



# Water Crisis After the Storm

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**Cyclone Nargis devastated Myanmar on 2 May leaving tens of thousands dead or missing. An estimated one million people are homeless.**

The spread of disease is an immediate threat as hundreds of thousands of people struggle to cope with finding shelter in camps, schools, monasteries and in damaged homes without enough food and in unsanitary conditions.

## The next wave for Myanmar's children?

Post-disaster, the community systems and structures that keep communicable diseases in check break down. As the risk of disease increases, and without the safety net of prompt medical attention or supplies, protecting children from falling sick becomes a race against time.

The ferocity of Myanmar's Cyclone Nargis has not just taken a huge human toll. It has also left surviving communities unprotected against outbreaks of disease that could claim many more lives, especially those of children.

## Water-borne disease

Water-borne disease is a result of consuming contaminated water, which is often a result of poor sanitary conditions. Water and sanitation are critical determinants for survival in the initial stages of a disaster. People affected by disasters are much more susceptible to illness and death from disease, which are mostly related to inadequate sanitation, inadequate water supplies and poor hygiene.

After floods, cyclones or tsunami, it is likely that all above-ground water supplies have been contaminated with bacteria from the surrounding environment. In Myanmar's case, the mixing of seawater and freshwater also adds to the water pollution. Disaster-affected communities will often only recognise contamination if it has affected the taste or clarity of the water; in many cases, desperate for water, they will take the chance and drink it anyway.

As well, exposure to contaminated water through washing or swimming can spread disease, infect wounds and create skin lesions.

**Diarhoea** is a symptom of bacterial infection most often linked to drinking dirty water. Globally around 1.8 million people die from diarrhoea each year, the vast majority of them children.

**Cholera** is an acute, fast-acting and highly contagious intestinal infection most likely to break out in areas with poor sanitation. It causes severe, watery diarrhoea causing massive dehydration which can kill within a matter of hours. Malnourished children are especially vulnerable to the rapid onslaught of this disease.

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## Asia's disaster diseases\*

- An outbreak of diarrhoeal disease post flooding in Bangladesh in 2004 involved more than 17,000 cases
- More than 16,000 cases of cholera were reported in an epidemic in West Bengal after floods in 1998
- Two weeks after the tsunami in Aceh Province, Indonesia, an assessment team found that 100% of the survivors in one town were drinking from wells they believed to be clean, and that 85% of them had already suffered diarrhoea.
- Acute respiratory infection (ARI) accounted for the highest number of cases and deaths among those displaced by the tsunami in Aceh in 2004, as well as the 2005 earthquake in Pakistan.
- Following the 2005 earthquake in Pakistan, an outbreak of acute watery diarrhoea occurred in an unplanned, poorly-equipped camp of 1800 persons. The outbreak involved over 750 cases, mostly adults, and was controlled following the provision of adequate water and sanitation facilities.

\* Examples taken from World Health Organization, *Communicable Diseases Following Natural Disasters* [http://www.who.int/diseasecontrol\\_emergencies/guidelines/CD\\_Disasters\\_26\\_06.pdf](http://www.who.int/diseasecontrol_emergencies/guidelines/CD_Disasters_26_06.pdf)

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**Typhoid** is a bacterial disease which causes high fever and enlarged spleen and liver, but not always diarrhoea. Usually transmitted through accidental ingestion of contaminated human faeces or urine, its life-threatening symptoms take between one and three weeks to emerge. Typhoid vaccination is common in the developed world but many children in the world's disaster-prone areas miss out on this vital protection.

**Dysentery** is a symptom caused by many different bacteria including the contagious Shigella which can be transmitted by human contact as well as through ingestion of contaminated food or water. It differs from diarrhoea because it breaks down intestinal walls, causing mucus and blood in the stools as well as severe intestinal pain. Left untreated, dysentery can cause long-term bowel or intestinal damage.

What causes disease post-disaster?	Ayeyarwaddy Delta cyclone survivors
Overcrowding	✓
Poor sanitation facilities	✓
Contaminated water supply	✓
Lack of water, soap or basic disinfectant	✓
Limited medicine, treatment or public health warnings	✓

## Other health dangers

Lack of clean water is not the only factor that makes children vulnerable to disease after a disaster. Diagnosis and treatment of health conditions can save lives, but medical supplies and expertise struggle to reach all affected communities in time. Living in overcrowded, under-resourced camps, children remain vulnerable to health threats long after the initial response is completed.

**Acute respiratory infections (ARI)** are a common cause of illness and death in children under five in the developing world. When communities are displaced, exposure, low immunity and lack of access to antibiotics or symptomatic treatment make this condition extremely dangerous for young children.

**Malaria** is just one of many mosquito-borne diseases, but the malarial mosquito survives and thrives throughout most of Asia and the Pacific. The fever associated with malaria is one of the world's biggest child killers. Especially in flooded areas, new colonies of malarial mosquito hatch and make their presence felt one to three months after the disaster has hit. This is in addition to mosquitos that were already thriving in places like Myanmar posing greater risk to displaced people who are sleeping outdoors or in tents.

## World Vision's Response

**World Vision is committed to ensuring families in our target areas have access to potable drinking water.**

Immediately after the cyclone, World Vision distributed thousands of litres of bottled drinking water and have pledged to provide water purifications systems that remove contaminants from water, to make it clear, and to kill disease-causing bacteria and viruses, making it safe to drink

To prevent outbreak of disease World Vision will be providing hygiene kits with soap and toothpaste, jerry cans to protect drinking water, mosquito nets, tents, tarpaulins, and basic medicines to protect children and families from infection.

World Vision staff are already pre-positioned in areas hardest hit by the cyclone to help the thousands of people who have left their decimated homes in search of food, water, and shelter.



Water distribution underway in Yangon. As of 9 May, sufficient clean running water had not yet been restored in the Yangon area.



### FOR MORE INFORMATION AND MEDIA ENQUIRIES:

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