Landscape Governance

Master in X
Academic year 2020-2021, Summer semester
X ECTS
Tuesdays and Thursdays, 10.00 to 12.00

Coordinator

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Introduction

Increasing global complexities and interconnectedness offer both opportunities and challenges to our collective ability to deal with climate change, food insecurity, resource depletion and degradation and the many conflicts that arise due to scarcity. The solutions to many of these issues need integrated action, but also understanding. The landscape scale/lens is an opportunity to develop such integrated understanding.

At the landscape scale, problems are usually multi-actor, multi-scale and multi-sector. Landscape governance involves dealing with these features, i.e., it aims to balance and manage the many trade-offs and interdependencies that happen across actor groups, sectors and scales as said actors use natural resources and occupy the space.

This course is both an introduction to theory, practice and analysis techniques that inform landscape governance. The course includes 4 blocks of sessions. Two of them touch biophysical and stakeholder dynamics; and two cover governance aspects, including an introduction to the basics of institutional analysis and an overview of "governance solutions".

Goals

By the end of this course, students will:
- Become knowledgeable of frameworks, theories and techniques that inform the understanding and management of landscapes and their socio-ecological complexity.
- Become experts in the study of landscape governance problems and their multi-actor, multi-sector and multi-scale character.
- Become familiar and gain hands-on practice with techniques to run bio-physical diagnoses and social characterizations of landscape dynamics.
- Be able to run stakeholder analyses understand the opportunities and constraints of participatory methods for stakeholder engagement.
- Be acquainted with the literature on governance as it applies to landscapes.
- Become expert in the institutional analysis approach and its application to the study and practice landscape governance.
- Develop a critical eye to planning, market and community-based policies and instruments as they are applied to landscape management.

- Develop creative thinking vis a vis the design of policy solutions to real landscape problems

Organization, assignments and evaluation

The sessions are split into deliberative and practice-oriented sessions. Each deliberative session has a corresponding practice-oriented session. The deliberative sessions include mandatory readings that have to be done in advance (see assignments), and consist of a mix of lecturing, and in-class discussions. The practice-oriented sessions include hands-on group exercises that mobilize and/or expand the theories and/or techniques covered in the deliberative sessions.

There are individual and group assignments.
- Individual assignments
  o 5 individual assignments, 10% of the final grade each.
  o Assignments consist of reflexive commentaries of 300 words based on the readings. At the beginning of the course students will nee to sign up for 5 of the sessions of the course, write the corresponding commentary and submit it 48 hours before the start of the class. These students will be in turn expected to actively participate in the in-class discussions.
- Group assignments
  o 2 group assignment, 25% of the final grade each.
  o The assignments consist reports of the that will build on the practice-oriented sessions, as applied to a real landscape of the choice of the group

The criteria to evaluate the individual and group assignments will be shared and collectively discussed the first day of class.

Schedule and readings

BLOCK 1: THE LANDSCAPE AND ECOSYSTEM SERVICES
Day 1. Landscape approach, the ES frameworks and the SDGs
- Introduction to landscape governance as an object of study.
- Introduction to the Ecosystem Services framework and how it can be used as a boundary object to approach the multifunctional complexity of landscapes.

Readings

Mbow, C., Neely, C. & Dobie, P. 2015. How can an integrated landscape approach contribute to the implementation of the Sustainable Development Goals (SDGs) and advance climate-smart objectives? In Minang, P. A., van Noordwijk, M., Freeman, O. E., Mbow, C., de Leeuw, J., & Catacutan, D. (Eds.) *Climate-Smart Landscapes: Multifunctionality in Practice*, 103-117. Nairobi, Kenya: World Agroforestry Centre (ICRAF).

Westerink, J., Opdam, P., Van Rooij, S., & Steingröver, E. (2017). Landscape services as boundary concept in landscape governance: Building social capital in collaboration and adapting the landscape. *Land Use Policy*, *60*, 408-418.

Day 2. *Hands-on work*: *from landscape to problemscape*
- In class exercise and discussion to problematize the boundaries, and the multi-actor, multi-sector and multi-scale character of landscapes and their governance.

Day 3. Methods: social metabolism analysis
- Introduction to material and energy flow analysis and applications to rural and urban landscapes.

- Introduction to the MUSIASEM framework

Readings

Marull, J., Tello, E., Bagaria, G., Font, X., Cattaneo, C., & Pino, J. (2018). Exploring the links between social metabolism and biodiversity distribution across landscape gradients: A regional-scale contribution to the land-sharing versus land-sparing debate. Science of The Total Environment, 619, 1272-1285.

Fraga, J. S., & Oliveira, R. R. (2012). Social metabolism, cultural landscape, and social invisibility in the forests of Rio de Janeiro. Polyphonic Anthropology–theoretical and empirical cross-cultural field work, 139-56.

Day 4. *Hands-on work***:** *social metabolism landscape simulation*
- Exercise to conceptualize and run an empirical analysis of energy and matter flows in a landscape

Day 5. Methods: participatory methods and mapping
- Introduction to the family of participatory data collection techniques
- Introduction to participatory mapping and its applications to the characterization of perceptions, values and attitudes towards landscape features.
- Introduction to landscape mapping as a means for scenario building

Readings

Fagerholm, N., & Käyhkö, N. (2009). Participatory mapping and geographical patterns of the social landscape values of rural communities in Zanzibar, Tanzania. Fennia-International Journal of Geography, 187(1), 43-60.

Brown, G., & Raymond, C. M. (2014). Methods for identifying land use conflict potential using participatory mapping. Landscape and Urban Planning, 122, 196-208.

Day 6. *Hands-on work***:** *mapping your landscape and its evolution*
- Participatory scenario exercise applied to real landscape

BLOCK 2: STAKEHOLDERS AND VALUATION

Day 7. Stakeholder analysis and engagement
- Introduction to stakeholder analysis techniques
- Introduction to stakeholder engagement techniques and challenges

Readings

Bulkeley, H. and A.P.J. Mol. 2003. Participation and Environmental Governance: Consensus, Ambivalence and Debate. Environmental Values 12 (2): 143-54. 11 pages

Deans, H., Ros-Tonen, M. A., & Derkyi, M. (2018). Advanced value chain collaboration in Ghana's Cocoa Sector: an entry point for integrated landscape approaches? Environmental management, 62(1), 143-156.

Day 8. *Hands-on work: Who is who in your landscape?*
- Actor mapping and network exercise as applied to real landscape

Day 9. Methods: Multi-criteria evaluation
- Introduction to environmental valuation methods
- Comparison of multi-criteria evaluation to environmental economic valuation methods

Readings

Carver, S. J. (1991). Integrating multi-criteria evaluation with geographical information systems. International Journal of Geographical Information System, 5(3), 321-339.

Gamboa, G., & Munda, G. (2007). The problem of windfarm location: A social multi-criteria evaluation framework. Energy policy, 35(3), 1564-1583.

Day 10. Hands-on work: Multi-criteria valuation simulation
- Multi-criteria evaluation applied to a real landscape

BLOCK 3: INSTITUTIONAL (ECONOMICS) ANALYSIS
Day 11. *Hands-on work: playing an experimental economics game*
- Simulation of common pool and public good game in a hypothetical landscape context.

Day 12. Rules, Games and Common pool resources
- Introduction to the types of environmental goods and associated social dilemmas.
- Introduction to institutional economics as applied to natural resource management and landscape governance analysis.

Readings

Ostrom, E., Gardner, R., Walker, J., Walker, J. M., & Walker, J. (1994). Rules, games, and common-pool resources. University of Michigan Press. Chapter 1.

García-Barrios, L., García-Barrios, R., Waterman, A., & Cruz-Morales, J. (2011). Social dilemmas and individual/group coordination strategies in a complex rural land-use game. International Journal of the Commons, 5(2).

Day 13. Property rights
- Introduction to the framework of bundles of property rights.
- Introduction to the use of property right analysis for landscape analysis.

Readings

Schlager, E., & Ostrom, E. (1992). Property-rights regimes and natural resources: a conceptual analysis. Land economics, 249-262.

Bromley, D. W., & Hodge, I. (1990). Private property rights and presumptive policy entitlements: reconsidering the premises of rural policy. European Review of agricultural economics, 17(2), 197-214.

Day 14. *Hands-on work: Who's rights in your landscape?*
- Exercise to identify bundles of property rights in a real landscape and the politics of their allocation

Day 15. Institutional analysis: the Institutional Analysis and Development Framework
- Introduction to the IAD framework's family of tools for institutional analysis and applications in the study of natural resource management.
- Introduction to the Networks of Action Situations tool and its applicability to landscape governance analysis.

Readings

Epstein, G., Villamayor-Tomas, S., Schoon, M., (2021) Institutional Analysis, in Biggs et al. Methods for Studying Social-Ecological Systems, Routledge.

McGinnis, M. D. (2011). Networks of adjacent action situations in polycentric governance. Policy Studies Journal, 39(1), 51-78.

Day 16. *Hands-on work: which action situations?*
- Application of the action situations tool to a real landscape.

Day 17. Modelling institutions
- Introduction to the use of modelling techniques for institutional analysis.

Readings

Schlueter, M., Mcallister, R. R., Arlinghaus, R., Bunnefeld, N., Eisenack, K., Hoelker, F., ... & Stöven, M. (2012). New horizons for managing the environment: A review of coupled social-ecological systems modeling. Natural Resource Modeling, 25(1), 219-272.

Smajgl, A., Izquierdo, L. R., & Huigen, M. (2008). Modeling endogenous rule changes in an institutional context: The adico sequence. Advances in Complex Systems, 11(02), 199-215.

Day 18. *Hands-on work*: *build your model*
- Conceptualization of a systems analysis model for policy analysis in a real landscape.

Day 19. Methods: Archetype analysis
- Introduction to comparative analysis and the motivation for archetype analysis of landscapes.
- Overview of archetype analysis as applied in natural resource management and landscape governance studies.

Readings

Sietz, D., Frey, U., Roggero, M., Gong, Y., Magliocca, N., Tan, R., ... & Václavík, T. (2019). Archetype analysis in sustainability research. Ecology and Society, 24(3).

Rocha, J., Malmborg, K., Gordon, L., Brauman, K., & DeClerck, F. (2020). Mapping social-ecological systems archetypes. Environmental Research Letters, 15(3), 034017.

Day 20. *Hands-on work*: what is this socio-ecological archetype about?
- Interpretation of archetypes as modeled through discriminant analysis techniques in real landscape.

BLOCK 4: MODES OF GOVERNANCE AND POLICY

Day 20. Polity, politics, policy, and governance
- Introduction to modes of governance (government, market, community).
- Introduction to the politics of multi-level governance.

Readings

Beunen, R., & Opdam, P. (2011). When landscape planning becomes landscape governance, what happens to the science? Landscape and Urban Planning, 100(4), 324-326.

Görg, C. (2007). Landscape governance: The "politics of scale" and the "natural" conditions of places. Geoforum, 38(5), 954-966.

Day 21. *Hands-on work: which rules and policies in your landscape?*
- Exercise to identify bundles of rules as they apply to different landscape elements rights in a real landscape

Day 22. Governance III: landscape planning
- Introduction to the tradition of landscape planning.
- Overview of criticisms to landscape planning and recent adaptations.

Readings

Von Haaren, C. (2002). Landscape planning facing the challenge of the development of cultural landscapes. Landscape and urban planning, 60(2), 73-80.

Albert, C., Schröter, B., Haase, D., Brillinger, M., Henze, J., Herrmann, S., ... & Matzdorf, B. (2019). Addressing societal challenges through nature-based solutions: How can landscape planning and governance research contribute? Landscape and urban planning, 182, 12-21.

Day 23. *Hands-on work: the politics of planning simulation*
- Decision making role game in a hypothetical scenario of a real landscape.

Day 24. Governance I: market instruments
- Introduction to payment for ecosystem services.
- Introduction to the issues of spatial coordination in the context of PES.

Readings

Nguyen, C., Latacz-Lohmann, U., Hanley, N., Schilizzi, S., Iftekhar, S., & Nguyen, C. (2021). Coordination Incentives for Landscape-Scale Environmental Management: A Systematic Review. University of Glasgow: Glasgow, UK.

Villamayor-Tomas, S., Sagebiel, J., & Olschewski, R. (2019). Bringing the neighbors in: A choice experiment on the influence of coordination and social norms on farmers' willingness to accept agro-environmental schemes across Europe. Land use policy, 84, 200-215.

Day 25. *Hands-on work: Would you participate in this market?*
- Participation in a choice experiment that tests willingness to coordinate in a hypothetical payment for ecosystem services program.

Day 26. Governance II: cooperation and collaboratives
- Introduction to the collaboration paradigm in landscape governance.
- Introduction to opportunities and barriers of collaboration at the landscape scale.

Readings

Stallman, H. R. (2011). Ecosystem services in agriculture: determining suitability for provision by collective management. Ecological Economics, 71, 131-139.

Prager, K., Reed, M., & Scott, A. (2012). Encouraging collaboration for the provision of ecosystem services at a landscape scale—rethinking agri-environmental payments. Land use policy, 29(1), 244-249.

Day 27. *Hands-on work: communication and second order dilemmas in collaboratives*
- Participation in a communication experiment in a hypothetical scenario of a real landscape.

Day 28. Governance IV: Hybrids and policy mixes
- Wrap up of different governance modes to landscape governance
- Introduction to the institutional fit and diagnostic approaches to landscape governance

Readings

Rørstad, P. K., Vatn, A., & Kvakkestad, V. (2007). Why do transaction costs of agricultural policies vary? Agricultural economics, 36(1), 1-11.

Villamayor-Tomas, S., Thiel, A., Amblard, L., Zikos, D., & Blanco, E. (2019). Diagnosing the role of the state for local collective action: Types of action situations and policy instruments. Environmental science & policy, 97, 44-57.

Day 29. *Hands-on work: which policy mix?*
- Critical appraisal of conflicts and synergies between rules and policies as they apply to specific elements in a real landscape.

Day 30. Evaluation
- Survey-based evaluation and discussion