

A Workshop on

LCLUC Synthesis: Ecosystem-Society Interactions on a Changing Mongolian Plateau

Date: June 18-21, 2014

Place: National University of Mongolia

Hotel: Zaluuchuud Hotel, Baga Toiruu, Ulaanbaatar, Mongolia

Address: Sukhbaatar District, 1st khoroo, Foreign Embassy Str., Ulaanbaatar, MN, POX-43

Telephone: 325544, **Fax:** 327868

Website: www.zh.mn

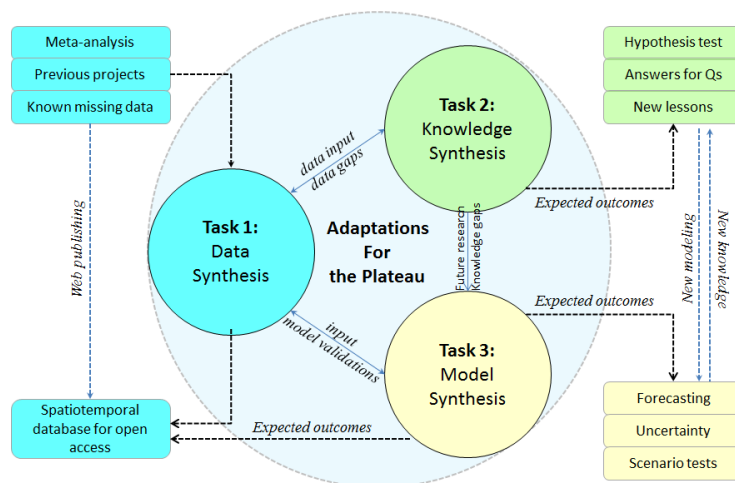
Email: zaluuchuud@zh.mn

Coordinators: Jiquan Chen (jiquan.chen@utoledo.edu), Dan Brown

(danbrown@umich.edu), and Ranjeet John (Ranjeet.John@utoledo.edu)

Local Host: Tsolmon Renchen (tsolmonren@gmail.com)

Student Assistants: Enkhjargal Natsagdorj (enhjargaln@gmail.com) & others.



Goal: To understand how social and ecological systems respond to changing climatic and socio-political conditions, we aim to develop and test possible future scenarios for the Mongolian Plateau and identify knowledge gaps for future research. Building on the expertise and experience of workshop attendees, we will identify key social and ecological stressors and available data and models to support synthesis activities. We also expect that this workshop will serve as a platform for forming new collaborations for future research. The workshop will serve to organize our collaborative research efforts for the next 3-5 years on the Plateau.

Outcomes: 1) Forward planning for the next 3-5 years 2) a synthesis manuscript; and 3) scenarios for model predictions.

June 18

12:00 Arrival & registration at Zaluuchuud Hotel

06:00 Welcome, social discussion (Jiquan Chen, Dan Brown & Ranjeet John)

June 19

07:30 Breakfast

09:00 Mongolian Plateau Synthesis (Jiquan & Dan Brown)

- Logistics (Enkhjargal Natsagdorj) – introduce key personnel, breaks, location of nearby restaurants, coordinators, hotel, etc.
- Welcome by Tsolmon Renchin
- Self-Introduction (Ranjeet) <1 min/person
- Workshop Goals: To identify social and ecological stressors and available/required data and models to support synthesis activities. Data gaps, potential data sources, compilation and data sharing issues (Jiquan) (5 min)
- NEESPI & MAIRS – lessons and challenges, connections with other relevant projects (Pasha Groisman & Jiaguo Qi) (15 min)

10:30 Tea/Coffee Break

- Group Photo

11:00 Research on the Mongolian Plateau

- An overview of legacy research in Mongolia Plateau (Dennis Ojima)
- Institutions, user needs for the science, is it sustainable on the ground (Maria Fernandez-Gimenez)

11:30 Group discussion: challenges for the Mongolian plateau from the workshop participants (Dennis, Maria, Jiquan & Dan)

12:15: Buffet Lunch (Enkhjargal & Tsolmon)

13:30 Background for Data Synthesis

- Data synthesis (Jiquan Chen)
- Socioeconomic research (Yaoqi Zhang)
- Survey forms: Yaoqi/Henry to compare all three survey forms to ensure some consistencies
- Eddy flux towers and other ecological/climate databases (Changliang, Batkshishig & Ranjeet)
- Socio-economic data availability for Mongolia (Amaraa Amarjargal)
- Socio-economic data availability for Inner Mongolia (Yaoqi/Qiao's team)

14:20 Background for Model Synthesis

- Model synthesis (Qianglai Zhuang)
- SEM modeling (Jiquan, others)

- System dynamic modeling (Dan Brown)

15:15 **Update on synthesis project goals and opportunities for input** (Jiquan, Dan, Dennis, Maria)

- Team publications; ideas for synthesis (focus, contents, special issue, etc.). An example is to produce a popular book on human and nature on Mongolia Plateau. Jiquan Chen & Dan Brown
- Synthetic analyses and models that would contribute to high-impact synthesis publications in next two years.

15:30 **Tea/Coffee Break**

16:00 **Summary of morning discussion on challenges-solutions** (Ranjeet) (10 min)

16:20 **Working session on SECTION I: Land use drivers** (Dan Brown & Yichun Xie)

- Identify key drivers of land use and livelihood change. Key drivers for the past and near future should be identified, and possible scenarios should be identified for future drivers. This could move towards a paper, but the key goal is input to synthesis research that will produce papers at the end of the project.

17:20 Break

19:00 **Welcome Dinner** (Jiquan and Tsolmon)

June 20

07:00 **Breakfast**

09:00 Program of the Day (Ranjeet)

09:10 **Reports from Section I** (Yichun Xie)

- Addressing information requirements from other chapters, data exchange, new authors, etc.
- Set the deadlines

10:00: **Working session on SECTION II: CLIMATIC DRIVERS** (Qianlai & Jiquan,)

- A synthesis of possible future climate scenarios for the region, based on existing model outputs. The goal is a synthesis paper on possible future climates

11:00 Tea/Coffee break

11:30 **Report from Section II** (Ranjeet)

- Addressing information requirements from other chapters, data exchange, new authors, etc.

12:30 Lunch

13:30 **Working session on SECTION III: POLICY AND MANAGEMENT** (Fernandez-Gimenez, Ojima, local policymakers)

- Invitees to discuss possible institutional and policy responses, both likely and desirable, that could shape sustainable responses to land use and climate change on the Mongolian Plateau. The goal is should identify synthetic research needs and opportunities that can

be produced to inform management and policy decision making at multiple levels of governance.

- This will also be the time for participants to develop new ideas, avoid redundancies, and create new syntheses.
- Participants will also be challenged to identify any new opportunities for future research.
- Summarize the outcomes to report.
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14:30 Break

14:45 Report from Section III (Amarjargal)

- Identify key information needs of decision makers and how synthesis research can help.
- What types of scenarios are most useful?

15:20 Synthesis Paper and Discussion (Jiquan, Dan)

- Jiquan and Dan will lead the discussions for report and a possible paper from the meeting.
- Ranjeet and Changliang will take notes.

17:30 Historical Sites in Ulaan Baatar (in own free time)

18:30 Dinner on your own (not supported)

June 21

08:30 Program of the Day (Jiquan & Ranjeet)

- Logistics for the field trips (Enkhjargal Natsagdorj and Ochirbat Batkhishig)

09:00 Field trip to the Flux tower (Batkhishig)

- Other facilities/labs (Tsolmon, Enkhee and Ochirbat)
- Maria's site's if close by

12:30 Lunch

13:30 Future Opportunities, Research Needs, and Collaborations (Jiquan, Dennis & Maria)

- Open discussion

14:30 Summary of the Workshop (Jiquan)

- Deadlines, group effort, updates, etc.

16:00 Closing ceremony (Jiquan & Ranjeet)

17:00 Adjourn

19:00 Group Dinner – fun night!

June 22 Departure AM

List of participants

Amartuvishin, Amarjargal: Associate Professor, Department of Economics, University of the Humanities, 2nd Building, 3rd Floor, Room 308, Grand Chinggis Khaan Square-20, 8th Khoroo, Sukhbaatar district, 14200, Ulaanbaatar, Mongolia. Tel: 976-94039759, Email: amarjargal2010@gmail.com.

Bai, Yongfei: Professor, State Key Laboratory of Vegetation and Environmental Change, Plant Ecology Centre, Institute of Botany, Chinese Academy of Sciences, No.20 Nanxincun, Xiangshan, Beijing 100093, China, Tel : (86)-10-62836272, Fax: (86)-10-82595771, Email: yfbai@ibcas.ac.cn.

Battulga, Danbayar: Policy maker, Umnugobi province

Batkhashig, Ochirbat: Scientist, Soil laboratory, Institute of Geography, Mongolian Academy of Sciences, Sukhbaatar duureg, 11-r horoolol. Ulaanbaatar 210620, Mongolia, Tel: 976-11 350470, 976-99712339, Email: batkhashig@gmail.com.

Brown, Daniel G. : Professor, School of Natural Resources & Environment, The University of Michigan, Ann Arbor, 3505 Dana Building, 440 Church St. Dana building, Ann Arbor, MI 48109, Tel: 734-763-5803; fax: 734-936-2195, Email: danbrown@umich.edu.

Chen, Jiquan: Professor, The Center for Global Change & Earth Observations and Department of Geography, Michigan State University, Manly Miles Building, 1405 S. Harrison Road, East Lansing, Michigan 48823, Tel: 419-932-1517, Email: jiquan.chen@utoledo.edu.

Dong, Gang: Professor, School of Life Science, Shanxi University, 92 Wucheng Rd., Taiyuan 030006, China, Tel: (86) 18635115605, Email: dongg@sxu.edu.cn.

Fan, Peilei: Associate Professor, School of Planning, Design & Construction, The Center for Global Change and Earth Observations & Geography, 201M Human Ecology Building, 552 West Circle Drive, East Lansing, MI 48824, Tel: 517-432-6517, 517-432-0704, Email: fanpeile@msu.edu.

Fernandez- Gimenez, Maria: Professor, Warner College of Natural Resources, Colorado State University, Colorado State University, Fort Collins, Colorado, 80524-1472, Tel: 970-491-0409, Email: maria.fernandez-gimenez@colostate.edu.

Gantumur, Altangerel: Policy maker, Bulgan province

Galbadrakh, Munkhbayar: Bag leader, Saikhan Soum, Palazzo building#206, 1st khoroo, Tokyo street, Bayanzurkh district, 12th town, Ulaan Baatar, Mongolia. [Tel:976-89055502](tel:976-89055502), 99063487.

Groisman, Pavel: Project Scientist NEESPI, UCAR, NOAA National Climatic Data Center, Asheville, NC and RAS Institute of Oceanology, Moscow, Russia, Federal Building, 151 Patton Avenue, Asheville, NC 28801, Tel: 828- 271-4347; Fax: 828-271-4022, Email: Pasha.Groisman@noaa.gov.

Huhuu, Tuvshinjargal: Policy maker, BayanUlgii province

John, Ranjeet: Research Assistant Professor, LEES lab, Department of Environmental Sciences, University of Toledo, 2801 West Bancroft St., MS 620, Bowman-Oddy Labs, Toledo, Ohio, 43606-3390, Tel: 517-214-6675, Fax: 419-530-4421, Email: ranjeet.john@utoledo.edu.

Kappas, Martin: Professor, Institute of Geography, Cartography, GIS and Remote Sensing Dept, University of Göttingen, room 477, Goldschmidtstr. 5, 37077 Göttingen, Germany, Tel: +49(0)551/39-8071, Fax: +49(0)551/39-8020, Email: mkappas@uni-goettingen.de.

Kinnucan, Henry: Professor, Department of Agricultural Economics and Rural Sociology, Auburn University, 202 Comer Hall, Auburn, Alabama, 36849-5406, Tel: 334-844-4800, Email: kinnuhw@auburn.edu.

Ma, Mei: PhD Candidate, College of Economics and Management, Inner Mongolia Agricultural University, #275, Xinjiandong Street, Huhhot, 010019, China, Email: mandymam@126.com.

Natsagdorj, Enkhjargal: PhD candidate, National University of Mongolia, Tel: 541-602-6825, 976-91900119, Email: enhjargal@gmail.com.

Ojima, Dennis: Professor, NREL at Colorado State University, the Heinz Center for Science, Senior Scholar, NESB B231, NREL, Campus Mail 1499, Fort Collins , CO 80523-1499, Tel: 970-491-1976, Fax: 970-491-1965, Email: Dennis.Ojima@colostate.edu.

Qi, Jianguo: Professor, Project Scientist NASA-MAIRS and Director, The Center for Global Change & Earth Observations and Department of Geography, Michigan State University, Manly Miles Building, 1405 S. Harrison Road, East Lansing, Michigan 48823, Tel: 517-432-7774, Email: qi@msu.edu.

Renchin, Tsolmon: Professor, NUM-ITC-UNESCO Space Science and Remote Sensing Laboratory, National University of Mongolia, Tel: 976-88013715, Fax: 976-11-329993, Ulaanbaatar, Mongolia, Email: tsolmonren@gmail.com.

Shao, Changliang: Post Doctoral Research Associate, LEES lab, Department of Environmental Sciences, 2801 West Bancroft St., MS 620, Bowman-Oddy Labs, Toledo, Ohio, 43606-3390, Tel: 419-215-0264, Fax: 419-530-4421, Email: changliang.shao@utoledo.edu.

Tuvshintogtokh, Indree: Scientist, Institute of Botany, Mongolian Academy of Sciences, Ulaan Baataar, Mongolia, Email: tuvshintogtokh@yahoo.com.

Uudus, Divaachuu: Policy maker, Umnugobi province

Wang, Dan: Post-doctoral researcher, Institute for Genomic Biology, Energy Bioscience Institute, University of Illinois, 1206 West Gregory Drive | MC-195, Urbana, IL 61801. Tel: 217-244-2999. Assistant Professor, International Center for Ecology, Meteorology, and Environment (ICEME), Nanjing University of Information Science and Technology, 219 Ningliu Road, Nanjing, Jiangsu, China, Ph: 217-244-5548, Email: wangdan.nuist@outlook.com.

Wang, Haichun: Assistant professor, School of Finance and Tax, Inner Mongolia University of Finance and Economics, No. 47, Hailaer street (East campus), Huhhot, 010051, China, Tel:13039509016, 18047210069, Email: nmwhc@126.com.

Xie, Yichun: Professor, Department of Geography and Geology, 205 Strong Hall, Eastern Michigan University, Ypsilanti, Michigan 48197, Tel: 734-487-7588, Fax 734-487-5394, Email: yxie@emich.edu.

Zhang, Yaoqi: Associate Professor, School of Forestry and Wildlife Sciences, Auburn University, 3213 SFWS Building, 602 Duncan Drive , Auburn, AL 36849-5418, Tel: 334-844-1041; Fax: (334) 844-1084, Email: zhangy3@auburn.edu.

Zhao, Fangyuan: Ph.D. Student, School of Life Science, Shanxi University, 92 Wucheng Rd., Taiyuan 030006, P.R.China, Tel: (86)15536655976, Email: fangyuanyale@163.com.

Zhuang, Qianlai: William F. and Patty J. Miller Professor, Atmospheric & Planetary Sciences and Agronomy, Purdue University, CIVL 550 Stadium Mall Drive, West Lafayette, Indiana, 47907, Tel: 765-494-9610, Fax: 765-496-1210, Email: qzhuang@purdue.edu.