

## Atkinson Center for a Sustainable Future Topical Lunch Follow-Up Report

**TITLE:** Contribution of Science to Indigenous Ecological Knowledge for Climate Change Adaptation at the Village Level

**HOSTS:** Karim-Aly Kassam, International Professor of Environmental and Indigenous Studies, Department of Natural Resources & American Indian Program, David Wolfe, Professor, Department of Horticulture, Chair, ACSF Climate Change Focus Group (on sabbatical but present in spirit)

**DATE:** Tuesday, January 20 – 12:00 – 1:15 PM, 300 Rice Hall

**SUMMARY:** The goal of this lunch was to initiate collaboration between scholars from a wide range of disciplines for the revitalization of ecological calendars. Ecological calendars are systems to measure time according to natural cycles and events, such as the blooming of a flower, the emergence of an insect, or the last day of snowcover. Traditional ecological calendars have been developed throughout the world based on local and indigenous ecological knowledge. Because they respond to variability as well as long-term changes in the timing of weather and ecological processes, such calendars can play an important role in climate change adaptation.

The topical lunch began with an introduction of all participants by Karim-Aly Kassam, followed by a brief presentation regarding ‘calendars of the human body’, ecological calendars from the Pamir Mountains of Afghanistan and Tajikistan. Dr. Kassam emphasized that the calendars represent complex connectivity between humans and their habitat; that they are context-specific (varying from valley to valley; and that they are flexible in response to changing conditions. During the Soviet period, the calendars were actively suppressed and fell out of use; now Pamiri farmers and herders are looking to revitalize their calendars as a way to adapt to anthropogenic climate change.

Dr. Kassam was invited by the Thriving Earth Exchange (American Geophysical Union) to create a challenge for the Climate CoLab at the MIT Center for Collective Intelligence. The Climate CoLab ([www.climatecolab.org](http://www.climatecolab.org)) organizes contests to develop proposals to solve problems related to climate change. In this case, the contest is to propose ways to combine indigenous ecological knowledge and climate science to revitalize calendars of the human body. Cornell research groups and classes can participate in the contest by starting or contributing to existing proposals.

The presentation was followed by an active discussion on a range of related topics, including the advantages of ecological calendars, their relevance in the context of climate change, the role of technology in generating and adapting such calendars, and opportunities for biophysical as well as social scientists to contribute to their revitalization. Several participants asked questions about factors that may have contributed to the loss of ecological calendars and associated local knowledge. Many participants expressed an interest in participating in the Climate CoLab challenge. Dr. Kassam proposed organizing an international conference focused on ecological calendars as a way for climate science to contribute to local/indigenous ecological knowledge. Following the lunch, participants were contacted directly and asked to send their suggestions for next steps.

The hosts are grateful to ACSF for providing this opportunity to convene faculty from 10 departments to address this important challenge.

Participants: 19 in attendance including two additional guests and one host - Updated 1/20/15

Last Name	First Name	NetID or email	Department	College
Bezner-Kerr	Rachel	<a href="mailto:rbeznerkerr@cornell.edu">rbeznerkerr@cornell.edu</a>	Development Sociology	CALS
Bluhm	David	db492	Crop and Soil Sciences	CALS
DiSalvo	Frank	fjd3	Chemistry and Chemical Biology/ACSF	CAS
Filiberto	David	dmf22	Employment and Disability	ILR
Hoffmann	Mike	mph3	Entomology	CALS
Lassoie	Jim	<a href="mailto:lassoie@cornell.edu">lassoie@cornell.edu</a>	Natural Resources	CALS
Lehmann	Johannes	cl273	Crop and Soil Sciences	CALS
Mahowald	Natalie	<a href="mailto:mahowald@cornell.edu">mahowald@cornell.edu</a>	Earth and Atmospheric Sciences	EN
McMichael	Philip	pdm1	Development Sociology	CALS
Mt. Pleasant	Jane	jm21	Horticulture	CALS
Rodewald	Amanda	<a href="mailto:arodewald@cornell.edu">arodewald@cornell.edu</a>	Lab of Ornithology	CALS
Ruelle	Morgan	mlr245	Natural Resources	CALS
Solomon	Dawit	ds278	Crop and Soil Sciences	CALS
Wolford	Wendy	www43	Development Sociology	CALS
Yavitt	Joseph	jby1	Natural Resources	CALS

**Regrets:** Anurag Agrawal, Chris Barrett, Ronnie Coffman, Dan Decker, Julia Finkelstein, Peter Hobbs, Terry Tucker, Harold Van Es, Todd Walter