RESEARCH COUNCILS UK

RURAL ECONOMY AND LAND USE

Achieving Sustainable Catchment Management

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Overview of Presentation

- What are the challenges facing sustainable catchment management?
- How can we address catchment management challenges?
- Examples of catchment management projects
- Emerging themes and future challenges

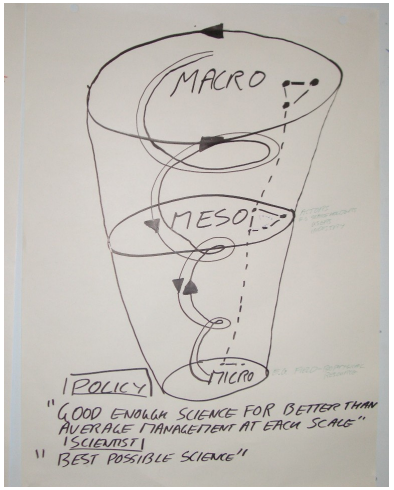
The Challenges 1/2

- **Interdisciplinary**
  - academic research which crosses subject and disciplinary (social and natural sciences) boundaries to deal with problem(s) of common interest; thereby facilitating more holistic thinking, new knowledge and development of theory.
- **Integrated or integrative**
  - involve academic researchers from different disciplines and non-academic participants (e.g. land managers, decision-makers, public) to address a common goal, reach new insights and achieve more sustainable outcomes.

after Trees, Trees & Fry (2005) *Landscape and Urban Planning* 70: 177-191

The Challenges 2/2

- **Sustainable catchment management requires interdisciplinary approaches**
  - Complex interactions between land, water, atmosphere, vegetation and living beings
  - Analysis at multiple scales – multiple actors and domains

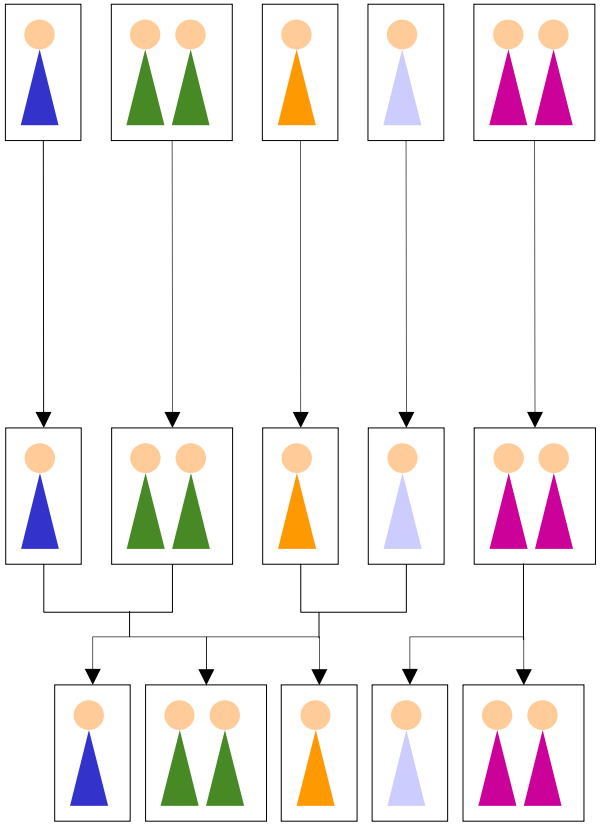


- **Policy and end-user relevance requires new forms of research**

Conventional vs. Integrated Approach

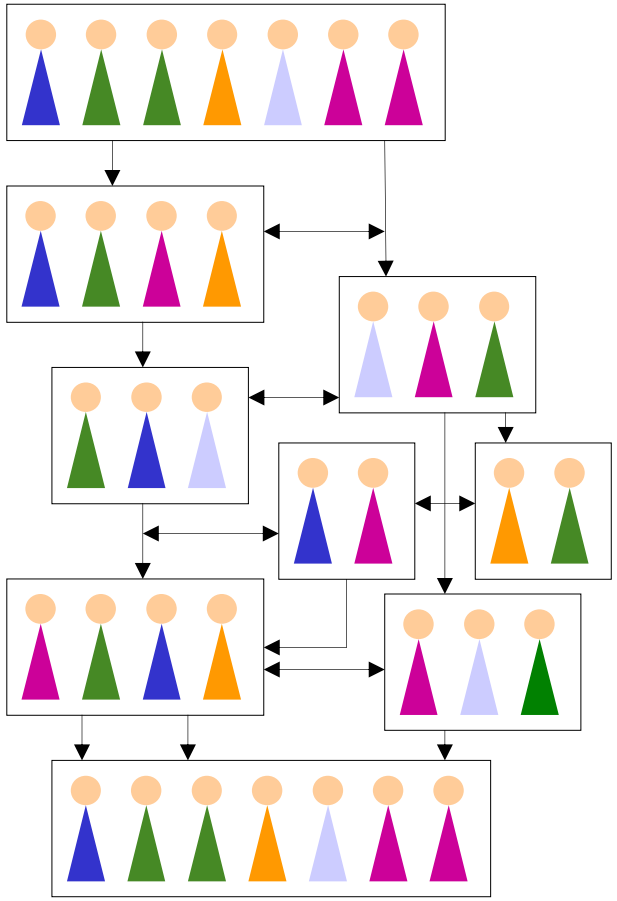
Natural Science → Economics → Policy

PARALLEL + Multidisciplinary



Natural & Social Sciences - People - Policy

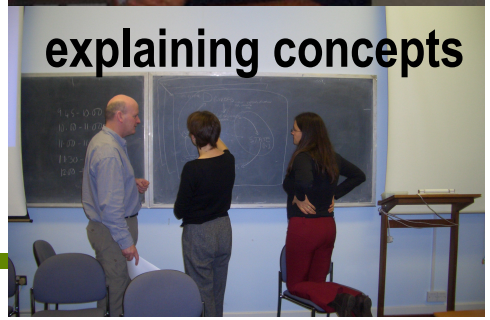
INTEGRATED + Interdisciplinary



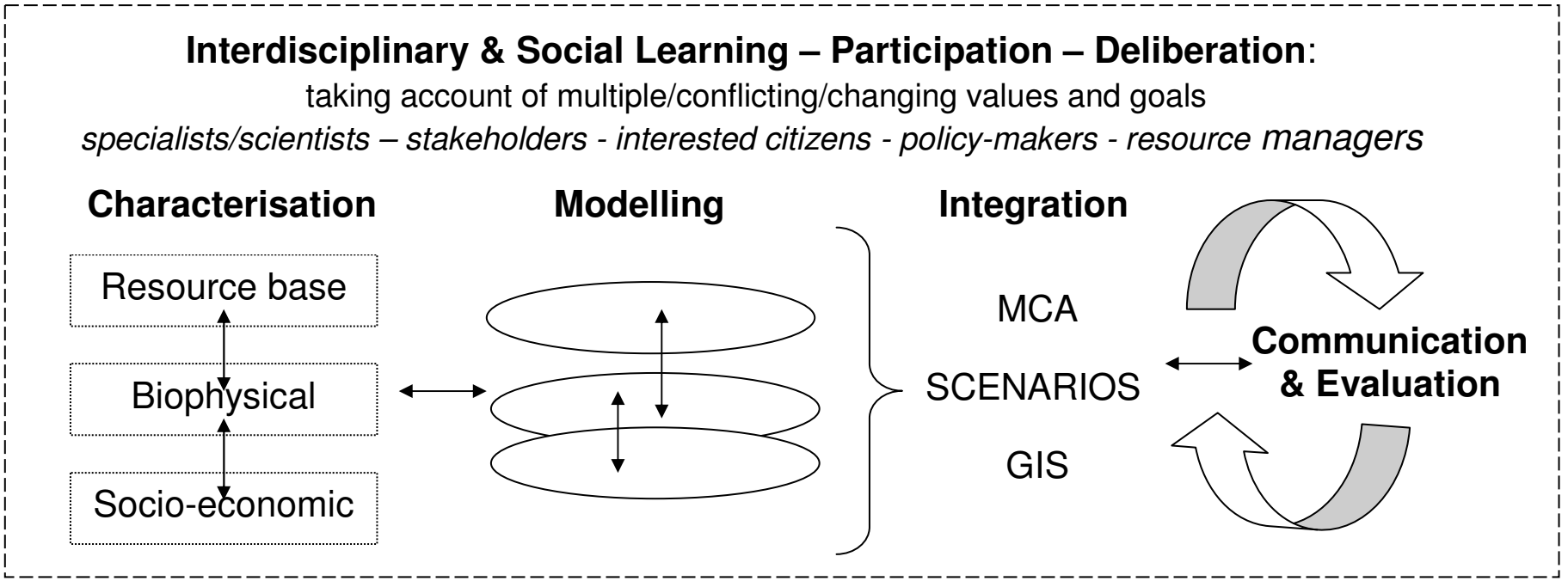
adapted/after Trees, Trees & Fry (2005) *Landscape and Urban Planning* 70: 177-191

Our Scoping Study Approach

- Create a forum for interdisciplinary learning (27+ researchers); workshops and bilateral meetings
- Explore synergies
- Reflect on existing methodological approaches - multi-objective interdisciplinary framework
- Identify gaps in databases
- Explore the potential for meta-database
- Define current and potential drivers of change (env., social, policy, techn. & economic)
- Ensure policy relevance through ongoing evaluation of the process

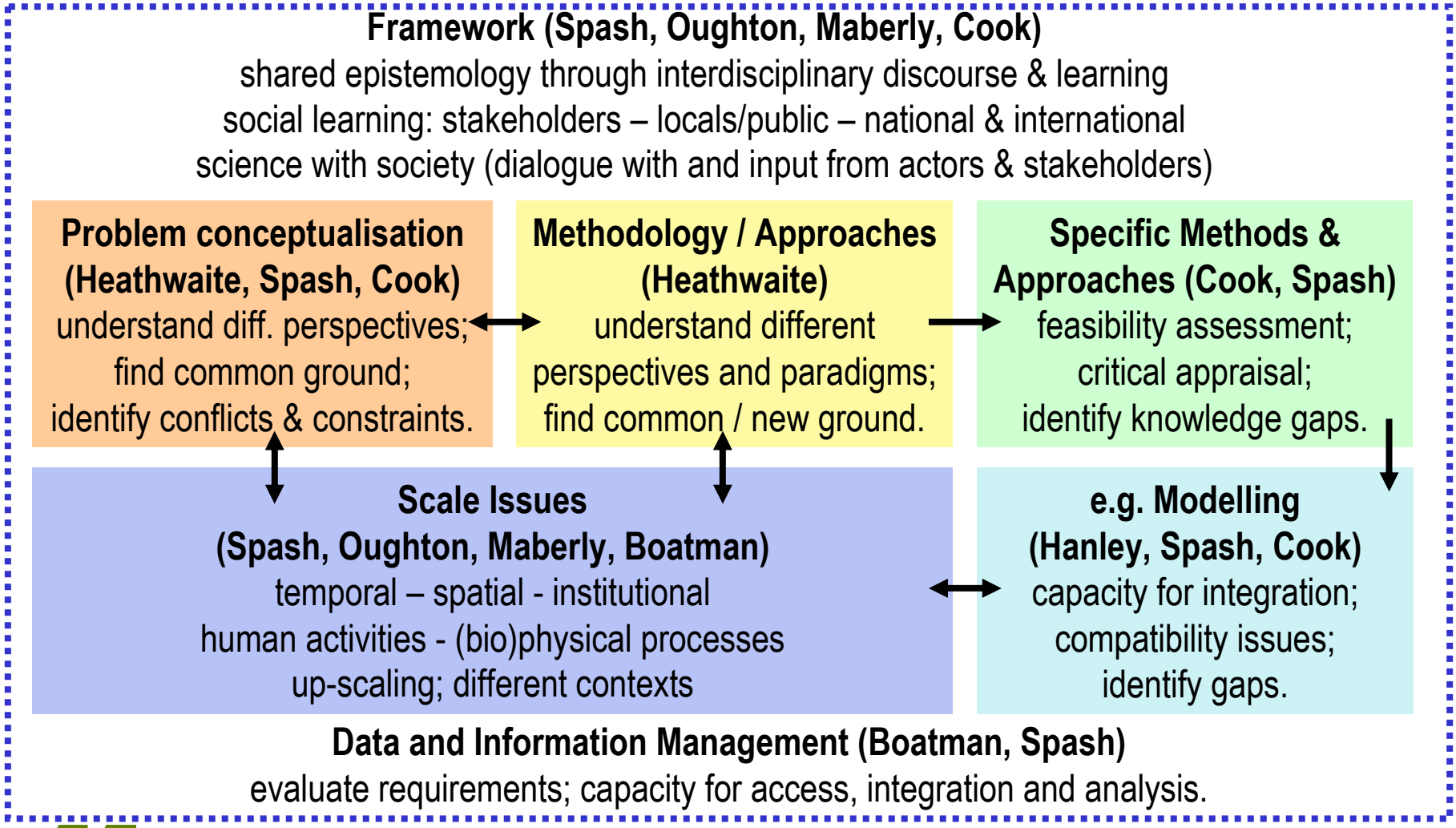


A Framework for Integration



- Learning and better understanding rather than data collection
- Critical appraisal and reflexivity
- 'Best' scale(s) – multiple scales

Overlapping Interests and Issues in RELU Catchment Projects



Overall Themes Emerging

- Conflict or differences in conceptualising catchments and their problems;
- Different definitions of ‘interdisciplinary’ and ‘integrated’ (or lack of agreeing definition and common goals);
- Variety of research questions and methodologies; can create problem in how to integrate methods and models;
- Role of different knowledges and social learning to help with integration and addressing differences;
- Who gets asked and involved? Power.

Ongoing Challenges for RELU

- **Interdisciplinary work takes time**
  - Productivity lag should be expected
  - Social capital amongst consortium needs to be sustained
- **Language facilitates *and* impedes**
  - Terminology can prevent understanding
  - Concepts need to be discussed to be understood
- **Professional and institutional barriers to interdisciplinary working**
  - Need to feel worth the risk
  - Managerial and organisational support
- **Interdisciplinary mind-set**
- **Openess to different perspectives**