



VALUING
NATURE
PROGRAMME

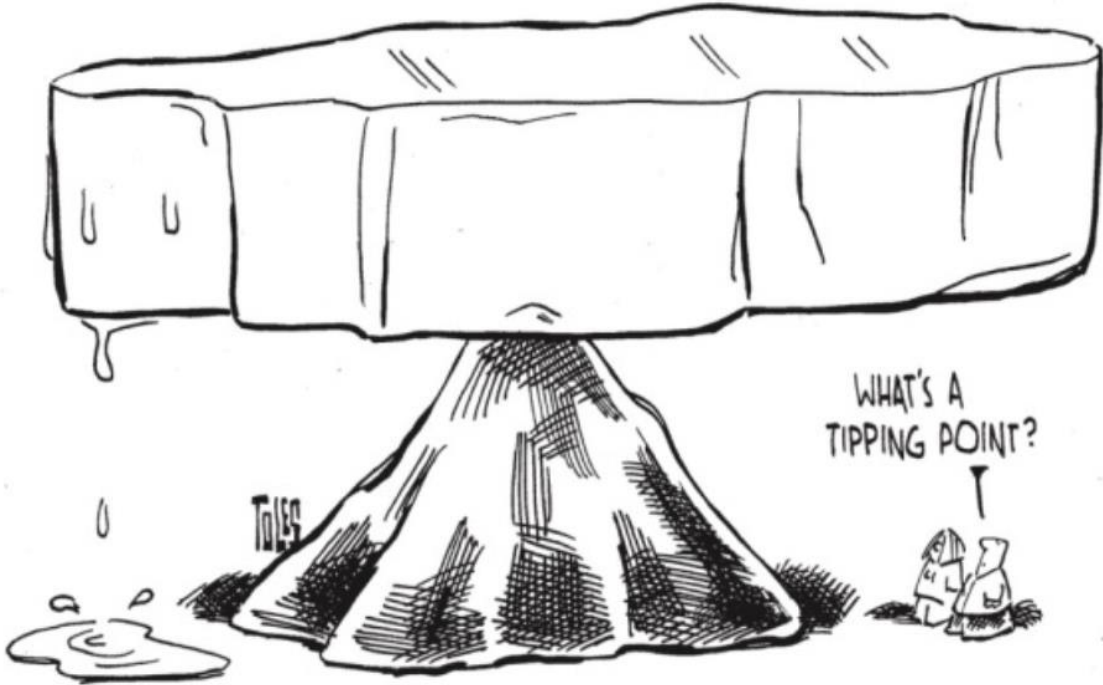
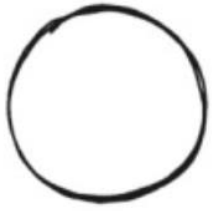
Demystifying Tipping

Guy Duke
Points

The Valuing Nature 'demystifying' series

- Explain **key concepts** that might cause confusion in the wider Valuing Nature community
- Aimed at a **broad audience** of researchers and research users, who are not expert in the field
- Written in an **accessible language**
- **Existing papers**
 - Economic Valuation, Health, Health Metrics, Cost-benefit Analysis, Green Finance, Shared Social Values, Valuing Arts and Arts Research





WHAT'S A
TIPPING POINT?



A tipping point is...

Socio-economics

That magic moment when an idea, trend, or social behaviour crosses a threshold, tips, and spreads like wildfire

Gladwell 2000

Climate

The critical point at which the future state of the [climate] system is qualitatively altered by a small perturbation

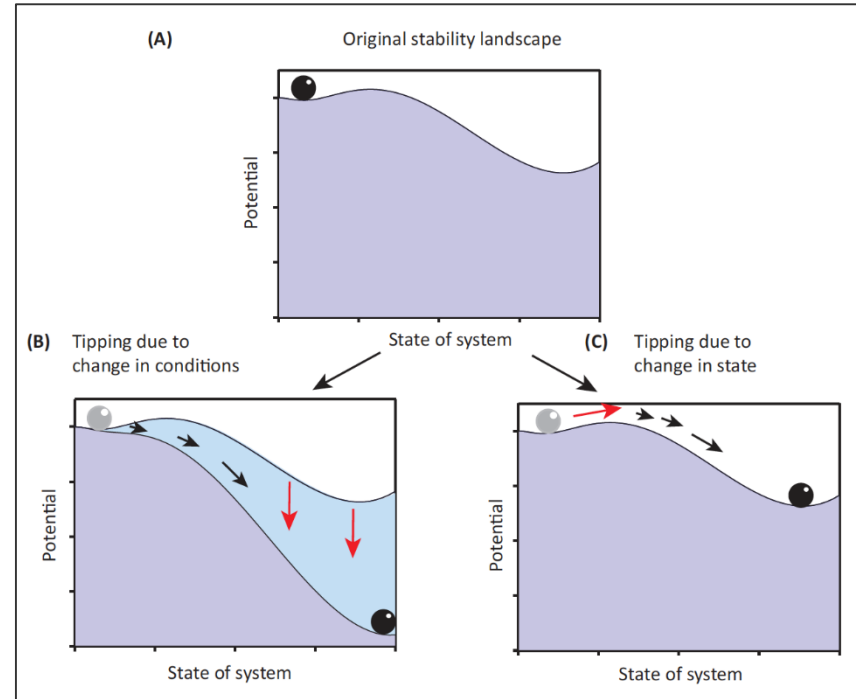
Lenton 2008

Ecosystems, natural capital and ecosystem services

Any situation where accelerating change caused by a positive feedback drives the [ecol]system

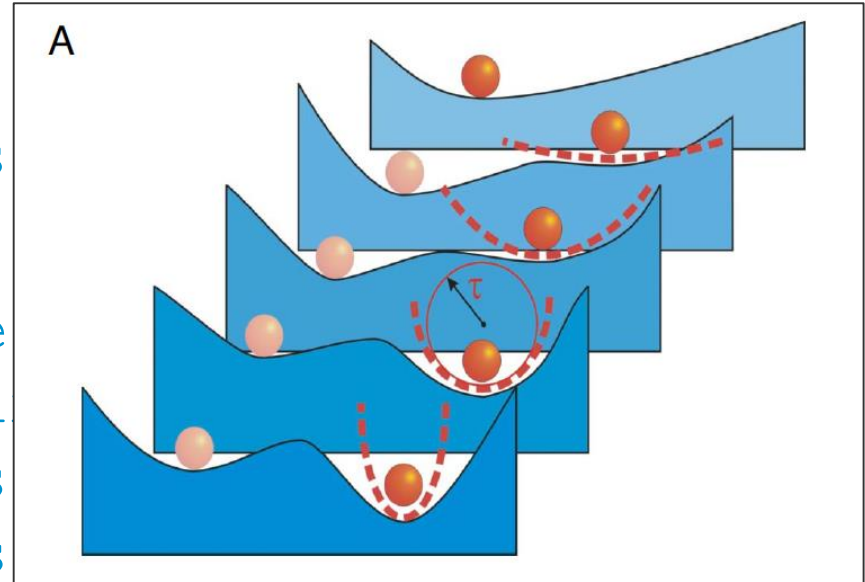
Content: (1) What are tipping points?

- **What are tipping points?**
- **Other forms of ecological threshold** resulting in abrupt change
- **Related terms**, e.g. regime shift
- **Types of tipping point** – bifurcation, rate and noise-induced



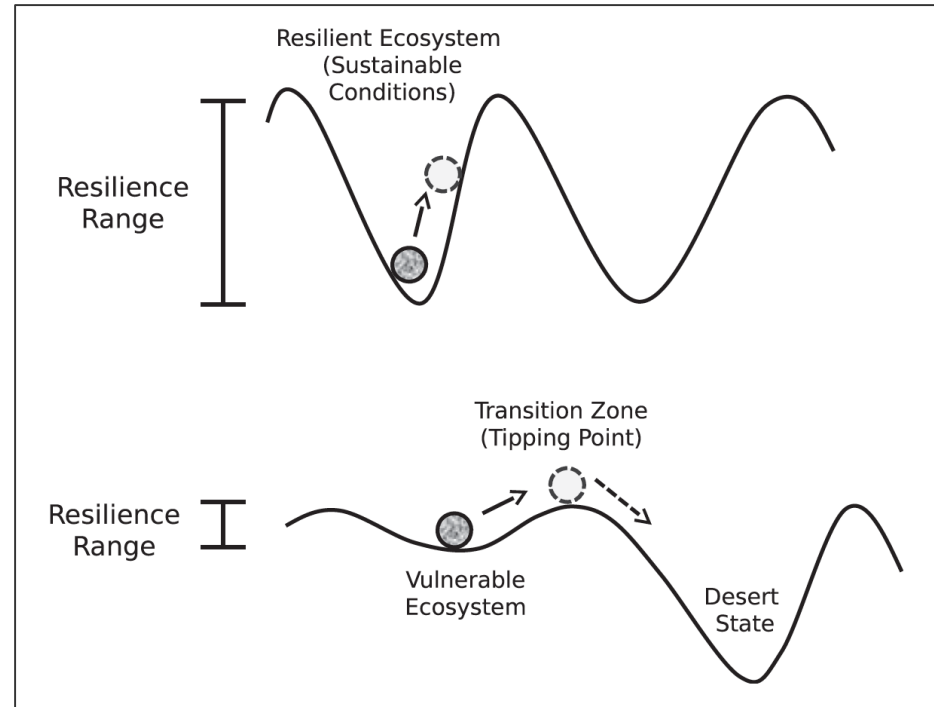
Content: (2) How do we study tipping points?

- Theory
 - Dynamical systems
 - Alternative stable states
- Method
 - Analysing time-series
 - Detecting abrupt change
 - Multivariate methods
 - Modelling approaches



Content: (3) Addressing TPs in policy and practice

- Why do tipping points matter?
- Taking account of tipping points in policy
- Taking account of tipping points in practice
- Communicating evidence on



Schedule

- v1 (outline draft) shared with co-authors
[DONE]
- v2 (full draft) shared with co-authors
[by 22 Nov]
- v3 (consultation draft) shared with wider
community of researchers and users [by 6
Jan]
- v4 (final draft) shared with co-authors

Authors

- Guy Duke (ed.)
 - Valuing Nature Programme Coordination Team
- Tim Lenton et al
 - VNP Tipping Points in UK Land Ecosystems project
- Adrian Newton et al
 - VNP Lowland Tipping Points project
- Mark Read et al
 - VNP Peatland Tipping Points project

Interested to contribute?

- Tipping points researchers
- Other interested researchers
- Policy makers looking to prevent/remediate TPs
- Practitioners (government, business, NGO) looking to prevent/remediate TPs

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