

Tables:

Table 1: Bivariate correlations of ‘risk preparedness’ with other variables

Variable	r ^a	n
Evaluation - subscale risk map^b	.319***	361
Risk awareness – subscale perception^b	.318***	459
Risk awareness - subscale relevance^b	.278***	455
Information need	.308***	445
Readiness to seek flood-related information in different media^b	.276***	434
Reason not to implement measures: cost-benefit	-.267***	460
Number of reasons not to implement measures	-.222***	460
Evaluation - subscale mail information^b	.245***	347
Sex (female=1, male=2)	-.214***	445
Preference to invest in flood protection (against keeping public debt & regulation low)	.203***	439
Perceived responsibility politics	.181***	421
General intention to renovate property	.178***	448
Self-assessed ability to prevent flood damage	.177**	445
Perceived risk of house fire	.164**	459
Perceived risk of industrial accident	.163**	457
Intensity of attention paid to the information material	.162**	450
Perceived responsibility of civil protection organizations	.163**	393
Perceived responsibility of other actors	.574**	28
Perceived under-estimation of flood risks in public discourse	.156**	427
Perceived responsibility of insurance companies	.153**	401
Would access special website for hazard information	.140*	441
Perceived under-estimation of nuclear energy in public discourse	.140*	435
Professional or voluntary background related to natural hazards	.138*	460
Talked to nobody about flood	-.135*	460
Owner of a house	-.132*	264
Assumption that flood damage will increase in future	.116*	455
Length of time spent on consulting the online risk map	-.115*	451
Talked about floods with friends and acquaintance	.111*	460
Highest level of education: university	-.108*	460
Priority of flood protection vs. public green space	.109*	432
Property use: live there	-.102*	460
General risk-aversion	.101*	448
Trust in authorities	.100 (p=.054)	432
Owner of business offices	.098 (p=.055)	63
Perceived risk area (1=low risk, 2= medium risk, 3=high risk)	.110 (p=.056)	350

***p<.001; **p<.010; *p<.050

Notes:

^a The coefficient given in the table represents Pearson’s correlation for interval scaled variables, and Spearman’s rank correlation for ordinal scaled variables.

^b Scales are highlighted in bold.

Table 2: Predictors of preparedness (future intention)

	Model 1	Model 2	Model 3
Model summary	R ² =.244, F(6, 320)=18.116, p<.001	R ² =.256 F(6, 317)=19.142, p<.001	R ² =.269, F(7, 309)=17.611, p<.001
Independent variables	Stand. Beta (SE)	Stand. Beta (SE)	Stand. Beta (SE)
Evaluation	.187*** (.079)	.238*** (.062)	.195***(.065)
Information need	excluded	.221***(.046)	.186***(.047)
Risk awareness	.186** (.066)	excluded	.141*(.081)
Cost-benefit evaluation of protection measures	-.168** (.094)	-.188***(.092)	-.164**(.093)
Priority of security	.163** (.050)	.148**(.050)	.133**(.049)
Sex	-.158** (.097)	-.133*(.097)	-.135**(.097)
Reconstruction intention	.167** (.062)	.153(.062)	.150**(.061)

***p<.001; **p<.010; *p<.050

Table 3: Predictors of already adopted measures (current state of preparedness)

Model summary	Dependent variable
Independent variables	$R^2=.132$, $F(6, 392)=10.915$, $p<.001$.
Cost-benefit evaluation	-.200 (0.88)***
Risk acceptance (evacuation)	.170 (0.40)***
Self-assessed knowledge	.134 (0.40)**
Professional or voluntary background in natural hazards	.131 (1.38)**
General risk aversion	.129 (0.58)**
Duration of residence	.092 (0.27), $p=.075$

APPENDIX
Table A 1.1

Scale name	Items used for construction	<i>N</i>	<i>M (Range)</i>	<i>SD</i>	<i>α</i>
Preparedness	Intend to:				
	- install building flood-proof equipment	405	2.20 (1 to 5)	.952	.877
	- adopt temporary measures (e.g. mobile barrier)				
	- inform tenants				
	- work out emergency plan				
- not use certain rooms (e.g. cellar)					
Risk awareness	All items	459	-0.20 (-1 to 1.5) ¹	.676	.836
	Subscale 'risk perception':				
	- perceived risk in Zurich	459	-0.035 (-1 to 1.5)	.744	.748
	- perceived risk for own building				
	- probability of experiencing a flood in Zurich				
	- worry about flood risk				
	Subscale 'relevance':				
- interest in natural hazards	455	3.00	.919	.803	
- flood is relevant topic					
- followed flood-related information					
- followed specific flood-related information in Zurich					
Risk acceptance	All items				.841
	Subscale 'risk acceptance city':	447	2.92		
	- interruption of water and electricity supply			.895	
	- water and electricity supply disturbed				
	- restoration of public and private buildings				
	- destruction of central infrastructure				
	- economic life stands still				
Subscale 'risk acceptance own property':					
- interior has to be partly replaced	443	2.62	1.012	.912	
- building equipment has to be replaced					
- building temporarily not usable					
- building has to be destroyed					
- psychological or physical damage					
Perception of flood risk compared to other risks	Own property:				
	- perceived flood risk				
	City area:				
	- perceived flood risk				
Evaluation of the information material	All items	370	3.64	.760	.887
	Print material (letter, brochure) is:				
	- useful	347	3.75	.730	.753
	- comprehensible				
	- knowledge-gain				
	Risk-map (online) is:				
	- useful	361	3.57	.884	.863
- comprehensible					
- comprehensive					
- helpful for decision making					
- knowledge-gain					
- makes me think					

¹ The variable was z-transformed due to different scale-width of items.

Value of safety
(compared with other values)

- priority of safety vs. public debt
- priority of safety vs. regulation

Trust in public risk management	All items	432	4.14	.855	.929
	Local authorities (City of Zurich)				
	- take my interests seriously	422	4.16	.908	.883
	- are competent in flood protection				
	- provide safety				
	Cantonal authorities				
- take my interests seriously	413	4.13	.865	.889	
- are competent in flood protection					
- provide safety					
Perceived responsibility	Own responsibility				
	- perceived responsibility of property owners	392	4.15	1.14	.878
	- perceived responsibility of citizens				
	Responsibility of the authorities				
	- local authorities	421	4.85	.900	.876
	- cantonal authorities				
	- federal authorities				
	Responsibility of emergency agencies				
	- civil protection agencies	393	4.14	1.31	.915
- fire brigade					
Attachment	- length of occupancy of building				
	- attachment to the object	425	3.42	1.17	.701
	- attachment to the city				

Table A 1.2

Items	N	M²	SD	Range (interpretation of values: 0=don't know, 1=applies least highest value = applies most)
Perceived fire risk of fire to own property	491	2.02	0.837	0-5
Perceived risk of industrial accidents in the City of Zurich	491	2.01	0.794	0-5
Perception of public discourse: underestimation of risks (industrial accident, nuclear energy, ozone in air)	471	3.2939	0.81967	1-5
Self-assessed knowledge about flood risks (feel well informed)	456	3.33	1.092	1-5
Self-assessed knowledge about flood risks before the campaign	487	2.60	0.995	1-5
Prefer to bear the costs of flood damage than invest in mitigation	480	2.47	1.136	1-5
Ability to implement prevention measures	479	2.50	1.196	1-5
Perceived location in a risk area (red, blue, yellow, yellow-white)	350	“don't know“	1.107	0-4
General risk-aversion	448	3.30	0.881	1-6
Priority of safety vs. green spaces	465	2.87	1.279	1-5
Perceived responsibility of insurance companies	401	4.1	1.371	1-6
Read printed information material	480	0.73	0.444	0-1
Accessed online risk map	485	0.31	0.461	0-1
Average time taken to study print material (minutes)	491	11.44	16.809	0-210
Average time taken to study online risk map (minutes)	492	4.87	16.336	0-300

²For the categorical variables, the median category is given instead of the mean value.

Intensity of studying the material	483	1.43	0.975	0-4
Information need	477	2.77	1.064	1-5
Preference for information sources (media) other than information letters	30	2.6556	0.97176	1-5
Talked about the topic in private circles	460	0.41	0.493	0-1 (no-yes)
Talked about the topic to experts	460	0.08	0.276	0-1 (no-yes)
Number of flats owned	489	6.57	36.899	0-600 ³
Number of houses owned	264	2.16	4.498	0-50
Number of offices owned	92	3.26	7.785	0-50
Live in own property	491	0.66	0.474	0-1
Sex	477	1.65	0.478	1-2 (1=female, 2=male)
Number of objects (flats, houses)	492	18.87	143	0-2091
Age	394	61.44	13.576	23-102
Highest level of education	451	University degree (32%)	1.32	1-5
Household size	393	2.45	1.137	1-7
Have children	483	„yes“ (75%)	0.439	0-1
Number of already implemented measures	428	0.64	0.944	0-6
Could imagine selling the property	456	2.05	1.284	1-5
Feeling of responsibility for the object	460	4.09	1.242	1-5
Floods in the city of Zurich can reliably be predicted	458	3.03	1.137	1-5
Flood damage will occur more frequently in future	488	3.46	1.165	1-5
The printed information material motivates me to take precautionary measures	368	2.31	1.158	1-5

³ Apart from private property owners, the sample included non-private owners like companies or housing associations (number of non-private owners in the sample: n=48). Private respondents owned 19 objects (houses, flats, office rooms) on average. (Remark: here, the term ‘private’ is not used in contrast to ‘public’ or ‘governmental’, but in contrast to organizations).

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