

MICMoR-LUC4C Technical Short Course

Putting People on the Land:

Introducing the interactions between
terrestrial ecosystems,
climate and society



Helmholtz Research School on Mechanisms and
Interactions of Climate Change in Mountain Regions
Photo: Sebastian Weller

How can land best be managed to achieve a variety of different and sometimes conflicting objectives?

e.g.

- Can we achieve climate mitigation, whilst adapting to climate change pressures and simultaneously maintaining other ecosystem services?
- Are there unavoidable trade-offs or clear synergies?
- What are the implications for society?
- What problems do we have in assessing how best to manage land for multiple objectives? (e.g. inconsistencies in methods/data, etc.)

Timetable

Tuesday 3rd March		Wednesday 4th March		Thursday 5th March		Friday 6th March	
09.00-09.15	Registration						
09.15-09.35	Welcome & housekeeping (Institute <u>director</u> : H. Schmid) Introduction to concept of school (T. Pugh)	09.15-10.30	International climate policy (J. House)	09.15-10.15	Introduction to the nitrogen cycle (R. Kiese)	09.15-10.30	Time to prepare group presentations (All)
09.35-10.20	Overview of the Earth system and people's place within it (A. Arneth)	10.30-10.50	<i>Coffee</i>	10.15-11.15	Biophysical effect of land-use and land-cover changes. Part II. (B. Quesada)	10.30-12.10	Group presentations (All)
10.20-11.50	Icebreaker intros (2 mins per participant) (inc. coffee) (All)	10.50-11.50	Introduction to terrestrial C-cycle and vegetation modelling (T. Pugh)	11.15-11.35	<i>Coffee</i>	12.10-12.40	Examples of making trade-offs between ecosystem functions and services (A. Bayer)
11.50-12.50	Introduction to land-use change (M. Rounsevell)	11.50-12.50	Carbon emissions from land-use change (J. House)	11.35-12.35	Forest management (S. Luyssaert)	12.40-13.00	Feedback from lecturers on group presentations, closing discussions (All)
12.50-13.45	<i>Lunch</i>	12.50-13.40	<i>Lunch</i>	12.35-13.20	<i>Lunch</i>	13.00-	<i>Lunch & close</i>
13.45-14.30	Making projections of LUC as part of the Earth system (M. Rounsevell)	13.40-14.40	Biophysical effect of land-use and land-cover changes. Part I. (B. Quesada)	13.20-14.10	Presentation of ecosystem function results from group (All)		
14.30-17.45	Practical 1: Land-use scenarios (M. Rounsevell)	14.40-18:00	Practical 2: Ecosystem functions (T. Pugh)	14.10-14.50	Effects of LUC on SLCPs and air quality. (T. Pugh)		
		18.00-18.30	Preparation of presentation of ecosystem function results from group (All)	15.10-15.50	The wider picture: Ecosystem services (A. Bayer)		
				15.50-18.30	Practical III: Trade-offs (A. Bayer & T. Pugh)		
19.30	<i>Group dinner</i> (Restaurant <u>Mukkefuck</u>)		<i>Free evening</i>		<i>Free evening</i>		

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75 minutes on Friday morning for groups to synthesise outcomes of the school and prepare a presentation on the aspect they consider most important in the context of the overarching question.

Presentations: 5-10 minutes, max. 5 slides. 10-15 minutes discussion.

Timetable: This morning

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| 09:35-10:20 | Overview Talk, A. Arneth |
| 10:20-11:50 | Participant intro. talks
(coffee somewhere inbetween) |
| 11:50-12:50 | Introduction to land-use change, M. Rounsevell |