

The background of the slide shows a group of people in a forest. A man with a beard and a blue sweater with a red backpack is visible on the right. A woman in a blue sweater is partially visible on the left. The scene is outdoors with green foliage and sunlight filtering through the trees.

SESSION 11:30

**Contested and polarized issues –
how to communicate complexity?**

#Focali2020

Paper

Luyssaert et al. 2018, Nature

Trade-offs in using European forests to meet climate objectives

- Carbon sequestration trade-offs with non-CO2 radiative and non-radiative forcing
- Take away for action:** do not over-rely on trees for climate change action in Europe

Staal et al. 2020, Nature Communications

Hysteresis of tropical forests in the 21st century

Press release: As emissions grow, more parts of the Amazon are likely to dry out

- Amazon forest lose resilience under severe climate change
- Congo forest is bistable -> natural regrowth unlikely

Take away for action: need to avoid severe climate change and deforestation

Hildebrand et al. 2020, Nature Ecology and Evolution

Thresholds for ecological responses to global change do not emerge from empirical data

Press release: “No safe operating space”

- Discontinuities not found in analyses averaged across single-variable pressure-response curves

Take away for action: context-specific policy making needed

Popular press

The Economist

Down with trees

Planting trees can exacerbate drought and fail to tackle climate change

- Trees are bad

Take away for action: don't plant trees?

Feeling: confusion? distrust of science given repeatedly contrary messages?

Missed learning opportunity: context-dependent climate outcomes?

The Guardian

Amazon near tipping point of switching from rainforest to savannah - study

- Imminent danger of forest tipping

Take away for action: already doomed, no need for action?

Feeling: despair? distrust of science when Amazon is not observed disappear?

Missed learning opportunity: Hysteresis, bistability, the state of Congo forest?

Silicon Republic

Study: Climate ‘tipping points’ may harm environmental policymaking

- Tipping points do not exist anywhere in the Earth system

Take away for action: don't talk about or act on “tipping points”?

Feeling: confusion? distrust of science given repeatedly contrary messages?

Missed learning opportunity: thresholds, scales, and policy making under uncertainty?

Dangers: Wrong (and dangerous!) actions - Missed learning - Science distrust - Polluted discussion climate – Waste of time

Why lost in translation?

- Definitions and terminology
 - “Bistability” = “near tipping point”?!
 - “Discontinuity” = “threshold” = “tipping point” = “Safe operating space” ?!
- Context dependent statements
 - “In around 40 percent of the Amazon, the rainfall is **now** at a level where the forest could exist in either state – rainforest or savanna”
- Context of study, scale mismatch, and overgeneralization
 - What can be said about “climate tipping points” without capturing the multi-driver large-scale dynamics of those systems?
- Assumptions and aspects considered
 - Did the study provide evidence that “tipping point” harm environmental policy-making?
- Uncertainty and likelihood
 - Not communicated

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Willful misinterpretation, genuine misunderstanding, and lack of space/time.