

## Challenge Candidate List – Handwashing in Emergencies

This working document is a summary of the key challenges presented in the WASH Problem Exploration Report on Handwashing in Emergencies.

Topic	The Challenge	Innovation Needed	Type of intervention	Who will use it?	Existing Work
<b>Understanding cultures and encouraging behaviour change</b>					
	<b>Develop promotional hand washing campaigns rooted in cultural understanding, for use in emergency contexts.</b> Globally only around 19% of people wash their hands following contact with excreta. The promotion of hand washing has the potential to significantly improve sanitation and health.	Promotional messages that encourage hand washing must be developed. To be effective, they need to take into account cultural differences and the pressures of an emergency situation. In addition to this, the dissemination approach need to be appropriate for the chosen context.	Communication between behavioural insights experts, WASH agents, local communities and other stakeholders is needed to develop context specific messages and new approaches for sharing these messages. This could be achieved through a sandpit event.	WASH agents, Local authorities	There have been several promotional hand washing campaigns, however, only few focusing specifically on emergency settings. The impact on hand washing behaviour has been varied, depending on the context and incentives chosen.
	<b>Understand hygiene kit use in different contexts.</b> Hygiene kits are regularly sent out in emergency situations, but regularly remain unused.	Hygiene kit use can be as low as 10% in some contexts. Better understanding of why this is, and how to improve it is needed.	Research to understand the local reasons for low hygiene kit use, and development of solutions to increase uptake.	WASH agents and local populations	The issue has been highlighted by WASH agents, but has not yet been extended to research projects.
	<b>Understand cultural norms in hand washing.</b> Different cultures have different perceptions on the value, and method of hand washing. Better understanding of these perceptions should allow for more appropriate design of interventions.	Hand washing is perceived differently by different communities. Understanding different cultural drivers of hand washing is needed to better promote hand washing.	Field research into hand washing practices in different communities. Monitoring and communication of what works and what doesn't in different contexts by WASH agents.	WASH agents	There are existing projects looking into different cultural perceptions of hand washing.
<b>Improved technologies</b>					
	<b>Provide adaptable, robust, transportable and affordable hand washing stations.</b> Hand washing station design has a large impact on the level of hand washing in an emergency situation.	There is a need for universal handwashing infrastructure, including features such as: suitability for multiple different types of water reservoirs, adequate drainage, provision of soap, and accessibility to all users.	Technological innovation and testing.	Local populations	There are numerous designs for handwashing stations in development, but these need to be tested in relevant emergency contexts.
	<b>Improve links between technology developers and field agents.</b> Links between developers of technologies related to hand washing and field agents can be limited, resulting in difficulties in testing technologies in the field.	There is a need for better communication between WASH agents and developers of hand washing technologies for emergency situations.	Development of regular workshops, and forums to support the exchange of information and ideas.	Technology developers and WASH agents	
<b>Alternatives to Soap</b>					
	<b>Investigate the use of natural alternatives to soap in emergency situations.</b> Soap is often in short supply in emergency situations. Developing an understanding of the alternatives and their appropriate use could help increase the efficacy of hand washing.	Evidence suggests that natural alternatives to soap, such as sand and ash, can be as effective in handwashing as soap. It would be desirable to understand if, when, where and how this type of hand washing can be promoted.	Field research including involvement of local populations in the use of natural alternatives to soap.	Local populations	There has been work showing that natural alternatives to soap can be effective, however this has not been extended to understand if and how this could be promoted.
<b>Operation of handwashing facilities</b>					
	<b>Understand how to best increase access to soap in emergency situations.</b> The benefits of soap in hand washing are widely known, however providing sustained access to it during an emergency is a significant challenge.	In emergency situations, soap supplies often run out or are stolen. Innovative solutions to ensure the sustained provision of soap for local communities are needed. One approach could include different types of soaps for different needs.	Development and testing of innovative solutions to distributing soap in emergency contexts.	Local populations	There have been studies investigating potential options for soap provision.
	<b>Improve hand washing facility operation and maintenance.</b> Hand washing stations gradually fall into disuse if they are not maintained.	Handwashing facilities often need maintenance and repair during emergency situations. Innovative solutions are needed to ensure the sustainability of existing facilities.	Solutions to this could be new, sustainable, and potentially cheaper handwashing facilities, or encouraging greater ownership and demand for hand washing facilities.	Local populations and WASH agents	The issue has been highlighted by research, but solutions have not yet been found.