Boundary Analysis: Project Integration

June 2012 Workshop
Study Sites

Mongolia Community-Based Resource Management: Paired Soum

Soum pairs are indicated by a shared color. Numbers indicate the number of CBRM groups within that soum; soum without numbers indicate that no projects are present.
Boundary Hypothesis

• Hypothesis 1: Units of analysis
  – Overlay-patchwork analysis of physical, ecological, social, and political boundaries using GIS

• Hypothesis 2: Cross boundary migration
  – Edge effects of boundaries
  – Ecological and social gradients
  – Cross-scale temporal and spatial linkages

• 3-D Visualization
Geospatial Analysis

• Typology of boundaries
  – Identify social, ecological, physical boundaries

• Intersect physical and social environment
  – Map landscape, ecosystem, watershed, institutional boundaries

• Overlay patchwork analysis
  – Identify areas of overlap, coincidence, gaps of formal and informal organizations (political, physical, social patterns)

• Identify boundary relationships
  – Vertical linkages via institutional agreements
  – Horizontal linkages via migratory patterns

• Areas of Cooperation/Conflict

• Visualization and mapping
  – Density mapping of pasturage use
Boundaries

Spatial Scale/Ecological & Physical Levels of Organization
- Country
- Ecological Zone
- Watershed
- Soum Administrative Boundaries
- Grazing Territory
- Winter Camps & Pastures
- Ecological Plots

Social Organization/Governance
- National Government
- Aimag
- Soum Government
- Bag
- CBRM Group or Traditional “Neighborhood”
- Khot Ail
- Household
- Person
Gradients

• Socio-ecological gradients
  – Seasonal migration patterns linked to pasture and water
    • Institutional arrangements
    • Kinship relationships
  – Water points: access to water

• Networks
  – Kinship networks, infrastructure networks, river networks
Crossing boundaries

• Edge effects of boundaries
  – Filters, inhibitors, heterogenity of boundaries
• Migration and movement
• Cultural differences
• Disciplinary divides
• Scale mismatches
  – Conflict
• Cross-scale linkages
  – Indicators of change
Participatory Mapping

- Comparison between CBNRM orgs and neighborhood orgs across ecological zones
- How do herders “read” the landscape?
- Are boundaries important?
- What facilitates cross-boundary movement?
  - Typology of boundary movement types