

# MOR2: ACCOMPLISHMENTS, CHALLENGES & NEXT STEPS



June 18, 2013

# Outline

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- Where have we been?
  - ▣ Accomplishments
  - ▣ Challenges
  - ▣ Lessons Learned
- Where are we going?
  - ▣ Next steps
  - ▣ Next year
  - ▣ Future??
- Recognition

# Where have we been?

## 1. 2008 Field Tour



## 2. State of Science



## 3. Research Questions



## 6. Research Design



## 5. Hypotheses



## 4. Conceptual Model



## 7. Feedback & Evaluation



## 8. 2009 Pilot Sample



## 9. 2010 Funding & Planning



# Where have we been?

**10. 2011 Training & Testing**



**11. Year 1 Data Collection**



**12. CSU Graduate Students**

**15. MOR2 Interns**

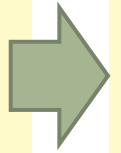
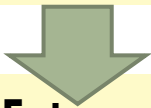
**14. 2012 Year 2 Data Collection**

**13. Database Design**

**16. Data Entry**

**17. Quality Checking**

**18. Preliminary Analysis**



# MOR2 Objectives



1. Assess impacts of climate change on Mongolian pastoral SESs (Research)
2. Evaluate the effect of CBRM in building resilience to climate change (Research)
3. Strengthen science-policy linkages for natural resource management in Mongolia (Outreach)
4. Build capacity of US and Mongolian researchers for applied, interdisciplinary (and participatory!) research (Education and Training)

# Research

- Data collection
  - 428 ecological plots, 706 household surveys, 142 herder organizations and communities in 36 soum 10 aimag
- Data management, database development
  - DIMA, Household survey, organizational profi
- Preliminary analyses
  - Next presentations....
  - Early results presented: SRM, Planet Under Pressure, ISSRM

# Research--Publications

- Venable, N.B.H., S.R. Fassnacht, G. Adyabadam, Tumenjargal S., M.E. Fernandez-Gimenez, B. Batbuyan. 2012. Does length of station record influence the warming trend that is perceived by Mongolian herders near the Khangai Mountains? *Pirineos* 167:71-88.
- Fernandez-Gimenez, M.E., B. Batkhishig and B. Batbuyan. 2012. Cross-boundary and cross-level dynamics increase vulnerability to severe winter storms (dzud) in Mongolia. *Global Environmental Change* 22: 836-851. DOI: <http://dx.doi.org/10.1016/j.gloenvcha.2012.07.001>.
- Batkhishig, B. and M.E. Fernandez-Gimenez. 2012. Meaningful learning for resilience-building among Mongolian pastoralists. *Nomadic Peoples* 16(2):53-77.
- Fernandez-Gimenez, M.E., X. Wang, B. Batkhishig, J. Klein and R.S. Reid, editors. 2011. *Restoring community connections to the land: Building resilience through community-based rangeland management in China and Mongolia*. Wallingford, UK: CABI.

# Outreach

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- Communities (herders, local government)
- Policy-makers and practitioners (Donors, Ministries, NGOs, Agency Staff)



# Outreach to Communities

- Herder & local government participation in annual meetings (2011, 2012)
- *Lessons from the Dzud* book (2012)
- National radio program on CBRM (2012)
- Soum teacher workshop (2012)
- Soum handbook & community workshops (2013)
- Soum brochures (2013)

# Outreach to Policy Makers & Practitioners

- Government & donor participation in annual meetings (2011, 2012)
- *Restoring Community Connections* book (2012)
- World Bank report, slide show (2012)
- Policy Briefs (Dzud, Learning) (2013)
- Soum brochures (2013)
- Briefings and meetings with policy makers, donor organizations and project staff (2011-2013)
- International meetings (e.g. EU Food & Climate Change, Planet Under Pressure) (2012-2013)

# Education & Training

## **MONGOLIA**

- Social Research Methods Training (2011)
- Social Data Development Training (2012)
- Ecological Field Training (2011, 2012, 2013)
- DIMA Database Training (MSRM) (2011)
- Proposal Writing Workshop (2012)
- Excel Training (2012)
- Data Analysis Workshop (2013)
- Intern Program (2011, 2012)
- MS students (3)

# Education & Training

## USA

- DIMA database training (2011)
- Undergraduate service learning (2011)
- Graduate service learning (2012)
- 3 Undergraduate research assistants (2012-2013)
- 4 PhD students (2 Mongolian), 1 MS student
- 2 Mongolian post-doctoral trainees

# Strengths

- Interdisciplinary training and collaboration
- International cross-cultural collaboration and learning
- Cross-sectional and participatory (researchers; herders; local, regional and national gov't; practitioners; donors)
- Multi-scale data collection and analysis
  - 10 aimags, 36 soums, 4 ecological regions
  - Household, organization/community, soum, region
- Committed participants and partners
- Leveraged funding (US AID CRSP, World Bank, CCC, ACMS, etc.)

# Challenges

- Communication
  - ▣ Distance, language
  - ▣ Disciplinary differences
  - ▣ Science-practitioner-community
- Institutional and participant turn-over
- Different standards, processes and cultures of science in US and Mongolia
- Rising cost of fieldwork

# Lessons Learned—Adaptive Mgt.

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- Increase frequency of communication/reporting to partners
- Continue: researcher training, focusing on theory and methods
- Partner with Mongolian institutions on training and outreach

# Next Steps 2013-2015

- Project official end in April 2014, will request 1 year no-cost extension from NSF
- 2012-2013 focus on data analysis and interpretation
- Outreach (policy and communities)
- Researcher capacity building training (goal collaboratively written international research papers)
- Final annual meeting & policy workshop-- summer or fall 2014