

Research messages

Dr Tim Harries
Independent consultant
Currently working for Defra

The importance of resilience

What is resilience?



- **Plastic skirting**
- **Tiled floors**
- **Raised electrics**
- **Rugs and not fitted carpets**
- **Raised white-goods**
- **Water-resilient kitchens**

Why resilience?



- **Water will often get past protective measures**
- **People will not always be able to deploy protection in time**
- **Encourages people to *live with* the risk**
- **Can be implemented piece-meal (unlike protection)**
- **Less obtrusive, so less stigmatising**

When resilience?



- **Where not enough money for full protection**
- **Where flood-level would overtop protection**
- **Where protection would have -ve impact on flooding elsewhere**
- **Where protection impractical**
- **Where residents prefer resilience**
- **Where flooding very frequent**

END

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Benefit-cost analysis

- by Entec UK

Telephone survey

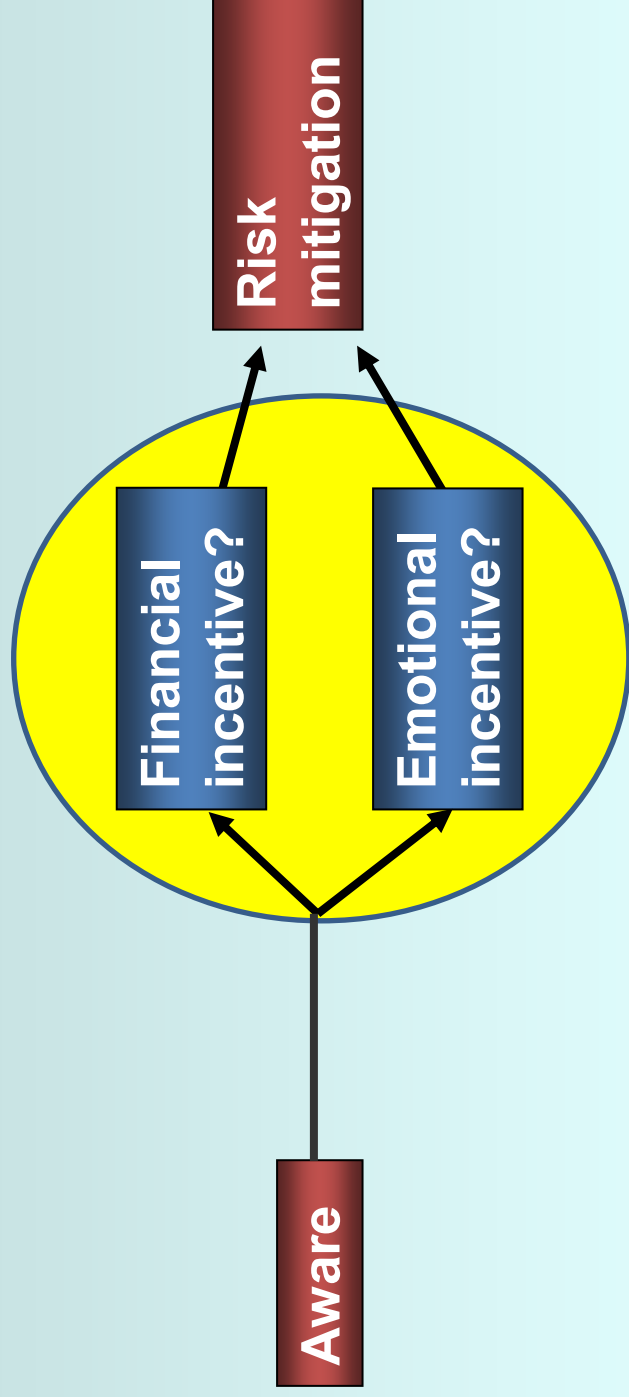
- 555 at-risk householders
- ...living in areas of 'significant' risk
- ...and aware of the risk
- data collection by Greenstreet Berman

In-depth interviews
with at-risk
householders

- by Tim Harries

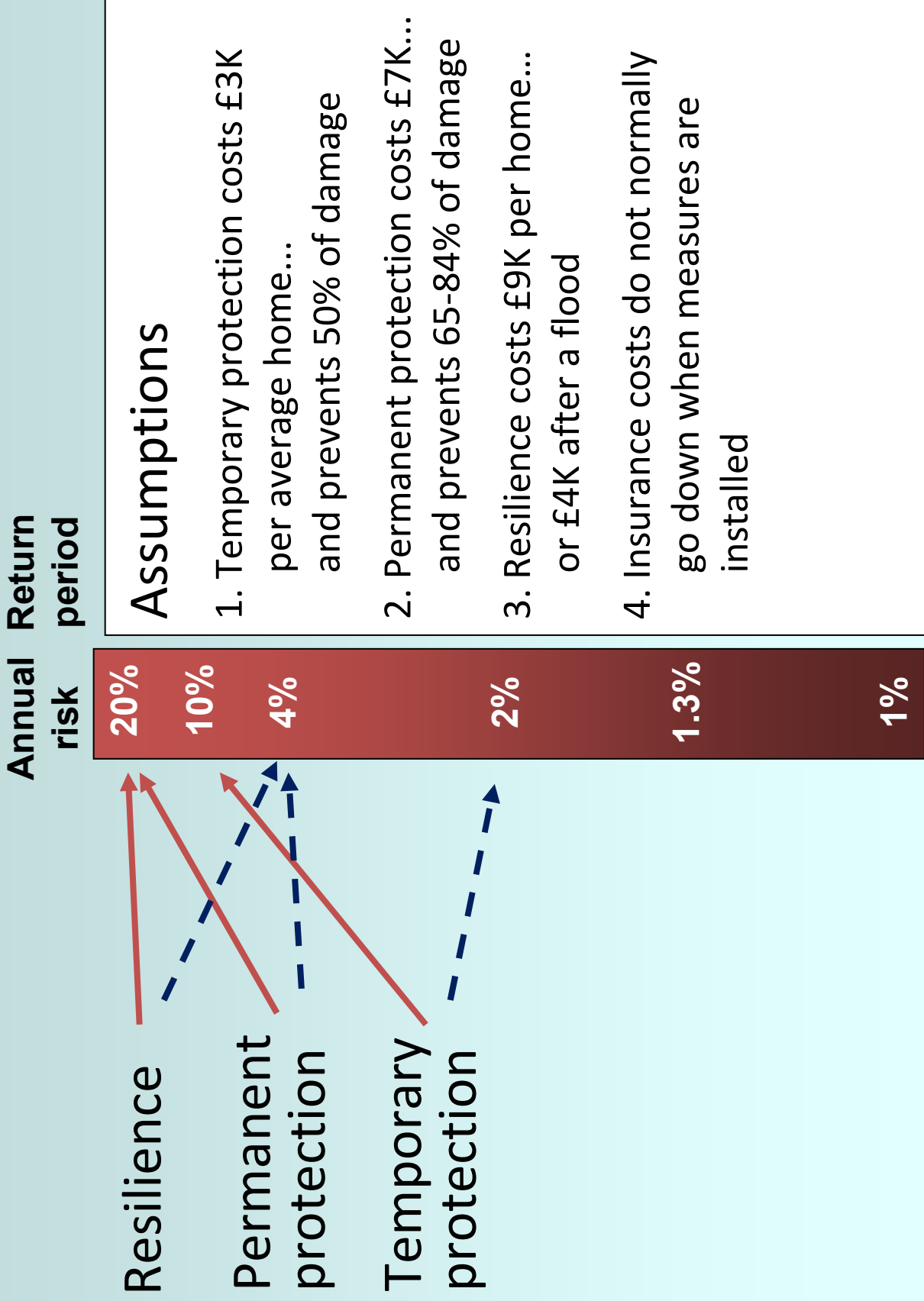
Re-analysed for Defra
by Tim Harries

Purpose of the research

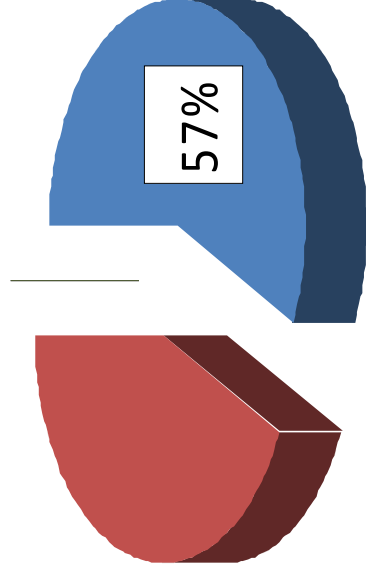


1. Financial incentives

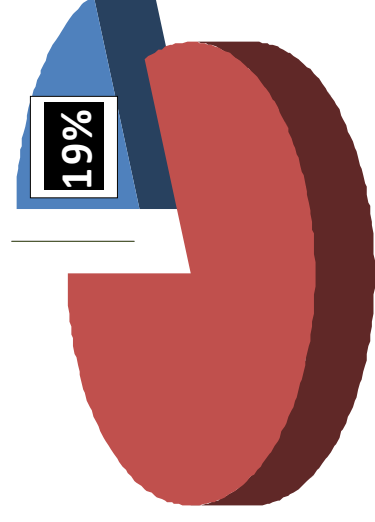
Benefit-cost analysis



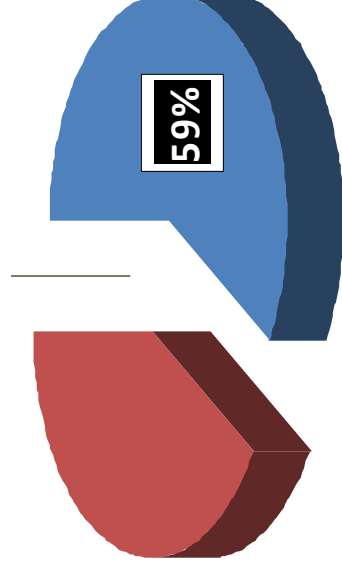
Measures are too expensive



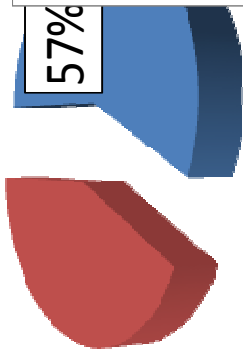
Not my responsibility



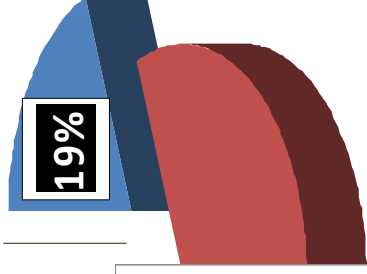
Would save money in long-term



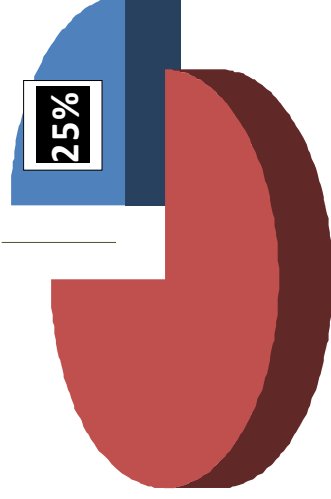
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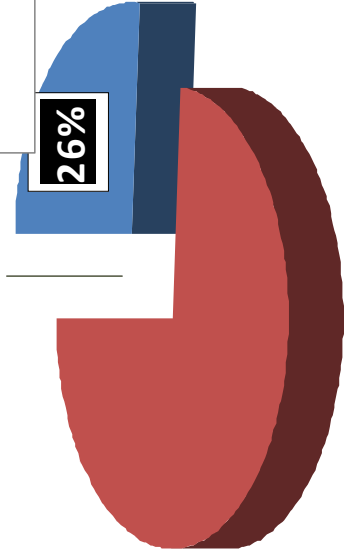
Not my responsibility



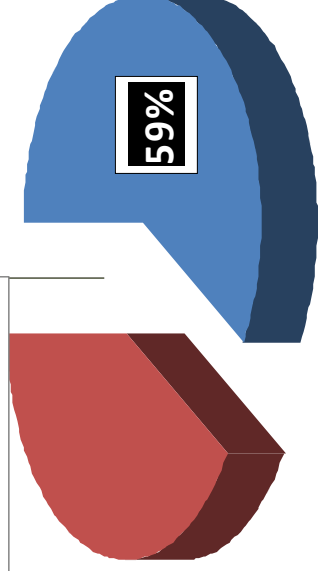
Worry about property values



Rely on insurance

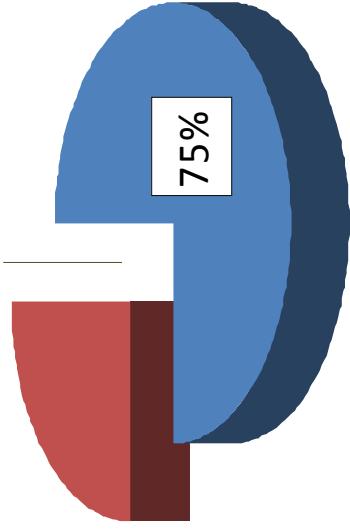


Save money in the long-term

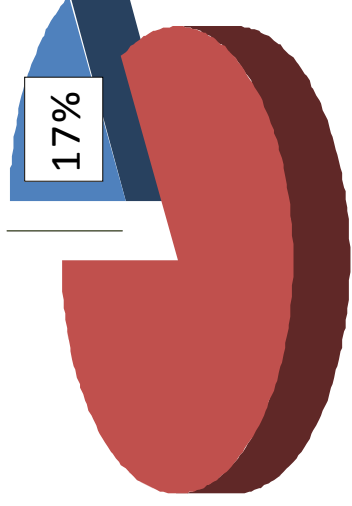


2. Emotional incentives

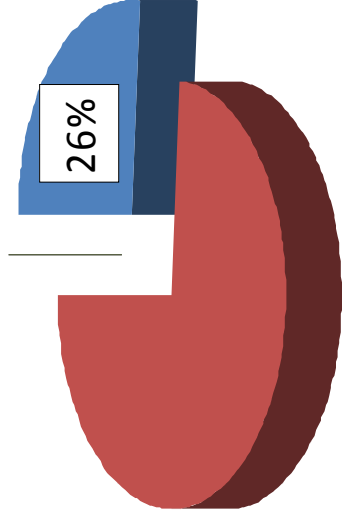
Would make me feel safer



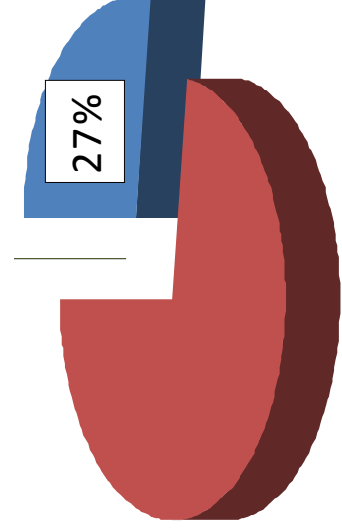
**Don't want to be reminded
of the risk**



**Want my home to be
comfortable and attractive**



**I wouldn't be able to choose
the right measure**



Which incentives are statistically associated with take-up of resilience / protection?

Amongst households without experience of floods

None of the attitudes

Amongst households with experience of floods:

Belief that will feel safer with measures

4x as likely to have taken measures

Expense / value-for-money argument

1/4 as likely to have taken measures

The role of flood experience

One flooding experience

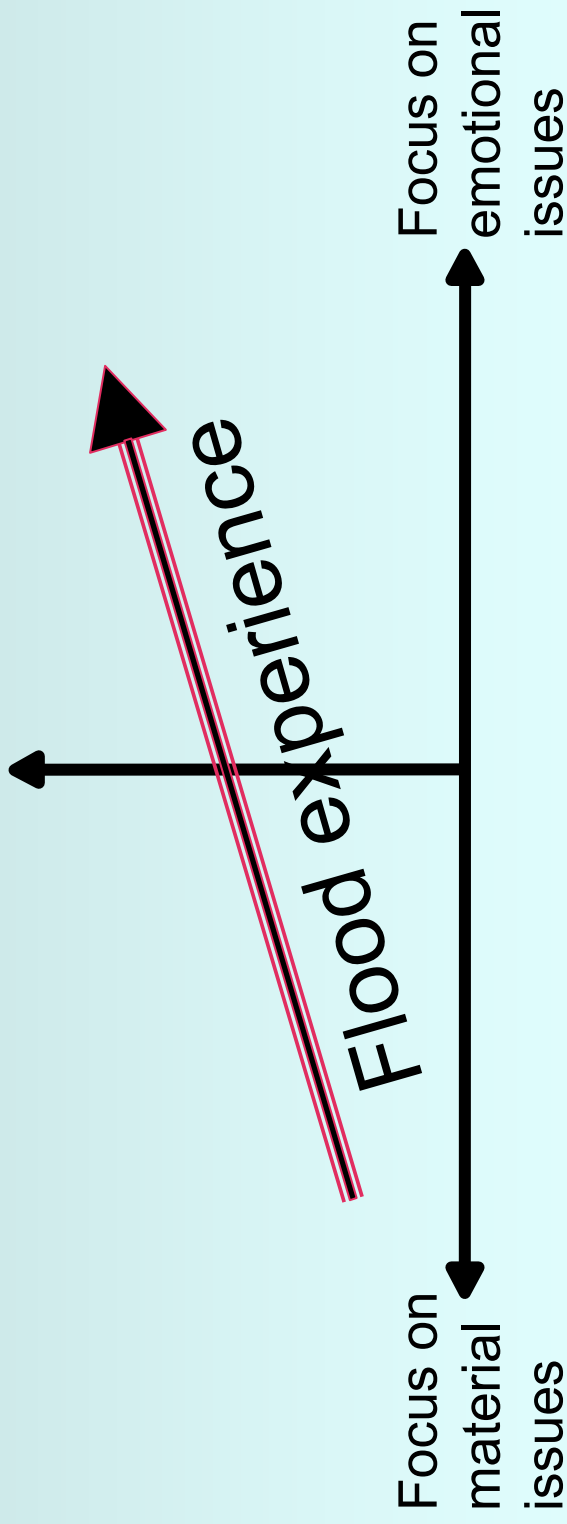
1.3x as likely to have
taken measures

Two or more flooding experiences

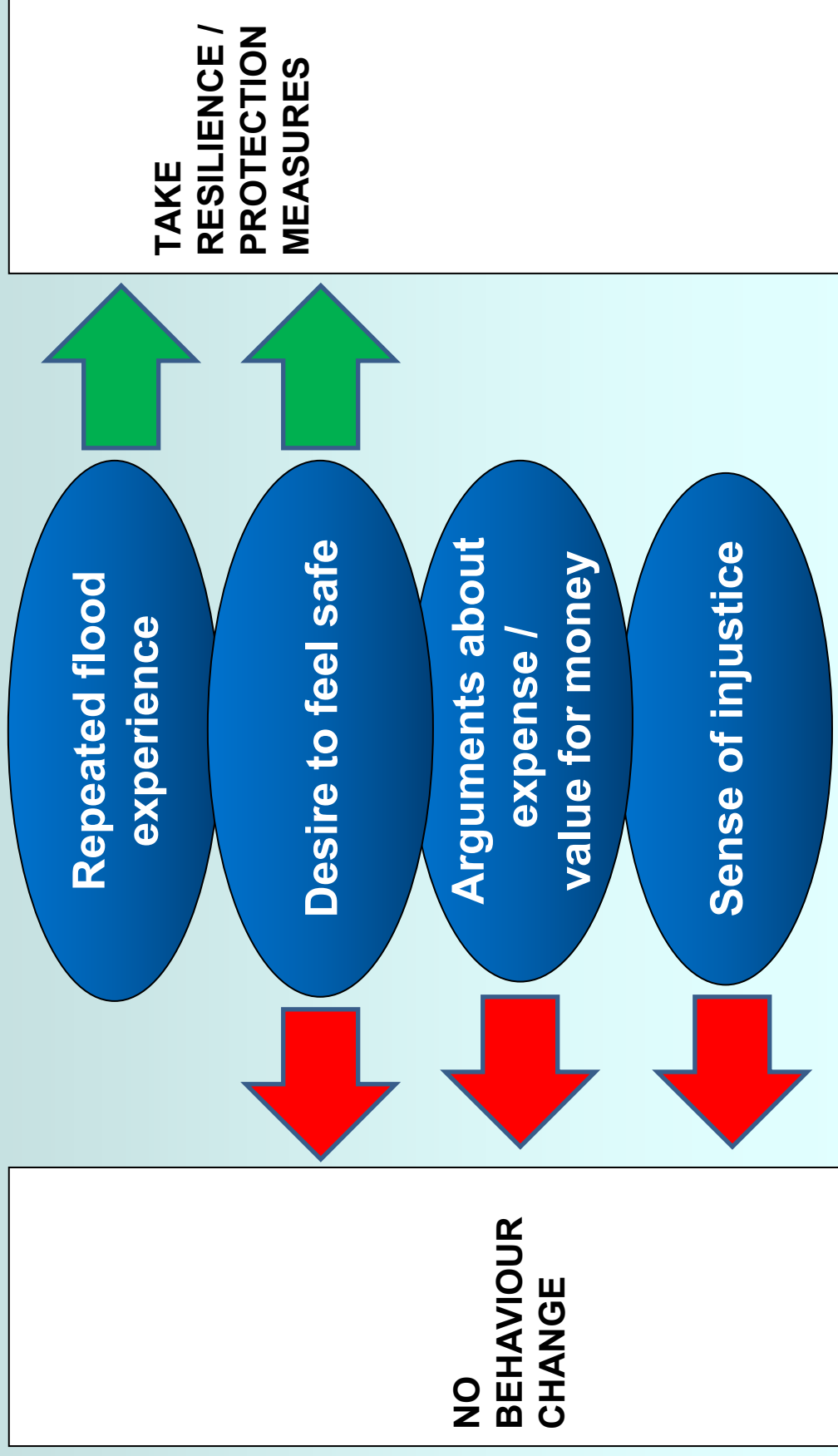
3.4x as likely to have
taken measures

The role of flood experience

Understanding
of how floodwater
enters the home



Summary: barriers and motivations



END

Defra's Proposals

1. Ministers have given outline approval
2. Ring-fenced block grant... £5m initially
3. Detailed policy will be informed by
 - workshops
 - consultation responses

**1. Provide free flood risk surveys for
some homes**

and

**2. Provide free surveys and subsidised
resilience / protection measures for
some other homes**



Which households?

1. **Most at risk**
2. **Not likely to receive community-level defence**
3. **Most likely to respond enthusiastically to offer of resilience / protection (e.g. recently and repeatedly flooded)**

Aims

1. Encourage protection AND resilience
2. In existing private dwellings
(Not new-build; not immediately after a flood)

Kick-start
take-up

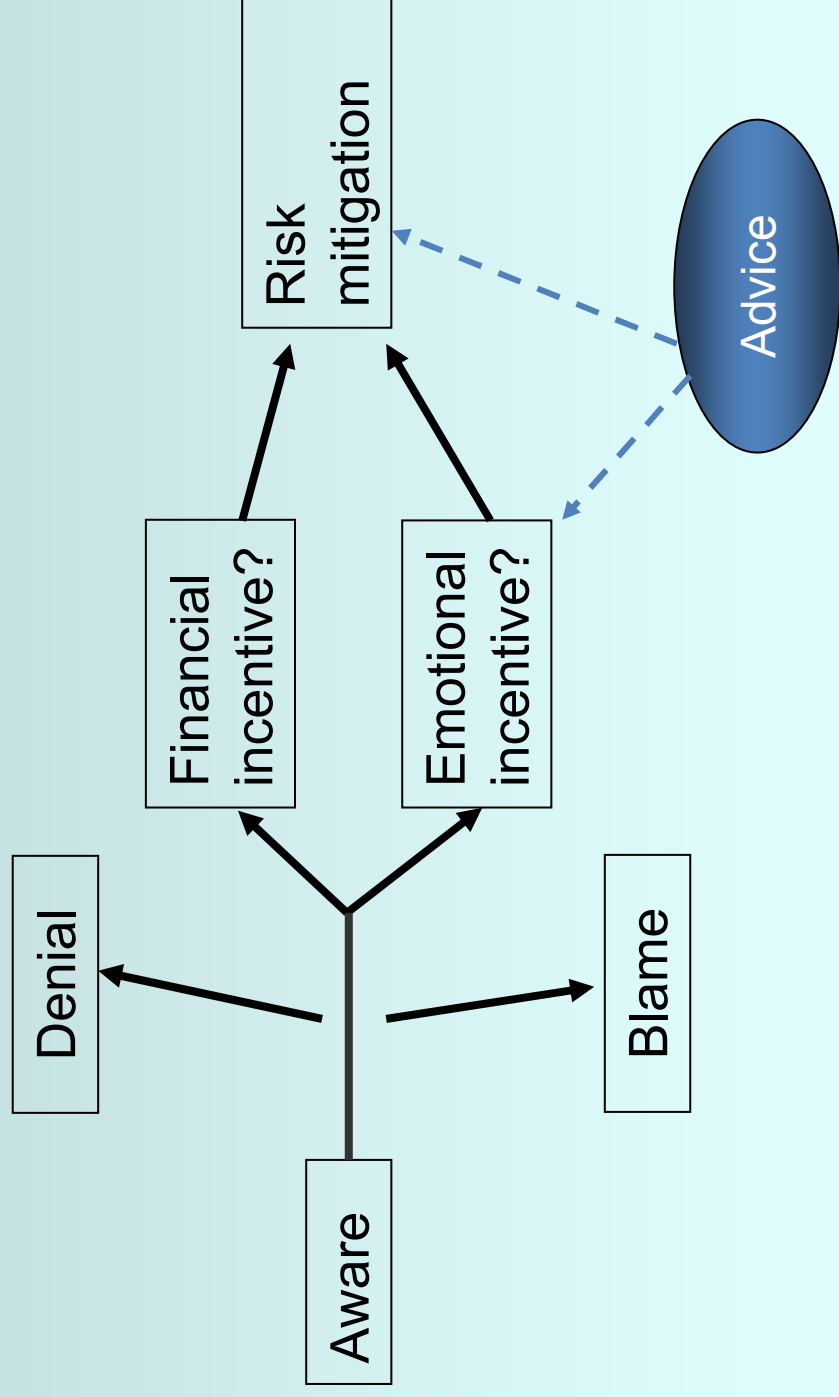
Reduce risk
for some
people

Make resilience
/ protection
more normal

Create
examples of
success

Stimulate
demand

Option 1: Free survey



Option 1: Free survey

Coverage:

- Probability of flooding and likely damage
- Means of ingress
- Protection / resilience / both?
- Appropriate forms of protection
- Appropriate forms of resilience
- Appropriate products

Option 1: Free survey

- **Independent**
- **Expert**
- **Bulk purchase by the local authority / Environment Agency**

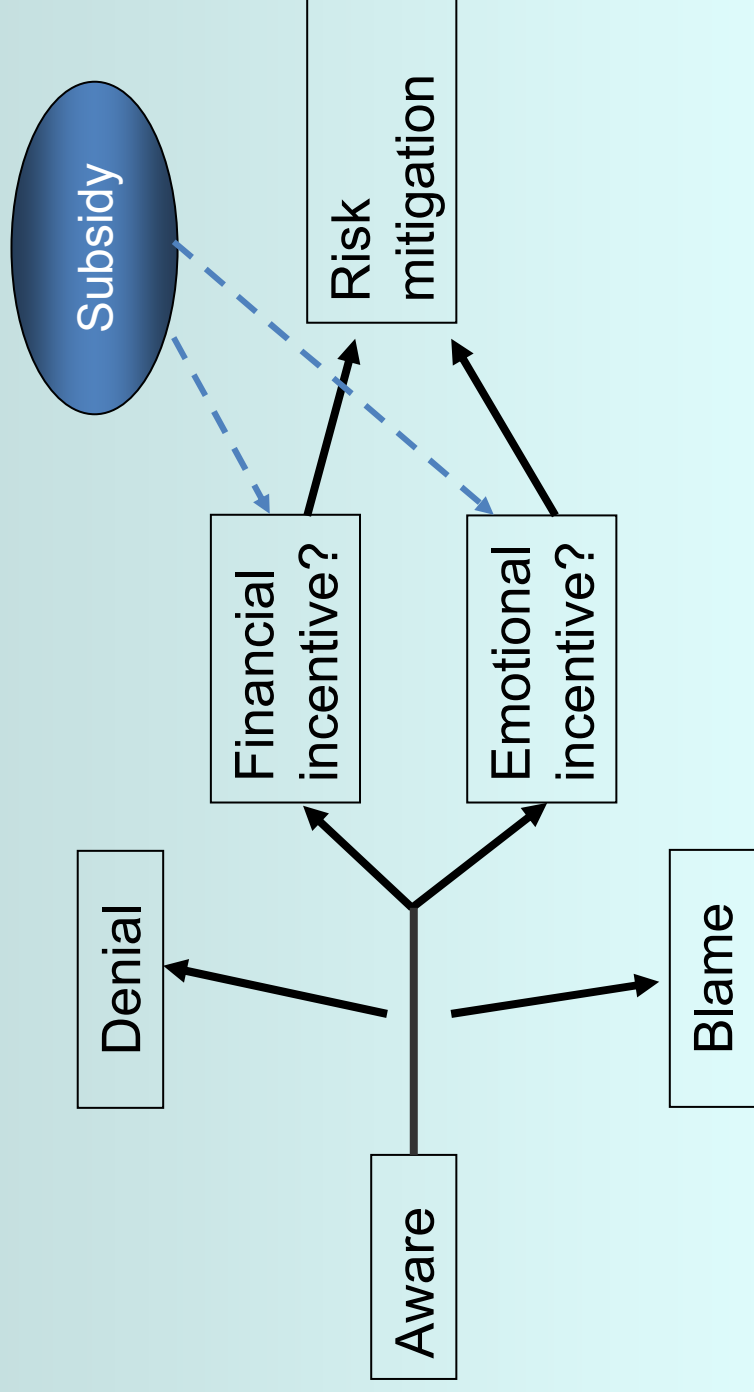
Trust

Value
for money

Provided
by whom?

How ensure
quality?

Option 2: subsidise measures



Option 2: subsidise measures

- **Full, partial or capped subsidy?**
- **For all households...
only for poorer areas...
or only for poorer households?**
- **Standard measures for each household
or tailored to individual needs?**

Option 2: subsidise measures

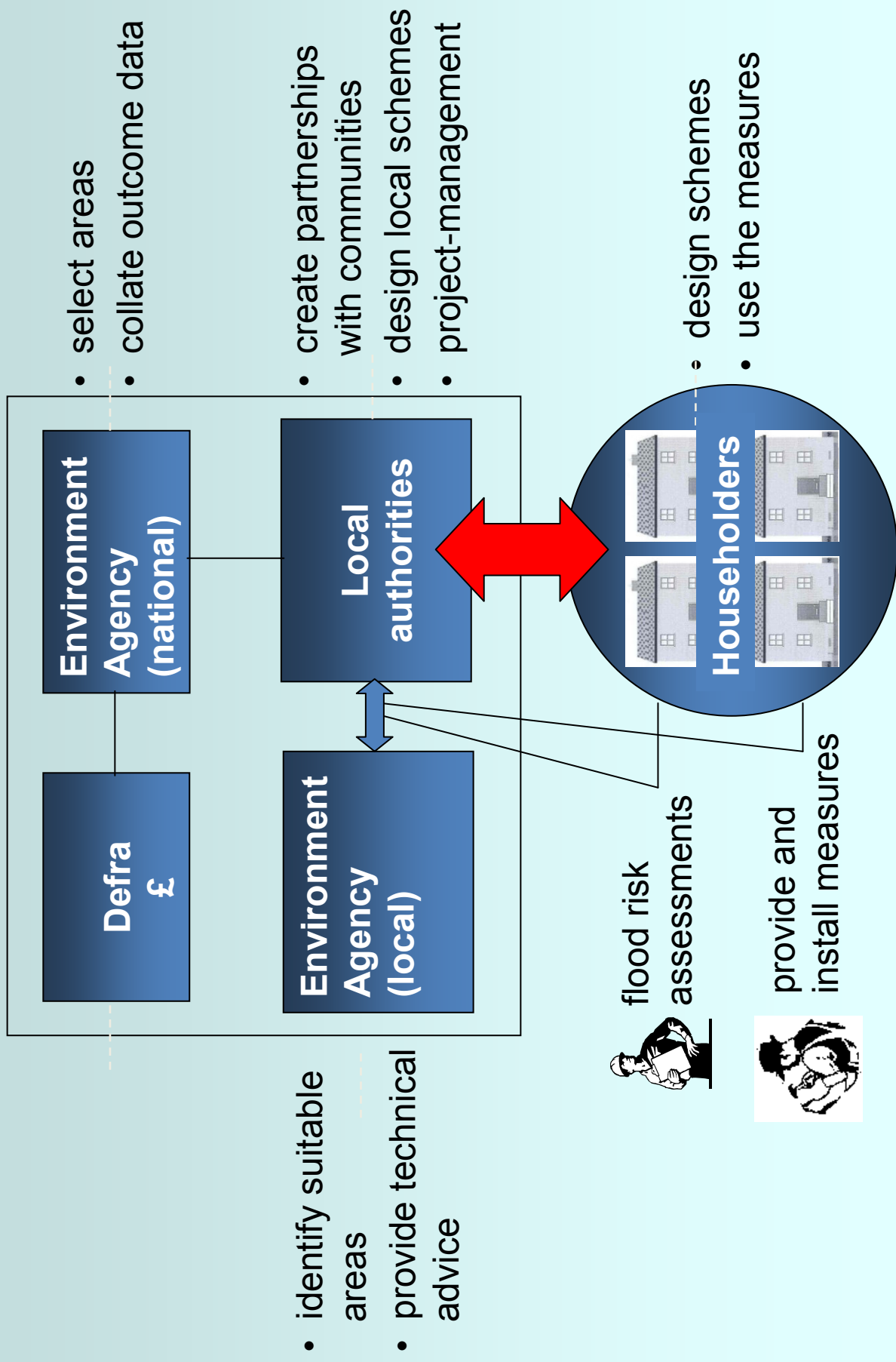
For example:

- **Twenty at-risk homes in one street offered payment to have electrics moved above flood-line**
- **Forty most at-risk houses in tidal area offered £2,000 each toward the cost of water-resilient kitchens**
- **Fifty high-risk homes in flash-flood area offered water-resistant doors and windows**

Targeting whole communities

- **Less stigmatising**
- **More effective**
(for terraced / semi-detached properties)
- **Less divisive**
- **Encourages co-operation and
strengthens social resilience**

Delivery of the options



Summary

1. Provide free flood risk surveys

2. Provide free surveys AND subsidise resilience / protection measures

Kick-start
take-up

Make resilience
/ protection
more normal

Fully funded by central government

For frequently and recently flooded communities
unlikely to receive community level protection

END

Engagement with communities

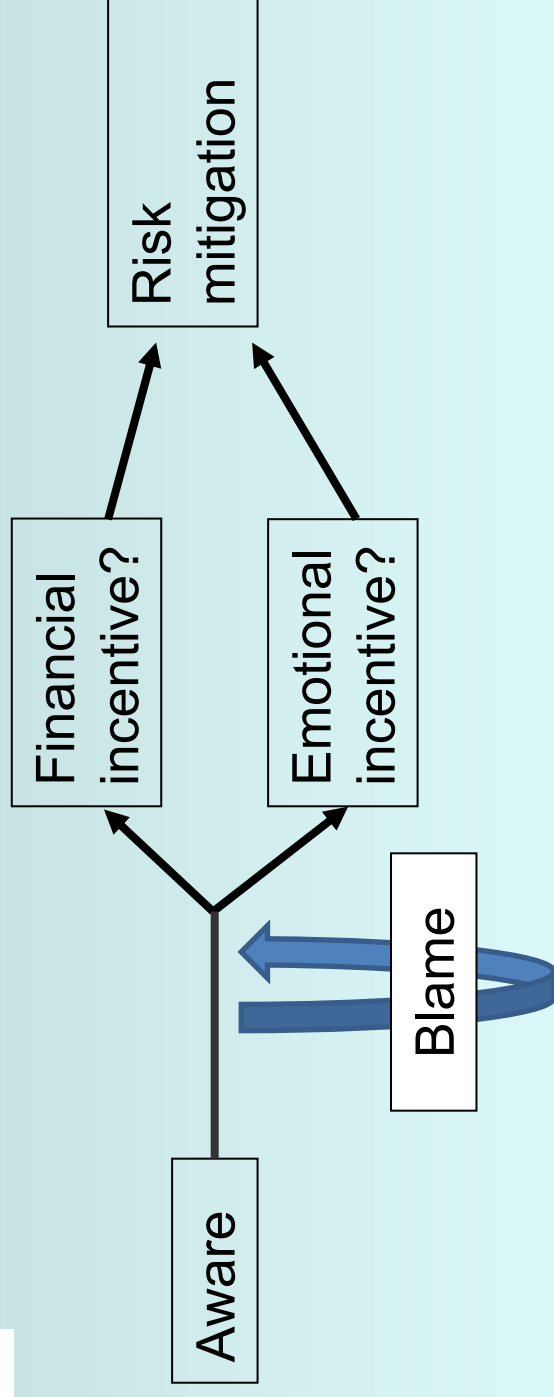
External facilitation by

- Local authority staff?
- Professional facilitators?
- Flood victims as facilitators?
- Facilitators from regional government offices?

Time-consuming... but costs included in grant

Engagement with communities

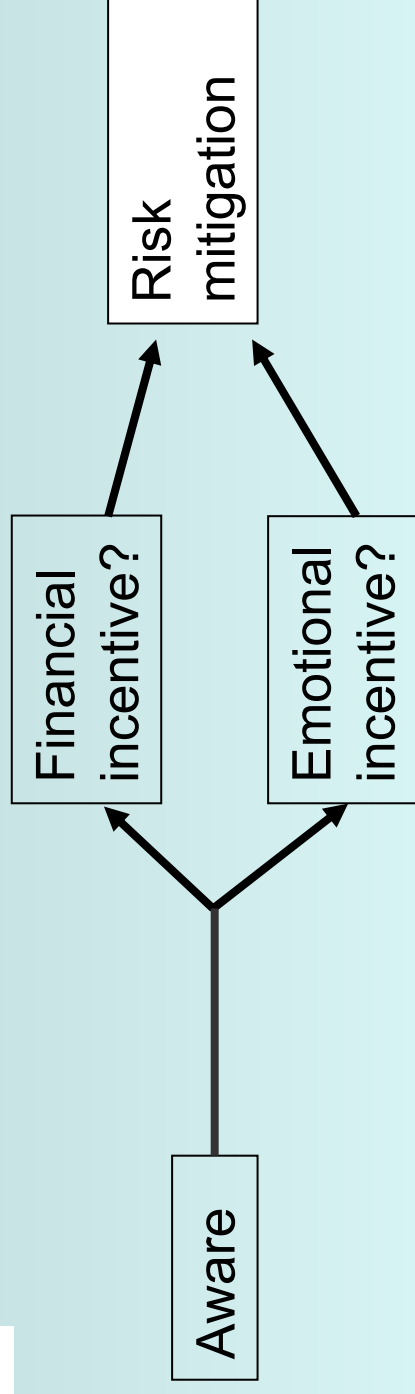
Phase 1



- Listen
- Defuse anger... by allowing its expression
- Inform... about causes of the floods
 - ...and about low likelihood of community-level defence
- Build trust

Engagement with communities

Phase 2



- Learn... about the nature of the flooding
- Agree... choice of protection / resilience measures
- Implement
- Support with ongoing use of measures

END