UK Climate Resilience Programme

UK-SSPs: setting out socioeconomic trajectories for climate resilience research

Stakeholder response

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Member of the Steering Group
and
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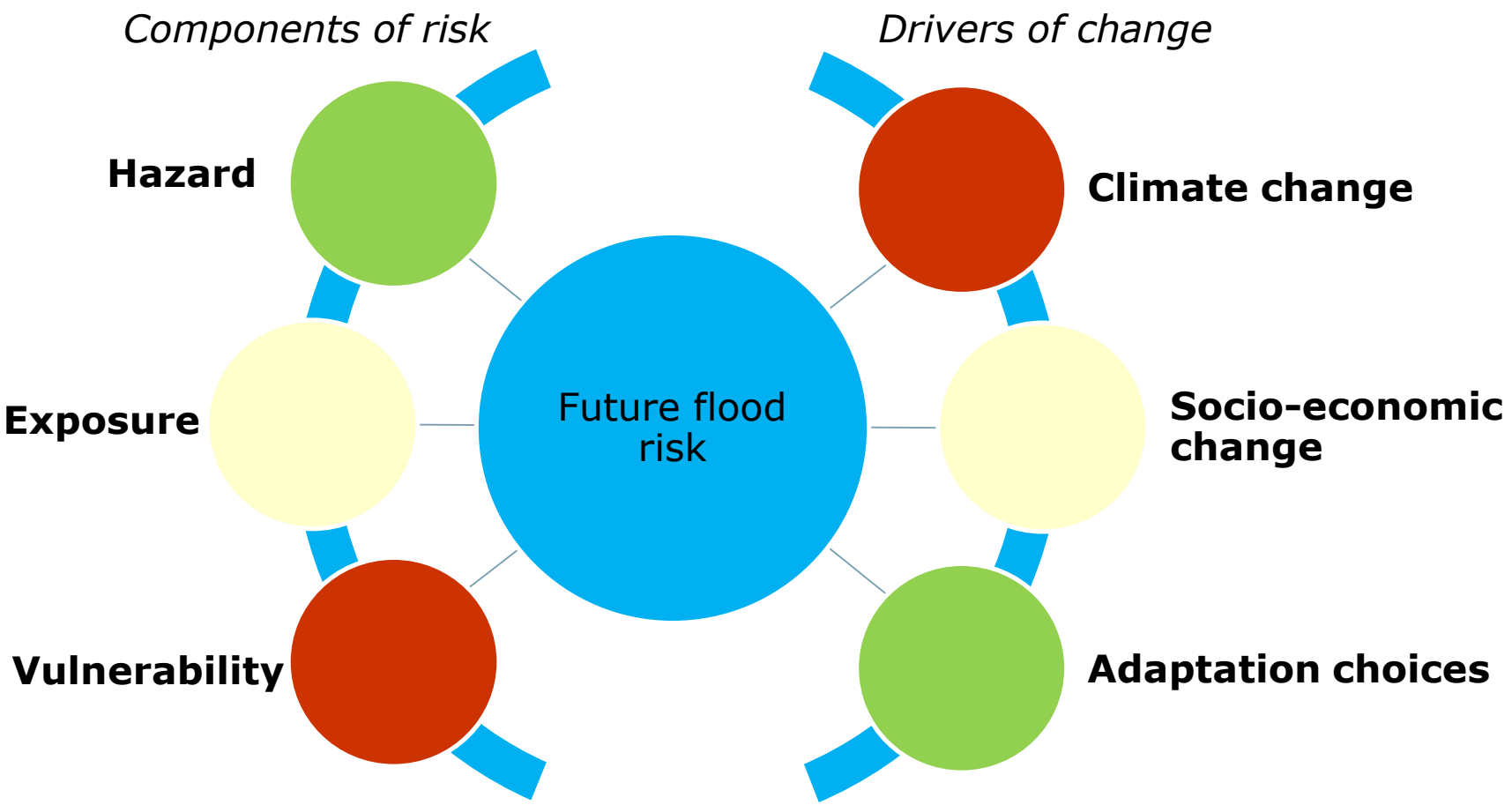
under the UKCRP

What perspective?

Not all stakeholders are the same…..so what is our perspective:

- **A flood bias perspective**
- **A long-term perspective -** changing flood risks over the longer term
- **An investment perspective –** dynamic adaptation, the benefits and costs, timing of action etc
- **‘Fair’ outcomes** – including social disadvantage
- **A strategic perspective** – larger scale, longer term – studies such as the Climate Change Risk Assessment

The basic framework that underpins our work



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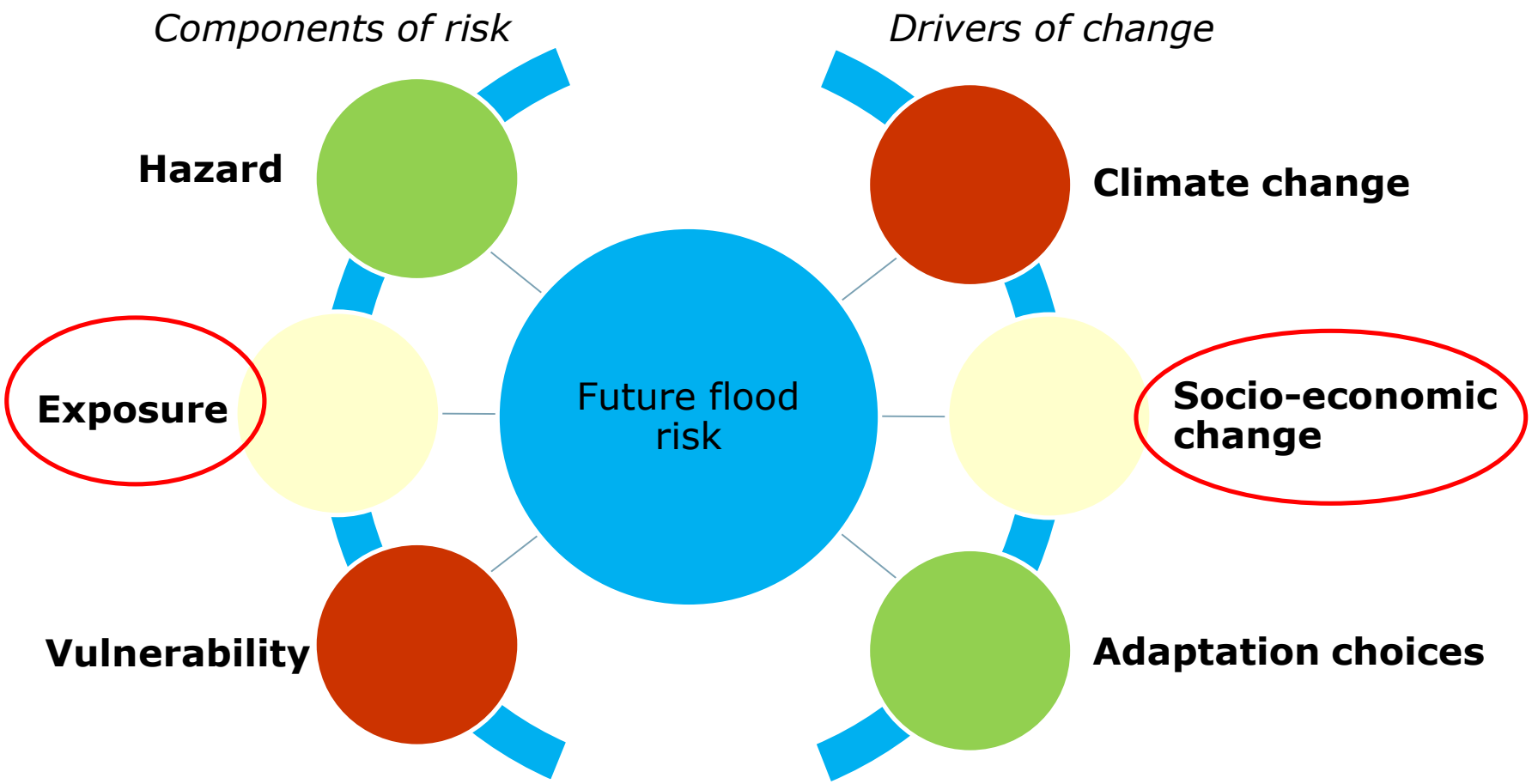
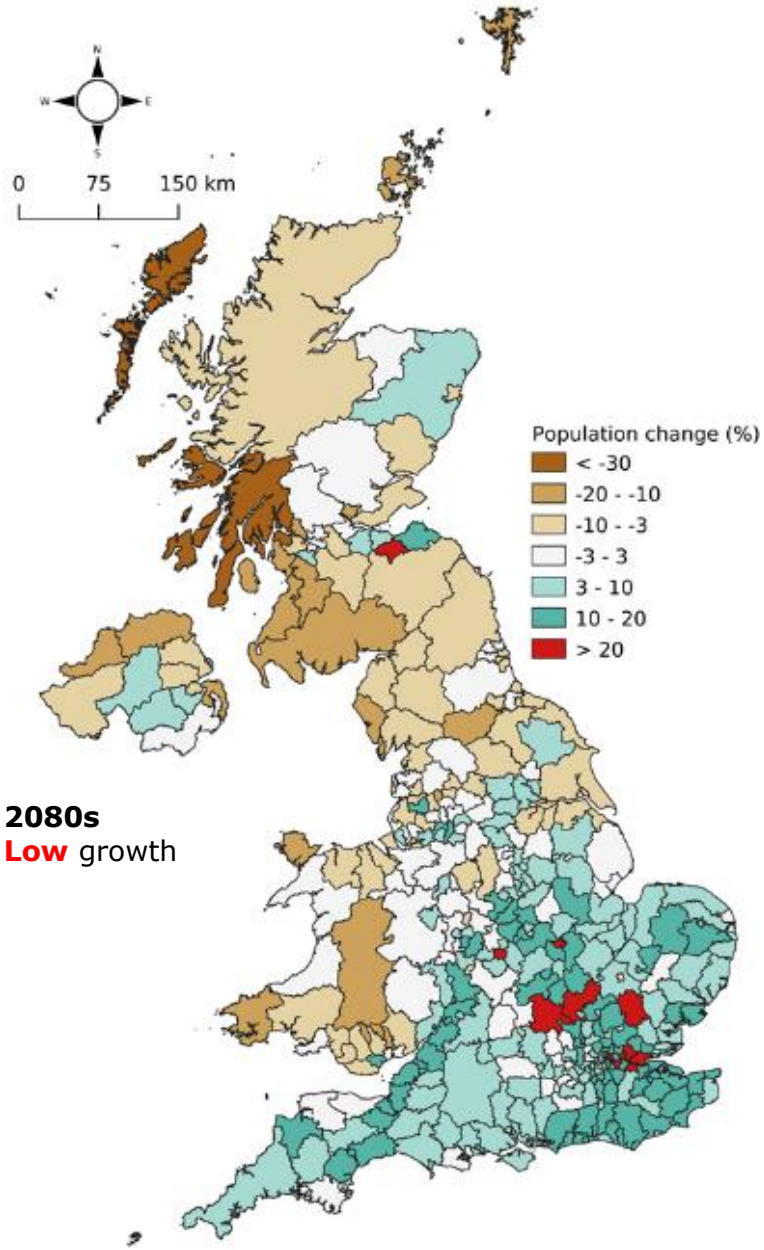
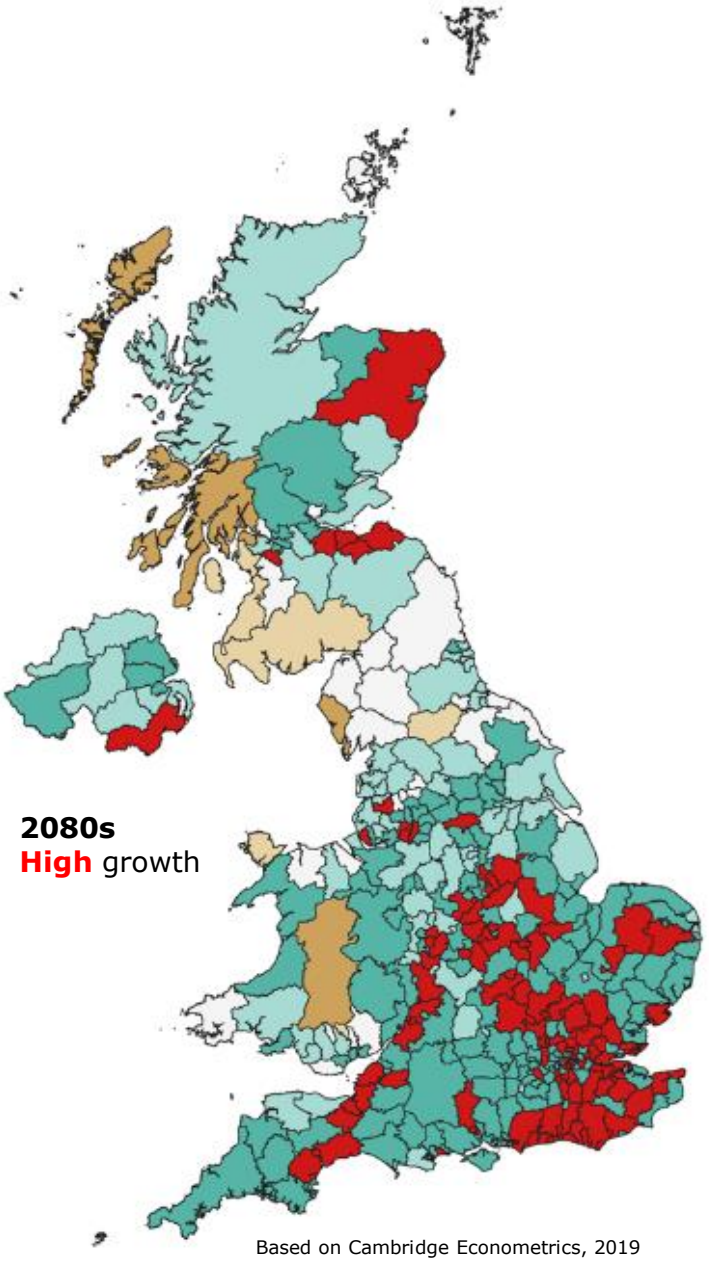


Sayers et al, 2020

Basic exposure: Population projections



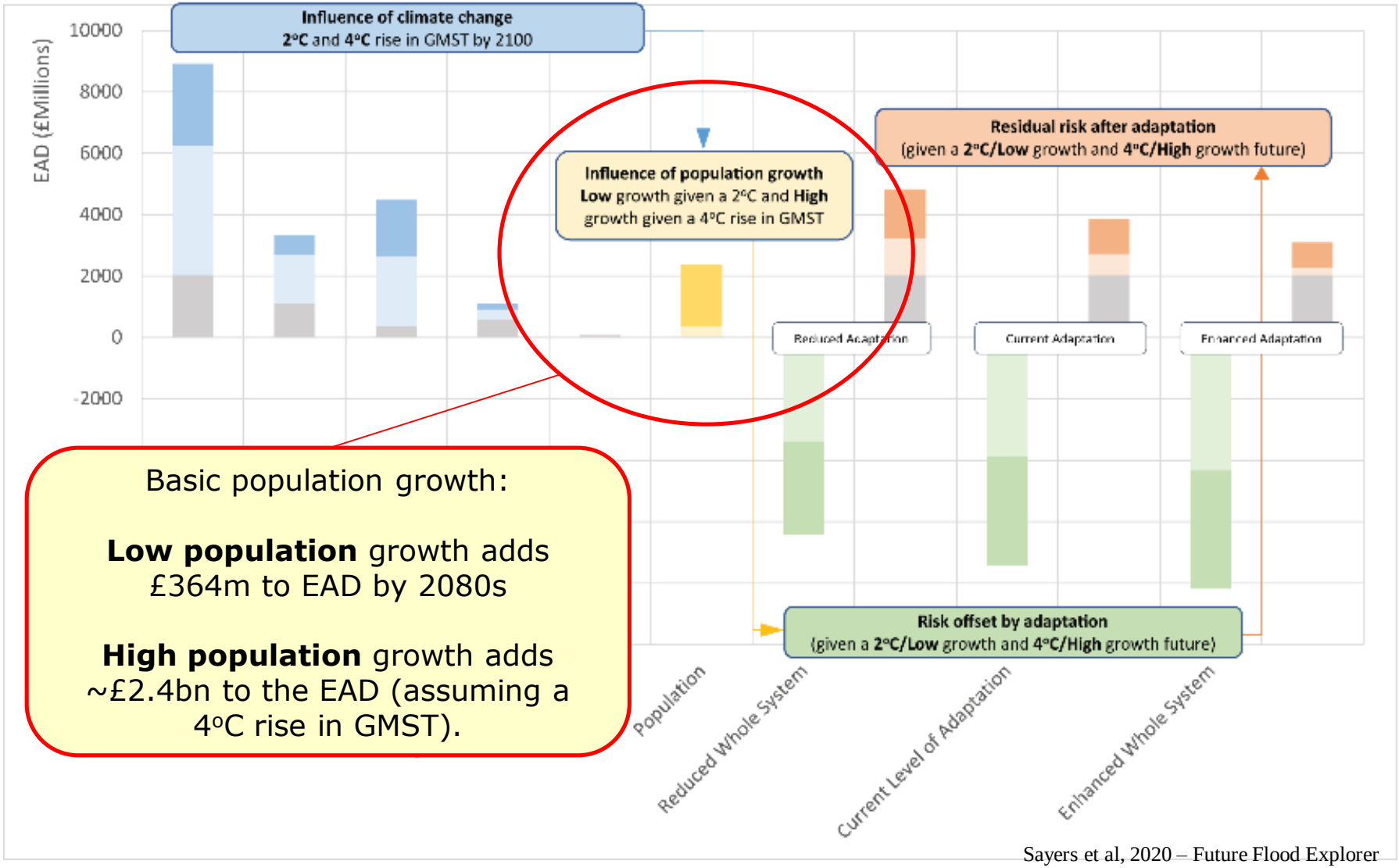
2080s
Low growth



2080s
High growth

Based on Cambridge Econometrics, 2019

Basic exposure: Population projections



Basic population growth:

Low population growth adds £364m to EAD by 2080s

High population growth adds ~£2.4bn to the EAD (assuming a 4°C rise in GMST).

Sayers et al, 2020 – Future Flood Explorer

So why are we excited about this new work?

SAYERS AND PARTNERS

Spatial resolution

Better resolution but 'credible'

- CCRA Local Authority – we translated LA projections crudely to more local developments
- Now spatially refined projections – much finer spatial distribution of change

Avoids incredible resolution

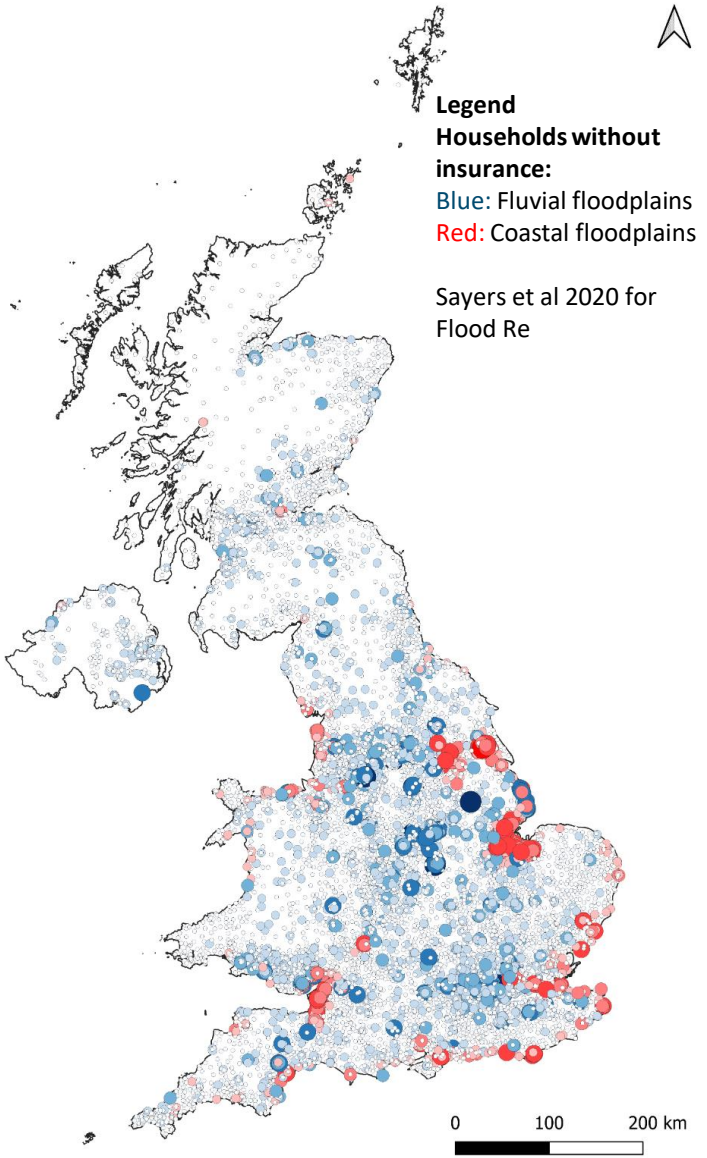
- Adaptation and development are not independent choices. Socio-economic projections at highly localised scale can not be made without a linked assessment of adaptation and climate. **These projections help strike that balance to enable onward use**

So why are we excited about this new work?

More than population growth

Demography and income

- **Understanding social vulnerability is central to a fair approach to investment in adaptation.** In the CCRA we use the Neighbourhood Flood Vulnerability Index and Relative Economic Pain. These rely on age, income and **demographic indices.**
- In the CCRA the distribution of these aspects are assumed unchanged with time – **this work will help understand the influence of changing patterns of demographics on risk** (including insurance uptake)



So why are we excited about this new work?

SAYERS AND PARTNERS

Provides projections linked to broad policy

Meaningful but not flood specific

- Investment in flood risk management is context specific – the cost, benefits etc. In this work these highly localised decisions are usefully avoided in the projections, allowing assessment in onward models
- The broad policy framing (linked to the SSPs) provide the framing to infer how these local choices may vary under different projections (for example development in the floodplain, where and how)

Looking forward to using the projections!

- **The results will be open (as I understand)**
- **Update the national analysis**
  - how do these new projections change the national distribution and profile of flood risk?
  - How will they change the understanding of investment priorities?
  - Can we take them forward in AquaCAT and OpenClim?

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