

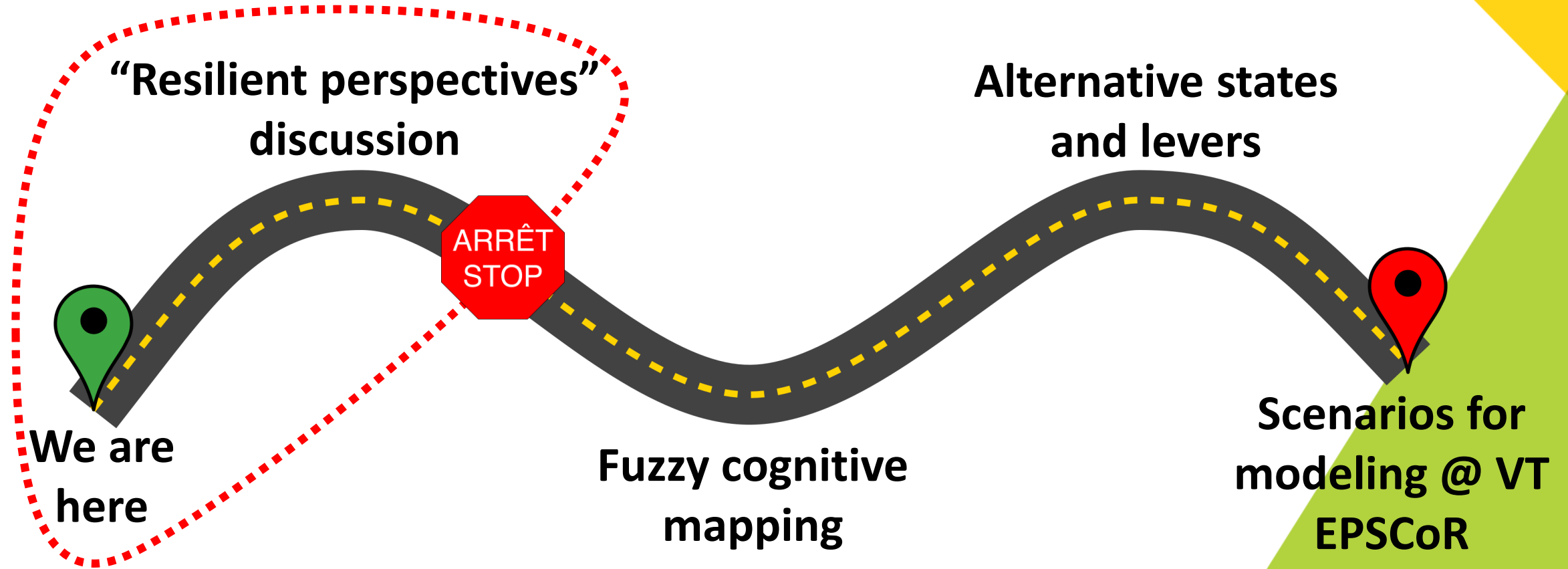
Activity:
Perspectives of Resilience
in the Lake Champlain
Social-Ecological System

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The University of Vermont

Activity Roadmap



Today's objectives

- Identify the **perspectives, priorities, and constraints** of key decision-makers and interest groups in the Lake Champlain Basin (LCB)
- More closely connect the work of BREE to how **you** think of system identity
- Ensure we are not missing important **processes** or **problems**
- Clarify **impacts** of possible solutions or interventions
- Address **needs, concerns, and interests** of PTAC members

Social-ecological system (SES) properties

- Social and ecological systems are linked
- Key concepts:
 - **Non-linearity:** change can happen abruptly, system exhibits threshold effects, lags in space and time are important
 - **Emergence:** system-scale behavior could not be anticipated from knowledge of individual parts
 - **Scale:** smaller systems are nested in larger systems
 - **Self-organization:** multiple feedback loops in the system lead to stable (and unstable) system configurations

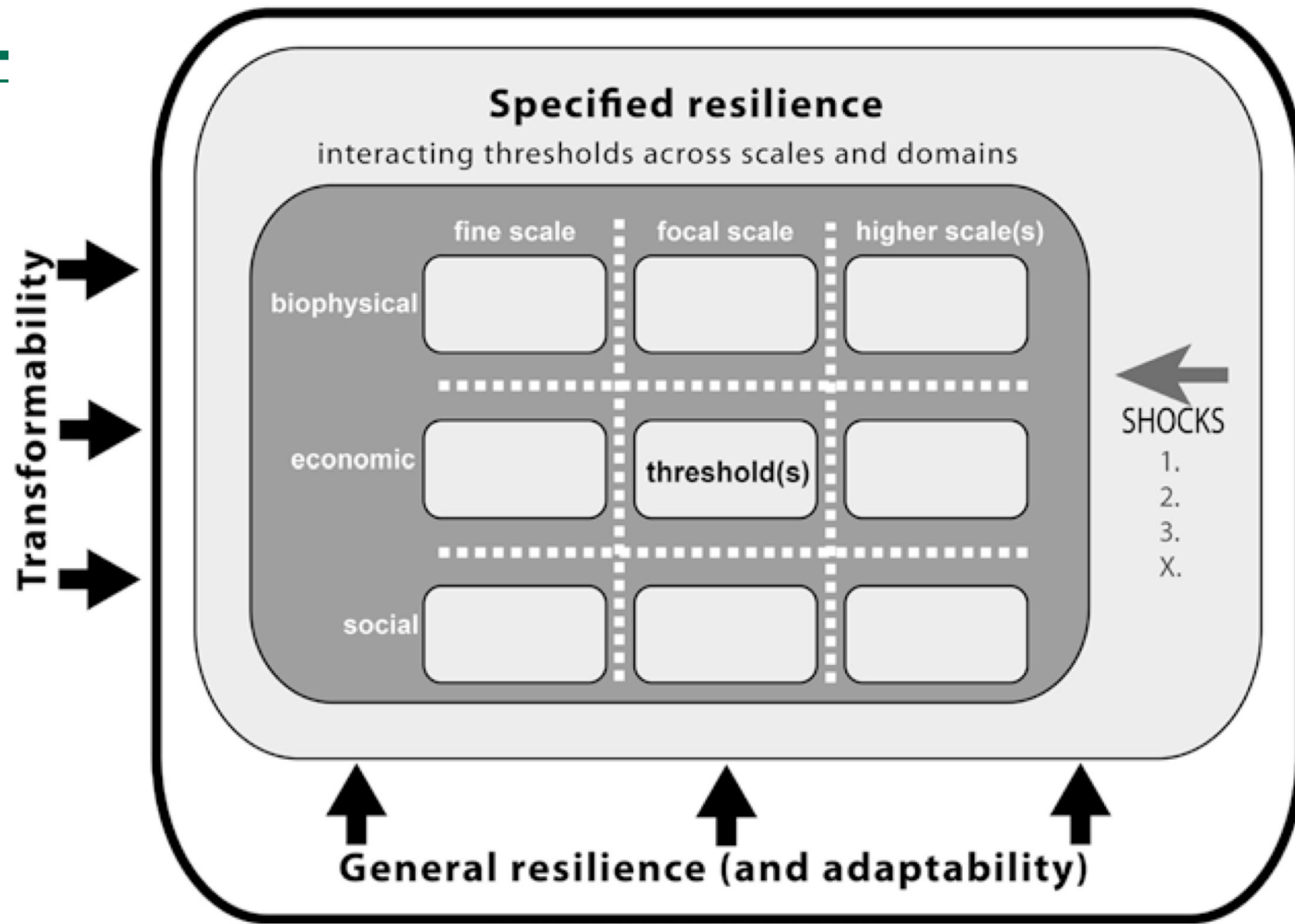
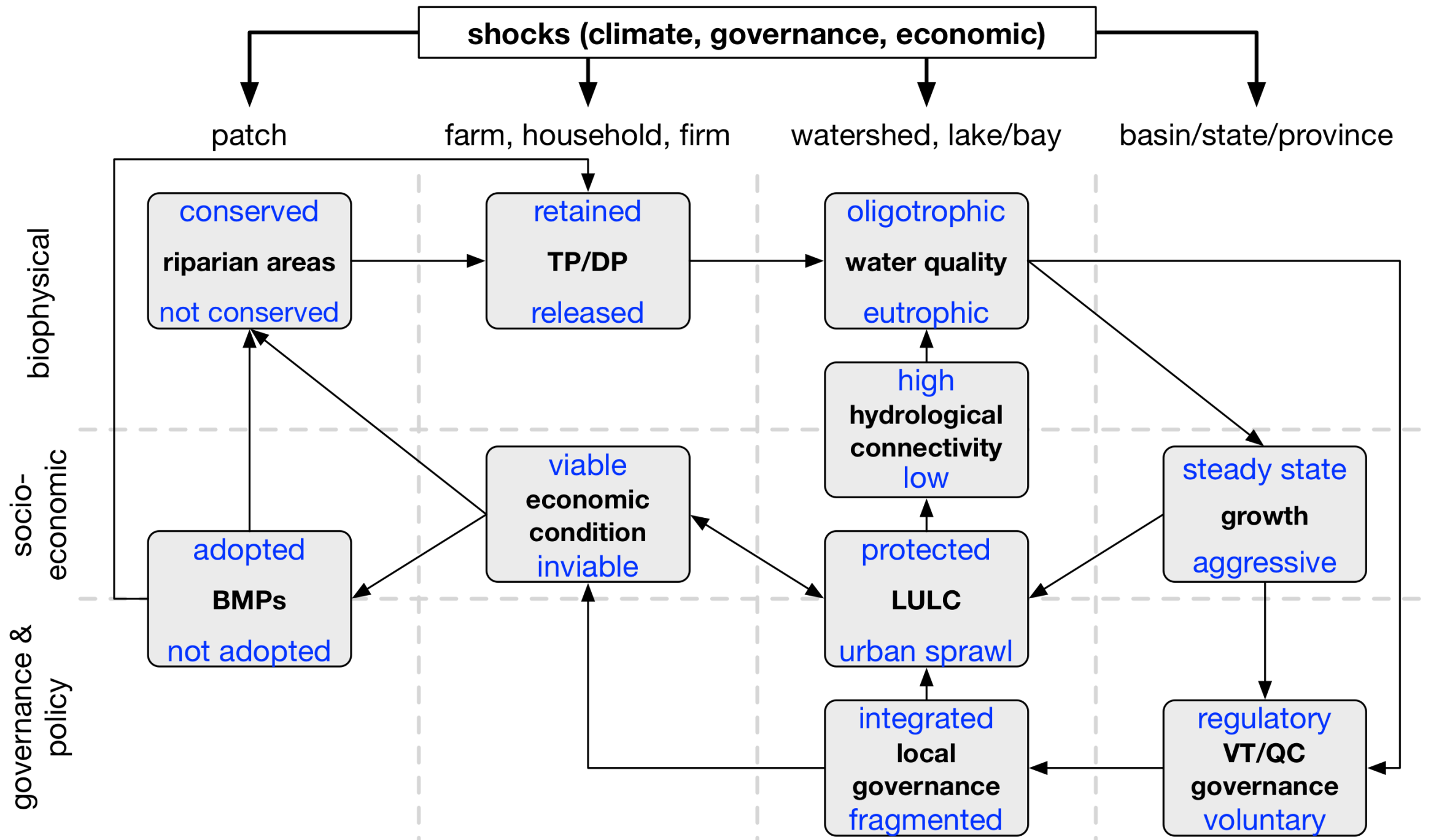


Figure 11: Specified Resilience, General Resilience, and Transformability



What does it mean to be resilient? (it's a tricky question)

Ecological

- "... the capacity of a system to experience shocks while **retaining essentially the same function**, structure, feedbacks, and therefore identity"

Social-ecological

- "...the ability of a system to **cope** with a disturbance, **responding**, or **reorganizing** to anticipated or past events..."

Disaster

- "... the measure of a system's, or part of a system's, capacity to **absorb** and **recover** from the occurrence of a hazardous event"

Urban

- "... the ability of a city or urban system to **withstand** a wide array of shocks and stresses, and return to normal..."

Community

- "... the existence, development and engagement of community resources by community members to thrive in an environment characterized by change, **uncertainty**, unpredictability and **surprise**"

Group discussion

- Break up into smaller groups
- Identify group members for three roles:
 1. **Timekeeper**: keep the group focused on task and aware of the time
 2. **Reporter**: group's spokesperson
 3. **Recorder (BREE person)**: take notes summarizing important discussions and decisions
- Each group will have 30 minutes for discussion (next slide)
- Alternative viewpoints are welcome (and expected) – you do not need to come to a consensus
- After 30 minutes, we will reconvene for full group discussion

Answer BOTH:

1. What **criteria** would you use to classify the LCB system as resilient or not?
2. What are the extreme events that threaten LCB resilience? What makes the events concerning?

Then pick ONE:

3. In a social-ecological system, some processes move faster (e.g., run-off, crop prices), while others are slower (e.g., regional climate, policy change). What “slow” processes do you view as affecting resilience in the LCB? In what way?
4. What resources are necessary for creating a more resilient LCB? Are they available? Why or why not?
5. Which social actors (governments, institutions, organizations, interest groups) are important for LCB resilience? Are any groups advantaged or disadvantaged by resilience efforts?

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Go!
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Large group discussion & debrief

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Thank you!