

Disasters framework



This document sets out WaterAid's approach to disasters. It is primarily intended to guide WaterAid country programmes, but also serves to communicate our approach and contribute to wider thinking on disasters.

Based on current approaches to disaster response and disaster risk reduction and drawing on our experience in South Asia, the Pacific region and Africa, the framework sets out WaterAid's potential contribution to disaster mitigation, preparedness, response and recovery, as a development actor and within our mission. It is not a detailed guide, but instead sets out concepts and approaches that our country programmes can modify to fit their national contexts as well as a set of minimum commitments that all country programmes are expected to fulfil. More detailed guidance will follow this framework.

Formalising and framing our disasters work provides clear guidance across WaterAid, enabling country programmes to plan and incorporate disaster risk mitigation into their existing work as well as respond more effectively where it is necessary. It also sets out our specific approach and added value in a crowded space.

The framework was drafted by Joanne Beale and Daniel Yeo, drawing upon scoping and strategic analysis by Richard Luff. It was developed with staff from across WaterAid globally, including through regional workshops in South Asia (May 2012) and West Africa (November 2012). It was also externally reviewed by Toby Gould, Marion O'Reilly and Richard Luff.

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It can be found in the publications section of WaterAid's website:
www.wateraid.org/frameworks

Cover photo: Munem Wasif/Agence Vu for WaterAid
Mamunur Rashid keeping the water moving in a pond sand filter, Satkhira, Bangladesh. A year after Cyclone Aila struck, many were still struggling with an acute scarcity of safe drinking water. WaterAid worked to rehabilitate safe water sources, construct disaster resilient ponds, install rainwater harvesting systems, build low-cost latrines and renovate water and sanitation facilities.

Contents

Part 1	Introduction	3
	Why is disaster risk important for WaterAid?	4
	The main messages of this framework	5
	The role of WaterAid's frameworks	5
	The language of disasters	6
Part 2	WaterAid's approach	13
	WaterAid's experience	14
	Alignment with WaterAid principles and frameworks	18
Part 3	Minimum commitments	20
	Get organised	21
	Understand the context	22
	Reduce the risk	26
	Be prepared	28
	Work with the humanitarian sector	29
	If absolutely necessary, respond	31
	Glossary	32
	References and endnotes	35

Introduction

Disasters affect everyone, but have the biggest impact on poor and vulnerable people

Recent events such as the 2011 Tohoku Earthquake in Japan and Hurricane Sandy in New York are stark reminders that no country – rich or poor – is immune from the impacts of disasters. But disasters disproportionately affect poor and vulnerable people and can set back the achievement of development targets, such as the Millennium Development Goals (MDGs). Since 1980, low income countries have accounted for only 9% of disaster events but 48% of the fatalities¹.

Risk of disaster is increasing

Between 1980 and 2011, disasters have caused more than 3.3 million deaths and US\$3.5 trillion in economic damages and losses across the world. Extreme weather events account for over 78% of the events recorded in this period and are responsible for two-thirds of the financial losses (US\$2.6 trillion)².

It is important to note that disaster risk is **not** driven by these weather events, but by human factors. The most important drivers of disaster risk³ are:

- The substantial growth of population and assets in at-risk areas, particularly through unplanned urban development.
- Vulnerable livelihoods: livelihoods that are heavily dependent on weather or are based in marginal lands are more highly exposed to hazards.
- A decline in locally-specific ecosystems and the destruction of natural buffers. For example, deforestation for agricultural purposes and the destruction of mangroves.

Global climate change and changing weather patterns exacerbate these risks but are **not** the primary driver of disaster risk.

Water, sanitation and hygiene (WASH) are among the biggest immediate priorities after a disaster⁴

Water and sanitation are critical determinants for survival in the initial stages of all disasters. Diarrhoeal diseases (including cholera) are one of the most common causes of death in emergencies⁵ and these are closely related to inadequate sanitation, inadequate clean water supplies and poor hygiene. Typically, in the immediate aftermath of a disaster, above-ground water supplies are contaminated or destroyed and sanitation facilities are absent, which can result in outbreaks of water-borne diseases. Between 2000 and 2006, water-related disasters alone killed more than 290,000 people globally⁶. Some of these deaths would be prevented by implementing mitigating water and sanitation supplies.

Why is disaster risk important for WaterAid?

The countries in which WaterAid works are often disproportionately affected by disasters, as demonstrated by recent events such as the floods in Pakistan in 2010 and the cholera outbreak in West Africa in 2012. Many countries we operate in are particularly vulnerable as they lack the required infrastructure, disaster preparedness systems, or resources to prepare for or manage these situations.

These countries are also located in areas where there are other factors such as greater climate variability, rapidly growing populations, changes to land-use as well as settlements on hazard-prone marginal land such as flood plains. Often the communities we work with have limited resources and capacity to fully recover from disasters, so continue to suffer long after the initial event.

These issues combine to create significant disaster risks, which have implications for our work. These implications are summarised in Box 1.

Box 1: Implications of disasters on WaterAid's work

- 1 Sustainability of our work:** Aside from the immediate impacts on people's lives, disasters are a major risk to the sustainability of our work (see the *Sustainability framework* for more detail on our approach to sustainability), setting back progress in eliminating poverty. Disaster mitigation is an investment in the permanence of our service provision and the resilience of communities.
- 2 Opportunity for change:** Disasters are one of the only times that major capital and political attention is turned to the poor⁷. In the long term, this can be used to increase the political priority given to key WASH issues and actually contribute to our advocacy objectives. For example, a cholera outbreak in Nepal put huge pressures on the Nepali government and was a key tipping point for sanitation and hygiene reforms being made.
- 3 Response within our sphere of influence:** We are not a relief organisation, but we have a duty of care and a moral obligation to the communities in which we work, our partners and our staff. This is particularly important when we know that they are highly likely to be affected by a disaster in the future.

A note on conflict

It should be noted that this framework focuses on disasters resulting from natural hazards and their consequences. WaterAid's work is also affected by conflict situations, which may intersect with disasters resulting from natural hazards (eg conflict can be a factor in vulnerability). However, the scope of issues relating to conflict is much broader (eg conflict sensitivity, transformation and peace building) and these issues have not been covered fully here.

The main messages of this framework

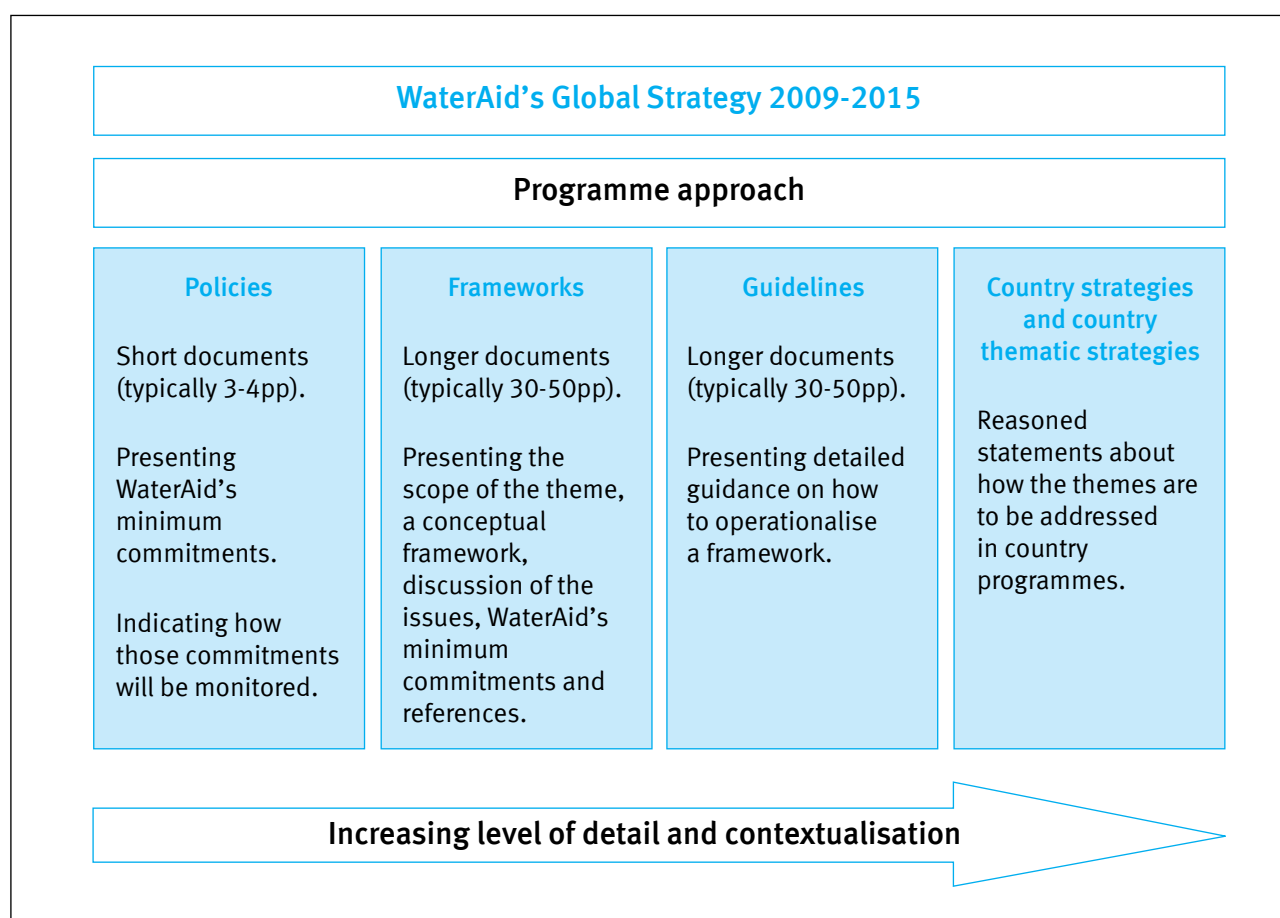
Disasters result from the combination of **vulnerability** and **hazard**. **WaterAid's focus is on mitigation of disaster risk by reducing vulnerability** through our core work. We also work with humanitarian actors to support the transition from emergency response to longer-term development. We will only support response efforts where appropriate and always in coordination with other actors. Disaster risk management is not an isolated activity and should be an element of all our work, and indeed already is in many cases.

The role of WaterAid's frameworks

WaterAid uses framework documents to set out the driving principles and minimum commitments that we will follow globally regarding a number of key issues. All our frameworks derive directly from our Global Strategy⁸ and support its delivery and our programmatic approach.

The commitments detailed in these frameworks constitute our more detailed policy statements. Detailed guidance and context-specific strategies regarding the implementation of work lie 'downstream' of the frameworks.

Figure 1: Frameworks and other WaterAid documents



This framework should be used in conjunction with the following WaterAid publications:

- *Global Strategy*
- *Sustainability framework*
- *Urban framework*
- *Sanitation framework*
- *Hygiene framework*
- *Equity and inclusion framework*
- *Water security framework*
- Counting users and post-implementation monitoring guidance

This framework replaces WaterAid's *Disaster guidelines*.

The language of disasters

Throughout the development of this framework, it became clear that there are different perspectives on disasters and confusion about terminology. The following section sets out the key elements of disasters, the language WaterAid uses to describe them, and the organisations and structures involved.

What is a disaster?

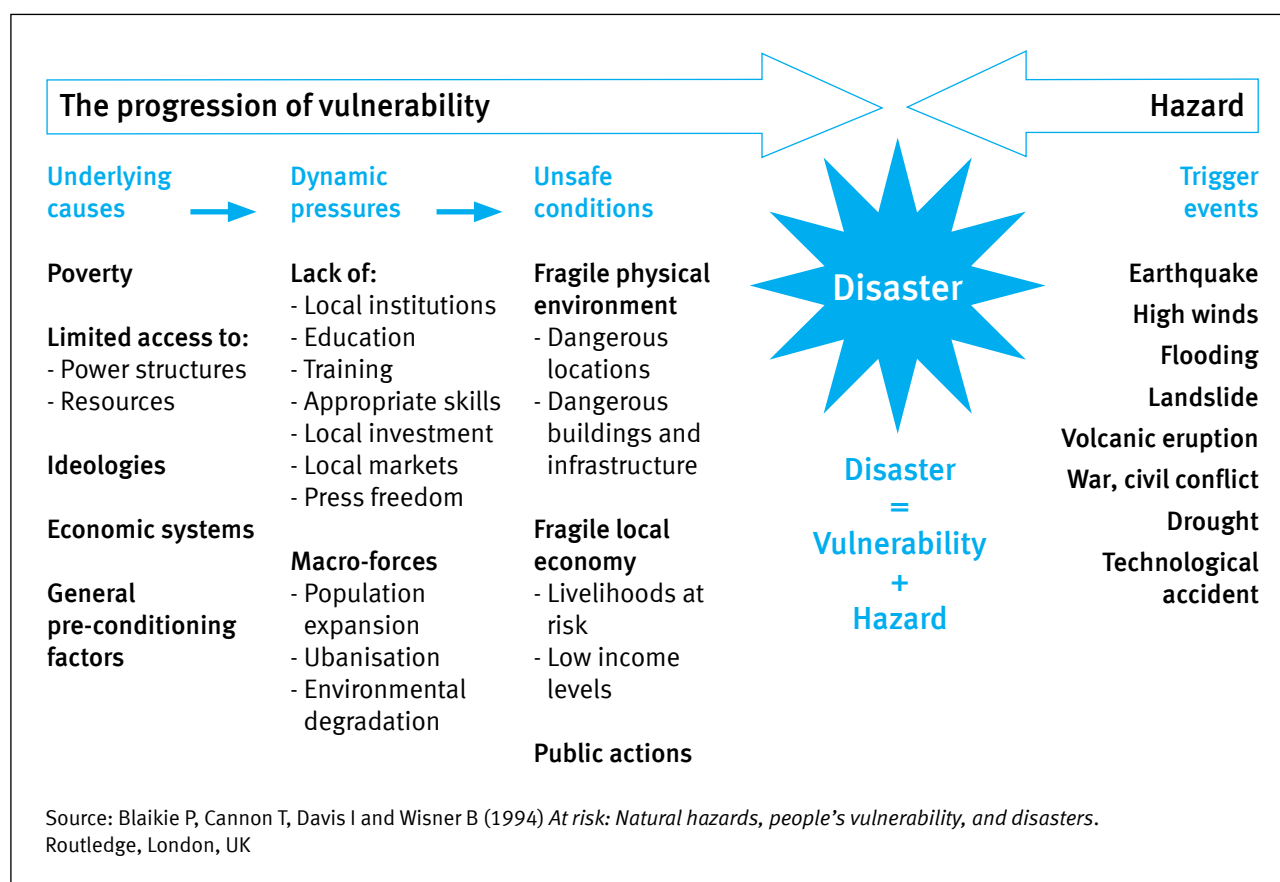
When disasters happen, popular and media interpretations tend to focus on the natural hazards that trigger a disaster such as floods, earthquakes or volcano eruptions. However, it is important to recognise that **a natural hazard is only the trigger** and that a disaster is what happens when a hazard strikes a vulnerable community. The hazard on its own is not a disaster – the disaster comes when vulnerable people's lives are exposed to this hazard.

Disaster = Vulnerability + Hazard

A **hazard** is defined as a 'dangerous phenomenon, substance, human activity or condition that may cause the loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage' (eg a cyclone, earthquake, or toxic waste spill)⁹.

Vulnerability refers to the 'characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard'¹⁰. Vulnerability is a complex issue that results from a combination of factors (see Figure 2). There are often underlying root causes such as poverty, inequality or marginalisation. These can combine with pressures such as weak governance, a growing population or a low capacity to manage disasters. The most visible aspect of vulnerability is unsafe conditions, such as dangerous buildings or fragile livelihoods. Within vulnerable communities there are groups of people that are particularly vulnerable such as older people or people with disabilities (the *Equity and inclusion framework* gives more detail on our approach to wider vulnerability).

A **disaster** is defined as 'a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources'¹¹. Hence, the risk of a disaster will generally increase when a community's vulnerability to the impacts of a hazard is high.

Figure 2: Disaster = Vulnerability + Hazard

What do we mean by disaster management?

It is important to ensure we are all speaking the same language when it comes to disasters and that we are specific about which aspects of disasters we are referring to when considering our work. WaterAid uses four distinct terms when talking about our disaster work:

Mitigation: Measures undertaken to limit the adverse impact of natural hazards, environmental degradation and industrial hazards. Mitigation focuses on long-term measures to reduce/eliminate risk. The term 'resilience' is increasingly significant to donors and humanitarian agencies. Although the terms are often used interchangeably, mitigation can be seen to contribute towards resilience. Some examples of mitigation are:

- Reducing poverty
- Hazard-resistant construction, infrastructure and services
- Land-use planning
- Insurance
- Community-based disaster management and increasing community capacity to manage water resources

Disaster risk mitigation should not be confused with climate change mitigation. Climate change mitigation refers to efforts to reduce greenhouse gas emissions that cause climate change and is a separate issue (see the briefing note, *Climate change and WaterAid*¹²).

Preparedness: Activities and measures taken in advance to ensure effective response to the impact of hazards. It can be confused with mitigation, so it is easiest to think of preparedness as ‘preparing to respond’, for example:

- Stock-piling or preservation of disaster supplies/equipment
- Development of disaster preparedness plans
- Presence in emergency coordination forums
- Capacity building for response
- Raising awareness of and advocating WASH standards in emergencies

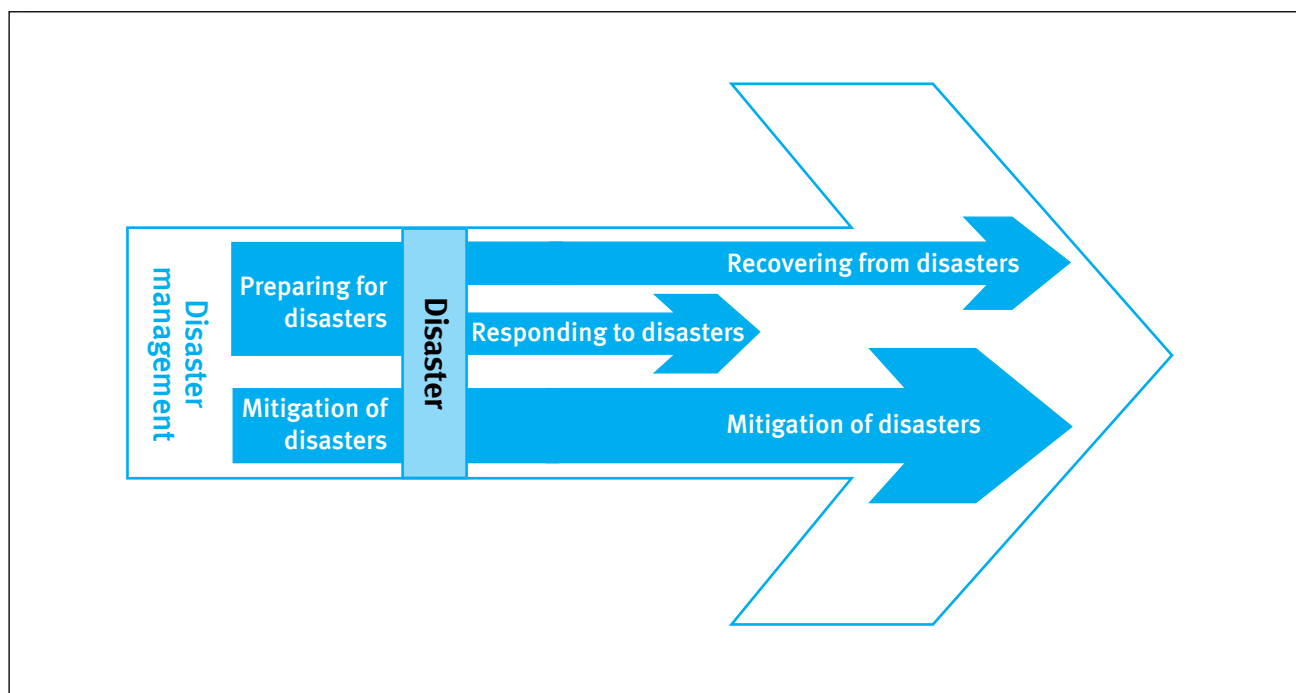
Response: The provision of services that are urgently needed following a disaster, for example:

- Water trucking (as a last resort, short-term measure)
- Construction of temporary latrines
- Point of use treatment (eg chlorination)
- Health and hygiene promotion
- Provision of emergency non-food items (NFIs) or cash/vouchers for such things
- Promoting accountability to beneficiaries by providing information, including communities, and ensuring feedback informs programme development

Recovery: Aims to restore the disaster area to its original state or better, eg rebuilding destroyed property, infrastructure repair, and re-employment, for example:

- Restoration of water, sanitation and hygiene services and infrastructure
- Restoration of community management systems
- Strengthening/capacity building of relevant and responsible institutions with regards to WASH-related disaster management

Figure 3: The stages of disaster management



Source: International Federation of Red Cross and Red Crescent Societies

International context

At the international level, there are two main streams of disaster-related policies and activities:

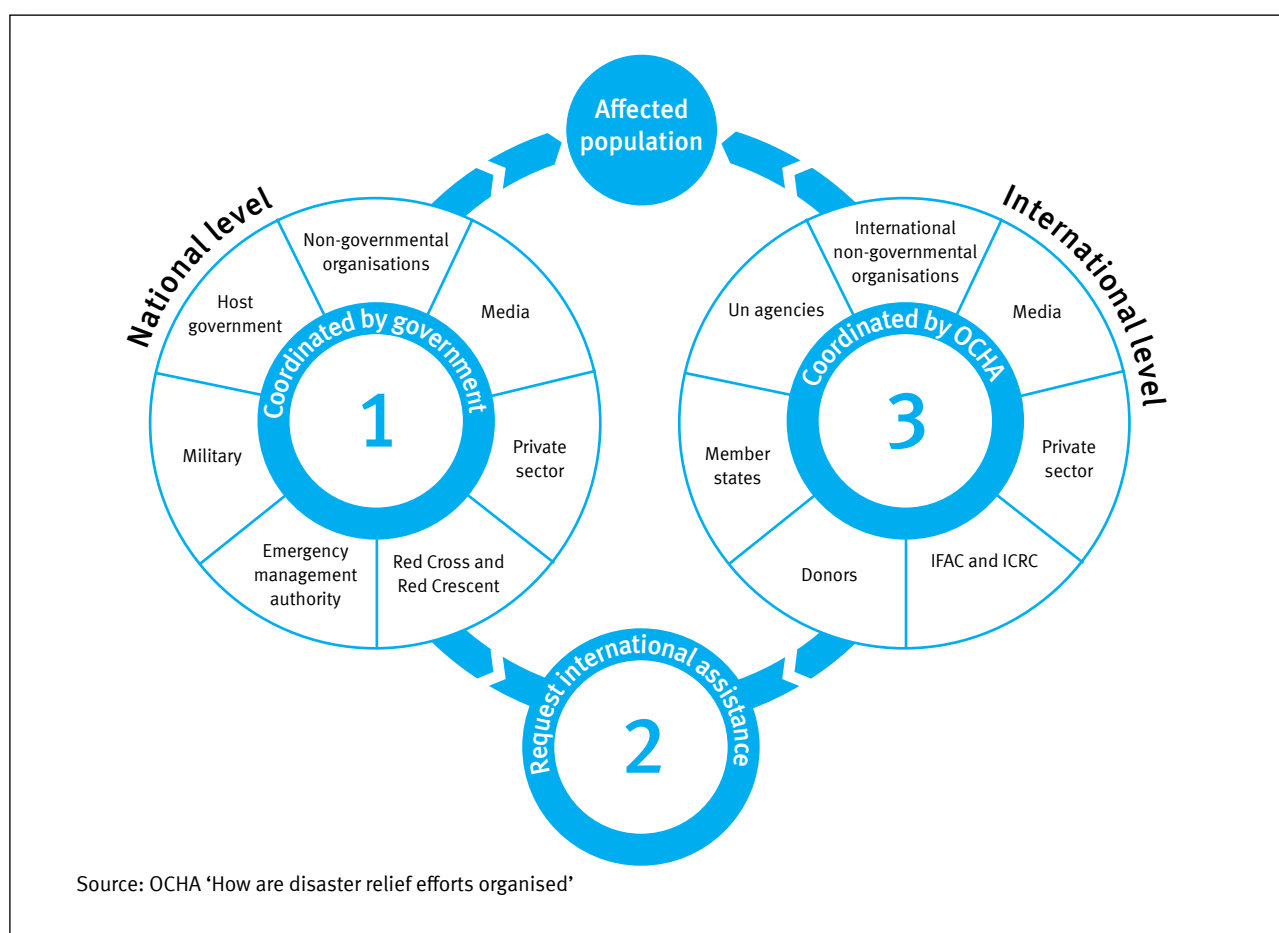
- **Coordination of humanitarian response:** to improve the international community's response to humanitarian crises.
- **Disaster risk reduction:** to reduce disaster risks by addressing long-term structural issues.

This section provides an overview of the key issues and concepts used in both humanitarian coordination and disaster risk reduction policy debates.

The evolution of humanitarian coordination

In a disaster situation, there are often many actors, plans and funding streams¹³. Given the volatility of disaster situations, and the inevitable confusion following a disaster, relief activities have not always been well coordinated, resulting in duplication, inefficiency or gaps. Most countries have a national emergency coordination mechanism and, in theory, international humanitarian systems (eg UN agencies, bilateral donors and other agencies) should only be involved when a government requests it (see Figure 4). However, in practice, national coordination mechanisms can be weak and often international agencies (including international non-governmental organisations (INGOs)) may begin responding before the national government can.

Figure 4: Humanitarian coordination



The international humanitarian system has evolved over time in an effort to improve response and reduce problems. It now includes several mechanisms and roles for coordination:

- **Emergency Relief Coordinator (ERC):** a high level UN role, the ERC is responsible for oversight of all emergencies that require UN humanitarian assistance. The ERC appoints humanitarian coordinators (HCs), typically the UN resident coordinator, in-country during an emergency.
- **Interagency Standing Committee (IASC):** the primary mechanism for inter-agency coordination of humanitarian assistance. It involves key UN and non-UN actors and is chaired by the ERC.
- **Office for the Co-ordination of Humanitarian Affairs (OCHA):** part of the UN secretariat that coordinates humanitarian affairs, policy development and advocacy. It does this through the IASC. The ERC is the head of OCHA.
- **Consolidated Appeals Process (CAP):** a process to bring aid organisations together to coordinate planning, implementation and monitoring of their responses. It allows them to appeal for funds coherently rather than in competition. The process involves assessing the needs and developing a common humanitarian action plan (CHAP) and list of projects needed to achieve the CHAP. A central aspect to the CAP are the ‘clusters’ (see below).
- **Central Emergency Revolving Fund (CERF):** a UN fund that is intended to ‘kick start’ emergency operations and underfunded emergencies. The CERF has a \$450m grant facility and a \$30m loan facility. The CERF is intended to complement the CAP.

The cluster approach

A central part of the international system is the cluster approach. Clusters are groups of humanitarian organisations working in the main sectors of humanitarian action (eg WASH¹⁴) at both country and global levels. Country level clusters are created (or mobilised) when there are clear large-scale humanitarian needs, when there are numerous actors and when national authorities need support.

Clusters provide a clear point of contact for a sector, creating partnerships between diverse humanitarian actors; they should be the first port of call when engaging in disaster response. Each cluster is coordinated by a lead agency (for the WASH cluster, this is typically UNICEF, but it depends on the country context) which is accountable to the UN Humanitarian Coordinator. There are 11 clusters and coordinating agencies:

- Nutrition (UNICEF)
- Health (WHO)
- Water/sanitation (UNICEF)
- Emergency shelter (UNHCR/IFRC)
- Camp coordination/management (UNHCR/IOM)
- Protection (UNHCR/OHCHR/UNICEF)
- Early recovery (UNDP)
- Logistics (WFP)
- Emergency telecommunications (OCHA/UNICEF/WFP)
- Food security (FAO/WFP)
- Education (Save the Children/UNICEF).

At country level, each cluster is responsible for and expected to be active in:

- Coordinating sectoral needs assessment
- Cooperating with the government
- Developing a sector response plan
- Gathering project proposals and prioritising them
- Leading the monitoring and evaluation process, including agreeing standards

Disaster risk reduction

Alongside the humanitarian emergency response mechanisms, there is also international policy on disaster risk reduction (sometimes referred to as disaster risk management), which focuses on longer-term, structural issues to reduce disaster risk of all kinds. This is what we are calling ‘mitigation’.

The principle international agreement on disaster risk is the Hyogo Framework for Action (HFA)¹⁵, which was agreed at the World Conference on Disasters in 2005 after the Kobe earthquake. Negotiations are ongoing for what will replace the HFA when it expires in 2015. The HFA is an agreed international framework for reducing disaster risk that sets five priorities:

- Ensuring that disaster risk reduction is a priority with a strong institutional basis
- Identifying, assessing and monitoring disaster risks and enhancing early warning
- Using knowledge, innovation and education to build a culture of safety and resilience
- Reducing the underlying risk factors
- Strengthening disaster preparedness

It is useful to understand the HFA and how it is being implemented in a country context, as this can provide the framing and structure for national level advocacy on disaster risk reduction as well as influence national policies on disasters. Each country reports against the HFA priorities and these reports can be a good source of information about national policies on disasters and key contacts.

The UN International Strategy for Disaster Relief (UNISDR) is part of the UN secretariat that acts as the focal point for disaster risk reduction and HFA implementation. UNISDR is also responsible for producing the valuable Global Assessment Report (GAR), a comprehensive review and analysis of disaster risk that comes out every two years.

Disasters and climate change

Through the development of this framework, there seemed to be some confusion on the role of climate change in disasters, which is valuable to clarify. In the context of disasters, **the key message is that climate change is not the sole determinant of disaster risk** – it should be seen in the context of wider vulnerability and other drivers of disaster risk.

By its very nature, our climate is highly variable. The people and communities WaterAid works with are exposed and vulnerable to existing variability in rainfall and extreme weather. Human-induced climate change will make these existing challenges harder by changing established patterns and the likelihood of extreme events.

It is not possible to directly attribute a particular weather event to climate change, so we cannot yet link climate change with absolute certainty to specific disasters in the countries where we work (emerging science may update this – the *Intergovernmental Panel on Climate Change (IPCC) 5th Assessment report* will include a focus on attribution).

However, it is clear that our work is affected by climatic variability, regardless of whether caused by human-induced climate change or within the bounds of existing variability – the floods in West Africa in 2012 (which led to cholera outbreaks) and the drought in the Horn of Africa in 2011 are just a few examples. These sorts of events have a disproportionately large impact on poorer communities, and they also struggle most to recover, which can set back development by decades. Therefore, it is more important that we build resilience to these events, regardless of whether the cause is attributable to anthropogenic climate change or existing climatic variability.

For further information on climate change and WaterAid's response, please see WaterAid's *Climate change position paper*¹⁶ and the *Water security framework*¹⁷.



Part 2

WaterAid's approach

The following section sets out WaterAid's approach, given the wider context of disasters outlined in part 1, and the specific context of WASH.

WaterAid is a development organisation. Our mission is to transform lives by improving access to safe water, hygiene and sanitation in the world's poorest communities. By this, we mean long-term transformation, using a rights-based approach where the communities themselves claim their rights and have a meaningful say in their own development. Our approach is to use solutions that are sustainable, appropriate and inclusive.

This is different to the way that disaster response can be carried out, which, because of urgency, can end up being driven by agencies and donors, be focused on the short-term and involve relatively little community engagement. The reality is much less distinct than this, with more community-led approaches increasingly being used for disaster response. However, there is still an ongoing tension between humanitarian relief and development.

Partly as a result of this tension, there has traditionally been a divide between humanitarian and development actors, which has led to challenges such as poorly designed development interventions contributing to (or failing to reduce) disaster risks and, conversely, poorly designed response interventions undermining long-term development goals. As a result, increasing attention is being paid to improving the links between humanitarian activity and development programming. Following consultation and discussion, **WaterAid has decided that it is not and should not seek to be a relief organisation** (although we may engage in limited responses to disasters), but should instead help to bridge the gap between humanitarian and development activity. Box 2 shows the three key approaches that we will take to do this.

Box 2: WaterAid’s approach to disasters

- 1 Focus on **underlying vulnerabilities** and **reducing disaster risk** in our core activities.
- 2 Support the **transition from acute response to long-term development** by working with humanitarian agencies to continue support to communities once humanitarian funding and programming finishes.
- 3 Work alongside humanitarian actors to **contribute our expertise and longer-term perspective** to disaster response, consistent with the immediate humanitarian need and to facilitate development after the acute phase of an emergency, particularly where WaterAid already has a good contextual knowledge, including history, relationships with key stakeholders, community WASH practices and context-appropriate communication materials.

WaterAid’s experience

Many of our country programmes have already taken action in these areas, so elements of this approach are not new. Here we give a case study for each of the key approaches mentioned in Box 2.

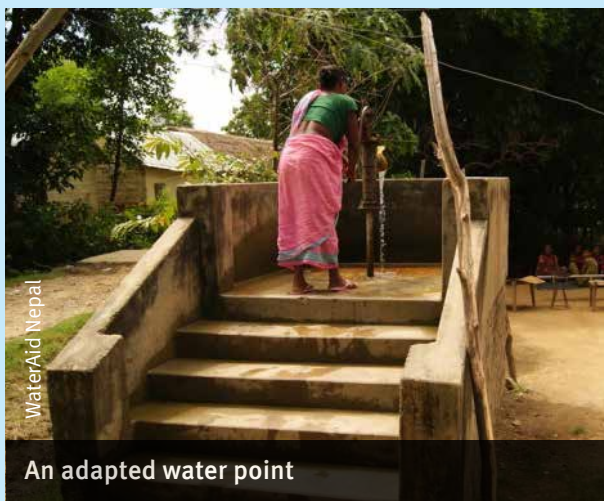
1 Focus on underlying vulnerabilities and reducing disaster risk (mitigation)



An adapted latrine

Nepal is often affected by disasters like floods, landslides and epidemic outbreaks. Human activities, along with other natural causes, trigger land erosion, landslides and debris flow, while the Terai (marshy grasslands, savannas and forests) and valleys are affected by floods. Each year, Nepal bears huge loss of life, infrastructure and economy due to disasters.

Floods affect access to WASH facilities, water sources become contaminated with silt, sewerage, and debris brought along by the floods, and latrines fill with water, the contents then contaminating the environment around them. If the situation goes uncontrolled then this can lead to lethal outbreaks of cholera.



An adapted water point

Lumanti Support Group for Shelter, in coordination with WaterAid Nepal, has begun a mitigation project in Inaruwa municipality, raising latrines and water points. The latrines are designed to be raised to 24 inches above ground level (above the usual flood level), and one of the rings is water sealed above ground level. In addition to this, communities are made aware about preparedness for flooding through training, workshops and street drama.

This example illustrates the role that infrastructure and technical design can play in reducing disaster risk alongside behavioural change and awareness.

2 Support the transition from acute response to long-term development



Installing sewer lines to connect sewage treatment units with household latrines in Muzafagarh, Pakistan



Sewage treatment unit under construction, Pakistan

In the immediate aftermath of the floods in Pakistan in 2010, WaterAid Pakistan piloted a rural sanitation solution in one of the most sanitation-poor districts of Pakistan. Humanitarian agencies were focusing on distribution of relief goods, while WaterAid adopted a different approach with long-term sustainability in mind. We focused on poor and neglected pockets of flood-affected communities in one of the most sanitation-poor districts of Pakistan, Rajan Pur.

We used a community participation approach that not only created ownership in the local communities but also made way for acceptability of the technology as an option following the post-emergency phase. Using a participatory community approach, they worked with local communities to develop and install ten sewerage treatment

units (STUs). During development of this technology, WaterAid underwent a continuous testing, review, and feedback process to ensure its acceptance, effectiveness and safety. A technical review of the STU conducted by the Programme Support Unit suggested further improvement in the design and operation of STU which is an ongoing process.

Since then, STU has been presented as one of the small scale options for safe sewerage disposal in rural areas in Pakistan, and UNICEF, Plan and the National Agricultural Research Council have agreed to further modify and use this as one of the options in future sanitation projects.

WaterAid has relatively limited experience of ‘transition’, but this example shows that a long-term development approach can complement acute response and serve to ensure longer-term impact beyond the immediate. It is also an example of ‘build back better’, where the technology used is more effective than what existed immediately prior to the disaster.

3 Contribute our expertise and longer-term perspective to disaster response

On 21 March 2012 a coup d’état began in Mali, escalating rapidly. The perpetuation of the political unrest has led to the withdrawal of international donors which is reported to have resulted in a 94% decrease in the national budget for WASH in 2012, which is heavily reliant on international aid¹⁸. Through the WASH cluster, WaterAid Mali has worked with UNICEF, Catholic Relief Service (CRS) and Oxfam to conduct a rapid assessment of the WASH needs in Bamako district and Mopti region.



WaterAid Mali has developed new partnerships with organisations such as the Malian Red Cross, UNICEF and International Committee of the Red Cross (ICRC) through the WASH cluster. While these partnerships will mostly likely not continue once constitutional order returns, they have helped to strengthen the ability of WaterAid Mali to respond most efficiently within their scope.

WaterAid Mali has used its strengths to address new needs. Specifically, it has had an influential role in coordinating advocacy efforts focused on increasing funding from donors and the general public for emergency WASH services. As a result of the country’s changing WASH needs, WaterAid Mali has shifted its advocacy efforts. With such a large gap in the WASH budget, due to the departure of international donors, WaterAid has been working with parliamentarians to advocate that funds be released to resource the emergency humanitarian WASH needs. At present, NGOs are working with civil society to write a position paper for funding to be disbursed by international donors.

Alignment with WaterAid principles and frameworks

As discussed in the introduction, WaterAid has a number of guiding frameworks on the core, cross-cutting elements of our work. This section demonstrates how the *Disasters framework* overlaps with each of the other frameworks.

Water security framework

Disasters are one of many threats to water security, so cannot be addressed in isolation. The water security framework sets out how WaterAid’s work can be made more resilient to a range of water security risks. In particular it describes an approach to community-based water resources management as a means of assessing risk, monitoring risk and taking action.

In the countries where WaterAid works, water insecurity is largely a problem of social and physical barriers preventing equitable access to water. Water resources largely go unmanaged and water supply services struggle to keep up with growing demand. Inadequate capacity for management has an impact on the longevity of water supply services. Consequently, the quantity and quality of water supplies accessible to people is insufficient to meet basic human needs. The *Water security framework* reinforces one of the main messages of this framework: that **more action needs to be taken to reduce the vulnerability of communities in the first place**. It gives ways to integrate WASH improvements into long-term planning to mitigate the effects of drought and other water security risks.

Equity and inclusion framework

Disasters affect vulnerable and marginalised groups more than others. The ability of excluded groups to access services is often compromised where they do not have a voice to influence key decisions or access relief. Furthermore, older people, women who are breastfeeding, unaccompanied children, and less-able-bodied people also face challenges accessing relief and services and invariably face greater physical challenges after disasters due to structural damage, disruption and displacement.

Extreme disaster can also be devastating for community structures and these may cease to function temporarily where communities are displaced. Where communities remain in their home area, WaterAid’s normal equity and inclusion work should address issues of exclusion and inequitable delivery of support. However, where people are displaced for a period of time, much closer attention will need to be paid to this.

For information on some ways to consider equity and inclusion, particularly in disaster response, please see the following documents:

- *Environmental health in emergencies and disasters: A practical guide*¹⁹
- WaterAid Australia’s Inclusive WASH resources, particularly *Disability inclusive flood action plan* and *WASH in a Bangladeshi community*²⁰.

Urban framework

The world’s population is urbanising, leading to an increase in disaster risk as poor people are increasingly living in areas that are highly vulnerable to natural hazards, particularly on the edge of cities in unplanned or informal settlements. These areas are typically more prone to flooding and landslips and are often home to people WaterAid works with. Disasters that cause destruction of homes and displace people

are a particular challenge in urban environments as space to house IDPs is often in very short supply and access is more complex. While health services, logistics and relief supplies are closer to hand, the sheer population density in urban areas poses particular risks for rapid spread of disease.

Mitigation should be at the forefront of urban planning and design as the high population density and unreliable infrastructure make urban areas vulnerable to the impacts of disasters.

Sustainability framework

Sustainability is about whether or not WASH services and good hygiene practices continue to work and deliver benefits permanently. Disasters disrupt WASH services, and therefore undermine sustainability, so mitigation is a contributing factor to the ongoing sustainability of services. Similarly, the ability of a community and WASH system to ‘bounce back’ and restore services quickly is also a component of sustainable WASH.

Our approach to sustainability is long-term and community-driven. However, the urgency of disaster responses can mean that there is no time for full community engagement. Shorter-term and more immediate approaches are used, which is inherently contradictory with sustainability, so WaterAid should, as far as possible, seek to ensure that more sustainable approaches are used and that sustainability is addressed as early as possible after a disaster.

Sanitation and hygiene frameworks

The minimum commitments of the *Sanitation framework* are to service delivery, advocacy, capacity development, and research and learning. All of these are affected by disasters and will help towards mitigation of vulnerability to disasters.

Safe hygiene practices are not automatically adopted following the provision of water and sanitation services. Much of the success of their adoption hinges on their compatibility with existing beliefs and practices, as well as psychological factors, environmental conditions and the availability of cleaning materials and ‘hygiene aids’²¹. The *Hygiene framework* should help to integrate good hygiene practice in communities as a mitigation and preparedness tool. Displacement and disasters often result in poor hygiene conditions and a disruption of normal behavioural patterns, so hygiene education and practices become vital parts of any response.

While hygiene promotion often forms a part of disaster response efforts, the emphasis is often on immediate action as opposed to the longer-term behavioural and cultural changes that WaterAid emphasises in our work.

Part 3

Minimum commitments

The following are the minimum commitments that all country programmes are expected to fulfil. This section outlines the key issues under each commitment.

Get organised

- 1 Each WaterAid country programme should nominate a disasters focal person.

Understand the context

- 2 Get to know the key actors in your country.
- 3 Identify key vulnerabilities and vulnerable communities/areas.
- 4 Identify and address capacity gaps.

Reduce the risk

- 5 Consider relevant adaptations to technologies for disaster risk mitigation.
- 6 Work with communities to integrate mitigation planning.
- 7 Advocate systemic change.

Be prepared

- 8 Create action plans in all countries and take low-commitment preparedness measures in vulnerable countries.

Work with the sector

- 9 Commence research and discussions at global, regional and country levels to improve transitions out of disaster situations and look at how we can better work with disaster-focused organisations.

If absolutely necessary, respond

- 10 Carry out response work only in areas where we have links directly or through partners, and only when it's absolutely necessary that WaterAid must be the ones to do it.

Get organised

1 Each WaterAid country programme should nominate a disasters focal person

Each country programme should have someone who is responsible for coordinating any work related to disasters. They will have responsibility for:

- Ensuring this framework is understood and implemented
- Coordinating any necessary training and capacity building
- Acting as a point of contact for information and contributing to the ongoing development of WaterAid's disaster policies and practices
- Attending disaster risk reduction or humanitarian coordination meetings as appropriate on behalf of the country programme (this needs to be balanced against other priorities)
- Working with advocacy staff to develop advocacy on disaster management

Understand the context

There will already be many actors in your country and work will have already been undertaken. Therefore, the most important step is to understand this work to date so that we add value and do not duplicate or complicate an existing arrangement.

2 Get to know the key actors in your country

Using the information in Part 1 on humanitarian coordination and disaster risk reduction, and the specific information below as starting points, find out who the key actors are in your country. This is to understand the context that we are working in and share our position, so that it is clearly understood and people know what to expect of us.

National emergency mechanisms and institutions

Most countries will have a national policy on emergencies; find out what it is and how effective it has been. There is also typically an emergency management function in one of the ministries. Find out if this is the case and, if so, who the contact person is.

Under the Hyogo Framework for Action (HFA), all countries are supposed to nominate a ‘national platform’ for coordinating disaster risk reduction activity (this is often separate from the response forum). These platforms exist in some, but not all, WaterAid countries. To find the contact details for the platform in your country go to the Prevention Web website²².

International coordination mechanisms

Find out who the UN Humanitarian Coordinator is (if present). If there isn’t one, then find out who the UN Resident Coordinator is (usually a UNDP official) from the UN Development Group²³.

Many countries also have a national WASH cluster or equivalent (typically coordinated by UNICEF). There are information pages for most of these which can be found on the WASH cluster website²⁴. This is a good place to find out who the key players are in a given country.

Once you’ve established a relationship with key stakeholders, all further disasters work should be coordinated within these existing environments. This ensures that WaterAid’s disaster work is as efficient and appropriate as possible. In using the systems that are already in place WaterAid is also in the position to advise on the longer-term recovery aspects of disasters using the knowledge and experience we have from our day to day work, as well as participating in discussions around mitigation.

In some countries, the existing systems may be very weak or non-existent. As far as possible, we should work with others to support coordination and build capacity of existing systems. Although it is tempting to work alone, WaterAid has far more impact working with others – collaboration is equally valued here as it is in the rest of our work.

Finally, we must be clear about our approach with those with whom we engage, focusing on mitigation and transition into development – preferably outside an actual emergency situation. When we are involved in a cluster, in the heart of an emergency

situation, it is easy to be drawn into getting involved in every aspect of response. Our aim should be to provide specific technical expertise and a long-term perspective.

Other reference material and useful starting points:

- Hyogo Framework for Action progress reports – these set out how much progress each country has made in reducing disaster risk.
- OCHA hazard maps²⁵ – these show the hazards that might exist.
- Global Network for Disaster Reduction²⁶ – this is a network of civil society organisations working on grassroots disaster reduction.
- World Bank Global Facility for Disaster Risk Reduction (GFDRR) country profiles – these are often useful analyses of the key risks in each country. GFDRR does not operate in all countries.

3 Identify key vulnerabilities and vulnerable communities/areas

Having engaged with other actors and the existing analyses, you will then be in a position to identify the most vulnerable areas relevant to WaterAid. The key objective here is to **identify high risk/impact areas within those that WaterAid and our partners already work in or may start working in**. This does not have to be new research – there are many existing resources that can be collated and summarised. The key actors in your country will be able to identify and share relevant resources.

A good starting point is the national and sub-national level hazard mapping undertaken by governments and the UN. This should be accompanied by local organisation and community knowledge (such as the Participatory WASH Vulnerability Analysis tool developed by WaterAid Bangladesh). Within this process vulnerable people or groups within communities should also be identified.

High quality sub-national and programme level knowledge may be hard to find, but at the national level, the UNDP has established a Global Risk Identification Programme (GRIP) and publications are available that deal with risk assessment in greater detail²⁷.

The World Bank's Global Facility for DRR and the Hyogo Framework for Action progress reports will often contain a useful vulnerability analysis and prioritisation at national scale.

4 Identify and address capacity gaps

Having identified vulnerable areas relevant to WaterAid, you need to develop some plans for what activities you will conduct in line with this framework – this will require specific capacity. While WaterAid has some experience of operating in disasters, we still have some key capacity gaps. The exact nature of these will depend on national context and partner organisations.

Key areas to consider:

- **Overall disaster knowledge:** This document sets out the broad outline of disaster issues and how they relate to WaterAid. WaterAid staff members in country programmes need to be familiar with it and be able to discuss implications. The key issue is to recognise that disaster work is not just about response.
- **Mitigation and disaster risk reduction:** Understanding different options and approaches for mitigating disaster risk and building resilience.

- The South Pacific Applied Geoscience Commission (SOPAC)’s Comprehensive Hazard and Risk Management (CHARM) is a national level tool.
- The Asian Disaster Preparedness Centre (ADPC)’s *Community-based disaster risk management field practitioners’ handbook*²⁸ is more relevant to country programmes.
- *Guidelines on climate watches*²⁹ is a World Meteorological Organization (WMO) document, setting out guidelines for smaller meteorological services to provide early warning.
- Emergency Management Australia (EMA)’s *The good practice guide*³⁰ covers community awareness and education in emergency management.
- The Pan American Health Organisation (PAHO)’s *Natural disaster mitigation in drinking water and sewerage systems: Guidelines for vulnerability analysis*³¹.
- **Awareness of emergency-related minimum standards:** We should not be conducting response activities without a comprehensive understanding of humanitarian principles and at least a basic understanding of humanitarian standards, including:
 - **All In Diary**³²: A practical resource for field-based humanitarian workers with guidance in all aspects of humanitarian response.
 - **People in Aid**: A membership-based organisation for standards for people management practices, of which WaterAid is a member.
 - **Humanitarian Accountability Partnership (HAP)**: A membership-based organisation to ensure accountability by NGOs and donors to ‘affected people’.
 - **Sphere**: The Sphere Project sets out a set of principles and minimum standards for humanitarian responses and is internationally recognised. Although details are usually only necessary if we actually engage in a response, being familiar with the language and concepts will make it easier to engage with other stakeholders, even where there is no intention to respond directly.
 - **The Code of Conduct of the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief**: This lays down ten points of principle that all humanitarian actors should adhere to in their disaster response work. It describes the relationships that agencies working in disasters should seek with donor governments, host governments and the UN system. WaterAid are signed up to this code.
 - **Emergency WASH options**: Many WASH technologies and approaches are specific to an emergency context. The WASH clusters in-country will also be a key place to understand what national and regional training initiatives will occur.
- **The health, safety and security of staff and partners:** WaterAid has a number of existing guides and policies for health and safety but following a disaster and depending on the context there may be additional issues that should be addressed at a country programme level.

Working in partnership

We must also consider the capacity of our partners. The forthcoming *Partnership toolkit* will cover this in more depth, but we apply the following principles to our partnership work. This should not preclude countries from starting new partnerships, if they realise that their existing set of partners do not have the capacity and/or motivation to get into this type of work:

- **Complementary or shared visions – recognising the contribution and added value that each of us brings.**

Many of our partners will already have relationships with organisations key to discussions on disasters and may even be involved in some aspect of disaster relief themselves. WaterAid should draw on partners' experience and facilitate cross-learning and capacity building between partners where appropriate.

Any learning that WaterAid undertakes to improve its work around disasters, particularly on mitigation and transition, should be done with partners so that the capacities are built together and there is a mutual understanding of the vision for the work, as well as its boundaries. This principle also supports minimum commitment nine, which requires coordination with the wider sector.

- **Mutual respect and support – recognising that each partner has the right to determine its own organisational direction and priorities.**

Care should be taken to respect the mandate of our partners and to plan and evaluate in conjunction with them so that any new work or learning does not affect other programmes that they may be involved with. Where there is an impact on other work, this must be understood and supported by WaterAid. In a response situation, we may support partners in geographical areas where we have not previously provided support. In this situation, the partner's knowledge of the context should be respected, and partners may need to take more of a lead. Partners may also ask for WaterAid to fund work outside of our scope, as set out in this document. This should be discussed and our position made clear. Above all, ensure that there is frequent communication throughout the learning and implementation processes so that partners can discuss the situation and raise concerns with us.

- **Accountability – being accountable to each other as partners and to wider stakeholders including communities, governments and donors.**

Mutual accountability is key to successful partnerships. This includes accountability of partners to WaterAid, accountability of WaterAid to partners, and the accountability of both to communities. This is particularly pertinent in the event of a disaster when communities or governments may expect support from WaterAid or when partners may expect support for their response. WaterAid must be clear about the limits of support in order to ensure realistic expectations. We must be accountable to partners and stakeholders when we make a decision about responses, but also in doing what we can to mitigate risk through our project plans.

- **Equity – ensuring equitable decision-making processes as far as possible within the reality of unequal power relations, and striving to increase the capacity of less powerful partners.**

Our partners should be considered from the outset in our work on disasters. Decisions should be made in collaboration and all learning undertaken together. In many situations, our partners will have existing relationships that will be advantageous in delivering efficient and effective work. For equity, partners must feel able to voice concerns about their roles and responsibilities, and about WaterAid's performance.

Reduce the risk

WaterAid's primary focus will be on integrating mitigation into our planning and service delivery. Much of our core work already contributes to reducing vulnerability, but a more conscious focus is valuable. Conversely we must also be aware of the effects of our interventions in relation to disasters and ensure that our approaches do not contribute towards increased risk.

Priority should be given to areas that face high impact, high likelihood disaster hazards. All programmes should be designed with climatic variability and some degree of disaster risk in mind (see the *Assessing climate change* briefing note³³).

This is not always a straightforward issue and there are choices to be made about how much time and investment should be given to disaster mitigation – not all disaster risks can be eliminated, the challenge is to identify a tolerable level of disaster risk. This requires both evidence and judgement based on sound experience.

5 Consider relevant adaptations to technologies for disaster risk mitigation

Technology is not the only way to mitigate against disaster but small adaptations can be made that can reduce the impact of a disaster when it hits. These often very simple measures need to be analysed for their benefits against their cost and possible reduction in sustainability or equity characteristics.

A recommended approach to integrating mitigation in planning is as follows:

- 1 Understand the context.
- 2 Decide what level of disaster mitigation interventions/infrastructure designs can be 'sized' for, eg level of flood or the magnitude of a tropical storm, and make this an explicit design criteria/objective. Base this upon any applicable government standards, established hazard-resistant designs or experience of disaster mitigation work by other organisations.
- 3 Explore whether other disaster mitigation measures can be more effective, eg macro-level drainage arrangements in some areas may be more appropriate than raised latrines, particularly in urban areas.
- 4 Undertake small pilot projects to help WaterAid build experience and credibility.
- 5 Seek to understand if any additional costs for disaster mitigation work can be borne by the community. It might imply additional subsidies, eg a raised latrine to mitigate against floods may not be feasible for households to build under a zero subsidy, pure community-led total sanitation (CLTS) approach.
- 6 Produce more comprehensive cost estimates using the steps outlined above³⁴.
- 7 Seek funding. It is important to note that funding for more expensive disaster mitigation measures may be available through development channels but also early recovery channels. Over the last few years there has been increased emphasis on the so called 'build back better' approach in the post-disaster recovery phase and funds may be available for disaster mitigation measures through this route.
- 8 Develop policy and associated advocacy messages. This is both at the programme level (eg specific WASH standards or approaches, geographical areas or communities to prioritise) and at the public policy level (eg advocating improved early warning systems; increased funding and prioritisation for disaster risk reduction; better coordination in response).
- 9 Undertake full planning and take decisions accordingly.

6 Work with communities to integrate mitigation planning

WaterAid adopts a community-led approach, working through communities to ensure that our projects are appropriate and meet people's needs. We should adopt the same approach to our mitigation work, supporting and empowering communities to identify their own vulnerabilities and actions to reduce the risks.

There are many resources available for community-based disaster risk management (CBDRM)³⁵ that should be consulted for a full understanding of how this can be undertaken, specifically from UNISDR and the Asian Disaster Preparedness Centre (ADPC). National publications and studies are also available from a range of different actors in-country. Given the cross-cutting nature of disasters, it is critical that we coordinate with other agencies that might be implementing community-based disaster management approaches to avoid duplication, and make the most of existing activities to share learning.

Community-based water resource management is one tool for supporting communities to better understand their water resources and how they change over time. The *Water security framework* sets out WaterAid's approach to CBWRM in more detail. *Managing water locally*³⁶ also outlines how water safety planning can address water risks.

WaterAid Bangladesh is piloting participatory WASH vulnerability analysis (PWVA) – a participatory approach that supports communities to identify, manage and monitor their water and sanitation systems.

7 Advocate systemic change

While our own activities can have an impact, many of the challenges in disasters require broader change and engagement from donors, governments, civil society and implementing agencies. WaterAid advocates systemic change based on its own practical experience.

In the field of disasters, there are three key areas of advocacy:

- **Approaches and standards:** advocating specific WASH approaches and standards to be adopted in emergencies.
- **Specific areas/interventions:** when a response is required and based on assessments of need, WaterAid should collaborate with others to draw attention to under-addressed geographical areas or communities.
- **Upstream risk and institutions:** WaterAid should advocate governments and donors prioritise disaster risk, in line with their commitments under the Hyogo Framework for Action:
 - Ensure that disaster risk reduction is a priority with a strong institutional basis.
 - Identify, assess and monitor disaster risks and enhance early warning.
 - Use knowledge, innovation and education to build a culture of safety and resilience.
 - Reduce the underlying risk factors.
 - Strengthen disaster preparedness.

Be prepared

8 Create action plans in all countries and take low-commitment preparedness measures in vulnerable countries

Disasters are often unpredictable, but we know that many of the countries we work in are vulnerable so it is pragmatic to take low commitment preparedness measures.

All country programmes should consider what their immediate actions would be in the event of a disaster occurring. This should include a contingency plan as part of their existing business continuity planning. Further guidance on contingency planning will be developed with country programmes.

Staff in highly vulnerable countries where there is relatively high probability of a disaster should also take steps to prepare to respond. However, if WaterAid prepares to respond, then the public and community may have expectations of a full-scale response from WaterAid, so preparedness measures should reflect the likely scale of our response. Another approach is to consider what preparedness measures we can take to prepare others or support them to respond.

Examples of preparedness measures include:

- Pre-positioning water treatment materials and hygiene kits in secure locations.
- Community and partner training – for example, using practice drills or ‘wargaming’. This could be in collaboration with humanitarian agencies.
- Networking and relationship building with humanitarian agencies – joining in with their preparedness activities and understanding their contingency plans.



Rabeya Sundori, 40, a member of the local WASH committee and representative of the poorest members of the community, showing where the flood waters from the rainy season have left high water marks in her home, Kalshi Takar Baa slum, Dhaka, Bangladesh.

Work with the humanitarian sector

9 Commence research and discussions at global, regional and country levels to improve transitions out of disaster situations and look at how we can better work with disaster-focused organisations

Resilience and mitigation are becoming key terms in organisations that undertake disaster relief, and to reduce disaster risk, disaster programmes and development programmes need to work closer together; humanitarian agencies through ‘build back better’ approaches (incorporating disaster risk reduction and resilience) and development agencies by including mitigation in their work. WaterAid and our partners also have in-depth knowledge about communities we work with and this is vital information to be passed onto the organisations that take over in a post-disaster context (eg cultural norms and behaviours, relationships with key actors, context specific communication materials).

Financial and programme arrangements often do not handle the transition out of a response situation well to ensure that long-term, sustainable and contextually appropriate solutions are being implemented; something that we are well placed to advise and act on. Similarly, there are advantages to joining up long-term advocacy to address systemic problems – for example, addressing poor management or development projects that might contribute to vulnerability and risk. There can be inherent tensions between relief programming and development programming. More mutual understanding needs to be built up around these issues and WaterAid should seek to contribute to this.

There are some challenging issues that are difficult to manage as part of a disaster response, particularly community expectations and the issue of subsidies. WaterAid should engage with the sector and maintain communication with communities even when not involved in a response in order to make the transitions in and out of this context smoother.

To improve transitions and links between humanitarian and development approaches, WaterAid could focus on the following areas of engagement:

- **Preparedness at the national level:** helping develop and participating in assessments, developing and sharing appropriate technical guidance.
- **Response:** sharing baseline information of project areas, supporting partners and WaterAid staff to participate in assessment teams, potentially taking a role at sub-national level to help government and other sub-national WASH coordination mechanisms.
- **Recovery:** guiding recovery work of partners and influencing others to maximise sustainability and mitigation for future resilience, support learning among WASH actors and ensure equity and inclusion is considered.
- **Advocacy work:** cluster/coordination forums provide excellent opportunities for networking and policy/good practice promotion, and as such can be used to support advocacy work.

If absolutely necessary, respond

10 Carry out response work only in areas where we have links directly or through partners, and only when it's absolutely necessary that WaterAid must be the organisation to do it

Any response should be informed by preparedness plans and be carried out within our limits and expertise as outlined in the table below. There is money centrally available through WaterAid for times when a larger scale coordinated response is necessary, subject to regional approval.

Criteria	Minimum	If there is limited response from other agencies and we have capacity
Expertise	Support WASH that we have present expertise in.	Extend to disaster-specific technologies/ approaches and support on logistics.
Budget	Work within existing project budgets.	At the discretion of the country programme and regional team.
Geography	Areas in which we are currently working which are safe for staff.	Areas in which our partners work and influence the whole country through encouraging replication, technical and logistical support.
Time	Ensure early transition out of disaster response to ensure community-level development interventions are not hampered.	

The unpredictable nature of disasters means that the precise details of a disaster response cannot be planned for and this has financial implications. It is important to ensure a balance between accountability and administration in order that funds can be obtained at the point of need. Details on the internal processes that will be in place to manage this will be available within WaterAid, however this is a challenging area even for established humanitarian agencies and changes in approach will be required.

Glossary

AWD	Acute watery diarrhoea, often used as an alternative term for cholera.
‘Build back better’	A term used to describe recovery work that seeks to build-in mitigation measures for future disasters, ie does not rebuild-in the risks that caused failure in the first instance.
Complex emergency³⁷	Civil disturbance and large-scale movements of people, in which any emergency response has to be conducted in a difficult political and security environment.
CBD(R)M	Community-based disaster (risk) management, ie DRM activities undertaken and organised at the community level.
CC³⁸	Cluster coordination. The aim of the cluster approach is to strengthen system-wide preparedness and technical capacity to respond to humanitarian emergencies by ensuring that there is predictable leadership and accountability in all the main sectors or areas of humanitarian response.
CMR³⁹	Crude mortality rate: the rate of death in the entire population, including both women and men, across all ages, measured as the number of deaths per 10,000 people, per day.
DAC	Development Assistance Committee of the OECD.
DRM*	Disaster risk management. The systematic process of using administrative decisions, organisation, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters.
DRR*	Disaster risk reduction. The conceptual framework of elements considered with the possibilities to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.
Disaster*	A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope.
Disaster mitigation*	Lessening or limitation of the adverse impacts of hazards and related disasters.

Disaster preparedness	The knowledge and capacities developed by governments, professional response and recovery organisations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.
Disaster response	The provision of services that are urgently needed following a disaster (sometimes called disaster relief).
Hazard*	A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption, or environmental degradation (eg a cyclone, earthquake, or toxic waste spill).
HCT	Humanitarian country team. In-country non-governmental strategic humanitarian coordination body, usually headed by the UN humanitarian coordinator or UNDP Resident Representative, with representatives of other UN agencies, the NGO community and possibly IFRC.
IDP⁴⁰	Internally displaced persons, displaced by disaster on a temporary basis away from their place of settlement, within national boundaries.
IFRC	International Federation of Red Cross and Red Crescent Societies.
LRRD⁴¹	Linking relief, rehabilitation and development. Both humanitarian and development assistance should be structured in ways that reduce the need for humanitarian aid and promote developmental objectives before, during, and after emergencies.
NFIs⁴² (also called hygiene materials in the case of WASH)	Non-food items. Basic goods to enable affected populations to prepare and consume food, provide thermal comfort, meet personal hygiene needs and build, maintain or repair shelters. WASH NFIs (also called hygiene materials) include water containers, soap, and hygiene items.
ORS⁴³	Oral rehydration solution, provided as a treatment for diarrhoea.
PSF	Pond sand filter, used in parts of South Asia as means to treat and pump surface water from rainwater catchment ponds.
POU/HWT⁴⁴	Point of use/household water treatment and safe storage. The means or options for treating water at the household level.
Recovery*	The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.
Resilience*	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

Risk* The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions. Conventionally risk is expressed by the notation: Risk = Hazards x Vulnerability.

Unplannable Used in the context of WaterAid's programme cycle and applicable to disaster relief and recovery work that cannot be planned for at the start of the planning cycle when the multi-year plan and budget (MPB) is prepared.

Vulnerability* The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

3 Ws⁴⁵ Acronym for humanitarian information database that provides information of basis of **who** (which agency), is working **where**, and doing **what** (undertaking what activities). WASH tends to add a fourth 'W' – **when** (when an agency is about to start a project).

U5MR Under five mortality rate. The rate of death among children below five years of age in the population, measured as the number of under five (years old) deaths per 10,000 people, per day.

* Definitions from UNISDR (2009) *2009 UNISDR terminology on disaster risk reduction*, pp19-21. UNISDR, Geneva, Switzerland
http://unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf

References and endnotes

References

There are many documents referenced within the text of this framework and several more in the endnotes. The following have been selected as key documents on each of the topics.

Mitigation

Global WASH Cluster (2011) *Capacity building for humanitarian response. Disaster risk reduction and water, sanitation and hygiene... comprehensive guidance*. Global WASH Cluster, New York, USA

WaterAid Bangladesh (2012) *Climate change and disaster resilient water, sanitation and hygiene practices*. WaterAid Bangladesh, Bangladesh
www.preventionweb.net/english

Preparedness

Asian Disaster Preparedness Center (ADPC) (undated) *Community-based disaster risk management field practitioners' handbook*. ADPC, Thailand
www.adpc.net/pdr-sea/publications/12Handbk.pdf

Emergency Management Australia (EMA) (2000) *The good practice guide: Community awareness and education in emergency management*. EMA, Australia
www.crid.or.cr/digitalizacion/pdf/eng/doc12728/doc12728.htm

Pan American Health Organisation (PAHO) (1998) *Natural disaster mitigation in drinking water and sewerage systems: Guidelines for vulnerability analysis*. PAHO, Washington DC, USA
www.paho.org/English/DD/PED/natureng.htm

Response

Global WASH Cluster (2010) WASH materials [online] www.redr.org.uk/washmaterials

Save the Children (2008) *Non-discrimination in emergencies – training manual and toolkit*. Save the Children India, New Delhi, India
<http://resourcecentre.savethechildren.se/content/library/documents/non-discrimination-emergencies-training-manual-and-toolkit>

Recovery

Terry Gibson (2010) *Learning how to build back better*. Global Network of Civil society Organisations for Disaster Reduction
www.globalnetwork-dr.org/images/documents/Papers/Build_Back_Better.pdf

Scott R E (2013) *Sustainable WASH interventions as populations transition from relief to development: Developing a framework for strategic analysis and planning*. WEDC

Standards and organisations

Red Cross Code of Conduct: www.ifrc.org/en/publications-and-reports/code-of-conduct
People in Aid: www.peopleinaid.org
HAP International: www.hapinternational.org
Sphere standards: www.sphereproject.org
WASH cluster: www.washcluster.info

Endnotes

- 1 Munich Re (2012) Münchener Rückversicherungs-Gesellschaft, Geo Risks Research, NatCatSERVICE, from presentation entitled *Natural catastrophes in economies at different stages of development*
- 2 World Bank Development Committee (2012) *Managing disaster risks for a resilient future: The Sendai report*. World Bank, Washington DC, USA
<http://web.worldbank.org/WBSITE/EXTERNAL/DEVCOMMEXT/0,,pagePK:64000837~piPK:64001152~theSitePK:277473~contentMDK:23276768,00.html>
- 3 The United Nations Office for Disaster Risk Reduction (UNISDR) (2009) *Global assessment report (GAR) on disaster risk reduction*. United Nations, Geneva, Switzerland
www.preventionweb.net/english/hyogo/gar/report/documents/GAR_Prelims_2009_eng.pdf
- 4 Appendix Table. Watson J T, Gayer M and Connolly M A (2007) Epidemics after natural disasters. *Emerg Infect Dis*
www.cdc.gov/ncidod/EID/13/1/1.htm
- 5 Johns Hopkins and the International Federation of Red Cross and Red Crescent Societies (IFRC) (no date) *Public health guide for emergencies*, p375.
www.jhsph.edu/research/centers-and-institutes/center-for-refugee-and-disaster-response/publications_tools/publications/_CRDR_ICRC_Public_Health_Guide_Book/Public_Health_Guide_for_Emergencies
- 6 Adikari Y, Yoshitani J and the International Centre for Water Hazard and Risk Management (ICHARM) (2009) *Global trends in water-related disasters: An insight for policymakers*. United Nations Educational, Scientific and Cultural Organisation, Paris, France
<http://unesdoc.unesco.org/images/0018/001817/181793E.pdf>
- 7 Statistics for this are hard to come by, but internal WaterAid calculations estimate that \$1,000 per capita was spent on Haiti's recovery, which exceeds per capita income.
- 8 WaterAid (2009) *WaterAid's Global Strategy 2009-2015*. WaterAid, London, UK
www.wateraid.org/international/about_us/strategy/default.asp
- 9 UNISDR (2009) *UNISDR terminology on disaster risk reduction 2009*. UN, Geneva, Switzerland
http://unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf
- 10 Ibid
- 11 Ibid
- 12 www.wateraid.org/~media/Publications/2013-02-13-Climate-change-briefing-note.ashx
- 13 See this useful infographic to understand how complex it can be:
www.globalhumanitarianassistance.org/tools/guides/humanitarian-aid-network
- 14 www.washcluster.info/?q=content/humanitarian-reform-cluster-approach
- 15 International Strategy for Disaster Reduction (ISDR) (2005) *Hyogo Framework for Action 2005-2015: Building the resilience of nations and communities to disasters*. ISDR, Geneva, Switzerland
www.unisdr.org/2005/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf
- 16 WaterAid (2013) *WaterAid and climate change*. WaterAid, London, UK
www.wateraid.org/~media/Publications/2013-02-13-Climate-change-briefing-note.ashx
- 17 WaterAid (2012) *Water security framework*. WaterAid, London, UK
www.wateraid.org/~media/Publications/water-security-framework.pdf
- 18 Groupe De Suivi Budgetaire (2012) *Analyse de l'impact de la crise politique, economique et securitaire au Mali sur le budget 2012* (offline)
- 19 World Health Organization (WHO) (2003) *Environmental health in emergencies and disasters: A practical guide*. WHO, Geneva, Switzerland
www.who.int/water_sanitation_health/hygiene/emergencies/emergencies2002/en/
- 20 *Disability inclusive flood action plan and WASH in a Bangladeshi community*
www.inclusivewash.org.au/Literature/Case%20Study%2010_Disability%20inclusive%20flood%20action%20plan.pdf
- 21 WaterAid (2012) *Hygiene framework*. WaterAid, London, UK
www.wateraid.org/~media/Publications/hygiene-framework.ashx

- 22 www.preventionweb.net/english/hyogo/national
- 23 www.undg.org/unct.cfm?module=CountryTeams&page=RcEmailReport
- 24 www.washcluster.info/?q=content/national-wash-clusters
- 25 www.preventionweb.net/english/professional/maps/?pid:50
- 26 www.globalnetwork-dr.org/resources.html
- 27 ISDR (2004) *Guidelines for mainstreaming disaster risk assessment in development*. ISDR, Geneva, Switzerland
www.unisdr.org/files/4040_africaguidelinesmainstreamingdrassessmentdevelopment1.pdf
- 28 Asian Disaster Preparedness Centre (ADPC) *Field practitioners' handbook*. ADPC, Thailand
www.adpc.net/pdr-sea/publications/12Handbk.pdf
- 29 World Meteorological Organisation (2005) *Guidelines on climate watches*. World Meteorological Organisation, Geneva, Switzerland
www.wmo.int/pages/prog/wcp/wcdmp/documents/GuidelinesonClimateWatches.pdf
- 30 Emergency Management Australia (2000) *The good practice guide: Community awareness and education in emergency management*. EMA, Australia
www.cridlac.org/digitalizacion/pdf/eng/doc12728/doc12728.htm
- 31 Pan American Health Organisation (no date) *Natural disaster mitigation in drinking water and sewerage systems: guidelines for vulnerability analysis*. Pan American Health Organisation, Washington DC, USA
www1.paho.org/English/DD/PED/natureng.htm
- 32 www.allindiary.org
- 33 www.wateraid.org/~media/Publications/policy-briefing-climate-change-assessing.ashx
- 34 UNICEF Madagascar's experience suggested that flood mitigation measures added about 20% (in funding terms) to their water infrastructure projects.
- 35 List of CBDRM resources:
www.adpc.net/v2007/Programs/CBDRM/INFORMATION%20RESOURCE%20CENTER/CBDRM%20Publications/index-Others.asp
- 36 The Institution of Civil Engineers, Oxfam GB and WaterAid (2011) *Managing water locally: An essential dimension of community water development*
www.ice.org.uk/ICE_Web_Portal/media/Ecomms/managing_water_locally.pdf
- 37 WHO (2002) *Environmental health in emergencies and disasters: A practical guide*. WHO, Geneva, Switzerland
www.who.int/water_sanitation_health/hygiene/emergencies/emergencies2002/en
- 38 <http://clusters.humanitarianresponse.info/document/iasc-guidance-note-using-cluster-approach-strengthen-humanitarian-response>
- 39 The Sphere Project (2011) *The Sphere handbook*
www.sphereproject.org/handbook
- 40 See OHCA (2003) *Guiding principles on internal displacement*
www.ifrc.org/Docs/idrl/I266EN.pdf
- 41 See Goyder H with Coventry C, Adams J, Kaiser T, Williams S and Smillie I (2006) *Links between relief, rehabilitation and development (LRRD) – Policy study*. Tsunami Evaluation Coalition
www.alnap.org/pool/files/lrrd-policy-study.pdf
- 42 www.sphereproject.org/handbook/ p268
- 43 www.sphereproject.org/handbook/ p324
- 44 UNICEF (2008) *Promotion of household water treatment and safe storage in UNICEF WASH programmes*. UNICEF, Geneva, Switzerland
www.unicef.org/wash/files/Scaling_up_HWTS_Jan_25th_with_comments.pdf
- 45 See <http://3w.unocha.org/WhoWhatWhere/index.php>



WaterAid's mission is to transform lives by improving access to safe water, hygiene and sanitation in the world's poorest communities. We work with partners and influence decision-makers to maximise our impact.

WaterAid
47-49 Durham Street
London SE11 5JD, UK
Tel: +44 (0) 20 7793 4500
Fax: +44 (0) 20 7793 4545
Email: wateraid@wateraid.org

www.wateraid.org