Original Questionnaire for the 'SCALAR' household surveys on private climate change adaptation Wave 1

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This panel survey contains data from households located in large, coastal urban centers in the United States (Houston, New Orleans and Miami greater areas), the Netherlands (Rotterdam greater area and the province of Zeeland), China (Shanghai greater area), and Indonesia (Jakarta greater area, other cities in Java). In each location we used the identical, translated questions in the respective languages of each country. These panel surveys conduced in five waves between 2020-2023 are focused on soliciting information on households' socio-economic background, perceptions, adaptive capacities, self-assessed resilience, place attachment, social influence, policy and other factors influencing individual climate change adaptation behavior surrounding private adaptation to climate change (here contextualized to floods). The surveys were conducted online with the help of YouGov, https://yougov.co.uk/. The first survey is from March-April 2020.

Related publications:

PhD Thesis of Dr. Brayton Noll (2023): https://repository.tudelft.nl/islandora/object/uuid%3A0d49cb3e-6dd8-4a9e-abc6-b847de938aea?collection=research

Noll, B., Filatova, T., Need, A, de Vries, P. (2023) 'Uncertainty in individual risk judgments associates with vulnerability and curtailed climate adaptation', Journal of Environmental Management, 325, 116462, https://pubmed.ncbi.nlm.nih.gov/36272292/

Noll, B., T.Filatova, A.Need (2022) 'One and done? Exploring linkages between households' intended adaptations to climate-induced floods', Risk Analysis, 1-19, https://doi.org/10.1111/risa.13897

Noll B., Filatova, T., Need, A. & Taberna, A. (2021) 'Contextualizing cross-national patterns in household climate change adaptation', Nature Climate Change https://doi.org/10.1038/s41558-021-01222-3

Note: Below the green color codes the name of the corresponding variable in the dataset. The yellow color denotes the internal comments guiding the conditional questions order.

General Information

You are invited to take place in an international survey organized by researchers at the University of Twente in the Netherlands. We are working with scholars in the United States, Indonesia, and China to study human behavior and natural hazards. This project is funded by the European Research Council and will contribute to research on adaptation to natural disasters. This is the first survey in a multi-part survey. Each six months we will send a short follow-up survey to ask if your responses have changed. Even if you have never experienced a natural hazard, your opinion is important to us. Please read below to find out more about what is involved.

About the survey

This survey has 6 sections and should take between 15 -20 minutes to complete. You will receive _____ points for taking part. The sections focus on:

- Information about your living situation
- Perceptions you have about your current situation in life
- Questions about natural hazards
- Your thoughts regarding flooding
- Any flooding preparations you have made or may make
- Socio-economic Information

This objective of this survey is to track how some of the above-mentioned factors change over time. In six months, we will send a short (10 minute) follow-up survey. It is extremely important to the research that you also fill this out. You will receive_____ points for each follow-up survey you complete.

Use of Data

None of the data we collect will be able to identify you individually and your responses and views will remain <u>anonymous</u>. YouGov will store this data securely _[*through these measures*]__ in compliance with GDPR,___*[Insert USA, China, Indonesia applicable legislation]_____*. You are able to withdraw from the survey at any point. Your responses will be used to better inform climate decisions models and inform international policy recommendations.

Consent

[] By ticking this box……

Section 1: Information about your living situation

In this first section we are going to ask some general questions about your background and living situation.

[Q0_age] Please enter the year in which you were born:

—————

16-24
25-34
35-44
45-54
55-64
65+

[Q0_gender] What gender do you identify with?
(USA + NETHERLANDS)
Male
Female
Trans Fem
Trans Male
Non-Binary/ Gender Fluid
(CHINA + INDONESIA)
Male
Female
Different than listed above

What race do you self-identify as?
[Q0_race_US] (USA ONLY)
White - not Hispanic or Latino
Black or African American
Hispanic or Latino (of any race)
Asian
Native American (American Indian, Alaska Native, Native Hawaiian or Pacific Islander)
Mixed (two or more races)
Another, not listed race

[Q0_ethnicity_ID] What ethnic group do you identify as?
(INDONESIA ONLY)
Javanese
Sundanese
Madurese
Betawi
Batak
Minang
Melayu
Dayak
Banjar
Makasar

Bugis   Another, not listed ethnicity

 What is the highest level of education you have completed?

[Q0_education_US](USA)

No highschool (Less than secondary education completed (never attended, no completed education))

High School (Secondary education) completed

Some college, but no degree

Two years of college

Four years of college

Post graduate degree

[Q0_education_CN] (CHINA)

Primary school

Middle school

High school

Vocational college education (e.g. to quality as an electrician, nurse) or general junior college education

University first degree (e.g. BA, Bsc)

University higher degree (Masters, MBA, PhD)

Professional higher education (e.g. to qualify as lawyer, accountant)

None of the above

[Q0_education_NL] (NETHERLANDS)

Less than secondary education completed (never attended, no completed education)

High school (secondary education) completed

College degree/tertiary education completed

Post-graduate degree

[Q0_education_ID] (INDONESIA)

Primary school (Sekolah Dasar (SD))

Junior secondary school (Sekolah Menengah Pertama (SMP))

Secondary school (Sekolah Menengah Atas (SMA)), vocational or pre-professional senior secondary schools (Sekolah Menengah Kejuruan (SMK))

Vocational education D3 level (e.g. in order to qualify as an electrician, nurse) and other general education D3

Level S-1 (e.g. Bachelor of Arts, Bachelor of Science)

Level S-2/S-3 (Masters, Doctorate)

Professional higher education (e.g. to qualify as lawyer, accountant)

None of the above

[Q0_employment_US]

full-time

part-time

temporarily laid off

unemployed

retired

permanently disabled

home maker

student

other

[Q0_employment_ID_NL]

full-time

part-time
full-time student
retired
unemployed
not working
full-time homemaker or housewife
other

[Q0_employment_CN]
full-time (30 or more hours per week)
part-time (8-29 hours per week)
part-time (less than 8 hours per week)
full-time student
retired
unemployed
not working
other

[Q0_state_US]
Please enter your state of residence: _____

[Q0_postcode] As part of this survey deals with natural hazards, place specific answers are very important.
Please enter your zip code: _____

Section 1: Information about your living situation

This part aims to capture your personal beliefs, perceptions and socio-economic resilience of your household. There is no good or bad answer: it is about your opinions and attitudes. Please choose the options that best reflect your position.

1. What category best describes your current home or accommodation?
   [Q1_home_ID_NL_US]
   Apartment*
   Semidetached house or townhouse*
   Independent house*
   Mobile home
   Other
   [Q1_home_CN]
   Old/lane house
   stand alone apartment
   apartment in a compound
   villa
   serviced apartment
   other
   I don't know

2. **[Q2_floors]** *(If they did NOT select Mobile home) Please select all the floors you use:
   Basement
   Ground Floor
   First floor or above

3. **[Q3_constr_qual]**Please select on the scale below the category that best describes the quality of construction of the building in which you live:

> 1= Very high-quality construction, relatively new or recently retrofitted. Would be very resistant to storms, severe weather, etc.
>
> 2
>
> 3
>
> 4= Old building with many issues. The outside is rundown, or it was built with poor quality material and now there are issues. It is in-need of retrofitting and repair.

4. **[Q4_home_size_CN_ID_NL] [Q4_home_size_US]** How many square [insert *meters/feet*] is your accommodation? If you don't know for sure, please provide your best estimation.
   METERS:

   > Less than 50 square meters
   > Between 50 and 75 square meters
   > Between 76 and 100 square meters
   > Between 101 and 125 square meters
   > Between 125 and 150 square meters
   > More than 151 square meters
   > Don't know

   FEET:

   > Less than 150 square feet
   > Between 151 and 225 square feet
   > Between 226 and 300 square feet
   > Between 301 and 375 square feet
   > Between 376 and 450 square feet
   > More than 451 square feet
   > Don't know

5. **[Q5_home_tenure]** Do you rent or own your accommodation?

   > Rent
   > Own**
   > Other

   a) **[Q5a_mortgage]** **[IF selected OWN] How much of your mortgage have you paid off for your home?

   > I have paid off 0-20%
   > 21-40%
   > 41-60%
   > 61-80%
   > 81-99%
   > I have fully paid my off my mortgage

   b) **[Q5b_home_sell]** ** [IF select Own] – If you were to put your accommodation on the market today, how much do you believe it would sell for? Please provide your best estimation in the full amount.

   > _____[*input currency*]

6. **[Q6_home_costs]** Please provide your best guess on your current **monthly** [input *rent* or *mortgage* depending on what selected] and operating costs (such as water, heating, electricity, phone, internet, taxes etc) in [*input currency*]

   > _____[*input currency*]

7. **[Q7_move_in]** In what year did you begin living in this accommodation?

    _____

8. **[Q8_move_out]** How much longer are you planning on staying in your current house?
   - I am looking to move in 1 year or less
   - 1 -5 years
   - 5-10 years
   - More than 10 years
   - Don't know

9. **[Q9_easy_leave]** How easy or difficult would it be to leave the place you currently live?
   - 1= It would be very difficult to leave this area
   - 2
   - 3
   - 4
   - 5 = I could leave this area very easily

10. **[Q10_community]** Are you an active member of one or more community organizations such as a religious organization, civil group, book club, cooking club, neighborhood organization etc?
    - Yes
    - No

11. **[Q11_search_factors]** Please think back to when you were searching for a place to live. What were the principle factors that influenced your decision in selecting a home? *Multiple answers are possible*
    - Improving living conditions
    - Social network of friends and family
    - Family-related reasons (e.g. moving in with or separating from a partner, children born or leaving the household, etc.)
    - Feeling of attachment to the city/ area
    - Job related reasons
    - Location
    - Natural hazards at a former place of residence****
    - Other reasons
    - Don't know

    a) **[Q11a_hazard_type]******(IF selected natural hazards as a motivation to move) You have indicated that natural hazards at your former place of residence were a reason for moving. Which natural hazards exactly? *Multiple answers are possible*
       - Hurricanes
       - Tropical Storms
       - Heavy rainfall
       - Flooding (any type)
       - Sea level rise
       - (Wild) Fires
       - Earthquakes
       - Tsunamis
       - Extreme Temperatures
       - Prefer not to say

Section 2: Perceptions you have about your current life situation

This part aims to capture your personal beliefs, perceptions and socio-economic resilience of your household. There is no good or bad answer: it is about your opinions and attitudes. Please choose the options that best reflect your position.

General risk aversion

12. **[Q12_risk_aversion]** Are you generally ready to take risks in your life or do you avoid risks? (1-5)

| | 1 | 2 | 3 | 4 | 5 |

…

Not willing to take any risks   Very willing to take risks

Personal Circumstances (self-reported)

13. **[R01_resilience]** Please select on the scale how you feel about each item

[R01_resilience_1] My household can bounce back from any challenge that life throws at it	1= Strongly Agree, 2, 3, 4, 5= Strongly Disagree
[R01_resilience_2] During times of hardship, my household can change its primary income or source of livelihood if needed	1= Strongly Agree, 2, 3, 4, 5= Strongly Disagree
[R01_resilience_3] If hardships or natural disasters became more frequent and intense, my household would still find a way to get by	1= Strongly Agree, 2, 3, 4, 5= Strongly Disagree
[R01_resilience_4] During times of hardship, my household can access the financial support I need (e.g. such as access to credit at a bank)	1= Strongly Agree, 2, 3, 4, 5= Strongly Disagree
[R01_resilience_5] My household can rely on the support of family and friends when I need help	1= Strongly Agree, 2, 3, 4, 5= Strongly Disagree
[R01_resilience_6_ID_NL_US] My household can rely on the support from my government when I need help (e.g. receiving funding or support in the event of a natural disaster)	1= Strongly Agree, 2, 3, 4, 5= Strongly Disagree

14. **[Q14_early_warn]** Is there an early warning system in place that allows your household to receive information about any future risks from natural disasters?

     Yes
     No

Don't know

Section 3: Questions about natural hazards
In this section we are going to ask you about your beliefs and opinions on natural hazards.

15. **[Q15_responsibility]** In your opinion, whose responsibility is it to deal with natural hazards and floods? (1-5)

      1 - It is completely the government's responsibility to protect its citizens from floods and natural hazards

      2

      3 – Both the government and the citizens have equal responsibility

      4

      5 - It is completely an individual's/ households' responsibility to protect themselves from floods and natural hazards

16. **[Q16_compens_gov]** If your household is affected by a flood how much compensation (or disaster relief funding) do you think you would you receive from the government?

      None of my damage   20%   40%   60%   80%. 100% of damage to my household
      will be compensated   will be compensated

17. **[Q17_compens]**Other than the government, in the event of a flood, are there other sources that you would expect to provide you with compensation? *Multiple Answers Possible*
    1. No one
    2. My insurance
    3. The owner of the flat [only when renting is selected – (Question 10)]
    4. My family and friends
    5. Charitable organizations, NGOs
    6. Other groups
    7. Don't know

18. **[Q18_flood_exp]** Have you ever personally experienced a flood of any kind?

      Yes**

      No

    a. **[Q18a_flood_where]****[IF yes, where]
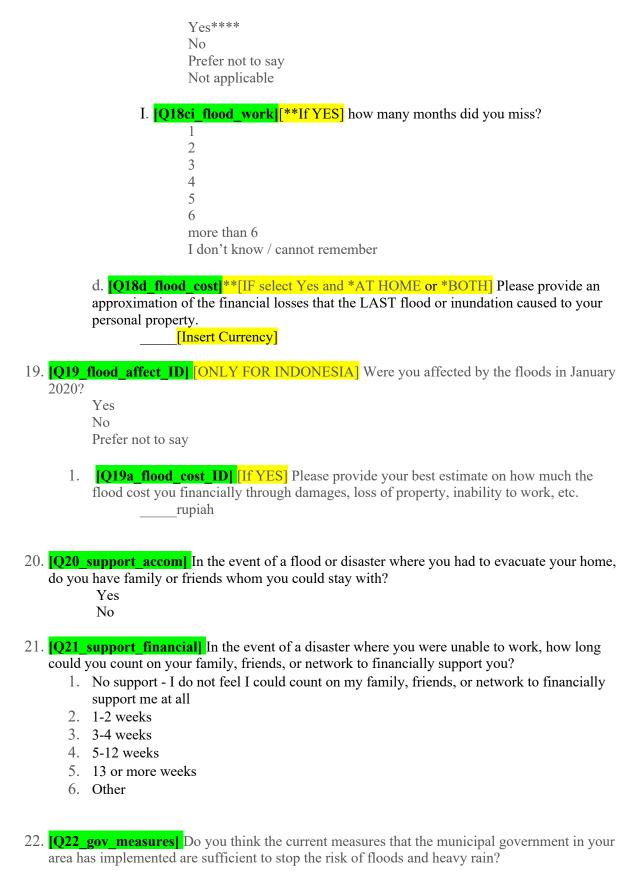
        At home*

        During a trip

        Both at home and during a trip*

    b. **[Q18b_flood_year]****[IF select Yes] What year was the flood? If you have experienced multiple floods, please list the most recent.

        ____

    c. **[Q18c_flood_health]****[IF select Yes] Did the flood affect your health in such a way that you were unable to work or had to take time off?

Yes****
No
Prefer not to say
Not applicable

    I. **[Q18ci_flood_work]**[**If YES] how many months did you miss?
        1
        2
        3
        4
        5
        6
        more than 6
        I don't know / cannot remember

    d. **[Q18d_flood_cost]****[IF select Yes and *AT HOME or *BOTH] Please provide an approximation of the financial losses that the LAST flood or inundation caused to your personal property.
        _____[Insert Currency]

19. **[Q19_flood_affect_ID]** [ONLY FOR INDONESIA] Were you affected by the floods in January 2020?
    Yes
    No
    Prefer not to say

    1. **[Q19a_flood_cost_ID]** [If YES] Please provide your best estimate on how much the flood cost you financially through damages, loss of property, inability to work, etc.
        _____rupiah

20. **[Q20_support_accom]** In the event of a flood or disaster where you had to evacuate your home, do you have family or friends whom you could stay with?
    Yes
    No

21. **[Q21_support_financial]** In the event of a disaster where you were unable to work, how long could you count on your family, friends, or network to financially support you?
    1. No support - I do not feel I could count on my family, friends, or network to financially support me at all
    2. 1-2 weeks
    3. 3-4 weeks
    4. 5-12 weeks
    5. 13 or more weeks
    6. Other

22. **[Q22_gov_measures]** Do you think the current measures that the municipal government in your area has implemented are sufficient to stop the risk of floods and heavy rain?

1. Yes – they are sufficient and will last for the foreseeable future (30+ years)
2. Yes – but they will need to be updated within the next decade
3. No – they are not currently sufficient
4. Don't know

Section 4: Thoughts regarding flooding

In this section we ask about how likely you perceive flooding to happen in your area and how much it could potentially affect you in the future.

23. **[R02_perc_prob]** How often do you think a flood occurs on the property on which you live (e.g. due to rivers or heavy rain, storms and cyclones)? Which category is the most appropriate?
    1. My house is completely safe
    2. Less often than 1 in 500 years
    3. Once in 500 years or a 0.2% chance annually
    4. Once in 200 years or a .5% chance annually
    5. Once in 100 years or 1% chance annually
    6. Once in 50 years or a 2% chance annually
    7. Once in 10 years or 10% chance annually
    8. Annually
    9. More frequent than once per year
    10. Don't know

24. **[Q24_perc_prob_change]** Do you expect that the risk of flooding in your area to increase, decrease, or stay the same in the next ten years?
    1. Increase
    2. Stay the same
    3. Decrease
    4. Don't know

[If Indonesia but **unaffected** by the 2020 Jakarta Floods]

25. **[R03_perc_damage]** In the event of a future major food in your area on a similar scale to _[Name of flood depending on country**] how severe (or not) do you think the physical damage to your house would be?

    1= Not at all severe
    2
    3
    4
    5= Very severe
    Don't know / Prefer not to say

[** Indonesia: "the 2020 Jakarta Floods"
China: "the 2017 China Floods in Hunan"
USA: "the flooding from Hurricane Harvey in Houston in 2017"
Netherlands: "the North Sea Flood of 1953"]

[If Indonesia and **affected** by the 2020 Jakarta Floods]

26. **[Q26_flood_damage_ID]** You said you were affected by the 2020 Jakarta Flood. How severe was the damage to your house after the floods?"

       1= Not at all severe
       2
       3
       4
       5= Very severe
       Don't know / Prefer not to say

27. **[Q27_perc_prob_30y]** Imagine you stay in your house for the next 30 years what is the likelihood you believe your household will experience a flood? Please enter your answer as a percentage (e.g. 25%).

       _____%

28. **[R04_perc_health]** In the event of a flood in your area, how likely or unlikely do you think it is that you or another member of your household would suffer health consequences?

       1= Not at all likely
       2= Hardly likely
       3= Somewhat likely
       4= Quite likely
       5= Almost certain

29. **[R05_worry]** How worried or not are you about the potential impact of flooding on your home?

       1= not at all worried
       2= A little worried
       3= somewhat worried
       4= quite worried
       5= very worried

30. **[R06_media_freq]** How frequently do you read information about flooding and other hazards?

    a. **[R06a_media_freq]** From the **general media**
       1= Very infrequently 2, 3, 4 , 5= Very frequently

    b. **[R06b_social_media_freq]** From **Social Media** (i.e.) Facebook, Instagram, WeChat, Weibo, etc.
       1= Very infrequently 2, 3, 4 , 5= Very frequently

31. **[Q31_media_trust]** To what extent, if at all, do you trust information about flooding and other hazards?

    a. **[Q31a_media_trust]** From the **general media**
       1= Do not trust at all 2 , 3 , 4 , 5= Trust Completely

    b. **[Q31b_social_media_trust]** From **Social Media** (i.e.) Facebook, Instagram, WeChat, Weibo, etc.
       1= Do not trust at all 2 , 3 , 4 , 5= Trust Completely

32. **[Q32_climate_belief]** There is a lot of discussion about global climate change and its connection to extreme weather events. Which of the following statements do you most agree with?
    1. Global climate change is already happening
    2. Global climate change isn't yet happening, but we will experience the consequence in the coming decades
    3. Global climate change won't be felt in the coming decades, but the next generation will experience its consequence
    4. Other
    5. I cannot choose

33. **[Q33_climate_affect]** Which of the following most accurately reflects your belief about climate change?
    Climate change will affect other parts of the world, but not [input country]
    Climate change will affect other parts of the world, and [input country], but not the area where I live
    Climate change will affect, other parts of the world and both [input country] the area where I live
    I do not know

Section 5: Flooding Preparations
In this section we ask you about different measures you can take to adapt to flooding. We divide the measures into two separate categories: **Structural** and **Nonstructural**

> **[R1_perceptions_SM]** The following are some **structural measures** that households can undertake to protect themselves from flooding. Please answer each of the following questions on a scale from 1 to 5.

35a

[R1a_self_efficacy_SM] Do you have the ability to undertake this **structural measure** either yourself or paying a professional to do so?
    1. Raising the level of the ground floor above the most likely flood level
               1= I am unable, 2, 3, 4, 5: I am very able
    2. Strengthen the housing foundations to withstand water pressures
               1= I am unable, 2, 3, 4, 5: I am very able
    3. Reconstructing or reinforcing the walls and/or the ground floor with water-resistant materials
               1= I am unable, 2, 3, 4, 5: I am very able
    4. Raising the electricity meter above the most likely flood level or on an upper floor
               1= I am unable, 2, 3, 4, 5: I am very able
    5. Installing anti-backflow valves on pipes
               Q55a_savings_change 1= I am unable, 2, 3, 4, 5: I am very able
    6. Installing a pump and/or one or more system(s) to drain flood water
               1= I am unable, 2, 3, 4, 5: I am very able
    7. Fixing water barriers" (e.g., water-proof basement windows)
               1= I am unable, 2, 3, 4, 5: I am very able

35b

[R1b_resp_efficacy_SM]How effective do you believe that implementing this **structural measure** would be in reducing the risk of flood damage to your home and possessions?

1. Raising the level of the ground floor above the most likely flood level
    1= Extremely ineffective, 2, 3, 4, 5: **Extremely effective**
2. Strengthen the housing foundations to withstand water pressures
    1= Extremely ineffective, 2, 3, 4, 5: **Extremely effective**
3. Reconstructing or reinforcing the walls and/or the ground floor with water-resistant materials
    1= Extremely ineffective, 2, 3, 4, 5: **Extremely effective**
4. Raising the electricity meter above the most likely flood level or on an upper floor
    1= Extremely ineffective, 2, 3, 4, 5: **Extremely effective**
5. Installing anti-backflow valves on pipes
    1= Extremely ineffective, 2, 3, 4, 5: **Extremely effective**
6. Installing a pump and/or one or more system(s) to drain flood water
    1= Extremely ineffective, 2, 3, 4, 5: **Extremely effective**
7. Fixing water barriers" (e.g., water-proof basement windows)
    1= Extremely ineffective, 2, 3, 4, 5: **Extremely effective**

35c

[R1c_perc_cost_SM]When you think in terms of your income and your other expenses, do you believe that implementing (or paying someone to implement) this **structural measure** would be cheap or expensive?

1. Raising the level of the ground floor above the most likely flood level
    1= **Very cheap**, 2, 3, 4, 5: **Very expensive**
2. Strengthen the housing foundations to withstand water pressures
    1= **Very cheap**, 2, 3, 4, 5: **Very expensive**
3. Reconstructing or reinforcing the walls and/or the ground floor with water-resistant materials
    1= **Very cheap**, 2, 3, 4, 5: **Very expensive**
4. Raising the electricity meter above the most likely flood level or on an upper floor
    1= **Very cheap**, 2, 3, 4, 5: **Very expensive**
5. Installing anti-backflow valves on pipes
    1= **Very cheap**, 2, 3, 4, 5: **Very expensive**
6. Installing a pump and/or one or more system(s) to drain flood water
    1= **Very cheap**, 2, 3, 4, 5: **Very expensive**
7. Fixing water barriers" (e.g., water-proof basement windows)
    Q55a_savings_change 1= **Very cheap**, 2, 3, 4, 5: **Very expensive**

36. **[R2_implementation_SM]**Please indicate if you have already implemented any of these **structural measures**, or if you intend to do so in the future:

Structural adaptation measures	I have already implemented this **structural measure**.	I intend to implement this **structural measure** in the next 6 months	I intend to implement this **structural measure** in the next 12 months	I intend to implement this **structural measure** in the next 2 years	I intend to implement this **structural measure** in future, after 2	I do not intend to implement this **structural measure**

					years	
Raising the level of the ground floor above the most likely flood level						
Strengthen the housing foundations to withstand water pressures						
Reconstructing or reinforcing the walls and/or the ground floor with water-resistant materials						
Raising the electricity meter above the most likely flood level or on an upper floor						
Installing anti-backflow valves on pipes						
Installing a pump and/or one or more system(s) to drain flood water						
Fixing water barriers" (e.g., water-proof basement windows)						

[All who implemented at least one measure or who are intending to do so]

37. **[Q37_dam_reduction]** Please consider ALL of the *structural* measures that you have implemented AND the ones you intend to. How much of a difference in protection do you think these measures would make protecting your house and belongings in the event of a severe flood.

> I believe I will experience 25% (or less), less damage than I would without these measures.
> I believe these measures would prevent between 26%-50% of the damage.
> believe these measures would prevent between 51%-75% of the damage.
> I believe these measures would prevent between 76%-100% of the damage.
> Don't know

39. **[R1_perceptions_NM]**The following are some **non-structural measures** that households can undertake to protect themselves from flooding. Please answer each of the following questions on a scale from 1 to 5.

a) **[R1a_self_efficacy_NM]**Do you have the ability to undertake this **Non-structural measure** either yourself or paying a professional to do so?

1. Keeping a working flashlight and/or a battery-operated radio and/or emergency kit in a convenient location
   1= I am unable, 2, 3, 4, 5= I am very able
2. Purchasing sandbags, or other water barriers
   1= I am unable, 2, 3, 4, 5= I am very able
3. Buying a spare power generator to power your home
   1= I am unable, 2, 3, 4, 5= I am very able
4. Being an active member in a community group aimed at making the community safer
   1= I am unable, 2, 3, 4, 5= I am very able

5. Coordinating with the neighbors in case you are not home when a flood occurs, they would know what to do
   1= I am unable, 2, 3, 4, 5= I am very able
6. Installing a refuge zone, or an opening in the roof of your home or apartment
   1= I am unable, 2, 3, 4, 5= I am very able
7. Storing or placing important possessions (such as documents or expensive furniture) in such a manner to avoid flood damage
   1= I am unable, 2, 3, 4, 5= I am very able
8. Asking someone (local government, Civil Defense, etc.) for information about what to do in case of emergency
   1= I am unable, 2, 3, 4, 5= I am very able
9. Asking/petitioning government representative to increase the public protection measures
   1= I am unable, 2, 3, 4, 5= I am very able
10. Storing emergency food and water supplies
    1= I am unable, 2, 3, 4, 5= I am very able
11. Moving/storing valuable assets on higher floors or elevated areas
    1= I am unable, 2, 3, 4, 5= I am very able

b) **[R1b_resp_efficacy_NM]**How effective do you believe that implementing this **Non-structural measure** would be in reducing the risk of flood damage to your home and possessions?
   1. Keeping a working flashlight and/or a battery-operated radio and/or emergency kit in a convenient location
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   2. Purchasing sandbags, or other water barriers
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   3. Buying a spare power generator to power your home
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   4. Being an active member in a community group aimed at making the community safer
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   5. Coordinating with the neighbors in case you are not home when a flood occurs, they would know what to do
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   6. Installing a refuge zone, or an opening in the roof of your home or apartment
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   7. Storing or placing important possessions (such as documents or expensive furniture) in such a manner to avoid flood damage
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   8. Asking someone (local government, Civil Defense, etc.) for information about what to do in case of emergency
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   9. Asking/petitioning government representative to increase the public protection measures
      1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   10. Storing emergency food and water supplies
       1= Extremely ineffective, 2, 3, 4, 5= Extremely effective
   11. Moving/storing valuable assets on higher floors or elevated areas
       1= Extremely ineffective, 2, 3, 4, 5= Extremely effective

c) **[R1c_perc_cost_NM]**When you think in terms of your income and your other expenses, do you believe that implementing (or paying someone to implement) this n**on-structural measure,** would be cheap or expensive?

1. Keeping a working flashlight and/or a battery-operated radio and/or emergency kit in a convenient location
   1=Very cheap, 2, 3, 4, 5=Very expensive
2. Purchasing sandbags, or other water barriers
   1=Very cheap, 2, 3, 4, 5=Very expensive
3. Buying a spare power generator to power your home
   1=Very cheap, 2, 3, 4, 5=Very expensive
4. Being an active member in a community group aimed at making the community safer
   1=Very cheap, 2, 3, 4, 5=Very expensive
5. Coordinating with the neighbors in case you are not home when a flood occurs, they would know what to do
   1=Very cheap, 2, 3, 4, 5=Very expensive
6. Installing a refuge zone, or an opening in the roof of your home or apartment
   1=Very cheap, 2, 3, 4, 5=Very expensive
7. Storing or placing important possessions (such as documents or expensive furniture) in such a manner to avoid flood damage
   1=Very cheap, 2, 3, 4, 5=Very expensive
8. Asking someone (local government, Civil Defense, etc.) for information about what to do in case of emergency
   1=Very cheap, 2, 3, 4, 5=Very expensive
9. Asking/petitioning government representative to increase the public protection measures
   1=Very cheap, 2, 3, 4, 5=Very expensive
10. Storing emergency food and water supplies
    1=Very cheap, 2, 3, 4, 5=Very expensive
11. Moving/storing valuable assets on higher floors or elevated areas
    1=Very cheap, 2, 3, 4, 5=Very expensive

40. [**R2_implementation_NM**]Please indicate if you have already implemented any of these non-**structural measures**, or if you intend to do so in the future:

Non-structural measures	I have already implemented this **Non-structural measure.**	I intend to implement this **Non-structural measure** in the next 6 months	I intend to implement this **Non-structural measure** in the next 12 months	I intend to implement this **Non-structural measure** in the next 2 years	I intend to implement this **Non-structural measures** in future, after 2 years	I do not intend to implement this **Non-structural measures**
Keeping a working flashlight and/or a battery-operated radio and/or emergency kit in a convenient location						
Purchasing sandbags, or other water barriers						

Buying a spare power generator to power your home					
Being an active member in a community group aimed at making the community safer					
Coordinating with the neighbors in case you are not home when a flood occurs, they would know what to do					
Installing a refuge zone, or an opening in the roof of your home or apartment					
Storing or placing important possessions (such as documents or expensive furniture) in such a manner to avoid flood damage					
Asking someone (local government, Civil Defense, etc.) for information about what to do in case of emergency					
Asking/ petitioning government representative to increase the public protection measures					
Storing emergency food and water supplies					
Moving/ storing valuable assets on higher floors or elevated areas					

[NO Insurance questions (41-43) FOR THE NETHERLANDS]

41. **[Q41_ins_CN_ID_US]** Do you currently have flood insurance or an insurance policy that you are certain covers flooding

     Yes - I have insurance that definitely covers flooding
     Yes – I have insurance but I'm not certain that it covers flooding
     No

Don't know

   a. **[Q41a_ins_amount_CN_ID_US]*****(IF Yes) What amount of flood damage is your household insured up to? (If you aren't sure please provide your best estimate)
         [Q41a_property_CN_ID_US]Property damage 10%, 20%......100%_____
         [Q41a_possessions_CN_ID_US]Possessions 10%, 20%......100%_____

   b. **[Q41b_ins_intention_CN_ID_US]***(IF No or I don't know) Do you intend to purchase flood insurance in the next 12 months
         Yes
         No

   c. **[Q41c_ins_self_efficacy_CN_ID_US]***(IF No or I don't know) Do you know how to purchase flood insurance if you wanted to?
         Yes
         No

42. **[Q42_ins_resp_efficacy_CN_ID_US]**To what extent do you think that flood insurance would compensate you for losses during a flood?
         Fully compensate
         To a large extent
         To some extent
         Not very much
         Not at all
         Don't know

43. **[Q43_ins_perc_cost_CN_ID_US]**When you think in terms of your income and your other general expenses, do you believe that flood insurance is/would be cheap or expensive? (Is/would be is dependent on if they have flood insurance)
         1= very cheap, 2, 3, 4, 5= very expensive

44. **[Q44_social_expectation]**Do your family, friends and/or social network expect you to prepare your household for flooding.
         1= My family, friends and/or social network do NOT expect me to prepare for flooding
         2
         3
         4
         5= My family and friends strongly expect me to prepare for flooding

45. **[R07_adaptation_others]**Thinking about your friends, families, and neighbours, how many households have taken some adaptive action towards flooding?
         None of them
         One
         Two
         Three
         Four
         Five
         More than five
         Don't know

46. **[Q46_dikes_NL]** [NETHERLANDS ONLY] Please select the option that describes your household:
         My house is located inside the dike ring

My house is located outside the dike ring
Don't know

Section 6: Socio-Economic Questions

In this final section we ask you socio economic questions in order to contextualize the rest of your responses.

47.
    a. **[Q47a_employer_type]** What type of employer do you work for? *Please select the most accurate categor*

[Q47a_employer_type_CN_ID] [CHINA and INDONESIA]
- Private sector – profit-seeking (e.g. public limited company, partnership)
- Public sector – government owned or funded (e.g. civil service, local government, university)
- Third sector – non-profit, non-governmental (e.g. charity, NGO social enterprise)
- Don't know
- Not applicable

[Q47a_employer_type_US] [USA]
- Private, for-profit company
- Non-profit organization
- School or university
- Government
- Armed forces
- Self-employed
- Other
- Not applicable – I am not currently employed

    b. **[Q47b_industry_type]** In what sector is your occupation? *Please select the most accurate category*

[Q47b_industry_type_CN_ID] [CHINA and INDONESIA]
- Agriculture (farming, livestock)
- Natural resources (e.g. oil, mining, forestry)
- Construction
- Manufacturing: automobiles or automobile-related
- Manufacturing: heavy industry or machinery
- Manufacturing: technology, computers, electronics
- Manufacturing: all other
- Wholesaling
- Media and communications
- Financial services: banking
- Financial services: insurance
- Financial services: brokerage & investment
- Business services (e.g. accounting, consulting, advertising, business or market research)
- Real estate
- Scientific research
- Technology services
- Engineering, design, or architecture
- Law or legal services
- Personal care and services

Education
Health or medical services
Arts, entertainment, and recreation
Restaurant services
Hotels or lodging
Airlines or air travel
Other travel services
Retail
Transportation
Maintenance and repair
Accounting
Financial services: other
Other
Not applicable

[Q47b_industry_type_US] [USA]

Agriculture, forestry, fishing and hunting
Mining, oil and gas extraction, and utilities
Construction
Manufacturing
Wholesale trade
Retail trade
Transportation and warehousing
Media, communications, and digitial entertainment
Finance, accounting, and consulting
Insurance
Real estate, rental and leasing
Personal care and services
Research
Engineering, computer-related design, and architecture
Law and legal services
Education
Health care and social assistance
Arts, entertainment, and recreation
Restaurant, travel and lodging
Non-profit, community, religious and social service organizations
Maintenance and repair services
Governement
Other
Not applicable – I am currently not employed

[Q47b_industry_type_NL] [NETHERLANDS]

Transport Retail or Wholesale
Business
Manufacturing or Agriculture
Hospitality, Catering, or Tourism
Health or Social Care
Public Sector, Government or Education
Construction
Homemaker
I work in a sector not listed above

48. **[Q48_business_owner]**Do you own your own business?
> Yes
> No

49. **[Q49_self_employed_NL]** [NETHERLANDS only] Are you self-employed?
> Yes
> No

50. **[Q50_employer_size]** Approximately how many are employed by your company / employer in the country you live?

> 1 (just me)
>
> 2
>
> 3 to 5
>
> 6 to 9
>
> 10 to 19
>
> 20 to 34
>
> 35 to 49
>
> 50 to 99
>
> 100 to 249
>
> 250 to 499
>
> 500 to 999
>
> 1,000 or more
>
> Don't know
>
> Not applicable - I am not currently employed

51. **[Q51_unempl_time]** If you were to become unemployed, what is your best guess on how much time it would take you to find employment?
> Less than a month
> Between 1 - 3 months
> Between 4 - 6 months
> More than 7 months

52. **[Q52_multiple_income]** Does your household have multiple sources of income?
> Yes*
> No
> a) **[Q52a_income_job]** *(IF Yes) Roughly what percentage of your household's monthly income is due to your job?
> > 1-10%
> > 11-20%

21-30%
31-40%
41-50%
51-60%
61-70%
71-80%
81-90%
91-100%

53. **[Q53_income]** What was your total family income from all sources last year in 2019?

    [Q53_income_CN] [CHINA – AFTER Taxes]
        Less than 14325 Yuan
        Between 14326 and 25625 Yuan
        Between 25626 and 35260 Yuan
        Between 35261 and 47140
        Between 47141 and 80475
        More than 80475
        Prefer not to say

    [Q53_income_NL] [NETHERLANDS – TOTAL Income]
        Less than 26130 Euro
        Between 26131 and 42785 Euro
        Between 42786 and 66935 Euro
        Between 66936 and 102540 Euro
        More than 102540 Euro
        Prefer not to say

    [Q53_income_US] [USA – TOTAL Income]
        Less than 25730 Dollars
        Between 25731 and 49200 Dollars
        Between 49201 and 80995 Dollars
        Between 80996 and 132490 Dollars
        More than 132490 Dollars
        Prefer not to say

    [Q53_income_ID] [INDONESIA]
        Please fill in your TOTAL annual income
        _____Ruipah

54. **[R08_economic_comfort]** When considering your salary along with your expenses, how would you describe your level of "economic comfort"?
    Very difficult to live
    Difficult to live
    Coping
    Living comfortably
    Living very comfortably
    Prefer not to say

55. **[R09_savings_change]** How does your current TOTAL household savings compare to your total household savings 2 years ago?
- My household has LESS savings in comparison to two years ago.*
- My household has the SAME savings as two years ago
- My household currently has MORE savings in comparison to two years ago.*
- Not applicable – my household does not have any savings
- Don't know
- Prefer not to say

   a) **[R09a_savings_change_frac]** *[IF select MORE or LESS] By how much did your savings change? If you are not exactly sure please provide your best estimation
   It increased/decreased by _____% compared to what it is now.

56. **[Q56_savings_change_future]** How does your current TOTAL household savings compare to what you expect to have saved in 2 years?
- My current household savings is currently LESS than I expect it to be in 2 years.
- My current household savings is currently the SAME as I expect it to be in 2 years.
- My current household savings is currently More than I expect it to be in 2 years.
- Not applicable – my household does not have any savings
- Don't know
- Prefer not to say

   a. **Q56a_savings_change_future_frac** *[IF select More or LESS] By how much do you expect your savings change? If you are not exactly sure please provide your best estimation
   It will increase/decrease by _____% compared to what it is now.

57. **[Q57_hh_size_CN_ID] [Q57_hh_size_NL] [Q57_hh_size_US]** How many people are living in your household whom share expenses with you?
- 1 other person
- 2 other people
- 3 other people
- 4 other people
- 5 other people
- 6 other people
- 7 other people
- ID + CN + NL: 8 or more other people
- US: 8 other people
-      9 or more other people
- Don't know
- Prefer not to say

58. **[Q58_savings]** With regards to your household's savings, what statement most closely reflects your current household situation?
- My household has little to no savings. We use practically all of the money we earn each month.
- My household has roughly half a month's wages in savings
- My household has roughly 1 month's wages in savings
- My household has roughly 1.5 month's wages in savings
- My household has roughly 2 month's wages in savings
- My household has roughly 3 month's wages in savings

My household has 4 or more month's wages in savings
Don't know
Prefer not to say

59. **[Q59_disability]** Is anyone living with you physically or mentally alter-abled/ disabled?
Yes
No
Prefer not to answer

60. **[Q60_child_or_elder]** Do you have any children under the age of 12 or adults over the age 70 living with you? Please select all that apply. *Multiple answers possible.*
Yes – children under 12*
Yes – adults over 70*
No
Prefer not to say

   a. **[Q60a_parent]** Are you the parent or guardian of any children under the age of 18?
   Yes
   No

61. **[Q61_single_parent]** Are you a single parent?
Yes
No
Prefer not to say