

Flood Re

Flood Re Limited (hereinafter 'Flood Re' or 'the Company') is the Scheme Administrator for the Flood Reinsurance Scheme ('Flood Re Scheme') and is principally engaged in the provision of flood peril reinsurance cover within the UK. The Flood Re Scheme is a joint initiative between the UK insurance industry and the UK Government. The Flood Re Scheme was established by the Water Act 2014. Further details of the Scheme can be found on the Company's website at www.floodre.co.uk.

Flood Re Limited's purpose is to promote the availability and affordability of flood insurance for eligible homes, while minimising the costs of doing so, and to manage, over its lifetime, the transition to risk-reflective pricing for household flood insurance.

In order to do this, Flood Re Limited provides reinsurance cover at a subsidised fixed rate to cedants, resulting in an expected underwriting loss each financial year. The Company finances this through a £180m Levy on UK household insurers. The Levy also finances the purchase of an outwards reinsurance up to a £2.273bn (2020: £2.244bn) maximum Liability Limit.

Flood Re Limited is a mutual reinsurer and was incorporated in August 2013 as a private UK Company limited by guarantee. Regulations designating the Flood Re Limited Scheme came into force on 11 November 2015, providing Flood Re Limited with the power necessary to fulfil its purpose.

On 1 April 2016, Flood Re Limited was authorised by the Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA).

Flood Re Limited launched on 4 April 2016.

1. Be accountable

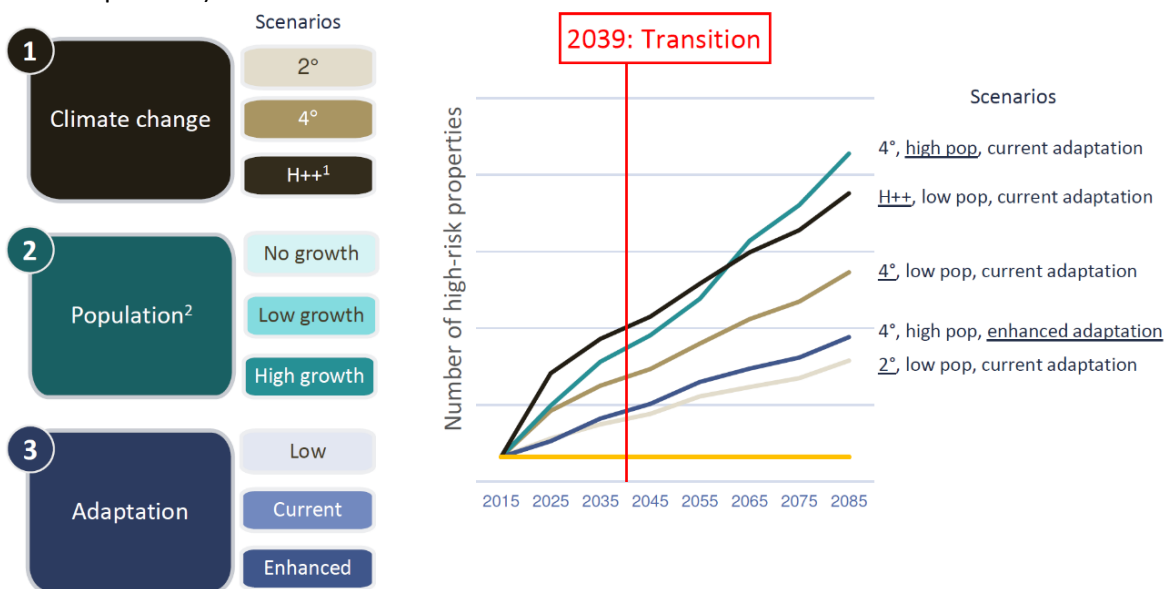
1.1. Ensure that the organisation's board is working to incorporate the ClimateWise Principles into business strategy and has oversight of climate risks and opportunities.

- Climate change is a top area of focus for Flood Re's Board. The December 2020 Board Strategy Day redoubled its focus on the impact of climate risk on Flood Re's purpose (the focus of the 2019 Board) to assess the impact of current and future flooding on vulnerable and diverse communities, reviewing the first ever analysis of the impact of flooding on black, Asian and minority ethnic communities in UK.
- Specifically, the Board reviewed summaries of two seminal studies of vulnerability and flood risk (the summary presentation is available for stakeholders to reference on Flood Re's website¹):
 - A. Present and future flood vulnerability, risk and disadvantage: A UK Assessment (by Paul Sayers, Matt Horritt, Edmund Penning-Rowsell, and Jessie Fieth; Joseph Roundtree & Sayers and Partners; June 2017); and
 - B. Targeting flood investment and policy to minimize flood disadvantage (by Kit England and Katharine Knox; Joseph Roundtree Foundation; June 2016)
- In addition, Paul Sayers presented his results to the Board from his December 2020 paper which Flood Re commissioned: Flood disadvantage Socially vulnerable and ethnic

¹ https://www.floodre.co.uk/wp-content/uploads/Social-vulnerability-and-flood-risk-exposure_14-July-ADEPT.pdf

minorities by Sayers P.B, Carr S., Moss C. and Didcock A. This paper likewise is available on Flood Re’s website.² The Board and Executive Committee also heard from Mick McAteer, Founder and co-Director of The Financial Inclusion Centre who spoke about insurance and financial exclusion.

- Flood Re’s 2020/21 ORSA Exercise and Report also built on last year’s assessment of the four major risks to Flood Re successfully transitioning out of the market in 2039: climate change, unconstrained housing development, insufficient investment in flood defences, and lack of homeowner awareness of flood risk and investment in property level resilience measures. In this year’s ORSA report we set out the development of Flood Re’s Transition Indicators, which are used to monitor progress/threats to a successful transition of the market once Flood Re exits in 2039 (these also appear in the Annual Report). One of these metrics seeks to highlight and compare current emissions/atmospheric CO2 concentrations (Keeling Curve) against the pathways set out in the Representative Concentration Pathways (RCPs) as an indicator of what trajectory we may be on (to inform broader climate change/flood risk modelling and commentary).
- In terms of scenario analysis, as reported last year, Flood Re’s Risk Function and Transition Team engaged with Sayers and Partners to use its Future Flood Explorer model (the same tool leveraged by the Committee on Climate Change for its “UK Climate Change Risk Assessment”) to analyse the projected number of homes that will be at high-risk of flooding out to the 2080s.
- The results of this analysis were the basis of the December 2019 Board and ExCo Strategy day mentioned above, which consciously shifted to focus on the medium- and longer-term risks to Transition. The exhibit below summarises the results of FFE’s combined scenarios which consider each of the aforementioned risks to transition (note that risks (3) Flood defence investment and (4) Property level resilience are captured under the 3rd variable “Adaptation”).



- As further shared last year in our submission, Climate change was highlighted in the Statement by the Chair of Flood Re in the 2020 Annual Report where he called out the results above noting:

² [Sayers-Flood-disadvantage-Socially-vulnerable-and-ethnic-minorities.pdf \(floodre.co.uk\)](https://www.floodre.co.uk/Sayers-Flood-disadvantage-Socially-vulnerable-and-ethnic-minorities.pdf)

“Flooding is a dynamic risk. Over recent years, we believe that losses from flooding have reduced as a consequence of investment in flood defences, but as we look to the future we can see climate change increasing the frequency and severity of flooding, putting more homes at risk. By the 2050s for example, annual losses from flooding are expected to increase by between 25% and 80% depending on whether global temperatures warm by 2°C or 4°C. The number of homes at high risk of flooding could increase by between 400,000 to 740,000 properties. This is the case even with current levels of investment in flood defences, underlining the need for further adaptation measures to protect homes from flooding.

The Scheme will be impacted by climate change. As the incidence of flooding increases, it is likely that insurers will cede more homes to Flood Re and more households will benefit from the security of continued affordability and availability. Secondly, it will intensify the challenge we face in managing the market back to affordable, risk-reflective pricing by 2039.

The Scheme was designed to be dynamic and respond efficiently to both the historic level of claims and the projections of future losses, thus we are confident that we can accommodate increased volumes. As part of our Quinquennial Review (QQR)³, which we concluded last year, we proposed changes to the financial parameters of the Scheme that will enable it to adjust to changing volumes of business and claims on a more timely basis.

Climate change also threatens our ability to exit the market by 2039. That is why effective flood risk management and investment in defences are essential to reduce the frequency and severity of future flooding. We have been encouraged by the announcement in the 2020 Budget of significant increases of funding in this area and would like to see the UK Government go further by ensuring this investment is sustained over the longer term. In addition, it is essential that all new housing developments are built with flood risk in mind. This means that existing planning guidance is followed and, where necessary, enforced.”⁴

- Climate change was again highlighted in the Statement by the Chair of Flood Re in this year’s 2021 Annual Report where he noted Flood Re’s Quinquennial Review (QQR) proposals and Climate Change considerations intended to promote enhancing the UK’s resilience (details are found on pages 12-13):

“In July 2019, we published our Quinquennial Review (QQR) proposals – a series of practical suggestions to improve the Scheme. For example, ‘Build Back Better’ would permit Flood Re to pay claims that include an additional amount for resilient or resistant repair, above and beyond the cost of the original damage. Our proposal for ‘discounted premiums’, would permit us to recognise and reward those householders who have adapted their homes to be more resilient to flooding.

We believe these policies could send a significant signal to consumers and the insurance market and so help incentivise the take-up of property flood resilience (PFR) measures more widely...

³ Further details of the QQR can be found on the Company’s website at www.floodre.co.uk/about-us/reports/

⁴ Flood Re 2020 Annual Report: <https://www.floodre.co.uk/wp-content/uploads/Flood-Re-Annual-Report-2020-FINAL.pdf>

...In conversations with partners across industry and Government our proposals have been widely welcomed. The Department of Environment, Food & Rural Affairs is currently considering responses to their public consultation on changes to the Flood Re Scheme and we are eagerly awaiting the outcome.

However, statutory changes to the Scheme are only part of the plan and once approved all of our stakeholders will need to take further action. In due course, the insurance industry will need to support the roll out of 'Build Back Better' and, in time, discounted premiums for the installation of PFR measures. For their part, governments and their agencies across the UK will need to lead a step change in the installation of resilience measures and adaptation to climate change, in addition to continued long term investment in building new flood infrastructure and maintenance of our ageing defences. Further, governments will need to promote planning policies that do not exacerbate the problem. The public have a role to play too. Their awareness of flooding needs to be raised, but they also need the tools and incentives to adapt, particularly the most vulnerable. Behavioural change is necessary if Flood Re is to transition successfully in 2039, more importantly if we are to succeed as a nation in meeting the ever-increasing challenge of flooding resulting from climate change.

Making more houses in the UK resilient to flooding is in the interest of everyone. 'Build Back Better' and 'discounted premiums' will only work if insurers promote the Scheme and implement the benefits these new measures offer to householders. Encouraging uptake of resilience measures is a huge task and we need the industry to proactively explain the benefits to householders as well as proactively changing their approach to repair, to make it more resilient.

Those with better protected homes will be able to recover more quickly from a flooding incident, have less to fear when the weather turns and may as a result be more loyal to their existing insurer. It will also help support the most socially vulnerable in our society, many of whom are particularly susceptible to flood risk. Insurers will be able to price policies more accurately and reduce the costs of pay-outs when heavy flooding hits. If the Scheme is to ensure a smooth exit out of the insurance market by 2039, we must continue progress on our Transition Plan, to change how the market works, and to influence consumer behaviour. As the impact of climate change exacerbates, we expect the incidence of flooding to increase in frequency and severity, so it is essential that PFR measures become the norm, rather than the exception, as they are at present.

Climate change

The UK will be hosting the 26th UN Climate Change Conference (COP26) later this year in Glasgow. Domestic and international agendas will be focused on how we can build back better from the pandemic whilst also tackling climate change which poses an even more existential threat. Flood Re is unique because it improves the affordability and availability of flood cover today, whilst reducing the cost of flooding to households tomorrow. However, the Flood Re Scheme is time limited and will not exist forever. We will be using our work on how to incentivise the uptake of resilience to provide insights into how nations need to mitigate the risks of climate change through net zero targets, and also to adapt to the consequences of climate change that are already being felt.”⁵

⁵ Flood Re 2021 Annual Report: [Flood-Re-Annual-Report-2021-corporate-version.pdf \(floodre.co.uk\)](https://www.floodre.co.uk/annual-report-2021-corporate-version.pdf)

In this year's Annual Report the CEO's Statement (see pages 15-16 and 20-25) also referenced our company objective "To manage the transition towards affordable risk-reflective pricing by 2039" which naturally focuses on reducing risk and adapting to climate change. Further, a list of Leading Indicators to monitor and report on progress related to climate change and mitigation efforts aligned with the [Transition Strategy Buckets](#) was required.⁶ The intent is to report annually on the current position of each area of Transition in a similar manner to the Committee on Climate Change's Annual "[Progress Reports](#)". More details on this work are also described in section 3.1 below.

- A summary appendix of work delivered to date and next steps is included in this submission.

1.2. Describe management's (below board-level responsibility) role in assessing and managing climate-related risks and opportunities.

- Beneath the Board, Flood Re has a number of committees that discuss climate-related risks as a matter of routine given the threat of climate change to both Flood Re's operation as a catastrophe reinsurance vehicle and our medium-term purpose to exit the market in 2039. These Committees include the ExCo and its sub-committees; the Transition Sub-committee, Reinsurance and Securities Sub-committee and Investment Working Group.
- Further, as noted above, Flood Re's Risk Function (led by the Chief Risk Officer) and Transition Team (led by the Communications and Transition Director) initiated the 2019 work to analyse the projected number of homes that will be at high-risk of flooding out to the 2080s. A number of Executives had climate change-related objectives; for example, the CRO's objectives for 2020/21 included:
 - A. Flood Re's "5 Angles" of Climate Change – Take forward the consideration and assessment of Climate Change at Flood Re across the 5 identified "angles", particularly the scenario assessments of short and medium term implications of Climate Change on the Scheme. Moving forward engage with PRA/BoE's BES exercise and in the short term ensure Flood Re's reports/disclosures meet the increasing TCFD/ClimateWise expectations.
 - B. Complete the London School of Economics "Climate Change – Economics and Governance" Executive Course.
- The Transition Team, with the support of ExCo, initiated the work described above, focusing on flood risk and vulnerable and diverse communities.
- Flood Re's CRO and Chief Actuary have also actively engaged with regulators to ensure stakeholders, such as insurance companies and mortgage underwriters, take into account the exit of Flood Re from the market in 2039. In December 2019, the Bank of England published for consultation a discussion paper 'The 2021 biennial exploratory scenario on the financial risks from climate change'.⁷ Flood Re highlighted that the scenarios run until 2050 and the transition of the Flood Re Scheme out of the market in 2039 should be considered explicitly by insurers; i.e. pre-2039 where insurers can utilise the Flood Re Scheme to cede high flood risk properties, and post-2039 where they will need to review their underwriting approach. Flood Re therefore noted that participants in the BES exercise should explicitly ensure they account for the exit of Flood Re (and the flood risk transfer mechanism it provides to households) after 2039. Following from this input, in the recently published [Qualitative Questionnaire for the](#)

⁶ Flood Re Our Vision: Securing a future of affordable flood insurance, page 5. See https://www.floodre.co.uk/wp-content/uploads/2018/07/Flood_Transition2018_AW.pdf

⁷ [Discussion Paper: The 2021 biennial exploratory scenario on the financial risks from climate change \(bankofengland.co.uk\)](#)

[CBES](#) exercise the BoE explicitly requires banks and insurers to consider the implication of Flood Re exiting the market in Question #81 *“What assumptions have been made regarding properties currently insured via the FloodRe scheme following the planned end of the scheme?”* Given the long-term nature of banks’ mortgage portfolios, consideration of the availability and cost of insurance in these scenarios both pre- and post-2039 was another fundamental issue we and the regulator want these institutions to consider. Mortgages issued this year with greater than 20-year durations will run beyond the lifetime of the Flood Re Scheme.

- Looking ahead, and as a direct outcome of the 2020 Strategy Day discussion mentioned earlier, the Transition team has reached out the National Housing Federation (NHF) to assess whether there are any opportunities that Flood Re could pursue to improve flood risk preparedness and resilience. Potential areas of collaboration include exploring ways to increase insurance take up and dissemination of updated flood risk preparedness guides.
- Related to the above initiatives, the Director of Communications and Transition has a number of objectives for 2021-2022 tied to climate change-related initiatives. Specifically:
 - A. In collaboration with the National Housing Federation, promote and enable better flood risk management and resilience;
 - B. Drive Property Flood Resilience (PFR) uptake – secure funding for complete project phase 0 on a unified approach to assessing benefits of PFR (resilient scoring project)
 - C. Promote our key asks regarding the upcoming Planning Bill:
 - 1. New homes are built in the right places and of the right quality to meet the challenges of climate change
 - 2. New homes are not developed inappropriately in areas at risk of flooding, and,
 - 3. Communities have a legal right to feed in their local expertise and have their voices heard in planning decisions that affect flood risk in their areas.
- Looking ahead, within the Actuarial Team, research is planned to assess the following:
 - A. Evaluation of four vendors’ catastrophe Flood Models summarizing validation test results and methodology review;
 - B. An exercise working with two external flood modelling firms to assess the scale of the potential impact that climate change has already had on the baseline view of risk, and to what extent vendor views of flood risk used for (re)insurance purposes are limited by not explicitly accounting for this; and
 - C. An exercise to examine surface water claims versus models, to determine the skill of model capture of this risk.

2. Incorporate climate-related issues into our strategies and investments

2.1. Evaluate the implications of climate change for business performance (including investments) and key stakeholders.

Climate Change and its implications for UK Flood Risk cuts across both aspects of the Flood Re Scheme’s Strategic Purpose, namely to:

- (1) Promote the Availability and Affordability of flood insurance for eligible homes, while minimising the cost of doing so, and
- (2) 2039 Transition to risk reflective pricing for household insurance, for those households at risk of flooding.

In the case of the first element of Flood Re’s purpose, the efficient operation of the Reinsurance Scheme in the short/medium term, the potential implications of climate change are:

- Further emergence of Climate Change and coincident impacts on UK Flood Risk;

- Behavioural changes on the part of ceding insurers; and/or
- Change in appetite of our outwards reinsurers

Each can impact the Scheme’s forward-looking risk profile and as such have been explicitly considered by the Flood Re leadership team (Board and Executive Committee) through a range of short/medium term stress and scenario tests (set out in Section 2.2 below).

With regards to the second aspect of our purpose, Climate Change will potentially mean that with Flood Re’s 2039 exit, flood insurance will likely become more expensive and/or less available for UK households at flood risk as premiums revert back to reflect risk. A longer-term, UK-wide set of scenarios have been considered to assess the impact of various climate change pathways and public policy initiatives on 2039 exit. The results of this analysis are set out in Section 2.2 below.

The above assessments have focussed primarily on the potential for Climate Change to impact insured losses and the Scheme’s strategic objectives. With regards to asset-side impacts of climate change, given Flood Re’s highly conservative investment portfolio (UK Government backed short term deposits and Cash at Bank), there is no market transition/“Minsky Moment” risks for Flood Re.

2.2. Measure and disclose the implications of climate-related issues for business performance (including investments) and key stakeholders. & 2.3 Incorporate the material outcomes of climate risk scenarios into business (and investment) decision making.

As highlighted in the previous section over the course of 2020/21, as we did in 2019/20, we have assessed the implications of a range of Climate Change scenarios, impacting both elements of Flood Re’s Strategic Purpose. We have used the PRA’s [“Framework for assessing financial impacts of physical climate change”](#) as the common approach for each assessment, see the framework schematic below for the steps of each exercise:



Set out below are the details of each exercise and the approaches taken to disclose and share the results and next steps from each.

1) Climate Change - Operation of the Reinsurance Scheme (Short/Medium Term Risk)

- **Comparison of UK Flood Models – Climate Change Modelling & GIST 2019:** To allow consistent comparison of the models’ assessment of Climate Change we sought to fix the scenarios/GHG emissions scenarios being assessed, and used the PRA’s 2019 General Insurance Stress Test (2019 GIST) scenarios as the common base. The three GIST Scenarios considered a range of pathways and time periods. This initially focused on modelling the impact of Climate Change on Flood Re’s current portfolio to provide a base for comparing a selection of UK Flood models that incorporate climate change impacts.

Disclosure: The results of Flood Re’s 2019 GIST Climate Change Scenarios have been shared and discussed with the PRA and they have since published their [industry-wide feedback](#)

[\(Annex 4\)](#). We have continued to engage with the PRA's scenario and climate change teams to share our findings and approaches to assessing the impact of Climate Change on UK Flood Risk, particularly in the lead up to the Bank of England's 2021 Biennial Exploratory Climate Change Scenarios (BES 2021).

Informed Decision Making: Results of the GIST 2019 analysis provided the basis for comparing various UK Flood Model's climate change projections and their various strengths and limitations in order to select the right tool for the job moving forward.

- **Short / Medium Term Behavioural Changes of Key Counterparties (Insurers and Outward Reinsurers):** As the GIST 2019 exercise was industry-wide and required consistency of outcomes, it considered Flood Re's exposure as point in time and static. For our Own Risk and Solvency Assessment (2019/20 ORSA), we took this a step further to consider material behavioural change on the part of our major counterparties as a result of shifts in their view of climate change and UK Flood Risk.

For this more dynamic assessment we delivered a range of scenarios assessing the solvency implications of a shift in the risk appetite of both our ceding insurers (increased ceding to Flood Re as perception of UK Flood Risk changes) and our outwards Reinsurance counterparties (increased cost of outwards cover). Given our considerable capital position the Scheme remained well within its Solvency Risk Appetite Thresholds in each of the scenarios.

Disclosure: Similar to the 2019 GIST exercise, the Flood Re ORSA Report with the results of these scenarios has been shared with a range of stakeholders including the PRA and rating agency. A summary of our ORSA Stress and Scenario testing is included in our annual (publicly published) Solvency and Financial Conditions Report (SFCR).

Informed Decision Making: The ORSA Climate Change stress testing analysis tested the scheme under a range of adverse scenarios to help inform our cycles of business planning and future decisions around structure of outwards RI and other business levers within Flood Re's control post QQR (Setting Levy 1, Liability Limit).

- **Next Steps 2021/22 – Company Objective – Current Climate Change Flood Modelling Deficiencies**

Climate Change Modelling plans for the forthcoming year in this area (2021/22) focus on the following Board Approved Company Objective:

“Develop a view on the “market information shortfall” relating to JBA and RMS not fully reflecting current day climate change impacts. Such a view would put Flood Re in a leading position in this area.”

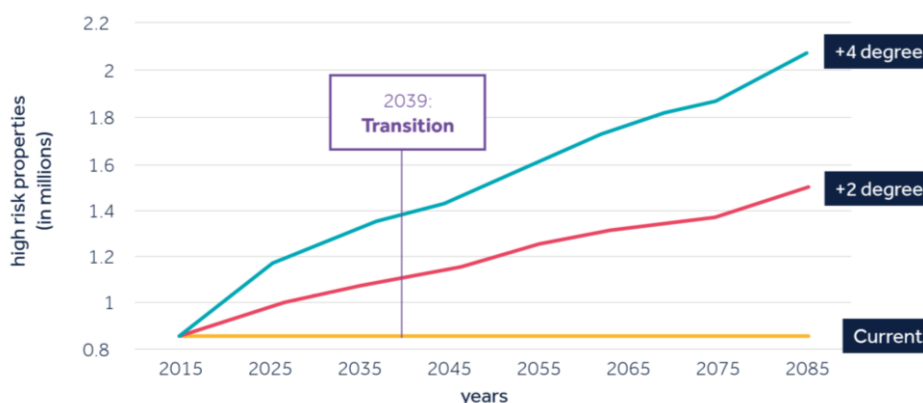
This activity is incorporated into our three-year cycle of Flood Model Deep Dive Reviews (of available UK flood models to assess strengths and weaknesses and for consideration in the Flood Re Internal Model).

2) Climate Change Implications for 2039 Flood Re Transition (Medium/Long Term Risk)

- As described in our 2020 submission, to assess the longer-term impact of Climate Change on UK Flood Risk and hence risk a successful 2039 exit out of the market, we worked with the model and results from the last Climate Change Risk Assessment (CCRA)⁸.

By 2039, assuming a four-degree warming scenario, 1.5 times as many properties may be at a high-risk of flooding, increasing from 860,000 to 1.3 million properties given current levels of adaptation/flood defence spend and low population growth (housing development).

Projected number of UK properties at high-risk of flooding
(with a 1 in 75 or greater annual probability of flooding) by climate change scenario



Disclosure: For an overview of our consideration and disclosure of the impact of Climate Change on Flood Re's Strategic Objectives, see pages 26-29 of our [Annual Report \(YE 2019/20\)](#).

Informed Decision Making: Climate Change has been acknowledged as a key threat to a successful 2039 Transition since the launch of the Flood Re Scheme, and this analysis has further reinforced that point. The modelling has also provided us with the basis to consider other variables (including property development, increased flood defence spending) impacting UK household flood risk in 2039, and work through "what needs to be true" to manage these risks to Transition. This has in turn supported proposals in our first Quinquennial Review (Build Back Better) and our Transition Activity next steps.

As will be detailed further below in principle 5, one proactive opportunity Flood Re sees from this work has been to increase its engagement with the planning sector to ensure that new homes and developments are not built in areas at high risk today or where risk is expected to increase in the future. In March 2020, Flood Re presented at the Town and Country Planning Association's (TCPA's) Spring Conference 'Climate Change – game over?' concerning the importance of incorporating assumptions of insurance availability in development.

During the 2020/21 fiscal year Flood Re partnered with the TCPA to host capacity building workshops for local authority planners focusing on the need to incorporate the current and future cost of flood insurance into decision making to ensure the sustainable affordability for new developments in the face of increasing risk due to climate change.

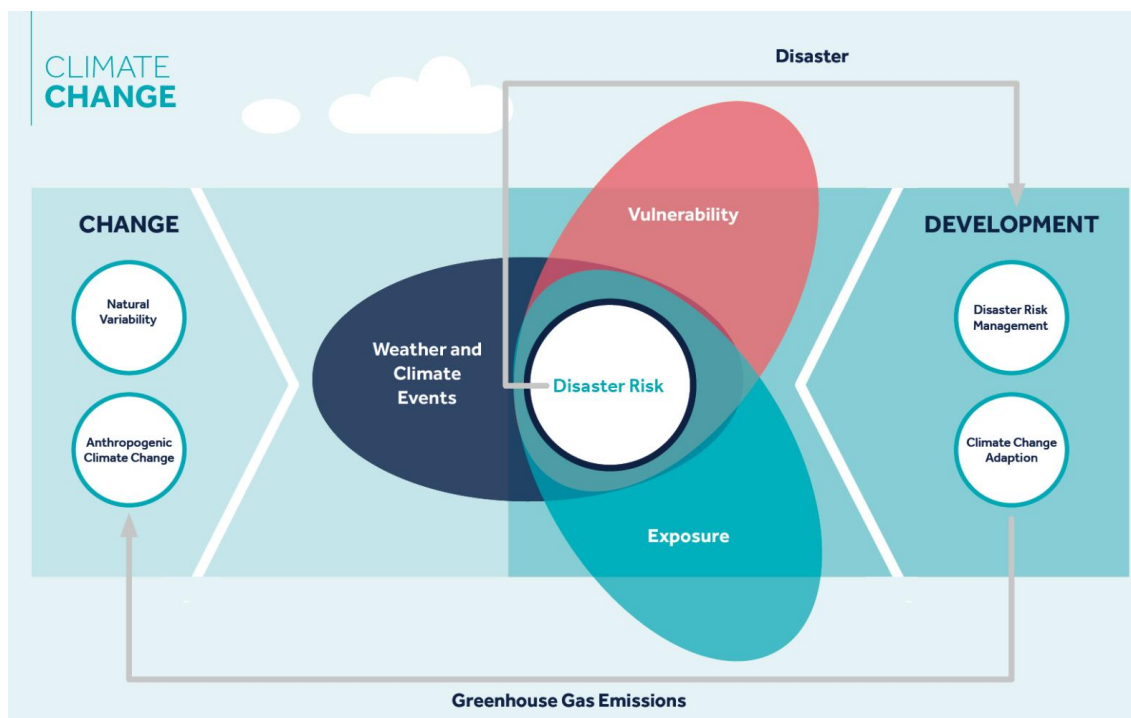
3. Lead in the identification, understanding and management of climate Risk (25%)

⁸ Climate Change Risk Assessment 2017 Projections of future flood risk in the UK, page 63
<https://www.theccc.org.uk/publication/sayers-for-the-asc-projections-of-future-flood-risk-in-the-uk/>

3.1. Ensure processes for identifying, assessing and managing climate-related risks and opportunities are integrated within the organisation (including investments).

- As described in our ClimateWise submission last year, Flood Re has a number of on-going and new processes to ensure we are identifying, assessing and managing climate-related risks and opportunities are integrated within the organisation.
- On-going processes include an assessment against each of our objectives of the climate change impact. Within Flood Re's 2020 Annual Report⁹ details are found on pages 5-6 of the Statement by the Chair; pages 7-9 of the CEO Statement; and pages 20-21 of the Strategic Report. Within the section "Climate change impact on strategic objectives" we note the impact on insurers, reinsurance, transition, and banks. Further, in terms of monitoring the Annual Report highlights new climate metrics Flood Re is now methodically tracking, specifically:

"Flood Re will actively track observed climate change, climate change projections, levels of adaption and UK Government spending using data published at regular intervals by the Met Office, the National Adaptation Programme, the Committee on Climate Change and others. The complex relationship between the forces of higher CO₂ emissions, flood hazard, development, vulnerability, and adaptation is shown below in a diagram published by the Intergovernmental Panel on Climate Change.¹⁰ Flood Re will only be able to transition out of the market to affordable risk-reflective prices if the centre 'disaster risk' area for the UK falls below the current level – the level which necessitated the market intervention enabled by the Scheme to reinsure UK flood risk.



Source: IPCC

⁹ Flood Re 2020 Annual Report: <https://www.floodre.co.uk/wp-content/uploads/Flood-Re-Annual-Report-2020-FINAL.pdf>

¹⁰ <https://www.ipcc.ch/site/assets/uploads/2018/03/Fig1-1.jpg>

Flood Re will continue to support stakeholders actively to improve risk mitigation and adaptation, while also seeking to ensure homeowners and property underwriters do not face a cliff edge at the end of the Scheme's planned life."¹¹

In Flood Re's 2021 Annual Report, as mentioned above, the CEO's Statement referenced our company objective 6, "To manage the transition towards affordable risk-reflective pricing by 2039," which focuses on reducing risk and adapting to climate change.¹² A list of Leading Indicators to monitor and report on progress related to climate change and mitigation efforts was included. These align with the Transition Strategy Buckets described in our 2018 Transition Plan.¹³ The intent is to report annually on the current position of each area of Transition in a similar manner to the Committee on Climate Change's Annual "Progress Reports". The relevant text from the 2021 Annual Report is pasted below.¹⁴

"Over time, the cost of flooding must fall so that the Levy is no longer needed and prices remain affordable without the benefit of a subsidy.

Flood Re cannot deliver this outcome on its own. It requires the support and actions of a wide range of stakeholders including UK Government, the insurance industry, communities and individuals.

Flood Re needs to define the actions required to achieve an affordable risk-reflective market.

It must then engage and work with others to realise this vision through collaboration, advocacy, support, coordination, information and communication.

The following section outlines the next stage of our plan to deliver on our transition objective.

Delivering on our strategic Transition objective

Gearing up to change and new challenges

As Flood Re looks to the future, we are increasingly focused on our Transition. We recognise that climate change and inappropriate housing development in flood plains could impact progress in other areas. That's why we have begun to step up our engagement, working with the Town and Country Planning Association, the Climate Change Committee ('the CCC') and becoming a member of ClimateWise.

We know that more needs to be done to tackle flood risk and adapt as a country. We have broadened our vision to look at social vulnerability and financial inclusion, evaluating how Flood Re can play a role. Particularly as events in the past year have highlighted the pace of social change. Insurance alone cannot be the solution for those at high risk of flooding, but it does have an important role to play. That is why we have been such strong advocates for changes to the Scheme such as Build Back Better, which will provide financial support for many more householders to become

¹¹ Flood Re 2020 Annual Report: <https://www.floodre.co.uk/wp-content/uploads/Flood-Re-Annual-Report-2020-FINAL.pdf>

¹² Flood Re 2021 Annual Report: [Flood-Re-Annual-Report-2021-corporate-version.pdf \(floodre.co.uk\)](https://www.floodre.co.uk/wp-content/uploads/2021/07/Flood-Re-Annual-Report-2021-corporate-version.pdf)

¹³ Flood Re Our Vision: Securing a future of affordable flood insurance, page 5. See https://www.floodre.co.uk/wp-content/uploads/2018/07/Flood_Transition2018_AW.pdf

¹⁴ Flood Re 2021 Annual Report: [Flood-Re-Annual-Report-2021-corporate-version.pdf \(floodre.co.uk\)](https://www.floodre.co.uk/wp-content/uploads/2021/07/Flood-Re-Annual-Report-2021-corporate-version.pdf)

resilient to future flooding. We want all our stakeholders to work with us, because we believe real progress will require action from many areas.

A series of leading indicators to track progress

Over the last year, we have developed high-level 'leading indicators' as a way of tracking progress towards our goal of exiting the market by 2039. These indicators do not themselves determine success, nor are they something that Flood Re can control. Instead, they provide an objective assessment of the direction of travel. The aim is that these leading indicators will enable us to monitor both the long-term and slow-moving risks to transition.

We assess many of these indicators as currently 'in the red', but, there is still time for this to change. They are an early warning that the UK needs to do more to prevent, respond and adapt to all forms of flooding.

Our Transition Plan, published in 2018, spells out in detail what needs to be true for the market to successfully transition to risk reflective pricing, without the continued need for Flood Re. We identified areas of activity, or 'buckets' in our vision, where there must be concrete action. We have identified leading indicators for each of these areas of activity.

Our approach acknowledges that there is a hierarchy of driving forces (e.g. climate change), enabling activities (e.g. products and consumer information) and resulting impacts (e.g. the size of the uninsurable population). Some transition areas are easier to quantify than others, so we have developed the indicators from both quantitative analyses and qualitative judgements. They are at varying stages of maturity. We expect that the indicators will evolve but believe that this first assessment underlines the urgent need for action, particularly given the headwinds of climate change.

1. Reducing the risk of flooding

We have welcomed the Government's commitment to an additional £5.2bn of spending for flood defences over the next five years. However, this is not sufficient alone and there is a need for continued investment and long-term commitment. This includes funding for the maintenance of the current infrastructure, as well as for new defences.

This demonstrates early progress and has helped to make this indicator 'amber', but there is still much to do. We are building an evidence base on the benefits of flood defences working with modellers and engineers including RMS and JBA.

We are also working to develop our relationships with partners in the Environment Agency (EA) and the private sector. We hope to work to enable others to identify opportunities and new approaches to bring in new funding sources. Green finance, in particular, could increase the number of nature-based solutions to flooding.

Ongoing development on the floodplain could offset this early progress. Flood Re does not cover properties built after 2009 and we continue to believe that this cut-off remains as a disincentive to inappropriate development. However, if house building continues at current rates in areas at risk of flooding, a new protection gap will open. That is why we are supporting additional training for planners to promote flood awareness and have responded strongly to the Ministry of Housing,

Communities and Local Government (MHCLG) on proposed changes to the planning system.

2. Reducing the damages and costs of flooding

There is real momentum for the emerging area of property flood resilience, so we place an 'amber' rating to this area. We have supported the development of a new Code of Practice for resilience measures by the Property Flood Resilience Roundtable. We have taken on chairing this body and are committed to providing it with leadership and practical support.

We launched, with the Minister for Flooding Rebecca Pow MP, a new report advocating the introduction of 'Flood Performance Certificates' (FPCs). FPCs would mean that householders could demonstrate independent validation of the resilience work done to their property.

Our Build Back Better and Lower Premiums proposals have been subject to consultation by Defra. We continue to be eager to introduce these new insurance incentives for property level resilience.

Nonetheless, increased momentum from Government, the insurance industry and other stakeholders is still needed. We are a long way from normalising the behavioural changes by householders that we want to see.

3. Achieving an effective market





We continue to advocate for wider insurance solutions in the longer term. If Flood Re were to exit the market today, the level of risk would not have significantly changed since the 2014 Water Act and so there would be a significant "rate shock". As such, we are on 'red'. This assessment is not unexpected, given Flood Re is still at an early stage in its journey.

4. Limits of affordability

The ongoing availability and affordability of household insurance to those at high flood risk remains the top priority for us. We are concerned that vulnerable groups continue to be hit the hardest by flooding. The recent independent review by Amanda Blanc into insurance cover in Doncaster gave grounds for optimism that there are no systemic issues. We are working with our partners in the ABI, BIBA and the EA to take forward her recommendations and ensure flood cover remains available to all. We will also be looking to support social housing providers to improve flood awareness and resilience.

The reality of climate change gives us concern and we are looking to COP26 later this year to provide much needed global leadership. For this reason, we consider this indicator as 'red' in terms of Transition progress.

Leading indicators for all areas of transition, along with a view on the 'maturity' of their development.

Transition Area	Progress Assessment	Leading Indicator/ Expert Judgement
Reduce the risk of flooding		<ol style="list-style-type: none"> 1. Level of flood defence investment 2. Extent of housing development in the floodplain
Reduce the damage and cost of flooding		<ol style="list-style-type: none"> 3. British Standard for flood resistance products 4. Level of engagement of community with flood groups 5. Number of properties that benefit from PFR 6. Overall cost and time taken to settle claims
Achieve an effective market		<ol style="list-style-type: none"> 7. Flood modelling use in risk-reflective pricing and awareness 8. Effective level of Flood Re subsidy ("rate shock") 9. Householder flood risk awareness of their home 10. Engagement with insurers at strategic and operations level
Limits of affordability		<ol style="list-style-type: none"> 11. Number of households at highest flood risk 12. Support for those at highest risk post-Flood Re 13. CO₂ emissions and the likely "climate pathway"

3.2. Support and undertake research and development to inform current business strategies (including investments) on adapting to and mitigating climate-related issues.

- As mentioned in section 1, to further understand the impacts of climate risks, Flood Re's Risk Function and Transition Team engaged with Sayers and Partners to use its Future Flood Explorer model (the same tool leveraged by the Committee on Climate Change for its "UK Climate Change Risk Assessment") to analyse the projected number of homes that will be at high-risk of flooding out to the 2080s.
- The results of this analysis were the basis of the December 2019 Board and ExCo Strategy day mentioned above, which consciously shifted to focus on the medium- and longer-term risks to Transition. The exhibit shown above in response to principle 2.2 summarises the results of Future Flood Explorer's (FFE's) combined scenarios which consider each of the aforementioned risks to transition (note that risks (3) Flood defence investment and (4) Property level resilience are captured under the 3rd variable "Adaptation").
- The Transition Team also conducted research on social vulnerability and flood risk exposure to increase Flood Re's understanding regarding flood vulnerability today and in the future due to climate change. The analysis examined the intersection of low income, exposure to flood risk and insurance take up at present and in the 2050s and 2080s.

Flood Re also commissioned an analysis of 702 home insurance claims for flooding from two insurers over the years 2013-2019 to enhance the evidence base around key factors affecting cost and duration of flood damage claims.¹⁵ The work is intended to build the case to support broader take-up of property-based resilience measures.

- The Transition Team also elevated the topic of social vulnerability and flood risk exposure as the areas of focus for the Board and Exco's 2020 Strategy Day. This research was coupled with new research mentioned earlier that Paul Sayers presented entitled "Flood disadvantage: Socially vulnerable and ethnic minorities" by Sayers P.B, Carr S., Moss C. and Didcock A. As mentioned, this paper is available on Flood Re's website.¹⁶

¹⁵ <https://www.floodre.co.uk/enhancing-the-evidence-base-for-property-flood-resilience/>

¹⁶ [Sayers-Flood-disadvantage-Socially-vulnerable-and-ethnic-minorities.pdf \(floodre.co.uk\)](#)

4. Reduce the environmental impact of our business

4.1. Encourage our suppliers to improve the environmental sustainability of their products and services, and understand the implications these have on our business.

- As disclosed last year in our ClimateWise disclosure, Flood Re is roughly an thirty-person organisation and has only a few suppliers. Specifically, the company’s three main suppliers and their respective ESG strategies are as follows:
 - Guy Carpenter provides our reinsurance and we have been working with them to understand alternative investment structures that could be used to fund flood resilience infrastructure projects. Guy Carpenter is guided by Marsh & McLennan’s standards of conduct. The MMC Sustainability Leader has said, “By focusing on areas such as energy use in real estate and technology, product selection in our supply chain and consumption in our product and paper usage, we are making positive changes to reduce our environmental impact every day.”¹⁷
 - Capita provides a range of outsourced services to Flood Re including IT Service Provision and Claims management. Their Responsible Business Report for 2020, page 41 highlights their environmental efforts. Specifically, they note a 39.77% reduction in their carbon footprint from 2019.¹⁸
 - Landmark Information Group provides data supply concerning the UK’s property market. They have a Corporate Social Responsibility platform which highlights their environment efforts on pages 27 and 28.¹⁹

4.2. Disclose our Scope 1, Scope 2 GHG emissions and Scope 3 GHG emissions using a globally recognised standard.

- Flood Re provided “Streamlined Energy & Carbon Reporting (SECR) Report for the year ended 31 March 2021” in its most recent Annual Report; the report is set out below:

“Organisational structure

Flood Re is classified as a large unquoted company due to its size in terms of turnover, measured in Gross Written Premiums and Total Assets. It is required to report in accordance with Streamlined Carbon & Energy Reporting (“SECR”) legislation as at 31 March 2021 as a result.

Environmental indicators

Flood Re’s first report focuses on the Energy and Carbon indicators mandated by the SECR. The Company intends to report on the other relevant environmental indicators in future reporting periods.

Reporting period

Flood Re is reporting for the first time as at 31 March 2021. Its base year has been set as 31 March 2020 due to the exceptional circumstances created by the Covid-19 lockdowns that have significantly reduced office occupation and staff travel. This will provide a more representative base from which to analyse and compare future annual energy usage and emissions.

¹⁷ <http://integrity.mmc.com/the-greater-good/we-build-trust-by-acting-responsibly?nav=menu>

¹⁸ [Capita Responsible Business Report 2020](#)

¹⁹ <https://lmccorp1.s3.amazonaws.com/s3fs-public/LIG-R-Policy-2016.pdf>

Reporting Boundary

The reporting boundary for this Energy and Carbon Report is Flood Re Limited and its outsourced services. This incorporates 100% of the energy use for the Company. Flood Re's energy and carbon footprint covers Scope 1, 2 and selected Scope 3 emissions* from 1 April - 31 March for each reporting year in 2021 and 2020.

Measurement methodology: Energy Performance

Flood Re's own kWh Scope 1 Gas and Scope 2 Electricity energy use is calculated as a percentage of the total office space owned by its managed services provider and is allocated based on the square footage of its occupied space. Scope 1 Transport Energy represents recorded business travel in Km by employees using their own vehicles that has been converted to kWh.

Equivalent kWh energy usage for our outsourced service partners has been allocated on a per capita basis.

kWh energy use is calculated using the most up to date conversions factors from the Department for Business, Energy & Industrial Strategy (BEIS), published 17 July 2020.

Energy Performance Results

Energy Use (kWh)	31 March 2021	31 March 2020 (Baseline year)
Transport Energy	2,029	5,742
Electricity	142,692	178,555
Natural Gas	127,538	191,131
Total	272,259	375,428

Measurement Methodology: Carbon Performance

Scope 3 emissions include travel by land and air, and homeworking. Land and air travel emissions are based on the actual journeys taken in the reporting year, with conversion factors applied to calculate the carbon emissions equivalent.

In estimating the impact of emissions from homeworking on Scope 3 carbon emissions from incremental gas and electricity usage, we have used the U.K. assumptions and calculations from the Homeworking emissions whitepaper, published by EcoAct and written in partnership with Lloyds Banking Group and NatWest Group: <https://info.eco-act.com>

Carbon emissions are calculated in accordance with the Greenhouse Gas (GHG) Protocol, with outputs for Carbon emissions (CO₂e) calculated using the most up to date conversions factors from the Department for Business, Energy & Industrial Strategy (BEIS), published 17 July 2020.

Carbon performance results

Carbon dioxide equivalent Emissions (t/Co2e)	31 March 2021	31 March 2020 (Baseline year)
Scope 1 emissions	23	37
Scope 2 emissions	33	42
Scope 3 emissions	51	39
Total	107	118

*Scope 1 emissions are direct emissions produced by the burning of fossil fuels by Flood Re. Scope 2 emissions are indirect emissions generated by the electricity consumed and purchased by Flood Re. Scope 3 emissions (limited to business travel and homeworking) are indirect emissions produced by Flood Re activity but owned and controlled by a different emitter.

Intensity Ratio

Reporting boundary t/CO2e/employee	31 March 2021	31 March 2020 (Baseline Year)
	2.6	3.0

Operational trends

The kWh energy usage in the year to 31 March 2021 was considerably lower than the baseline reporting year, as we and many other companies in the office building we usually occupy switched to home working in April 2020.

For our carbon emissions, the contrast between the predominant Covid-19 lockdown periods from April 2020 and the 'business as usual' prior year where business travel levels were at normal levels, is lower than might be expected due to the impact on scope 3 emissions from homeworking gas and electric usage. The overall impact, however, is a reduction year on year of 11 tonnes of Co2e, and a per capita emission reduction from 3 to 2.6."²⁰

4.3. Measure and seek to reduce the environmental impacts of the internal operations and physical assets under our control.

- As further stated in our Annual Report²¹:

Energy efficiency and management actions

"We have noted that our partitioned office space, part of a set of offices within one larger building, limits our ability to manage our energy usage. As areas of the whole building have variously been in use or not, it is clear that there is an underlying energy usage required for heating and lighting, and for security and systems maintenance that is unavoidable. In addition, our allocation of the total energy usage varies as occupation throughout the building changes.

²⁰ Flood Re 2021 Annual Report: [Flood-Re-Annual-Report-2021-corporate-version.pdf \(floodre.co.uk\)](https://www.floodre.co.uk/annual-report-2021)

²¹ Flood Re 2021 Annual Report: [Flood-Re-Annual-Report-2021-corporate-version.pdf \(floodre.co.uk\)](https://www.floodre.co.uk/annual-report-2021)

It is also clear that the incremental impact of homeworking is not a simple factor to determine due to complex variables relative to individual circumstances. The incremental energy created by homeworking from shared accommodation rather than independent households can differ considerably, and for individuals from households where a family member or shared occupant is usually present anyway, the incremental energy usage is minimal, whereas for two people usually absent from home during the day, the incremental energy usage could be significant. We have followed the methodology from EcoAct's Homeworking emissions whitepaper for the year to 31 March 2021, and aim to refine a methodology that better reflects our teams' circumstances once our future working arrangements have been determined.

Given our restricted ability to directly manage the total energy usage arising from Flood Re's activity, the board will consider options in 2021 and beyond both to offset our carbon emissions, and to assess opportunities for Flood Re to engage with UK Woodland and Wetland projects that are expected to assist in the reduction of future flood risk, and to reduce carbon emissions."²²

4.4. Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.

- Flood Re conducted an environmental impact assessment in November 2018. The outcome of that review is as follows:
 - A. 'Office Waste Management (with Landmark) - Viridor waste management used for recycling – confidential waste is recycled. Recyclable items include plastics, paper, cardboard paper towels, batteries, and glass.
 - B. Travelling Carbon Footprint – Very limited international (flight) travel. Majority of the office was using public transport, walking or cycling into work as well as a number of staff members working from home periodically.
 - C. Stationery - Flood Re use the Commercial Group who are certified carbon neutral, and have a gold award to sustainability/recycling.
 - D. Paper – Flood Re orders 'Focus Cool Earth Club A4 Paper' as every ream purchased contributes to Cool Earth's campaign to prevent deforestation.
 - E. Catering – Pre-COVID Flood Re was using EAT for our catering and ordering from the nearby King William Street branch. EAT coffee cups are 100% compostable meaning you can put them in the food waste bins. EAT also donate as much left over food as possible to local charities.
 - F. Flood Re also stopped buying bottled water for external guests. Rather, pre-COVID, re-usable bottles were being used for all committees/catered meetings.
 - G. Finally, all Flood Re staff were provided a re-usable water and hot drink bottles/flasks to reduce use of "single use" plastic.
- Given the unprecedented circumstances during the global pandemic, Flood Re focused its employee outreach on wellness and mental health.
- However, as restrictions have begun to ease and with COP26 on the horizon, Flood Re recently launched a short employee survey to assess what staff would find most useful in terms of pro-environmental action. The survey also asked employees "In terms of our Flood Re climate action what sort of tracking would you hope to see (check all that apply)?"
- Given the interest in establishing a baseline from which to measure pro-environmental progress, Flood Re will launch a survey based on research previously conducted by Defra. This survey will serve as a pulse check to anonymously track changes in pro-environmental behaviour and sentiment over the coming year.

²² Flood Re 2021 Annual Report: [Flood-Re-Annual-Report-2021-corporate-version.pdf \(floodre.co.uk\)](https://www.floodre.co.uk/~/media/2021-09-21-Flood-Re-Annual-Report-2021-corporate-version.pdf)

- Among tactical changes Flood Re hopes to motivate employees to turn off equipment in the evening to reduce electricity use when they are not working on their computers and other devices.

5. Inform public policy making

5.1. Promote and actively engage in public debate on climate-related issues and the need for action. Work with policy makers locally, regionally, nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.

- Flood Re has engaged and influenced public policy in many regards ranging from regulatory, environmental matters both domestically and abroad. Some highlights are as follows:
- UK - Regulatory:
 - A. As mentioned last year, Flood Re’s Chief Actuary and CRO has actively engaged with regulators to ensure stakeholders, such as insurance companies and mortgage underwriters, take into account the exit of Flood Re from the market in 2039. In December 2019, the Bank of England published for consultation a discussion paper ‘The 2021 biennial exploratory scenario on the financial risks from climate change’.²³ Flood Re highlighted that the scenarios run until 2050 and the transition of the Flood Re Scheme out of the market in 2039 should be considered explicitly by insurers; i.e. pre-2039 where insurers can utilise the Flood Re Scheme to cede high flood risk properties, and post-2039 where they will need to review their underwriting approach. Participants in the BES exercise should explicitly ensure they account for the exit of Flood Re (and the flood risk transfer mechanism it provides to households) after 2039.
- UK – Policy (local, regional and national):
 - A. As mentioned in last year’s ClimateWise submission, during 2019/20:
 - Flood Re provided input and policy recommendations on a number of key government strategy documents including the Environment Agency’s National Flood & Coastal Erosion Risk Management Strategy Information²⁴ and The National Strategy for Flood and Coastal Erosion Risk Management in Wales²⁵, both of which are now final.
 - Flood Re launched a Flood Risk Charter alongside the National Flood Forum at a Parliamentary event in November 2019. The Charter contains a list of recommendations designed to help communities feel safe in the face of the increasing threat of flooding. It calls for more funding to improve flood defences, further work to ensure coordination between flooding community groups and government agencies, and for Government policy to help address the mental and physical wellbeing of those impacted by flooding.
 - Flood Re also wrote a joint letter to the UK’s Department for Environment, Food and Rural Affairs along with the National Infrastructure Commission and the Committee on Climate Change in support of the development of a national resilience standard that would promote place-based resilience by enhancing the capacity of people to plan for, better protect, respond to, and recover from flooding and coastal erosion risks.
 - Flood Re has also engaged with the planning community given the impact of new development on future flood risk to the housing sector. In March 2020, Flood Re presented at the Town and Country Planning Association’s

²³ <https://www.bankofengland.co.uk/paper/2019/biennial-exploratory-scenario-climate-change-discussion-paper>

²⁴ [National Flood and Coastal Erosion Risk Management Strategy for England - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/421212/national-flood-and-coastal-erosion-risk-management-strategy-for-england-2019.pdf)

²⁵ [National Strategy for Flood and Coastal Erosion Risk Management in Wales | GOV.WALES](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/421212/national-strategy-for-flood-and-coastal-erosion-risk-management-in-wales-2019.pdf)

(TCPA's) Spring Conference 'Climate Change – game over?' concerning the importance of incorporating assumptions of insurance availability in development.

- B. Building on all the work listed above, in 2020/21, Flood Re will be working with the National Flood Forum and the TCPA to develop capability building workshops for local planners in at-risk communities.
 - C. Since the close of the fiscal year, in June 2021, co-sponsored research by Flood Re and the ABI was released highlighting the benefits of investing in maintenance of flood defences.²⁶ Specifically, the key findings of the report were as follows:
 - River flood defences provide protection to flood risk communities valued at £568million a year. Without such defences the research suggests flood losses of approximately £958million a year. With defences, inland flood losses reduce to £388 million a year, saving £568million.
 - Flood defence maintenance is very cost effective - for every £1 increase in maintenance spending almost £7 is saved in capital spending on defences. The report highlights that increasing current maintenance spending by 50% could extend the lifespan of defences by an average of eight years.
 - Well-funded flood defences rarely breach. As long as a flood defence does not deteriorate to, and remain in, a poor condition, then it is unlikely to breach – which is why it is so important that flood defences are maintained in a good condition. Conversely, if maintenance spending is cut, flood defence lifespan reduces, and overall annual costs will rise.
 - Based on the current state of existing flood defences, London and the South East have the highest estimated annual flood loss with 30% (£117.4m) of the total, followed by the North West at 11%, central Scotland 8%.
 - D. Flood Re is also working on a Wyre valley Natural Flood Risk Management scheme to investigate the possibility of a green finance pilot. The project is being done in partnership with United Utilities and the Rivers Trust. See for more details.
 - E. Further, in partnership with the Rochdale Borough Council, the North West Regional Flood & Coastal Committee and the National Flood Forum, Flood Re is working to establish a better understanding of flood poverty and barriers to change over a two-year project that commenced in July 2021.
 - F. Looking ahead, Flood Re will commence in September Phase 0 of the Resilient Scoring Project which seeks to establish a link between what property flood resilience (PRF) strategies most benefit specific types of housing. In addition, Flood Re is consulting on the development of a Flood Compliance Platform that is being developed to track where and what PFR strategies have been implemented.
- International:
 - A. As mentioned last year's ClimateWise submission:
 - In Autumn 2019, Flood Re's Director of Operations spent a week with Public Safety Canada to discuss the development of a flood insurance pool, using the lessons learnt during the creation of Flood Re.
 - The discussions focused on mapping and modelling, the political environment and the nature of the insurance market in Canada, identifying the similarities and differences between the Canadian and UK situations, and how that would influence the nature of any solution.
 - B. In addition, in March 2020, the Flood Re CEO attended a roundtable hosted by Defra and the Centre for Disaster Protection with a delegation of senior

²⁶ [modelling-the-impact-of-spending-on-defence-maintenance.pdf \(abi.org.uk\)](https://www.abi.org.uk/modelling-the-impact-of-spending-on-defence-maintenance.pdf)

government officials from the Mexican Ministry of Finance visiting in a knowledge sharing forum regarding risk transfer and physical resilience. Mexico's FONDEN sovereign risk transfer programmes is one of the largest and most sophisticated in the world (\$360m of capacity). Therefore it was an opportunity to learn more about what the UK offers and Mexico's response to cat risk.

- C. Looking ahead, Flood Re will also be participating in a number of events at the rescheduled COP-26 in Glasgow in November 2021.²⁷ This includes:
- 20 October in the lead-up to COP26. A panel event run by the New Statesman on the topic of Making Sense of Net Zero
 - 7 November - World Climate Summit in the session "Investing for Resilience - The Insurance Industry & Redirecting Capital into Resilience Enhancing Investments"
 - A roundtable event organised by the think tank Onward, bringing together policymakers, industry professionals and MPs to discuss climate adaptation and resilience policies for not only the UK, but also abroad. Accelerating the adaptation: Building the framework for climate resilience.

5.2. Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests. Where appropriate, share this research with scientists, society, business, governments and NGOs in order to advance a common interest.

- As mentioned above, and in our submission last year, Flood Re devotes significant resources collaborating and/or providing expert input on policies developed by stakeholders such as the Bank of England, the ABI, the Environment Agency, the Committee on Climate Change, the National Infrastructure Commission, the Canadian government, academics and consultants concerning the implications of climate change on the insurability of homes.

Specific research conducted touched on the following topics:

- A. Future housing risk - As mentioned in section 1 and 3, to further understand the impacts of climate risks, Flood Re's Risk Function and Transition Team engaged with Sayers and Partners to use its Future Flood Explorer model (the same tool leveraged by the Committee on Climate Change for its "UK Climate Change Risk Assessment") to analyse the projected number of homes that will be at high-risk of flooding out to the 2080s. This work was discussed at Flood Re's December Board Strategy Day and led directly to the company's engagement with the planning sector and with the Bank of England.
- B. Social vulnerability - Flood Re also investigated research on social vulnerability and flood risk exposure to increase its understanding regarding flood vulnerability today and in the future due to climate change. The analysis examined the intersection of low income, exposure to flood risk and insurance take up at present and in the 2050s and 2080s.
- C. Claims analysis to support property-based resilience - Flood Re also commissioned an analysis of 702 home insurance claims for flooding from two insurers over the years 2013-2019 to enhance the evidence base around key factors affecting cost and duration of flood damage claims.²⁸ The work is intended to build the case to support broader take-up of property based resilience measures and will be shared with insurers and flood forums throughout the UK. The University of the West of England, Bristol completed the analysis and found the following:

²⁷ <https://www.ukcop26.org>

²⁸ <https://www.floodre.co.uk/enhancing-the-evidence-base-for-property-flood-resilience/>

- “Low-cost recoverable packages (designed to limit damage once water enters a home, such as resilient plaster and floors) could be appropriate for a large proportion of flooded homes. Packages that do not protect kitchens, windows and doors can be effective as these were not replaced in the majority of sampled claims.
- Low-cost passive resistance packages (designed to limit the water entering the home, such as self-closing airbricks, non-return valves, sealing brickwork and flood doors) could also be considered for a large proportion of properties because depth of flooding is below 300mm in the majority of sampled claims.
- Damage from deep and prolonged flooding can cost nine times as much to repair compared to shallow, shorter-duration flooding. Therefore, higher cost measures may be cost-beneficial for severely flooded homes.
- A combination of recoverable and resistant measures can be considered for homes subject to deep and prolonged flooding because limiting water depth and duration (where possible) could avoid the high cost for future floods as well as reducing return to home time.
- Installing a resilient kitchen may be beneficial where a kitchen is being replaced after flooding, because kitchens cost more than previously thought, and families are more likely to be relocated if their kitchen needs replacing.”²⁹

D. Feasibility of Flood Performance Certificates - Flood Re commissioned WPI to explore the feasibility of introducing a tool to grade a home’s resilience similar to an EPC. The report has been shared with Government, flood forums, academics, and the insurance industry. Flood Re is now commencing an engagement campaign to encourage the take up of the policy to drive penetration of resilience measures in homes.

- Over the past year Flood Re has continued to conduct and disseminate important research to further understanding of current and future flood risk. As mentioned above,
 - A. Flood Re commissioned concerning Flood disadvantage: Socially vulnerable and ethnic minorities by Sayers P.B, Carr S., Moss C. and Didcock A.³⁰
- As mentioned above, since the close of the fiscal year, in June 2021, Flood Re co-sponsored research by Flood Re and the ABI was released highlighting the benefits of investing in maintenance of flood defences.³¹
- Looking ahead, within the Actuarial Team, research is planned to assess the following:
 - A. Evaluation of four vendors’ catastrophe Flood Models summarizing validation test results and methodology review;
 - B. An exercise working with two external flood modelling firms to assess the scale of the potential impact that climate change has already had on the baseline view of risk, and to what extent vendor views of flood risk used for (re)insurance purposes are limited by not explicitly accounting for this; and
 - C. An exercise to examine surface water claims versus models, to determine the skill of model capture of this risk.
 - D. An exercise to understand the population of UK properties that may be uninsurable in the absence of Flood Re.

6. Support climate awareness amongst our customers/ clients

²⁹ <https://www.floodre.co.uk/enhancing-the-evidence-base-for-property-flood-resilience/>

³⁰ [Sayers-Flood-disadvantage-Socially-vulnerable-and-ethnic-minorities.pdf \(floodre.co.uk\)](#)

³¹ [modelling-the-impact-of-spending-on-defence-maintenance.pdf \(abi.org.uk\)](#)

6.1. Communicate our beliefs and strategy on climate-related issues to our customers and/or clients.

- As mentioned previously, the most recent release of Flood Re’s 2020 Annual Report is the best example of its views regarding climate change to insurers, government and to the public. Within the 2020 Annual Report³² details are found on pages 5-6 of the Statement by the Chair; pages 7-9 of the CEO Statement; and pages 20-21 of the Strategic Report.
- As mentioned in our ClimateWise submission last year and in the public policy section 5.1 above, Flood Re has taken the following steps:
 - A. Flood Re’s CRO and Chief Actuary have also actively engaged with regulators to ensure stakeholders, such as insurance companies and mortgage underwriters, take into account the exit of Flood Re from the market in 2039. In December 2019, the Bank of England published for consultation a discussion paper ‘The 2021 biennial exploratory scenario on the financial risks from climate change’.³³ Flood Re highlighted that the scenarios run until 2050 and the transition of the Flood Re Scheme out of the market in 2039 should be considered explicitly by insurers; i.e. pre-2039 where insurers can utilise the Flood Re Scheme to cede high flood risk properties, and post-2039 where they will need to review their underwriting approach. Participants in the BES exercise should explicitly ensure they account for the exit of Flood Re (and the flood risk transfer mechanism it provides to households) after 2039.
 - B. Flood Re provided input and policy recommendations on a number of key government strategy documents including the Environmental Agency’s National Flood & Coastal Erosion Risk Management Strategy Information³⁴ and The Draft National Strategy for Flood and Coastal Erosion Risk Management in Wales³⁵.
 - C. Flood Re launched a Flood Risk Charter alongside the National Flood Forum at a Parliamentary event in November 2019. The Charter contains a list of recommendations designed to help communities feel safe in the face of the increasing threat of flooding. It calls for more funding to improve flood defences, further work to ensure coordination between flooding community groups and government agencies, and for Government policy to help address the mental and physical wellbeing of those impacted by flooding.
 - D. Flood Re also wrote a joint letter to the UK’s Department for Environment, Food and Rural Affairs along with the National Infrastructure Commission and the Committee on Climate Change in support of the development of a national resilience standard that would promote place-based resilience by enhancing the capacity of people to plan for, better protect, respond to, and recover from flooding and coastal erosion risks.
 - E. Flood Re has also engaged with the planning community given the impact of new development on future flood risk to the housing sector. In March 2020, Flood Re presented at the Town and Country Planning Association’s (TCPA’s) Spring Conference ‘Climate Change – game over?’ concerning the importance of incorporating assumptions of insurance availability in development.
 - F. Looking ahead, Flood Re will be working with the National Flood Forum and the TCPA to develop capability building workshops for local planners in at-risk communities.

³² Flood Re 2020 Annual Report: <https://www.floodre.co.uk/wp-content/uploads/Flood-Re-Annual-Report-2020-FINAL.pdf>

³³ <https://www.bankofengland.co.uk/paper/2019/biennial-exploratory-scenario-climate-change-discussion-paper>

³⁴ <https://consult.environment-agency.gov.uk/fcrm/fcrm-national-strategy-info/>

³⁵ <https://gov.wales/sites/default/files/consultations/2019-06/consultation-document-flooding-strategy.pdf>

- Other recent and future outreach on climate change include the following:
 - A. In June 2020, Flood Re was a sponsor of the National Planning Summit 2020 and led a presentation on the Importance of Future Insurance Availability in Development. The presentation was followed by a panel discussion on “Climate Change: How are Planners Delivering Sustainable Development in the Face of the Climate Crisis?”
 - B. In July 2020, Flood Re CEO Andy Bord welcomed the Green Homes announcement and called for it to include help for householders to install property flood resilience measures. Coverage of the comment was picked up in:
 - Insurance Times - Climate change threatens Flood Re 2039 market exit target³⁶
 - Simple News - Insurance industry reacts to Chancellor’s statement³⁷
 - Insurance Business UK - Insurance industry reacts to Chancellor’s statement³⁸
 - C. In August 2020, Flood Re presented at The-Women’s-Insurance-Net-Work (TWIN) on climate change.³⁹
 - D. In October 2020, Flood Re CEO presented at the Westminster Sustainable Business Forum launch of its year-long inquiry, Bricks and Water, which explores how new and existing homes can be made more resilient to climate change. Flood Re's CEO set out Flood Re's proposals to allow home owners to build back better following a flood.
 - E. In October 2020, Emma Bergin presented Flood Re’s approach to Climate Change Scenario Analysis to The Women’s Insurance Network ([Link](#)).
 - F. In November 2020, Flood Re presented at the London Climate Action Week Event - Climate change: Improving the flood resilience of the built environment. Flood Re’s CEO commented on the impact of climate change and stated that “it is critical that flood considerations are prioritised when making planning decisions and developing new homes or retrofitting existing homes. Such considerations are also central for householders at high risk of flooding”.
 - G. In December 2020, Flood Re presented at the Reinsurance Lounge event “Climate Change: Is it time the industry took a stance?”⁴⁰
 - H. In May 2021, Flood Re participated in the National Planning Summit on a panel entitled “What role does planning have to play in delivering the climate change agenda?”
 - I. In July 2021, Flood Re shared research on Present and future flood vulnerability, risk and disadvantage and results of the research Flood Re commissioned concerning Flood disadvantage: Socially vulnerable and ethnic minorities by Sayers P.B, Carr S., Moss C. and Didcock A with ADEPT.⁴¹
 - J. Looking ahead, in October 2021 Flood Re will be presenting at the National Housing Federation’s Asset conference panel “Mitigating floods, flood rescue plans and the government’s Flood Risk Insurance Scheme”
 - K. Flood Re will also be participating in a number of events at the rescheduled COP-26 in Glasgow in November 2021.⁴² This includes:

³⁶<https://www.insurancetimes.co.uk/news/climate-change-threatens-flood-re-2039-market-exit-target/1433814.article>

³⁷ <https://simplenews.co.uk/foreign/insurance-industry-reacts-to-chancellors-statement/>

³⁸ <https://www.insurancebusinessmag.com/uk/news/breaking-news/insurance-industry-reacts-to-chancellors-statement-227350.aspx>

³⁹ <https://www.the-womens-insurance-net-work.com/>

⁴⁰ [Agenda | The Re/insurance Lounge \(reinsurancelounge.com\)](#)

⁴¹ [Sayers-Flood-disadvantage-Socially-vulnerable-and-ethnic-minorities.pdf \(floodre.co.uk\)](#)

⁴² <https://www.ukcop26.org>

- 20 October in the lead-up to COP26. A panel event run by the New Statesman on the topic of Making Sense of Net Zero
- 7 November - World Climate Summit in the session "Investing for Resilience - The Insurance Industry & Redirecting Capital into Resilience Enhancing Investments"
- A roundtable event organised by the think tank Onward, bringing together policymakers, industry professionals and MPs to discuss climate adaptation and resilience policies for not only the UK, but also abroad. Accelerating the adaptation: Building the framework for climate resilience.

6.2. Inform our customers and/or clients of climate-related risks and provide support and tools so that they can assess their own levels of risk.

- Other recent actions taken by Flood Re include supporting dissemination of the 'Know Your Flood Risk' campaign and co-investing with the EA in their 'What the Flood' campaign with actions 'Prepare. Act. Survive. Flood guide.'⁴³⁴⁴
- Flood Re has also discussed approaches to responding to the BoE's CBES scenarios with cedants, in particular considering implications of the Scheme's 2039 Transition and the planned roll out of Build Back Better resilience plans.

7. Enhance reporting

7.1. Submission against the ClimateWise Principles.

- Flood Re has submitted its report against all ClimateWise sub-principles on time and in full.

7.2. Public disclosure of the ClimateWise Principles as part of our annual reporting.

- Flood Re posted its 2019/2020 ClimateWise Principles report on its website and will do the same again this year.⁴⁵

⁴³ <https://www.knowyourfloodrisk.co.uk/>

⁴⁴ EA campaign details:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873033/Withdrawn_200311_Flood_Action_Campaign_support_us.pdf

⁴⁵ [Flood-Re-Response-to-Principles-20Aug2020.pdf \(floodre.co.uk\)](#)