





Dear recipient,

Finnish Environment Institute is developing communication with the residents of flood risk areas so that in case of flood both residents and officials could operate in a manner that would leave flood damages to a minimum.

Global climate change is predicted to increase floods. The development of flood risk management is a challenge that faces whole of Europe. EU has approved the Directive on the Assessment and Management of Flood Risks on September 19th 2007. This research is affiliated with the international UR-flood project (Understanding and risk in communicating about flood) which includes researchers from Scotland, Ireland and Italy. The project is a part of an international ERA-Net Crue –flood research network. This network aims to promote the networking of research information regarding flood risk management and to support multinational research and development projects.

Saarenkylä area in Rovaniemi has been chosen as a national research subject regarding flood communication in Finland. We aim to investigate your impressions on floods and flood related matters such as flood losses, communication, preparation and actions by authorities. This enquiry will help us to solve and clarify procedures and manners in which information about flood risks and flood warnings is understood and what kind of effect it has. In addition, this enquiry helps us both to find obstacles and restrictions in information flow and to give directions on how to deliver information to citizens and authorities regarding flood warnings and post-flood announcing.

We hope that you will help us to develop flood communication by returning this enquiry in its reply envelope by July 31st 2009 without postage. The results of this research will be utilized in Finland and in parts of Europe. All respondents will participate in a raffle in which the winner may choose either a picnic bag or two legendary LGH peukaloinen –lures or (picture above).

FOR FURTHER INFORMATION, PLEASE CONTACT:

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The following questions concern floods and flood losses you have experienced.

1.	What concerns you the most regarding floods?
	 □ The rise of water surface □ The frequency of floods regardless of the rise of water surface □ The combination of water surface rising and the frequency of floods.
2.	Have you experienced harmful floods in your current place of residence?
	☐ Yes, times ☐ No
3.	When did you experience those floods and what caused them?
	Years: ☐ Flood caused by an ice jam ☐ Flood caused by a large discharge ☐ I don't remember
4.	Have you experienced floods in any of your previous residences?
	☐ Yes, times ☐ No
5.	When, where? Years: Place: □ I don't remember
6.	Please estimate how many times harmful floods have occurred in Rovaniemi during your lifetime.
	times □ I don't know

7.	unde	ou have experienced floods in your current residence, which of the following have you ergone?
		Felt great concern about my family or my possession
		Flooded basement
		Walls or the floor have gotten wet
		Fittings have gotten wet Devices or machines have gotten wet
		Spoiling of personal belongings (e.g. photos)
		Spoiling of valuables
		Spoiling of items stored on your property
		Power failure
		Telephone, TV or radio connections have got cut off
		Spoiled drinking water
		Disturbed means of communication
		Loss of livelihood
		A family member getting sick or being injured as a result of flood Something else, what
8.	Wha flood	t measures have been made in your residence / place of business in case of or in risk of d?
		Delicate items have been moved to higher floors / higher position. Protective measures have been to the property (e.g. sandbags, clogging the sewers). Belongings have been moved to another place
		People have been moved to another place.
		No measured were made.
		Other measures,
		nat?
9.	If me	easures were made, by whom were those made?
		Myself/a member of my family
		City authorities
		Rescue workers Lapland Regional Environment Centre
		I don't know
		Somebody else, who?
10		e you or a member of your family filed for compensation for flood losses?
		Yes No
11	. Have	e you or a member of your family received compensation for flood losses?
		Yes
		No
12	. If yo	ou did receive compensation, were you satisfied with it and its processing?
		Yes No

The following questions concern your experience with the flood of the year 1993. If you did not live in Rovaniemi at that time, you may skip questions 13 to 15.

Felt great concern about my family or my possession Flooded basement Walls or the floor have gotten wet Fittings have gotten wet Devices or machines have gotten wet Spoiling of personal belongings (e.g. photos) Spoiling of valuables Spoiling of valuables Spoiling of valuables Spoiling of items stored on your property Power failure Telephone, TV or radio connections have got cut off Spoiled drinking water Disturbed means of communication Loss of livelihood A family member getting sick or being injured as a result of flood Something else, what	13. If you experienced the flood of 1993 in your current residence, which of the following have you undergone?
An equivalent flood occurs every years. I have no idea 15. If you experienced the flood of 1993, please estimate your level of preparedness? I was well prepared I was quite well prepared I was quite ill-prepared I was ill-prepared I don't know Two maps have been attached to this query. They represent 50- and 250-year floods. Next questions concern these maps and flood maps in general.	□ Flooded basement □ Walls or the floor have gotten wet □ Fittings have gotten wet □ Devices or machines have gotten wet □ Spoiling of personal belongings (e.g. photos) □ Spoiling of valuables □ Spoiling of items stored on your property □ Power failure □ Telephone, TV or radio connections have got cut off □ Spoiled drinking water □ Disturbed means of communication □ Loss of livelihood □ A family member getting sick or being injured as a result of flood
☐ I have no idea 15. If you experienced the flood of 1993, please estimate your level of preparedness? ☐ I was well prepared☐ I was quite well prepared☐ I was quite ill-prepared☐ I was ill-prepared☐ I don't know Two maps have been attached to this query. They represent 50- and 250-year floods. Next questions concern these maps and flood maps in general.	14. Please estimate the recurrence interval of the flood of 1993:
☐ I was quite well prepared ☐ I was quite ill-prepared ☐ I was ill-prepared ☐ I don't know Two maps have been attached to this query. They represent 50- and 250-year floods. Next questions concern these maps and flood maps in general.	
questions concern these maps and flood maps in general.	☐ I was well prepared ☐ I was quite well prepared ☐ I was quite ill-prepared ☐ I was ill-prepared
16. Do you think you ourmently live in a flood risk area?	
☐ Yes ☐ No ☐ I don't know	□ No

17. How probable you think the	nat a 50-year flood	will occur in	Saarenkylä	during your li	fetime?			
 ☐ Highly probable ☐ Moderately probable ☐ Slightly probable ☐ Not probable at all ☐ I don't know 	•							
18. How probable you think th	nat a 250-year floo	d will occur i	n Saarenkylä	i during your	lifetime?			
 ☐ Highly probable ☐ Moderately probable ☐ Slightly probable ☐ Not probable at all ☐ I don't know 								
19. The magnitude of flood is often described with a recurrence interval e.g. 20-, 50-, 100- or 250 year flood. How do you feel about the following statements concerning a 100-year flood?								
	Agree	Slightly agree	Slightly disagree	Disagree	I don't know			
A 100-year flood will no occur in my lifetime	t 🗆							
Experts have sufficient methods for determining 100-year flood	a \square							
Experts are able to accurde determine the magnitude 100-year flood.	•							
The magnitude of a 100-flood will change in the course of time	year \Box							

20. The magnitude of flood can also following statements concerning								
	Agree	Slightly agree	Slightly disagree	Disagree	I don't know			
A 1 % flood will not occur in my lifetime								
Experts have sufficient methods for determining a 1 % flood.				_				
Experts are able to accurately determine the magnitude of a 1 % flood.								
The magnitude of a 1 % flood will change in the course of time.								
21. What do you consider the biggest cause of floods in Rovaniemi?								
22. How worried you are about the fl Saarenkylä and Rovaniemi?	oods of Ke	emijoki and Ou	nasjoki cond	cerning your l	nome,			
My home Saarenkylä	Greatly worried	Moderately worried	Slightly worried	Not worried □ □	I don't know □ □			
Rovaniemi								

The following questions are about your feelings concerning flood preparedness and actions taken during floods in current situation.

23. How have the following matters	been taker	n care of in Saa	renkylä?		
	Well	Quite well	Quite badly	Badly	I don't know
General awareness regarding floods					
Implemented flood prevention measures					
Flood prevention plans					
Resident co-operation in flood prevention					
Resident co-operation during flood					
24. How do you feel the following p	arties have	handled flood	matters bef e	ore floods?	
	Well	Quite well	Quite badly	Badly	I don't know
The city of Rovaniemi Voluntary rescue					
organizations (e.g. VPK, SPR)					
Rescue workers					
Lapland Regional Environment Centre					
Kemijoki Oy					
25. How do you feel the following p	arties have	handled flood	matters dur	ring floods?	
	Well	Quite well	Quite	Badly	I don't
The city of Rovaniemi			badly		know
Voluntary rescue organizations (e.g. VPK, SPR)					
Rescue workers					
Lapland Regional Environment Centre					
Kemijoki Oy					

20. How do you feet the following parties have handled flood matters after floods?									
	Well	Quite well	Quite	Badly	I don't know				
The city of Rovaniemi			badly		Kilow □				
Voluntary rescue organizations									
(e.g., VPK, SPR) Rescue workers									
Lapland Regional Environment Centre Kemijoki Ov									
Kemijoki Oy									
27. You may express your feelings about the activities of different parties below.									
28. How important do you consider the following precautionary measures are?									
	Important	Quite important	Not very important	Not important at all	I don't know				
My own precautionary measures									
Regulation of watersheds Floodbanks and other									
protective measures									
Zoning Pre-flood communication									
Flood warnings									
Something else, what									
29. How do you feel about your current level of preparedness for floods?									
☐ I am well prepared ☐ I am quite well prepared ☐ I am quite ill-prepared ☐ I am ill-prepared ☐ I don't know									
30. How do you feel about your ne	eighborhood's	s level of prep	aredness for	floods?					
 □ Well prepared □ Quite well prepared □ Quite ill-prepared □ Ill-prepared □ I don't know 									

31. If precautionary measures were taken in Saarenkylä, what would you think about the following statements?							
	Agr	ee Sligh	•		ee I don't know		
They would prevent flood losses.	major \square	_					
They would create a of security	sense	ı –					
I would allow a floodbank/dyke to b on my property.	e built	I 🗆					
I would be willing to participate in the construction costs of floodbank/dyke.		ı 🗆					
I would be willing to on a view for a floodbank/dyke.	o give up	I 🗆					
I would be willing to on ecological values precautionary measu	for	ı 🗆					
32. How useful would yo	u consider a flood	d drill held in	your residenti	al area?			
☐ Useful☐ Quite useful☐ Quite useless☐ Useless☐ I don't know							

We would also like to know more about your impressions regarding flood communication

33. What is you primary source of what other sources do you use t		_		ning Rovani	emi and
TV Radio Newspapers Internet Family or friends Something else, what?		Primary □ □ □ □ □ □	In use		
34. What is you primary source of and what other sources do you		U .		rectives dur	ing flood
TV Radio Newspapers Internet Family or friends Something else, what?		Primary □ □ □ □ □ □	In use		
35. How do you feel different partic	es nave na Well	Quite well	Quite	Badly	I don't
The city of Rovaniemi			badly		know
Voluntary rescue organizations	_	_	_	_	_
(e.g., VPK, SPR) Rescue workers					
Lapland Regional Environment Centre					
Kemijoki Oy					

36. Have you visited the hydrological forecasts page on the website of Finland's environmental administration? (www.environment.fi/waterforecast)?
☐ Often ☐ Quite often ☐ Quite seldom ☐ Seldom ☐ I haven't visited
37. How useful to yourself did you find the webpage?
☐ Useful ☐ Quite useful ☐ Quite useless ☐ Useless ☐ I don't know
38. How reliable you consider the forecasts?
 □ Reliable □ Quite reliable □ Quite unreliable □ Unreliable □ I don't know
39. Have you visited the flood mapping page on the website of Finland's environmental administration (www.ymparisto.fi/tulvakartat)?
☐ Often ☐ Quite often ☐ Quite seldom ☐ Seldom ☐ I haven't visited
40. How useful did you find the webpage to yourself?
☐ Useful ☐ Quite useful ☐ Quite useless ☐ Useless ☐ I don't know
41. How reliable you consider the maps?
☐ Reliable ☐ Quite reliable ☐ Quite unreliable ☐ Unreliable ☐ I don't know

42. How satisfied are you with infor	mation avai	ilable on flood	ds?		
 □ Very satisfied □ Quite satisfied □ Quite unsatisfied □ Very unsatisfied □ I don't know 					
43. How would you describe the acc	cessibility o	f authorities r	egarding floo	od matters?	
☐ Authorities are easy to read ☐ Authorities are quite easy to ☐ Authorities are quite diffic ☐ Authorities are difficult to ☐ I don't know	to reach. ult to reach				
44. How do you feel about the follow authorities and their attitude tow	_	ents concerni	ng flood rela	ted communic	cation by
	Agree	Slightly agree	Slightly disagree	Disagree	I don't know
Lingo used by authorities is clear.					
Terminology used by authorities is understandable.					
Authorities regard to me in appropriate manner.					
Matters can be improved by communication between me and authorities.					

45. How useful do you find the follo	owing means of	of flood relate	ed communio	cation?	
	Useful	Quite useful	Quite useless	Useless	I don't
A scrolling text/warning at the bottom of a TV screen					know
A radio announcement					
An SMS-notification					
Internet					
A sign placed near your residence which shows flood heights and instructions					
Door-to-door announcing					
Brochures delivered to residencies					
Something else, what					
Finally, we need some background 46. How many years have you lived			your house	hold.	
years					
47. How many years have you lived	in Rovaniem	i?			
years					
48. What type of building do you liv	e in?				
☐ Detached house ☐ Semi-detached house ☐ Row house ☐ Apartment house ☐ Something else, what					
49. Does your house have a basemen	nt?				
□ Yes □ No					

50. How many floors does your house have IN ADDITION to basement?
floors.
51. What is the ownership of you apartment?
 □ Owner-occupied □ Right of residence □ Rental □ Something else, what
52. Your gender?
☐ Female ☐ Male
53. What is your age
 ☐ Under 25 years ☐ 25 to 34 years ☐ 35 to 44 years ☐ 45 to 54 years ☐ 55 to 64 years ☐ over 65 years
54. How many permanent residents in addition to you does your household include and how old are they?
residents, with the age of,,,,,,,
☐ Finnish ☐ Swedish ☐ Sámi ☐ Something else, what
56. Your answers will be processed using geographic information so they would best benefit this research and flood prevention projects of Saarenkylä. All answers are handled confidentially and no information about your residence will be given to any researcher outside this project. However, if you wish to remain anonymous, you may strike out the ID-number on your reple envelope. In that case you may not participate in the raffle.
57. Should you win in the raffle, which prize would you like to have?
☐ Two legendary LGH Peukaloinen -lures ☐ Picnic-bag

THANK YOU FOR YOUR REPLY, GOOD LUCK IN THE RAFFLE and HAVE A GREAT SUMMER!!





