

**NOTE: need WP1 to co-design methodology and ensure questions are appropriate and gain consent etc**

## Part 1: Hazard

be more / less hazardous in the 'official' vs community understanding / Entender si la evaluación de las amenazas se alínean con la paper maps - one for each hazard, Pens / colouring pencils. Description of hazards that will be addressed in the workshop /

Data: In this section we need the community to define 'polygons' that show the area that a hazard will impact.

Questions:

**Flood** - want to explore a) does the community ever flood, if so where and when is flooding more or less likely.

Description: What is a flood, description of terminology, images of floods in this / similar areas

know of), can you shade the section of the map where you think this applies? In a different colour, can you shade the area that

**ASSUMPTION: Areas that have NEVER flooded = low hazard, areas that have EVER flooded = medium hazard, area that FREQUENTLY**

2. What experience flooding have you had? i.e. when / where (could be a polygon or a point on the map/ recorded damage / any other

**Torrential Avenue' (TA)** - want to explore a) does the community ever experience TAs, if so where and where are TAs more or less likely.

Description: What is a TA, description of terminology, images of TA in this / similar areas

of), can you shade the section of the map where you think this applies? In a different colour, can you shade the area that has TAs

**ASSUMPTION: Areas that have NEVER had TAs = low hazard, areas that have EVER had TAs = medium hazard, area that FREQUENTLY**

2. What experience of TAs have you had? i.e. when / where (could be a polygon or a point on the map/ recorded damage / any other

**Rockfalls (RF)** - want to explore a) does the community ever experience RFs, if so where and where are RFs more or less likely.

Description: What is a RF, description of terminology, images of RF in this / similar areas

of), can you shade the section of the map where you think this applies? In a different colour, can you shade the area that

**ASSUMPTION: Areas that have NEVER had RFs = low hazard, areas that have EVER had RFs = medium hazard, area that FREQUENTLY**

2. What experience of RFs have you had? i.e. when / where (could be a polygon or a point on the map/ recorded damage / any other

**Landslide** - want to explore a) does the community ever experience landslides, if so where and where are landslides more or less likely

Description: What is a landslides, description of terminology, images of landslides in this / similar areas

you know of), can you shade the section of the map where you think this applies? In a different colour, can you shade the area that

**ASSUMPTION: Areas that have NEVER had landslides = low hazard, areas that have EVER had landslides = medium hazard, area that**

2. What experience of landslides have you had? i.e. when / where (could be a polygon or a point on the map/ recorded damage / any other

## Multihazard

cause the most / least damage / disruption. Understanding this frequency magnitude relationship will allow us to tune the weights

Data: Numerical ranking and text to explain / describe reasons

1. Which of these hazards is most likely to occur relative to each other, can these be ranked on a on a 1 - 3 scale.

1a. Why have you ordered the hazards this way?

2. Which of these hazards is most likely to create damage relative to each other, can these be ranked on a on a 1 - 3 scale.

2a. Why have you ordered the hazards this way?

## Part 2: Exposure

dependant upon for social / physical / cultural or religious welfare. If these services / key elements at risk were disrupted by a

Tools: Paper maps, orientated so that they can easily orientate themselves. Coloured pens / pencils

point has be added to the map and by whom / which group

Questions:

1. Which buildings are most 'important' to the community as a whole?

1a. Why?

1b. Locate these buildings on the map (and write what they are i.e. school, shop, church etc.)

2. Are there other physical assets/spaces within the community that the community regard as important to the community?

2a. Locate these facilities / infrastructure on the map.

2b. Describe them or note why they are of value.

Researcher Queries:

- Are there other questions that the community / partners would like to add into this section?

## Part 3: Ideas for hazard interventions

flashier flood responses, deforestation on increasing landslide hazard etc. Identify areas: for community bank to support in terms

Tools: Internal report re examples of community interventions - generate powerpoint with images (BGS to provide)

Data: Text / recording of discussion around potential interventions that the community to make / request

1. Are there any processes / practices that you feel might make hazards better or worse in your community?

2. With the results from the exposure and hazard sections, can you identify any locations that are exposed to multiple hazards and

e.g identifying areas for resource prioritisation.

3. Reviewing the locations from the Part 2, can you identify any important spaces that are exposed to multiple hazards?
4. Are any of these results surprising?

#### Part 4: Vulnerability

**Aim:** To understand the perception of the vulnerability of the buildings within the community.

**conditions** - suggest use c.10 images so as not to overly tire the respondents.

**Data:** Under each image record an answer to all 4 questions below - make sure that the answers align with pre defined categories

Questions (for each image):

1. What is the primary building material used in the construction of this building : Brick, Wood, Mixed Materials.
2. What is the condition of this building: Good, Acceptable, Deficient.
3. What is the roofing material: Zinc, Concrete, Wood, Asbestos.
4. What is the condition of the roof: Good, Acceptable, Deficient.

the building (not the roof), relative to the hazards in the community.

different building conditions. Provide examples of damages states for specific hazard contexts

**Data:** For each image and each hazard (i.e. you will need 6 x 3 images for this component) record the categorisation for each building

Questions (for materials):

1. Brick building -

1a: In a flood event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

1b: In a TA event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

1c: In a RF event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

1b: In a landslide event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2. Wood building -

2a: In a flood event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2b: In a TA event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2c: In a RF event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2b: In a landslide event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3. Mixed Materials building -

3a: In a flood event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3b: In a TA event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3c: In a RF event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3b: In a landslide event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

Questions (for condition):

1. Good condition building -

1a: In a flood event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

1b: In a TA event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

1c: In a RF event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

1b: In a landslide event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2. Acceptable condition building -

2a: In a flood event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2b: In a TA event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2c: In a RF event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

2b: In a landslide event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3. Poor condition building -

3a: In a flood event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3b: In a TA event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3c: In a RF event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

3b: In a landslide event would you expect this building to be a) heavily damaged, b) moderately damaged, c) slightly damaged, d) not damaged

NB for Researchers: Make sure to only select questions that relate to the hazards in your communities - El Pacifico (RF, TA, Landslide)

'heavily damaged' equates to 0.5 probability of failure in a hazardous event and 'slightly damaged' equates to 0.25 probability of failure in a hazardous event

**ACTION:** Find images to represent 'Heavily', 'Moderately' and 'Slightly' damaged buildings, in correct hazard context

**NB:** As with hazards - this might be easier to split the group by hazard - 'flipped classroom' approach? Ask the different groups to present



