2039: The Future of Flood Insurance

David Johnson and Philippa King
IFoA Flood Working Party
Wales battered by flooding as Storm Callum is bringing torrential rain
Office warns of travel delays

Wales flooded, leaves Wales battered, travel delays expected.
Agenda

Intro
Flood Re Update
Working Party Update
Discussion
Two Thousand and Thirty Nine

2039

From Wikipedia, the free encyclopedia

This article is about the year 2039.

2039 (MMXXXIX) will be a common year starting on Saturday of the Gregorian calendar, the 2039th year of the Common Era (CE) and Anno Domini (AD) designations, the 39th year of the 3rd millennium, the 39th year of the 21st century, and the 10th and last year of the 2030s decade.

Predicted and scheduled events  edit

- June 21 – Annular solar eclipse over the Northern hemisphere.
- September 2 – The Destroyers for Bases Agreement's ninety-nine-year rent-free leases granted to the United States by the United Kingdom will expire.
- November 7 – Transit of Mercury.
BRITAIN GETS 50 DESTROYERS: U.S.

SAILOR DIED AT HIS GUN

BRITAIN is to get 50 American destroyers immediately to reinforce the Royal Navy. In exchange the United States will get ninety-nine-year leases of eight naval and air bases on British possessions in the North and South Atlantic.

This historic defense agreement between the two greatest democracies was announced last night—the anniversary of the outbreak of Britain’s war against Nazi Germany.

The first sight of the destroyers, which are all fully armed and equipped for action, will be ready for delivery to Britain next week. British agents who have already been in the United States, will take over the ships and bring them to Britain. Two or three further destroyers of light will be released at fortnightly intervals, and the remainder will be ready when needed.

Do 30 Knots—Ready for Action

The 50 destroyers are of the 1400-ton class, and are ready to go, and carry five 5.5in. guns, one 4-in. and eight 20mm., besides two depth-charges and four torpedoes. They have been recently modernised and are in good condition and ready for action. No expert stated that they are in better condition than anything which Russia that will have when they are finished, but was that they will take over all to those destroyers.

DD-215 USS Buchanan (later HMS Castle Douglas)
DD-124 USS Cowpens (later HMS Chelmsford, Russian Capture)
DD-113 USS Abbot (later HMS Clan)
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What is Flood Re?

Homes built after 2009

Commercial properties

Buy to lets
How does Flood Re work?

- **Flood Re**
  - Flood Re Premiums
  - Levy
  - Flood Re Claims

- **Home insurers**
  - Premiums
  - Claims

- **Low flood risk homes**
  - Premiums
  - Claims

- **High flood risk homes**
  - Premiums
  - Claims
How does Flood Re work?

12.5% reduction in 2018

Flood Re

Home insurers

Flood Re Premiums

Levy

Levy I: £180m

Levy II…
“Risk-reflective” pricing

Outcome A:
Market will provide insurance to the majority of high flood risk households, but premiums are at a rate that most will find unaffordable.

Outcome B:
Market provides affordable flood insurance for small number of properties (likely those with lowest risk) with remainder of market not being covered.

Outcome C:
Transition not successful – market is small and very costly – the majority of high flood risk households cannot gain insurance at all.

Target outcome:
Market with risk-reflective pricing exists and provides widely available and affordable insurance to high flood risk households.

AVAILABILITY

AFFORDABILITY

29 October 2018

Reproduced from Flood Re’s transition plan
What does the headline Flood risk profile look like?

• Inherent Flood Risk – increasing

• Flood Risk Appetite - mixed
  – Market: Appetite for lower risk (evidenced by Flood Re 2039 transition)
  – Firms: Happy with the status quo? Buy-in to the 2039 picture? Somewhere in-between?

• Residual Flood Risk – mixed
  – Market: increasing, unless flood risk management keeps pace with inherent risk?
  – Firms: stable, due to availability of Flood re?

• Risk Controls
  – Flood risk management key to reducing market levels of residual risk
“Risk-reflective” pricing

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Reducing risk

Reducing Damage & Cost

Limits of Affordability

Achieve an Effective Market

“Risk-reflective” pricing
Flood Re Action

Action to Date

- Raise awareness
- Increase understanding
- Engage widely
- Additionality
  - Expertise
  - Impact
  - Sustainability
  - Partnership

Next Steps

- Continue with current work
- Develop the role of Flood Re
- Increasing resilience through resilient repair
- Building social capital and strengthening communities
- Incentivising action from households
What did the working party want to achieve this year…?

• 2017 GIRO


Chris Wiltshire, Nicholas Silk and Stefan Claus
The Opinion Model Idea

- Frequency/Severity of Flooding
- Exposure of homes to Flooding (not just Flood Re)
- Protection of homes from flooding

Opinions

- Best case
- Best estimate

2039
The Opinion Model Idea

Opinions:
• Modelling companies
• Academics
• Climate change experts

Frequency/Severity of Flooding

Opinions

Best case

2039

Best estimate
Will the flood picture look worse in 2039?

- Most thought severity and/or frequency would increase, many referenced climate change.
- Climate change big issue but level uncertain.
- Considered there to be no strong link between climate change and flood.

Pessimistic

Optimistic
Key Drivers of Increased Flooding

Emissions

Continued development near water

Population

Insufficient defences

Removal of Natural Drainage
The Opinion Model Idea

Frequency/Severity of Flooding

Exposure of homes to Flooding (not just Flood Re)

Best case

2039

Best estimate

Opinions:
• Insurers
• You!
The Opinion Model Idea

Opinions:
• Environmental groups
• Flood charities
• Government

Exposure of homes to Flooding (not just Flood Re)

Protection of homes from flooding

Best case

2039

Best estimate
## Flood Defences – Summary of Survey Responses

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Discussion Topics

Affordable risk-reflective pricing by 2039:

A. Realism of the transition plan
B. Risks associated with the transition plan
C. Unknown factors not yet considered
Flood Re, Insurance Pricing and OFGEM

The 2039 return to affordable risk based flood pricing

Specific focus on dual insurance pricing

Consumer & Regulatory Focus on pricing

Securing a future of affordable flood insurance
Discussion Topics

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Appendix: Questions in survey

The following slides detail the questions in the opinion model survey, as submitted to participants.
Frequency/Severity Opinions

Aimed at modelling companies, academics, climate change experts

1. How might the frequency and/or severity of severe flooding in the UK change by 2039?
2. Are you able to quantify any likely changes? If so, how large might they be?
3. What are the likely drivers of this change (i.e. what would we have to do to alter the situation)?
Exposure Opinions

Aimed at insurers (Q4 for developers for comparison)

1. Flood Re
   a. What proportion of your residential property portfolio would you want to cede to Flood Re but can’t? eg due to construction year, being unable to match council tax data, other.
   b. For a high flood risk household, how much more do you estimate they would be paying on their annual premium if there was no Flood Re?

2. Claims fulfilment
   a. What % of flood claims do you estimate are being fulfilled with resilient repairs (defined as a repair which materially reduced future risk of flood damage to the property)?
   b. How do you expect this to change by 2039?
Exposure Opinions

3. Claim values
   a. How do you think resilient repairs are going to affect the cost of flood claims?
   b. What do you expect the rate of inflation on flood claims to be, and how does this compare to the rate of general inflation?

4. New homes
   a. Compared to today, what is your view on the number of new houses that will be built in the following time periods: 0-5 years, 5-10 years, 10 years+
   b. Compared to today, what proportion of new homes built will be in areas of high flood risk eg on flood plains?
Defences Opinions

Aimed at environmental groups, flood charities, government (Q3 to loss adjusters/resistance resilience companies)

1. Government spend
   a. By 2039, how much will the government have spent on flood defences (excluding property level grants)?
   b. How much investment in flood defences would you say is needed in the UK by 2039?

2. Property Flood Resistance
   a. Assuming nothing changes from the current position, by 2039 what proportion of high risk households will have taken preventative measures to protect their homes from flooding?
   b. What would need to happen to get over 90% of high risk households to do so?
Defences Opinions

3. Property Flood Resilience

a. By 2039, what proportion of insurers will be offering resistant and resilient repairs as standard?

b. What would need to happen to increase the current levels to 100%?

c. What would be the benefits of insurers offering resistance and resilience repairs as standard?
Many individuals responded to the questionnaire that the working party circulated. The responses have been reviewed and collated but have not yet been fully explored. There is more to do! Some respondents opted for anonymity. Other contributors were happy to be named. We're grateful for all responses. Those happy to be named are listed below:

- Dr Aliastair Clarke (AIR)
- Prof David Schultz (University of Manchester)
- Dr Gregor C Leckebusch (University of Birmingham)
- Dr Natalie Schaller (CICERO, Oslo)
- Paul Cobbing (National Flood Forum)
- Julie Dobson (DEFRA)
- Jon McGurk (Auto Flood Guard)
- Chris Short (University of Gloucestershire)
- Laura Hughes (ABI)
- Dr Crystal Moore (EA/Met Office)
- Liz Mitchell (Flood Assist)
- Sue Morris (Sedgeberrow Flood Group)