

A model of Science-Practice-Policy interface in local land use planning

A case study in Laos



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Outline



■ Policy Terrain

- Land-use planning in tropical forested landscapes
- What role for Science in Participatory LUP?

■ Case Study

- Research sites
- Methodological framework... or puzzle?

■ Action-Research

- A model of Science-Practice-Policy interface
- Key challenges for land-use planning in Laos

Policy Terrain

- Land-use planning in Laos and beyond -

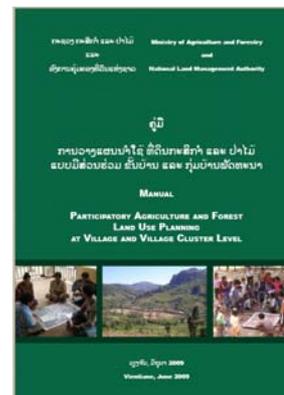
- Evolution of Land-use planning (LUP) worldwide:
 - ⇒ Key instrument for achieving sustainable development
 - ⇒ Objective has shifted from 'assessing land capability/suitability' to 'creating a territorial balance between development and conservation'



- Laos is representative of tropical forested landscapes
 - Poor and rural country, yet 'ecologically wealthy'
 - > But dealing with a resource curse: 'downward spiral' of environmental degradation for the sake of increased GDP
 - Strong international support for improving NRM through land tenure security (to avoid land grabbing, for REDD+ implementation, etc.)
 - > But weaknesses in implementation: key LUP principles lost in translation...?

Lestrelin G., Castella J.-C., and Bourgoin J. (2011) Territorialising sustainable development: The politics of land-use planning in the Lao People's Democratic Republic. *Journal of Contemporary Asia* (in press)

- National guidelines 2009
– principles for LUP implementation



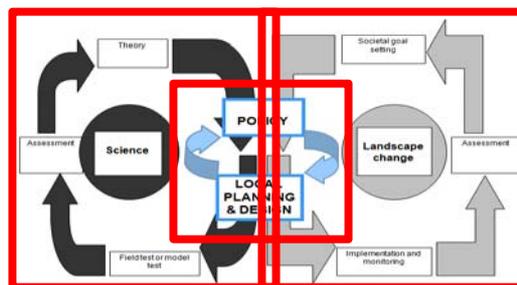
- Evolution of LUP towards enhanced
 - ✓ **Participation** - for improved **legitimacy** of the process outcomes
 - ✓ **Integration** - **scale** (rationalizing land use plans across scales),
- **knowledge** (conservation-development trade-offs)
- multiple stakeholders' **perspectives**

BUT lack of methodological support -> inappropriate on-the-ground practices

Lestrelin G., Bourgoin J., Bouahom B., Castella J.-C. (2011) Measuring participation: Case studies on village land-use planning in northern Lao PDR. *Applied Geography* 31:950-958.

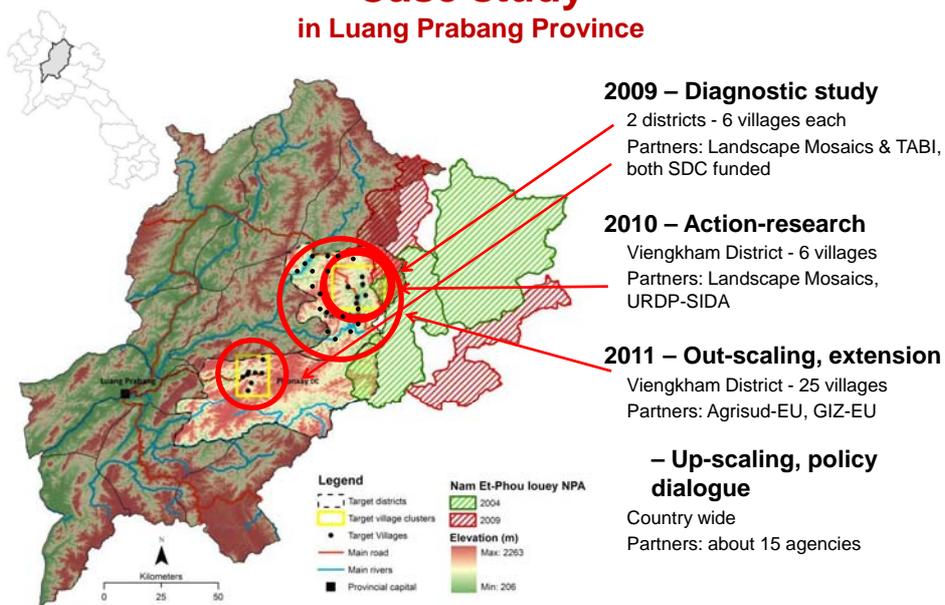
What role for Science in PLUP?

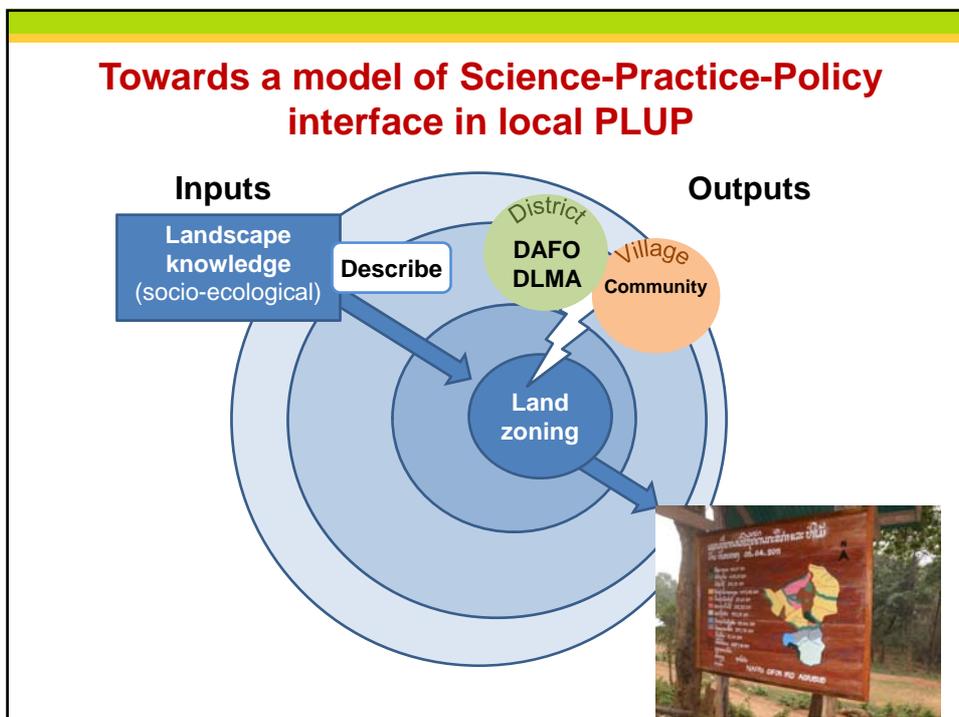
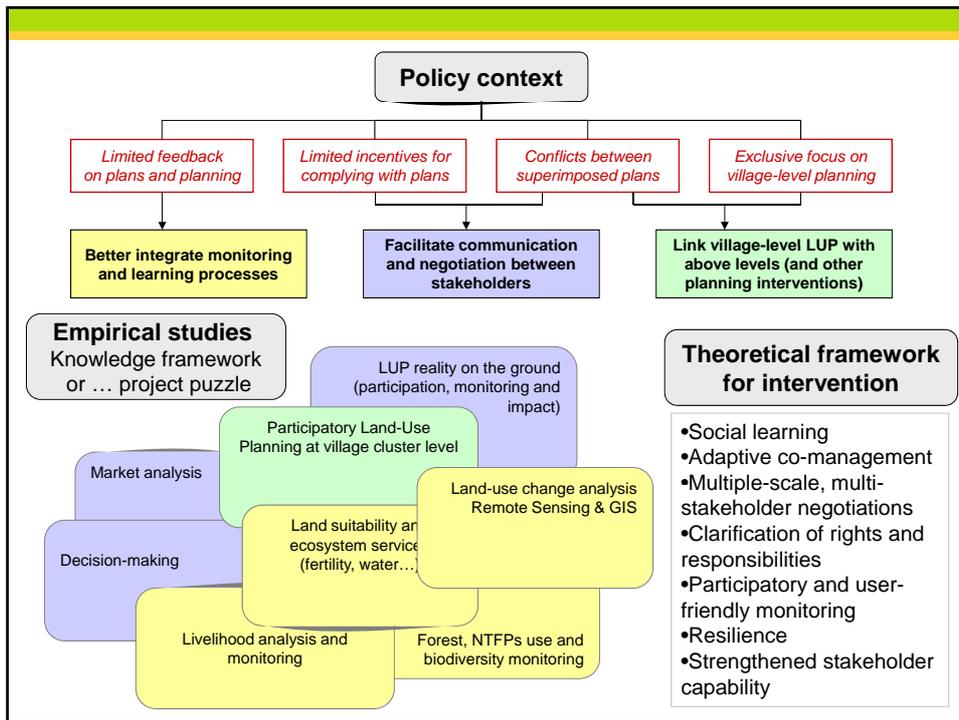
- Diagnostic study: Understanding **livelihood strategies and policy processes** (e.g. impact of LUP)
- Empirical data: Provision of **landscape-scale information** to support decision-making
- Action-research: Direct interventions to **facilitate negotiations**

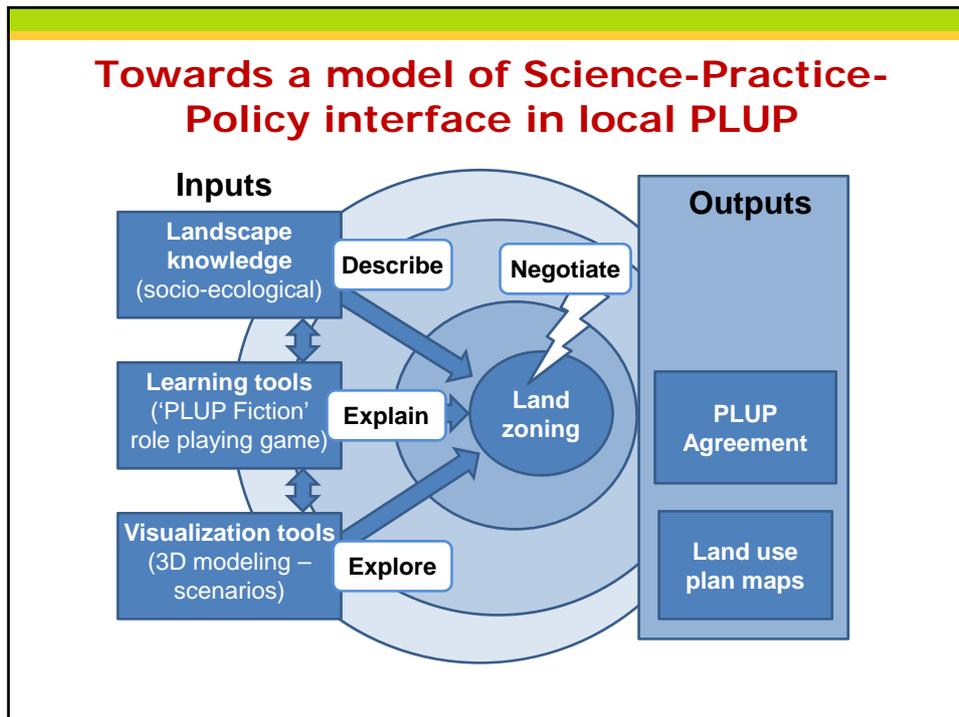


Case study

in Luang Prabang Province







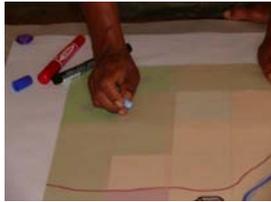
Learning tool: Role playing game

Learning PLUP with '*PLUP Fiction*'

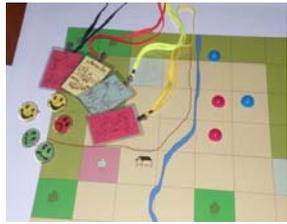
Landscape simulation:
 Board: 100 cells of 1 ha
 Different roles (hh types, foresters, etc.) & objectives
 Aim: negotiate until an agreement is reached
 Assess impacts on

- environment: biodiversity, carbon indexes
- livelihoods: household economics (4 household types)

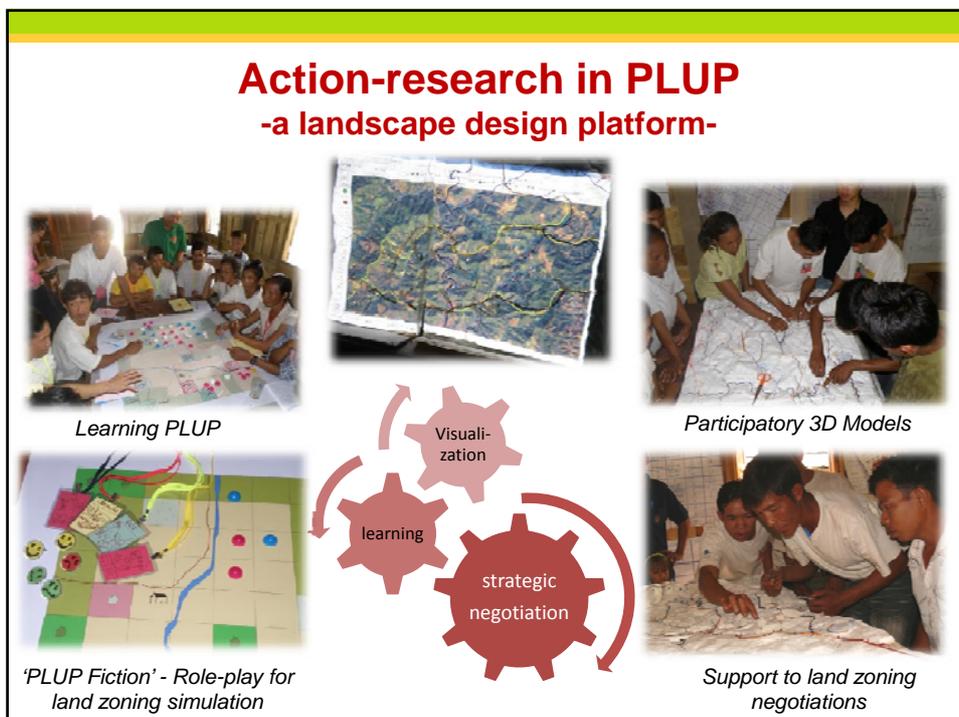
People manipulate simple figures:
 Data on land-use and socio-economics elicited by villagers
 Environmental indicators elicited by experts
 Zoning on the board and calculations by the whole group

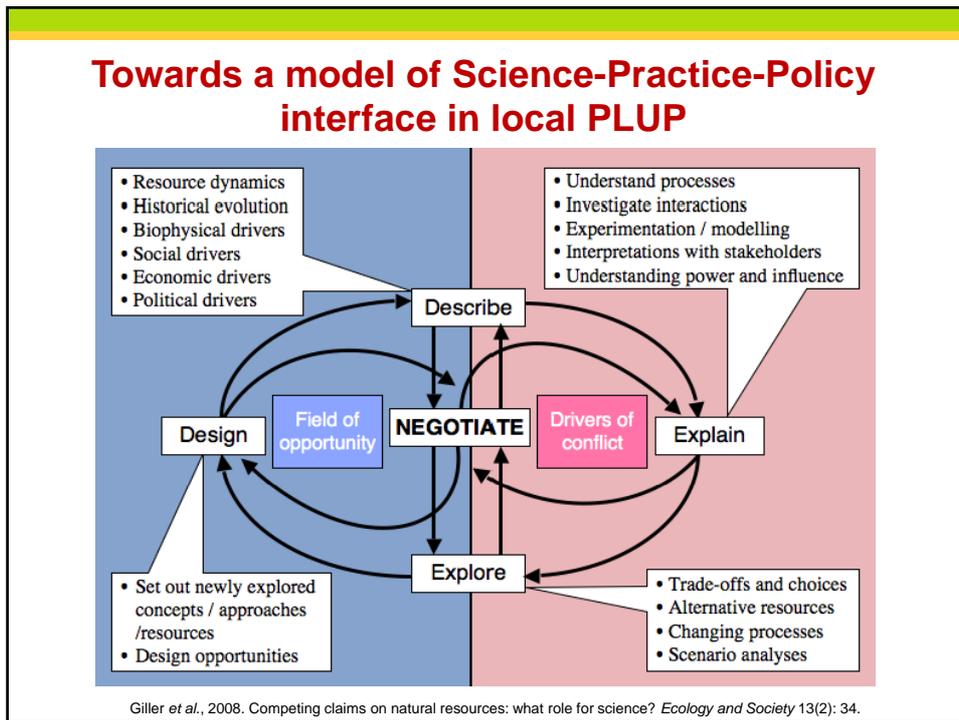




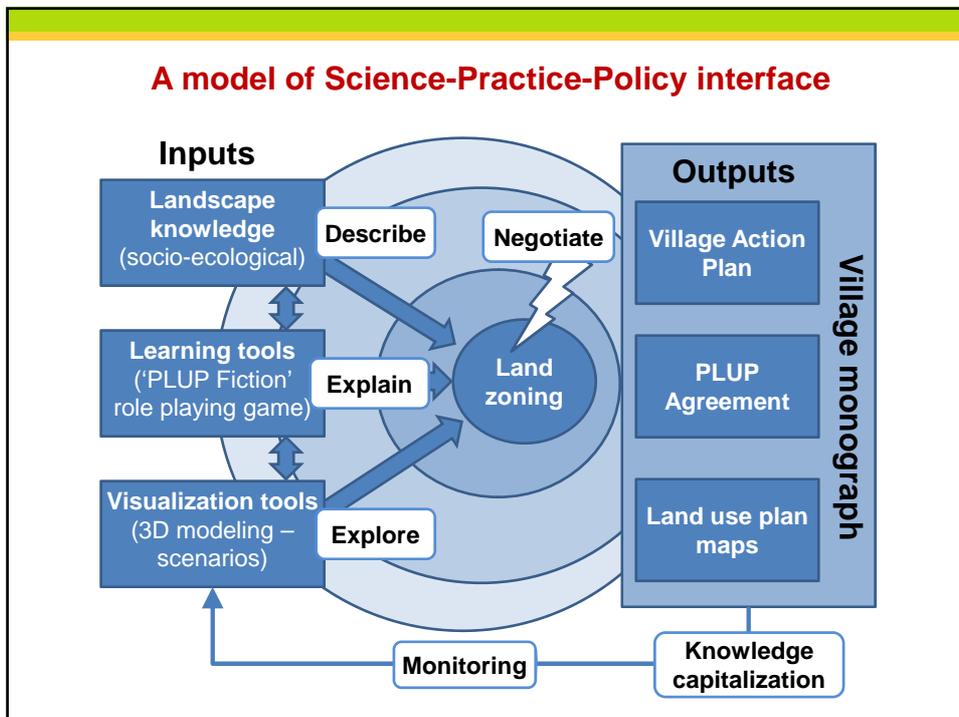
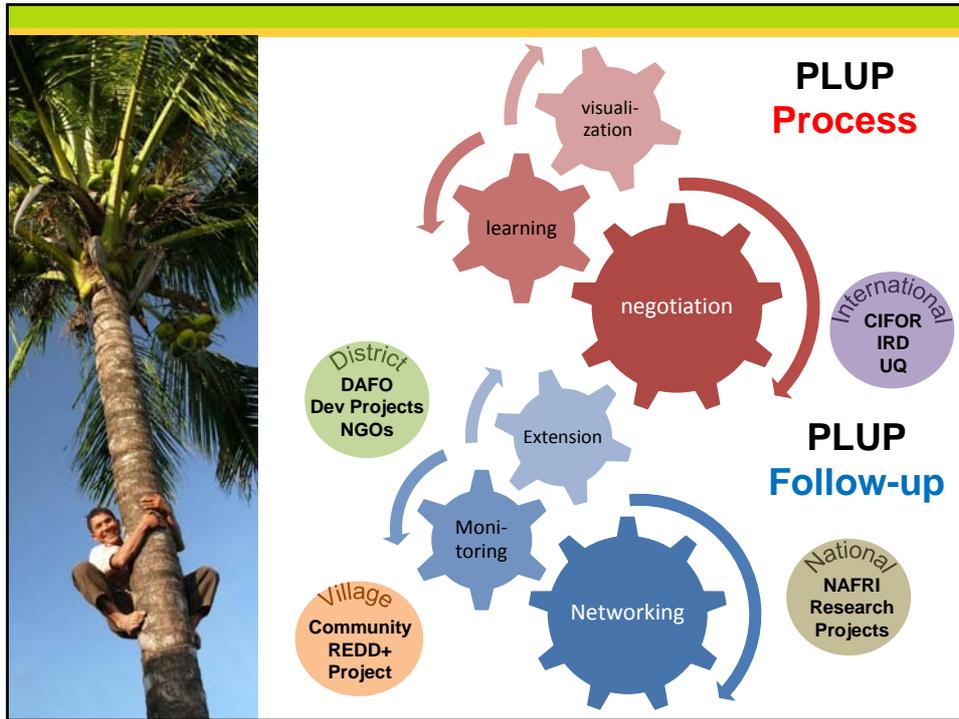


Bourgoin J. and Castella J-C. (2011) '*PLUP Fiction*': Landscape simulation for participatory land-use planning in northern Lao PDR. *Mountain Research and Development* 31(2): 78-88.





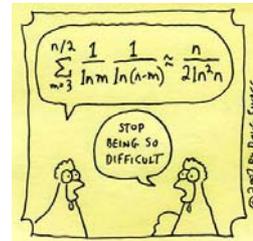
- ## Main lessons
- Crossing boundaries and building bridges -
- Role of **landscape boundary objects** in engaging with local communities
 - Landscape **visualization** and **learning** tools
 - Enhanced participation: from mere meeting attendance to strategic negotiation
 - Empowerment process through scenario exploration: increased local relevance and ownership of outputs
 - Knowledge sharing and integration across scales and institutions
 - **Human (institutional) designs** supportive to landscape designs
 - **Multiple stakeholders** and institutions -> beyond capacities and time frame of a single project
 - Requires **boundary organizations** -> lasting partnerships, resilience to staff turn-over and institutional changes
 - **Social learning** supports a reflexive approach to landscape governance



Challenges ahead

■ Scientific credibility

- A problem-solving approach (**local relevance**) relying on sound landscape science
- Need to **build capacity** of national research institutions (training, guideline, toolbox)



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Conclusion

- Better science and greater expertise are not necessarily the key ingredients for enhanced planning & impact,
- What is primarily needed is the development of new forms of partnership, and new tools for creating political dialogue between a greater number of actors.

Robinson J. (2004) Squaring the circle? Some thoughts on the idea of sustainable development, *Ecological Economics* 48(4), 369-384.

