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WSSCC REFERENCE NOTE

Disaster risk reduction & emergency response for WASH



The Water Supply and Sanitation Collaborative Council (WSSCC) is a global multi-stakeholder partnership organisation that has worked since 1990 to achieve sustainable water supply and sanitation for all people by enhancing collaboration among sector agencies and professionals. Through its Networking and Knowledge Management programme, WSSCC publishes thematic Reference Notes to assist professionals in different fields in understanding key issues and identifying key resources and institutions on selected themes and topics. This Note highlights the linkages between WASH (water supply, sanitation and hygiene) and disaster risk reduction and emergency response. It also introduces the most important organisations and their strategies and presents guidelines, manuals and standards for appropriate field action.

DISASTERS ARE DEFINED as a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources¹. Clearly, disasters affect various aspects of life through immediate emergencies, but they also hamper sustainable development and increased human well-being overall. This fact has been well analysed by the UNDP report *Reducing disaster risk* (1). Irrespective of the nature of a disaster, prevention and preparedness are essential for coping with emergency situations that often occur during or after e.g. floods, drought, earthquakes or large human displacements. Thus, the demand for long-term planning mechanisms as well as adequate and timely response is growing as disasters caused or intensified by climate change are increasingly challenging current infrastructure.

DISASTER RISK REDUCTION IN THE WASH SECTOR

The incorporation of disaster scenarios and aspects in planning of infrastructure and institutional elements of water supply and sanitation systems is an important step towards disaster risk mainstreaming, while correct maintenance of systems is another important point to increase sustainability and reduce the vulnerability in case of a disaster. The listed materials are useful to understand the approaches applied in disaster management and can be used for the preparation of disaster risk reduction strategies and plans in the water and sanitation sector.

The Hyogo Framework for Action developed by the United Nations **International Strategy for Disaster Reduction (ISDR)** for 2005-2015 aims to build the resilience of nations and communities to disasters. In the report *Words into Action* (2), the example of Colombia highlights the positive impact of inter-institutional cooperation on WASH issues. A national-level working group reviewed existing knowledge and explored gaps related to disaster risk reduction. This created awareness and increased political commitment to integrate these issues into the water and sanitation sector. Thus the sector's needs and priorities for disaster risk reduction have been identified and

1. Disaster risk reduction in the project management cycle. SDC, 2007.



Practical guidelines, manuals and standards

Materials for handling of WASH issues in emergencies exist in several formats. Action Contre la Faim (ACF) has produced an extensive and detailed book on *Water, sanitation and hygiene for populations at risk*, including among others programme development and management, water supply, sanitation and hygiene promotion for humanitarian situations [13].

For water supply in emergency response, a comprehensible and supportive WHO publication exists on *Emergency treatment of drinking water at point-of-use* [14], describing methods of water purification with simple means.

For correct action regarding hygiene promotion, WHO has elaborated a technical note on *Essential hygiene messages in post-disaster emergencies* with a good overview for planning hygiene interventions [15]. Other technical notes provide useful information for those working immediately in or shortly after an emergency to plan appropriate responses to the urgent and medium-term water and sanitation needs of affected populations [16].

Another recommended hygiene promotion compendium - *Hygiene promotion tools and approaches* - has been produced within the humanitarian global WASH cluster [17].

Excreta disposal in emergencies – a field manual is an inter-agency publication suggesting interventions for a wide range of situations, from immediate emergency response to rehabilitation and including reflections on long-term sustainability aspects [18].

Further comprehensive materials on drinking water and sanitation standards originate from *Environmental health in emergencies and disasters: a practical guide* by WHO [19]. In two chapters, the application of WHO standards for water [20] and sanitation [21] under specific circumstances are explained, providing good guidelines for interventions in different emergencies and situations where additional protection is required.

For the particular case of handling refugee camps, UNHCR has produced an overview

modification of regulations, elaboration of disaster management guidelines and institutional analysis has been conducted.

The **Pacific Islands Applied Geoscience Committee** (SOPAC) is also setting an example in line with the Hyogo Framework through its *Framework for Action 2005-2015* [3].

In a joint publication by **ISDR, UNICEF, IFRC** and **PAHO/WHO** on *The challenge in disaster reduction for the water and sanitation sector*, the situation is described in case studies, most of them in Latin America and the Caribbean. The fact is highlighted that disasters often produce a relatively low number of casualties but a high number of displaced persons and infrastructure damage. Possible solutions such as disaster mainstreaming in planning and integrated management of risks preparedness and response are indicated and examples presented [4].

UN-Water has compiled a summary of water hazards, many of which are potentially threatening sustainable functioning of water supply and sanitation systems [5].

The **Swiss Agency for Development and Cooperation** (SDC) has developed a general manual for *disaster risk reduction in the project cycle management*, giving tangible advice for programme managers. The manual includes descriptions on how to mainstream disaster risk management and provides a glossary and tools such as a questionnaire for disaster risk reduction potential and quick risk appraisal [6].

Other tools on mainstreaming disaster risk reduction are produced by **Tearfund** [7] and **ProVention** [8] with indicators useful for self assessments of organizations intending to analyse their capacities for disaster management.

EMERGENCY RESPONSE IN THE WASH SECTOR

As disasters cannot be eliminated, coping with the consequences is reality for a large part of the world population. In the last decade of the 20th century almost two billion people – one-third of humanity – were affected by natural disasters, 86% of them by floods and droughts². Each disaster can pose its unique set of threats; flooding for example, increases the ever-present health threat from inadequate drinking-water and sanitation systems, and water supplies can become contaminated by lack of sanitary facilities as well as household or industrial waste. These factors all aggravate the situation for vulnerable people, and the largest sufferings originate from common illnesses, such as diarrhoea, made life-threatening by crisis conditions.

Thus, three top priorities in emergency response are the provision of sufficient quantities of safe water, arrangement of basic sanitation and promotion of good hygiene behaviours. Responses can include e.g. provision of clean drinking-water or purification mechanisms, construction of temporary sanitation infrastructure and conduction of hygiene trainings. Response programmes of most agencies range from rapid and limited interventions in acute emergencies to comprehensive long-term interventions in complex emergencies. The materials listed below are selected inputs for emergency situation management and topic-specific manuals for field operations, as well as insights in experiences by different organisations.

In 2005, after a review of the **global humanitarian system**, assessing the response capacities of key humanitarian actors, a cluster approach was

2. Celebrating Water for Life – the International Decade for Action 2005-2015. An Advocacy Guide. WHO 2005.

of the key factors in ensuring access to water and sanitation as well as its work in camps (22). Further, in the *Handbook for the protection of internally displaced people*, one chapter emphasizes the importance of addressing issues of water and sanitation (23) while UNHCR's strategic plan for water and sanitation activities treats long-term planning (24).

Several other NGOs and bilateral organisations, such as the Catholic Relief Services (25) and USAID (26), provide handbooks for emergency preparedness and response.

adopted as a way of addressing gaps and strengthening the effectiveness of humanitarian response through building partnership. This introduced a clear division of labour roles and responsibilities among organisations active in different sectors and refined the international humanitarian community to be more structured, accountable and professional, making it a better partner for host governments, local authorities and local civil society. Water, sanitation and hygiene (WASH) is one of the clusters, with UNICEF as the global cluster lead and further relevant UN agencies and organizations and international NGOs as partners (9).

The global WASH cluster approach is being replicated at country level. The national WASH coalition in the Philippines participates in a national-level cluster handling WASH issues in emergency situations, and has contributed to setting national standards and elaborating guidelines (10).

A group of humanitarian NGOs and the International Red Cross and Red Crescent Movement have established the Sphere Project, promoting collaboration and commitment to quality and accountability (11). Sphere members have elaborated a handbook with approved humanitarian standards in all sectors, including standards for WASH (12).

REFERENCES

N°	Publication	Web location *
1	UNDP (2004): Reducing disaster risk - a challenge for development. New York.	http://www.undp.org/cpr/whats_new/rdr_english.pdf
2	ISDR (2007): Words into action: a guide for implementing the Hyogo Framework. Geneva.	http://www.preventionweb.net/files/594_10382.pdf
3	SOPAC (2008): An investment for sustainable development in the Pacific Island countries disaster risk reduction and disaster management. A Framework for Action 2005 - 2015: building the resilience of nations and communities to disasters.	http://www.sopac.org/RfA+2005+2015
4	PAHO (2006): The challenges in disaster reduction for the water and sanitation sector. Improving quality of life by reducing vulnerabilities. Washington D.C.	http://www.paho.org/English/DD/PED/DesafioDelAgua_Eng.pdf
5	UN-WATER (2005): Water hazard risks. UN-Water series Vol.1. Geneva.	http://www.unwater.org/downloads/unwaterseries.pdf
6	SDC (2007): Disaster risk reduction in the project cycle management. A tool for programme officers and project managers. Bern.	http://www.riskandsafetynet.ch/index.php?navID=2550
7	La Trobe S., Davis I. (2005): Mainstreaming disaster risk reduction: a tool for development organizations. Tearfund. Middlesex.	http://www.unisdr.org/HFdialogue/download/tp2-Tearfund-Mainstreaming-drr.pdf
8	Benson C., Twigg J., Rossetto T. (2007): Tools for mainstreaming disaster risk reduction: guidance notes for development organizations. ProVenton, IFRC. Geneva.	http://www.preventionweb.net/files/1066_toolsformainstreamingDRR.pdf
9	Humanitarian reform: water, sanitation and hygiene cluster.	http://www.humanitarianreform.org/humanitarianreform/Default.aspx?tabid=76

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N°	Publication	Web location *
10	Philippine Centre for Water and Sanitation.	http://www.itnphil.org.ph/wash_coalition.htm
11	The Sphere Project: humanitarian charter and minimum standards in disaster response.	http://www.sphereproject.org
12	Chapter 2: Minimum standards in water supply, sanitation and hygiene promotion.	http://www.sphereproject.org/component/option,com_docman/task,cat_view/gid,17/Itemid,203/lang,english/
13	ACF (2005): Water, sanitation and hygiene for populations at risk. Paris.	http://www.actionagainsthunger.org/sites/default/files/resources/publications/ACF-Water-Sanitation-Hygiene-for-Populations-at-Risk.pdf
14	WHO (2005): Emergency treatment of drinking water at point-of-use. WHO – Technical Notes for Emergencies. N° 5. Geneva.	http://www.who.int/water_sanitation_health/hygiene/envsan/treatmdrwat.pdf
15	WHO (2005): Essential hygiene messages in post-disaster emergencies. WHO Technical Notes for Emergencies. N° 10. Geneva.	http://www.searo.who.int/LinkFiles/List_of_Guidelines_for_Health_Emergency_Essential_hygiene_messages.pdf
16	WHO Technical Notes for Emergencies.	http://www.who.int/water_sanitation_health/hygiene/envsan/technotes/en/index.html
17	Humanitarian Reform: water, sanitation and hygiene cluster - hygiene promotion.	http://www.humanitarianreform.org/Default.aspx?tabid=343
18	Harvey P. A. (2007): Excreta disposal in emergencies: a field manual. WEDC, Loughborough University, UK.	http://wedc.lboro.ac.uk/projects/proj_contents0/WEJEV%20-%20Field%20Practice%20for%20Excreta%20Disposal%20in%20Emergencies/www/outputs/Excreta%20Disposal%20in%20Emergencies.pdf
19	Wisner B., Adams J. (eds.) (2002): Environmental health in emergencies and disasters: a practical guide. Geneva.	http://www.who.int/water_sanitation_health/emergencies/emergencies2002/en/index.html
20	Wisner B., Adams J. (eds.) (2002): Environmental health in emergencies and disasters: a practical guide. Chapter 7: Water Supply. Geneva.	http://www.who.int/water_sanitation_health/hygiene/emergencies/em2002chap7.pdf
21	Wisner B., Adams J. (eds.) (2002): Environmental health in emergencies and disasters: a practical guide. Chapter 8: Sanitation. Geneva.	http://www.who.int/water_sanitation_health/hygiene/emergencies/em2002chap8.pdf
22	UNHCR (2002): Ensuring clean water and sanitation for refugees.	http://www.unhcr.org/cgi-bin/texis/vtx/partners/opendoc.pdf?tbl=PARTNERS&id=3fcb5a3b1
23	Global Protection Cluster Working Group (2007): handbook for the protection of internally displaced persons. Provisional release. Geneva.	http://www.humanitarianreform.org/humanitarianreform/Portals/1/cluster%20Approach%20page/clusters%20pages/Protection/Protection%20Handbook/IDP%20Handbook_Complete_FINAL%20Jan%2008.pdf
24	TUNHCR's Strategic Plan for Water and Sanitation 2008 - 2012.	http://www.unhcr.org/publ/PUBL/48859b722.pdf
25	CRS (2002): Emergency preparedness & response handbook. Baltimore.	http://www.crs.org/publications/showpdf.cfm?pdf_id=26
26	USAID (2005): Field operations guide for disaster assessment and response.	http://www.sheltercentre.org/sites/default/files/USAID_FieldOperationsGuide.pdf

* In case of broken links, search for the resource at the main web address.

FURTHER INTERESTING LINKS

ISDR/ prevention web	
World Disaster Reduction Campaign Kit	http://www.unisdr.org/eng/public_aware/world_camp/2003/pa-camp03-kit-eng.htm
WHO	
Frequently asked questions	http://www.who.int/water_sanitation_health/emergencies/qa/en/index.html
Water for Life (2005-2015) advocacy paper	http://www.who.int/water_sanitation_health/2005advocacyguide.pdf
IRC	
Water Supply and Sanitation in Emergency Situations	http://www.irc.nl/page/15666 http://www.irc.nl/page/10524 http://www.irc.nl/content/search/?SearchText=water+and+sanitation+emergencies

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