

Humanitarian Innovation Fund

Innovating Emergency Water, Sanitation and Hygiene *Research / Surface Water Drainage*

Terms of Reference

25th June 2015

Background

The Humanitarian Innovation Fund (HIF) was launched in 2010 to support organisations and individuals to identify, nurture and share innovative and scalable solutions to the challenges facing effective humanitarian assistance. To date it has funded over 60 projects globally.

In 2013, the HIF launched an ambitious new programme to deliver operational innovations in water, sanitation and hygiene (WASH) in emergencies. This work represents a step-change in the level of direct involvement in the innovation process by the HIF, and draws on innovation management thinking from within and beyond the humanitarian sector.

The programme began with a detailed [Gap Analysis of Emergency Water, Sanitation and Hygiene Promotion](#), synthesising insights from over 900 people in 40 countries. Interviewees included donors, UN agencies, international and national NGOs, independent WASH experts, and affected populations. This research was led by Andy Bastable of Oxfam. It identified areas that were commonly understood as the most important problems to be addressed.

The HIF has convened a [Technical Working Group](#) made up of WASH experts in the humanitarian sector. They reviewed the conclusions of the Gap Analysis and selected initial areas of focus. These included hand washing solutions and promotion, latrine lighting, urban alternatives for excreta disposal, and sanitation marketing.

A series of open innovation challenges were run as online competitions, as well as a series of multi-stakeholder workshops generating new ideas and partnerships. These processes engaged a diverse group of NGOs, academic institutes as well as social enterprises, and have led to a range of [WASH projects being funded by the HIF](#).

Research objectives

As the HIF prepares for the next round of challenge we are looking to support the innovation process with more detailed research. Below are the problems that have been identified by our Technical Working Group as priorities for our innovation:

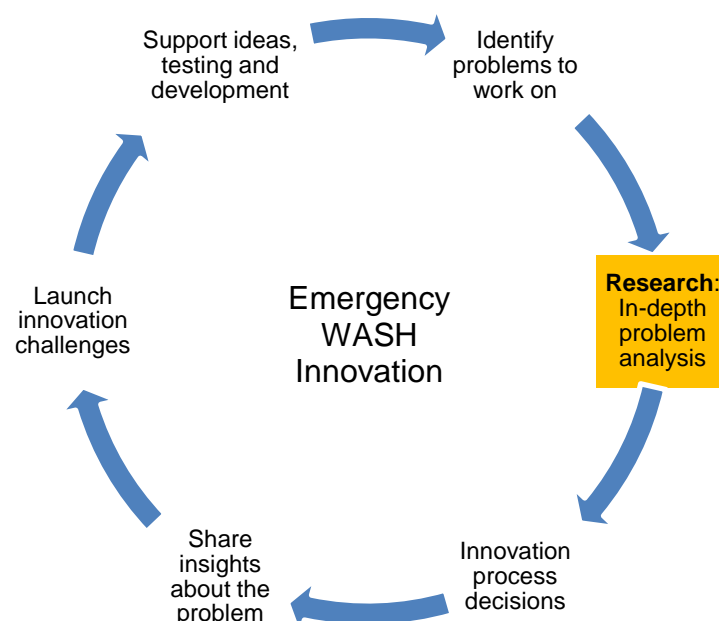
WASH priority areas for innovation

1. Hand washing solutions and promotion
2. Water treatment
3. Community-level excreta management
4. Solid waste management
5. Surface water drainage
6. Latrine lighting and safety
7. Urban sanitation alternatives

Each one of these is a complex problem made up of various technical, political and social barriers to overcome. To respond effectively a clear understanding of the problem is needed that is accessible to a wide audience of innovators and supporters.

The main purpose of the research is to explore the problem in-depth, so that we are better equipped to make decisions internally about how to facilitate innovation in response to this problem. For example: should we be running an open innovation competition for new ideas, or should we be testing and comparing existing solutions?

In addition the research will help us to identify, inspire and inform the relevant audience we need to engage. Depending on the problem will need to galvanise communities who have been thinking about the particular concern for a long time, as well as those who are new and unfamiliar with the sector.



Research questions

The research will look at the specific problem of **surface water drainage**.

In many camp and non-camp emergency situations, spillage from tap stands, leakage from water pipes, sullage/ greywater waste water from bathing and laundry washing areas, or rainfall can cause pools of water large muddy ponds to form. These pools can be a breeding ground for mosquitoes and parasitic worms, can pollute water sources and supply systems, and create muddy areas for pedestrians and wheeled vehicles, sometimes rendering roads and paths impassable, in addition to being unsightly and off-putting, creating a poor living environment for displaced people. Often, even when soak-pits are dug, there is such little infiltration capacity in the soil that all that is achieved is new ponds of standing water. Drains and pits are often seen as places to dump solid waste, further reducing their capacity to manage surface water runoff. Soakaways can also increase the risk to groundwater, which may be being used for drinking water.

Research on problems:

- What is the nature of the problem?
- What are the causes and the symptoms?
- What is the extent and focus of current research around the problem?
- What is common agreement, and what are the areas of debate?
- Who are the key stakeholders defining the problem and holding the agenda?
- How much user research has been done on understanding this problem?

Research on solutions:

- What is the (brief) history of attempting to solve this problem?
- What are the main reasons for failures in the past? (technical, political etc.)
- What are the strongest solutions (if any) currently being implemented?
- What are the potential solutions in periphery industries / sectors ?
- What other funding and support is available to incentive solutions?

Research outputs

Outputs	Style	Length
Final Report	Narrative, quotes, facts and figures, including a 1 page executive summary	15 – 20 pages
Challenge document	Key facts and figures to be used in a challenge overview document including info-graphics (with HIF designer)	2 pages
Case studies	Short stories gained from literature or interviews that communicate the key findings from the report.	½ page case studies

Research methodology

This research will be a combination of desk-based research and interviews.

Suggested steps:

- Initial meeting with the HIF team to set expectations of the research
- Review of the initial Problem statement already developed by the HIF
- Review of key reports and initiatives working to understand or solve this problem
- Interview with relevant members of our HIF Technical Working Group
- Identify and interview relevant stakeholders from within and outside the sector
- Present findings to the Technical Working Group for feedback
- Prepare a short report (15-20 pages) summarising findings
- Get feedback on the report from the HIF team, and incorporate changes
- Highlight key facts and figures for the Challenge document
- Write up short stories for a wide audience (unfamiliar with humanitarian context)

Qualifications and Experience required

We appreciate that this research requires a diverse range of knowledge and skills and therefore we are open to the work being done by one individual or a small team.

Essential:

- Extensive relevant prior research experience
- Knowledge of development or humanitarian sector
- Knowledge of water, hygiene and sanitation issues

Desirable:

- Knowledge of surface water drainage

Creative Commons

We intend to publish all the research outputs with a HIF brand and an Attribution 2.0 UK Creative Commons licence. This means that anyone can share or adapt content of the research, even for commercial purposes, but does need to attribute the HIF and the author as the original source.

Documentation of Research

If we cannot trace the source of a statistic or quote we cannot use it in our public work. Therefore we request that at the end of the project you will share with us an electronic copy (scans of publications, field notes, screenshots from webpages, survey data, write-ups from interviews etc.) of any information captured.

Timetable

The work must be completed by **31st August 2015**, with a strong preference for an earlier completion date if possible. It should constitute 10-12 days of work over a period of time, including any final presentations / workshops.

Project management

This research project will primarily be managed by Menka Sanghvi, Innovation Management Adviser at the HIF who is leading on the WASH programme. The selected researcher will be expected to work closely with our team to maximise feedback loops and learning.

Candidate selection

Application Deadline: 2pm GMT, Monday 13th July 2015

Research proposals must include the following:

- Covering letter explaining your interest in this research
- Proposed time frame and work plan
- Proposed budget including day rate (if relevant)
- CVs and evidence of past research reports/publications for each team member

Submit completed proposals to Menka Sanghvi at m.sanghvi@savethechildren.org.uk