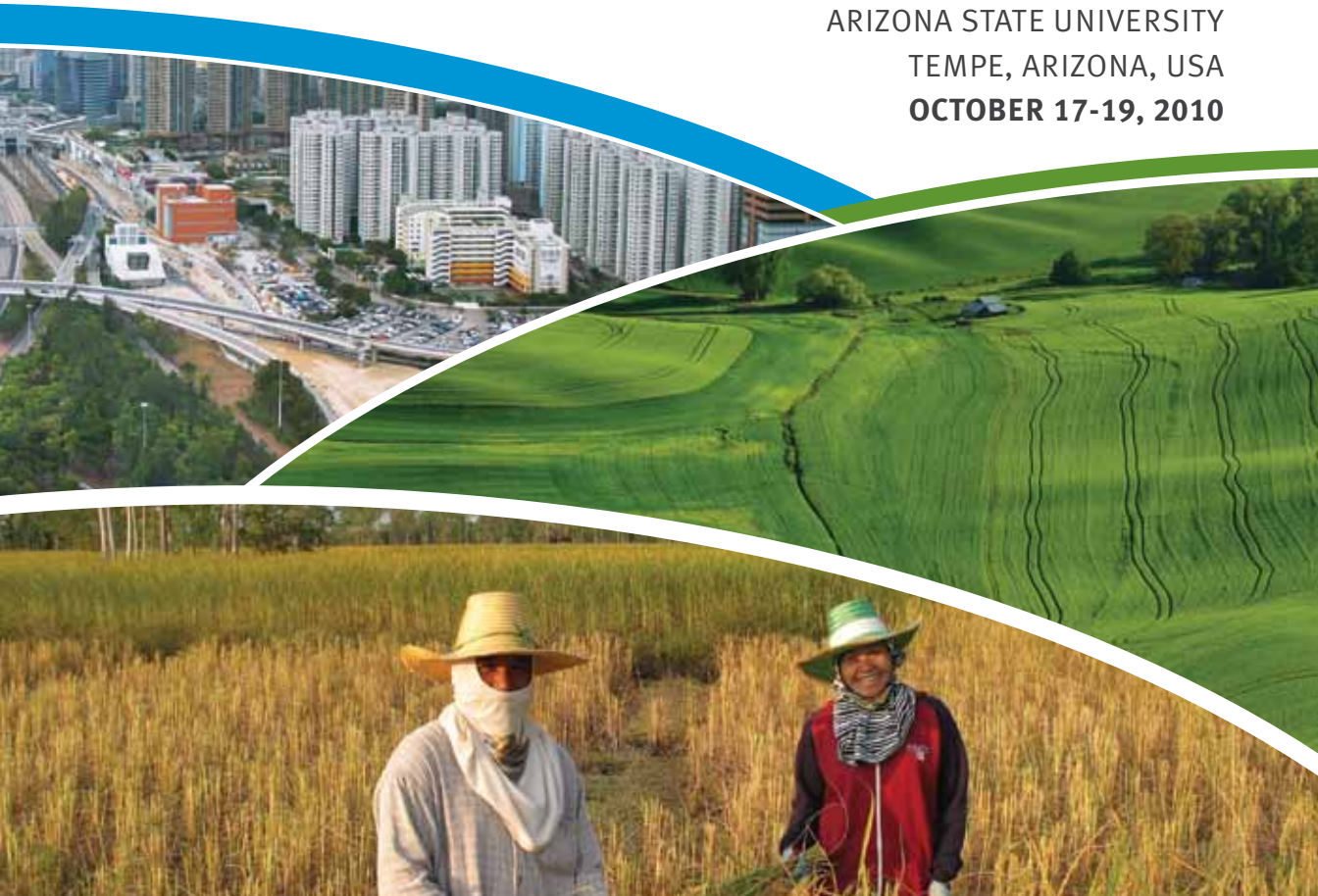




GLP 2010
OPEN SCIENCE MEETING

Land Systems, Global Change
and Sustainability

ARIZONA STATE UNIVERSITY
TEMPE, ARIZONA, USA
OCTOBER 17-19, 2010



UNIVERSITY OF
COPENHAGEN

ASU GLOBAL INSTITUTE
of SUSTAINABILITY

ARIZONA STATE UNIVERSITY



Welcome

Human transformations of ecosystems and landscapes are the largest source of change on Earth, affecting the ability of the biosphere to sustain life. Hence, a key concern of the land change science community has been improving knowledge about the complexity and dynamics of the coupled human environmental systems, which constitute humanities management of the global land resources. Given that much of these dynamics are intimately tied to urban areas, we share one day of our meetings with the Urbanization and Global Environmental Change (UGEC) program. We hope this signals the need for improved and sustained cooperation between the two communities.

The Global Land Project has now been functional as a research community for almost five years, and we are very pleased at this point in time to welcome all GLP partners to this open science meeting at Arizona State University. We trust that this event will offer excellent opportunities to share our recent advancements in land systems science and at the same time provide a platform for generation of new ideas and research challenges for the years ahead of us.

On behalf of the Organizing Committee and the Scientific Steering Committee of the GLP, we wish you all a nice stay in Arizona. Importantly we express our appreciation to all who made this conference possible through a wide variety of support. The programs and institutions supporting this meeting are noted by logo below and throughout the meeting. The collaboration with the UGEC International Project Office for this joint back-to-back conference event has been highly appreciated; without their support, together with the efficient contributions from the local ASU staffs, the practical planning would have been close to impossible. Lastly, the GLP-IPO staff, especially Tobias Langanke, deserves our thanks for their persistent effort to provide the best possible event for all of us.

B. L. Turner II
GLP-SSC & ASU

Anette Reenberg
GLP-SSC Chair & Uni of Copenhagen



Urbanization, Land-Use, Sukumawiki

Sukumawiki is a traditional Kenyan plant much like spinach. With its simple preparation, low price, high yield, and rich nutritional value it has become a staple of Nairobi's food culture. It was traditionally grown in the countryside and shipped into the city. As Kenya's population flowed into Nairobi leaving their farms to pursue education and careers, either caused by push factors like droughts or other ecological stresses or by pull factors like better education and employment, the peri-urban farming landscape has changed. Sukumawiki is now being grown in urban farms in the outer sprawl of the city and in shantytowns like Kibera, and sold frequently just minutes away in markets. Questions of land-use and urbanization – shown in a simple plant like *Sukumawiki* – are dynamic and interrelated.

The collaboration of IHDP's urbanization and land projects in this conference is an excellent example of a scientific response to the mesh of complex interrelations among the diverse drivers and affects of global environmental change (GEC). The phenomenon of urbanization is one of the major land use transitions today. Rapid urbanization poses major challenges like poverty reduction, maintenance of infrastructure and provision of social nets as well as the sustainable and equitable supply of ecosystem services. In this context, the question arises how cities, combined with strategic land-use decisions, can be drivers of sustainability transitions. Awareness, preparedness and overall effective governance mechanisms and institutions will be key to addressing these challenges. Substantial input from the social sciences is essential to finding effective solutions for the adaptation to global changes and for the development of sustainable pathways for the future.

As issues overlap scientific integration needs to emerge. I welcome and invite the shared platform provided by these two conferences to discuss pressing questions across thematic and professional boundaries, especially those between science and policy. I hope that the events send out some clear policy advice based on solid science. I wish all the participants success in the coming days!

Anantha Kumar Duraiappah

Executive Director

International Human Dimensions Programme on Global Environmental Change



Foreword IGBP

UN Secretary-General Ban Ki-moon has placed global sustainability at the top of his agenda. He says we have our foot stuck on the accelerator and we are heading for an abyss.

Global sustainability is the core of our work at the International Geosphere-Biosphere Programme. Our vision is to provide scientific leadership and knowledge of the Earth system to help guide society onto a sustainable pathway. We must do this in an era of rapid global change. Nowhere is this change more apparent than on the land. Society has fundamentally altered the face of the Earth, and we do not know the full consequences of these changes.

The Global Land Project is pivotal to increasing knowledge of the dynamics of land systems, the consequences of rapid change and resilience to global change. A major hurdle to achieving this is the gulf between social and natural scientists. The size of this gulf has reduced in the last decade, but we must do more. This is why the Global Land Project's conference is so important. It is designed to bring social and natural scientists together to build new partnerships and communities. This is an essential step as we move towards a new age in international research. The International Council for Science, IGBP's parent organisation, is developing an ambitious new vision for global sustainability research. IGBP and our projects have helped shaped this new vision. The scientific community has a responsibility to ensure it succeeds.

Professor Sybil Seitzinger
Executive Director
International Geosphere-Biosphere Programme



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INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS



IHDP
International Human Dimensions Programme
on Global Environmental Change



SCHOOL OF
GEOGRAPHICAL SCIENCES
ARIZONA STATE UNIVERSITY

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of SUSTAINABILITY

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Table of Contents

2	About the Conference
5	Conference Organizers
6	Conference Sustainability
6	Conference Stats at a Glance
8	Program Overview
10	Parallel Session Overview
12	Papers & Presenters
27	Posters
29	Plenary Speakers
34	At the Conference
34	Memorial Union
34	Registration and Information
34	Internet
34	Catering
35	Events
35	Getting Around
36	Activities
36	What to do in Tempe
36	General Information
36	Volunteers
36	Lost Objects/Badges
37	Smoking
37	First Aid / In Case of an Emergency
37	Website
37	Information on the US, Arizona, and Tempe
37	Weather
37	Contact Information
38	Maps
38	ASU Map
39	Memorial Union Map

GLP 2010

OPEN SCIENCE MEETING

Land Systems, Global Change and Sustainability

About the Conference

Human transformations of the land surface of the planet are among the largest sources of change on Earth. The rapidly accelerating change of the land systems is closely related to the last decades' unprecedented transformation of the terrestrial structure and functioning of the coupled human-environmental systems. The exploration of the coupled environment system can provide much needed insight to better develop strategies for future sustainability of the land system.

The transdisciplinary field of "Land Change Science" has contributed to global environmental change and sustainability research, and is at the heart of the GLP Science Plan. The land systems approach integrates social, ecological and geographical information/Earth observation sciences, and deals with various data, methodological and analytical challenges.

The aim of the Open Science Meeting "Land Systems, global change and sustainability" is **"to advance the science of land systems and their change for analysis and response to global change and sustainability"**.

The conference brings together large parts of the international research community working on land change issues, showcases the width and scope of ongoing research, helps building a community in this highly interdisciplinary field, and inspires new research, theory building and extrapolation.

The Open Science Meeting comes at a "midway point" in the lifespan of the GLP, where it is crucial to take stock and identify clear goals, priorities and strategies for the next phase of GLP. Hence, it will provide a opportunity for taking stock and respond to questions such as: Which regional and thematic clusters emerge and should be expanded in the coming years? Which thematic foci resonate well with the heterogenous GLP research community and how can they build on the advances made by the Land Use/Cover Change (LUCC) and Global Change and Terrestrial Ecosystems (GCTE) projects in the past?

A major theme running throughout both the UGEC and GLP conferences, and the focus of the joint day are the linkages among urbanization, land and landscapes, and climate change: The themes embedded in these linkages, constitute one of the next phases of emphasis in global change and climate change science as registered by the USCCP, IPCC, and other major agenda-setting reports forthcoming in the US and internationally.

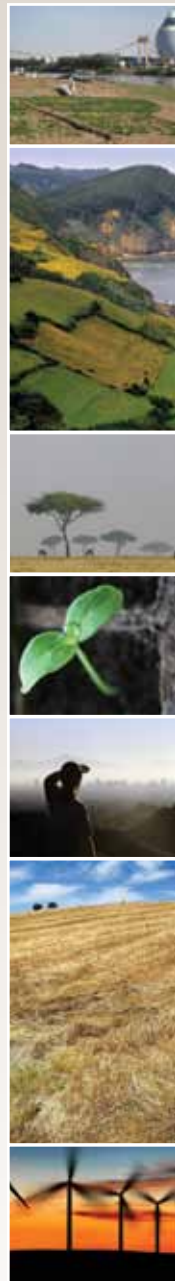
The Open Meeting will be organised around six themes, emerging from the GLP Science Plan. While important in their own right, the themes also provide conceptual and methodological insight that will be useful to investigate dynamics and resilience of land systems at local, regional or larger scales as result of the new exposures to global change:

Effects of land use change on ecosystems and their services. Questions addressed within this theme include the identification of generic pathways of ecosystem change in response to main land use transitions, key processes underlying ecosystem change in response to land use change, and their impact on ecosystem services. Key interactions between land use and other global changes (e.g. climate, nitrogen deposition, biological invasions) are also addressed here, as well as scenarios of ecosystem (service) change in response to land use transitions.

Inter-linkages between ecosystem functions, ecosystem services, including fundamental ecological processes, and human outcomes. This theme evolves around the fundamental ecological processes underlying tradeoffs and synergies among ecosystem services and addresses questions such as: How can we quantify, compare, and determine the relationships between ecosystem functions, services and human outcomes, especially in the context of quantitative assessments of the tradeoffs and synergies among ecosystem services? Methods for mapping ecosystem services and their response to global changes, including land use is also part of this theme.

Vulnerability and resilience of land systems. The issues to be discussed are addressing questions such as: What methods exist to address the concept of vulnerability and resilience of coupled natural and human systems? What is the utility of the concept of vulnerability and resilience of coupled natural and human systems? What has been learned in the last decade of application of the concept for global change studies?

Processes and pathways of change in land systems – data and modelling approaches. The question of how land use transitions can be conceptualized is considered by looking at approaches and methods for integrated land system modelling. This includes questions of the appropriate temporal and spatial scales for land dynamics studies, recent advances in land-use and land-cover mapping, and monitoring and progress in land-change science by moving beyond the variance of place-based studies.



Governance & institutions for land systems. The impacts of governance and institutions as underlying drivers and controls on land system change are explored, as well as the role of innovations in land system governance and institutions in enhancing the sustainability of land systems.

Managing land systems to cope with global change and to develop sustainable pathways for the future. This topic explores contributions and impacts of land systems to adaptation and mitigation of climate change, reduction of GHGases; forest transitions, REDD, leakages etc. It poses the question if it is possible, in a global context, to simultaneously reduce impacts of agriculture and forestry on ecosystems and enhance the provision of ecosystem services. What interventions into trajectories of human-environment systems could help to bring about future transitions towards sustainability? What are the trends, risks and opportunities in the global production of biomass/bioenergy?

17th October 2010: GLP/UGEC joint day: Sustainable land systems in the era of urbanization and climate change. This conference is organized in close cooperation with IHDP's Urbanisation and Global Environmental Change (UGEC) project, who will host their "International Conference on Urbanization and Global Environmental Change" from October 15th-17th.

The joint day on the 17th October will focus on: '*Sustainable land systems in the era of urbanization and climate change*' and explore the numerous interactions between land-change, urbanization and climate change. This joint conference day seeks to build contacts and networks among urban and land-change specialists to foster more collaboration worldwide, expanding the range of issues addressed. The day will center around five topics:

Direct and indirect interactions of urban areas and land use changes,

Competition for land,

Urban areas and climate impacts,

The impact of urbanization on a large scale (beyond urban areas) – biogeochemical cycles and ecosystem functions, and

Sustainable cities in arid areas.

The ambition of this joint conference day is to forge new relationships between the two communities of urbanization and land systems researchers, and hence to foster new collaboration worldwide, expanding the range of issues addressed.



Conference Organizers

International Science & Planning Committee

Anette Reenberg (Chair)

Department of Geography and Geology
University of Copenhagen, Copenhagen, Denmark

Richard Aspinall

Macaulay Institute
Craigiebuckler, Aberdeen, UK

Gilberto Câmara

Earth Observation Directorate
National Institute for Space Research (INPE)
Sao José dos Campos, Brazil

Abha Chhabra

Space Applications Centre
Indian Space Research Organisation
Ahmedabad, Gujarat, India

Sandra Myrna Diaz

Instituto Multidisciplinario de Biología Vegetal
Universidad Nacional de Córdoba, Córdoba, Argentina

Jonathan Morgan Grove

Northern Research Station
USDA Forest Service, Baltimore, MD, USA

Helmut Haberl

Institute for Social Ecology
University of Klagenfurt, Vienna, Austria

Anthony C. Janetos

Joint Global Change Research Institute
University of Maryland, Maryland, MD, USA

Sandra Lavorel

Laboratoire d'Ecologie Alpine
Université J. Fourier, Grenoble, France

Jiyuan Liu

Institute of Geographical Sciences and Natural
Resources Research
Chinese Academy of Sciences, Beijing, P.R.China

Cheikh Mbow

Institut des Sciences de l'Environnement
Laboratoire d'Enseignement et de
Recherche en Géomatique
Université Cheikh Anta Diop de Dakar, Senegal

Dawn C. Parker

School of Planning
University of Waterloo, Waterloo, Ontario, Canada

Hideaki Shibata

Field Science Center for Northern Biosphere
Hokkaido University, Nayoro, Japan

Susanne Stoll-Kleemann

The Global Research Centre for Biosphere
Reserve Advancement
Ernst Moritz Arndt Universität Greifswald, Greifswald,
Germany

Billie Turner II

School of Geographical Sciences & Urban Planning
Arizona State University, Tempe, AZ, USA

Tom A. Veldkamp

International Institute for Geo-Information,
Science and Earth Observation, Enschede,
The Netherlands

Karen C. Seto

Yale School of Forestry & Environmental Studies
Yale University, New Haven, CT, USA

Dennis Ojima

Natural Resource Ecology Laboratory
Colorado State University, Fort Collins, CO, USA

GLP Staff

Tobias Langanke

Executive Officer
Department of Geography and Geology
University of Copenhagen, Copenhagen, Denmark

Lars Jorgensen

Administrative Officer
Department of Geography and Geology
University of Copenhagen, Copenhagen, Denmark

ASU Staff

Sherry Spivey

Arizona State University, Tempe, USA

Conference Sustainability

We believe very strongly that it is our responsibility to put our best efforts towards making the conference event and its related activities as sustainable as possible. With an estimated 300 participants, many of whom are international attendees, we want to be conscious of and act with regards to the energy usage, waste, and greenhouse gas emissions that will be associated with the event. We'd like to share with you what the GLP project and ASU has done to help minimize the overall environmental impact of our three day conference event.

Venue: The ASU Memorial Union is LEED Gold Certified by the U.S. Green Building Council for its environmentally sustainable construction. What this means is that during its construction only regional and recycled materials were used, including local sandstone and mesquite and reclaimed metal finishes, which minimized the project's embodied energy and supported local industry. Furthermore, comprehensive recycling and green cleaning programs are promoted by the MU in day to day operations, in order to minimize ongoing environmental impacts.

Catering: We have specifically asked for items that are sustainably and locally grown, including vegetarian options and the minimal use of beef products. The ASU Catering Services is committed to reducing their impact by adhering a variety of sustainable practices.

Printing and Procurement: We have strived to make this conference as paperless as possible, minimizing the unnecessary printing of items which could easily be kept online at our conference website: www.glp2010.org. For this reason, we have chosen not to print the conference abstracts and papers, rather we've provided each participant with a 1GB flash drive with these items already uploaded. These flash drives are ROHS (Restriction of Hazardous Substances Directive) compliant and are certified not to contain lead, cadmium, or mercury. For items we felt were necessary to print, like our program, we've used FSC certified recycled paper. Our tote bags are organic cotton and the lanyards are made from natural bamboo. We also encourage each participant to recycle their plastic badge holder at the end of the conference, should you choose not to keep it. We will keep a large bin at the conference registration desk on the final day of our conference – 10/19 – for this purpose.

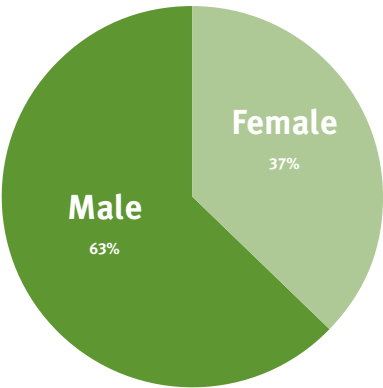
Recycling and Composting: We encourage each participant to be mindful of what they throw away and to utilize the recycling and composting bins located throughout the MU and campus as much as possible.

Travel and Emissions: The Phoenix Metropolitan Area certainly faces significant challenges when it comes to providing public transportation, as the city was designed in such a way that it promotes the use of personal vehicles. However, improvements have been made in the area of public transportation, particularly in the recent construction of the Phoenix Metro light rail system. This and a number of other public transportation options in and around Tempe are available for your use – more information about these options has been included with your conference materials.

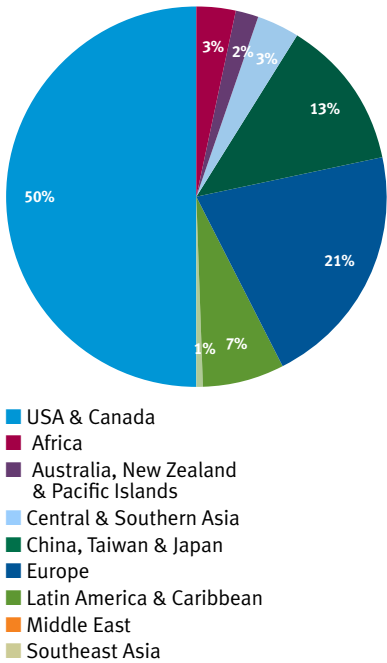
Carbon offsets: The highest impact will most certainly come from international flight travel to and from the conference. We have purposely kept our conference registration fees low, on the hope that you will consider buying your own carbon offsets for your travel.

Conference Stats at a Glance

Gender Distribution of Participant



Regional Distribution of Participant



Program Overview

Saturday October 16, 2010 GLP OSM 2010

2:00pm – 6:00pm	GLP Registration (at Memorial Union)
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Sunday October 17, 2010

JOINT UGEC/GLP DAY SUSTAINABLE LAND SYSTEMS IN THE ERA OF URBANIZATION & CLIMATE CHANGE

7:00am – 8:45am	GLP Registration (at Memorial Union)
8:45am – 9:15am	Welcoming/Opening Statements from GLP
9:15am – 10:30am	Joint UGEC/GLP Plenary 1 – Urban Land Systems and Sustainability Billie Turner II (Chair), Arizona State University, USA Karen C. Seto, Yale University, USA Marina Alberti, University of Washington, USA J. Morgan Grove, United States Forest Service, USA
10:30am – 11:00am	Break
11:00am – 1:00pm	Joint UGEC/GLP Parallel Sessions – Group J-A
1:00pm – 2:00pm	Lunch
2:00pm – 4:00pm	Joint UGEC/GLP Parallel Sessions – Group J-B
4:00pm – 4:30pm	Break
4:30pm – 5:45pm	Joint UGEC/GLP Plenary 2 – Roundtable: Opportunities and Challenges for Sustainability in Arid Cities Michael Crow, President, Arizona State University, USA (Roundtable Chair) Nancy Grimm, Arizona State University, USA Grady Gammage Jr., Gammage and Burnham PLC, USA Pat Gober, Arizona State University, USA
6:30 pm – 8:00pm	UGEC/GLP Joint Reception Co-sponsored by the Arizona State University Global Institute of Sustainability

Monday October 18, 2010 GLP OSM 2010

8:30am – 10:00am	Plenary Session 3 – Pathways to Environmental Impacts Sandra Lavorel (Chair), Université J. Fourier, France Eric F. Lambin, University of Louvain, Belgium Johnathan Foley, University of Minnesota, USA Sandra Diaz, CONICET-Universidad Nacional de Córdoba, Argentina
10:00am – 10:30am	Break
10:30am – 12:30am	Parallel Sessions – Group C
12:30am – 1:30am	Lunch
1:30pm – 3:00pm	Plenary Session 4 – Pathways to Environmental Impacts Anette Reenberg (Chair), University of Copenhagen, Denmark Emilio Moran, University of Indiana, USA Ruth DeFries, Columbia University, USA Bob Scholes, Council for Scientific and Industrial Research (CSIR), South Africa
3:00pm – 3:30pm	Break
3:30pm – 5:30pm	Parallel Sessions – Group D
5:30pm – 7:00pm	GLP Reception

Tuesday October 19, 2010 GLP OSM 2010

8:30am – 9:30am	Plenary Session 5 – Vulnerability and Resilience of Land Systems Sander van der Leeuw, Arizona State University, USA (Chair) Terry Chapin, University of Alaska, USA Hallie Eakin, Arizona State University, USA
9:30am – 10:30am	Poster Sessions
10:30am – 12:30pm	Parallel Sessions – Group E
12:30pm – 1:30pm	Lunch
1:30pm – 3:30pm	Parallel Sessions – Group F
3:30pm – 4:00pm	Break
4:00pm – 5:30pm	Plenary Session 4 – Tradeoffs for Land Systems Analysis Billie Turner II (Chair), Arizona State University, USA Kerry Smith, Arizona State University, USA Charles Perrings, Arizona State University, USA Steve Polasky, University of Minnesota, USA Ann Kinzig, Arizona State University, USA David Tilman, University of Minnesota, USA

Parallel Session Overview

Sunday October 17, 2010

JOINT UGEC/GLP DAY SUSTAINABLE LAND SYSTEMS IN THE ERA OF URBANIZATION & CLIMATE CHANGE

11:00am – 1:00pm		Parallel Sessions – Group J-A	
Rooms:	La Paz	J-A1	Direct and Indirect Interactions of Urban Areas and Land Use Changes
	Gold	J-A2	Urban Vegetation and Socio-Ecological Contexts: Heterogeneity, Trends and Implications
	Ventana A	J-A3	Urban Ecology and Global Environmental Change
	Ventana C	J-A4	Peri-Urban Development and Environmental Sustainability II: Examples From Asia & Europe
	Cochise	J-A5	Sustainable Cities in Arid Areas
	Turquoise	J-A6	Market Mechanisms In Land-Use Change Models
	Alumi	J-A7	Global Land-Use and Land-Cover Datasets – Status, Challenges and New Opportunities
	Pima	J-A8	Modeling Dynamic Urban-Environmental Interactions
	Mohave	J-A9	Advances in Urban Remote Sensing
2:00pm – 4:00pm		Parallel Sessions – Group J-B	
Rooms:	Mohave	J-B1	Sustainability Challenges Related to Urbanization in Phoenix, Arizona: Past, Present, and Future
	La Paz	J-B2	Side Event: Modeling and Forecasting Urban Land-Use Change: An Earth System Science Perspective
	Ventana A	J-B3	Land System Dynamics: Chinese Perspectives I
	Cochise	J-B4	Forest Transitions in a Global Economy
	Ventana C	J-B5	Globalizing The Case Study: Advantages And Opportunities
	Pima	J-B6	Coupled Human and Natural Systems (CHANS) in China and Nepal
	Alumni	J-B7	Evolving Urban Spatial Structure and the Environment
	Gold	J-B8	Suburban and Exurban Land Use Change Processes, Patterns and Ecological Impacts

Monday October 18, 2010

GLP OSM 2010 LAND SYSTEMS, GLOBAL CHANGE AND SUSTAINABILITY

10:30am – 12:30pm		Parallel Sessions – Group C	
Rooms:	Yuma	C1	Land Change and Sensitive Biodiversity Areas
	Arizona	C2	Land Prioritisation: Bioenergy, Food, and Other Products
	Ventana A	C3	Carbon in The Land System
	Pima	C4	Ecosystem Services: Methods, Frameworks and Tools
	Graham	C5	Land System Dynamics: Chinese Perspectives II
	Gila	C6	Water, Nutrients and Food Security
	La Paz	C7	Vulnerability and Resilience of Coupled Land Systems
	Mohave	C8	Environmental Disturbances in Heterogeneous Landscapes: Remote Sensing, Spatial Modeling and Weather Extreme Events
	Turquoise	C9	Land Use/Land Cover Change in Post-Socialist Eastern Europe and Russia
	Coconino	C10	Complexities in Land Systems: Markets and Livelihoods
	Ventana C	C11	Role of Institutions and Governance in Land Change I
	Gold	C12	Land Use, Land Use Change and Associated GHG Emissions

3:30pm – 5:30pm		Parallel Sessions – Group D
Rooms: Santa Cruz	D1	Soil Resources and Biogeochemical Cycles in Land Systems
Pima	D2	Ecosystem Services: Local to Regional Examples
Gila	D3	Land Systems and Water Resource
Mohave	D4	Vulnerability of Land Systems to Natural Hazards and Climate Change
La Paz	D5	Dryland Systems Dynamics – Driving Forces, Processes and Pathways of Change
Gold	D6	Vulnerability and Resilience Under Global Warming in Asian Dryland Systems
Graham	D7	Scaling and Governance of the Land System
Coconino	D8	Tools and Methods for Impact Assessment of Land Use Policies
Turquoise	D9	Implementing REDD in Latin America
Ventana C	D10	Role of Institutions and Governance in Land Change II

Tuesday October 19, 2010

GLP OSM 2010 LAND SYSTEMS, GLOBAL CHANGE AND SUSTAINABILITY

10:30am – 12:30pm		Parallel Sessions – Group E
Rooms: Ventana C	E1	Savanna and Grassland Systems
Pima	E2	Long-Term Socio-Ecological Research and Land-System Science
La Paz	E3	Ecosystem Services Delivered by Watersheds
Ventana A	E4	Earth Observation I
Cochise	E5	Change in Shifting Cultivation at Forest-Agriculture Frontiers I
Coconino	E6	Population and Land Use/Cover Change in Latin America
Yuma	E7	Land Change in Mountain Regions
Alumni	E8	Challenges and Opportunities in Modeling Integrated Land-Change Processes I
Graham	E9	Teaching in Land-Change Science
Gold	E10	Mitigation and Adaptation to Climate Change
1:30am – 3:30pm		Parallel Sessions – Group F
Rooms: Pima	F1	Mapping and Modelling Land Use Change Effects on Ecosystem Services
Ventana A	F2	Earth Observation II
Cochise	F3	Change in Shifting Cultivation at Forest-Agriculture Frontiers II
La Paz	F4	ARIDnet-Americas: A Research Network for Testing the Drylands Development Paradigm
Gila	F5	iLeaps Session: How Can We Properly Evaluate the Role of Land-Use Induced Land-Cover Changes in the Climate System?
Ventana C	F6	Panel: Researching Land Use Transition: Pathways to Sustainable Land Management
Arizona	F7	The Climate Change, Agriculture, and Food Security (CCAFS) Program Partnership Between The CGIAR and ESSP: The Need for Improved Land Use Modeling
Gold	F8	Challenges and Opportunities in Modeling Integrated Land-Change Processes II
Alumni	F9	Institutions and Changing Land Systems in the Americas

Papers & Presenters

Sunday October 17, 2010

JOINT UGEC/GLP DAY SUSTAINABLE LAND SYSTEMS IN THE ERA OF URBANIZATION & CLIMATE CHANGE

11:00am – 1:00pm Joint UGEC/GLP Parallel Sessions 1 – Group J-A

J-A1 DIRECT AND INDIRECT INTERACTIONS OF URBAN AREAS AND LAND USE CHANGES

Room Location: La Paz

Session Organizer(s)/Chair(s): Urbano Fra Paleo, University of Santiago de Compostela, Spain

UGEC0016: Urban Growth and its Impact on Biodiversity and Food & Livelihood Security in High Mountain Ecosystems: An Empirical Study in Kumaon Himalaya, India; Prakash Chandra Tiwari

UGEC0038: Land use changes in the context of urbanization and environmental vulnerability in Baixada Santista Metropolitan Region. Andrea Young

UGEC0098: Monitoring urban land expansion and loss of agricultural land of Xi'an, China; Li Jiang

UGEC0104: Urbanization and Cultivated Land Changes in China; Xiangzheng Deng

0147: The impact of urbanization on soil resources in the PRD: Weiping Hu

0173: Housing drives urban land change and has a climatic feedback; Alejandro de las Heras

0358: Are land systems in Japan becoming more sustainable in the era of urbanization and climate change? An educationist's view; Yukio Himiyama

J-A2 URBAN VEGETATION AND SOCIO-ECOLOGICAL CONTEXTS: HETEROGENEITY, TRENDS AND IMPLICATIONS

Room Location: Gold

Session Organizer(s)/Chair(s): Rinku Roy Chowdhury, Indiana University, USA

UGEC0127: Spatial distribution and socio-economic contexts of urban tree canopy cover in Bloomington, Indiana, USA; Sarah Mincey

UGEC0128: An interdisciplinary, multi-scalar framework for understanding the social-ecological dynamics of residential landscapes; Kelli Larson

UGEC0162: Spatial patterns and socio-ecological context of land use and vegetative cover in south Florida's suburbanization frontier; Rinku Roy Chowdhury

UGEC0175: Socio-ecological dynamics and urban vegetation in Baltimore, Maryland; J. Morgan Grove

UGEC0179: Suburbanization, Lawns, & Water: Multi-scale Dynamics in Suburban Boston, USA; Colin Polsky

0148: Spatial patterns, temporal trends and socioeconomic determinants of vegetative cover in Altamira, Brazil; Scott Hetrick

J-A3 URBAN ECOLOGY AND GLOBAL ENVIRONMENTAL CHANGE

Room Location: Ventana A

Session Organizer(s)/Chair(s): Christopher Boone, Arizona State University

UGEC 0041: San Juan ULTRA-Ex: Social-Ecological Systems Change, Vulnerability, and the Future of a Tropical City. Tischa Munoz-Erickson presented by Gil Pontius UGEC0083: Environmental drivers of urbanization: footprints bound for town? Lezlie Moriniere

UGEC0116: Assessing the impacts of urban expansion on net primary productivity of terrestrial vegetation in China from 1992 to 2008; Chunyang He

UGEC0123: Urban Ecotone: Habitat Functions of Urban River - Study Case in Megacity Taipei, Taiwan; Yu-Fang Lin

UGEC0126: Anthropogenic afforestation and ecosystem services: How urban vegetation affects ecosystem structure and function; Nancy Golubiewski

UGEC0180: Linking ecological methods to local land use law to guide land development; Alexander Felson

0135: Ecological network: a sustainable and multi-actor land systems planning in a rapid urbanization area, Shenzhen case, China; Yu-Fang Deyong

J-A4 PERI-URBAN DEVELOPMENT AND ENVIRONMENTAL SUSTAINABILITY II: EXAMPLES FROM ASIA & EUROPE
Room Location: Ventana C
Session Organizer(s)/Chair(s): Shu-Li Huang, National Tapei University, Taiwan and Peter Marcotullio, Hunter College, CUNY

UGEC0029: Field-level adaptation to floods and sea level rise in coastal peri-urban areas in monsoon Asia: comparative case studies between continental Bangkok and insular Metro Manila; Yuji Hara

UGEC0060: Peri-urbanization, Ecosystem service evaluation, and Integrated Modelling: PU-GEC Project; Shu-Li Huang

0161: European information platform for processes, problems and places of peri-urbanization; Katharina Helming

0263: Suburbanization in Shanghai: assessment, causes, and policy implications; Wenzhe Yue

J-A5 SUSTAINABLE CITIES IN ARID AREAS
Session Location: Cochise
Session Organizer(s)/Chair(s): Benjamin Ruddell, Arizona State University, USA

UGEC0109: Environmental Tradeoffs in a Desert City: An Investigation of Water Use, Energy Consumption, and Local Air Temperature in Phoenix, AZ; Darren Ruddell

UGEC0110: The Roles of Coupled Land and Water Institution in Land System Change; Sainan Zhang

UGEC0174, Mapping vulnerability on the peri-urban areas of Mexican border cities: Case studies of Northern Mexico, Rolando Diaz-Caravantes,

0328: Socio-ecological vulnerability and biological invasion at the urban-wildland interface in Arizona's Sonoran desert; Jacob Brenner

J-A6 MARKET MECHANISMS IN LAND-USE CHANGE MODELS
Session Location: Turquoise
Session Organizer(s)/Chair(s): Dawn Parker, University of Waterloo, Canada

0257: Modeling land use and structural change in agricultural systems of the Argentine Pampas; Guillermo Podesta

0373: Water basin governance; analyzing the role of land market institutions using multi-agent simulation; Nico Polman

0244: Informal Land Markets in Urban Peripheries in Latin America: Agent Behaviour, Price Formation and Land Use Changes; Moira Zellner

0303: An agent-based model of coupled housing and land markets; Nicholas Magliocca

0193: The Land-Use Change Effect of Ethanol Plants in Iowa: 1997-2008; Ruiqing Miao

0267: Assessing the spatio-temporal effects of endogenous relocation in agent-based land market models exchange models; Dawn Parker

J-A7 GLOBAL LAND-USE AND LAND-COVER DATASETS – STATUS, CHALLENGES AND NEW OPPORTUNITIES
Session Location: Alumni Lounge
Session Organizer(s)/Chair(s): Navin Ramankutty (McGill University, Canada) and Karlheinz Erb (Alpen-Adria University, Austria)

Introduction: Karlheinz Erb and Navin Ramankutty

0282: Anthromes and the Anthropogenic Biosphere: 1700 to 2000; Erle Ellis

0317: Development of a global market influence dataset to explore the role of accessibility to markets on land systems; Peter Verburg

0399: Recent progress & remaining challenges in global LUCC data sets; Navin Ramankutty

0380: Global Land Cover, Land Use, and Land Cover Change from Remote Sensing: Data Sets, Limits to Knowledge, and Current Challenges; Mark Friedl

0382: Making Global Land Use / Land Cover Information Relevant: An Example from the CROPMAPPER Project; Jonathan Foley

0392: Silk Purse from Sow's Ear or Horses for Courses? The Trials and Tribulations of Making Credible Global Assessments of the Spatial Distribution of Crop Area, Yield and Production; Stanley Wood

J-A8 MODELING DYNAMIC URBAN-ENVIRONMENTAL INTERACTIONS
Session Location: Pima
Session Organizer(s)/Chair(s): Burak Güneralp, Texas A&M University

UGEC0043: Global Multi-Scale Urban Land Cover Modeling; Michael Reilly

UGEC0056: Modelling of Urban Expansion of Greater Hyderabad Metropolitan Region in India – Scenarios for 2030; Gowtham Gollapalli

UGEC0057: Mapping the state of city systems based on remote sensing: Exergy and sustainability of urban form. Anastasia Svirejeva-Hopkins

UGEC0066: Land and Resource Use Efficiency for Built-up Environment; Burak Güneralp

UGEC0161: Urban Expansion Modeling Based on Logistic Regression and Cellular Automata: A Case Study in Wujiang; Xiaoxiang Zhang

0070: Impacts of residential and touristic urbanization on land and water resources - integrated land system modeling in a Mediterranean context. Angela Hof

0073: Rapid Urbanization and Land Fragmentation in the US Southwest: A Socio-ecological Gradient Analysis; Milan Shrestha

J-A9 ADVANCES IN URBAN REMOTE SENSING
Session Location: Mohave
Session Organizer(s)/Chair(s): Maik Netzband, Ruhr-University Bochum, Germany

UGEC0200: The global extent of urban land: current monitoring and future forecasts; Annemarie Schneider

0017: Identifying the Poor in the Cities - How can Remote Sensing help to profile poverty (slum dwellers) in megacities? Maik Netzband

0096: Methodology of classifying and detecting intra-urban land use change -- A case study of Changchun city during the last 100 years; Wenhui Kuang

0106: Relationship between land use and cover change and urban heat islands: case of Delhi Metropolitan Region; R.B. Singh

0266: The phenologies of US cities; Kirsten de Beurs

2:00pm – 4:00pm Joint UGEC/GLP Parallel Sessions 2 – Group J-B

J-B1 SUSTAINABILITY CHALLENGES RELATED TO URBANIZATION IN PHOENIX, ARIZONA: PAST, PRESENT, AND FUTURE
Session Location: Mohave
Session Organizer(s)/Chair(s): Kelly Turner, Arizona State University

UGEC0184: Crafting Sustainability Visions for Phoenix 2050; David Iwaniec

0134: Interdisciplinary Approaches to Studying Prehistoric and Historic Water and Land Use in the Phoenix Basin, Arizona; Colleen Strawhacker

0149: Are we equipped? Theoretical and methodological mismatch in applying social-ecological perspectives in urban systems. Kelly Turner

0150: Landscapes of Experience: Lived Environments in Central South Phoenix, Arizona; Katelyn Parady

0151: Urbanism, Animals, and Overexploitation: A Zooarchaeological Perspective to Cities in Arid Climates; Robin Cleland

J-B2 MODELING AND FORECASTING URBAN LAND-USE CHANGE: AN EARTH SYSTEM SCIENCE PERSPECTIVE
Session Location: La Paz
Session Organizer(s)/Chair(s): Karen Seto, Yale University; Michail Fragkias, Arizona State University

This session is the first phase of a two-part international workshop that is planned for March 2011 by the IHDP Urbanization and Global Environmental Change project (UGEC), sponsored by NASA. The session will focus on reviewing and contrasting methods of forecasting of urban land-use change and Earth system responses. In this session, participants will discuss, compare, and contrast current urban growth modeling efforts with an eye towards improving their application to developing country cities, and by developing new models that better capture the interactions between the physical expansion of urban space and global environmental change.

J-B3 LAND SYSTEM DYNAMICS: CHINESE PERSPECTIVES I
Session Location: Ventana A
Session Organizer(s)/Chair(s): Jiyuan Liu , IGSNRR CAS, China

- 0040: Analysis on the cognitions of farmers to the effect of ecological protection and construction project in Jinggang Mountain - Jitai Basin, Jiangxi Province, China; Quancin Shao
- 0117: Urban strategic eco-governance of coastal areas under rapid urbanization; Yangfan Li
- 0283: A primary study of Land cover change and its impact factors in Chenduo County, upriver regions of the Yellow and Yangtze River; Zhao Zhiping
- 0319: Allocation and Assessment of Different Crop-livestock Scenarios Based on Tradeoff Analysis: A Case Study of Yili Newly Reclaimed Area, NW China; Yang Yang

J-B4 FOREST TRANSITIONS IN A GLOBAL ECONOMY
Session Location: Cochise
Session Organizer(s)/Chair(s): Eric Lambin, University of Louvain, Louvain-la-Neuve, Belgium

- 0031: Forest transition patterns in Eastern Europe and the former Soviet Union; Tobias Kuemmerle
- 0025: Local pathways to the forest transition in Yunnan, China; Daniel Müller
- 0223: Pathways of Agricultural Expansion Across the Tropics: Implications for Forest Conservation and Carbon Emissions; Holly Gibbs
- 0079: Global displacement of land use and forest transition; Patrick Meyfroidt
- 0367: Heterogeneous Forest Impacts of Transport Infrastructure: spatial frontier dynamics & impacts of Brazilian Amazon road changes; Alexander Pfaff
- 0242: Forest consolidation dynamics in the contiguous United States of the 1990s; Giorgos Mountrakis

J-B5 GLOBALIZING THE CASE STUDY: ADVANTAGES AND OPPORTUNITIES
Session Location: Ventana C
Session Organizer(s)/Chair(s): Erle Ellis, University of Maryland

- 0009: Stationarity of land changes across time, category, and transition; Pontius for Safaa Aldwaik
- 0058: Mapping and modelling the influence of land change on the provision of ecosystem services; Peter Verburg
- 0245: Hierarchical Complex Systems Modeling (HCSM): A theoretical framework for developing a general theory of land-use systems; Nicholas Magliocca
- 0289: Accelerating Global Synthesis of Case Study Research using a Global Comparison Engine; Erle Ellis
- 0372: Using the MR POTATOHEAD ontology for agent-based land-use change models to compare and generalize case-study applications; Dawn Parker

J-B6 COUPLED HUMAN AND NATURAL SYSTEMS (CHANS) IN CHINA AND NEPAL
Session Location: Pima
Session Organizer(s)/Chair(s): Bill McConnell and Jack Liu, Michigan State University

- 0291: Reciprocal interactions between family formation and biodiversity conservation programs in the Wolong Nature Reserve, China; William McConnell
- 0296: Effects of land use change on soil C and N storage in arid and semi-arid area of China: meta-analysis; Jie Gong
- 0298: Connecting Micro-scale Fertility Decision-making with Macro-scale LULC in the Chitwan Valley, Nepal Using an Agent-based Model; Alex Zvoleff
- 0304: Interactive effects of conservation efforts and human activities on giant panda habitat dynamics inside and outside Wolong Nature Reserve, China; Andres Vina
- 0305: Evaluating the role of various forest management regimes on changes in vegetation at Chitwan National Park, Nepal; Neil Carter

J-B7 EVOLVING URBAN SPATIAL STRUCTURE AND THE ENVIRONMENT

Session Location: Alumini Lounge

Session Organizer(s)/Chair(s): Annemarie Schneider, University of Wisconsin-Madison

0146: Urbanization and land use change in China; Annemarie Schneider

0259: Forward to a post-industrial city? The evolution of the urban industrial land in Shanghai; Peilei Fan

0277: Developed land conversion in the Eastern United States: 1980 to 2000; Darrell Napton

0316: Land use, transportation and Delhi's changing environment; Rakhi Parijat

0356: Towards integrated environmental/land use planning for metropolitan regions; Ard Anjomani

0369: Planning for land use and transportation alternatives: assessing the environmental effects of alternative development patterns in Chinese cities; Weifeng Li

J-B8 SUBURBAN AND EXURBAN LAND USE CHANGE PROCESSES, PATTERNS AND ECOLOGICAL IMPACTS

Session Location: Gold

Session Organizer(s)/Chair(s): TBD

0120: Land use transition and its effect on ecosystem structure, process and service: A case study in a rapid urbanization region, Shenzhen, China; Yu Deyong

0131: From middle to upper class sprawl? Land use controls and changing patterns of suburbanization in the Northeastern United States; Thomas Rudel

0219: Exurbanization, landscape fragmentation, and changes in habitat connectivity in the Flint Hills of Kansas; John Harrington Jr.

0390: Environmental dimension of urban agriculture in the municipality of Juiz de Fora, Minas Gerais, Brazil; Camille Nolasco

Monday October 18, 2010

10:30am – 12:30pm Parallel Sessions – Group C

C1 LAND CHANGE AND SENSITIVE BIODIVERSITY AREAS

Session Organizer(s)/Chair(s): Sandra Lavorel, Université J. Fourier, France

Session Location: Yuma

0331: Assessing Resilience of Arid Region Riparian Corridors: Ecohydrology and Decision-Making in United States – Mexico Transboundary Watersheds; Christopher Scott

0145: Land use change within national parks affected by armed conflict; Guillermo Andres Ospina

0171: Land degradation and habitat loss and its impact on biodiversity in India; Sudipta Chatterjee

0188: Where have all the Chaco forests gone? The impact of changes in climate, technology and society; Marcelo Zak

0364: Can Agroforestry Conserve the Biodiversity? Study on four contrasting agroforestry land-uses from a tropical forest of Bangladesh; Sharif Ahmed Mukul

0394: Soundscape Ecology: Impacts of Land Use on Biophony, Geophony and Anthrophony of Landscapes; Bryan Pijanowski

C2 LAND PRIORITISATION: BIOENERGY, FOOD, AND OTHER PRODUCTS

Session Location: Arizona Ballroom

Session Organizer(s)/Chair(s): Helmut Haberl, University of Klagenfurt, Austria

0391: The Global Sustainable Bioenergy Project: Reconciling Large-Scale Biofuel Production with Other Land Use Priorities. Keith Kline

0086: An integrated analysis of the interrelation between food, livestock, bioenergy and climate change for the year 2050; Karl-Heinz Erb

0050: Towards an integrated socioecological understanding of spatial patterns in land-use intensity: An analysis of global HANPP; Helmut Haberl

0027: Integrative Assessment of Environmental Impact of Biofuel-driven Land Use Change; Xuesong Zhang

0300: Competition for Land due to Global Biofuels Production; Dileep Birur

0143: The impacts of cultivated land conversion on agricultural production; Qun ou Jiang

C3 CARBON IN THE LAND SYSTEM

Session Location: Ventana A

Session Organizer(s)/Chair(s): Cheikh Mbow, Université Cheikh Anta Diop-Dakar, Senegal

0239: Spatially explicit approach for ecosystem services management: insight from integrated urban-regional carbon flows in Japan; Kikuko Shoyama

0237: Trees for carbon and managing the ecosystem services trade-offs; Neville Crossman

0068: Effect of Land Use Change on Soil Organic Carbon Stock in Balkhu Khola Watershed Southwestern Part of Kathmandu Valley, Central Nepal; Susmita Dhakal

0261: Consequences of an altered fire regime on climate and carbon storage in arctic tundra ; Adrian Rocha

0248: The Australian Integrated Carbon Assessment System (AICAS): national integrated assessment of climate policy on rural land use; Brett Bryan

0320: Urbanization and China's Changing Emissions Profile: A look at urban growth, distribution and form. Peter Christensen

C4 ECOSYSTEM SERVICES: METHODS, FRAMEWORKS AND TOOLS

Session Location: Pima

Session Organizer(s)/Chair(s): Richard Aspinall, Macaulay Institute, UK

0287: Incorporating functional diversity and social heterogeneity in the assessment of ecosystem services; Sandra Díaz

0217: Complex land and ecosystem accounting of human footprints; David Vackar

0144: Understanding Human-Landscape System Dynamics in the Jungle Rubber Landscape, Jambi Province, Sumatra Indonesia; Grace Villamor

0090: Landscape services and locational-based indicators for sustainable spatial development; Jürg Altwegg

C5 LAND SYSTEM DYNAMICS: CHINESE PERSPECTIVES II

Session Location: Graham

Session Organizer(s)/Chair(s): Jiyuan Liu, IGSNRR CAS, China

0279: Positive Vegetation Changes in China since 2000; Dong Yan

0389 Approaches to resources flow and its environmental impacts in China; Shengkui Cheng

0014: Modelling China land use in response to global change; Xuefeng Cui

0251: Scales and Standpoints in the Driving Forces Analysis of Karst Rocky Desertification in Southwestern China; Xiang Yan

C6 WATER, NUTRIENTS AND FOOD SECURITY

Session Location: Gila

Session Organizer(s)/Chair(s): Joerg Priess, Helmholtz-Centre for Environmental Research, Germany

0292: Shifting Geographies of Food Security: The Rise of Irrigated Maize in Sinaloa, Mexico; Hallie Eakin

0198: Trade-off between the exploitation of water resources and food production; Joerg Priess

0089: Crop and tillage system effects on water use efficiency of rainfed agriculture; Elke Noellemeyer

0226: Climate variability and crop yields in East Africa: a model comparison approach; Pedram Rowhani

0299: The African Green Revolution: Can Malawi be "The Green Belt?"; Gillian Galford

C7 VULNERABILITY AND RESILIENCE OF COUPLED LAND SYSTEMS

Session Location: La Paz

Session Organizer(s)/Chair(s): TBD

0034: Putting it all together: a comparison of methods to derive composite vulnerability indices; Elia Machado

0271: Land Use Management and Coping Behaviours with Climate Change-A case study of Southern Zambia; Hidetoshi Miyazaki

0366: Water and Vulnerability: Building Adaptive Capacity in Urban Areas of the U.S.-Mexico Border; Margaret Wilder

0071: Implications of Urbanization and Land Use Changes on Life Sustainability in Anambra State, Nigeria.; Chizoba Chinweze

C8 ENVIRONMENTAL DISTURBANCES IN HETEROGENEOUS LANDSCAPES: REMOTE SENSING, SPATIAL MODELING AND WEATHER EXTREME EVENTS

Session Location: Mohave

Session Organizer(s)/Chair(s): Laura Schneider (Rutgers University, USA); Maria Uriarte (Discussant, Columbia University, USA)

0107: Hurricane Dean's impacts to Forests in the Mesoamerican Biological Corridor Sian Ka'an-Calakmul, Mexico: Understanding regional variability; Laura Schneider

0314: Vegetative variability in the context of disturbance events--patterns of landscape change in the Mexican Yucatán Peninsula before, during, and after Hurricane Dean; Zachary Christman

0315: Assessment of Damage resulting from Hurricane Dean in the Yucatán Peninsula, Mexico, and its Connection to Fire and Land Cover Change; John Rogan

0347: Temporal Intensification of Shifting Maize Cultivation in the Southern Yucatan and its Impacts on Successional Forests; Birgit Schmook

C9 LAND USE/LAND COVER CHANGE IN POST-SOCIALIST EASTERN EUROPE AND RUSSIA

Session Location: Turquoise

Session Organizer(s)/Chair(s): Patrick Hostert , Humboldt-University Berlin, Germany

0030: Post-Soviet farmland abandonment and carbon storage potential in Western Ukraine ; Tobias Kuemmerle

0350: Land-use changes after the Chernobyl meltdown and the collapse of the Soviet Union - learning from socio-economic disturbances; Patrick Hostert

0033: Determinants of Post-Socialist Farmland Abandonment in Ukrainian Carpathians; Matthias Baumann

0041: Land use and land cover changes in the Polish Carpathians until 2050; Katarzyna Ostapowicz

0345: Impact of rapid socio-economic change on land-use: detecting agricultural land abandonment and analyzing its drivers in post-Soviet Russia; Alexander V. Prishchepov

0243: Assessment of sustainable land use opportunities on abandoned land in the former Soviet Union; Florian Schierhorn

0265: Land Change in Russia since 2000; Kirsten de Beurs

C10 COMPLEXITIES IN LAND SYSTEMS: MARKETS AND LIVELIHOODS

Session Location: Coconino

Session Organizer(s)/Chair(s): Eric Keys, University of Florida, USA

0091: Southern African livelihood and land cover change as a response to institutional and environmental change; Eric Keys

0370: Hype or Hope? Exploring connections between certified coffee and sustainable pathways; Ximena Rueda

0344: Coca, anti-narcotics policies and land change in Bolivia: the changing roles of governance and institutions; Andrew Millington

0309: Contributing a piece to the Land Change Science (LCS) and Sustainability Science (SS) puzzle: A proposed analytical framework of Land Governance (LG); Julio Postigo

C11 ROLE OF INSTITUTIONS AND GOVERNANCE IN LAND CHANGE I

Session Location: Ventana C

Session Organizer(s)/Chair(s): Morgan Grove, US Forest Service

0036: Institutions for Land Governance and its Impacts on Land System in Oguni, Kumamoto Prefecture, Japan; Eniola Fabusoro

0093: Human dimensions of land use and cover changes in Southern Brazil coastal zone: elements for coastal management; Tatiana Silva

0269: Traditional land-use institutions and the biophysical ecology of landscape change in West African savannas; Chris S. Duval

0013: Building upon Ostrom: A Tool for Simulating Common-Pool Resource Problems; Julia Schindler

0123: Innovation in governance towards sustainable land management; Thomas Weith

C12 LAND USE, LAND USE CHANGE AND ASSOCIATED GHG EMISSIONS

Session Location: Gold

Session Organizer(s)/Chair(s): Alexander Popp, Potsdam Institute for Climate Impact Research

0360: Brazilian Amazonia Deforestation greenhouse gases emission estimation: taking spatial and process heterogeneity into account; Ana Paula Aguiar

0311: Burning questions: Landscape diversity and greenhouse gas emissions from savanna fires in northern Côte d'Ivoire; Moussa Kone

0381: Examining fire radiative energy from biomass burning in the Legal Amazon and the connection with deforestation trends. Evan Ellicott

0113: Food consumption, diet shifts and associated non-CO2 greenhouse gases from agricultural production; Alexander Popp

0020: Towards Low Carbon Cities through Land Use and Modal Shift: A Case study of Yokohama. Noriko Kono

3:30pm – 5:30pm Parallel Sessions – Group D

D1 SOIL RESOURCES AND BIOGEOCHEMICAL CYCLES IN LAND SYSTEMS

Session Location: Santa Cruz

Session Organizer(s)/Chair(s): Hideaki Shibata, Hokkaido University, Japan

0231: Spatio-temporal patterns of fertilizer use in India and case study for nitrogen leaching loss; Abha Chhabra

0075: Soil loss evaluation index application and comparison with RUSLE: a case study in Yanhe Watershed of the Loess Plateau of China; Wenwu Zhao

0220: Modeling the impact of Land use and Land Cover Changes on sediment load of an Urban Lake; Shakil Romshoo

0153: Effects of land use and climate changes on terrestrial carbon and water cycles in monsoon Asia; Hanqin Tian

0172: Exchanges underpin a theory of land change; Alejandro de las Heras

0023: The impact of Land Cover Change on a large river basin with regards to erosion vulnerability and flooding; Kay Thwe Hlaing

D2 ECOSYSTEM SERVICES: LOCAL TO REGIONAL EXAMPLES

Session Location: Pima

Session Organizer(s)/Chair(s): Sandra Lavorel, CNRS, France

0125: A preliminary, spatially-explicit ecosystem services assessment for Grand Forks County, North Dakota; Michael Hill

0164: Using plant functional traits to understand the landscape distribution of multiple ecosystem services; Sandra Lavorel

0099: Land Use Change and Its Impact on Ecosystem Services in China; Jiyuan Liu

0258: The importance of payments for ecosystem services as drivers of land-use change in Yunnan, China; Zhanli Sun

0053: Implementing an Ecosystem Approach for Multi-scale Land Management; Carol Stannard

0116: Examining the loss of ecosystem service value in response to rapid urban sprawl in the Beijing-Tianjin-Tangshan urban agglomeration, China; Chunyang He, Xiaobing Li

D3 LAND SYSTEMS AND WATER RESOURCE

Session Location: Gila

Session Organizer(s)/Chair(s): Maria Uriarte, Columbia University, USA

0104: Effects of forest recovery, urban expansion, and climate variability on water provision in a tropical landscape; Maria Uriarte

0127: Modelling the spatiotemporal development of irrigated area in the Mediterranean region; Ruediger Schaldach

0241: Impact assessment of land use change on water system in the Pearl River Delta; He Qing

0082: Land Change in the Kenai River Watershed, Alaska: A Boreal Case Study; Shana Loshbaugh

0249: Adaptive Water Management in the United States – Mexico Border Region: Agriculture and Urban Growth under Climate Change and Variability; Christopher Scott

0049: Water Supply Drought Vulnerability Assessment in the Arizona Desert; Kristine Uhlman

D4 VULNERABILITY OF LAND SYSTEMS TO NATURAL HAZARDS AND CLIMATE CHANGE

Session Location: Mohave

Session Organizer(s)/Chair(s): Marcus Kaplan, German Development Institute, Bonn, Germany

- 0024: Interactive Impacts of Climate Change and Human-induced Soil Degradation on Drought and Flooding Disasters in China; Fulu Tao
- 0276: Recovery of agricultural fields from the 2004 tsunami in Nagapattinam district, Tamil Nadu, India; Takashi Kume
- 0029: Vulnerability of Coupled Socio-ecological Systems to Natural Hazards in Coastal Zones; Marcus Kaplan
- 0318: Shock sensitivity, land use recovery and resilience: Lessons learned from the Indian Ocean's tsunami affected farmers in Tamil Nadu, India; Thamana Lekprichakul
- 0066: Migration and reclamation in Northeast China in response to climatic disasters events in North China during the past 300 years; Yu YE
- 0195: Simulating possible influence of drought transition on land use in the farming pastoral zone of northern China; Li Xiaobing
- 0387: Community Adaptation To Inundation Of Islands Induced By Climate Change: An Exploratory Study From Indian Sundarbans, A World Heritage Site; Indrila Guha

D5 DRYLAND SYSTEMS DYNAMICS – DRIVING FORCES, PROCESSES AND PATHWAYS OF CHANGE

Session Location: La Paz

Session Organizer(s)/Chair(s): Anette Reenberg, Copenhagen University, Denmark

- 0371: The re-greening of Sahel: merging a view from above with one from below; Elin Enfors
- 0246: Vegetation impoverishment despite “greening”: a case study from Senegal; Stefanie Herrmann
- 0169: Towards modelling of land use change in agro-pastoral systems on the desert margins of Sahel; Laura Vang Rasmussen
- 0202: Restoring degraded ecosystems in the Namib Desert, Namibia; Emily Mutota
- 0185: Land use changes and sustainability evaluation- a case study in the semiarid area of China; Fengrong Zhang

D6 VULNERABILITY AND RESILIENCE UNDER GLOBAL WARMING IN ASIAN DRYLAND SYSTEMS

Session Location: Gold

Session Organizer(s)/Chair(s): Dennis Ojima, The Heinz Center, Washington, USA

- 0101: Dryland research in Monsoon Asia Integrated Regional Study (MAIRS); Likun Ai
- 0021: Mitigating LUCC induced vulnerability through ensuring inclusive development in India: contribution towards Land Change Science; R.B. Singh
- 0124: Vulnerability assessment of agricultural production to climate change based on a farm household model: a case study in Guyuan County; Xiangzheng Deng
- 0228: Vulnerability and resilience of pastoral social-ecological systems in Mongolia; T Chuluun
- 0321: Regional approach toward an integrated assessment of coping strategies for Dryland Systems of Monsoon Asia; Dennis Ojima
- 0334: Land cover change over the past thirty years within the MAIRS dryland region; Jiaguo Qi

D7 SCALING AND GOVERNANCE OF THE LAND SYSTEM

Session Location: Graham

Session Organizer(s)/Chair(s): Tom Veldkamp, ITC, Twente University, The Netherlands

- 0396: Spatial-scale sensitivity in modelling deforestation patterns: issues for modellers and implications for policy makers; Kasper Kok
- 0378: Scaling and Governance: Global empirical analysis of effects of governance on area- and yield change, and Multi-agent modeling of food- and land price changes inducing governance on varying spatial scale; Menno Mandemaker
- 0385: From scaling to governance in agri-environmental management: bridging ecologic and economic perspectives; Nico Polman
- 0118: Public engagement: improving bridges between institutional arrangements and local actions in the Lake Eyre Basin, Australia; Tom Measham

D8 TOOLS AND METHODS FOR IMPACT ASSESSMENT OF LAND USE POLICIES

Session Location: Coconino

Session Organizer(s)/Chair(s): Katharina Helming (Leibniz Centre for Agricultural Research (ZALF), Germany) & Lin Zhen (IGSNRR CAS, China)

0084: Impact Assessment of Land Use Changes in China; Lin Zhen

0109: Ex-ante impact assessment of land use policies - reform scenarios of the European Common Agricultural Policy; Katharina Helming

0061: Analysing competing land-use claims and tradeoffs resulting from climate adaptation in Europe; Peter Verburg

0221: Sustainability Impact Assessment Tools to support the development of policies leading to land use change processes: the Sensor Project approach applied to sugarcane expansion in Brazil; Heitor Coutinho

0129: A global change scenario analysis for North Dakota: Initial results; Michael Hill

0255: The use of scenarios and photo realistic images for understanding land use change possibilities; Derek Van Berkel

D9 IMPLEMENTING REDD IN LATIN AMERICA

Session Location: Turquoise

Session Organizer(s)/Chair(s): Ruth DeFries, Columbia University, USA

0325: The potential ecological costs and co-benefits of REDD: a review and case study from the Amazon region; Claudia Stickler

0359: Land Use Change in Amazonia: Institutional Analysis and Modelling at multiple temporal and spatial scales; Ana Paula Aguiar

0368: Protected Areas & Brazilian Amazon Deforestation: modelling and testing the impacts of varied PA strategies; Alexander Pfaff

0200: ProAmbiente: Initial lessons from an environmental service program in Amazonia; Jacqueline Vadjunec

xxxx: Gilberto Camara ; Governance Strategies in Amazonia: Comparing REDD with multi-dimensional policies

D10 ROLE OF INSTITUTIONS AND GOVERNANCE IN LAND CHANGE II

Session Location: Ventana C

Session Organizer(s)/Chair(s): Morgan Grove, US Forest Service

0136: Understanding the role of actor relations in responding to change in socio-ecological systems: The case of water quality in the Berg River catchment, South Africa; Nadine Methner

0176: Anticipatory Governance: A New Model for Social Resiliency; Ray Quay

0353: Shocks to the System: A Case Study of Changing Forests in Wallowa County, Oregon with Implications for Working and Managed Landscapes; Forrest Stevens

0352: Understanding the market for land-change information: challenges in and opportunities for reconciling supply and demand; Kathleen Bell

Tuesday October 19, 2010

10:30am – 12:30pm Parallel Sessions – Group E

E1 SAVANNA AND GRASSLAND SYSTEMS

Session Location: Ventana C

Session Organizer(s)/Chair(s): Bob Scholes, Council for Scientific and Industrial Research, South Africa

0268: The domesticated biome? Situating humans within ecological models of savanna dynamics; Paul Laris

0349: Effects of land-use change on the production of ecosystem services in an Ecuadorian páramo grassland; Carol Harden

0042: Grassland degradation in the "Three-River Headwaters" region Qinghai Province; Zhao Zhiping

0114: Quantifying ecological resilience in African savannas; Cerian Gibbes

0175: Urbanisation and landuse change response to climate change in the Nigerian Savannah; Mayona Faso

E2 LONG-TERM SOCIO-ECOLOGICAL RESEARCH AND LAND-SYSTEM SCIENCE

Session Location: Pima

Session Organizer(s)/Chair(s): Dennis Ojima (The Heinz Center, USA) and Helmut Haberl (University of Klagenfurt, Austria)

0045: Long-term socioecological research (LTSER) & global land-change science: conceptual considerations; Simron Jit Singh

0340: Implementation of Long-term Socio-ecological Research (LTSER) in LTER-Europe to facilitate integrated research on ecosystem functions and ecosystem services; Michael Mirtl

0211: The French Alps long-term socio-ecological research platform; Sandra Lavorel

xxxx: The International Long Term Ecological Research Ecosystem Services Assessment Initiative; Patrick Bourgeron

0028: Linkage between ecosystem structures, functions and services under forestry activities in cool-temperate forest catchments in northern most of Japan; Hideaki Shibata

0105: Long term changes in the Human Appropriation of Net Primary Production: An analysis of trends and patterns from national case studies; Fridolin Krausmann

0386: Socioecological transitions and land-system science: an LTSER perspective; Helmut Haberl

E3 ECOSYSTEM SERVICES DELIVERED BY WATERSHEDS

Session Location: La Paz

Session Organizer(s)/Chair(s): Patricia Balvanera (Universidad Nacional Autónoma de México, Mexico) and Laura Lopez-Hoffman (ASU, USA)

0234: The regulating services of water supply to the commercial traffic through the Panama Canal; Silvio Simonit and Charles Perrings

0063: Developing interdisciplinary frameworks and tools to analyze ecosystem services; Patricia Balvanera

0307: Social perception about river - riparian systems at Cuitzmala River Watershed, Jalisco, México. Adriana Flores

0056: Ecosystem services, binational water management, and decision support in the Santa Cruz Watershed Ecosystem Portfolio Model (SCWEPM); Laura M. Norman

0393: Land use legacies: coupling a Backcast land use change and groundwater travel time model for watershed management; Bryan Pijanowski

E4 EARTH OBSERVATION I

Session Location: Ventana A

Session Organizer(s)/Chair(s): Gilberto Camara, National Institute for Space Research, INPE, Brazil

0081: The Dynamic Human Footprint: How Rapid and Pervasive is US Land Cover Change? Mark Drummond

0156: Connecting Changes in Vegetation to Geography, Climate, and Land Use in East Africa; Matthew Williams

0218: Assessing Landscape-Scale Ecosystem Processes using MODIS Product Time Series: case studies at land validation cores site in forest, grassland and savanna; Michael Hill

0272: Extracting "land use" by object-oriented analysis, digital photogrammetry, and GIS analysis using ALOS images; Takafumi Miyasaka

0354: Land cover classification in Central Arizona using high resolution satellite imagery; Christopher Galletti

0322: Forest Cover Change Assessment at the Global Scale; Chengquan Huang

E5 CHANGE IN SHIFTING CULTIVATION AT FOREST-AGRICULTURE FRONTIERS I

Session Location: Cochise

Session Organizer(s)/Chair(s): Ole Mertz, Copenhagen University, Denmark

0015: Expansion of rubber (*Hevea brasiliensis*) in Montane Mainland Southeast Asia and implications for the environment and human livelihoods; Jefferson Fox

0326: Transition in a shifting cultivation system in the Atlantic Rainforest (Brazil): changes in the landscape and livelihoods in the last five decades; Cristina Adams

0080: Local environmental perceptions and social-ecological feedbacks in the forest transition in Vietnam; Patrick Meyfroidt
xxxx: Examining the disconnect between formal and informal tenure regimes in Northern Negros Natural Park, Philippines; Dominique Werboff

E6 POPULATION AND LAND USE/COVER CHANGE IN LATIN AMERICA

Session Location: Coconino

Session Organizer(s)/Chair(s): David Lopez- Carr, University of California, Santa Barbara, USA

0285: Population change in Latin America and the Caribbean, 1990-2000, a spatial time series; Susana B. Adamo
0286: Globalization, land cover, population, climate, and topography relationships in the subtropical forests of South America; Ricardo Grau
0288: Migration, Remittances, and Cattle: Implications for Land Use Change and Food Security in Central America; Jason Davis
0306: Space, Place, Population and Tropical Deforestation in Latin America; David Lopez-Carr
0310: Conservation planning using land use/cover change and biodiversity distribution: A case study of Michoacán, Mexico; Azucena Perez-Vega
0313: Vegetation and demographic dynamics at the municipality scale in Mexico; Martha Bonilla-Moheno
0330: Population and agriculture dynamics: the deforestation/reforestation of Latin America; Mitchell Aide

E7 LAND CHANGE IN MOUNTAIN REGIONS

Session Location: Yuma

Session Organizer(s)/Chair(s): Gregory Greenwood, Mountain Research Initiative (MRI), Bern, Switzerland

0177: Globalisation, Urbanisation and Land Use Transition: A Spatio-Temporal Analysis of Western Himalaya; Bindhy Wasini Pandey
0262: Implications of global change for high Andean biodiversity and land cover: Examples from Peru; Kenneth Young
0046: Linking forest-landscape and agricultural land-use models to assess climatic and land-use change impacts on ecosystem services in mountainous regions: A case study in Davos, Switzerland; Simon Briner
0302: Modelling land use decisions with Bayesian Networks to support the development of robust land management strategies for mountain regions facing global change; Julia Braendle

E8 CHALLENGES AND OPPORTUNITIES IN MODELING INTEGRATED LAND-CHANGE PROCESSES I

Session Location: Alumni

Session Organizer(s)/Chair(s): Dan Brown, University of Michigan, USA

0097: Land use change as a punctuated-equilibrium process; Navin Ramankutty
0052: Time in land change models; Carol Stannard
0035: Handling Multidimensional Heterogeneity in LULC Changes: The Survival Analysis Framework; Li An
0278: Framework for modeling effects of land use and land management processes on vegetation productivity and carbon storage in exurban Southeastern Michigan; Dan Brown
0078: Developing a Model of Ecosocial Feedback for Multifunctional Agriculture as a Pathway to Land-Change Sustainability; Steven Manson
0002: Comparison of Three Maps at Multiple Resolutions: a case study of land change simulation in Cho Don District, Vietnam, Robert Gilmore Pontius Jr
0235: Evaluating land use decision mechanisms using time-dependent global sensitivity analysis; Arika Ligmann-Zielinska
0225: Examining the contradiction in "sustainable urban growth": An example of groundwater sustainability; Moira Zellner

E9 TEACHING IN LAND-CHANGE SCIENCE

Session Location: Graham

Session Organizer(s)/Chair(s): Dawn Parker, University of Waterloo, Canada

0348: Do transdisciplinary fields require transdisciplinary teaching? Kathleen Bell
0377: Teaching land change science with research questions, GIS data, and student diversity, sans books; Robert Gilmore Pontius Jr.
0351: Open-source Sustainability Laboratory Curriculum Design; Kirstie Stramler
xxxx: Open ABM: Education and teaching infrastructure for computational land-change modelling Dawn C. Parker, Nathan Rollins, Michael Barton, and Marco Janssen

E10 MITIGATION AND ADAPTATION TO CLIMATE CHANGE: AGRICULTURAL AND WATER SYSTEMS

Session Location: Gold

Session Organizer(s)/Chair(s): Richard Aspinall, Macaulay Land Use Research Institute, UK

- 0126: Climate impacts: a meta-analysis of connections in a coupled human and natural system; Lezlie Moriniere
- 0010: Methodology for Adaptation to Climate Change: Future Management of Trade-offs in Agricultural Production vs. Water Quality in Korea; John Tenhunen
- 0140: Land use/cover change through agricultural adaptations against climate extremes in Europe; Benjamin Stuch
- 0155: Innovations to improve adaptation to climate change in the agrarian Communities of Uganda; Daniel Luliro Nadhomi
- 0343: Integrating watershed simulation - landscape optimization approach to climate change and adaptation: developing sustainable pathways for the future; In-Young Yeo
- 0208: The response diversity of agricultural land use to climate change in Mid-Eastern Inner Mongolia: comparison between warming and drought; Jinwei Dong
- 0112: The potential contribution of bioenergy to climate change mitigation including its costs and side effects; Alexander Popp

1:30pm – 3:30pm Parallel Sessions – Group F

F1 MAPPING AND MODELLING LAND USE CHANGE EFFECTS ON ECOSYSTEM SERVICES

Session Location: Pima

Session Organizer(s)/Chair(s): Dawn Parker (University of Waterloo, Canada) and Peter Verburg (VU University Amsterdam, The Netherlands)

- 0051: Representation and Mapping of Ecosystem Services in Land Systems; Carol Stannard
- 0098: Data-model fusion for evaluating ecosystem services under climate change and land-use change; Akihiko Ito
- 0253: Locating and quantifying ecosystem services for better targeting of rural land use policy; Derek Van Berkel
- 0295: Optimizing Timber Harvest and Ecosystem Service Provision in the Willamette River Basin; Seth Binder
- 0141: An integrated system-dynamic model of land-use change in Austria 1830-2000: concept and implementation; Veronika Gaube
- 0154: A new model based on Cellular Automatic ingrating ecosystem Service to optimize ecological land distribution-A case study for Shenzhen, China; Shiqiang Du

F2 EARTH OBSERVATION II

Session Location: Ventana A

Session Organizer(s)/Chair(s): Gilberto Camara, National Institute for Space Research, INPE, Brazil

- 0128: Evaluation of MODIS LAI in drylands of Central Kazakhstan using in situ measurements; Martin Kappas
- 0085: Integrating remote sensing and statistical techniques to quantify and monitor tea plantations in North East India; Rishiraj Dutta
- 0087: Advances in land cover classification at regional scale and a case study in the Brazilian Amazon with the integration of MODIS and RADARSAT data; Dengsheng Lu
- 0379: On the broadscale relationship between changes in Vegetation Phenology and changes in Precipitation and Temperature for Eurasia and Africa, 1982 – 2008; Keith McCloy
- 0324: Reconstruct land change history using dense time series of satellite observations; Chengquan Huang

F3 CHANGE IN SHIFTING CULTIVATION AT FOREST-AGRICULTURE FRONTIERS II

Session Location: Cochise

Session Organizer(s)/Chair(s): Ole Mertz, Copenhagen University, Denmark

- 0376: Shifting cultivation change – a global assessment of trends, drivers and impacts; Nathalie van Vliet
- 0284: Bridging the gap between land cover and land use: the case of shifting cultivation landscapes in Lao PDR; Andreas Heinimann
- 0294: An assessment of the extent and the dynamics of shifting cultivation for mainland Southeast Asia using the MODIS fire hotspots; Daniel Müller
- 0273: Shifting cultivation systems - carbon sinks or sources? Cornelia Hett

F4 ARIDNET-AMERICAS: A RESEARCH NETWORK FOR TESTING THE DRYLANDS DEVELOPMENT PARADIGM

Session Location: La Paz

Session Organizer(s)/Chair(s): James F. Reynolds, Duke University, USA

0312: Overview of ARIDnet: Principles of the Drylands Development Paradigm (DDP); Amapola-Huasteca Sur case studies; Elisabeth Huber-Sannwald

0365: The Quesungual (Honduras) ARIDnet Case Study: An Analysis of Changing Human-Ecological Relationships and Drivers of the Quesungual Agroforestry System; Miguel Ayarza

0290: The San Luis (Central Argentina) ARIDnet Case Study: I. Social, Economic and Institutional Drivers of Land Degradation; Gabriela Valdivia

0308: The San Luis (Central Argentina), ARIDnet Case Study: II. Biophysical Drivers of Land Degradation; Diego Steinaker

0329: The Mixteca Alta (Oaxaca, Mexico) ARIDnet Case Study: Applying the DDP to assess the biophysical and socioeconomic drivers of land degradation and restoration potential; Jutta Blauert

0357: ARIDnet-Americas: Testing the Utility of the DDP in Latin America – What we Learned from 11 Case Studies of Land Degradation and Desertification; James Reynolds

0327: Sustainable Land Use Planning: a Holistic, Integrated Approach; Jeffrey Herrick

F5 iLEAPS SESSION: HOW CAN WE PROPERLY EVALUATE THE ROLE OF LAND-USE INDUCED LAND-COVER CHANGES IN THE CLIMATE SYSTEM?

Session Location: Gila

Session Organizer(s)/Chair(s): Nathalie de Noblet-Ducoudré, CEA-CNRS-UVSQ, France

0018: Exploring the Interactions Between Climate Mitigation and Land Use with a Global Integrated Assessment Model; Allison Thomson

0094: Feedback Between Climate and the Land Surface is Essential for the Land Surface Ecosystem's Resilience; Benjamin Ruddell

0103: How Will the European Agricultural Supply Impact the Net Biosphere-Atmosphere Exchanges of GHG, Water and Energy Under Climate Change? A Modelling Approach; David Leclere

0139: What Have Been the Robust Biogeophysical Impacts of Land-Use Induced Land-Cover Changes on Climate Since 1850? Nathalie de Noblet-Ducoudré

0203: Biophysical Versus Carbon Cycle Effects of Historical Deforestation; Julia Pongratz

0301: Investigating the Climate Impacts of Historical and Future Land Cover Change in the Community Climate System Model; Peter Lawrence

F6 PANEL: RESEARCHING LAND USE TRANSITION: PATHWAYS TO SUSTAINABLE LAND MANAGEMENT

Session Location: Ventana C

Session Organizer(s)/Chair(s): Anette Reenberg, Copenhagen University, Denmark

Discussants: Emilio Moran (Indiana University, USA), Dawn Parker (University of Waterloo, Canada)

0252: Introducing the theme: An integrated framework to understand local-to-global processes of land system change; Mark Rounsevell (intro)

0215: Land-use intensification: The need for innovative concepts to analyze system interdependencies; Karl-Heinz Erb

0342: Using a syndromes approach to describe archetypes of land change; Tobias Kuemmerle

0216: Scrutinizing decision-making structures and processes - focusing on links between levels; Anne Gravsholt Busck

0230: Complementary strengths of top-down and bottom-up approaches to land use change analysis: linking macro-level models to agent-based analysis; Peter Verburg

0274: Consistent top-down modeling of land use change: from global macro-economic drivers to local ecosystem service provision; Hermann Lotze-Campen

0212: Integrated models for assessing ecosystem services - towards refined assessment of ecosystems service response through inclusion of land management information; Sandra Lavorel

F7 THE CLIMATE CHANGE, AGRICULTURE, AND FOOD SECURITY (CCAFS) PROGRAM PARTNERSHIP BETWEEN THE CGIAR AND ESSP: THE NEED FOR IMPROVED LAND USE MODELING

Session Location: Arizona Ballroom

Session Organizer(s)/Chair(s): Gerald Nelson, International Food Policy Research Institute, Washington, USA

The new CCAFS partnership is designed to bring together the world's best agricultural scientists with those from the ESSP working on climate change issues to address the threats that climate change poses. This session brings together speakers from ESSP and the CGIAR to discuss the goals of CCAFS, the need(s) for land use modeling and the opportunities for GLP (and other) researchers to contribute to the research development and implementation process.

0256: The Climate Change, Agriculture, and Food Security (CCAFS) Program Partnership between the CGIAR and ESSP: The Need for Improved Land Use Modeling; Gerald Nelson

Short presentations by DeFries and Scholes

F8 CHALLENGES AND OPPORTUNITIES IN MODELING INTEGRATED LAND-CHANGE PROCESSES II

Session Location: Gold

Session Organizer(s)/Chair(s): Dan Brown, University of Michigan, USA

0166: An agent-based model of land use and smallholder resilience to climate variability in rural Zambia; Tom Evans

0384: Linkages between social-economic processes, land use and nitrogen flows: An integrated socioecological model for the municipality Reichraming, Austria; Veronika Gaube

0002: Comparison of Three Maps at Multiple Resolutions: a case study of land change simulation in Cho Don District, Vietnam, Robert Gilmore Pontius Jr

0297: Agent Based approach to spatial diffusion of adoption in an agricultural context; Irem Daloglu

0238: An artificial society model for land use change based on farmers' behaviors; He Qing

0398: Development of a Land Use Allocation Model (LUAM) for the integration of policy and environment; Ted Huffman

F9 INSTITUTIONS AND CHANGING LAND SYSTEMS IN THE AMERICAS

Session Location: Alumni

Session Organizer(s)/Chair(s): Claudia Radel (Utah State University, USA) and Jacqueline Vadjunec (Oklahoma State University, USA). Chair: Jacqueline Vadjunec

0186: Land Use Change and Transnational Labour Migration in Southeastern Mexico; Claudia Radel

0280: Governance and institutions in Cerrado land change: Perspectives from western Bahia state, Brazil; Christian Brannstrom

0338: Extra-local constraints, changing land uses, and deteriorating ecosystem services in a Haitian watershed; Anna Versluis

0361: Of men and mangroves: institutions, mangroves and coastal livelihoods in the Estero Real, Gulf of Fonseca, Nicaragua; Karina Benessaiah

Posters

- 0012: Land Use Changes and their Impact on Ecosystem Services and Livelihood Security in Himalaya; Prakash Chandra Tiwari
- 0019: Watershed Determinants of Carbon Dioxide in a Variety of Japanese Lakes; Jotaro Urabe
- 0032: Projecting Future Food Situations and Impacts of Biofuel Policy; Kenji Sugimoto
- 0064: Program on Ecosystem Change and Society (PECS): A 10-Year Research Project of Icsu; Patricia Balvanera
- 0069: Multi-Cluster City Plan to Make Nutrient Flow Balance and Protect City Environment; Fengrong ZHANG
- 0074: Carbon Sequestration of Forestation in Red Soil Hilly Region in Southern China; Lin Huang
- 0092: Extending Ground-Based Observations to Regional Scale with a Crop Distribution Generator; Bumsuk Seo
- 0095: The Search for Appropriate Crop Land Cover Descriptions in Evaluations of Agricultural Production Under Global Change; Bora Lee
- 0102: Analysis Governance of Land Use Policy From the Protect Effects – A Case Study of Tianjin Palaeocoast and Wetland National Natural Reserve, China; Zhenglei Xie
- 0108: Land Use Change in Suburban Areas With Vigorous Development in the Case of Kunshan, Jiangsu in China; Zomin Kiwa
- 0119: Retrieval of the Surface Heat Flux Over Urbanization Region Based on Remotely Sensed Methods; Yue Liu
- 0137: Biogenic VOCs in the Future: Can Atmospheric CO₂ and Land-Use Change Shift Drastically Isoprene Emission Estimates? Juliette Lathière
- 0142: Farmland Loss and Habitat Fragmentation in the Near Absence of Population Growth; Monika Calef
- 0152: An Analysis of Four Ecosystem Services Provisioned By Experimental Residential Neighborhood Landscapes in an Arid Urban Environment; Chris Martin
- 0170: Influence of Cutting Diameter and Cutting Height on Stump Sprouting of Three Exotic Species Used as Fuelwood in Tropical Area (West Africa). Augusting Orou Matilo Timothee Bio.
- 0182: Identifying Land-Use and Land-Cover Changes: Case Study in Bulgan Soum, South-Gobi, Mongolia; Yunden Bayarjargal
- 0183: Can We Use Vegetation Index for Vegetation Degradation Assessment? Yunden Bayarjargal
- 0191: Glacial Change in the Vicinity of Mt. Qomolangma (Everest), Central High Himalayas Since 1976; Yili Zhang
- 0192: Sensitivity of Surface Air Temperature Change to Land Use/Cover Types in China; Yili Zhang
- 0194: Spatial Pattern Dynamics of Land Use in the Yongding River Basin in China. Wang Hong
- 0196: A New Approach for Validating Modelled Agricultural Biomass Potentials Using BETHY/DLR and Statistical Data; Martin Kappas
- 0197: BioSTAR: A Simple Crop Model for the Assessment of Agricultural Biomass Potentials in Lower Saxony, Germany; Martin Kappas
- 0201: Zapata Wetland Face to Climate Change. Barbaro Moya
- 0204: Vulnerability of Human-Environmental Systems in Mongolian Pastoralism to Climate and Land Use Change and Environmental Induced Migration Scenarios; Davaanyam Surenjav
- 0206: Interaction Between Land Use Change and Climate Change and their Effects on Water Provision in Region Metropolitana, Chile; Olga Lucia Puertas Orozco.
- 0207: The Linkage Between Pastoralists' Perspectives and Vegetation Threshold Changes in Mongolian Rangelands; Kaoru Kakinuma
- 0210: Land Use Change in Two Watersheds Under Agriculture Use in the Mountains of Rio De Janeiro State – Brazil: An Approach to Support the Agriculture Sustainable Planning; Ana Turetta

- 0214: Vegetation Trends Analysis in Mongolia: Using Long-Term Remotely Sensed Vegetation Index Ndvi (1982-2008); Tserenchunt Battumur
- 0222: Agricultural Land Use and Soil Carbon Stocks in the Brazilian Cerrado; Heitor Coutinho
- 0229: Vegetation Trends Analysis in Mongolia: Using Long-Term Remotely Sensed Vegetation Index Ndvi (1982-2008); Dennis Ojima
- 0335: Response of Savanna Vegetation to Seasonal Rainfall: Land-Cover Change in a Kalahari Sand Woodland; Andrea Gaughan
- 0336: Building Inter-Institutional Scientific Agendas For the Governance of Land Systems: Contributions of Argentina's IHDP National Committee; Susana B. Adamo
- 0341: Assessment of Biodiversity and Ecosystem Services of Satoyama, Traditional Rural Landscape of Japan Using Common Database; Toshiya OKURO
- 0362: The Different Roles of Urban Agriculture: the Response of Farmers' Markets, Community Gardens, and Dairy Farming to Economic Recession and "Green Trends" in Central Arizona; Arijit Guha
- 0363: Modeling the Structure and Functions of Human-Dominated Terrestrial Ecosystems With A Hierarchical Patch Dynamics Approach; Chi Zhang
- 0375: GIS-Based Future Simulations For Cropland Changes; Yang-Won Lee
- 0395: Assessing Surface and Mid-Troposphere CO₂ Concentration and Fluxes From Grasslands in Northeastern Kansas; Ferdouz Cochran

Plenary Speakers



F. (Terry) Stuart Chapin is a faculty member in the Institute of Arctic Biology and the Department of Biology and Wildlife and principal investigator of the Bonanza Creek Long-Term Ecological Research (LTER) program. His background is in plant physiological ecology and ecosystem ecology, with current interests in the resilience of social-ecological systems. Terry's LTER research addresses the controls over successional changes in vegetation and nutrient cycling. In addition to his work in LTER, Terry directs a graduate educational program in Resilience and Adaptation and extends his interests in post-fire succession to human-fire interactions in the boreal forest. The central focus of his research is the study of the resilience of regional systems in the face of directional changes in climate, economics, and culture.



Ruth DeFries examines human transformation of the landscape and its consequences for climate, biogeochemical cycling, biodiversity, and other ecosystem services that make our planet habitable. The work is based on the premise that land use change involves tradeoffs between human necessities such as food and unintended environmental consequences such as greenhouse gas emissions and habitat loss. A particular focus is tropical deforestation and its impacts on atmospheric carbon emissions. DeFries examines land use changes over broad scales through the lens of satellite observations. She is actively involved in linking scientific information into policy decisions. She was elected to the U.S. National Academy of Sciences in 2006 and the American Association for

the Advancement of Science in 2008, is a fellow of the Aldo Leopold Leadership Program, and received a MacArthur Foundation "genius" award in 2007.



Sandra Díaz is Professor of Community and Ecosystems Ecology at Córdoba National University (Argentina) and Senior Principal Researcher of the Argentine National Research Council. She is a Foreign Associate Member of the USA National Academy of Sciences. She has won several prizes in environmental sciences, and actively participated in the Millennium Ecosystem Assessment and the IPCC. At present she leads the international initiative Núcleo DiverSus on Diversity and Sustainability Research and is a member of the Science Committee of the Global Land Project and DIVERSITAS. Professor Díaz is known for her work on plant functional traits, their interactions with global environmental change drivers and their effects on ecosystem processes. Recently she has had a strong influence

in the development and practical implementation of the concept of functional diversity, its effects on ecosystem properties and services, and their implications for different sectors of society.



Hallie Eakin is Assistant Professor at the School of Sustainability, Arizona State University. Her research focuses on the determinants of adaptive capacity to global change in rural communities in Latin America. Her work has explored the implications of economic globalization and agricultural policy change for rural vulnerability in the context of comparative international projects involving case studies in Mexico, Argentina, Guatemala, and Honduras. She is currently exploring the implications of livelihood and land use change in the Mexican maize system for Mexican food security. Hallie has consulted with the World Bank, the United States Agency for International Development, and the United States Environmental Protection Agency on projects in agricultural development, the use of seasonal forecasting in drought risk mitigation, and adaptation to anticipated climate-change impacts on urban water availability.



Jon Foley is the Director of the Institute on the Environment (IonE) at the University of the Minnesota, where he also holds a McKnight Presidential Chair in the Department of Ecology, Evolution and Behavior. His work focuses on the behavior of complex global environmental systems and their interactions with human societies. In particular, Foley's research group uses state-of-the-art computer models and satellite measurements to analyze changes in land use, ecosystems, climate and freshwater resources across regional and global scales. He and his students have contributed to our understanding of large-scale ecosystem processes, global patterns of land use, the behavior of the planet's water and carbon cycles, and the interactions between ecosystems and the atmosphere.



Ann Kinzig is Professor at the School of Life Sciences & the Chief Research Strategist for the Global Institute of Sustainability at Arizona State University. Ann's research interests focus broadly on ecosystem services, conservation-development interactions, and the resilience of natural-resource systems. She is currently involved in three major research projects, including: (1) Advancing Conservation in a Social Context; (2) The resilience of pre-historic landscapes in the American Southwest; and (3) Assessments of ecosystem services, their valuation, and mechanisms for ensuring their continued delivery. Before arriving at ASU, Ann Kinzig was a post-doctoral researcher and lecturer at Princeton University (1994-1998) and received her Ph.D. in Energy and Resources from the University of California at Berkeley (1994).



Eric Lambin divides his time between the University of Louvain, Belgium, where he is professor at the Department of Geography, and Stanford University, where he occupies the George and Setsuko Ishiyama Provostial Professorship at the School of Earth Sciences and Woods Institute for the Environment. He leads a research team that is involved in several international scientific projects on human-environment interactions in different parts of the world. These projects combine remote sensing, socio-economic data, and spatial models to better understand and predict land changes and their impacts. From 1999 to 2005 he was Chair of the international scientific project Land Use and Land Cover Change (IGBP/IHDP LUCC). He is Foreign associate at the U.S. National Academy of Sciences and also member of the European Academy of Sciences.



Stephen Polasky is a Fesler Lampert Professor of Ecological/ Environmental Economics at Department of Applied Economics, University of Minnesota. Stephen received a PhD in Economics from the University of Michigan in 1986. He previously held faculty positions in the Department of Agricultural and Resource Economics at Oregon State University, and the Department of Economics at Boston College. He was the senior staff economist for environment and resources for the President's Council of Economic Advisers 1998-1999, and was elected into the National Academy of Sciences in 2010. He was elected as a Fellow of the American Academy of Arts and Sciences in 2009 and a Fellow of the American Association for the Advancement of Science in 2007. Stephen's research interests include ecosystem services, natural capital, biodiversity conservation, endangered species policy, integrating ecological and economic analysis, renewable energy, environmental regulation, and common property resources.



Anette Reenberg (GLP SSC Chair) has a scientific background in human-environmental aspects of the geographical sciences (with a doctoral dissertation addressing human-environment interaction and sustainability in Sahelian land use systems). More specifically her research addresses issues related to natural resource management strategies in rural landscapes. The focus is on land use and land cover systems viewed in a landscape ecological perspective as well as in an interdisciplinary perspective, i.e. relating land use dynamics to their larger scale contexts of biophysical, cultural, socio-economic, institutional or demographic nature. Furthermore, historical aspects in terms of environmental history and cultural landscape analysis are included. Empirical emphasis is the semi-arid and arid tropics, and Danish landscapes.



Bob Scholes is a systems ecologist, employed by the Council for Scientific and Industrial Research, South Africa. He has over twenty years of field experience in many parts of Africa and has published widely in the fields of savanna ecology and global change. Bob is or has been a member of several steering committees of international research programmes, such as the International Geosphere-Biosphere Programme and serves as a convening lead author for Intergovernmental Panel on Climate Change. He was Chairman of the Global Terrestrial Observing System, a member of the GEO Implementation planning Task Team, a Board Member of International Centre for Research In Agroforestry, a co-chair of the Conditions Working Group of the Millennium Ecosystem Assessment and led the Southern African Millennium Assessment at regional scale. Bob is currently Chair of Group on Earth Observations Biodiversity Observation Network and co-chair of the steering committee of DIVERSITAS.



V. Kerry Smith is a W. P. Carey Professor of Economics at the W. P Carey School of Business and an affiliated faculty member of the School of Sustainability, Arizona State University. Kerry's general research interests include environmental economics, public economics, and applied econometrics. More specific topics include: economic valuation of environmental amenities and ecosystem services, sorting models and general equilibrium policy analysis, and the modeling of how uncertainty influences individuals' behavior. He is member of the National Academy of Sciences, a Fellow of both the Association of Environmental and Resource Economists and the American Agricultural Economics Association, a Research Associate with the National Bureau of Economic Research, and a University Fellow with Resources for the Future.



David Tilman's research focuses on the causes, consequences and conservation of earth's biodiversity, and on how managed and natural ecosystems can sustainably meet human needs for food, energy and ecosystem services. David Tilman is Regents' Professor and McKnight Presidential Chair in Ecology at the University of Minnesota, and is Director of the University's Cedar Creek Ecosystem Science Reserve. He is an elected member of the American Academy of Arts and Sciences and the National Academy of Sciences, was the Founding Editor of the journal *Ecological Issues* and has served on editorial boards of nine scholarly journals, including *Science*. David has also dedicated much of his career to communicating with the public, politicians and the managers of earth's ecosystems so that they might be better informed about environmental science and its relevance to society and to sustaining, for the long-term, the quality of human life on earth.



Billie Turner II is the Gilbert F. White Professor of Environment and Society in the School of Geographical Sciences and Urban Planning and the School of Sustainability, Arizona State University. He chaired the committee that gave rise to and served on the IGBP-IHDP Land Use/Cover Change (LUCC) program, served on the SSC-LUCC, was part of the planning committee that developed the GLP and has served on its SCC throughout its existence. Dr. Turner continues to engage in large range of research activities from those of the ancient Maya peoples of Mesoamerica, to smallholder farming behavior in the tropics, to tropical deforestation and sustainability. A significant portion of this work combines natural, human and remote sensing/geographical information sciences to address problems of human-environment systems, including: land change science, sustainability science, cultural and political ecology, global environmental and climate change.



Emilio Moran is Indiana University Distinguished Professor and the James H. Rudy Professor of Anthropology, and is an internationally recognized environmental social scientist whose research has focused on aspects of the human dimensions of environmental change. He was elected to the U.S. National Academy of Sciences in 2010. His research has been supported by the National Science Foundation, the National Aeronautics and Space Administration, the National Institutes of Health and the National Oceanic and Atmospheric Administration. He is the author of 9 books, editor of 14 volumes, and of more than 140 journal articles and book chapters. Moran is also a professor of environmental science and an adjunct professor of geography. Moran serves as director of the Anthropological Center for Training and Research on Global Environmental Change (ACT) and is a founding co-director with 2009 Nobel Prize winner Elinor Ostrom of the Center for the Study of Institutions, Population and Environmental Change (CIPEC), both of them at Indiana University.



Charles Perrings is Professor of Environmental Economics at Arizona State University. His research focuses on the human causes and consequences of biosphere change. He is co-chair of the ecoSERVICES Core Project of DIVERSITAS and at ASU he directs (with Ann Kinzig) the ecoSERVICES Group within the College of Liberal Arts and Sciences. He was the founding editor of the Cambridge University Press journal, *Environment and Development Economics*, and he remains on the editorial board of this and several other journals in environmental, resource and ecological economics, and in conservation ecology. The ecoSERVICES Group researches the relation between biodiversity change, conservation and development, and supports training in biodiversity and ecosystem services both within ASU and internationally. It runs the Biodiversity and Ecosystem Services Training Network (BESTNet), a Research Coordination Network funded by the National Science Foundation.



Sander van der Leeuw An archaeologist and historian by training, van der Leeuw's personal research interests are in the study of long-term dynamics of socio-environmental systems, reconstruction of ancient technologies, (ancient and modern) regional man-land relationships, invention and innovation, urban dynamics, geographic information systems, modeling and complex systems theory. In the last 15 years, he has focused on bringing trans-disciplinary approaches to these domains. Van der Leeuw is presently professor at Arizona State University. He has held visiting positions at the University of Michigan, the University of Reading (UK), Australian National University, the University of Massachusetts at Amherst, the University of Chicago and the Santa Fe Institute. In 2003, he was appointed chair of the Department of Anthropology at Arizona State University in the US, where he is now director of the School of Human Evolution and Social Change, an interdisciplinary unit based around anthropology that focuses on some of the major challenges of the 21st century.

At the Conference

Memorial Union

The Memorial Union (MU) first opened its doors in 1956, offering 109,000 square feet to accommodate the nearly 6,000 enrolled students. A plaque near the north entrance doorway lists the major donors who contributed to the initial construction. ASU chose the name “Memorial Union” to serve as a living memorial for those who have courageously served our country in the military services. In remembrance of the building’s first director, Cecelia Scoular, the study lounge located on the main level was named in her honor. Since its opening, the MU has undergone a number of renovation projects as well as several additions to the original structure. Today the building totals about 254,000 square feet which serves a growing student body averaging 60,000. The MU serves as the central meeting and conference center for registered student organizations, campus departments and at various times of the year, organizations and business from the larger community. The MU has three levels including an array of dining options, business and banking centers and ATMs, meeting rooms, and recreation areas. (www.asu.edu/mu/). The conference will take place on the second floor of the building.

Registration and Information

At the conference venue, the MU, there will be a permanently placed table located on the second floor in front of the main entrance to the large plenary hall, the Arizona Ballroom (see MU Map on page 39). Questions or changes/updates about the conference will be addressed or displayed at this location. Registration will take place between 2:00p.m. - 6:00p.m. on Saturday, October 16th and between 7:00am - 8:45am on the first day of the conference – Sunday, October 17th. Please bring with you your registration confirmation and valid identification, so that we may register you properly. Upon registration, you will receive all necessary conference materials including your conference badge, which is intended to be worn at all times throughout the conference. We strongly encourage registering prior to the conference, but in the event of an onsite registration, you must be able to pay in cash.

Internet

Free wireless access is available throughout the MU including the Main Level, Union Plaza (Starbucks area) and patio, Art Café and patio, Scoular Study (student lounge with fireplace), Southeast area of building and patio, 2nd Level, Meeting rooms and hallways, and 3rd Level.

Catering

Registered participants will be provided with lunch, as well as a morning and afternoon coffee break each day. These will take place in the Arizona Ballroom in the MU. The caterers have taken care to offer as many local and sustainable food items as possible in the menu and have provided meatless options in all cases. For additional beverages and snacks, the MU offers a variety of dining venues and a convenience store.

Events

On the evening of Sunday, October 17th, conference participants are invited to attend a reception hosted in tandem by the UGEC Project and the GLP. The reception will take place following the day's events at The Nina Mason Pulliam Rio Salado Audubon Center which is a nature center in the heart of the City of Phoenix's Rio Salado Habitat Restoration Area, a 600-acre park along the historic Salt River. On the evening of Monday, October 18th, GLP conference participants are also invited to attend a reception hosted by GLP. The reception will take place following the day's events in the MU.

Getting Around

Directions to Tempe/ASU campus from Phoenix Sky Harbor International Airport

The airport is approximately 15 minutes or 6 miles away from Tempe/ASU campus.

By Car

Head west on Sky Harbor Blvd.

Turn right, stay on Sky Harbor Blvd. (about 4 min.)

Take the ramp to AZ-202 E. (about 2 min.)

Merge onto Sky Harbor Blvd.

Merge onto AZ-202 Loop E. via the ramp to Tempe/Mesa (about 3 min.)

Take exit 7 toward Rural Rd.

Turn right at N. Scottsdale Rd.

Continue onto S. Rural Rd. (about 2 min.)

Turn right at E. University Dr. (about 1 min.)

By Public Transit

Free airport shuttles run every ten minutes and will transport you from any of the four airport terminals to the 44th Street/Washington METRO light rail stop. Tickets for a one-way destination are \$1.75 and can be purchased with cash or debit/credit card at any of the vending machines located at each of the stops. The METRO light rail is patrolled very often, so please do not forget to purchase your ticket before boarding. From the 44th Street /Washington Metro light rail stop, travel East in the direction of Sycamore/Main Street. The Tempe ASU campus lies between the stops at Mill Avenue/Third Street and University Drive/Rural Road. The METRO light rail travels every ten minutes. Visit www.valleymetro.org for more information.

By Taxi

There are a number of taxi options available. We recommend the Clean Air Cab service, a company that offers the only certified Carbon Negative Taxi Fleet in the Phoenix metropolitan area. The fleet not only uses hybrid vehicles and purchases carbon credits to offset their emissions, but they are also involved in local and global tree planting initiatives, essentially making them carbon negative. For more information, please visit: <http://www.cleanaircab.com> | Tel: (480) 777-9777

Transportation once in Tempe

Once in Tempe there are a number of free local transportation options.

The Orbit uses blue mini-buses to serve residential areas and connect them to local destinations such as shopping areas, other neighborhoods, major bus routes, schools and multi-generational centers. There are five routes which run every ten minutes including the Mercury, Venus, Earth, Mars, and Jupiter. All routes run in a circular pattern. The Forward route denotes a clockwise route, while a Back route is counter-clockwise. Visit this website for an Orbit route map and schedule: <http://www.tempe.gov/tim/Bus/Orbit.htm>

The Flash buses serve Arizona State University and downtown Tempe every ten minutes on weekdays. Flash Forward operates in the clockwise direction and Flash Back operates in the counterclockwise direction. Please visit this website for maps and schedules: <http://www.tempe.gov/tim/bus/FLASH.htm>

Many of the Tempe hotels offer a free shuttle service to and from the Phoenix Sky Harbor International Airport and to and from locations within a five mile radius of the hotel. This will provide transportation from the hotel to the ASU Campus as well as a variety of nearby attractions. Please check with your hotel regarding this service.

Activities

What to do in Tempe

Tempe is a unique city located within the Sonoran Desert and the Phoenix metropolitan area, just fifteen minutes from Sky Harbor International Airport. Home to Arizona State University, it offers the feel of a college town and a variety of attractions and activities including outdoor recreation, culture and the arts, with nightlife, dining and shopping located within the Mill Avenue District - Tempe's unique pedestrian-friendly downtown area. For more information on activities and places of interest within Tempe and statewide, please take a look at the Visitor Guide included in your conference materials.

General Information

Volunteers

There will be a number of ASU student volunteers present at the conference venue wearing special "volunteer" badges. Please address them should you have any questions or if any problems arise.

Lost Objects/Badges

Any lost objects should be reported or brought to the Building Management/Information desk located in the southwest corner of the second floor of the Memorial Union. The loss of a badge should be reported immediately to the main registration desk located in front of the Arizona Ballroom to ensure that appropriate measures are taken regarding access to the conference venue.

Smoking

Smoking is not permitted in the Memorial Union. Smoking is prohibited within at least 25 feet of any building entrance/exit, and in exterior landings, interior building courtyards, patios, and balconies.

First Aid/In Case of an Emergency

For minor first aid needs please visit the Building Management/Information desk located in the southwest corner of the second floor of the Memorial Union. In the event of a serious emergency, dial 911.

Website

Please check the conference website <http://www.glp2010.org/> for the most current updates regarding conference logistics and other announcements. For more information concerning the GLP Project please visit <http://www.globallandproject.org/>.

Information on the U.S, Arizona, and Tempe

U.S. Government's Official Web Portal <http://www.usa.gov/>

National News	The Washington Post http://www.washingtonpost.com/
	The New York Times http://www.nytimes.com/
Official Arizona Website	http://az.gov/
Arizona and Local (Tempe) News	http://www.azcentral.com/
ASU News	http://www.statepress.com/

Weather

Tempe's climate is typically warm and dry in the month of October. Average temperatures range from 88° F (31° C) during the day to 57° F (14° C) at night.

Contact Information

Any conference questions or concerns may be directed to Tobias Langanke and Lars Jorgensen, Email: glp2010@geo.ku.dk; Tel: +45 35 32 25 08.

ASU at the Tempe Campus Map

Conference Venue: Memorial Union (MU)

Distance from Downtown Tempe/Mill Ave. to the MU: 1 Mile/20 minutes walking



ACACI 7E Acacia Hall	CHILD 5G Campus Childrn's Cntr	GWC 4E Goldwater Center	MOEVR 6C Moever Building	SRC 8E Student Recreation Cplx
ACHAL 6F Acourta Hall	CHAPL 5C Danforth Chapel	HAYDN 7C Hayden Hall	MSHAL 6F Mesquite Hall	SS 5C Social Sciences
ADEL 7F Adelphi Commons	CHOLA 5G Cholla Apartments	HONHAL 7F Honors Hall	MU 6C Memorial Union	SSV 5C Student Services Building
AGVHAL 7F Agave Hall	CHPF 6F Cmb'd Heat & Pwr Fac.	HSB 4D Health Service Bldg.	MUR 5D Murdoch Lecture Hall	STAD 2D Sun Devil Stadium
ANX 3C Art Annex	CHUPA 7E Chuparosa Hall	INTSDS/A/B 6C Interdisciplin. A/B	MUSIC 5B Music Building	STAUF 5B Stauffer Comm.
APMA 3G Perform. & Media Arts	COOR 5B Lattie F. Coor Hall	IPF 6F Indorr Practice Facility	MVHAL 7E Mohave Hall	TMPCT 4B Tempe Center
AQUAT 3D Aquatic Center	COWDN 4C Cowden Family Rsrcs	IRISH 7C Irish Hall	NEEB 5B Neeb Hall	TOWER 4B Tower Center
ARHAL 7E Arroyo Hall	CP 5D Central Plant	ISTB1 5D Intdiscipl. Sc & Tech. 1	NOBLE 5E Noble Science Library	TRACK 2F Sun Angel Stadium
ART 4B Art Building	CPCOM 6D Computing Commons	ISTB2 4E Intdiscipl. Sc & Tech. 2	OCOT 7D Ocotillo Hall	TSB 6D Temp. Std Bus. Srvs
ARWH 4B Art Warehouse	CPS 8F Central Plant South	ISTB5 4E Intdiscipl. Sc & Tech. 5	OCCS 5G Off-Campus Stndt Srv	UASB 5D Undergrad Academic
ASUPD 7C Police Department	CRC 5B Ceramics Research Ctr.	JNHAL 7F Juniper Hall	PABLO 3D San Pablo Hall	UCLUB 4D University Club
ATHLE 3G Athletics Performance	CSAC 2D Carson Stndt Ath Cntr	JOBA 7E Jobba Hall	PEBE 6E Physical Ed. East	UCNTRA 3H University Center A
BA 6C Business Admin.	CSB 1F Community Serv. Bldg.	LAW 6E Armstrong Hall	PEWB 6D Physical Ed. West	UCNTRB 3H University Center B
BAC 6D Business Admin. C-Wing	CRTP 3A Centerpoint	LAWLB 6E Law Library	PSA-H 4D Physical Sciences Wings	UNIVT 2C University Towers
BDA 5F Bldsgn. Institute Bldg A	CWVHAL 7F Cottonwood Hall	LIB 5C Hayden Library	PSY 5E Psychology Building	USB 8G University Services Bldg
BDB 5F Bldsgn. Institute Bldg B	DISCVR 6G Discovery Hall	LL 4C Languages & Literature	PSYN 4E Psychology North	USE 4E Urban Systems Engin.
BKSTR 6D Bookstore	ECA-G 5D Engineering Center	LS 5D Life Sciences Center	PVE 3D Palo Verde East	VBAHAL 6F Verbena Hall
BYAC 3B Brickyard Artisan Ctrtyd	ED 6B Farmer Building	LD 5C Life Sciences C-wing	PVM 3D Palo Verde Main	VDS 8E Vista Del Sol Cmplx.
BYONG 3A Brickyard Engr.	EDB 5B Payne Hall	LE 5D Life Sciences Tower	PVW 3D Palo Verde West	WEXLR 4D Wexler Hall
BYOH 3C Orchardhouse(Brickyard)	ENGR 5D Engrin. Rsrch Cntr	LYC 4C Lyceum Theatre	RWVHAL 6F Rosewood Hall	WFA 3E Wells Fargo Arena
CAM 3C College Ave. Market	FAC 5B Nelson Fine Arts Center	MAIN 4D Old Main	SCH 1H Sun Angel Clubhouse	WGTF 2H Women Gymst Train.
CDN 4B College of Design North	FULTN 4C Fulton Center	MANZH 4E Manzanita Hall	SCD 8F Sonora Center	WHALL 5C West Hall
CDS 4B College of Design South	GGMA 6B Gammage Auditorium	MC 7C Best Hall	SCB 8F Schwada Building	WLOHAL 6F Willow Hall
CERHAL 7F Cereus Hall	GHALL 5C Dixie Gammage Hall	MCNT 5C Matthews Center	SCHAL 7F Sage Hall	WILSN 5C Wilson Hall
CFS 4C Center for Family Studies	GIOS 4C Global Inst. of Sustain.	MCL 5C McClintock Hall	SHESCH 4C Sch. Human Ev. Soc. Chg	WTF 2H Wrestling Training
CGS 4F Ceramics Grad. Studio		MHALL 5C Matthews Hall		WUC 6F Weatherup Center

Memorial Union Map

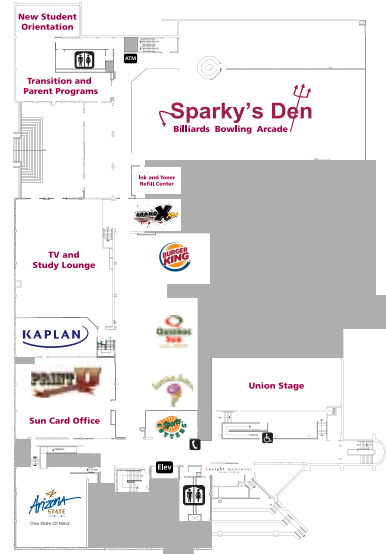
2nd floor - Location of all conference rooms



Main Floor



Lower Level





About the GLP Project

The Global Land Project (GLP) is a jointly funded core project of the International Geosphere-Biosphere Programme (IGBP) and the International Human Dimensions Programme on Global Environmental Change (IHDP). GLP aims at: identifying agents, structures and nature of change in coupled human-environmental systems, assess how the provisions of ecosystem services is affected by these changes, and identifying the character and dynamics of vulnerable and sustainable coupled systems to interacting perturbations, including climate change.

The interdisciplinary and transdisciplinary challenge at the core of GLP requires the close cooperation and communication across disciplines, and – more broadly – across the natural sciences, humanities and social sciences. This challenge is reflected in the fact that GLP is one of only two core projects jointly funded by IGBP and IHDP.

GLP became operational in September 2006 with the establishment of the International Project Office (IPO) in Copenhagen, Denmark, fully funded by the University of Copenhagen. It currently operates with 3 Nodal Offices (Sapporo, Japan with a focus on vulnerability, resilience and sustainability of land systems; Aberdeen, UK with a focus on integration and modelling and Beijing, China, with a focus on land use and ecosystem interactions).

GLP encourages close association with existing research projects (in the form of “endorsement”), organizes and initiates workshops and conferences, as well as publications, provides a platform for exchange and networking, publishes a newsletter, updates the community in frequent email-updates, and in more general terms works towards summary and extrapolation from research conducted within it’s network.



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