Assessing the condition of your marine habitat: an example in the UK

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Joint Nature Conservation Committee, UK

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Who is JNCC?

Joint Nature Conservation Committee

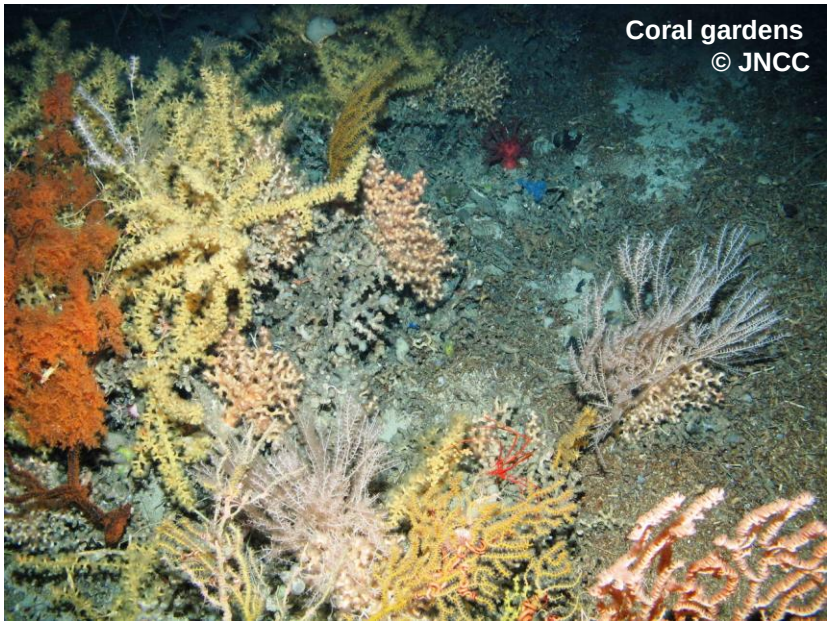
- Public body that advises UK governments on UK-wide and international nature conservation.
- Provides evidence, information and advice towards the protection of natural resources.
- Key role in UK's offshore marine nature conservation, including identifying, monitoring and advising on protected areas and on the impacts of offshore industries.

Assessing likely condition of UK offshore habitats

Joint Nature Conservation Committee

Aim

Assess the Conservation Status of offshore Annex I Reef and Sandbanks



Assessing likely condition of UK offshore habitats

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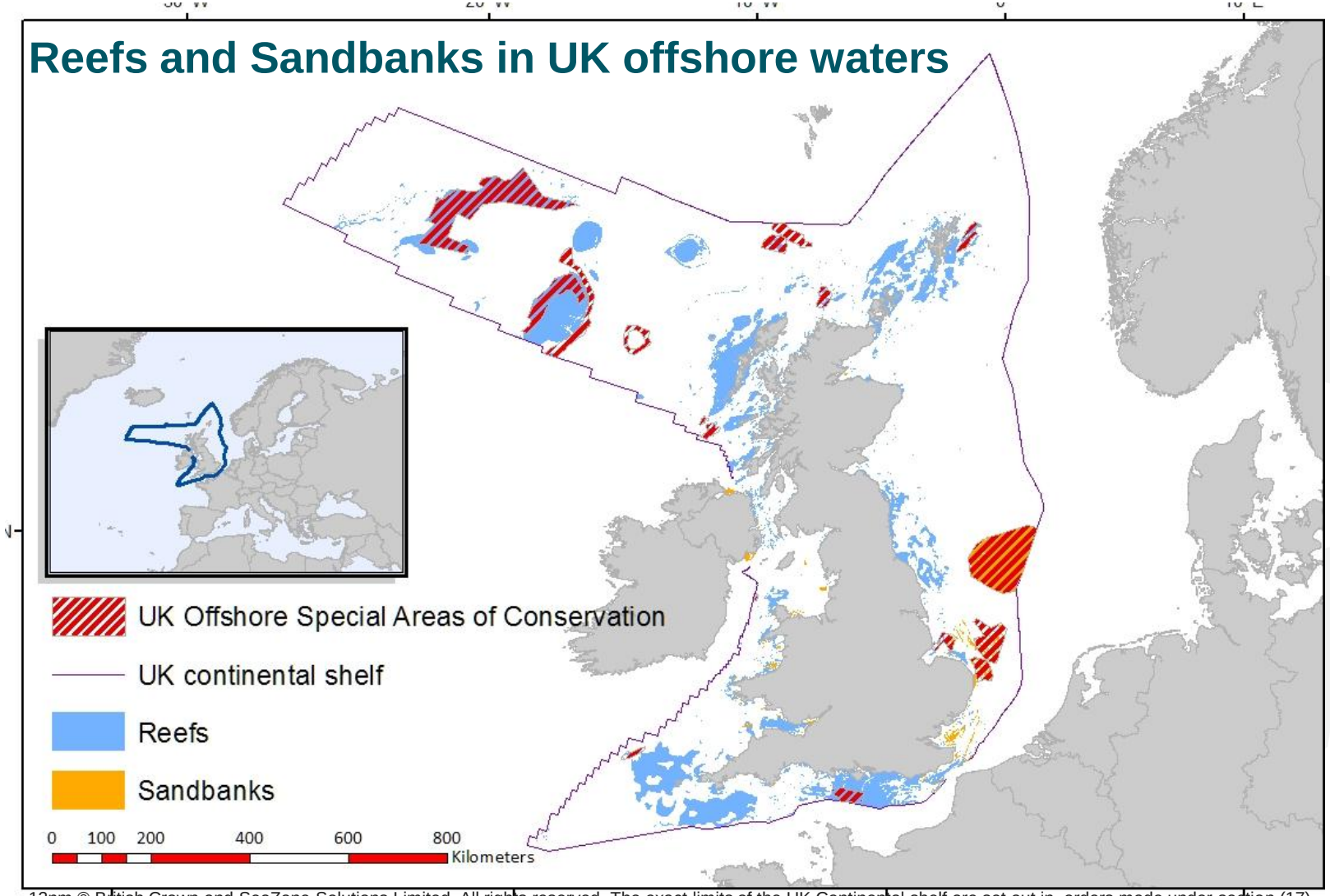

Assessing likely condition of UK offshore habitats

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Identifying exposure to pressures to which a feature is sensitive is a means of assessing feature *vulnerability* to damage:

Vulnerability to Pressure p_0 = f (Sensitivity & Exposure)

- If a feature is *vulnerable* → *not likely* to be in good condition
- Method is **scale-independent** and can incorporate **multiple pressures** acting at the same spatial location

→ Can inform MPA management if data available at right scale

→ Used in SEAs to describe baseline, predict impacts and evaluate impact significance

Vulnerability assessment:
Example of offshore Annex I Reefs

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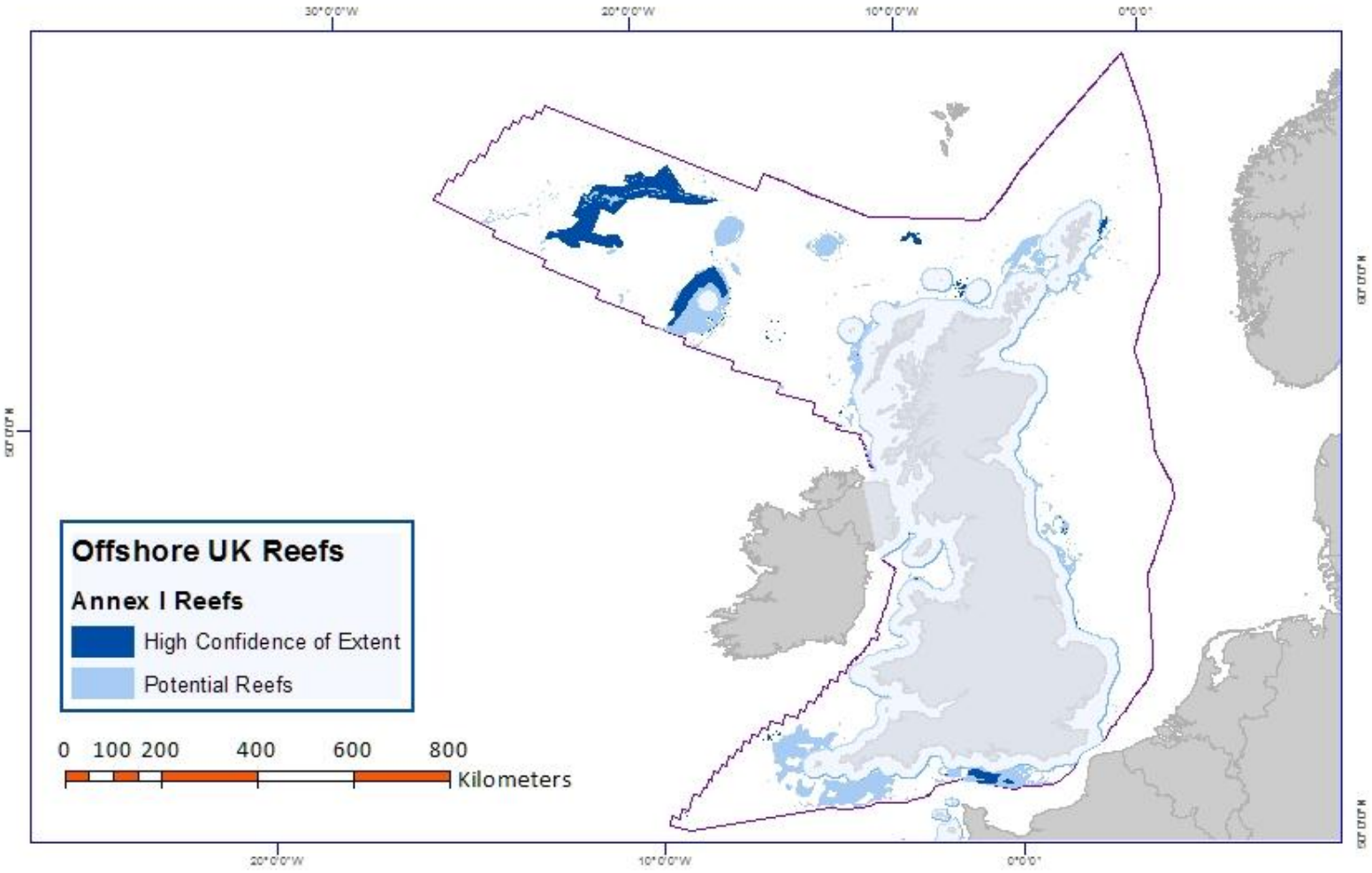

Vulnerability assessment:
Example of offshore Annex I Reefs

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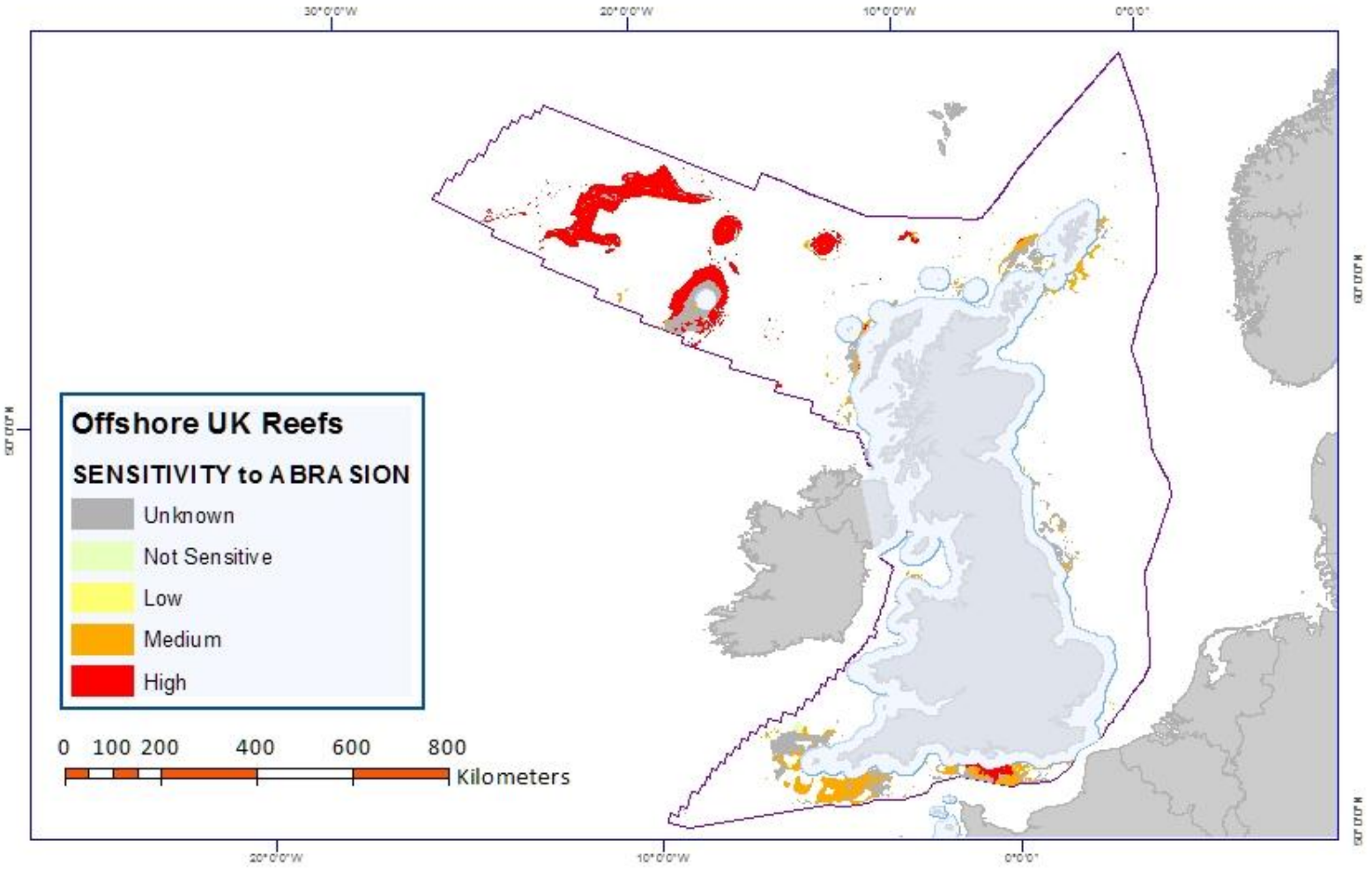

Vulnerability assessment:
Example of offshore Annex I Reefs

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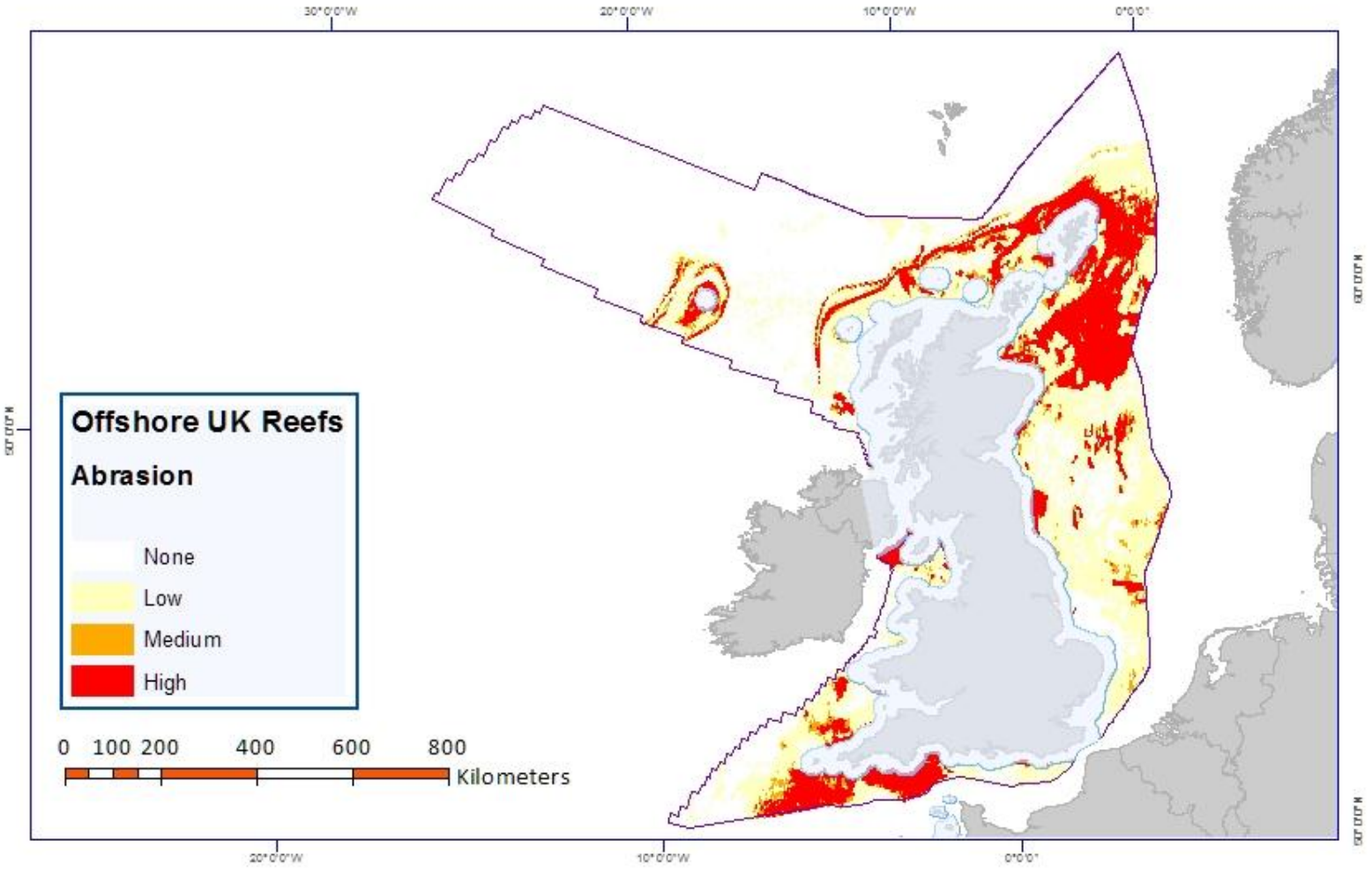

Vulnerability assessment:
Example of offshore Annex I Reefs

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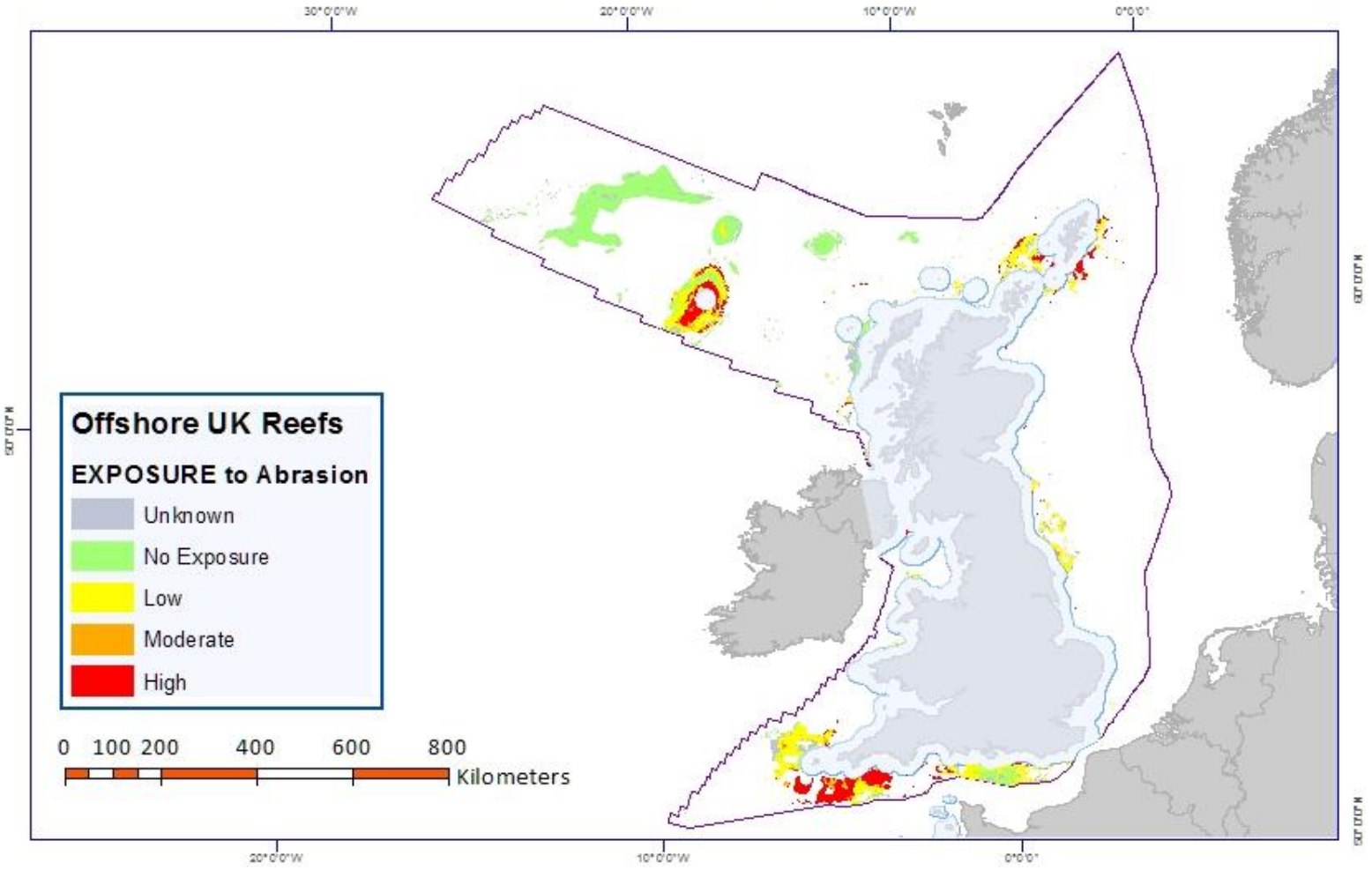

Vulnerability assessment:
Example of offshore Annex I Reefs

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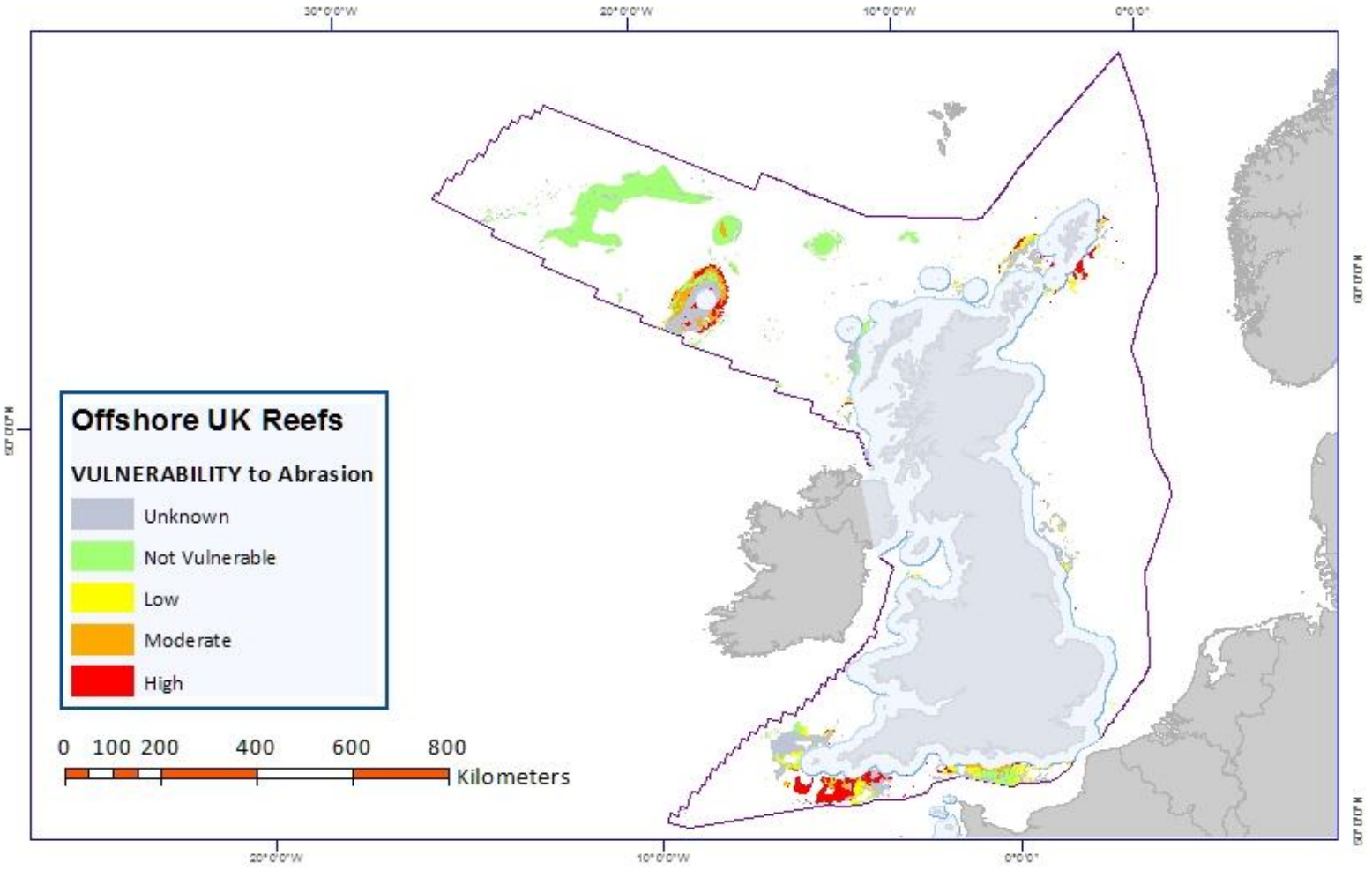
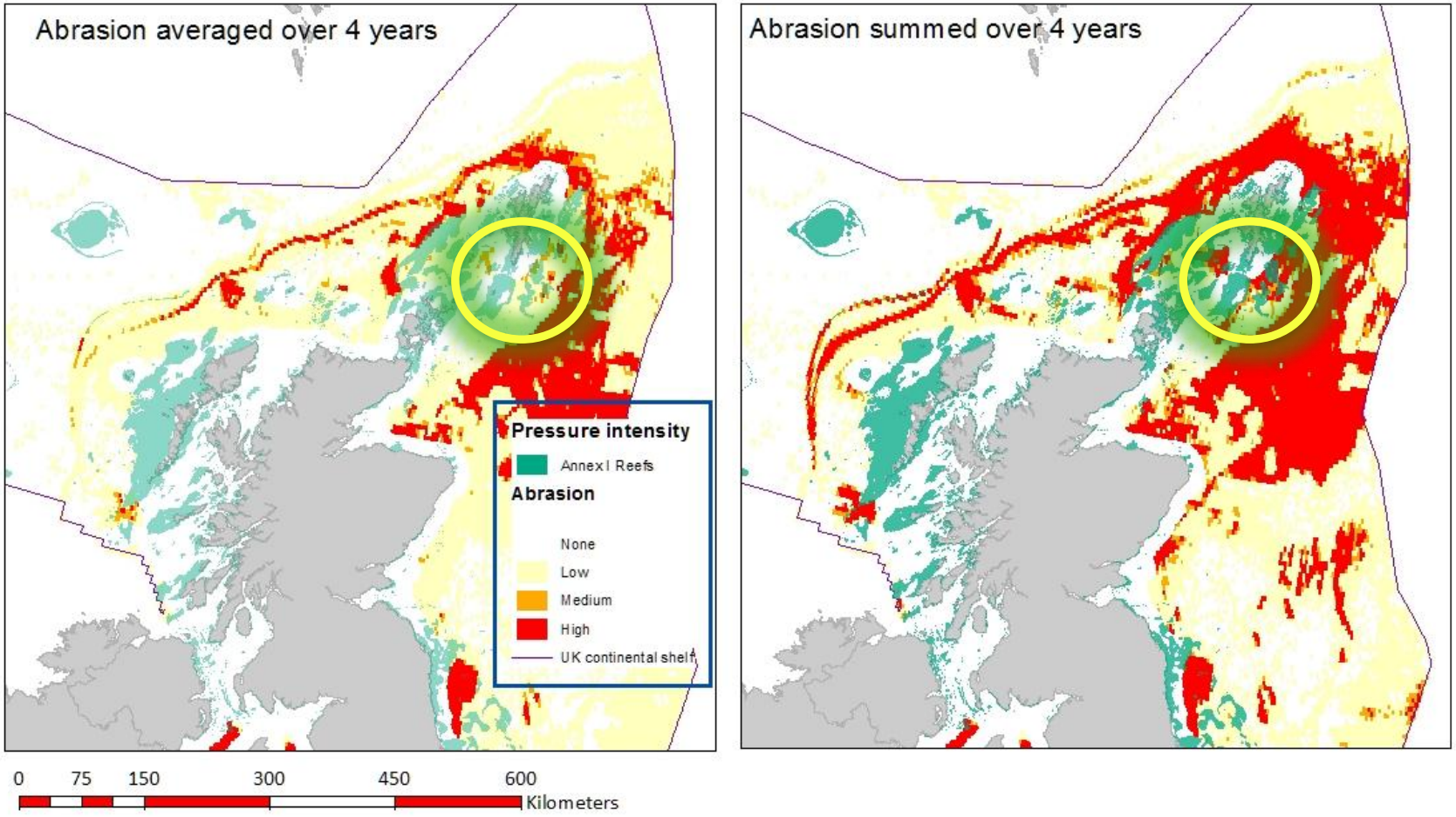


Cumulative effect

- Habitat vulnerability assessed independently for each pressure
- Overall habitat vulnerability calculated by selecting worst case assessment in any given location

Scenario testing

- For example, investigating changes in cumulative abrasion as a result of different aggregation methods



Benefits of model

- Generates different scenarios
- Multiple scales
- Applicable to different requirements
- Decision-support tool

Next steps

To improve the robustness of the vulnerability assessments we need to improve:

- Resolution of habitat maps
- Knowledge of pressure-state relationships
- Spatial resolution of activities data & linkages with pressures
- Analysis of cumulative effects and the prioritisation of pressures

Thank you!

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