3.2 Population

Introduction

Natural and human-made disasters affect and disrupt the lives and livelihoods of people in different ways. This is at the core of the Sendai Framework for Disaster Risk Reduction. The expected outcome of the framework is a 'substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries' (UNISDR, 2015, p. 12). In order to monitor this, the first two targets of the framework address the people killed or affected, because people are the most important asset to protect from risk and disaster. People are the ones we ultimately want to protect from the impact of disasters. As the Sendai Framework states, there are not only the direct and immediate impacts of hazards on people such as death or injury. There are also a number of indirect and long-term impacts on people that may not injure or kill directly, but instead may cause long-term impacts on individuals or entire societies. The impacts of disasters may deprive people of their homes, their livelihoods and impede the functioning of society as a whole.

Consequently, this subchapter will address the population at risk and the potential impacts of disasters on populations by analysing the different dimensions, from the individual to society as a whole. Starting from the individual,

Section 3.2.1 analyses how hazards threaten human lives in Europe, and the wider impacts of disasters on people's health and well-being, considering how different hazards interplay with the effects beyond immediate impacts. This section addresses the relations between the disaster management cycle and hazards causing death, injury or health damage across Europe. The temporal dimension plays a central role here; the speed of hazard onset (quick/slow onset) has to be linked to the duration of effects on humans (short/long term). The section proposes new approaches such as biomonitoring methods and biomarkers for improved assessment of exposure and human health risk; it also addresses the importance of human behaviour and measures of self-protection as factors influencing impacts, illustrating this with the example of the heatwave in Europe in 2003.

Section 3.2.2 enlarges the view from the individual to the immediate habitat of the people – their homes and immediate neighbourhood. It takes the housing/habitat as the asset at risk and analyses the impacts of three different disasters: the Toll Bar flood 2007 in the United Kingdom, the Grenfell Tower fire in 2017 in the United Kingdom and a series of earthquakes in Italy. The primary measure of impact analysed in this section is relocation or displacement of population from their homes. This takes into account the different spatio-temporal scales of displacement. The analysis highlights the importance of hindsight analysis and implementation of the lessons learned.

Section 3.2.3 finally expands the analysis of the impact of disasters to the entire society. By 'society', we refer to all the people that live together, have a common history and cooperate to carry on their lives and pursue fundamental interests. This can be a local society, but also parts of a nation or the entire population of a country or region. Society has a complex structure with uncounted social and economic relationships. The structure of society is dynamic, with many external and internal factors that are constantly changing and developing it. When disasters strike, they also affect societies and may lead to disruption of the way societies function. This section explores the Van earthquake in Turkey (2011) and a toxic cloud after a technical accident in Zevekote (Belgium) in 2017 to review the impacts of different types of disasters at the community/society level based on the results of case studies, to show social reactions to disasters and to better illustrate social patterns and vulnerable groups in society.