

## Introductory information

Title: Loss of life due to floods; Data underlying the dissertation: Loss of life estimation in flood risk assessment - theory and applications

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This dataset was originally published as part of the dissertation by S.N. Jonkman (2007) entitled "Loss of life estimation in flood risk assessment - theory and applications". The data has been published in appendix 7.III of that dissertation

## Methodological information

The data was collected through a study of literature and archives. Sources are given in the “sources” tab.

## Data specific information

The names and properties of variables and fields in the dataset are explained below.

Variable	type	Sym- bol	Unit	Description
<b>Event and location</b>				
Event code	descriptive			Abbreviation of event, indicating country and year of event
Date	date			Date of occurrence of event
Event name	descriptive			Typhoon or storm name (if appropriate)
Location	descriptive			flooded location (town, city)
<b>Fatalities</b>				
Fatalities total	number	$N_D$	-	Total number of fatalities by location
Fatalities by zone	number		-	Fatalities by zone. Descriptions from sources have been used. <i>NL 1953: Classification of fatalities by zone of Waarts (1992) has been used</i> <i>All: if no indicative information was available fatalities have been assigned to the remaining zone</i>
Number of inhabitants	number	$N_{PAR}$	-	Number of people in flooded area. <i>NL 1953: numbers of inhabitants have been abstracted from official numbers from CBS.</i>
Number of exposed	number	$N_{EXP}$	-	Is found by correcting number of inhabitants for the number of evacuated, sheltered and rescued.

				<p>All events: If the whole area is flooded and no evacuation took place it has been assumed that all inhabitants were exposed. If a part of the area has been flooded, then the number exposed is assumed to equal the ratio of inundation * the number of inhabitants (thus homogenous distribution of population is assumed).</p> <p><i>NL 1953: number of exposed has been determined based on maps of flooded areas and population distribution (van den Hengel, 2006)</i></p>
Mortality	fraction	$F_D$	-	Number of fatalities divided by the number of exposed people
<b>Flood characteristics</b>			-	
Flood depth	number	$h$	m	<p>Water depth in the area, often determined as: water level – land level</p> <p>Jap 1934, Jap1950, Jap1961 given as mean inundation depth  <i>USA1965: chosen as measured water depth closest to the population center</i></p>
Rise rate	number	$w$	m/hr	<p>Estimation of rise rate over the first 1.5 metres of water.</p> <p><i>NL 1953: estimations of rise rate from (Waarts, 1992)</i></p>
Rise rate	Descriptive		-	<p>Classification of rise rate.</p> <p>Large if <math>w \geq 0.5</math> m/hr</p> <p>Small if <math>w &lt; 0.5</math> m/hr</p>
<b>Warning, shelter and evacuation</b>				
Warning level	Classification			Classification of warning level according to the method proposed in (Tsuchiya and Yasuda, 1980) and description in section 7.4.6 in Jonkman, 2007
<b>Building collapse</b>				
Total number of buildings	number		-	<p>Total number of buildings in area</p> <p><i>For Jap1934, 1950, 1961 this is assumed to equal the number of households</i></p>
Buildings collapsed	number		-	Number of buildings to be reported to be (fully) collapsed
Fraction of buildings collapsed	fraction	$F_B$	-	Number of buildings collapsed divided by total number of buildings
Sources				Sources from which recorded information has been abstracted