
# Understanding disaster risk: hazard related risk issues

## SECTION IV
## Technological risk

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# Introduction

The risk of technological accidents from man-made and natural hazards is increasing as a result of industrialisation, population growth that leads to more urbanisation and community encroachment on natural-hazard areas, and climate change. The last few years have seen major technological accidents, with significant social, environmental and economic impacts that have had repercussions around the globe. Examples include the explosions at chemicals warehouses at Tianjin Port in 2015, the Fukushima nuclear disaster caused by the 2011 Great East Japan earthquake and tsunami, and the Deep Water Horizon oil spill in 2010.

There is no overarching framework for the reduction of technological risks, and disaster risk reduction initiatives have not commonly addressed this type of risk. With the Sendai Framework for Action, the importance of technological hazards has been recognised and an all-hazards approach to disaster risk reduction is promoted. This includes dangerous situations arising from man-made activities caused by human and organisational error, mechanical failure and natural hazards — so-called Natech risk. Prevention and preparedness for these risks, and for environmental emergencies in general, also has implications for sustainable development.

There are many hazardous industrial activities that provide society with important goods and services (e.g. chemical processing, oil and gas transport and some forms of electricity production). For the purpose of this report, three examples of major technological hazards were selected and the state of play in the management of the associated risks is discussed: (1) chemical accident risks due to the relatively frequent occurrence of accidents, (2) nuclear risks due to the potential for major cross-border consequences, and (3) Natech risks as an example of a multihazard cascading risk.