### UNIVERSITY<sup>OF</sup> BIRMINGHAM



Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura



# **Workshop Drought Vulnerability**

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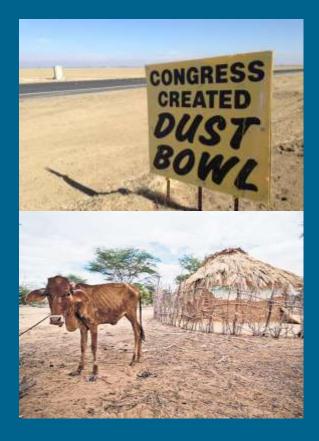




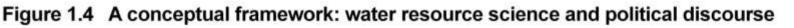
Time	Training Programme
9am-9.15am 9.15am-10am	Welcome and summaries of day 2 Session 1: Theory and policy context Presentation: Adaptive governance and drought
10am-10.30am	<b>Discussion:</b> Adaptive practices and tools at the nexus
10.30am 10.45am-11.15am	Coffee Session 2: Qualitative vulnerability analysis Presentation: Policy tools for drought vulnerability
11.15am-11.45am	Discussion: Vulnerability stressors impacting your case
12pm-12.30pm 12.30pm-1pm	Session 3: Improving current policies for drought Presentation: Crafting adaptive policies for drought Discussion: Barriers to adaptive policies
1pm-2pm	Lunch
2.15pm- 5pm	Session 4: Chilean case and agricultural vulnerabilities Groupwork: Pick-up from Tuesday
	Learning logs

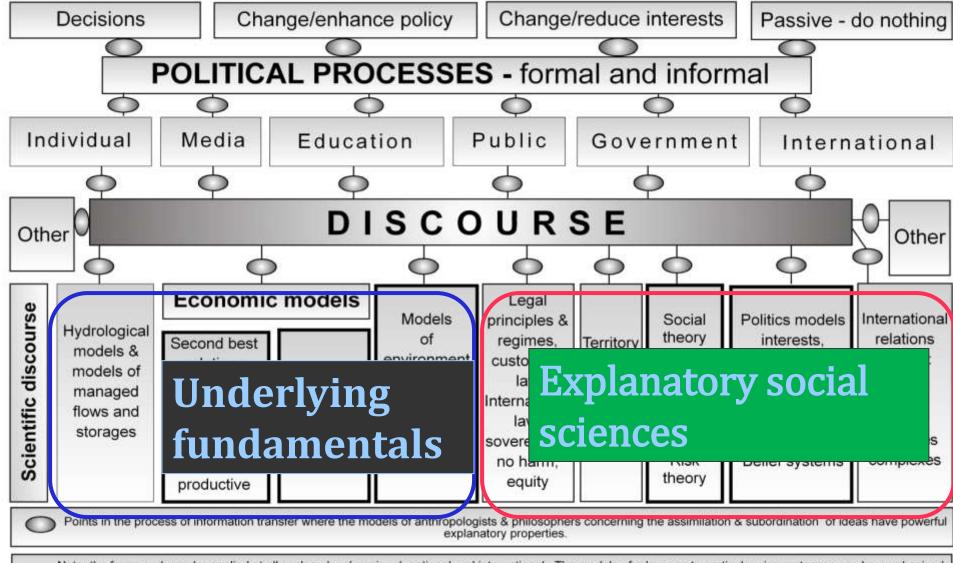
# Drought poses sustainability challenges

- Hydrological and social 'stability'
- Conflict over water resources
- Utility of 'top-down' policies
- Drought as 'crisis'
- More attention on hydrological systems, societal needs, and what is politically feasible
- Risk and uncertainties...









Note: the framework can be applied at all scales - local, regional, national and international. The models of relevance to particular circumstances can be emphasised.







# Drought as 'wicked' problem (Rittel and Webber 1973)

- Poorly formulated and complex issues
- A multiplicity of actors or stakeholders
- □ Competing value systems
- Ambiguous terminology
- Spatial and temporal interdependency, and
- □ Lack of clear end points



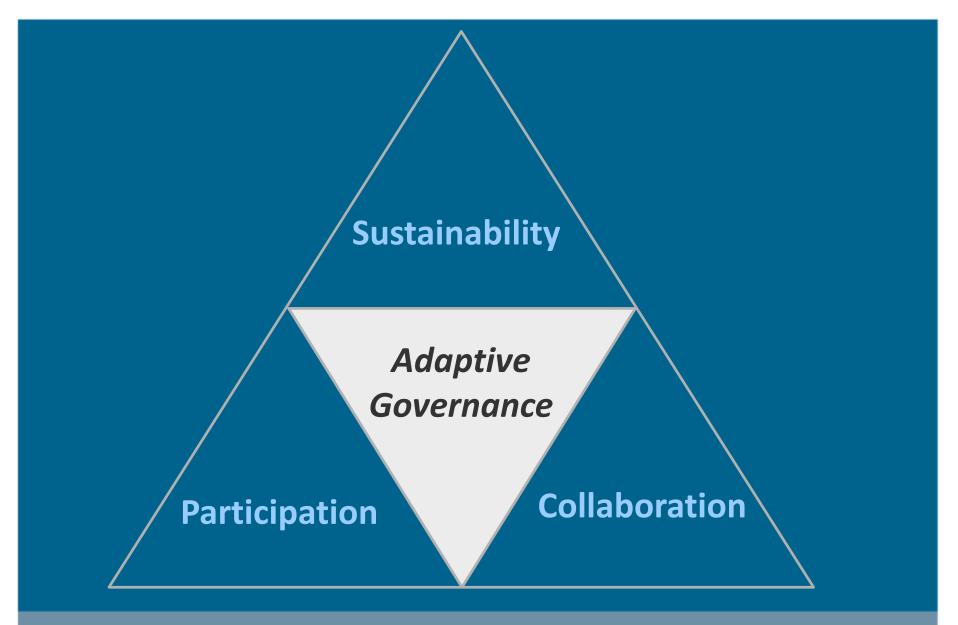


# Risk, uncertainty and adaptive governance

AG: a form of environmental governance that seeks to address sustainability challenges confronting socio-ecological systems by being dynamic and responsive enough to adjust to complex unpredictable feedbacks between system components











#### Sustainability

Resilience/vulnerability Multi-dimensional Critical thresholds Multiple stakeholders

# Adaptive Governance

#### Participation

Local; forward-looking Outcome and evidence-based Learning: new responsibilities

Transparency

#### Collaboration

Anticipatory; multi-scalar Knowledge co-generation Iterative improvement Polycentric: self-organizing







# Adaptive Governance

Each of the three dimensions requires an *evidence base* to describe key socioeconomic and hydrological outcomes and their progress over time

#### Sustainability

Resilience/vulnerability Multi-scalar and multidimensional

ritical threshold

## Adaptive

### Governance

Participation

Local; forward-looking

**Outcome and evidence-based** 

Learning: new responsibilities

Transparency

Collaboration

Anticipatory; multi-scalar

Knowledge co-generation

Iterative improvement

Polycentric: self-organizing







## Adaptive Governance and sustainability Achieving sustainability means stakeholders have access to information and are part of decision-making and decision-taking processes

**Sustainability** Resilience/vulnerability Multi-dimensional

Critical thresholds

# Adaptive Governance

Participation

Forward-looking Outcome and evidence-based Learning: new responsibilities

Transparency

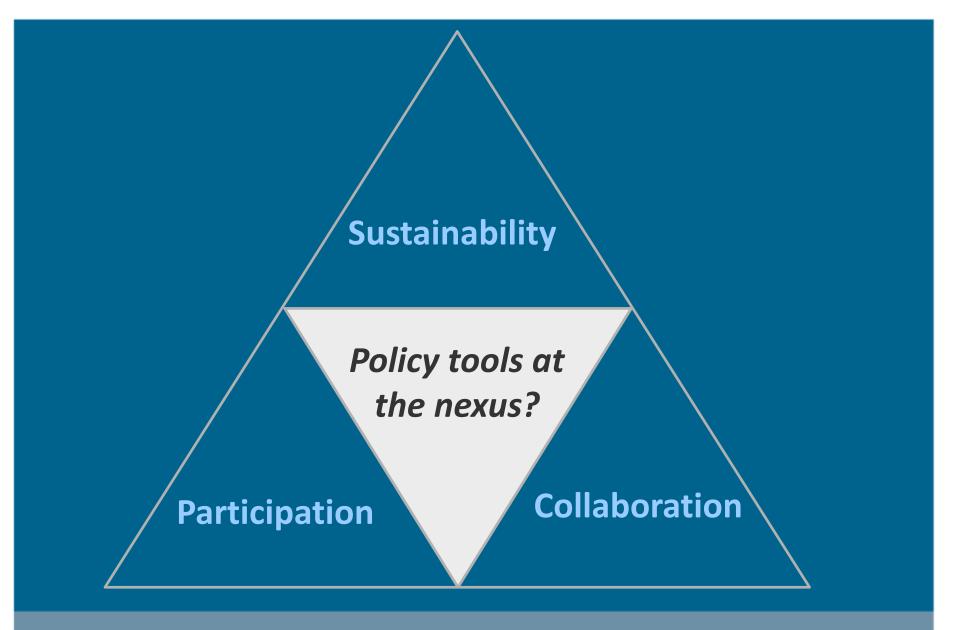
Collaboration

Anticipatory; multi-scalar Iterative improvement Knowledge co-generation















# AG and policy tools at the nexus

## □ AG priorities:

- local level leadership and trust building among stakeholders
- bridging various decisionmaking levels, and developing networks that span scales from the local to bioregional to higher scales
- networks to communicate and integrate scientific and local knowledge
- networks to encourage diversity and mobilize social capital





# Discussion



Based on your sector, what types of project tools are needed to encourage participation and collaboration over drought?

How might these tools promote resilience and adaptability to drought?

