

Good  
Morning

Welcome



**Out the doors, turn right, turn  
right again, they're on your left**



# Webcast / Video Archives

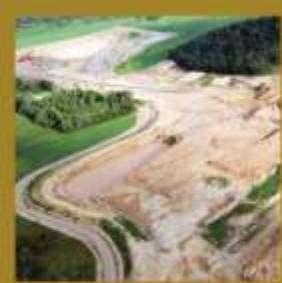
- This workshop:

<http://tinyurl.com/shalegasriskgovernance>

- Previous workshop in this project:

<http://tinyurl.com/shalegasrisks>

# BOARD ON ENVIRONMENTAL CHANGE AND SOCIETY



Meredith A. Lane

15 August 2013



# BECS Mission

## Science to Manage Environmental and Social Transitions

- Increase problem-focused understanding of coupled human-environment systems
- Inform transitions to improved human well-being in the face of environmental change



# Climate and Social Stress: Implications for Security Analysis

Committee on Assessing  
the Impacts of Climate  
Change on Social and  
Political Stresses



Download full report from NAP website:

[http://www.nap.edu/catalog.php?record\\_id=14682](http://www.nap.edu/catalog.php?record_id=14682)

Download Report Brief from BECS website:

<http://www.nationalacademies.org/BECS>



# Ongoing BECS projects

- Sustainability Science: Can Earth's and Society's Systems Meet the Needs of 10 Billion People? (with CPOP and BLS)
- Risk Management and Governance Issues in Shale Gas Development





# Shale Gas Benefits

- Shale gas now accounts for ~30% of total production
- *The Economist* (16 March 2013):  
“The shale gas and oil bonanza is transforming America’s energy outlook and boosting its economy”





# NRC reports related to shale gas

- *America's Energy Future* (DEPS, 2009 - 2011)
- *Transitions to Alternative Vehicles and Fuels* (DEPS, 2013)





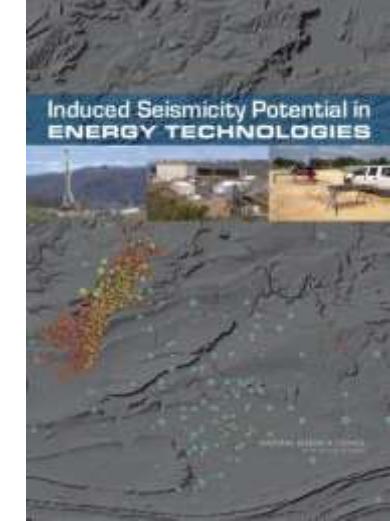
# This Project's General Elicitation: Responses

- Potential for tax revenues and economic growth
- Jobs brought in to communities
- Prospects for energy independence (benefits to economy and national security)
- Potential for transitioning away from more environmentally harmful fuels



# NRC projects related to shale gas

- *Induced Seismicity Potential in Energy Technologies* (DELS, 2012)
- *Development of Unconventional Hydrocarbon Resources in the Appalachian Basin* (DELS, ongoing)
- *Health Impact Assessment of Shale Gas Extraction* (IOM, workshop summary released soon)





# Risk Management and Governance Issues in Shale Gas Development

## *Sponsors:*

- National Science Foundation  
Social, Behavioral and Economic Sciences Directorate
- The logo for the Park Foundation, featuring the word "PARK" in large green letters and "FOUNDATION" in smaller green letters, all contained within a green rectangular border.
- Shell Upstream Americas



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