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Streamlining of ecosystem disservices for urban planning

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Ecosystem disservices are functions or properties of ecosystems that are perceived as negative for human well-being (Lyytimäki, 2014)

- They include e.g. allergens, pathogens and pests, unbuilt land or wetlands inhibiting human mobility, and invasive or native species causing damage to property, decreasing aesthetic values or compromising human safety or security.

We argue that an integrated assessment of ES and EDS will help towards a more holistic understanding of the role of nature with regard to human well-being, and towards more effective and innovative sustainability policies.

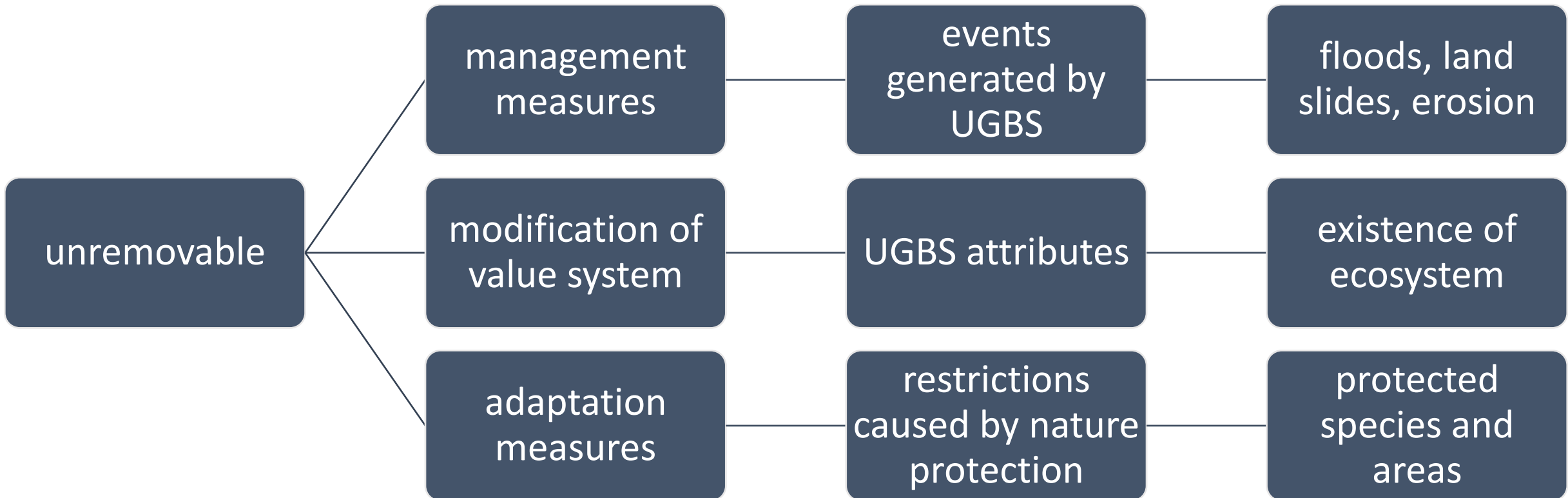
Identification of UEDS

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graph TD; A[Identification of UEDS] --> B[Analyzing / Evaluating UEDS and associated risks]; B --> C[Management of UEDS]; C --> D[Analyzing of management measures and correction of management plans];
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Analyzing / Evaluating UEDS and associated risks

Management of UEDS

Analyzing of management measures and correction of management plans



Removable

management measures

functioning of UGBS

risks related to human health

harm from bird excrement, old trees, tree branches and roots

leaf litter, leaf tannins

fire-prone vegetation

algal blooms

allergens, pathogens, toxins

animal bites and direct attacks

Removable

modification of
value system

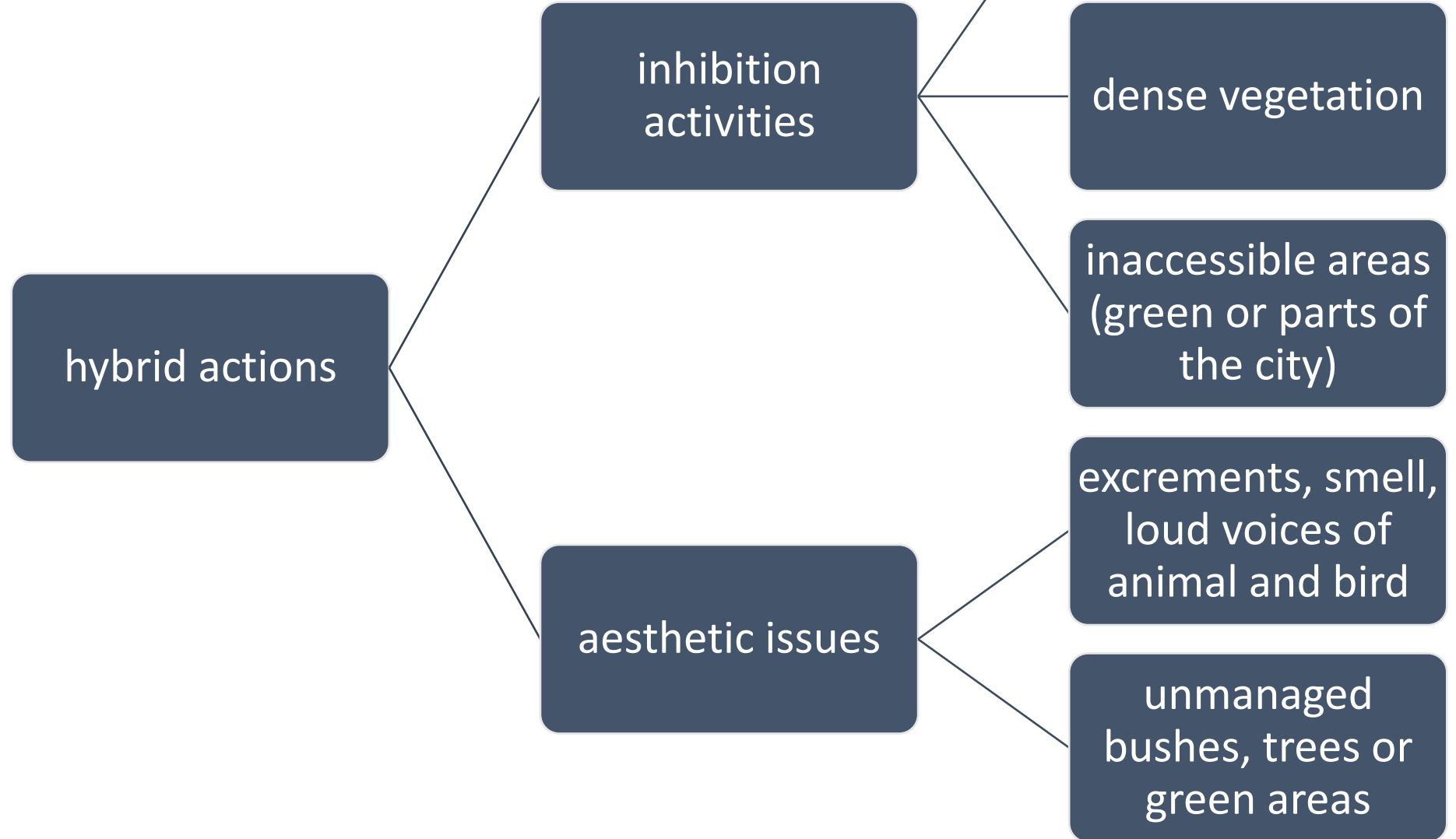
nature-related fears

fear of nature,
natural darkness,
animal

aesthetic issues

species looking ugly,
gulls, mosquitoes,
mugwort or nettle

Removable



Recommendations for a better ES/EDS integration in research (Blanco et al., 2019)

1

- Build an operational and locally-adaptable EDS classification

2

- Include EDS and ES in both biophysical and socio-cultural assessments

3

- Consider ES/EDS bundles, trade-offs among EDS, and between ES and EDS

4

- Consider spatial and temporal variations in EDS supply and demand

5

- Accounting for ES/EDS co-production processes in research and policy

Thank you!

Questions?