

Supplementary Materials File S1: Household survey in the district of Ahrweiler on the flood event of July 2021 – Excerpt of the questionnaire

General introduction

In **July 2021**, were you living for rent or in your own property/property of close relatives?

- ☐ Rent
- ☐ Property/property of close relatives
- ☐ No answer

Where was/is your **July 2021** residential building located?

- ☐ Inside the special hazard “yellow” zone
- ☐ Inside the legally defined floodplain of July 2021
- ☐ Outside the legally defined floodplain of July 2021 but inside the new floodplain provisionally defined by law
- ☐ Outside new floodplain provisionally defined by law but inside the flooded area from July 2021
- ☐ Outside new floodplain provisionally defined by law and outside flooded area from July 2021
- ☐ No answer

How long have you lived/do you live at this location (**prior** to the July 2021 flood)?

Note: Please enter the year. If you do not know exactly, you can round to the decade.

In my apartment/house since _ _ _ _

Where do you **currently** live?

- ☐ In the same house/apartment as in July 2021 → Filter (next question was skipped)
- ☐ In temporary housing/ with friends/ relatives → Filter (next question was skipped)
- ☐ Permanently in another house/apartment in the same district
- ☐ Permanently in another district
- ☐ Permanently in another city
- ☐ No answer

Where is your **current** residential building located?

- ☐ Inside the special hazard “yellow” zone
- ☐ Inside the legally defined floodplain of July 2021
- ☐ Outside the legally defined floodplain of July 2021 but inside the new floodplain provisionally defined by law
- ☐ Outside new floodplain provisionally defined by law but inside the flooded area from July 2021
- ☐ Outside new floodplain provisionally defined by law and outside flooded area from July 2021
- ☐ No answer

Experience with the July 2021 flood event

Did you have to leave your home due to a public call, an official order, or because of the damage?

☐ Yes

☐ No

→ Filter (next question was skipped)

☐ No answer

After how many days or months were you able to return to your home permanently?

☐ After 1-2 days

☐ After about four months (end of November 2021)

☐ After about a week

☐ After about six months (end of January 2022)

☐ After about two weeks

☐ After about eight months (end of March 2022)

☐ After about four weeks (end of August 2021)

☐ Not until today

☐ After about two months (end of September 2021)

☐ No answer

Before the July 2021 flood event, did you know you lived in a flood-prone area?

☐ Yes

☐ No

☐ No answer

Restoration after the July 2021 flood event

What was the total financial damage to your inventory/personal belongings and building/property caused by the 2021 flood?

☐ Under 500€

☐ 50,000€-74,999€

☐ 500-999€

☐ 75,000€-99,999€

☐ 1,000-4,999€

☐ 100,000€ or more

☐ 5,000-9,999€

☐ No financial damage

☐ 10,000-24,999€

☐ No answer

☐ 25,000-49,999€

Is it possible to refurbish your building?

☐ Yes

☐ No

☐ No answer

Please compare your building/property and personal belongings before the flood and their current condition. Have the damaged building and personal belongings, such as appliances or furnishings, been repaired/replaced in the meantime, or do the building/property and personal belongings still have significant deficiencies and defects as a result of the flood impact?

1 = completely replaced	2	3	4	5	6 = significant deficiencies	No answer
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Prevention & Risk Perception

Do you plan to move?

☐ Yes

☐ No

☐ No answer

What are the reasons for your relocation?

Note: Please check off everything that applies to you.

☐ The location is too dangerous for me.

☐ Reconstruction/refurbishment is too expensive and/or too complex for me.

☐ My place of residence no longer offers a quality of life.

☐ I was living in a rented flat/house.

☐ No answer

How important are the following factors to you when deciding on a new location?

	1 = completely unimportant	2	3	4	5	6 = very important	No answer
Short distance to former place of residence (e.g. because of neighbors, place of work)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possibility of remaining in the same (associated) municipality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good connection to public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good connection to local supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good social environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Joint move with other affected neighbors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flood-adapted construction of the new building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flood-proof location of the new building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability and energy efficiency of the new building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial support from the state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What are key factors that influenced your decision to stay in the same location?

Note: Please check off everything that applies to you.

- ☐ I don't think a move is necessary because my residential building was not affected by the 2021 flood.
- ☐ I don't think a move is necessary because an extreme flood (like the July 2021 flood) is very rare.
- ☐ I don't think a move is necessary because my building can be protected from floods.
- ☐ I don't have the strength/energy to move.
- ☐ I don't have the finances to move/I cannot adequately use the reconstruction funds to move to another area.
- ☐ I can't sell my building because the market value has dropped too much.
- ☐ I can't find any suitable replacement areas nearby.
- ☐ I feel strongly rooted in the place I live.
- ☐ I wasn't able to deal with the issue of "settlement retreat/relocation" during reconstruction.
- ☐ No answer

How likely do you think it is that your current apartment/house will be affected by flooding again?

1 = very unlikely	2	3	4	5	6 = very likely	No answer
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How do you assess the impact of a possible future flood on yourself personally?

1 = not bad	2	3	4	5	6 = very bad	No answer
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reconstruction process

One possible measure in the context of reconstruction is a partial settlement retreat, i.e. the residential and working locations are partially not rebuilt at the same, flood-prone location or are deconstructed.

To what extent do you agree with the following statements?

	1 = disagree at all	2	3	4	5	6 = agree completely	No answer
I consider a settlement retreat to be a meaningful measure in terms of risk prevention and climate change adaptation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Particularly sensitive or critical infrastructures (e.g. hospitals, schools) should be relocated from the immediate vicinity of the Ahr River.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel well informed regarding the settlement retreat and floodplain designation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Information about your person and household

How true is the following statement for you personally?

	1 = not true at all	2	3	4	5	6 = absolutely true	No answer
I am someone to whom it is important to live in a safe environment and who avoids anything that threatens my own safety.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To which gender do you assign yourself?

<input type="checkbox"/> Female	<input type="checkbox"/> Divers
<input type="checkbox"/> Male	<input type="checkbox"/> No answer

How old are you?	
<input type="checkbox"/> 18-19 years	<input type="checkbox"/> 65-69 years
<input type="checkbox"/> 20-29 years	<input type="checkbox"/> 70-74 years
<input type="checkbox"/> 30-39 years	<input type="checkbox"/> 75-79 years
<input type="checkbox"/> 40-49 years	<input type="checkbox"/> 80 years or older
<input type="checkbox"/> 50-59 years	<input type="checkbox"/> No answer
<input type="checkbox"/> 60-64 years	

What is your household's total monthly income after taxes and social contributions (net income)?	
Notes: <i>- Please include all income you have (e.g. also income from rent, housing subsidy, pension).</i> <i>- If you live in a shared apartment, please enter only your own income.</i>	
<input type="checkbox"/> Under 900€	<input type="checkbox"/> 2,600-3,599€
<input type="checkbox"/> 900-1,299€	<input type="checkbox"/> 3,600-4,999€
<input type="checkbox"/> 1,300-1,499€	<input type="checkbox"/> 5,000€ or more
<input type="checkbox"/> 1,500- 1,999€	<input type="checkbox"/> No answer
<input type="checkbox"/> 2,000-2,599€	