In the tragedies of classical antiquity, the catastrophe is the final resolution of a narrative plot; it unravels the intrigue and brings the play to a close, usually by the death of one or more of the main characters. Aristotle thus defines it as ‘an action bringing ruin and pain on stage, where corpses are seen and wounds and other similar sufferings are performed’. Here lie the origins of the word ‘catastrophe’, today used to signify a brutal event bringing large-scale death and destruction. In that sense, every armed conflict, every natural or technological disaster is a catastrophe. Catastrophic events, however, imply sudden shifts and dramatic changes.

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Natural disasters such as hurricanes, earthquakes, tornadoes, floods or wildfire have mostly been described as god-given, in contrast to those resulting from man-made hazards, such as transport accidents or environmental disasters due to technological failures or, worse still, attributable to sociological hazards with a strong human motivation, in particular in situations of armed conflict and collective violence where political, economic and military interests collide. It is, however, increasingly argued that all disasters are human-made, because human action before a hazard strikes can prevent it from developing into a disaster. Human vulnerability, caused by the lack of risk management and planning, the lack of appropriate emergency management or the unexpectedness of the event, leads to human, financial and structural losses. The severity of such losses depends on the capacity of the population to withstand the disaster – their resilience.

The recent SARS (severe acute respiratory syndrome) outbreak is an indication how widespread the potential impact of a pandemic on health and the economy could be. It is reflected in experts’ predictions about the possible mutation of H5N1 avian flu to a strain transmissible from human to human. Yet, as case studies show, risk and disaster management are feasible to a great extent in natural disasters, even though the sudden shifts in the course they take may alter the parameters.

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The present issue of the Review looks in particular at the threat of a nuclear, radiological, biological or chemical (NRBC) event. Although such weapons have been outlawed or their use, in the case of nuclear weapons, has been declared generally incompatible with humanitarian law, their availability renders their use
rather likely. Everybody remembers the atomic bombing of Hiroshima and Nagasaki at the end of the Second World War, when for the first time the lives of tens of thousands of people could be claimed by a single bomb. Chemical weapons, too, have been used, especially in the Iran–Iraq war in the 1980s, and several smaller incidents outside armed conflicts indicate that NRBC weapons could be used on a larger scale by states or non-state groups, leading potentially to catastrophic events. Consequences and the ensuing humanitarian needs vary on each occasion and also differ according to the type of NRBC event. The most difficult challenges for every state and especially for humanitarian organizations would result from the use of nuclear weapons, chemical warfare and highly infective and contagious agents.

The chance of mitigating a catastrophic event is greatly improved when those potentially affected by them develop emergency preparedness plans and the appropriate response capacity. In the event of a major incident, many governments make use of their right to declare a state of emergency, which gives them extensive powers over the daily lives of their citizens and may include temporary curtailment of certain civil rights. Hence security considerations may often clash with humanitarian ones. Most developed countries have a number of internal services geared to help in dealing with any emergency which may arise. The core emergency services include the police and security (and investigation) services, the fire (and rescue) service and the emergency medical service. They are often government-run, but may in some cases be private companies or voluntary organizations.

While some Western countries may have adequate national emergency plans to respond to major catastrophic events, such plans are most likely lacking in many other countries. As local capacities may therefore often be insufficient to deal with a major crisis, international assistance is frequently required, if only to ensure at least a minimum of assistance for the victims. The International Federation of Red Cross and Red Crescent Societies is promoting guiding principles to help organize such assistance.

In situations of armed conflict, and even more so in an NRBC event, security and investigatory priorities may temporarily prevent assistance from being provided. Uncertainty about the nature of the event, or the time and magnitude of such an attack, can preclude any form of effective assistance for the victims. In any case, an effective international response of direct benefit to the victims of major NRBC events would not be possible at present without tapping into the existing military capabilities. Certain UN specialized agencies such as the International Atomic Energy Agency, the Organization for the Prohibition of Chemical Weapons and the World Health Organization have limited special expertise and equipment to carry out their mandates in contaminated areas. However, their mandate may not extend to bringing direct assistance to the victims. Other humanitarian organizations have no capacity at present to work in contaminated environments.
The ICRC – and the National Red Cross and Red Crescent Societies and their Federation – are also hardly in a position to provide possible NRBC victims with some form of assistance as a dedicated international response. In carrying out their mandate to protect and assist victims of armed conflict, ICRC staff have at times found themselves in a contaminated zone without knowing it, and may do so again in the future. When confronted with such events in past conflicts, the ICRC has taken an ad hoc approach – mostly without directly assisting the victims in contaminated areas. There is currently no adequate plan capable of ensuring effective assistance to victims whilst minimizing the risk to the health and safety of staff.

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Of course no one likes to think about such catastrophic scenarios. It is nonetheless our responsibility to take the necessary steps to prevent disasters and, if they are unavoidable, to possess the means to mitigate their effects and alleviate the suffering of the stricken population. As for NRBC weapons, any adequate operational response to a low-probability/high-impact event would require huge long-term investments in a variety of areas (political, managerial, organizational, financial and, not least, human resources). These are big contingency investments that most states can hardly afford. It is consequently important to stimulate discussion on how governments can, perhaps together, counter these threats while they remain hypothetical.

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