



Flood-related mortality in Tunisia and Morocco. Initial results for the period 1980-2020

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Since fifteen years, there have been many publications on flood-related mortality, especially in Europe. However, the countries on the southern side of the Mediterranean sea (northern Africa) have received little attention. This presentation introduces the results of a study on flood-related mortality in Morocco and Tunisia. The period covered is 1980-2020, to ensure consistency with European publications. The method used starts from research in the newspapers, internet, existing database such as EM-DAT and in scientific and technical bibliography. Identified flood-related fatalities are then confirmed on field, especially to obtain the location and the accurate circumstances of the deaths.

1,400 deaths in Morocco and 275 in Tunisia have been identified between 1980 and 2020, but the number of deaths is probably underestimated before 1995 in Morocco and before 2010 in Tunisia. Indeed, data quality varies considerably from one period to the next. In Morocco, the Ourika flood event that triggered between 200 to 700 fatalities in August 1995 raised awareness of the issue of flooding. Since then, data collection has become much more accurate. In Tunisia, it was the spread of the Internet and the 2011 revolution that enabled flood information to be disseminated, particularly in the newspapers. The mortality rate for each country's population ranges from 0.66 (Tunisia) to 1.2 (Morocco) death per year and per million inhabitants.

The first result is the predominance of outdoor fatalities, either by car or pedestrians, for example when crossing wadis. Deaths at home are rarer than in Europe. We must note in Morocco the specific case of old houses that collapse during heavy rainstorms events. The age of dead people is younger than in Europe, reflecting the youth of the North African population. Men are over-represented. The geographical distribution of deaths shows mortality hotspots linked to population distribution. In Tunisia, fatalities have concentrated over the last ten years in the Tunis city region and along the coast, reflecting the increase in population along the coast.