

University of Colorado Law School

Colorado Law Scholarly Commons

Natural Resource Industries and the
Sustainability Challenge (Martz Winter
Symposium, February 27-28)

2014

2-28-2015

SLIDES: Practicing Sustainability in Natural Resource Industries

Gary D. Libecap

Follow this and additional works at: <https://scholar.law.colorado.edu/natural-resource-industries-and-the-sustainability-challenge>



Part of the [Economic Theory Commons](#), [Energy and Utilities Law Commons](#), [Energy Policy Commons](#), [Environmental Law Commons](#), [Environmental Policy Commons](#), [Law and Economics Commons](#), [Natural Resource Economics Commons](#), [Natural Resources and Conservation Commons](#), [Natural Resources Law Commons](#), [Natural Resources Management and Policy Commons](#), [Property Law and Real Estate Commons](#), [Sustainability Commons](#), [Water Law Commons](#), and the [Water Resource Management Commons](#)

Citation Information

Libecap, Gary D., "SLIDES: Practicing Sustainability in Natural Resource Industries" (2015). *Natural Resource Industries and the Sustainability Challenge (Martz Winter Symposium, February 27-28)*. <https://scholar.law.colorado.edu/natural-resource-industries-and-the-sustainability-challenge/9>

Reproduced with permission of the Getches-Wilkinson Center for Natural Resources, Energy, and the Environment (formerly the Natural Resources Law Center) at the University of Colorado Law School.

Practicing Sustainability in Natural Resource Industries

Gary D. Libecap

Bren School of Environmental Science and Management and Economics
Department
University of California, Santa Barbara
National Bureau of Economic Research (NBER)

2014 Martz Winter Symposium: Natural Resource Industries and Sustainability Challenge, Wolf
Law Building, Boulder Colorado, February 28, 2014

Sustainability: Concepts

- The Brundland Report (1987):
 - Sustainable development meets “the needs of the present generation without compromising the ability of future generations to meet their own needs.”
- Natural sustainability = consumption that does not deplete the resource stock.
- Human sustainability = consumption, savings, and investment for future generations that may diminish the resource stock.
- Competing definitions of the concept.
- Inherent tradeoffs.

Sustainability: Governance

- Absent property rights—no sustainability for either definition.
- Property rights—state, communal/group, individual (includes organizations, where the organization holds individual rights).
 - i.e., TNC fishing quotas
 - Private mineral/water rights
 - Communal rights (group owns with members having access):
Some irrigation districts
 - Government owned—BLM, Forest Service
- Each has different transaction costs of decision making and long-term commitment potentials.

Sustainability: Governance

- Avoid open access that leads to over entry, over use, and depletion.
- Property rights regimes:
 - Align incentives for long-term protection, investment in conservation, and use
 - Potential for trading to reallocate, including across time
 - Internalize costs and benefits in decisions
 - Can apply to non-commercially valuable resources
 - Conservation easements, credits
 - Habitat credit banks
 - Water quality credits

Sustainability: Governance Issues

- Essential is that the right is secure and well-defined.
 - Conflicting uses: Purchase
 - Forces consideration of opportunity costs
 - If transaction costs are high, useful policy is to lower them
 - i.e., Adjudication of groundwater rights
 - i.e., Platforms for trading
- Holistic view of property rights—the more they are abridged, the more incentives are altered

Sustainability: Governance Issues

- One of the most thoroughly studied phenomena in natural resource economics is the problem of open access and its results:
 - Fisheries
 - Water
 - Air
 - Land
- Also, strong empirical evidence on reallocation across time/conservation.
- Less evidence of long-term political commitments via Public Trust Doctrine and other government environmental policies. No clear residual claimant. Inherently risky.

Sustainability: Governance Issues



Sustainability: Governance Issues



Sustainability: Governance Issues

- If transaction costs are increased, property rights weakened and sustainable management not be feasible.
- How can this happen?
 - Do not respect existing property rights. Los Angeles/Mono Lake Controversy.
 - Political process can authorize additional stake holders to have a claim but no corresponding assignment of costs.
 - Circumvents existing rights and incentives.
 - Oakdale Irrigation District and Westlands Irrigation District Water Transfer blocked.
 - Resort to groundwater extraction.

Sustainability: Governance Issues

- Sustainability requires clear, secure property rights to natural resources.
- In their absence it is not possible, regardless of definition.
 - No residual claimant for costs and benefits
 - No long-term commitment mechanism