

Supplementary information (SI) tables and figures

**New methods in creating transdisciplinary science-policy research agendas:
The case of legislative science advice**

SI Table 1. Fifty research questions on legislative science advice (*Please note: The numbering in this list is not the same as in the ranking, for which the statements were placed in random order.*)

Information/evidence use (*Influence, use, or uptake of scientific information/science advice in policy—its impact or barriers—including measurement and evaluation*)

1. What types of scientific information are used in legislatures?
2. How do the formal and informal practices of legislatures influence the consideration and use of scientific information?
3. What are the ways in which scientific information is "used" in legislatures?
4. What metrics can be used to assess the use of scientific information across different legislative contexts?
5. What incentives motivate or compel legislatures to use scientific information?
6. Under which conditions does use of scientific information change the framing of policy debates in legislatures?
7. Does legislative use of evidence improve the implementation and outcome of social programs and policies?

Evidence development (*The creation of scientific information for the purposes of evidence*)

8. How can the scientific topics most relevant to the public and policymakers be determined to inform research?
9. How is social relevance weighed in the production of academic research?
10. How do policymakers and researchers work together in defining problems and processes for generating evidence?

Policymakers (*Policymakers, legislators, decision-makers*)

11. What value do legislators and staff place on scientific evidence, as opposed to other types?
12. How do legislator and staff preferences for scientific evidence compare between countries?
13. How do legislators and their staff assess the credibility of scientific information?
14. What are the characteristics of the producers of scientific information most preferred by legislators and their staff? (e.g., are they partisan, make policy recommendations?)
15. How do the Internet and social media affect the information-seeking behavior of legislators and staff?
16. Under what conditions do legislators and staff seek out scientific information or use what is presented to them?
17. What are the factors that legislators weigh in deciding whether to accept or reject a scientific recommendation?
18. Can training for legislators and/or staff increase their use of scientific information, especially in lower-middle income countries (LMICs)?

Scientists (*Scientists, scientific advisers, scientific researchers*)

19. What information, skills, and training are needed for scientists to work with legislators and their staff?
20. What individual and institutional factors motivate scientists to share their research with legislators and their staff?

21. How do scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures?
22. Which behaviors of scientists and other advisers increase the likelihood of evidence use?

Brokers (*Intermediaries, brokers*)

23. What role do intermediaries and research brokers play in getting scientific information before legislators and their staff? (e.g., helping shape research questions, communicate research, and/or serve as an engagement facilitator)
24. What forms of evaluation can be used to measure the effect of "brokering" scientific information?

Institutions (*Organizations, legislatures, governments, committees*)

25. How can the institutions that deliver legislative science advice be characterized?¹
26. How do culture, and political and economic context, affect the development of legislative science advice institutions? (e.g., new and emerging democracies, more authoritarian systems, levels of economic development)
27. How do different institutional approaches to legislative science advice influence its nature, quality and relevance?
28. What institutional approaches for legislative science advice are instructive for other countries?
29. How do legislative research departments synthesize and translate scientific information for legislators?
30. How can we measure the impact of legislative science advisory bodies on legislative processes using indicators?
31. How does the staffing, budgetary, and political capacity of committees affect their ability to use scientific information in legislatures?
32. How do internal and external organizations assess and meet the needs of legislatures for in-depth analysis?

The public (*Citizens, public*)

33. How does public participation affect legislative processes in which scientific information may be considered, including potential reductions in corruption?
34. How can the impact of current citizen initiatives in legislative science advice be measured?
35. What is the extent to which the public is aware of, and places value in, the scientific information being used in legislatures?

Communication (*Communication of science through engagement, access to information, effective information/knowledge transfer, relationships*)

36. What is the frequency of communication between legislative staff and scientists from inside and outside government?

¹ Examples include: type of entity conducting the research; source of financing; demand or supply driven; organized by a legislative entity or another party; level of involvement of the legislative entity; public access to information; measure of stakeholder participation; political system; governmental level (international–municipal); institutionalized or project-based initiative.

37. How does political polarization affect information flows to legislators and their staff?
38. Does iterative engagement between researchers, legislators, and staff improve evidence use?
39. How do different communication channels—hearings, face-to-face meetings, email, social media, etc.—affect informational trust and use?
40. How can risk and uncertainty be communicated comprehensibly to legislators and staff?
41. Which communication tools facilitate working with legislative decision-makers on scientific topics?
42. How is scientific information embedded in policy debate rhetoric?

System design (*Structure, design, and implementation of LSA systems/processes/models both in developed and developing nations*)

43. How do the requirements and needs of a science advice system for policymaking differ across countries?
44. How can the design of new structures, processes, and systems increase legislative capacity for science use?
45. What lessons can be learned about how to manage scientific advice to legislatures from a systems approach?
46. How do racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems?
47. In societies without established science advice systems, how is scientific information used—if at all—by legislatures?
48. What are examples of improvements to legislative science advisory systems in heavily resource-constrained countries?

Ethics (*Ethics of use of science in policy; appropriate role of scientists/scientific information providers in policy*)

49. What ethical principles for providing legislative science advice can be derived?
50. How can values be made transparent in providing science advice?

SI Box 1. The structure of forced-normal distribution used in the Q sort is displayed. Participants sorted the research statements across nine categories. They could place only a certain number into each of the boxes, ranging from four (extremely interested/uninterested) to eight (neither uninterested or interested). They were instructed to rank the statements relative to each other, even if the labels on the categories did not necessarily match their sentiment.

Extremely uninterested (-4)	Very uninterested (-3)	Moderately uninterested (-2)	Slightly uninterested (-1)	Neither uninterested nor interested (0)	Slightly interested (1)	Moderately interested (2)	Very interested (3)	Extremely interested (4)
-4	-3	-2	-1	0	1	2	3	4
-4	-3	-2	-1	0	1	2	3	4
-4	-3	-2	-1	0	1	2	3	4
-4	-3	-2	-1	0	1	2	3	4
	-3	-2	-1	0	1	2	3	
		-2	-1	0	1	2		
				0				
				0				

SI Box 2. In the first sorting step, conducted online, respondents were asked to move each of the 50 statements of research needs into one of three categories based on their level of interest in learning the information.

The following list consists of 50 statements derived from the research questions that you and your colleagues submitted. Each statement describes information we could potentially learn from studying legislative science advice.

**Which information would you be interested, uninterested, or neither uninterested or interested in learning?
Please drag each statement on the left into one of the boxes on the right.**

When you have moved all the statements into one of the three boxes, please click on the arrow to take you to the next page.

Note: Please move all the statements into one of the boxes on the right. The next questions build on this rating. You will not be able to move forward until the rating is complete. If you wish to end the survey, simply exit the webpage. You will be able to comment on the process after completing the rating.

<p>Statements</p> <div style="border: 1px solid #ccc; background-color: #f0f0f0; padding: 10px; min-height: 150px;"><p>* Whether iterative engagement between researchers, legislators, and staff improves evidence use</p></div>	<p>Uninterested in learning this information</p> <div style="border: 1px solid #ccc; background-color: #f0f0f0; height: 60px; width: 100%;"></div> <p>Neither uninterested nor interested</p> <div style="border: 1px solid #ccc; background-color: #f0f0f0; height: 60px; width: 100%;"></div> <p>Interested in learning this information</p> <div style="border: 1px solid #ccc; background-color: #f0f0f0; height: 60px; width: 100%;"></div>
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SI Box 3. In the second sorting step, respondents were given instructions on how to place the research needs statements into one of nine categories, ranging from “extremely uninterested” to “extremely interested.”

Thank you for telling us which information you would be interested and uninterested in learning. Please help us in understanding *how* interested or uninterested you would be in learning this information.

Further divide the statements from your first sort into each of the boxes below. The categories range from “extremely uninterested” to “extremely interested,” with “neither uninterested nor interested” in the middle.

Please move all the statements into one of the boxes on the right, making sure that the correct number of statements is in each box (4, 5, 6, or 8). You can easily see which statements are in each box by clicking on “expand all.” As you move the statements, the total count will be reflected on the label above the box (e.g., “1 of 4 statements”). You may move statements between boxes on the right as you make your final choices. If you need to move a statement to a location that is not visible on the screen, pull it into the box closest to your desired location, then scroll the screen to make the statement and new box visible, and finally pull the statement into position.

Note: We understand that it may be hard to make distinctions between some of the statements. You also may wish you could place more statements into some of the boxes than allowed. Please rate the statements to the best of your ability. You will be able to comment on the process at the end. You will not be able to move forward until the rating is complete. If you wish to end the survey, simply exit the webpage.

SI Table 2. Factor loading matrices for developed and developing nation respondents

	DD1	DD2	DD3		DG1	DG2	DG3
X1030DDPRV	-0.519 *	0.145	0.088	x1003DG2PP	0.07	0.216	-0.051
X1036DD2PU	0.624 *	-0.023	0.234	x1014DG2PP	-0.417 *	-0.178	0.079
X1058DD3WY	0.373	-0.13	0.594 *	x1027DG3WY	-0.076	0.608 *	0.108
X1069DDPRV	0.296	0.183	0.465 *	x1047DG2PP	-0.193	0.155	0.069
X1082DDPRD	0.181	0.482 *	-0.216	x1052DG3WY	0.66 *	0.113	0.284
X1102DD2PP	0.429 *	0.015	0.026	x1054DGPRV	0.143	0.155	0.422 *
X1126DDPRV	-0.015	0.218	0.335 *	x1060DGPRV	0.508 *	0.261	0.276
X1130DDPRD	0.154	0.39	0.539 *	x1080DG3WY	0.39	0.43 *	-0.019
X1147DDUSR	-0.132	0.531 *	0.258	x1114DG3WY	-0.3	0.322	0.238
X1150DD3WY	0.661 *	0.147	-0.231	x1116DGPRV	-0.016	0.652 *	-0.18
X1161DD3WY	0.317	0.009	0.374 *	x1132DG3WY	-0.036	0.081	-0.5 *
X1174DD2PU	0.386 *	0.378	0.068	x1135DGPRD	-0.233	-0.031	0.114
X1175DDPRV	0.358	0.427 *	-0.175	x1162DGPRD	0.128	0.376 *	0.094
X1199DDUSR	0.619 *	0.326	-0.063	x1190DGPRV	-0.031	-0.04	0.652 *
X1213DDXXX	0.116	0.073	-0.504 *	x1194DGPRD	0.06	0.331 *	0.136
X1233DDPRD	0.583 *	0.081	-0.137	x1208DGPRV	-0.295 *	-0.096	0.099
X1260DD2PP	0.4 *	0.095	0.267	x1254DGPRV	-0.242	-0.304	0.38
X1305DD3WY	0.001	0.044	0.356 *	x1256DGPRD	0.542 *	0.217	-0.249
X1313DDPRD	0.243	0.162	-0.363 *	x1318DGPRV	0.233	0.354 *	-0.065
X1323DDPRD	0.22	0.643 *	-0.286	x1321DG2PP	-0.055	-0.414 *	0.082
X1331DDPRV	0.438	0.276	-0.393	x1347DG3WY	-0.367	0.433 *	-0.212
X1349DDPRD	-0.01	0.554 *	-0.505	x1380DGPRD	-0.285 *	-0.024	-0.007
X1352DDUSR	0.277	-0.349 *	0.003	x1392DGPRV	0.349	-0.355	-0.221
X1417DD2PU	0.583 *	-0.007	0.034	x1418DGPRV	0.067	0.077	0.469 *
X1428DDPRD	-0.27	0.437 *	0.303	x1439DG2PU	0.455 *	-0.205	0.177
X1497DD3WY	-0.015	0.52 *	0.058	x1440DG2PU	0.121	0.199	-0.631 *
X1501DDPRV	0.157	0.695 *	0.12	x1442DGPRV	0.233	0.407	0.423
X1540DDUSR	0.241	0.272	0.199	x1550DGPRV	0.177	0.048	0.091
X1558DDPRV	-0.048	0.336 *	0.279	x1551DGPRV	-0.356	0.384 *	-0.044
X1560DD3WY	0.346	0.537 *	0.069	x1569DGUSR	0.175	0.397	0.403
X1603DDPRD	-0.125	0.039	0.546 *	x1600DGPRV	0.624 *	-0.113	0.153
				x1607DG3WY	0.022	-0.172	-0.156
				x1609DGPRV	-0.116	-0.01	-0.065

Asterisks indicate statistically significant coefficients ($p < .05$). Roles: USR, user; PRV, provider; PRD, producer; 2PU, provider and user; 2PP, producer and provider; 3WY, producer, provider, and user.

SI Table 3. Factor loading matrix for the combined analysis of all respondents

	ALL1	ALL2	ALL3	ALL4		ALL1	ALL2	ALL3	ALL4
x1030DDPRV	-0.283	0.173	-0.263	0.432 *	x1014DG2PP	-0.253	-0.177	0.43 *	-0.037
x1036DD2PU	0.317	0.155	0.408 *	-0.182	x1027DG3WY	0.426	0.154	0.201	0.464
x1058DD3WY	0.01	0.022	0.635 *	0.135	x1047DG2PP	-0.032	0.021	0.26	-0.248
x1069DDPRV	0.194	0.176	0.545 *	0.012	x1052DG3WY	0.361	0.456 *	-0.079	-0.072
x1082DDPRD	0.442 *	-0.157	-0.077	0.142	x1054DGPRV	0.299	0.309	0.356	-0.208
x1102DD2PP	0.349 *	-0.047	0.233	-0.129	x1060DGPRV	0.183	0.639 *	0.046	0.164
x1126DDPRV	0.095	0.218	0.046	0.284 *	x1080DG3WY	0.106	0.437 *	0.087	0.123
x1130DDPRD	0.196	0.049	0.36	0.438 *	x1114DG3WY	0.111	-0.049	0.505 *	-0.005
x1147DDUSR	0.164	0.073	0.064	0.629 *	x1116DGPRV	-0.008	0.252	-0.1	0.425 *
x1150DD3WY	0.534 *	0.23	0.077	-0.205	x1132DG3WY	0.035	-0.24	0.15	0.066
x1161DD3WY	0.102	0.143	0.478 *	0.13	x1135DGPRD	0.151	-0.294	0.448 *	0.05
x1174DD2PU	0.519 *	0.073	-0.036	0.135	x1162DGPRD	0.239	0.052	-0.062	0.299 *
x1175DDPRV	0.509 *	-0.105	0.033	0.191	x1190DGPRV	0.227	0.189	0.047	-0.393 *
x1199DDUSR	0.699 *	0.067	0.194	-0.134	x1194DGPRD	0.49 *	0	0.165	0.092
x1213DDxxx	0.256	0.193	-0.599 *	-0.131	x1208DGPRV	0.232	-0.351 *	0.089	-0.156
x1233DDPRD	0.529 *	0.133	0.13	-0.424	x1254DGPRV	-0.251	0.026	0.009	-0.432 *
x1260DD2PP	0.232	0.108	0.238	0.233	x1256DGPRD	0.075	0.423 *	-0.301	0.166
x1305DD3WY	-0.076	0.367 *	0.325	0.092	x1318DGPRV	0.225	0.159	0.095	0.062
x1313DDPRD	0.32 *	0.143	-0.266	-0.055	x1321DG2PP	0.013	-0.195	0.028	-0.139
x1323DDPRD	0.623 *	-0.166	-0.204	0.253	x1347DG3WY	-0.108	-0.021	-0.179	0.442 *
x1331DDPRV	0.554 *	0.128	-0.195	-0.086	x1380DGPRD	0.014	-0.196	0.169	0.203
x1349DDPRD	0.385	-0.064	-0.446 *	0.193	x1392DGPRV	0.085	-0.108	0.275	-0.108
x1352DDUSR	-0.033	0.37 *	0.02	-0.17	x1418DGPRV	-0.185	0.455 *	0.151	-0.093
x1417DD2PU	0.334	0.592 *	0.118	-0.111	x1439DG2PU	0.177	0.146	-0.006	-0.237
x1428DDPRD	-0.009	0.108	-0.004	0.406 *	x1440DG2PU	0.024	-0.131	0.03	0.381 *
x1497DD3WY	0.354	-0.354	0.099	0.257	x1442DGPRV	0.103	0.654 *	0.001	0.113
x1501DDPRV	0.594 *	-0.021	0.115	0.247	x1550DGPRV	-0.151	0.409 *	-0.247	-0.064
x1540DDUSR	0.313 *	0.004	0.158	0.203	x1551DGPRV	0.011	-0.037	0.049	0.097
x1558DDPRV	0.166	-0.333	0.173	0.37	x1569DGUSR	0.271	0.42 *	0.265	-0.014
x1560DD3WY	0.616 *	0.04	0.186	0.09	x1600DGPRV	0.312	0.315	-0.168	-0.31
x1603DDPRD	-0.245	0.186	0.323	0.324	x1607DG3WY	-0.167	0.059	0.117	-0.039
x1003DG2PP	0.066	0.041	0.016	0.384 *	x1609DGPRV	-0.302 *	-0.017	-0.007	0.103

Asterisks indicate statistically significant coefficients ($p < .05$). Roles: *USR*, user; *PRV*, provider; *PRD*, producer; *2PU*, provider and user; *2PP*, producer and provider; *3WY*, producer, provider, and user.

SI Table 4. This factor array represents the three perspectives of developed nation respondents.

	Category	Statements of research needs	DD1	DD2	DD3
1	Policymakers	The characteristics of the producers of scientific information most preferred by legislators and their staff	2	1	3
2	Institutions and organizations	How institutions that deliver legislative science advice can be characterized	-4	-2	-1
3	Institutions and organizations	How culture, and political and economic context, affect the development of legislative science advice institutions	-3	-2	0
4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use	-1	-1	0
5	Evidence Development	How social relevance is weighed in the production of academic research	-4	-4	1
6	Intermediaries and brokers	What role intermediaries and research brokers play in getting scientific information before legislators and their staff	3	3	2
7	Communication	Which communication tools facilitate working with legislative decision-makers on scientific topics	2	2	3
8	Evidence Use	How the formal and informal practices of legislatures influence the consideration and use of scientific information	1	3	-1
9	Institutions and organizations	How legislative research departments synthesize and translate scientific information for legislators	0	0	-2
10	System design	How the requirements and needs of a science advice system for policymaking differ across countries	-2	-1	-4
11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use	2	0	-2
12	Evidence Use	What metrics can be used to assess the use of scientific information across different legislative contexts	2	-3	2
13	Institutions and organizations	What institutional approaches for legislative science advice are instructive for other countries	3	-4	-3
14	Evidence Development	How policymakers and researchers work together in defining problems and processes for generating evidence	-2	0	3
15	Evidence Use	Under which conditions the use of scientific information changes the framing of policy debates	3	3	1
16	Policymakers	How the Internet and social media affect the information-seeking behavior of legislators and staff	-1	3	3
17	Policymakers	Whether training for legislators and/or staff can increase their use of scientific information	1	-2	1
18	Intermediaries and brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information	0	-3	4
19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use	-1	1	4
20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government	0	-2	-4
21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries	0	-4	-3
22	Communication	How scientific information is embedded in policy debate rhetoric	-4	1	1
23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them	4	4	0
24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types	-1	4	1
25	Institutions and organizations	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures	-1	2	-2

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26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures	-3	-1	-4
27	Evidence Use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies	1	2	4
28	Scientists	What individual and institutional factors motivate scientists to share their research with legislators and their staff	0	1	0
29	Communication	How different communication channels—hearings, face-to-face meetings, email, social media, etc.—affect informational trust and use	3	2	2
30	The public	How the impact of current citizen initiatives in legislative science advice can be measured	-3	-3	2
31	Ethics	What ethical principles for providing legislative science advice can be derived	-3	-3	0
32	Policymakers	How legislators and their staff assess the credibility of scientific information	4	4	0
33	Scientists	What information, skills, and training are needed for scientists to work with legislators and their staff	2	-1	1
34	Institutions and organizations	How the impact of legislative science advisory offices on legislative processes can be measured using indicators	4	-4	4
35	The public	The extent to which the public is aware of, and places value in, the scientific information being used in legislatures	-2	-1	-1
36	Institutions and organizations	How internal and external organizations assess and meet the needs of legislatures for in-depth analysis	0	0	-2
37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries	-2	-2	-3
38	The public	How public participation affects legislative processes in which scientific information may be considered	-2	1	0
39	Policymakers	The factors that legislators weigh in deciding whether to accept or reject a scientific recommendation	2	1	2
40	Ethics	How values can be made transparent in providing science advice	-2	0	3
41	System design	What lessons can be learned about how to manage scientific advice to legislatures from a systems approach	1	-1	-2
42	Evidence Development	How the scientific topics most relevant to the public and policymakers can be determined to inform research	0	0	2
43	Evidence Use	Identification of the ways in which scientific information is "used" in legislatures	1	2	0
44	Institutions and organizations	How different institutional approaches to legislative science advice influence its nature, quality and relevance	4	0	-3
45	Evidence Use	What types of scientific information are used in legislatures	-1	0	-1
46	Communication	How political polarization affects information flows to legislators and their staff	-3	4	-3
47	Evidence Use	What incentives motivate or compel legislatures to use scientific information	1	3	-1
48	System design	How racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems	-4	-2	-2
49	Communication	How risk and uncertainty can be communicated comprehensibly to legislators and staff	3	2	-1
50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures	0	-3	-4

SI Table 5. This factor array represents the three perspectives of developing nation respondents.

	Category	Statements of research needs	DG1	DG2	DG3
1	Polymakers	The characteristics of the producers of scientific information most preferred by legislators and their staff	-3	-1	-1
2	Institutions	How institutions that deliver legislative science advice can be characterized	-4	-2	4
3	Institutions	How culture, and political and economic context, affect the development of legislative science advice institutions	1	3	0
4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use	0	-2	-4
5	Evidence development	How social relevance is weighed in the production of academic research	-3	-2	-3
6	Brokers	What role intermediaries and research brokers play in getting scientific information before legislators and their staff	0	1	0
7	Communication	Which communication tools facilitate working with legislative decision-makers on scientific topics	3	1	0
8	Evidence use	How the formal and informal practices of legislatures influence the consideration and use of scientific information	-1	3	-2
9	Institutions	How legislative research departments synthesize and translate scientific information for legislators	0	2	3
10	System design	How the requirements and needs of a science advice system for policymaking differ across countries	4	-2	3
11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use	-1	4	0
12	Evidence use	What metrics can be used to assess the use of scientific information across different legislative contexts	-2	2	1
13	Institutions	What institutional approaches for legislative science advice are instructive for other countries	2	1	1
14	Evidence development	How policymakers and researchers work together in defining problems and processes for generating evidence	3	3	2
15	Evidence use	Under which conditions the use of scientific information changes the framing of policy debates	4	0	-2
16	Polymakers	How the Internet and social media affect the information-seeking behavior of legislators and staff	-3	-3	2
17	Polymakers	Whether training for legislators and/or staff can increase their use of scientific information	2	1	0
18	Brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information	-1	-4	3
19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use	-2	0	-3
20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government	0	-4	-2
21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries	3	-3	0
22	Communication	How scientific information is embedded in policy debate rhetoric	-2	-2	-4
23	Polymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them	2	-3	4
24	Polymakers	What value legislators and staff place on scientific evidence, as opposed to other types	-1	2	-4
25	Institutions	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures	1	2	-4
26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures	-3	4	-3

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27	Evidence use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies	4	4	-1
28	Scientists	What individual and institutional factors motivate scientists to share their research with legislators and their staff	1	-3	-2
29	Communication	How different communication channels—hearings, face-to-face meetings, email, social media, etc.—affect informational trust and use	-2	3	1
30	The public	How the impact of current citizen initiatives in legislative science advice can be measured	-4	2	1
31	Ethics	What ethical principles for providing legislative science advice can be derived	0	0	-3
32	Policymakers	How legislators and their staff assess the credibility of scientific information	1	4	1
33	Scientists	What information, skills, and training are needed for scientists to work with legislators and their staff	0	0	1
34	Institutions	How the impact of legislative science advisory offices on legislative processes can be measured using indicators	3	1	4
35	The public	The extent to which the public is aware of, and places value in, the scientific information being used in legislatures	-3	-1	-1
36	Institutions	How internal and external organizations assess and meet the needs of legislatures for in-depth analysis	0	-4	3
37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries	4	-1	2
38	The public	How public participation affects legislative processes in which scientific information may be considered	-4	-1	-2
39	Policymakers	The factors that legislators weigh in deciding whether to accept or reject a scientific recommendation	-1	1	-2
40	Ethics	How values can be made transparent in providing science advice	2	-3	-1
41	System design	What lessons can be learned about how to manage scientific advice to legislatures from a systems approach	-1	0	-1
42	Evidence development	How the scientific topics most relevant to the public and policymakers can be determined to inform research	2	-1	-3
43	Evidence use	Identification of the ways in which scientific information is "used" in legislatures	0	-2	4
44	Institutions	How different institutional approaches to legislative science advice influence its nature, quality and relevance	-2	-1	3
45	Evidence use	What types of scientific information are used in legislatures	1	0	2
46	Communication	How political polarization affects information flows to legislators and their staff	3	3	2
47	Evidence use	What incentives motivate or compel legislatures to use scientific information	-2	0	0
48	System design	How racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems	-4	0	0
49	Communication	How risk and uncertainty can be communicated comprehensibly to legislators and staff	2	2	2
50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures	1	-4	-1

SI Table 6. Consensus statements among developed nation participants

Array scores	#	Category	Statements of research needs
-1, -1, 0	4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use
3, 3, 2	6	Intermediaries and brokers	What role intermediaries and research brokers play in getting scientific information before legislators and their staff
0, 1, 0	28	Scientists	What individual and institutional factors motivate scientists to share their research with legislators and their staff
3, 2, 2	29	Communication	How different communication channels—hearings, face-to-face meetings, email, social media, etc.—affect informational trust and use
-2, -2, -3	37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries

SI Table 7. Developed nation respondents: DD1 highest and lowest statements, and higher and lower rankings

Highest ranked statements			
4	44	Institutions and organizations	How different institutional approaches to legislative science advice influence its nature, quality and relevance
4	34	Institutions and organizations	How the impact of legislative science advisory offices on legislative processes can be measured using indicators
4	23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them
4	32	Policymakers	How legislators and their staff assess the credibility of scientific information
Lowest ranked statements			
-4	48	System design	How racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems
-4	22	Communication	How scientific information is embedded in policy debate rhetoric
-4	5	Evidence Development	How social relevance is weighed in the production of academic research
-4	2	Institutions and organizations	How institutions that deliver legislative science advice can be characterized
Ranked higher than other perspectives			
2	11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use
3	13	Institutions and organizations	What institutional approaches for legislative science advice are instructive for other countries
0	20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government
0	21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries
3	29	Communication	How different communication channels—hearings, face-to-face meetings, email, social media, etc.— affect informational trust and use
2	33	Scientists	What information, skills, and training are needed for scientists to work with legislators and their staff
1	41	System design	What lessons can be learned about how to manage scientific advice to legislatures from a systems approach
4	44	Institutions and organizations	How different institutional approaches to legislative science advice influence its nature, quality and relevance
3	49	Communication	How risk and uncertainty can be communicated comprehensibly to legislators and staff
0	50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures

Ranked lower than other perspectives			
-4	2	Institutions and organizations	How institutions that deliver legislative science advice can be characterized
-3	3	Institutions and organizations	How culture, and political and economic context, affect the development of legislative science advice institutions
-2	14	Evidence Development	How policymakers and researchers work together in defining problems and processes for generating evidence
-1	16	Policymakers	How the Internet and social media affect the information-seeking behavior of legislators and staff
-1	19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use
-4	22	Communication	How scientific information is embedded in policy debate rhetoric
-1	24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types
1	27	Evidence Use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies
-2	35	The public	The extent to which the public is aware of, and places value in, the scientific information being used in legislatures
-2	38	The public	How public participation affects legislative processes in which scientific information may be considered
-2	40	Ethics	How values can be made transparent in providing science advice
-4	48	System design	How racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems

SI Table 8. Developed nation respondents: DD2 highest and lowest statements, and higher and lower rankings

Highest ranked statements			
4	32	Policymakers	How legislators and their staff assess the credibility of scientific information
4	23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them
4	46	Communication	How political polarization affects information flows to legislators and their staff
4	24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types
Lowest ranked statements			
-4	13	Institutions and organizations	What institutional approaches for legislative science advice are instructive for other countries
-4	5	Evidence Development	How social relevance is weighed in the production of academic research
-4	21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries
-4	34	Institutions and organizations	How the impact of legislative science advisory offices on legislative processes can be measured using indicators
Ranked higher than other perspectives			
3	8	Evidence Use	How the formal and informal practices of legislatures influence the consideration and use of scientific information
-1	10	System design	How the requirements and needs of a science advice system for policymaking differ across countries
4	24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types
2	25	Institutions and organizations	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures
-1	26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures
1	28	Scientists	What individual and institutional factors motivate scientists to share their research with legislators and their staff
1	38	The public	How public participation affects legislative processes in which scientific information may be considered
2	43	Evidence Use	Identification of the ways in which scientific information is "used" in legislatures
0	45	Evidence Use	What types of scientific information are used in legislatures
4	46	Communication	How political polarization affects information flows to legislators and their staff
3	47	Evidence Use	What incentives motivate or compel legislatures to use scientific information

Ranked lower than other perspectives			
1	1	Policymakers	The characteristics of the producers of scientific information most preferred by legislators and their staff
-3	12	Evidence Use	What metrics can be used to assess the use of scientific information across different legislative contexts
-4	13	Institutions and organizations	What institutional approaches for legislative science advice are instructive for other countries
-2	17	Policymakers	Whether training for legislators and/or staff can increase their use of scientific information
-3	18	Intermediaries and brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information
-4	21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries
-1	33	Scientists	What information, skills, and training are needed for scientists to work with legislators and their staff
-4	34	Institutions and organizations	How the impact of legislative science advisory offices on legislative processes can be measured using indicators
1	39	Policymakers	The factors that legislators weigh in deciding whether to accept or reject a scientific recommendation

SI Table 9. Developed nation respondents: DD3 highest and lowest statements, and higher and lower rankings

Highest ranked statements			
4	34	Institutions and organizations	How the impact of legislative science advisory offices on legislative processes can be measured using indicators
4	18	Intermediaries and brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information
4	19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use
4	27	Evidence Use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies
Lowest ranked statements			
-4	26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures
-4	10	System design	How the requirements and needs of a science advice system for policymaking differ across countries
-4	20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government
-4	50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures
Ranked higher than other perspectives			
3	1	Policymakers	The characteristics of the producers of scientific information most preferred by legislators and their staff
-1	2	Institutions and organizations	How institutions that deliver legislative science advice can be characterized
0	3	Institutions and organizations	How culture, and political and economic context, affect the development of legislative science advice institutions
0	4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use
1	5	Evidence Development	How social relevance is weighed in the production of academic research
3	7	Communication	Which communication tools facilitate working with legislative decision-makers on scientific topics
3	14	Evidence Development	How policymakers and researchers work together in defining problems and processes for generating evidence
4	18	Intermediaries and brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information
4	19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use
4	27	Evidence Use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies
2	30	The public	How the impact of current citizen initiatives in legislative science advice can be measured

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0	31	Ethics	What ethical principles for providing legislative science advice can be derived
3	40	Ethics	How values can be made transparent in providing science advice
2	42	Evidence Development	How the scientific topics most relevant to the public and policymakers can be determined to inform research
Ranked lower than other perspectives			
-1	8	Evidence Use	How the formal and informal practices of legislatures influence the consideration and use of scientific information
-2	9	Institutions and organizations	How legislative research departments synthesize and translate scientific information for legislators
-4	10	System design	How the requirements and needs of a science advice system for policymaking differ across countries
-2	11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use
1	15	Evidence Use	Under which conditions the use of scientific information changes the framing of policy debates
-4	20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government
0	23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them
-2	25	Institutions and organizations	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures
-4	26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures
0	32	Policymakers	How legislators and their staff assess the credibility of scientific information
-2	36	Institutions and organizations	How internal and external organizations assess and meet the needs of legislatures for in-depth analysis
-3	37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries
-2	41	System design	What lessons can be learned about how to manage scientific advice to legislatures from a systems approach
0	43	Evidence Use	Identification of the ways in which scientific information is "used" in legislatures
-3	44	Institutions and organizations	How different institutional approaches to legislative science advice influence its nature, quality and relevance
-1	47	Evidence Use	What incentives motivate or compel legislatures to use scientific information
-1	49	Communication	How risk and uncertainty can be communicated comprehensibly to legislators and staff
-4	50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures

SI Table 10. Consensus statements among developing nation participants

Array scores	Statement #	Category	Statements of research needs
3, 3, 2	14	Evidence Development	How policymakers and researchers work together in defining problems and processes for generating evidence
0, 0, 1	33	Scientists	What information, skills, and training are needed for scientists to work with legislators and their staff
-1, 0, -1	41	System design	What lessons can be learned about how to manage scientific advice to legislatures from a systems approach
3, 3, 2	46	Communication	How political polarization affects information flows to legislators and their staff
2, 2, 2	49	Communication	How risk and uncertainty can be communicated comprehensibly to legislators and staff

SI Table 11. Developing nation respondents: DG1 highest and lowest statements, and higher and lower rankings

Highest ranked statements			
4	27	Evidence use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies
4	10	System design	How the requirements and needs of a science advice system for policymaking differ across countries
4	15	Evidence use	Under which conditions the use of scientific information changes the framing of policy debates
4	37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries
Lowest ranked statements			
-4	48	System design	How racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems
-4	2	Institutions	How institutions that deliver legislative science advice can be characterized
-4	38	The public	How public participation affects legislative processes in which scientific information may be considered
-4	30	The public	How the impact of current citizen initiatives in legislative science advice can be measured
Ranked higher than other perspectives			
0	4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use
3	7	Communication	Which communication tools facilitate working with legislative decision-makers on scientific topics
4	10	System design	How the requirements and needs of a science advice system for policymaking differ across countries
2	13	Institutions	What institutional approaches for legislative science advice are instructive for other countries
4	15	Evidence use	Under which conditions the use of scientific information changes the framing of policy debates
2	17	Policymakers	Whether training for legislators and/or staff can increase their use of scientific information
0	20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government
3	21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries
1	28	Scientists	What individual and institutional factors motivate scientists to share their research with legislators and their staff
4	37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries

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2	40	Ethics	How values can be made transparent in providing science advice
2	42	Evidence development	How the scientific topics most relevant to the public and policymakers can be determined to inform research
1	50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures
Ranked lower than other perspectives			
-3	1	Policymakers	The characteristics of the producers of scientific information most preferred by legislators and their staff
-4	2	Institutions	How institutions that deliver legislative science advice can be characterized
0	9	Institutions	How legislative research departments synthesize and translate scientific information for legislators
-1	11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use
-2	12	Evidence use	What metrics can be used to assess the use of scientific information across different legislative contexts
-2	29	Communication	How different communication channels—hearings, face-to-face meetings, email, social media, etc.— affect informational trust and use
-4	30	The public	How the impact of current citizen initiatives in legislative science advice can be measured
-3	35	The public	The extent to which the public is aware of, and places value in, the scientific information being used in legislatures
-4	38	The public	How public participation affects legislative processes in which scientific information may be considered
-2	44	Institutions	How different institutional approaches to legislative science advice influence its nature, quality and relevance
-2	47	Evidence use	What incentives motivate or compel legislatures to use scientific information
-4	48	System design	How racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems

SI Table 12. Developing nation respondents: DG2 highest and lowest statements, and higher and lower rankings

Highest ranked statements			
4	11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use
4	27	Evidence use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies
4	32	Policymakers	How legislators and their staff assess the credibility of scientific information
4	26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures
Lowest ranked statements			
-4	18	Brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information
-4	36	Institutions	How internal and external organizations assess and meet the needs of legislatures for in-depth analysis
-4	20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government
-4	50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures
Ranked higher than other perspectives			
3	3	Institutions	How culture, and political and economic context, affect the development of legislative science advice institutions
-2	5	Evidence development	How social relevance is weighed in the production of academic research
1	6	Brokers	What role intermediaries and research brokers play in getting scientific information before legislators and their staff
3	8	Evidence use	How the formal and informal practices of legislatures influence the consideration and use of scientific information
4	11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use
2	12	Evidence use	What metrics can be used to assess the use of scientific information across different legislative contexts
0	19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use
2	24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types
2	25	Institutions	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures

4	26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures
3	29	Communication	How different communication channels—hearings, face-to-face meetings, email, social media, etc.—affect informational trust and use
2	30	The public	How the impact of current citizen initiatives in legislative science advice can be measured
4	32	Policymakers	How legislators and their staff assess the credibility of scientific information
-1	38	The public	How public participation affects legislative processes in which scientific information may be considered
1	39	Policymakers	The factors that legislators weigh in deciding whether to accept or reject a scientific recommendation
0	41	System design	What lessons can be learned about how to manage scientific advice to legislatures from a systems approach
Ranked lower than other perspectives			
-2	10	System design	How the requirements and needs of a science advice system for policymaking differ across countries
-4	18	Brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information
-4	20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government
-3	21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries
-3	23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them
-3	28	Scientists	What individual and institutional factors motivate scientists to share their research with legislators and their staff
1	34	Institutions	How the impact of legislative science advisory offices on legislative processes can be measured using indicators
-4	36	Institutions	How internal and external organizations assess and meet the needs of legislatures for in-depth analysis
-1	37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries
-3	40	Ethics	How values can be made transparent in providing science advice
-2	43	Evidence use	Identification of the ways in which scientific information is "used" in legislatures
0	45	Evidence use	What types of scientific information are used in legislatures
-4	50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures

SI Table 13. Developing nation respondents: DG3 highest and lowest statements, and higher and lower rankings

Highest ranked statements			
4	34	Institutions	How the impact of legislative science advisory offices on legislative processes can be measured using indicators
4	43	Evidence use	Identification of the ways in which scientific information is "used" in legislatures
4	23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them
4	2	Institutions	How institutions that deliver legislative science advice can be characterized
Lowest ranked statements			
-4	22	Communication	How scientific information is embedded in policy debate rhetoric
-4	4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use
-4	25	Institutions	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures
-4	24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types
Ranked higher than other perspectives			
4	2	Institutions	How institutions that deliver legislative science advice can be characterized
3	9	Institutions	How legislative research departments synthesize and translate scientific information for legislators
2	16	Policymakers	How the Internet and social media affect the information-seeking behavior of legislators and staff
3	18	Brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information
4	23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them
1	33	Scientists	What information, skills, and training are needed for scientists to work with legislators and their staff
4	34	Institutions	How the impact of legislative science advisory offices on legislative processes can be measured using indicators
3	36	Institutions	How internal and external organizations assess and meet the needs of legislatures for in-depth analysis
4	43	Evidence use	Identification of the ways in which scientific information is "used" in legislatures
3	44	Institutions	How different institutional approaches to legislative science advice influence its nature, quality and relevance
2	45	Evidence use	What types of scientific information are used in legislatures
Ranked lower than other perspectives			

0	3	Institutions	How culture, and political and economic context, affect the development of legislative science advice institutions
-4	4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use
0	7	Communication	Which communication tools facilitate working with legislative decision-makers on scientific topics
-2	8	Evidence use	How the formal and informal practices of legislatures influence the consideration and use of scientific information
2	14	Evidence development	How policymakers and researchers work together in defining problems and processes for generating evidence
-2	15	Evidence use	Under which conditions the use of scientific information changes the framing of policy debates
0	17	Policymakers	Whether training for legislators and/or staff can increase their use of scientific information
-3	19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use
-4	22	Communication	How scientific information is embedded in policy debate rhetoric
-4	24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types
-4	25	Institutions	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures
-1	27	Evidence use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies
-3	31	Ethics	What ethical principles for providing legislative science advice can be derived
-2	39	Policymakers	The factors that legislators weigh in deciding whether to accept or reject a scientific recommendation
-3	42	Evidence development	How the scientific topics most relevant to the public and policymakers can be determined to inform research
2	46	Communication	How political polarization affects information flows to legislators and their staff

SI Table 14. The factor array represents the four perspectives of all respondents.

	Category	Statements of research needs	ALL1	ALL2	ALL3	ALL4
1	Policymakers	The characteristics of the producers of scientific information most preferred by legislators and their staff	1	-2	3	-1
2	Institutions	How institutions that deliver legislative science advice can be characterized	-3	-2	-1	-3
3	Institutions	How culture, and political and economic context, affect the development of legislative science advice institutions	-3	3	-4	4
4	Communication	Whether iterative engagement between researchers, legislators, and staff improves evidence use	-2	-2	-3	1
5	Evidence development	How social relevance is weighed in the production of academic research	-4	-2	1	1
6	Brokers	What role intermediaries and research brokers play in getting scientific information before legislators and their staff	2	1	3	-1
7	Communication	Which communication tools facilitate working with legislative decision-makers on scientific topics	2	3	4	1
8	Evidence use	How the formal and informal practices of legislatures influence the consideration and use of scientific information	3	1	-4	4
9	Institutions	How legislative research departments synthesize and translate scientific information for legislators	1	3	-2	2
10	System design	How the requirements and needs of a science advice system for policymaking differ across countries	0	2	-3	-1
11	System design	How the design of new structures, processes, and systems can increase legislative capacity for science use	2	2	-1	-1
12	Evidence use	What metrics can be used to assess the use of scientific information across different legislative contexts	0	-1	4	0
13	Institutions	What institutional approaches for legislative science advice are instructive for other countries	2	1	-1	-3
14	Evidence development	How policymakers and researchers work together in defining problems and processes for generating evidence	-2	4	-2	2
15	Evidence use	Under which conditions the use of scientific information changes the framing of policy debates	4	1	0	4
16	Policymakers	How the Internet and social media affect the information-seeking behavior of legislators and staff	2	-4	1	2
17	Policymakers	Whether training for legislators and/or staff can increase their use of scientific information	0	3	2	-2
18	Brokers	What forms of evaluation can be used to measure the effect of "brokering" scientific information	-4	3	3	-3
19	Scientists	Which behaviors of scientists and other advisers increase the likelihood of evidence use	0	-4	3	2
20	Communication	The frequency of communication between legislative staff and scientists from inside and outside government	-2	-2	-3	-3
21	System design	What examples exist of improvements to legislative science advisory systems in heavily resource-constrained countries	-1	0	-3	-4

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22	Communication	How scientific information is embedded in policy debate rhetoric	-1	-1	0	1
23	Policymakers	Under what conditions legislators and staff seek out scientific information or use what is presented to them	3	2	1	-2
24	Policymakers	What value legislators and staff place on scientific evidence, as opposed to other types	1	-1	0	3
25	Institutions	How the staffing, budgetary, and political capacity of committees affects their ability to use scientific information in legislatures	1	2	-4	2
26	Scientists	How scientists and issue advocates try to manage the quality of scientific information and expertise used in legislatures	-3	-3	0	1
27	Evidence use	Whether legislative use of scientific evidence improves the implementation and outcome of social programs and policies	3	4	1	4
28	Scientists	What individual and institutional factors motivate scientists to share their research with legislators and their staff	0	0	2	1
29	Communication	How different communication channels—hearings, face-to-face meetings, email, social media, etc.—affect informational trust and use	3	0	1	3
30	The public	How the impact of current citizen initiatives in legislative science advice can be measured	-4	-3	3	0
31	Ethics	What ethical principles for providing legislative science advice can be derived	-3	-3	1	-1
32	Policymakers	How legislators and their staff assess the credibility of scientific information	4	0	-1	0
33	Scientists	What information, skills, and training are needed for scientists to work with legislators and their staff	0	4	4	-2
34	Institutions	How the impact of legislative science advisory offices on legislative processes can be measured using indicators	-1	4	4	0
35	The public	The extent to which the public is aware of, and places value in, the scientific information being used in legislatures	-3	-4	0	0
36	Institutions	How internal and external organizations assess and meet the needs of legislatures for in-depth analysis	0	1	-1	-4
37	Policymakers	How legislator and staff preferences for scientific evidence compare between countries	-1	0	-3	-2
38	The public	How public participation affects legislative processes in which scientific information may be considered	-1	-2	2	-1
39	Policymakers	The factors that legislators weigh in deciding whether to accept or reject a scientific recommendation	1	-1	2	3
40	Ethics	How values can be made transparent in providing science advice	-2	-1	0	-2
41	System design	What lessons can be learned about how to manage scientific advice to legislatures from a systems approach	0	-3	0	0
42	Evidence development	How the scientific topics most relevant to the public and policymakers can be determined to inform research	-2	2	2	3

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43	Evidence use	Identification of the ways in which scientific information is "used" in legislatures	2	-1	2	-2
44	Institutions	How different institutional approaches to legislative science advice influence its nature, quality and relevance	4	2	-2	-4
45	Evidence use	What types of scientific information are used in legislatures	-1	0	-2	2
46	Communication	How political polarization affects information flows to legislators and their staff	1	1	-2	3
47	Evidence use	What incentives motivate or compel legislatures to use scientific information	3	-4	-1	0
48	System design	How racial and gender biases affect researchers' and practitioners' activities and influence policy advisory systems	-4	0	-2	0
49	Communication	How risk and uncertainty can be communicated comprehensibly to legislators and staff	4	0	0	-4
50	System design	In societies without established science advice systems, how scientific information is used—if at all—by legislatures	-2	-3	-4	-3