Hygiene Promotion in Flood Settings

This Technical Brief looks at the key hygiene issues affecting populations in rural and urban flood settings and provides guidance and examples related to the distribution of hygiene kits and hygiene promotion activities.

Hygiene promotion is extremely critical during flood response. Floods create altered physical conditions that greatly increase people's vulnerability to water and sanitation related diseases. The use of WASH facilities and the adoption of safe hygiene practices are essential to prevent flood-related diseases. Contrary to popular belief, people may be more open to behavioural change during times of uncertainty and change.

The effects of flooding vary because of local physical, geographical and meteorological conditions. It is therefore important to plan hygiene promotion activities with an understanding of the type of flood and its impact on the affected population. Floods may last from a few days up to many months. Refer to Mwaniki, 2009 and Smith, 2009 for a comprehensive list of the different types of floods.

Floods can make it difficult to maintain dignity and hygiene and lead to an increase in the risk of diseases such as malaria and diarrhoeal diseases in the following ways:

- Increased open defecation as a result of destruction, breakage or damage to sewage systems, toilets and latrines
- Loss or lack of key hygiene items
- Thick layers of silt, debris and other materials in populated areas
- Standing pools of contaminated water and/or sewage
- Rotting corpses (human and animal) can lead to excessive fly breeding or contamination of water sources from faeces
- Increased contamination of drinking water
- Increases in vector breeding
- Undesirable odours as a result of the above.
- The psychological impact of losing one's loved ones and home leading to feelings of hopelessness

Vulnerable groups will experience the negative effects of floods more greatly. Case Study 1 below describes how poorer women are affected during urban floods in Bangladesh.

**Case Study 1: Floods in Dhaka, Bangladesh, 1998**

Women living in poor areas were most severely affected during the floods. Basic sanitation was not readily available, so many women urinated or defecated in their homes, wrapped faeces in paper or plastic bags, and threw them into the flood waters. Women and girls also threw menstrual cloths into the water, or washed them in dirty water. Some women went together to use latrines located on higher ground, but were embarrassed at having to use latrines in the presence of men whom they did not know. They also felt inappropriately dressed in wet saris that clung to their bodies.

Rashid (2000)
Below are the key outcomes expected from hygiene promotion interventions in response to floods:

- Men, women and children take action to reduce public health risks by e.g. preventing contamination of, and treating drinking water and practising effective hand washing at key times.
- All sections of the affected population make the best use of, and help care for and maintain, the water and sanitation facilities, products and services provided.
- Appropriate hygiene items (including sanitary materials for women) are identified and distributed.
- The affected population are made aware of their rights and entitlement to both relief and recovery operations. Refer to IASC (2008).

The type of intervention will not be the same for all flood situations, and it may be necessary to work in a phased approach. The phases are:

**Immediate action after the flood (1st Phase),** typified by instability and a rapidly changing situation (0 – 2 months).

**First 48 hours**
- Initial rapid assessment identifying the hygiene response priorities and contents of hygiene kits for the first weeks.
- Support for campaign strategies that employ the mass media and reach as many people as possible with information about minimising public health risks (for example, support for Government public health campaigns or work with media NGOs and organisations).

**48 hours up to 2 weeks**
- Expand the coverage of initial rapid assessments and actively find and treat those affected by diarrhoea and malaria.
- Continue talking to the affected community to identify specific hygiene issues, what will motivate changes in practice and appropriate channels of communication.
- Co-ordinate with others (e.g. government ministries, WASH agencies, etc.) to develop key hygiene messages based on community assessments.
- Start distribution of basic (1st phase) non-food items (NFIs) ensuring that people have information on how to use household water treatment technologies where distributed.
- Develop a more strategic communication plan in collaboration with other WASH stakeholders.

**2 weeks to 2 months:** Carry out comprehensive assessments, monitor use of NFIs and facilities and adapt the response accordingly. For example:
- Consult with the affected population on the design and maintenance of facilities.
- Target the response to address the particular needs of vulnerable groups, such as children, pregnant women and disabled men and women.
- Shift the emphasis from mass media to interpersonal communication giving the affected population opportunities to ask questions and internalise information so they are more likely to use it.

**Short to medium-term actions (2nd Phase),** typified by a stabilisation of the situation (from 2 – 6 months).

- Distribute locally defined and purchased non-food items (NFIs) and hygiene kits.
- Encourage greater community involvement in making decisions about the intervention and managing WASH facilities and processes.

**Medium to long-term actions,** typified by the recovery & resettlement of the affected communities (6 – 12 months or longer). Medium to long-term options are not considered in this paper.

1. **Provision of Hygiene NFIs**

Provision of hygiene NFIs can be problematic. It is not always easy to strike a balance between speed (distributing quickly) and accuracy (distributing what is appropriate for
specific populations). The best advice is to use a phased approach:

1st phase (48 hours – 2 weeks): Limit the selection and distribution of hygiene items to general items that people are already accustomed to (e.g. water containers, soap, anal cleansing jugs, saris etc).

2nd phase (2 weeks – 2 months): Define the contents of kits after assessment of health risks, cultural practices, familiar products and community desires.

Consultation with the affected population is essential to ensure items are appropriate.

During the 2nd phase of distribution, consultations should identify specific items to meet the needs of different community groups (e.g. women, men, children, disabled people and vulnerable groups). Agencies should also work with local suppliers to set up a local supply chain for items included in NFI / hygiene kits.

Figure 1: Distribution of hygiene kits

Contents of NFI / hygiene kits: In addition to containers, soap, sanitary towels and underwear, it may be appropriate to include other items such as impregnated mosquito nets and ORS\(^1\) (see Case Study 2 below). Discussion should take place with the health cluster on whether such items should be included.

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Figure 2: Consultation with women in the community

Case Study 3 below provides an example of inappropriate items being distributed as a result of lack of consultation.

Case Study 2: Health risks during the floods in Tanzania, October 2009
Following heavy rains in Tanga and Dodoma regions of Tanzania, the Tanzania Red Cross, trained 50 volunteers on community based first aid. This provided volunteers with knowledge of first aid and how to prevent diarrhoea and malaria. 5000 ITNs (Insecticide impregnated mosquito nets) were distributed along with information on their use. In addition to house-to-house visits, the volunteers also distributed 4,000 leaflets to remind people about how to use the mosquito nets and how to prevent diarrhoea. IFRC (October 2009)

Case Study 3: Inappropriate items distributed during Cyclone Sidr in Bangladesh
Sanitary towels included in hygiene kits were not used. Interviews with women revealed they were not familiar with what was distributed. They were accustomed to sanitary cloths that they washed and reused. The agencies distributed sanitary towels that were unacceptable in terms of type and colour. Water filters were also often not taken out of their packaging as people were saving them as a valuable asset to be sold in times of need. These products did not therefore have the intended health benefit for the affected population.

UNICEF (2007)

Distribution of NFI / hygiene kits: Distributions should prioritize those in most urgent need. Consideration should be given to people living in unofficial shelters with poor sanitary conditions and those remaining in their homes who may be harder to reach. For example, during the 2008 Bihar flood response people who remained in their flooded homes for fear of losing their property did not receive kits.

Distributions should be coordinated with other elements of the response. Simultaneous distribution of both hygiene and other NFIs

\(^1\) Care should be taken with mass distribution of oral rehydration salts (ORS), especially where the population are not familiar with how to use them.
(kitchen sets, blankets etc.) enables a more rapid and cost effective approach, especially during floods when transportation costs can be particularly high. It is also important to remember Distributions should also be aligned with information and training to ensure effective use of the items provided. It is essential to include instructions for use for all items distributed and information leaflets should also be distributed with kits.

Replenishment of hygiene items is crucial to enable sustained hygiene practice. A blanket distribution may initially be necessary in the interests of time but once vulnerable populations have been identified it is better to provide less people with sufficient items to cover needs for a longer period than distribute to all those affected for a shorter period of time.

2. Hygiene communication

Communication efforts should be based on an understanding of people’s perception of the public health risks and should try to identify what can motivate different groups to take action.

It will be useful to define messages but it must be recognised that disseminating messages alone is often not sufficient to mobilise people. Where used, messages should be consistent, targeted and kept to a minimum. Too many messages dilute available resources, confuse the community and may reduce the likelihood of achieving changes in practice. Identify no more than four key messages in the initial phase and focus on actions that will:

- Address the most significant public health risks;
- Stand the greatest likelihood of change;

Handwashing with soap is likely to be a priority, as it is the hygiene behaviour that can achieve the greatest health impact. The safe disposal of excreta and the use of clean water for drinking will also be essential. The actual ‘message’ will need to be defined according to each situation.

A deeper understanding of the barriers to change and different groups’ use of WASH facilities will enable a more nuanced response.

The following issues might also be an appropriate focus for communication efforts:
- Management of diarrhoea or malaria in young children or prevention of urinary tract infections (common amongst women in flood situations due to immersion in heavily contaminated flood waters)
- Operation and maintenance (O&M) of facilities – floods present O&M challenges often not experienced in other disaster situations, such as high groundwater levels.
- Hygienic waste disposal - CARE’s evaluation of its water and sanitation programme in response to Tropical Storm Jeanne in Haiti (2004) noted that advocacy and community mobilisation was needed regarding waste disposal, which is usually via drainage structures. This was a contributing factor to the flooding in the first place, as drainage systems and waterways were blocked with waste. (CARE, 2005).

![Figure 3: Handwashing in Bangladesh](image-url)

Keep the following in mind when designing a communication strategy:

A collaborative approach: It is important to discuss and collaborate with others for example different sections of the community, government ministries (environmental health, health promotion, education etc.), influential leaders or opinion formers, other WASH
agencies and the health cluster to ensure clarity and consistency in the communication strategy. Key communication ideas and messages may need to be adapted for different audiences. They should take account of beliefs and attitudes that are held about health, disease and hygiene and should appeal to the interests and priorities of different groups. For example, health may not always be the main perceived benefit or motivator for change; privacy, convenience, an increase in status or nice smelling hands may be more important motivators for action.

Identifying the target audience: Social dynamics are an important consideration. Audience segmentation is a term used in social marketing and refers to the different target groups within the population e.g. mothers with young children or men (see table 1). These groups might also be known as primary target groups. Secondary target groups can also be defined and these are the groups that might influence the primary target groups e.g. teachers or religious leaders (they can also be part of a primary target group). Few people make decisions or perform actions without considering the opinions of influential people in their social network.

During floods, the target groups might involve the whole community with a special or greater emphasis on those who might be more vulnerable such as children or marginalised groups.

Effective communication: The following will help ensure that information is easier to understand:

- Use of pictures and diagrams to add interest and explain difficult points. Particularly appropriate in areas with low literacy levels. Care should be taken to ensure pictures are visually appealing and portray the desired message in a clear and simple way.
- The opportunity to ask questions or discuss an issue
- Use of the local language/s, keep sentences short and familiar, and use everyday words. Keep technical information to a minimum and avoid jargon.
- Humour can be a useful way of attracting attention and adding interest.

Positive messages about what people can do are likely to be more effective than negative messages that may lead to panic or anxiety.

Pre-testing the message: Where messages are used on their own (e.g. in posters or leaflets) they should always be tested with a representative sample from each target group to test audience reactions and check that the information is not being misinterpreted.

<table>
<thead>
<tr>
<th>Group</th>
<th>Reason for Targeting</th>
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<tbody>
<tr>
<td>Women (over 18 years old)</td>
<td>Usually responsible for collecting water, cooking, caring for children, managing other house tasks. Women can achieve the biggest impact on themselves and their family when putting hygiene measures into practice.</td>
</tr>
<tr>
<td>Adolescent girls (11-18 years old)</td>
<td>Participate in housework (water, food, caring children, etc) and, once married, they will manage their own family.</td>
</tr>
<tr>
<td>Children (Girls and boys, 6-10 year old) and teachers</td>
<td>A higher learning capacity and they are more flexible to change their behaviours than adults. Teachers are important in influencing the behaviours of children.</td>
</tr>
<tr>
<td>Men</td>
<td>Although less involved in hygiene related activities at home, men often have significant authority in their family and manage financial matters (important for buying hygiene items etc.) In some situations they may be responsible for collecting water. They may also be less likely to seek treatment for disease such as diarrhoea.</td>
</tr>
<tr>
<td>Community and religious leaders</td>
<td>Community leaders, traditional leaders, WASH committees, etc. have an influence on decisions, such as investment in infrastructure, and hygiene practices, in the community.</td>
</tr>
<tr>
<td>Specific professional groups</td>
<td>Health professionals (traditional and conventional), water professionals (e.g. water vendors, caretakers of communal water infrastructures) and sanitation professionals (e.g. suppliers of slabs) play important roles related to health and hygiene.</td>
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</tbody>
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Table 1: Rationale for specific targeting of different groups
3. Determining channels of communication

A variety of methods, media and approaches can be employed to mobilise individuals and communities to take action on hygiene issues; such as, mass media (radio, television, newspapers, posters, notice boards etc), popular or people's media (drama, singing, games, dancing, pictures, story-telling and proverb telling), and participatory approaches (focus group discussion, home visiting, peer education, child-to-child education). Of these, mass media is more directive and message based, whereas participatory approaches are based on interaction and two-way communication. Use of the mass media may be an appropriate way to reach more people, more quickly in the early stages of the flood response. However, a shift to interactive methods is recommended as soon as possible, as a more effective way to facilitate action and changes in practice. Table 2 shows the advantages and disadvantages of mass media and participatory approaches.

Trained networks of volunteers, such as community members, students or youth groups can employ interpersonal communication approaches to reach large numbers of the population. Specially trained hygiene promoters can help to train, support and facilitate these and other participatory activities.

Motivating action and change is a complex process. The following good practices, relating to approach and management of resources, should be considered to maximise the chances of a successful outcome.

<table>
<thead>
<tr>
<th>Mass Media</th>
<th>Participatory</th>
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<tr>
<td><strong>Advantages</strong></td>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>Can reach wide audiences with minimal expenditure per capita.</td>
<td>Most appropriate way to address long term behaviour change.</td>
</tr>
<tr>
<td>Can be very timely – quick way to disseminate messages.</td>
<td>Requires minimal equipment/materials.</td>
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<tr>
<td>Does not need a high number of personnel.</td>
<td>Can ensure a high level of community ownership.</td>
</tr>
<tr>
<td>Not very effective for long-term behaviour change.</td>
<td>Allows monitoring of behaviour change.</td>
</tr>
<tr>
<td>Monitoring behaviour change is difficult.</td>
<td>Requires time (regular visits) by project staff.</td>
</tr>
<tr>
<td>Requires technical knowledge and materials.</td>
<td>May not show quick results – behavioural change takes time.</td>
</tr>
</tbody>
</table>

| **Table 2: Advantages and disadvantages of mass media and participatory approaches** |

1. A combination of approaches is recommended for maximum impact (see Case Study 5.)
2. Coordination (e.g. with Government, media, NGOs and other organisations) is especially important in urban contexts, in order to ensure that long-term hygiene promotion activities are not undermined.
3. Integration with other WASH activities, including NFI distributions and water and sanitation hardware responses. There is no point promoting the use of soap,
sanitary latrines or safe drinking water if people do not have access to these facilities. Therefore integration with other WASH activities, as well as other cluster/sectors (e.g. health, nutrition, shelter), is essential.

4. Specific targeting of different groups. For example, messages via the radio may reach men but not women. It is also necessary to distinguish between people residing in camps and those who stay in their homes or relocate to other homes. Case Study 6 shows an example of a targeted approach in Myanmar.

**Case Study 6: A targeted approach, Cyclone Nargis response, Myanmar, 2008**

In camps, temporary settlements, urban and peri-urban communities, hygiene promotion activities included distribution of hygiene kits and additional soaps; posting key hygiene messages in public places; training and mobilising Hygiene Promoters; running cleaning campaigns; preparing a community action plan (CAP); implementing the hygiene programme based on the CAP; and monitoring hygiene behaviours.

For isolated, mobile and host communities, hygiene promotion activities included distribution of hygiene kits and additional soaps; training and mobilisation of Hygiene Promoters; and monitoring hygiene behaviours. *ACF (2008)*

5. Use of innovative approaches to hygiene promotion and community mobilisation.

See Case Study 7

**Case Study 7: Community mobilisation and Child-to-parent education**

During the Koshi floods response in Nepal, 2008, widespread open defecation in crowded areas in camps and along embankments was posing a major health risk. MSF Hygiene Promoters addressed this problem by initiating activities to make the IDPs aware of the risks associated with open defecation. The campaign included banners and placards with anti-open defecation statements. Children's clubs also monitored the situation, and were provided with whistles and small yellow flags to mark defecation in fields (later buried by volunteers). At the same time volunteers worked with IDPs to develop toilet cleaning rosters, which were posted at the information centre and implementation was monitored closely. Volunteers were trained on implementing open defecation free zones and orientation was provided to camp management committees. Incentives to volunteers to promote the project included snacks, and cleaning materials. At the end of the intervention, an "open defecation free" celebration was organized in the camp including Government staff (WSSDO) and local NGOs. *Global WASH Cluster (2009)*

6. Carefully selecting, training and supporting staff is a critical success factor in any programme. The initial inputs required for recruitment and training are significant but these will decrease with time.

7. Based on the Sphere recommendations, it is suggested that community volunteers work in pairs e.g. one man and one woman (minimum) per 1,000 people. In general, salaries should not be offered unless commonly agreed within the coordination group (see Figure 5).

**Figure 5: Recruitment of community volunteers**

8. Encourage greater community involvement in making decisions about the intervention. Communities may be more willing to contribute labour or local materials, or become more active in committees for the management and maintenance of WASH facilities during the latter stages of the emergency response.

9. Enabling factors such as toilets or soap will only be available from agencies during the emergency response. WASH programmes that also factor in local conditions increase the likelihood of sustained hygiene practices.

For more information on all aspects of hygiene promotion, including generic job profiles and a training module for community volunteers, refer to the Global WASH Cluster Hygiene Promotion Project.
Further information

www.actionaid.org/docs/urban%20flooding%20africa%20report.pdf


Medair (n.d.)
www.medair.org/en/infochanel/news/detail/article/being_accountable_to_the_people_of_madagasca_r/?no_cache=1&tx_ttnews%5BbackPid%5D=0&cHash=765cf71895


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Hygiene Promotion

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