**Supplementary information to:**

**‘Science could solve some of the world’s biggest problems. Why aren’t governments using it?’**

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**Nature science advice survey.**
Thank you for taking part in this survey, which will take about 10 minutes to complete.

The survey aims to assess opinions on the successes, failures and future of science advice to governments. It is conducted by the journalists on Nature’s news team and the results will be used to write an article in Nature.

It is designed to be taken by people who are involved in governmental science advice or work broadly at the interface between research and policy. It has been sent to members of the International Network for Governmental Science Advice (INGSA) and other related groups.

This survey takes ‘science advice’ to mean systems and structures which produce and deliver scientific advice and evidence (drawn from natural and social science research) to government decision-makers i.e. politicians or policymakers across all sectors in central or national governments. It includes science advisers, science advisory bodies and other mechanisms.

Your responses will be anonymous unless you choose to give your contact details at the end.

If you have any questions about the survey, please contact reporter Helen Pearson, at {EMAIL GIVEN}.

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Routine science advice

The first part of this survey asks about **routine science advice to governments i.e. during everyday policymaking rather than acute crises**. The second part will focus on science advice during the pandemic and other crises.

**First, thinking about routine policymaking in your country:**

1. Roughly what percentage of **all**government policies/decisions do you think **should** be informed by scientific research? (1-100%).

2. Roughly what percentage of **all** government policies/decisions do you think **are currently** informed by scientific research? (1-100%)

3. What is your **overall opinion** of the science advice system and practices in your country?

* Very good (consistent practices and a coherent system)
* Good (good practices within many areas of government)
* Patchy (science advice practiced inconsistently in government)
* Poor (practices are inconsistent and/or of low quality)
* Very poor (very little science advice practiced or no system exists)
* No opinion/Don’t know

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4. In your country, in which sector are government departments or agencies **most successful**at incorporating science advice into policies and decisions?
For example: education, energy, transport, health etc.

5. In your country, in which sector are government departments or agencies**least successful** at incorporating science advice into policies and decisions?
For example: education, energy, transport, health etc.

6. Please indicate how strongly you agree or disagree with the following statements about **obstacles to successful science advice** to government in your country.

*[radio button options for each statement:*

*Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree]*

* Science advice is not a routine part of government decision-making
* Government lacks rigorous, relevant research or research syntheses to answer policy questions
* Science advisors lack influence in government
* Policymakers and politicians lack sufficient understanding of science and scientific methods
* Science advice is ignored or undervalued by policymakers/politicians
* Science advice is overly reactive (responding to requests from decision-makers) rather than proactive (bringing issues to decision-makers’ attention)
* Misinformation and disinformation obscure science advice to decision-makers
* Science advice mechanisms fail to incorporate key disciplines
* Science advice fails to incorporate a diversity of people or viewpoints
* There is a lack of multilateral or multinational science advice bodies

7. Please tell us about **any other key obstacle** to successful science advice in your country (optional answer).
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8. Please indicate **how important** you think the following factors are **in providing effective science advice to governments** to inform decisions.

*[radio button options for each statement:*

*Not at all important Slightly important Important Very important No opinion/don't know ]*

* A dedicated national science advisor with access to executive decision-makers
* Scientific advisory groups that can be convened for urgent issues
* Standing scientific advisory groups that routinely aid politicians/policymakers
* Mechanisms for synthesising current best research evidence and supplying it to policymakers/politicians
* Pre-existing, trusted relationships between scientists and policymakers/politicians
* Trust in science by policymakers/politicians
* Politicians and policymakers with education in STEM subjects
* Incentives for researchers to engage in science advice/policymaking

9. Looking internationally, **which country**, if any, do you think is **particularly successful** at ensuring science is factored into government policies and decisions i.e. they have an enviable science advice system?

10. Looking internationally, **which country,** if any, do you think is**particularly** **unsuccessful**at ensuring science is factored into government policies and decisions?

11. In addition to formal science advisory systems, there are many other ways in which the research community can support the use of research evidence in policy. Thinking about your country, please indicate how strongly you agree or disagree with the following statements about **obstacles to evidence-informed policymaking.**

*[radio button options for each statement:*

*Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree]*

* Research community fails to produce primary research needed to inform some key policy questions
* Research community fails to produce rigorous, up-to-date evidence syntheses that meet the needs of policymakers
* Research community fails to clearly communicate research findings to decision-makers
* Research community fails to communicate uncertainty and the changing evidence base to decision-makers
* Researchers lack understanding of policy processes and decision-making
* Researchers lack incentives to engage in policymaking and science advice
* Researchers are less willing to engage in science advice because of concerns they will be harassed
* Funders do not support policy-related research or engagement with policy

12. What is the **one most important practical change**you would make to improve science advice to government and evidence-informed policymaking in your country **over the next 10 years**?
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13. One view of science advice is that **‘advisers advise but ministers decide’**i.e. that scientists should only provide research findings and assess possible consequences of policy options, but not express an opinion on policy decisions. What is your view of this statement?
*[Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree]*

14. Please explain why you think this (optional answer).

15. Do you think that scientists should provide science advice to governments with ideologies they strongly oppose or with questionable legitimacy?

*[Yes No Don’t Know]*

16. How do you think science advisors should adapt their work to **accommodate artificial intelligence** over the next 2 years? Please tick any you think are important:

* They shouldn’t use AI
* They should use AI to help provide evidence syntheses or summaries for policymakers
* They should focus on combatting AI-generated misinformation
* They should provide science advice on the potential benefits and harms of AI
* Other: write in

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Science advice in a crisis

The final few questions of the survey focus on **science advice during the pandemic**, as an example of a crisis situation.

17. In your country, how successful do you think science advice was in **ensuring that science was factored into policymaking**in the pandemic response?

*[Not at all successful Not very successful Neither successful nor unsuccessful Successful Very successful Don’t know]*

18. In your country, in response to the pandemic, how successful do you think science advice was in**producing effective action by the government**?

*[Not at all successful Not very successful Neither successful nor unsuccessful Successful Very successful Don’t know]*

19. Deaths and other negative consequences of the pandemic have been attributed to many factors including poor political leadership, weak healthcare systems and lack of pandemic preparedness. In your view, **how much did failure in the science advice system contribute to excess deaths from COVID** in your country? This includes, for example, failures to seek relevant science advice, failures to produce or deliver it and failures to act on it.

*[It played no role It was a minor factor It was a major factor It was a crucial factor ]*

20. What do you consider to be the **biggest obstacle**to successful science advice in your country **during the pandemic**? (Optional answer).

21. In your experience, how did scientists and scientific advice systems navigate the **balance between transparency and confidentiality** during the pandemic:

* More advice should have been kept confidential, allowing free exchange of views on sensitive issues
* The levels of transparency and confidentiality were appropriate
* More advice should have been made open, gaining public trust and understanding

22.
In the UK and some other countries, **scientists and science advisers appeared alongside politicians at pandemic press conferences**. Some say this improved the influence of science advice on political decision-making. Others argued that it risked undermining public trust in science advisers and that they should have maintained more distance from politicians.
Do you think it was a **mistake for scientists/science advisers to appear alongside politicians**?

* Yes
* No
* I don't have a view

23. Please explain why you think this (optional answer).

24. Finally, if you wish to add **any other comments about improving science advice** to governments, please do so here .

Demographics:
Where in the world are you based? (You can choose not to say). [Drop-down menu]

What is your gender?

* Male
* Female
* Non-binary
* Other
* Prefer not to say

Do you consider yourself an early-career, mid-career, or advanced-career researcher?

* Early-career
* Mid-career
* Advanced-career
* I am not a researcher
* Prefer not to say

Which of these best describes the organization(s) you work for? (You may select multiple answers).

* Government
* For-profit company
* Non-profit organization
* University
* Hospital
* Medical research institute
* Government advisory group
* International advisory group
* Research funder
* Other - Write In
* Prefer not to say

Which best describes your research field or policy sector?

* Agriculture, veterinary or food science
* Biological sciences
* Biomedical, clinical, or health-related sciences
* Chemical sciences
* Earth sciences
* Economics
* Engineering
* Environmental sciences and Ecology
* Computing or Information sciences
* Mathematics
* Physical sciences
* Psychology
* Social sciences
* Humanities
* Other - Write In
* Prefer not to say