

Adaptations and Vulnerability

Challenges

- Clearly important, but a huge topic
- Many different definitions
- How to limit/focus adaptation and vulnerability for LCLUC?

What do WE mean by adaptation?

- Adaptations are long-term changes in land use in response to changes in:
 - Institutions and policies,
 - Economic development,
 - Climate,
 - And their interactions

Land use adaptation matrix

	Institutions/ policy change	Economic develop- ment	Climate change
Agriculture	***	**	**
Grazing	**	***	**
Forestry	***	**	*

Additional dimensions

- Social scale: household, community, national adaptations
- Temporal scale: shocks vs. gradual change vs. interannual variability
- Regional variability
- Developing versus developed countries
- Cultures / indigenous people
- Most limited (food, water, ...)

Land use adaptation matrix

	Institutions/ policy change	Economic develop- ment	Climate change
Agriculture	***	**	**
Grazing	**	***	**
Forestry	***	**	*

Key adaptation questions

- Which stressor triggers the most land use change?
- What are the main adaptations to each stressor?

Key adaptation questions

- Where are good examples of past adaptations? (strength of satellite imagery)
- Where will we see major adaptations in the future?
- Which places are most vulnerable to each stressor/land use combination? (modeling)

Potential next steps

- Synthesis workshop
 - Identify good examples of past adaptations
 - Hypothesize where the action is in the future
- Write a review paper