

Pathways to Linking Science and Policy in the Field of Global Risk

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Preface

One of our current aims at the Centre for the Study of Existential Risk (CSER) is to understand the norms, values and approaches that bridge global risk with policy engagement.

> More specifically, to strengthen our capabilities in translation and application of our research into practical policy recommendations and proposals. Therefore, we have developed this report to help guide and enhance the policy engagement efforts of researchers at CSER and other global risk research institutions. Based on insights from academic experience, in this report readers will find: insights into academic perspectives on policy engagement; definitions of terminology; study cases, topics in demand; institutions interested on global catastrophic risks; and skills; as well as a checklist and step-by-step guidance that may inspire and help you to lead your research activities towards more impactful policy engagements.

> Through six cases of engagement with policy, CSER has identified a number of skills that are highly relevant to successful policy engagement: project management skills, communication skills, networking and interpersonal skills, expertise in specialist topic and familiarity with the policy research landscape, knowledge of parliamentary language and processes, knowledge of process for drafting bills and legislation and knowledge of policy-making and how to frame policy interventions in a palatable way.

Policy engagement can help you gain new skills, increase your network, and enhance the reputation of your institution and yourself. It can lead to research and funding opportunities, and enhance your future career options.

This work is part of our project A Science of Global Risk which is focused on safeguarding humanity's long-term future by being rigorous and creative; open to diverse groups; and capable of producing concrete proposals for risk management that can be implemented within the existing policy landscape.



What misconceptions do researchers make when we talk about academic policy engagements?

"Policy impact means engaging only with policymakers."

Not really, there are three different types of stakeholder groups with whom we can and do interact during our policy engagements!

"Policy impact is not part of the UK Research Excellence Framework."

Actually, it is. Consideration of the impact of research beyond academia is part of the Research Excellence Framework (REF) assessment, and this includes impact on public policy.

"Policy engagement happens after you publish research."

Not necessarily, it can and should happen at different stages of our research process: co-design, co-production, and co-delivery can be the best ways.



"Government science advice necessitates only academic knowledge in STEM."

Not at all. Effectively understanding and addressing global risks requires the input of many disciplines. Now, more than ever we need research input from the social sciences and humanities as well as STEM!



"Policy impact happens only when you are able to change the laws."

Not at all, there are a variety of indicators that may be used to assess policy impact. These range, for instance, from gaining new skills, to introducing new topics into the strategic agenda of a tech company, to creating a new Bill in Parliament! "I need to understand the policy cycle to give expert advice about a topic."

This is desirable – and there are some good introductory resources available, however, it is not an essential prerequisite to policy engagement. Policymakers will typically be interested in talking to you because you are an expert in your field, and they will typically manage the processes that may be necessary to see your recommendations implemented. Policy cycles also vary at different levels of government (from local to international), and can vary between different policy organisations as well.

"You need to attend courses and study to gain specific skills before engaging in policy."

Such training can be valuable, however, many academics learn from their accumulated experiences! You can seek their guidance and advice, and start building your experience sooner rather than later! There are good introductory training, resources and events accessible at the University of Cambridge, including through the Cambridge University Science Policy Exchange, the Public Policy Strategic Research Initiative, and the Bennett Institute for Public Policy.

What are the different sections in this report?

SECTION ONE

Policy Impact: Introduction and definitions

SECTION TWO

Pathways to policy engagement: Top Tips to Provide Expert Advice based on six successful policy engagements at CSER

SECTION THREE

Institutions who have worked with or are actively working with $\ensuremath{\mathsf{CSER}}$

SECTION FOUR

Global Catastrophic and Existential Risk topics in policy demand

SECTION FIVE

Achievements obtained through your research advice

SECTION SIX Skills needed for policy engagements

SECTION SEVEN

Things to avoid during policy engagements in the area of Global Risk

SECTION EIGHT Benefits of engaging in policy

SECTION NINE Disadvantages of engaging in policy

SECTION TEN

Getting started: Some ideas for where to begin

SECTION ELEVEN

Checklist for improving the policy impact of your work

SECTION TWELVE

Recommendations for improving policy engagements at CSER or any academic institution

SECTION ONE What is policy impact?

Delineating Definitions: Academic vs Policy Impact

¹ REF2014 was the first national assessment exercise to evaluate the wider, socioeconomic impact of research. https://www. research-strategy. admin.cam.ac.uk/files/ collecting_research_ impact_evidence_best_ practice_guidance.pdf Academic impact is the influence that research has within the academic community. This impact can be demonstrated, for example, by shifting old dogmas or by contributing to the understanding of new theories that lead to the application of new knowledge across and within disciplines. Two common types of metrics are per-author and/or per-journal citation counts. **Policy impact** is the demonstrable contribution that research makes to society and the economy by benefiting its individuals, environment, organisations

vss or nations. This impact can support technological progress, personal skill development, policy regulations, understanding of ethical issues and more. The definition of policy impact according to the 2014 Research Excellence Framework (REF2014)¹ is "any effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia".



Policy Impact Stakeholders

Researchers interested in increasing their policy impact can work with a variety of stakeholders, including:



Civil society

NGOs, charitable

organizations, schools, labour unions, indigenous groups, political parties, professional associations, foundations, faith-based organizations.



Public sector

Governmental departments, agencies, and organizations at local, national, regional and international levels.



Businesses

From startups to multinationals across a range of sectors in IT, biotechnology, finance, energy, insurance, agriculture, etc.

² "How to Evidence and Record Policy Impact A 'how to' guide for Researchers" (2017) https://www. publicpolicy.cam.ac.uk/ pdf/policy-impact-april-2017#:-:text=%E2%80%A2

"Policy Impact: A 'how to' guide for Researchers" https://www. publicpolicy.cam.ac.uk/ pdf/policy-impact-guide

Assessing Policy Impact at the University of Cambridge

The Cambridge Public Policy SRI report 'How to Evidence and Record Policy Impact'² focuses on impacts on UK public policy and provides indicators that researchers and institutions can use to evaluate the influence of their research in this sphere. These include: citations in government reports or international bodies; changing public understanding of a policy issue or challenge; engagement with campaign and pressure groups and other civil society organisations; improving public services; etc. These indicators are based on the REF2014 process which is used to assess research performance at academic institutions in the UK.

Recently, CSER has presented an impact case study for REF2021 and it starts with the following summary:

"CSER is dedicated to the study and mitigation of risks that could lead to human extinction or civilisational collapse. Thanks to the Centre's research and lobbying activity, governments, policymakers, and AI businesses around the world have increased their attention to, and introduced measures to reduce, existential risk. CSER researchers have helped to grow and shape the field by advising a range of new non-academic research centres and philanthropic funders on these emerging areas of risk research. The team has had a significant effect on UK and international policy by creating a new All-Party Parliamentary Group on Future Generations; by inspiring a campaign for a new UK Future Generations Bill; and by changing international norms regarding the publication of Al-technology research and development and the conduct of risk-assessments."

SECTION TWO

What are some pathways to policy engagement?

In this section we describe different CSER pathways to policy impact that were discussed in our expert interviews. Based on those conversations, we have developed six study cases, outlining the main steps in the process, and key skills and methods, associated with different examples of engagement pathways.

Methodology used: Interviews of six CSER experts and one science policy broker (further information provided in appendix).

STUDY CASE #1

AI White Paper for the House of Lords (UK)

The Process

- Opportunity following an open call for evidence that was published online by the House of Lords.
- Facilitate collaboration and distribution of work in paper drafting using live Google doc.
- Collate established and novel evidence in bullet points. Use diagram to show interrelations among topics.
- Final White Paper needs to be concise and delivered in an intuitive format for policy makers.
- When responding to follow-up queries, assign a member of the team based on expertise and obtain co-authors agreement before sending the final answers.
- Pursue follow-up workshops with other institutions and the co-creation of media articles based on your work.

□→□ ↓ Skills and Methods

Project management skills.

Communication skills, including tailoring presentations and white papers to the specific audience.

Networking and interpersonal skills, including knowledge of existing networks.

Expertise in the specialist topic and familiarity with the policy research landscape.

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STUDY CASE #2 | Creating a UK Government Bill

The Process

Creation of a briefing paper as a basis for generating buy-in through tailored engagements.

- Maintain a database of key people to be contacted (e.g. parliamentarians), including their interests/history.
- Leverage CSER's network, roundtables, events to gain key people as allies; keep in regular contact.
- Engage campaigning and fundraising support to manage strategy for pushing the bill.
- Bill templates and drafting support is offered by the Parliamentarians Bill Office.
 - Draft bill and present before Parliament.

□→□ ↓ Skills and Methods

Networking and interpersonal skills.

- Campaigning and fundraising skills.
- Knowledge of parliamentary language and processes.
- Knowledge of process for drafting bills and legislation.

STUDY CASE #3 | Advising Intergovernmental Organizations on Foresight Systems

The Process

- Seek opportunities through your networks and researching the needs of organisations. Create initial proposal by conducting literature review on best foresight methods relevant to organisations needs. Identify and research relevant components of the organisation and key people for conducting an expert elicitation.
- Co-design a tailored system for the organisation through iterative workshops and/or interviews.
- Coach organisation through first implementation;
 share co-authorship of a publication to get buy-in.
- Start small, doing a good job can snowball into larger engagements.

□→□ ↓ Skills and Methods □←□

- Networking and interpersonal skills, including negotiating, presenting and coordinating workshops.
- Project management and report writing skills.
- Technical expertise in foresight/horizon scanning methods.
- Knowledge of policy-making and political decision-making.



STUDY CASE #4 | Creating a UK Government All Party Parliamentary Group

The Process

Produce a brief paper (or academic publication) as a basis for generating buy-in.

Maintain database of key people (e.g. parliamentarians), including their touch-points, to be contacted.

Develop standard template for communications, tweaked to the touch-points of key people.

- Leverage CSER's network, MP surgeries, cold emails, events to gain key people as allies.
- Follow UK Parliament's standard template to form APPG; needs signoff by ten MPs (one from each party).
- Use indicators to track impact (e.g. how many policies have we effected, how many people are engaged?).

□→□ ↓ Skills and Methods

Networking and interpersonal skills, including pitching and writing for policy audiences.

Project management, campaigning and lobbying skills.

Knowledge of parliamentary language and processes, including policy analysis and drafting legislation.

Knowledge of or research skills on voting behaviour and other related issues.

STUDY CASE #5 | Providing Expert Advice to the Cabinet Office

The Process

Opportunity by invitation, by submitting proposals or by leveraging your networks.

- Partner with policy-bridging organisations (e.g. Alpenglow) to make connections and train you on the process.
- Develop your recommendations, backed-up with substantial evidence; maintain a database over time.
- Clearly define the expectations and agenda, and establish a strategy to present recommendations.
- Follow a script when presenting recommendations; avoid improvisation.
- Pay close attention to the discussion and keep track of time; provide substantiated response to follow-up questions.

□→□ ↓ Skills and Methods

Established expertise in a particular area, demonstrated with publications and policy engagements.

Interpersonal skills, inc. knowing your role and timing delivery of relevant recommendations in discussion.

Knowledge of networks.

Knowledge of policy-making and how to frame policy interventions in a palatable way.



STUDY CASE #6 | Academics at the UN Biological Weapons Convention (BWC)

The Process

Identify a pitfall at a UN process, in this case, at the BWC negotiations. Define relevant topics.

- Collaborate with an expert on the specific process to understand what can realistically be achieved.
- Build trust with stakeholders through conversations to understand their expectations and perspectives.
- Organise workshop with stakeholders. Each participant to present for five minutes (Chatham House rules).
- Produce a report from the workshop. Draft different versions suited to particular audiences.
- Submit the report to UN BWC for dissemination. Use the report as a basis for academic/media articles.

O→O ↓ Skills and Methods

Experience coordinating and moderating workshops.

- Experience with expert elicitation and related outputs.
- Interpersonal skills, particularly building rapport with different stakeholders.
- Knowledge of networks and leverage points within processes.



SECTION THREE

Which institutions have we already worked with/are we actively working with?

This section provides information about groups and institutions CSER has done policy engagement with. If you are interested in engaging with the same groups, it will be worth discussing with those who have done previous work because they should be able to give advice and help you to build connections. Although it can be easier to build on previous connections, you do not need to feel limited to engaging with institutions we have already worked with, and it is worth researching and seeking advice on which institutions will be a good match to your research interests.

Methodology used for Section three to section ten: Survey of nine CSER experts; interviews of six CSER experts, one science policy broker and one policymaker; and a focus group with 26 CSER experts (further information provided in appendix).

- UK Government/ Parliament
 International Organizations
- 📕 Civil Society
- 📕 Industry
- 📕 Non-UK Governments

This graph aims to illustrate the diversity of collaborations with CSER, for this purpose we counted "1" for each organization that CSER has worked with. This graphic does not necessary reflect quantity of work produced through these collaborations.



23%

UK Government/Parliament

- Cabinet Office.
- Ministry of Defence.
- <u>House of Lords</u> (e.g: Al committee).
- Parliamentary Office of Science and Technology.
- Department for Environment, Food and Rural Affairs.
- House of Commons (e.g: Defence Committee, Science and Technology committee).

- Defence Science and Technology Laboratory.
- <u>Centre for Data Ethics and</u> Innovation.
- Foreign and Commonwealth Office.
- National Security Strategy (Joint Committee).
- Federal Policy Committee.
- Political parties (Labour Party, Conservative party, Green Party, UK liberal democrats, Scottish National Party).



20%

International Organizations

- World Health Organization Science Division.
- G20's Science 20 team.
- United Nations Disaster Risk Reduction.
- United Nations Institute for Disarmament Research.
- International Science Council.
- Biological Weapons Convention. Implementation Support Unit.

- United Nations Secretary-General's High-level Panel on Digital Cooperation.
- United Nations Climate Change.
- <u>United Nations Convention on</u> <u>Biological Diversity.</u>
- The Global Partnership on Artificial Intelligence.



23%

Civil Society

- Chatham House.
- Ada Lovelace Institute.
- IEEE Ethics in Action.
- Alpenglow.
- All-Party Parliamentary Group for Future Generations.
- The Big Issue.

- <u>Royal United Services Institute.</u>
- World Economic Forum Global.
 Future Councils.
- The Future Society.
- The Wilson Center.
- European Forum Alpbach.
- Belfer Center.



Industry

- Al policy division at Huawei.
- <u>Temasek Holdings Singapore.</u>
- Machine Intelligence Garage.
- RSA Group.
- <u>TechUK.</u>

- OpenAl.
- DeepMind.
- Microsoft.
- Lloyds of London.

16%

Non-UK Governments

- ▶ Israeli Government Ministries.
- Singaporean Government.
- United States Government.
- French Government.
- Canadian Government.

- European Commission Office on Al.
- Finnish Ministry of Foreign Affairs.
- Dutch Embassy in London.



SECTION FOUR

What are the topics in demand?

This section showcases the topics on which we have engaged most frequently or experienced the most expressions of interest in engaging with. The level of interest in different topics will vary over time, and may be driven by events (e.g. the COVID-19 pandemic) or by policy processes (e.g. in the lead up to the 26th UN Climate Change Conference). Your engagement might also help to raise awareness of a particular issue, so again, do not feel you need to be limited by this list.



Artificial Intelligence

- Al ethics
- Al safety
- Al policy

- Societal Impact of AI
- Democracy and AI industry
- Open Science



Biorisk

- Infectious diseases
- Pandemic preparedness, response and recovery
- Biosecurity

- Global health
- Bioweapons
- Synthetic Biology
- Do It Yourself Biology



Environmental

- Negative Emissions
- ▶ Trends in globalization
- Climate Change
- ▶ Food systems resilience
- Risks to critical infrastructure
- Geoengineering
- Climate Justice
- Climate Mitigation
- Renewal Energy
- Tipping Points



Future Proof Policies

- Foresight
- Future Biosecurity
- Future Generations
- Investment Policy
- Responsible Investment

- Disaster Response
- Shifts in International Cooperation
- Global Governance
- Responsible innovation
- Epistemic Security



Emerging Technologies

- Managing technological risk
- Social Media and Political Security
- Defence procurement
- Extreme Cyber Risk
- General Risk Assessment

- Participatory Methods
- Inclusion in Risk Mitigation
- Inequality and Risk
- Disarmament and non-proliferation
- Inequality and social cohesion

SECTION FIVE

What achievements can be obtained through your research advice?

This section provides some examples of outputs – you will be able to find many of these on our website. If you are interested in working towards a similar output, or want advice on whether that will be a good approach for your research, should contact us and talk to some of the individuals involved in producing these outputs. Remember that sometimes policy engagements do not lead to quantifiable outputs – you might simply be involved in a conversation that raises awareness or increases understanding of a particular issue, but does not have a direct, traceable outcome. Those types of engagements are also worthwhile – they increase our knowledge, help develop skills, and build connections and networks that can lead to future opportunities for impact.



UK Government/ Parliament

- Report on National Security.
- House of Lords AI parliamentary report.
- An emerging threat assessment at the Cabinet Office.
- Contribute to written evidence for Parliament on biological risk or on international governance.
- Cabinet Office emerging threat assessment.
- Establishing a UK Centre for Data Ethics and Innovation.
- Horizon scanning studies at POST
- Threat assessment workshops organised by the Cabinet office.



International Organizations

- New scientific research agenda for the UNDRR Sendai Framework.
- Implement Foresight activities for the World Health Organization.
- Report and recommendations papers for the UN high-level panel on digital cooperation.

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Civil Society

- IEEE Ethically Aligned Design report.
- Setting up an <u>Association of Liberal</u> <u>Democrat Engineers and Scientists.</u>
- Establish an <u>All Parliamentary</u> Party Group.
- Co-production of briefings on COVID-19
 and AI or COVID-19 and Mental Health
 together with the Association of Liberal
 Democrat Engineers and Scientists.
- Report on the contributions of civil society to the Biological Weapon Convention.



Industry

- Shaping reports for new corporate strategies at Tech companies.
- Supporting the implementation of the Machine Intelligence Garage ethics committee.
- Ethics consultation for startups.
- Support an Institute's initial research strategy.



Non-UK Governments

- A new Parliamentary Bill which is focused on future generations.
- European Commission's White Paper on Al.



SECTION SIX

What skills do you need for policy engagements?

This section covers some examples of skills that are useful for policy engagement (in addition to the ones already mentioned in Section Two). Also, there are a range of resources available in the appendix which can help you learn more about this.

Being conscious about time

Some examples include: being mindful of time during an interaction, prioritising rapid responses, leaving enough time to seek feedback for drafting and re-drafting, allocating time for follow-on engagement.

Listening

A skill needed for understanding the needs of the person you are engaging with and responding to them.

Communication

Ability to provide expert advice to someone else's policy research or to translate academic material into concrete, actionable policy recommendations.

Finding broad agreement

Ability to identify consensus of the scientific community on a certain topic.

Mapping and monitoring

Constantly keeping track of policy opportunities (timing can be very important).

Adaptability

Being able to adjust to new conditions when responding to questions during policy engagements.

Fundraising

Sometimes needed when raising money for the creation of a campaign, travel budgets, budgets for hosting meetings or for graphic design and high-quality printing of reports, all of which could help reach different stakeholders. Alternatively, CSER may have some existing funds available to support policy engagement activities, hosting of workshops, etc.

Legislation drafting

Understanding government language and process can be beneficial, while not a necessity.

Collaboration

Key for impact, especially if each of the partners are well connected and have a specific role to play that does not overlap with the rest.

Charisma

Beneficial for face-to-face conversations or when pitching to different audiences.

SECTION SEVEN

What to avoid during policy engagements in the area of Global Risk?

If you are going to communicate numbers (percentages, probability, etc.) make sure that it was understood correctly by policymakers to avoid backlash. If your numbers are estimates state it clearly so government officials do not think that it is a claim coming from quantitative analysis.

If looking for the support of Members of Parliament do not spend time looking for the attention of many of them rather, focus on a few as an initial step.

If you advocate having more resources for "X" then, you could also recommend having fewer resources for "Y".

Avoid academic jargon. This can be hard to be aware of within your own work because you are so familiar with how terms are used but terminology can be very specific, even to different academic disciplines. It will be useful to have someone less familiar with your discipline to read through any outputs, and check that they can clearly understand them.

SECTION EIGHT What are the benefits of engaging in policy?

A better world

You can influence a positive change in the world where scientific evidence is used to co-create policy.

Increasing your network

Meet excellent academics who aim to change the world and donate their time to work collaboratively to influence the government. New contacts, new research, new collaborations and new ideas.

Gaining skills

It is possible to gain a variety of skills, depending on the policy engagement (some examples are provided in Section 7).

Enhancing the brand

Policy work gives you the opportunity to increase the reputation of your institution.

Academic publications

Some of the policy work can be turned into an academic paper. In addition, some policy engagements are publicly available so you can link them to your CV (Example: submissions to the UK's House of Lords calls for evidence)

Funders expectations

Funders are increasingly impact-focused.

Shaping research/reality check

Doing these engagements helps you to better understand where/how your future research may be able to impact policy.

Applied work

Allows you to transition from abstract/ theoretical to practical work.

Increasing your knowledge

It gives you a better understanding of the challenges of policy development and how you can improve this two-way process.

Extra income

Paid consultancy opportunities appear for experts with a policy background.

Investing in your future

It opens windows to potential future career options.

SECTION NINE

What are the disadvantages of engaging in policy?

Time consuming

Policy engagements will take time away from your academic research. For example, learning new skills, identifying most productive interventions, understanding processes/policy structures or sustaining relationships.

Success is relative

There are some cases when your advice is never used.

Credit

On some occasions it is difficult to track impact or to claim credit for the result.

Policy barriers

All policy engagements will present their own hurdles and you will have to learn how to navigate them.

Fellowships/Job applications

Generally, these types of applications have a section on "peer-reviewed publications" but not on "policy engagements".





SECTION TEN

How to start a policy engagement?

As mentioned in the introduction, it can be useful to begin policy engagement from the early stages of your research in terms of improving the opportunities for impact. For example, taking advice about whether they are any particularly useful questions you could address in your work, and whether there is likely to be interest in the output.

Contacting science/policy brokers

E.g: The Centre for Science and Policy (CSAP), the Bennett Institute for Public Policy, the Royal Society or Alpenglow which produces a newsletter highlighting current opportunities for policy impact at the UK government.

Looking online for relevant opportunities to contribute to policy enquiries and consultations

- UK Parliamentary Inquiries (e.g: a successful example of this can be seen in Section 2)
- European Commission's open consultations (e.g: <u>White papers on Al</u> <u>call for responses</u>)
- Checking UN's offices call for papers
 (e.g: <u>UNDRR call for papers</u>)



Including policy makers when conducting expert elicitation processes

A successful example of this can be seen in Section 2 where different stakeholders (policy makers, tech companies, etc.) were included at one of the study cases.

Joining expert advisory groups

International governmental and nongovernmental organisations have expert advisory groups and panels which you might be able to join. These opportunities include expert panels, advisory committees, scientific networks, and advisory boards.

E.g: <u>Global Partnership on AI</u>, Partnership on AI, The European Academies' Science Advisory Council (<u>EASAC</u>), <u>UNDRR/ISC</u> <u>expert review group</u>.



Writing a policy paper

E.g: Publishing an article at the Cambridge Journal of Science and Policy.

A successful example of this can be seen in Section 2.

Writing for industry newsletters or blogs

E.g. at Responsible Investor.

Writing a Note for the UK' Parliamentary Office on Science and Technology

The POST notes are a four-page briefing reviewing emerging areas of research and sometimes this office launches open calls looking for academics that want to contribute to writing them.

Responding to enquiries or calls for experts

E.g: Science Advice for Policy by European Academies (<u>SAPEA</u>)

Joining scientific networks

E.g: <u>Global Young Academy</u>, national-level science academies.

Joining advisory boards

By asking policy/industry contacts to sit on their advisory boards for projects and proposals.

Engaging with social movements

E.g: by being a speaker at events organised at institutions such as <u>Cambridge University Science and Policy</u> <u>Exchange, Extinction Rebellion, trade</u> unions, etc.

SECTION ELEVEN

What can I do to enhance my policy engagements and increase their impact?

The purpose of this checklist is to provide researchers with a tool to assess their policy engagement efforts at different stages of their research activities. Note that all statements are suggestions and some of them fit some policy pathways better than others. This scorecard can also be a useful starting point for getting feedback from colleagues or advisers about your ideas for policy engagement – you can explain the approach that you are planning to take and see if they have any additional suggestions or advice.

Methodology used: Survey of nine CSER experts; interviews of six CSER experts, science policy broker and one policymaker; focus group with 26 CSER experts; one scientific paper (further information provided in appendix)

Questions that you could consider when...

| Before and at the initial stages of developing your research | СНЕСК ВОХ |
|---|-----------|
| Have you included the policy relevance of the study on your grant application? And budget for funds to support policy engagement throughout the project? | |
| Quantitative data is often well received by different stakeholder groups, does your research include estimated probabilities of events, quantities or modelled parameters? Is it appropriate for it to do so? | |
| Have you identified key leverage points in the policy process or system? Have you considered how best to target these in your engagement to optimise impact? | |
| Is your planned research likely to have policy implications? If so, have you considered what you would like to achieve in this regard, and what your policy engagement and impact goals might be for this research project? | |



Have you checked institutional calls for papers (e.g. from the United Nations Office for Disaster Risk Reduction, other intergovernmental and non-governmental organisations)?

Can your findings feed into relevant policy processes in a timely manner? What timeframe does this imply for your work? (For example: Will it be ready for the next Conference of the Parties of a particular treaty or Al Global Partnership meeting?)

Could your research help inform the methods implemented in policy institutions (e.g. improving their foresight capacity)?

Have you identified any opportunities for meeting with policy stakeholders? (For example: meetings with Centre for Science and Policy policy fellows, Parliamentarian surgeries)

If you are meeting a new policy stakeholder, did you research their interests and history to facilitate a smooth communication?

Did you forge new relationships with political advisors (for short term advocacy) or with civil servants (for long term advocacy?)

Did you consult policymakers about your ideas for new research? (For example asking: "what research would help you better understand a topic or fill up current gaps in information?")

Have you thought through how you will communicate with partners and stakeholders? For example, do you have an elevator pitch ready?

While conducting research

Have you taken the time to think about how, where and when to influence? (example: "As an expert on bioweapons I will offer scientific advice to the United Nations Biological Weapon Convention around July since their State of the Parties meeting happens every year in December")

Have you written a summary of your current academic work and send it to science/policy brokers so they know in advance what you are producing and can help you fit it to relevant policy processes?

Are you promoting engagement with your partners by meeting every two weeks at least?

Have you considered conducting expert elicitations? This will allow you to get in contact with a wide variety of co-authors that are widely connected, that can become future partners for other endeavours and will help you to disseminate your research to influence policy and public debate.

Do you have partners for different policy engagements and impact steps? For example: for pushing a bill (A policymaker), for fundraising (Effective Giving) for building policy bridges (Alpenglow).

Have you discussed the project with others at CSER and within your networks to identify overlap with other projects or ongoing policy efforts?

While delivering outcomes of your research (some of these points can extend across different parts of the research process)

Have you sought advice from your policy contacts about the most useful format for communicating your research? (examples: a longer policy report plus a one page briefing, a short presentation; a formal evidence submission)

Have you identified the main policy audience for your research?

Have you contacted the press office at Cambridge University?



Have you asked your organization to write a press release about the results of your research? Or to launch events such as a panel discussion?

| Have you contacted journalists and presented them the results of your | |
|---|--|
| research? | |

Have you contacted science communicators (e.g: scientists with an online presence) that can help you disseminate your research for the public?

In addition to more typical academic outputs, have you considered making a video, infographic or a comic out to communicate your research findings?

Have you considered enhancing the presentation of your research by hiring a graphic designer? Will your work be accompanied by an online resource, and if so, is it tailored to your target audience?

Do you plan to update your findings on a regular basis, and if so have you allocated time and other resources to do that?

As well as your primary policy audience, have you thought about other stakeholders that can benefit from the results of your work, and have you planned how to reach them?

Have you promoted your research to your networks working on policy (e.g: UK's Parliamentary Office of Science and Technology, Future Earth, etc.)?

Have you written a blog article about your research?



| - | - |
|---|----|
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| | |

| Are you communicating uncertainty, strengths and weaknesses of your research? | |
|---|--|
| Have you thought of testing policy recommendations with former civil servants or former government advisors? This is highly recommended. | |
| Have you been in contact with high-profile people interested in your policy recommendations by producing content for enquiries at the UK parliament or other governments? | |
| Are you considering having different versions of your outputs (e.g. longer and shorter reports) for different audiences? | |
| When you meet with political advisors/policymakers do you focus on showing them how these policy recommendations will not make them lose votes and how it will impact their legacy? | |
| Have you rehearsed key questions that may be asked by policy stakeholders? Did you prepare responses to those questions? | |



appeals to the readers?

Evaluating your policy engagements

Have you increased your network? If so, have you communicated this to others in your organisation to identify how this might open new opportunities for others?

Have you gained new skills?

Are you following up with meetings or asking for feedback about your participation?

Have you learned new methods for policy engagement?

Have you built stronger ties with colleagues you already knew?

Have you monitored the status of your policy engagement in the last six months?

Have you reached the goals you had for your policy impact? Were they realistic?

Have you presented/shared the insights of your policy engagement at a work in progress meeting at your own institution?

Have you talked with the person in charge of updating deliverable reports or policy engagement databases for your institution?

Have you considered what would have happened in a world where your policy engagement did not happen? Did you increase the probability for a bigger change to happen?

Have your policy partners contacted you again with more opportunities to influence policy in the future?

Have you improved your capacity to add value during policy interventions?



Have you caught up with your point of connection with the government and asked for the "action notes"? (Action notes are actionable points taken by the government after the meeting took place. These actions are later communicated around to all participants.)

Has this experience motivated you to consider policy engagement within your next research project?"

If it did not already draw on an academic publication, would it be appropriate to convert your policy output into an academic publication?

Have you established an ongoing policy engagement, such as contributing to an expert panel or advisory committee?



SECTION TWELVE

What can we do to improve policy engagements at CSER or any other academic institution?

1. Improve our knowledge management methodology.

This might be done through an annual report, with monthly updates, which could be visualized on the website. Each researcher at CSER could have a section on their profile page that showcases their public policy engagements.

2. Monitor and evaluate policy engagements.

Having a meeting to set the annual strategy of CSER policy engagements and regular assessments of ongoing policy engagements will be beneficial. Two strategies could be implemented:

 Engage with fewer processes that commit CSER research to providing direct policy advice on a given issue, and instead concentrate on understanding the mechanisms, governability, political processes, etc.
 This strategy could help us to be part of ongoing processes and engage with organizations/bodies that have the most chance to create positive change. Engage with as many policy processes as possible in order to learn from a large quantity of experiences and spread our chance of having an impact across a variety of pathways for policy engagement.

3. Update the current efforts for monitoring policy engagements.

This can be done by including a "latest status/final outcome" tab at the excel table that registers all the policy engagements at CSER. In this way the centre can do follow ups and evaluate the success of their policy engagements.

4. Build capacity of staff based on the content of this report.

Journal clubs or presentations of successful policy engagements can be used to promote awareness of policy impact, and enhance peer review and support for these activities. During these meetings we could also focus on:

- Understanding how changes in public policy came about, what prompts them,



how we can improve the process and if it was worth doing.

- Identifying unclear terminology. For example: to determine the difference between "science advocacy" and "lobbying" or "providing information" and "advocacy" and which, and under what circumstances, an individual or CSER would wish to do.
- Discussing about which institutions should be interested in global catastrophic risks and how to proceed to raise their attention to these issues.
- 5. Coordinate with academics from other organisations when assessing policy engagement opportunities.

This will support networking and will pave the way for future engagements.

6. Create a policy board to support the design, production and dissemination of research with policy potential.

Strategic planning is also needed to decide who is involved and what resources are needed to set it up and to be effective.

7. Provide more opportunities to build bridges of trust with policymakers.

This can be done by more active engagement such as inviting them to biweekly meetings or improving the current fellows programmes.

- 8. Recognise the value of policy skills and experience within selection and recruitment processes.
- Develop a database of key people with whom to engage based on the strategic annual plan for policy engagements.





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Appendix

Survey

Nine CSER experts with experience in policy engagements were asked to answer the following questions:

- Name
- Have you had any policy engagements?
- With which sector did you engage?
- In which Geographical Area?
- What was the level of engagement?
- What were the topics?
- What is the website of the entity with whom was the engagement?

- Date of commencement /Date of completion
- ▶ Which division/area did you assist?
- Descriptive summary of what the engagement entailed
- What were your deliverables for the policy engagement?
- Which of your publications/work helped you perform this task?
- What was the most important analytical tool or method to perform this task?
- What was the final outcome of the engagement?
- Were you contacted for a new project after?
- Would you like to make this policy engagement public?
- Would you be interested in publishing this engagement as a best practices/ study case at a journal?
- Do you have another piece of work in the pipeline that may be relevant for policy but has not been used yet?



Interviews

 Six CSER experts from the previous cohort were interviewed during one to one hour and a half, answering the following questions:

Section 1: Biographical issues, career history

- Can you give a top-level summary of your career prior to joining CSER?
- Prior to CSER, were you providing advice for policy-making?
- Can you briefly describe your role and research at CSER?
- In your role at CSER, how much time do you spend thinking about or working on policy? Why are you motivated to work on policy? (Is it a requirement of your role?)

Section 2: About the origin

- Who made the first contact for the policy engagement? You or the partner?
- What did the first contact look like?
 (was it formal or informal?) How did the first contact come about?
 (e.g. a paper of interest, targeted specific person because we had the connection through a network)
- If CSERian was making contact:
 - Did you contact multiple potential partners?
 - If so, how did you identify and manage your potential partners for the engagement (journalists, policymakers etc.)?

- Did you understand their needs prior to contacting them? If so, how did you do that?
- Did you use the same approach to contact them all? How were your attempted contacts received (positively vs negatively)?
- Is there any difference between making the first contact with the public sector/civil society/private? (which level of government and at which country)
 - Following the first contact, was it slow or fast to commence the study?)
- Is there anything you would like to add to the dynamics of this first engagement.

Section 3: About the method

- How did you design the core work and the next steps? (i.e. independently or collaboration with a partner; using standard methods or customised)
- What core work did the policy engagement involve? Were others involved/did you engage assistance?
- What specific methods or tools did you use (15mins presentation, videos, comics, etc.)? Which method was the most important for delivering results?
 How did you become aware of these methods/tools?
- Which skills do you find valuable for this policy engagement (technical, interpersonal)? How did you apply those skills? How, when, and where did you develop those skill sets?

- How/why do you think the engagement was successful? What did you talk about? How did you engage them? How complex did you find the process?
- Were there any challenges in conducting the work? How did you overcome them?
- Was there anything controversial about the engagement, and/or did you specifically omit controversial information (such as data, uncertainty, technicalities)?
- Was there any cost associated with this engagement from your side?

Section 4: About the deliverables

- Who proposed the type of deliverable?
 (you or the partners?)
- Did you produce the deliverable independently, or in collaboration with the partners?
- How long did it take you to produce the deliverable? (Could it have been done in a shorter time?)
- How was the deliverable received?
 Were there following questions/ amendments?
- Is the deliverable confidential? If so, was that a problem for your or your organization?
- What specific policy impact did you aim for with the deliverable? Do you think this is the impact you had? Were there any other impacts you did not expect?

- How did you measure/assess the policy impact? How long will you do that for?
- What barriers to impact have you experienced? Is something holding you back?
- Can CSER support your work in this issue in some way (software, knowledge management, training, database, exposure, etc.)

Section 5: About the takeaways/rewards

- As a temperature check, overall do you think these policy engagements are worthwhile, are there major positives or negatives you would like to highlight? (What did they personally gain, what did CSER gain)
- Does your work on policy engagement limit your academic capital? (e.g. if deliverables are confidential and academic can not publish)
- Is there anything you think needs to change in terms of collaboration between policymakers and researchers to make academic research more impactful?
- Do you think there is anything that could change within academic circles to encourage academics to do more policy engagements?

Section 6: Additional

Is there anything we have not covered that you would like to add?



2. One science-policy broker and one policymaker affiliated to CSER were also interviewed but for thirty minutes only, answering the following questions:

Section 1: Biographical issues, career history

Do you have a database of academics with whom to talk or contact?

Section 2: About the origin

- Did you read any of their academic papers? What version of their papers would have been the most efficient for you (a summary? A scientific abstract, infographics, comics, etc.)
- How much time from your work did it take to engage in conversation with an academic?
- Which tool did the academic use for presenting their results? Was it what you had in mind? Which method was the most important for delivering results?
- What made you trust this academic?

Section 3: About the deliverables

- What do they look like? Is it a presentation? A report? An online consultation? Was it proposed by you or by the academic?
- How did you measure/assess the policy impact of this engagement?
- What specific policy impact did you aim for? Do you think this is the impact you had? Or did you have impacts you did not expect?
- How did you measure/assess the policy impact of this engagement?
- What barriers to impact have you experienced?
- If you could change one thing about policymakers/researchers to make policy more impactful, what would it be?



Focus Group

A Focus group was carried out with 26 experts at CSER and lasted for two hours. The agenda was the following:

- Welcome and introductions:
 Facilitator #1 presents what the outline of the workshop will be (5 minutes).
- Introduction to 'CSER Pathways to Linking Science and Policy in the Field of Global Risk'. Facilitator #2 presents the structure of the report, assumptions, policy impact definition, stakeholders and study cases (15 minutes)
- Group work going through the different parts of the report using Jamboard (30 minutes).
- Case studies of 2 policy engagements: two CSER experts share their policy engagement experiences (10 minutes).
- Perspective from Centre for Science and Policy (10 minutes)

- Questions & Answers (10 minutes)
- Introduction to the two breakout groups for two sections of the report: 'organisational recommendations' and 'checklist for researchers' (10 minutes)
- Two breakout groups take place, one for managers/more experienced CSER experts in policy engagements and the other for those newer to policy engagements. Each breakout room has two facilitators (20 minutes)
- Feedback from breakout groups and final discussion, encouraging participants to send any other feedback (10 minutes).



Further Reading

https://www.sheffield.ac.uk/polopoly_fs/1.826884!/file/REF2021policypublic.pdf

https://www.bennettinstitute.cam.ac.uk/publications/resources/

https://www.publicpolicy.cam.ac.uk/pdf/policy-impact-guide

https://www.instituteforgovernment.org.uk/sites/default/files/publications/Policy%20 making%20in%20the%20real%20world.pdf

https://www.policynl.ca/policydevelopment/policycycle.html

https://www.egu.eu/policy/basics/cycle/

https://www.britishecologicalsociety.org/wp-content/uploads/2017/05/An-introductionto-policymaking-in-the-UK.pdf

https://www.executiveoffice-ni.gov.uk/sites/default/files/publications/ofmdfm_dev/ practical-guide-policy-making-amend-nov-16.PDE

https://www.gov.uk/guidance/open-policy-making-toolkit

https://www.publicpolicy.cam.ac.uk

Oliver, K., Cairney, P. The dos and don'ts of influencing policy: a systematic review of advice to academics. Palgrave Commun 5, 21 (2019). <u>https://doi.org/10.1057/s41599-019-0232-y</u>



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