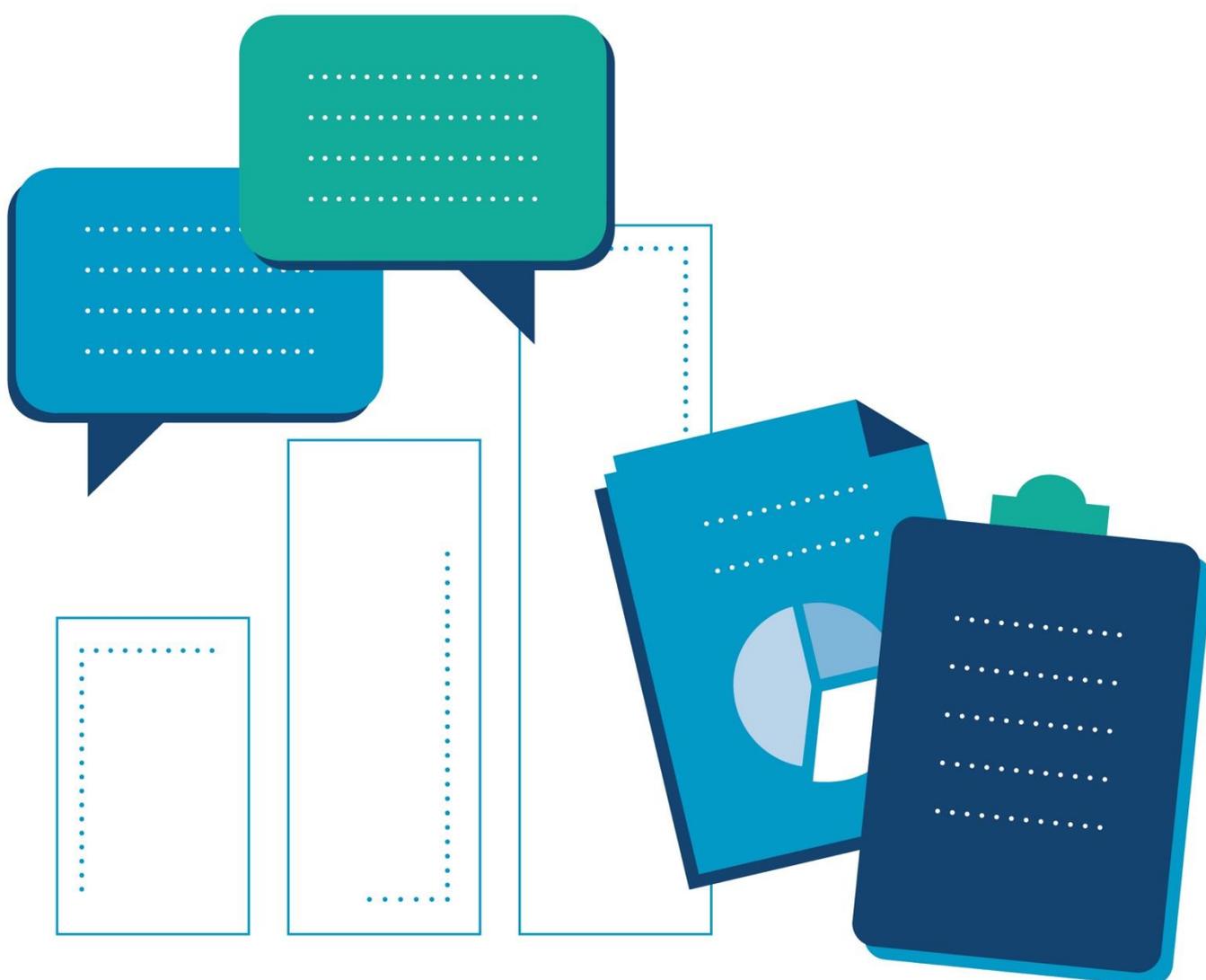


Exploring Problems to Find Innovation Opportunities:

A methodology for humanitarian innovators and funders developed for WASH and other sectors



About the methodology

This methodology was developed and tested by a consortium of partners including [UrbanEmerge](#), [Flush](#) and [Science Practice](#).

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With thanks to Ruth Salmon at Elrha's Humanitarian Innovation Fund (HIF).

For more information about the HIF, please visit elrha.org.

If you have questions or comments about this document, please contact: hif@elrha.org

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and Cooperation SDC**



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Important information about this methodology

This methodology is for **identifying potential opportunities for Innovation** by exploring specific **Problems** that contribute to established **Gaps** in humanitarian response. It can help you:

- understand what problems contribute to wider gaps in humanitarian response.
- investigate what is causing and contributing to these problems.
- establish how these problems are currently being addressed.
- identify opportunities where innovation could support a better response to the problems.

The methodology was originally developed to complement the Gaps in WASH in Humanitarian Response: 2021 update commissioned by Elrha's [Humanitarian Innovation Fund](#) (HIF). It was therefore created for the water, sanitation and hygiene (WASH) sector, but could also be used in other humanitarian sectors.

Who is this approach for?

The methodology is for anyone who needs to understand problems where innovation has greatest potential to support humanitarian response. This may include:

Humanitarian grantmakers, donors, and their consultants who want to understand where to direct funding to address a particular gap.

Humanitarian innovators looking to identify problems in need of innovation around a particular gap and/or in a particular setting to

understand where to focus research and development (R&D) activities.

Why explore problems to identify opportunities for innovation?

Problem exploration can help you understand what's behind big, well-established gaps in humanitarian response. Often, these gaps are already known thanks to sectoral research such as the [Gaps in WASH in Humanitarian Response: 2021 Update](#), or setting-specific analyses such as needs assessments. However, it can be difficult for innovators to respond to gaps because they are so broad and complex.

Exploring more specific problems within a bigger gap breaks down this complexity and clarifies opportunities where innovation could make a difference. This helps innovators focus their attention on developing innovations where they are most needed, and gives everyone a better chance of addressing the gap as a whole.

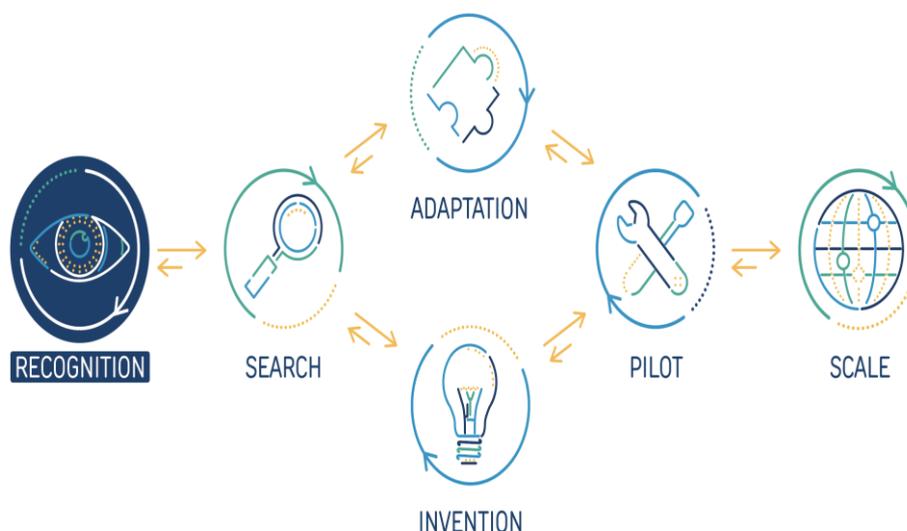
How to use this approach

This methodology works best for generating rich, mixed-methods insights to identify opportunities where innovation could address real problems identified by the people who experience them. It suggests an approach rather than prescribing a process. **The methodology is intended to be modular, so you can pick and choose tools and practices useful to you.** For example, some teams may want to skip [step 1](#) and [2](#) if they have recently collected relevant insights through needs assessments.

It does not replace established needs assessment processes. And it is not for collecting statistically representative research.

The methodology will help you generate a [problem exploration report](#) that identifies **opportunities for innovation** within a humanitarian gap relevant to your setting.

Stage of innovation



As this methodology helps explore problems to identify opportunities for innovation, it is most relevant to those at the very beginning of the HIF's Innovation process, at the **recognition** phase. This stage involves identifying a problem or opportunity to respond to, collecting and assessing readily available knowledge on the issue and context, diagnosing root causes and properly framing the challenge.

Practical considerations

Logistical matters to keep in mind when planning to carry out this methodology.

Which phase of emergency is this methodology for?

The HIF's [Humanitarian Innovation Guide](#) sets out seven phases of the disaster management cycle: prevention, mitigation, preparedness, disaster, response, recovery and reconstruction.

In the [Humanitarian Innovation Catalogue](#), this is reduced to three major phases: response (disaster, response), stabilisation (late response and early recovery) and recovery (medium-term recovery and longer-term reconstruction).

This methodology was developed with the intention of supporting humanitarian funders and innovators to gather insights **after the first six months** of an emergency response, beginning in the late response or stabilisation phase.

This is when the need to provide life-saving assistance is not as pressing and it is possible to engage people affected by crises and field practitioners in conversation about longer-term perspectives.

How long will it take to carry out?

We designed the methodology to be carried out over 2–3 months. However, it is possible to carry it out over a longer period. Likewise, it is also possible to distil the essential practices suggested in each step and carry it out much more rapidly over a matter of days.

Who do I need on my team?

A wide range of actors can carry out the methodology, in whole or in part. However, when putting together a team to implement it,

we recommend considering including the following types of expertise:

Field practitioners bring crucial insights and have an important role to play in carrying out the field research elements of this work and connecting with people affected by crises, as well as their humanitarian practitioner colleagues.

A **researcher** or small research team can support generation of insights from the field with desk-based research, looking at literature and resources available at field, regional and global levels to integrate insights across these.

A **monitoring and evaluation (M&E) coordinator** can help document learnings and identify opportunities, sharing these with those in a position to act on them.

Whose perspectives should I include?

It is important to explore problems from multiple perspectives – especially the perspectives of those likely to be most affected. Consider the different experiences people might have based on their age, gender, ability and other shared characteristics.

Seek out individuals and groups who are marginalised or excluded, or otherwise outside the mainstream of users or beneficiaries of potential solutions. This could include people who are struggling with current solutions or '[positive deviants](#)' who are faring better than others facing the same risk factors. Designing for such 'extremes' can often make solutions [more innovative and inclusive](#).

No matter who you end up speaking with, ensure that you consider [research ethics](#). This includes, but not limited to, getting ethical approval from the right authorities, ensuring that informed consent is recorded, ensuring that appropriate safeguarding policies are in place, that a risk assessment is conducted and that mitigation measures are in place for any risks identified.

Key terms

Gaps

Gaps are high-level, pressing WASH challenges communities affected by crises face worldwide, such as poor access to water or proper solid waste disposal. For examples, see the list of gaps identified by the [Gaps in WASH in Humanitarian Response: 2021 Update](#).

Gap analysis

The process of consulting people affected by crises, humanitarian practitioners and other humanitarian stakeholders to identify gaps within a WASH subsector. For example, the HIF commissioned the [Gaps in WASH in Humanitarian Response: 2021 Update](#) and the previous [Gap Analysis in Emergency Water, Sanitation and Hygiene Promotion](#).

Innovation

Humanitarian innovation can be defined as an iterative process that identifies, adjusts and diffuses ideas for improving humanitarian response. See the [Innovation basics](#) section in the HIF's for details. Innovations may be new interventions that improve on current practice, or interventions that introduce new elements to improve existing interventions.

Mixed-methods research

The research components of this methodology can be considered mixed-methods research. In this case, the methods include desk research using secondary sources and primary research through interviews and small group discussions. Our approach builds on previous efforts to bring user-centred design research tools to the humanitarian space, including the HIF's [user-centred design guide](#) by Pivotal and ALNAP's report on [User-Centred Design and Humanitarian Adaptiveness](#).

Problems

Problems are more specific challenges within gaps. They are distinct obstacles that must be overcome to better respond to humanitarian

needs. Problem recognition is the first stage of the humanitarian [Innovation process](#) described in the HIF's Humanitarian Innovation Guide because it helps frame innovation opportunities so innovators can respond to them by developing novel or improved solutions (i.e., innovations). Problems may be social, cultural, political, systemic, environmental or technical in nature, and different stakeholders may view and experience them differently.

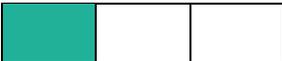
Setting (humanitarian setting)

Refers to different phases of humanitarian response (e.g., rapid response, protracted emergencies, acute emergencies), site (e.g., camp, urban), geography, environmental conditions and type of humanitarian crisis (including natural hazard-related disasters, conflicts or complex emergencies, either at regional, national or subnational levels, within lower- or middle-income countries). It also considers social norms, religion, demographics and the political situation in that setting.

Solution

Solutions are interventions that are or could be implemented to address problems. Some solutions may be standard practice; others may be functional measures to address pressing needs; and others – but not all – may be innovative and therefore innovations. It's important to know about what solutions already exist so you can determine if or how innovation is needed.

Steps overview

	Time and effort	What you'll do	Who to involve	Resources
PREPARE				
1. Select a gap and map known problems within it		Self-reflection and desk research to understand your own starting point and establish its limitations	Your research team	<ul style="list-style-type: none"> • Problem map • Relevant gap analysis reports; e.g., Gaps in WASH in Humanitarian Response: 2021 Update
2. Check problem map against existing resources		Desk research	Your research team	<ul style="list-style-type: none"> • Needs assessments and other reports from organisations operating in the setting • United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Humanitarian Response Plans • Academic or consulting baseline reports • REACH Initiative • Humanitarian Data Exchange
RESEARCH				
3. Explore problems locally: priorities, causes, known solutions		Small group discussions	1–3 local humanitarian practitioners 1–3 local stakeholders; e.g., governments, private contractors, if relevant 5–15 people affected by crises	<ul style="list-style-type: none"> • Problem list (middle column of the problem map) • Suggested questions • Insights summary template • “5 whys” in Elrha’s Humanitarian Innovation Guide • “User research tips” in the HIF’s guide to UCD Tools for Humanitarian Innovation • UKCDR Guidance on Safeguarding • Research Ethics Tool

Steps overview

	Time and effort	What you'll do	Who to involve	Resources
RESEARCH				
4. Scope existing and emerging solutions		Desk research and interviews	1–2 field practitioners operating in similar settings 2–3 field practitioners operating in different settings 1–2 contacts based at agency headquarters, in relevant innovation departments	<ul style="list-style-type: none"> • Practitioner solution interview questions • Solutions map • Emergency WASH Knowledge Portal • HIF problem exploration reports and WASH catalogue • Gaps in WASH in Humanitarian Response: 2021 Update
ANALYSE				
5. Organise and synthesise insights		Team meeting to fill in the insights synthesis canvas , then draft the problem exploration report	Team members who collected insights during step 2 , step 3 , and step 4 .	<ul style="list-style-type: none"> • Insights summary template and any other notes from steps 2–4 • Insights synthesis canvas • Checklist for identifying opportunities for innovation • Problem exploration report outline
CHECK AND APPLY				
6. Validate and build on report findings		Interviews and report refinement, ready to apply findings	This will depend on what additional information you need. It could be humanitarian practitioners for any questions around problems or solutions, or innovation funders to discuss emerging opportunities.	<ul style="list-style-type: none"> • Problem exploration report outline

1. Select a gap and map known problem within it

Establish which gap in humanitarian response you will explore to understand which of the problems associated with it could potentially be addressed through innovation.

Time and effort required



Materials

[Problem map](#)

What you'll do

Self-reflection and desk research to understand your own starting point and establish its limitations.

Resources

Relevant gap analysis reports; e.g., [Gaps in WASH in Humanitarian Response: 2021 Update](#)

Output

- Filled in [problem map](#)
- Draft section 2 of your [problem exploration report](#) – 'selected gap'

a. Propose a gap to explore and define your goals

Pick a gap to explore in greater depth using this problem exploration methodology. For example, the Gaps in WASH in Humanitarian Response: 2021 Update highlighted global gaps in WASH. You can pick one of these or identify another well-known gap in your local setting(s).

Ensure you are well positioned to explore the gap given your own limitations, including your area of responsibility and field of expertise.

State your gap and rationale for selecting it, as well as related learning goals under **About the gap** in the first column of the [problem map](#) template.

b. Map known problems associated with the gap

Use the [problem map](#) template to write down all the problems you can think of that are associated with the selected gap.

Ensure you list not only technical problems, but also environmental; technological; systemic, institutional or resource-related problems; and cultural, social, or behavioural problems; as well as political and security issues.

Briefly state any assumed impacts associated with each of the problems you list.

You will test this information through desk research and consultations in steps 2 and 3, updating and adding to it as you progress your learning.

c. Map stakeholders to consult

Reflect on who may experience problems associated with this gap and how. This could include specific subgroups of people affected by crises, humanitarian practitioners in certain roles, or other local stakeholders, e.g., from host communities.

Use the [problem map](#) template to identify all potential stakeholders you could consult when exploring the different types of problems within this gap in [step 3](#). Consider what each could help you learn.

Problem map

Use this template to carry out [step 1](#). Write your answers under each question to document your starting point for carrying out the steps in this methodology.

About the gap	Problem list: problems in the gap, known impacts and estimated importance (low–high)	Problem stakeholders: who to consult? Why?
Which gap do you propose to explore?	Political/security problems:	
Why is this gap important in your setting? How do you know?	Environmental problems:	
Why are you well positioned to explore problems within this gap in the setting(s)?	Technological problems:	
What will you do with the innovation opportunities you identify?	Systemic, institutional or resource-related problems:	
	Cultural, social or behavioural problems:	

2. Check problem map against existing resources

Validate and revise your [problem map](#) against available local resources to ensure it reflects existing knowledge on the gap in your chosen setting(s).

Time and effort required



Materials

[Problem map](#)

What you'll do

Desk research

Resources

- Needs assessments and other reports from organisations operating in the setting
- [OCHA Humanitarian Response Plans](#)
- Academic or consulting baseline reports
- [REACH Initiative](#)
- [Humanitarian Data Exchange](#)

Output

- Revised [problem map](#)
- Revised section 2 of your [problem exploration report](#) – 'selected gap'

a. Gather resources

Gather relevant resources that might contain information on problems in your setting(s). These could be local resources and global resources. If there are no existing resources to consult in your local setting, consider global resources that might have useful information

on the gap and associated problems you're interested in understanding.

These could include needs assessments, organisational reports, academic or consulting baseline reports, or documents relevant to your local setting(s) on the [REACH Initiative](#) or [Humanitarian Data Exchange](#).

Note that some of these resources may have been developed through previous consultations with people affected by crises or other relevant stakeholders. Where it is possible to gain access to such information, it is important to build on existing consultation work to avoid duplication of effort and approaching people with the same requests repeatedly.

b. Extract relevant problems and stakeholders; add to problem map

Review the resources and extract any additional problems within your selected gap that are relevant to your context. Add these to the [problem map](#) you started developing in [step 1](#).

Analyse any information you can access about the populations in your setting(s). Can you learn anything about who is present at the location? See if you can disaggregate available data to understand how different genders, ages, cultural groups, abilities or household compositions are present where you are working. Add notable groups of people to your map as key stakeholders.

3. Explore problems locally: priorities, causes, known solutions

Get stakeholder input on major problems.

Time and effort required



Who to involve

Local humanitarian practitioners, stakeholders, and people affected by crises

Materials

- Problem list (middle column of [problem map](#))
- Suggested questions
- [Insights summary template](#)

What you'll do

Small group discussions

Resources

- "5 whys"
- "User research tips" in the HIF's guide to UCD Tools for Humanitarian Innovation
- [UKCDR guidance on safeguarding](#)
- [Research Ethics Tool](#)

Output

- Completed [insights summary template](#)
- Draft section 3 of your [problem exploration report](#) – 'major problems'

a. Identify discussion groups

Use the suggestions and considerations for [identifying discussion groups](#) to identify the appropriate number and composition of small groups in your setting. Ensure you have a clear plan for [safeguarding](#) and ethics ahead of engaging with these groups. This includes, but not limited to, getting ethical approval from the

right authorities, ensuring that informed consent is recorded, ensuring that appropriate safeguarding policies are in place, that a risk assessment is conducted and that mitigation measures are in place for any risks identified.

b. Share problems

Share the **problems** on your problem list with each group. You can do this by reading each problem aloud or sharing the problems in a written format, depending on what is appropriate for each group. Use the [suggested questions](#) to discuss whether each problem exists in the setting(s). Add additional suggested problems to the list. Note impacts and contributing factors.

c. Compare and prioritise problems

Use the [suggested questions](#) to compare the problems, and then allow people to identify the most important or most severe major problems to address. Record the major problems identified by the greatest number of people or through group consensus.

d. Investigate problem causes

Use the [suggested questions](#) to understand more about the identified major problems. Follow up questions using the "5 whys" technique to fully understand what is causing and contributing to each of the problems. Take notes on the discussion. In some cases, it may be helpful for people to demonstrate or show the problem in action (e.g., through a [transect walk](#)), as long as appropriate [safeguards](#) are in place. You can also supplement interviews with your own observations of infrastructure and activity in the setting(s).

e. Discover solutions

Use the [suggested questions](#) to understand what is being done now and what else could help to address major problems. Take notes on the discussion.

f. Document findings across groups

Figure out the major problems that received the most attention across all the groups. Document what you learned using the [insights summary template](#), creating as many copies as needed for information gathering and synthesis. Reflect on your understanding of the problem. How has it changed through consulting stakeholders?

Identifying discussion groups

The following suggestions and considerations are to identify who and how many people to consult in small group discussions in [step 3](#).

The suggested numbers are based on established practices for usability testing in design research, and have been adapted to suit this methodology.

Resources

- [Why you only need to test with 5 users](#)
- ["Participation in decision making and programming" in Rapid Review of Disability and Older Age Inclusion in Humanitarian WASH Interventions](#)

Test with 5–15 people affected by crises

Identify 1–3 groups of 3–5 people adding up to a total of 5–15 people affected by crises to participate in your small group discussions.

Groups you consult should represent different interests depending on the problems you're investigating, who is present in your setting(s), and who is frequently left out of decision-making and programming. People often feel safer sharing their perspectives around others who are like them, so consider holding discussions with people in separate groups based on their shared characteristics. This could mean holding separate conversations with groups who share a particular gender, ability, age or length of time at the settlement.

Test with 1–3 field practitioners

Identify 1–3 field practitioners to consult. Discuss problems with these practitioners in a small group or individually, if more appropriate. You may consider consulting humanitarian field practitioners with specialisms beyond those most directly relevant to the gap to understand these 'informed outsider' perspectives.

Test with 1–3 stakeholders in other groups

Identify stakeholders in other groups (eg, local government, private contractors, civil society organisations, funders and donors) who may have additional insights into the problems on your list.

For each stakeholder group, consult 2–3 people. Hold separate discussions with each distinct stakeholder group.

If meeting in group settings is practical, you can discuss the problems with the same number of people individually.

More groups of fewer people

Overall, aim to speak with more groups of fewer people.

Focused or informal? Be flexible.

Be open to different formats for these conversations. Some may be formal, more structured conversations similar to focus groups. Others could be much more informal discussions where valuable insights are still shared.

Suggested questions

Use these questions to help guide the discussions in [step 3](#).

Share problems

- Which of these problems exist here in our setting?
- Which are not here in our setting?
- Are there other problems in our setting that are missing from this list? Add to your [list of problems](#).

Compare and prioritise problems

- **Impact:** which of these problems cause the most trouble for you? Which ones affect the most people?
- **Prominence:** which problems do people notice? Which problems are overlooked?
- **Duration:** which of these problems have been around for a long time? Which are new?
- **Importance:** which of these problems are the most and least important to fix?

Investigate problem causes

- **Time and location:** when and where do you see these problems?
- **Mechanism:** how do these problems create difficulties for you and other people here?
- **Cause:** what is causing these problems? How do you know?
- **Contributing factors:** what makes these problems worse?

Discover solutions

- What is currently being done to address each of these problems? Why aren't these actions enough?
- What is needed to solve these problems? What does 'solved' look like?

- What could be changed to reduce or solve these problems? How would that make a difference to you?
- What's preventing each of these problems from being solved?
- Who do you think could help solve these problems?
- Do you know of ways in which these problems were solved in other context?

Insights summary template

Use this template to help document what you learn during [step 3](#).

Major problems	How important is it?	Causes	Existing and emerging solutions
	<i>Low, medium or high importance</i>	<i>Including time and location, mechanism, cause and contributing factors</i>	

4. Scope existing and emerging solutions

Consult resources and people beyond your setting(s) to establish the global ‘state of the art’ in solutions that respond to major problems identified.

Time and effort required



Who to involve

Humanitarian practitioners in other settings

Materials

- [Practitioner solution interview questions](#)
- [Solutions map](#)

What you’ll do

Desk research and interviews

Resources

- [Emergency WASH Knowledge Portal](#)
- [HIF problem exploration reports and WASH catalogue](#)
- [Gaps in WASH in Humanitarian Response: 2021 Update](#)

Output

- Revised [insights summary template](#)
- Draft section 3 of your [problem exploration report](#) – ‘opportunities for innovation’

a. Conduct desk research

Conduct an online search for alternative solutions to the problems identified in your setting(s). Consider searching the suggested resources. Do other settings have similar problems? What solutions have been tried and what are their limitations? What has succeeded

and what’ has failed? And what can be learned from all of these previous attempts, including unintended consequences? Take notes on any existing and emerging solutions you discover, adding these to your [solutions map](#).

b. Identify humanitarian practitioners to interview

You should aim for a diverse and contrasting mix of people. Also, see if you can find people who are outliers from what could be considered the dominant or mainstream perspective.

Identify 1–2 field practitioners operating in contexts similar to yours. They may be able to share their own local solutions that could be easily transferred to your setting(s).

Identify 2–3 field practitioners operating in contexts different to yours. They may be able to share solutions that could be transferred or adapted to your setting(s).

Identify 1–2 contacts based at agency headquarters working in relevant innovation departments. They may be able to offer examples of emerging solutions from around the globe.

c. Interview humanitarian practitioners

Contact each person you would like to interview and ask for a 30-minute conversation to identify potential solutions to problems in your setting(s). In each interview, use the [practitioner solution interview questions](#) to ask about potential solutions and any opportunities for innovation that could help to address your major problems identified.

Take notes on any existing and emerging solutions you discover, adding these to your [solutions map](#).

Practitioner solution interview questions

Use these questions to help guide the interviews for [step 4](#).

Tips for interviewing practitioners

It's important to follow up people's answers to each question to make sure you get enough detail and clarity. Try using prompts such as:

- How did you arrive at that idea?
- How have you seen that demonstrated?
- Why is that?
- What do you mean by that?

Experience with problems

- How familiar are you with these problems?
- Have you ever worked on these problems before?

Experience with solutions

- For the problems you have worked on, what actions did you take to fix them?
- Not all innovations are successful – learning from failure is an important part of innovation. How successful or unsuccessful was your proposed solution? What did you learn from the experience?
- What would you do differently if you had to address the same problems again?

Other solutions

- Have you seen other successful and unsuccessful attempts to solve these problems? What can we learn from these?
- Have these solutions had any unintended consequences we should know about?
- What else do you think could be done to solve these problems?
- What barriers stand in the way of solving these problems?

- What is needed to enable solutions? Who do you think could help solve these problems?

Opportunities for innovation

- Which of the problems on our list can be solved using existing solutions?
- In your opinion, which problems are in need of innovation – newly developed or modified interventions? Why can't they be solved with existing solutions?
- Where are new ideas needed to more successfully address these problems?
- Who is best placed to innovate in response to these problems? What's the best way to support them?
- Which of these problems aren't likely to be solved through innovation? What is needed to solve these?

How to spot problems in need of innovation

- Not all problems need innovation. In some cases, existing interventions are effective, but lack of funding, time or staff is limiting adoption. A problem can benefit from innovation if existing solutions are failing and there is a need to seek alternatives that are more effective, cheaper, faster, easier to use, etc. . **Innovations** can be new solutions (**inventions**) or modifications to existing solutions from elsewhere (**adaptations**).

Solutions map

Use this map to document known solutions to the major problems you have identified. You may also want to record relevant information about who has implemented these solutions and where.

Major problems identified From step 3	Solutions from the setting From step 3	Solutions from other settings Desk research, interviews in step 4

5. Organise and synthesise insights

Collate insights from local problem exploration, as well as desk research and interviews around solutions.

Time and effort required



Who to involve

- Team members who collected insights during [step 2](#), [step 3](#), and [step 4](#).

Materials

- [Insights summary template](#) and any other notes from steps 2–4.
- [Insights synthesis canvas](#)
- [Checklist for identifying opportunities for innovation](#)
- [Problem exploration report outline](#)

What you'll do

Team meeting to fill in the [insights synthesis canvas](#), then draft the problem exploration report

Output

- Filled-in [insights synthesis canvas](#)
- Completed draft of your [problem exploration report](#)

a. Hold insights-sharing workshop

Organise a half-day workshop with the team involved in problem exploration research and report writing.

Start by reminding everyone of the goals identified in [step 1a](#).

Share with each other the most interesting, important and surprising insights you gathered and fill in the first two columns of the [insights synthesis canvas](#) together.

b. Identify opportunities for innovation

Fill in the third column of the [insights synthesis canvas](#) questions on opportunities for innovation. Try coming up with potential directions for innovation using the 'What if...' prompt to understand what it would look like if the identified problems were solved. Use the [checklist for identifying opportunities for innovation](#). This will likely require extensive discussion to make sense of the opinions you have developed based on your research.

c. Identify missing information

As you fill in the [insights synthesis canvas](#) with high-level insights, you might realise that you are missing certain details. Make a note of what information is missing, how will this be identified (e.g., further desk research, further interviews) and who is responsible for finding the information.

d. Clarify roles and next steps

By the end of this session you should have:

- a filled-in [insights synthesis canvas](#) to help you draft the problem exploration report.
- clear next steps for what information is missing and how to find this.
- clear division of roles in terms of who will write up different sections of the report.
- shared understanding of how you will use the report and learnings it contains to achieve what you set out to do when defining goals in [step 1a](#).

e. Draft the problem exploration report

Use the [insights synthesis canvas](#) to draft the problem exploration report following the suggested [report outline](#).

You may wish to use the [insights synthesis canvas](#) as a cover page for the final report.

Insights synthesis canvas

<p>Background</p> <p>Which setting(s) did you focus on?</p> <p><i>Contextual information</i></p> <ul style="list-style-type: none"> • Stage of emergency: • Population demographics: • Other important info: 	<p>Major problems</p> <p>Based on step 3 and step 4</p>	<p>Opportunities for innovation</p> <p>New points in step 5 – use the checklist to answer</p>
	<p>Problem 1:</p>	
	<ul style="list-style-type: none"> • Problem impacts: • Problem causes: • Existing/emerging solutions: 	<ul style="list-style-type: none"> • Potential innovation directions: 'What if...?' • Is innovation needed? Why/why not?
	<p>Problem 2:</p>	
	<ul style="list-style-type: none"> • Problem impacts: • Problem causes: • Existing/emerging solutions: 	<ul style="list-style-type: none"> • Potential innovation directions: 'What if...?' • Is innovation needed? Why/why not?
	<p>Problem 3:</p>	
<p>Selected gap</p> <p>via step 1: problem map</p> <p>Which gap did you select for problem exploration?</p> <p>Why did you select this gap?</p>	<ul style="list-style-type: none"> • Problem impacts: • Problem causes: • Existing/emerging solutions: 	<ul style="list-style-type: none"> • Potential innovation directions: 'What if...?' • Is innovation needed? Why/why not?
	<p>Problem 4:</p>	
	<ul style="list-style-type: none"> • Problem impacts: • Problem causes: • Existing/emerging solutions: 	<ul style="list-style-type: none"> • Potential innovation directions: 'What if...?' • Is innovation needed? Why/why not?
	<p>Problem 5:</p>	
	<ul style="list-style-type: none"> • Problem impacts: • Problem causes: • Existing/emerging solutions: 	<ul style="list-style-type: none"> • Potential innovation directions: 'What if...?' • Is innovation needed? Why/why not?

Checklist for identifying opportunities for innovation

As a starting point, it can be helpful to think of opportunities as problems, but inverted.

Think about what each problem would look like if it were solved. What **potential innovation directions** would help bring about this change?

Not all problems need to be addressed through innovation. Some problems might need coordination, resourcing, training or other input instead. **Is innovation needed? Why/why not?**

Use this checklist to understand whether or not each major problem presents an opportunity for innovation when filling in the **opportunities for innovation** column on the [insights synthesis canvas](#) in [step 5](#).

- ✓ **Does the opportunity respond to a real problem with clear potential for impact?** The problem the opportunity addresses should relate to WASH programming in humanitarian settings. It should be recognised by the available literature and by those with experience on the ground, including people affected by crises and field practitioners. It should also be a pressing challenge for the sector (e.g., large numbers of people affected, significant negative impact on a smaller group of people, etc).
- ✓ Would innovation benefit the problem this opportunity addresses?
- ✓ Would innovation benefit the problem this opportunity addresses? Solutions should be better than the status quo (e.g., more effective, cheaper) or are missing, plausible and needed; this might include developing completely novel interventions, products, practices or services, or adapting those from outside of the sector to the specific needs of humanitarian settings. New or improved solutions should be clearly distinguishable from existing solutions to qualify as innovations.
- ✓ **Does the opportunity open the door to many possible (types of) solutions?** Opportunities should address problems that are well defined – not too broad to be all-encompassing and not too specific to dictate a solution. They should open up problems to many possible solutions without closing down the range of possibilities. What innovations need to *achieve* should be clear, but *how* this is done should be up to innovators.
- ✓ **Would opening up the opportunity meet ethical standards?** It should be possible to manage the risks associated with exploring new, alternative solutions to the problem can be managed effectively.

Report outline

Use this template to draft the report based on insights shared during the workshop in [step 5](#).

You may find it helpful to include a completed [insights synthesis canvas](#) at the beginning of the report as a quick reference.

Problem exploration report1. Background (0.5 page)

Explain how you selected the setting(s) to focus on. Provide contextual information on the setting(s), including stage of emergency, key population statistics and any other important information.

2. Selected gap (1 page)

Give an overall description of the gap you selected, the rationale for this choice and associated goals (via 1. Select a gap and map known problems within it).

Share your initial [list of problems](#) within the gap and their sources. Include problems from global sources, such as those from the gap analysis in 1. Select a gap and map known problems within it, and local perspectives including insights from existing sources (via [step 2](#)).

Include details about key literature on the problem and existing funders in the space. Include details about key literature on the problem and existing funders in the space.

3. Major problems (5 pages)

Introduce the major problems in your chosen locations and how these were selected (via [step 3](#)). For each of the major problems, include:

- a broad description of the problem based on desk research: who is affected, how, scale of impact, root causes, factors.
- setting 1: local causes; existing solutions, strengths, limitations (based on field research).

- setting 2: local causes; existing solutions, strengths, limitations (based on field research).
- broader discussion of emerging solutions, based on field research and desk research.

4. Opportunities for innovation (2 pages)

Summarise findings from [step 4](#), including existing and emerging solutions identified through desk research and interviews with practitioners. What potential solutions have been tried elsewhere, but not applied in the setting(s)?

Synthesise the results of the discussion held during [Identify opportunities for innovation](#). Looking across all the identified problems, which aspects are most in need of new thinking and experimentation? How might these be articulated as opportunities that innovators could respond to?

Acknowledgements

Acknowledge contributors to the problem exploration, including WASH practitioners and other stakeholders consulted. Do not name people affected by crises who contributed unless you have obtained and documented their informed consent and addressed any [safeguarding](#) concerns.

6. Validate and build on report findings

Check any uncertainties or gaps with relevant stakeholders.

Time and effort required

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Who to involve

This will depend on what additional information you need. It could be WASH practitioners, for questions around problems or solutions; or innovation funders, to discuss emerging opportunities.

Materials

- Draft [problem exploration report](#)

What you'll do

Interviews and report refinement, ready to apply findings

Output

Finalised [problem exploration report](#) that has been updated based on stakeholder feedback where appropriate – you can keep this as a static report or continue to update it regularly

a. Identify and clarify the biggest uncertainties

As you are writing the [problem exploration report](#), you will identify sections or statements that you are unsure of. Keep track of these points.

Identify who would be well placed to help you strengthen your arguments or clarify any points before finalising the report.

Speak with WASH practitioners to clarify problem causes, and existing and emerging solutions.

Speak with innovation funders to validate emerging opportunities for innovation.

For each call, share in advance sections of the report you would like their feedback on or specific assumptions that you would like to validate. This will help prepare them to give timely and specific feedback.

b. Update report

Gather insights from this final review round and use these to revise the [problem exploration report](#) to bring it up to date.

Note that the problem exploration report can be either treated as a **snapshot** – the product of conducting problem exploration in a particular time and place – or as a **living document**, to be updated with new information from field- and global-level insights as your understanding grows and changes.

c. Next steps

Reflect on your original goals and motivations for conducting this problem exploration. What have you learned? How has your perspective grown and changed?

You may want to use what you have learned to:

- contribute to wider sectoral efforts to map problems within the gap you explored.
- share opportunities for innovation to attract funding and encourage and incentivise others to innovate.

identify opportunities that you are well suited to innovate in response to, given your knowledge, position, skills and resources.

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