. CC an important problem – Do you agree or disagree with the following statement: “Climate change is an important problem.”?

This concern relates to the widespread view that climate change will likely cause all possible damages, from the scientifically sound ones (droughts and heatwaves, sea-level rise) to the very unlikely and remote extinction of humankind (Figure 5). Again, the ignorance of climate science combined with a deep worry shows up as in most countries, a majority of people mistakenly believe that climate change will make volcanic eruptions more frequent. Whereas, results appeared broadly similar across countries until now, knowledge of climate change seems higher in Denmark compared to other countries. Danes are less mistaken about volcanos, a higher share of them consider themselves knowledgeable, and they make fewer mistakes when asked to find out which gases are greenhouse gases (GHG), as shows Figure 6.

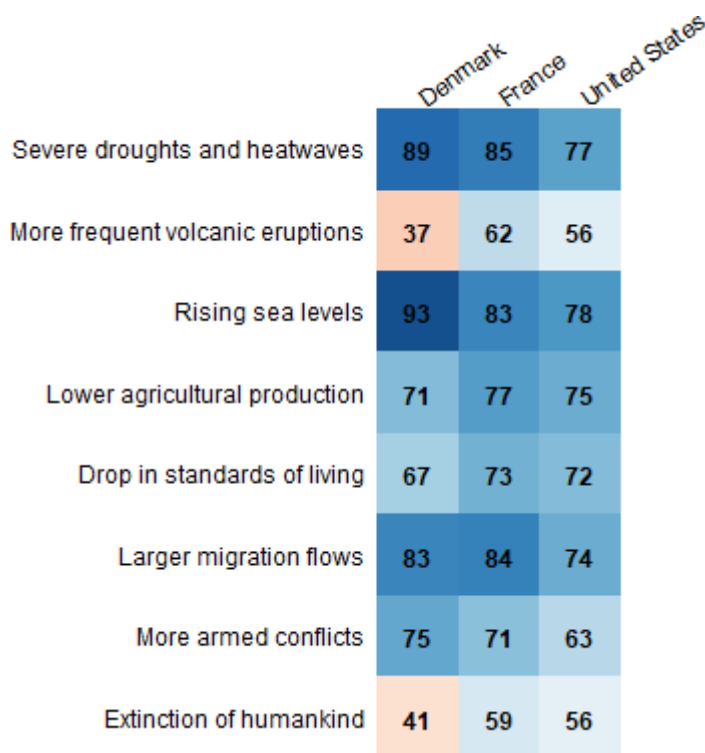


Figure 5. CC impacts – If nothing is done to limit climate change, how likely do you think it is that climate change will lead to the following events? ("Likely" and "Very likely" responses, in %). Items for which there is scientific certainty: droughts, sea levels (*Very likely*); volcanos (*Very unlikely*).

Figure 6 summarizes the knowledge block. It shows that a large group of people do not realize the extent of efforts needed to halt climate change (as they mistakenly think that cutting emissions by half will suffice) nor do they realize who should bear the efforts (as they think that China's carbon footprint per capita is higher than their own country's).

	Denmark	France	United States
CC exists, is anthropogenic	0.6	0.5	0.6
Considers one's self knowledgeable	0.2	-0.1	0.1
Cutting emissions by half enough to stop global warming (False)	0.4	0.4	0.5
Score to knowledge of greenhouse gases in [0;+4]	3.2	2.6	2.8
Knowledge score of impacts in [0;4] (droughts, sea-level, volcanos)	2.7	2.2	2.1
Correctly compares p.c. emissions of e.g. own region vs. China	0.5	0.7	0.4

Figure 6. Knowledge. Average of answers, recoded in [-2;2] (items 1, 2,); [0;1] (3, 6); or [0;4] (4, 5).

Regarding their view of the future (Figure 7 and 8), the population is divided between the pessimistic, the optimistic, and those who do not take a side. Although these three groups are generally not far from balance, pessimism dominates when it comes to what will happen (in terms of prosperity or climate) while optimism dominates when guessing what would happen (to one's lifestyle or to the economy) in case of ambitious climate policies.

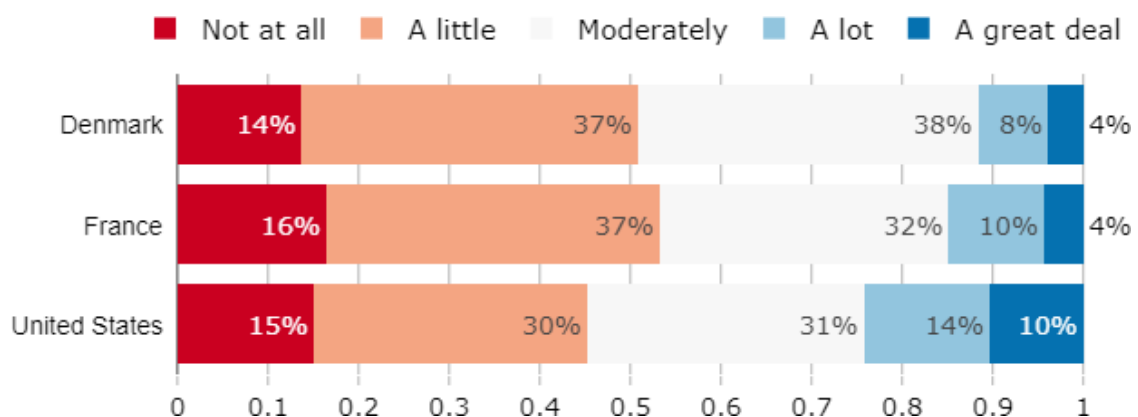


Figure 7. Ambitious climate policies damaging to own lifestyle – If we decide to halt climate change through ambitious policies, to what extent do you think it would negatively affect your lifestyle?

	Denmark	France	United States
World will be richer in 100 years	32	14	22
Technically possible to stop emissions by 2100	31	20	37
Likely that humans halt CC by 2100	38	28	39
CC will affect me negatively	15	28	36
Likely that CC causes extinction of humankind	41	59	56
Ambitious climate policies positive for economy	38	37	42
Ambitious climate policies negative for my lifestyle	12	15	24

Figure 8. Views about future pathways' likelihoods and effects (in % of agreement with statement).

	Denmark	France	United States
Willing to Limit flying	51	57	40
Willing to Limit driving	34	32	32
Willing to Have a fuel-efficient or electric vehicle	62	45	52
Willing to Limit beef consumption	34	38	38
Willing to Limit heating or cooling your home	31	39	30

Figure 9. Willingness to change habits – Here are possible behaviors that experts say would help reduce greenhouse gas emissions. To what extent would you be willing to adopt the following behaviors? (% of willingness to change “A lot” or “A great deal”).

If many people are grim concerning the likelihood of halting climate change, it may be because they are lucid of the reluctance of people to change their (polluting) habits (Figure 9). To understand why so many people are not willing to change a lot their habits despite the widespread view that ambitious climate policies would not affect their lifestyle negatively, it is useful to look at the conditions under which people would be ready to change their behaviors. Figure 10 suggests that the changes in others' behaviors may be pivotal, and in particular from the most well off. In a nutshell, many people are ready to change, but at the condition that the transition is universal and fair.

	Denmark	France	United States
Ambitious climate policies	47	41	36
Having enough financial support	49	45	55
People around you also changing their behavior	57	39	47
The most well off also changing their behavior	58	59	54

Figure 10. Conditions to change – How important are the factors below in order for you to adopt a sustainable lifestyle (i.e. limit driving, flying, and consumption, cycle more, etc.)? (% agreement)

The next blocks enquire attitudes regarding climate policies, starting with our three main policies of interest: a carbon tax whose revenue would fund an equal cash transfer to each adult, a ban on combustion-engine cars in 2030, a green infrastructure program financed by public debt. As the opinions about their effects and incidence are very similar across the three policies, Figure 11 presents the opinions averaged over these policies. Even though most people agree that the policies would be effective and efficient to reduce GHG emissions, and similarly effective against air pollution, people generally think that only the richest would win from the policy, and often think that their household would lose out financially. Contrary to the question presented above about generic climate policies, people tend to foresee negative economic effects when judging these specific policies. Figure 12 shows support for our three main policies. In all countries, there is a relative majority against a carbon tax with cash transfers, although the “median” respondent is indifferent. The same is true for a ban on combustion-engine cars, even if the latter obtains a relative majority support when public transport are made widely available. This shows the complementarity between measures and the pivotal role of a green infrastructure program, whose an absolute majority supports. Relatedly, another question shows that the most favored source of funding for such investments would be a tax on the wealthiest.

	Denmark	France	United States
Negative effect on economy and employment	0.1	0.1	0.2
Large effect on economy and employment	0.3	0.4	0.7
Costless way to reduce emissions	0.4	0.6	0.6
Incidence on low-income earners	-0.7	-0.6	-0.4
Incidence on the middle class	-0.4	-0.5	-0.2
Incidence on high-income earners	0.3	0.3	0.3
Incidence on those living in rural areas	-0.7	-0.4	-0.4
Incidence own household	-0.3	-0.2	-0.1
Fair	0	0.1	0.1

Figure 11. Average attitudes to the main policies (mean among the three policies recoded in [-2;2]).

	Denmark	France	United States
A carbon tax with cash transfers	32	28	32
A green infrastructure program	55	58	51
A ban on combustion-engine cars	43	27	41
Ban on combustion cars where public transport made available	44	42	46

Figure 12. Main policies' support – Do you support or oppose the following policy? (% of support)

Other policies fare better (Figure 13). Banning the most polluting cars from city centers is surprisingly popular given the relative majority against a ban on combustion-engine cars. Mandatory insulation of buildings before 2040 combined with government subsidies covering half the costs also obtains a solid majority in all countries. However, taxes are rarely supported by a majority, except when combined with green investments (Figure 14). It is noteworthy that, contrary to other countries (which probably have lower taste for redistribution), a majority of French people would support a carbon tax if its revenues are used to compensate the poorest households or those most constrained to use fossil fuels.

Figure 15 focuses on beef consumption, a habit that will be challenging to change as it conveys a hardly substitutable pleasure. Most people correctly find that beef has a higher GHG footprint than chicken, pasta or rice. About one third of people are willing to limit a lot their consumption of beef, and the same share of people supports the policies that would be most efficient to reduce beef consumption. The only policy obtaining a majority support in all countries is the one not directly related to beef: subsidies on healthy plant-based food. French people appear the most keen on addressing beef consumption as a majority of them also supports a ban on intensive cattle farming.

The international policy block starts by asking at what levels climate policies are needed. An overwhelming majority chooses the global level; far less choose more local ones (Figure 16). Solid majorities support a global democratic assembly to draft climate treaties, or a global tax on millionaires to finance public services in low-income countries that comply with international standards regarding climate action. The most preferred fairness principle is by far the *polluter pay* principle, although in all countries, a relative majority acknowledges that transfers from high-income countries to vulnerable ones are needed.

	Denmark	France	United States
Tax on flying (+20%)	59	46	33
Tax on fossil fuels (\$45/tCO ₂)	44	32	35
Ban polluting cars in city centers	66	58	49
Subsidies to low-carbon technos	66	58	58
Funding clean energy in LDC	54	49	48
Mandatory, subsidised insulation	64	61	53

Figure 13. Other policies' support – Do you support or oppose the following policies? (% of support)

	Denmark	France	United States
Cash for constrained HH	37	56	44
Cash for the poorest	43	57	44
Equal cash for all	27	45	36
Reduction in income tax	39	64	46
Reduction in corporate tax	25	37	29
Tax rebate for affected firms	37	53	38
Funding green infrastructure	60	65	57
Subsidies to low-carbon technos	53	58	54
Reduction in the deficit	34	52	47

Figure 14. Support for carbon tax depending on revenue use – Governments can use the revenues from carbon taxes would raise gasoline prices by 10 centimes per liter, if the government used this revenue to finance... (% support)

	Denmark	France	United States
Eats beef at least once a week	66	45	59
Knows that beef has high GHG footprint	86	73	76
Willing to limit beef consumption	34	38	38
Support for tax on cattle products that would double beef price	33	29	33
Support for subsidies on organic and local vegetables, fruits, and nuts	61	53	44
Support for removal of subsidies for cattle farming	33	29	41
Support for ban of intensive cattle farming	31	56	37

Figure 15. Beef consumption habits, knowledge, and related policies' support. (in %) in different ways. Would you support or oppose introducing a carbon tax that

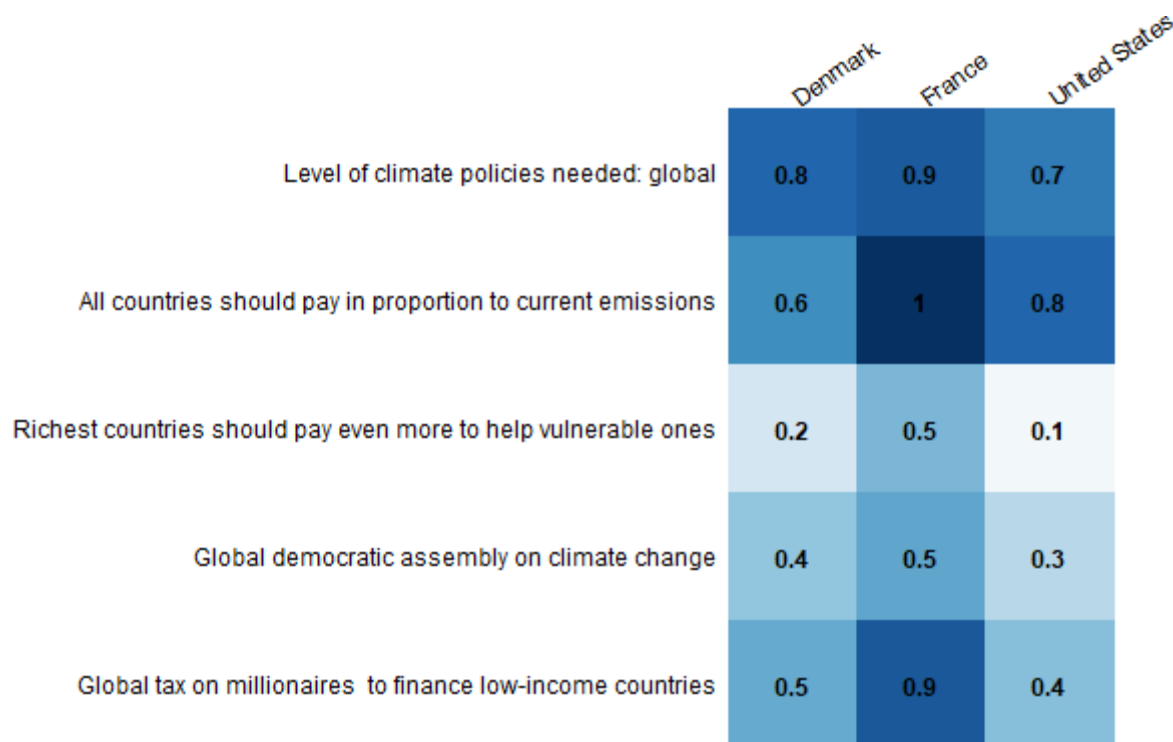


Figure 16. International climate policies. Average support recoded in [-2;2] except item 1: in [0;1].

2. Highlights

Figure 17 selects the main insights from the descriptive statistics, by showing average answers, recoded on a [-2; +2] scale, to most relevant questions, in particular support for policies. We could summarize these insights in the following way. Attitudes are similar among the three countries covered so far: Denmark, France, and the United States. About half of the population lacks knowledge of climate science critical to understand the extent of efforts required by decarbonisation. Despite a lack of knowledge, most people are concerned with climate change, support a national policy to fight it, and support policies at the global level even more. Some policies obtain a large support: mandatory insulation of buildings, a green infrastructure program. However, support is mixed for others, that fail to obtain a majority: a carbon cash with cash transfers, a ban on combustion-engine cars. The lack of support is highly correlated with a perceived lack of fairness: policies are often seen as regressive and detrimental to one's budget. The support thus rises when a policy is complemented by the procurement of alternative to fossil fuels through green investments, or by taxes on the wealthiest. Fairness also plays a major role at the global level, where the polluter pay principle together with redistributive transfers are largely supported. Finally, our treatments show that providing neutral information can improve support for climate policies, be it on the local impacts of climate change or on the policies themselves. The information on the carbon tax with cash transfers is particularly effective in making people understand that poorer households would actually win from such policy (+8 to +18 p.p. depending on the country), and its mechanism on the support seems to be mediated through the belief in the policy's fairness.

	Denmark	France	United States
CC exists, is anthropogenic	0.6	0.5	0.6
CC is an important problem	1.3	1.3	1.1
[Country] should fight CC	1.1	1.1	1
Willing to limit driving	0.1	-0.1	-0.1
Ban on combustion-engine cars	0	-0.3	0
Green infrastructure program	0.5	0.5	0.4
Carbon tax with cash transfers	0	-0.2	0
Ban on intensive cattling	-0.2	0.5	-0.1
Mandatory insulation of buildings	0.7	0.7	0.4
Countries pay in proportion to emissions	0.6	1	0.8
Global tax on millionaires funding LDC	0.5	0.9	0.4

Figure 17. Summary of attitudes on CC and climate policies (mean of answers recoded in [-2;2]).

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1. behavior_countries
2. CC_field_mentions_positive_countries
3. CC_anthropogenic
4. CC_problem
5. CC_impacts_positive_countries
6. knowledge_wo_footprint_mean_countries
7. effect_halt_CC_lifestyle_countries
8. future_positive_countries
9. willing_positive_countries
10. condition_positive_countries
11. policies_all_support_positive_countries
12. policy_all_positive_countries
13. tax_positive_countries
14. beef_positive_countries
15. burden_sharing_few_mean_countries
16. Opinion_mean_countries