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**Workshop on
Cost-Benefit Analysis and Regulatory Impact Analysis:
Government Practice and Implementation Issues**

**Faculty of Law and the MA Program on
Environmental Regulation and Policy ('ERP')
Bar Ilan University, Israel**

**December 9-10, 2019
Faculty of law, building 306, room 200
99-0031-01**

John D. Graham, Professor and Dean Emeritus, O'Neill School of
Public and Environmental Affairs, Indiana University

Cary Coglianese, Edward B. Shils Professor of Law and Professor of
Political Science, University of Pennsylvania School of Law

Shi-Ling Hsu, D'Alemberte Professor of Law, Florida State University
College of Law

Oren Perez, Dean and Professor, Bar Ilan University Faculty of Law

A two days' workshop exploring some of the practical issues regarding the use of cost-benefit analysis (CBA) and regulatory impact analysis (RIA) in regulatory decision-making, focusing on the environmental domain. The goal of the workshop is to provide an introduction to CBA and RIA. The workshop will also examine a variety of contexts in which CBA & RIA have been or may be employed, including situations in which CBA or RIA may be inappropriate. The workshop will explore the practical issues with conducting RIA and CBA for government analysis: technical issues derived from the



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economic framework of CBA, philosophical issues, legal and administrative issues, with applications and examples from existing US and Israeli law.

Evaluation: You will be required to write and submit 6 page paper (fn 12, 1.5 space) applying one of the concepts covered in the workshop to an actual regulatory dilemma in Israel or elsewhere. You are requested to describe the problem clearly, explain its legal, environmental, and economic aspects, provide some analysis and suggest a solution if you wish (although you will have to argue in support of the solution). You should provide a citation for significant assertions of fact or law. You are required to submit your paper via email (shsu@law.fsu.edu and oren.perez@biu.ac.il) by **December 24th 2019**.

Readings – reading materials include both theoretical articles and case studies to be discussed in class. Please make sure that you read the materials – especially the readings related to the case studies, since they will be analyzed in class. Obligatory reading items are marked with * (other readings were included as background and to assist students in writing their paper).

**Part I (4 hours) (Prof. Graham and Prof. Hsu):
Monday, December 9th, 2019, between 09:00-12:30**

Introduction and primer on CBA & RIA, theoretical constructs, considerations, distributional considerations and analysis, linkage between CBA and RIA, measurement issues, discounting, treatment of uncertainty, benefits estimation, application to climate change.

Readings:

- * Sunstein, Cass R. "The arithmetic of arsenic." *Geo. LJ* 90 (2001): 2255.
- * Matthew D. Adler, **Cost-Benefit Analysis**, in *Encyclopedia of Law & Society: American and Global Perspectives (2007)*
 - Office of Management and Budget's (OMB) Circular A-4 (September 17, 2003) guidance to Federal agencies on the development of regulatory analysis.



- Segerson, Kathleen. "Valuing environmental goods and services: an economic perspective." *A primer on nonmarket valuation*. Springer, Dordrecht, 2017. 1-25.

**Part II (4 hours) (Prof. Graham and Prof. Perez):
Monday, December 9th, 2019, between 13:30-17:00**

Two case studies: Colorado Zero Emission Vehicle Program, and Open-Pit Phosphate Mine at Sdeh Barrir. **Please make sure that you read the guidelines for each case study before you read the materials.**

Readings:

Colorado Zero Emission Vehicle Program (Prof Graham)

- * Guidelines for students - preparing the Colorado case study
 - * Colorado Zero Emission Vehicle Project Report, July 2019.
- You should first read carefully the executive summary, pp. 1-12, and then read the report.

Open-Pit Phosphate Mine at Sdeh Barrir (Prof Perez, Eyal Razy-Yanuv)

Guest Speakers, ICL group (<http://www.icl-group.com/about-icl/icl-corporate-profile/>, owner of Rotem Amfert) :

- Yuval Amitai, Vice President, ICI Environment, Safety & Health
- Hagay Horev, Director of Ecology and infrastructure, ICL

- * Guidelines for students preparing the Sdeh Barrir case
- * Jonathan M. Samet, Human Health Considerations Related to the Siting and Operation of an Open-Pit Phosphate Mine at Sdeh Barrir, March 2014 (there is a Hebrew and English versions)
- * Supreme Court Decision 5558/18 (Hebrew/English)
- * Bagatz 5558/18. Arad Municipality Court Appeal against the Israeli Government and Rotem Amfert for stopping the Open-Pit Phosphate Mining at Sdeh Barrir, July 2018 (Hebrew) (you can also read, although not obligatory Adalla petition, Hebrew)



Media coverage (English): [Israel Chemicals says](#) failure to obtain a permit to mine at Sdeh Barir will put its entire Negev phosphates business in jeopardy; 16 Mar, 2015; [THOUSANDS OF BEDUINS](#) TO BE FORCED TO MOVE IN ADVANCE OF MINING OPERATION, FEBRUARY 6, 2018

**Part III (4 hours) (Prof. Coglianese):
Tuesday, December 10th 2019, between 09:00-12:30**

topics include: (1) When to apply a cost-benefit test vs its alternatives (Eg, precautionary principle, feasibility, equity, etc); (2) What role can (and should) court play in overseeing regulatory cost-benefit analysis?; (3) What is the role for retrospective review of regulatory impacts? How does ex ante BCA connect up with ex post evaluation?; (4) What difference does BCA make in practice in administrative decision-making? How might regulatory managers/leaders work to build a culture of that values analysis and evidence?

Readings:

* Cecot, Caroline, and W. Kip Viscusi. "Judicial review of agency benefit-cost analysis." *Geo. Mason L. Rev.* 22 (2014): 575; Available at SSRN: <https://ssrn.com/abstract=2519139>.

- Michigan v. EPA (US 2015), https://www.supremecourt.gov/opinions/14pdf/14-46_bqmc.pdf
- "A Debate Over the Use of Cost-Benefit Analysis," *The Regulatory Review* (Sept. 26, 2016) (all three essays): <https://www.theregreview.org/2016/09/26/debate-cost-benefit-analysis/>
- Cary Coglianese, Thinking Ahead, Looking Back: Assessing the Value of Regulatory Impact Analysis and Procedures for Its Use, *KLRI Journal of Law and Legislation* 3: 5-27 (2013)
- Connor Raso, Trump's Deregulatory Efforts Keep Losing in Court - <https://www.brookings.edu/research/trumps-deregulatory-efforts-keep-losing-in-court-and-the-losses-could-make-it-harder-for-future-administrations-to-deregulate>.
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Part IV (4 hours) (all):

Tuesday, December 10th 2019, between 13:30-17:00

Round-table with the Ministry of Environment (MOE): Yuval Lester (Head, Environmental Policy Division), Ohad Carni (Director, Business Sustainability), Avital Eshet (Manager, Economic Domain).

focusing on 3 topics:

- (1) **Evaluating non-pecuniary ecological damage:** focus on pollution case studies resulting in damage to natural resources, methodologies for valuation. This topic has received significant attention in the MOE due to several incidents of industrial pollution which caused significant damage to natural reserves in the Negev (the Israeli desert) (Ein Evrona and Ashalim). The cases triggered criminal investigation by the MOE and a series of tort actions. The problem of evaluating non-pecuniary ecological damage as well as the distinction between use and non-use value, played key role in all cases. An additional meta-question concerns the potential distinction between the valuation of ecological assets in ex-ante regulatory decisions (e.g., permit decisions) and in ex-post tort and criminal contexts.

Readings:

***Nir Becker and Doron Lavie, Report on the Economic Damage in Ashalim, June 2019 (available in English & Hebrew)**

- Background on the Ashalim case: <https://www.timesofisrael.com/dead-sea-acid-spill-has-turned-popular-hike-route-into-long-term-disaster-zone/>
- FINAL RESTORATION PLAN AND ENVIRONMENTAL ASSESSMENT for the April 7, 2000 Oil Spill at Chalk Point on the Patuxent River, Maryland (pp. 11-36)
- Bishop et al, (2017). Putting a value on injuries to natural assets: The BP oil spill. *Science*, 356(6335), 253-254;
- Silvertown, Jonathan. (2015). Have ecosystem services been oversold? *Trends in Ecology & Evolution*, 30(11), 641-648;



- (2) **Regulatory uncertainty** is the potential for future regulation changes that might affect business strategy and investments of regulated entities. Regulatory uncertainty will generate significant opportunity costs for businesses, as it doesn't allow an efficient allocation of resources by the regulated entities. However common regulatory burden models, such as the standard cost model, do not account for the costs of regulatory uncertainty. Thus most CBAs which assess regulatory burdens do not account for this component.
- (3) **CBA and climate change**: cost-benefit analysis of the transition to low carbon economy.
- COMMUNICATION FROM THE COMMISSION: A Roadmap for moving to a competitive low carbon economy in 2050, Brussels, 8.3.2011, COM(2011) 112 final.
 - Macroeconomic impacts of the low carbon transition in Belgium, <https://www.climat.be/2050/en-be/scenario-analysis/>.
 - Pizer, W., et al, (2014). Using and improving the social cost of carbon. *Science*, 346(6214), 1189-1190.
 - Social Cost of Carbon 101 – Resources for the Future - August 1, 2019.



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Faculty

Prof. John Graham, Dean Emeritus, Indiana University O'Neill School of Public and Environmental Affairs



John D. Graham has a PhD from Carnegie-Mellon University. He was a post-doctoral fellow and an assistant professor in Harvard School of Public Health, Harvard. From 1990 to 2001, Graham founded and led the Harvard Center for Risk Analysis (HCRA). In 1995, Graham was elected president of the Society for Risk Analysis (SRA). In 2009, Graham received the SRA's Distinguished Lifetime Achievement Award, the society's highest award for excellence. In March 2001, President George W. Bush nominated Graham to serve as Administrator, Office of Information and Regulatory Affairs, Office of Management and Budget. He was confirmed by the Senate in July 2001. Located in the Executive Office of the President, this small office of 50 career policy analysts oversees the regulatory, information, and statistical activities of the federal government. In this capacity, Graham worked to slash the growth of regulatory costs by 70 percent while encouraging regulations that save lives, prevent disease, and protect the environment. From March 2006 to July 2008, Graham was dean of the Frederick Pardee RAND Graduate School (PRGS) at the RAND Corporation in Santa Monica, California. PRGS is the largest doctoral



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program in policy analysis in the world. On July 28, 2008, Graham became the dean of the unique two-campus, \$56 million professional school, the Indiana University O'Neill School of Public and Environmental Affairs. He served as dean until August 1, 2019, and continues on as a faculty member. Under Graham's deanship, O'Neill's Master's in Public Affairs Program on the Bloomington campus rose to No. 1 out of 272 programs in the 2016 *U.S. News and World Report* national survey. He raised more than \$37 million in philanthropic support for the school. During his tenure, student enrollment in overseas study programs has tripled and the first fully online MPA program offered by a top graduate school in public affairs, O'Neill Online, was launched. Throughout his tenure in academia, he has authored or coauthored 10 books and more than 200 articles for academic journals and national publications. Graham has also continued to be involved in policy at a global scale.

Prof. Cary Colianese, Penn Law School



Cary Coglianese specializes in the study of regulation and regulatory processes, with a particular emphasis on the empirical evaluation of alternative regulatory strategies and the role of conflict and cooperation in business-government relations. His books include *Achieving Regulatory Excellence* (Brookings Institution Press, 2016); *Does Regulation Kill Jobs?* (University of Pennsylvania Press, 2014); *Regulatory Breakdown: The Crisis of Confidence of US Regulation* (University of Pennsylvania Press, 2012); *Import Safety: Regulatory Governance in the Global Economy* (University of Pennsylvania Press, 2009); *Regulation and Regulator Processes* (Ashgate, 2007); and *Leveraging the Private Sector: Management-Based Strategies for Improving Environmental Performance* (Routledge, 2006). He has also



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recently written on climate change policy, public participation and transparency in federal rulemaking, the use of artificial intelligence by government agencies, and voluntary environmental programs. Coglianesse was a founding editor of the peer-reviewed journal *Regulation & Governance*, and he founded and continues to serve as advisor to *The Regulatory Review*.

Prof. Shi-Ling Hsu, D'Alemberte Professor of Law, Florida State University College of Law



Shi-Ling Hsu is the D'Alemberte Professor at the Florida State University College of Law. Prior to his current appointment, Professor Hsu was a Professor of Law and Associate Dean for Special Projects at the University of British Columbia Faculty of Law. He has also served as an Associate Professor at the George Washington University Law School, a Senior Attorney and Economist for the Environmental Law Institute in Washington D.C, and a Deputy City Attorney for the City and County of San Francisco. Professor Hsu practiced law with the firm of Fenwick & West in Palo Alto, California.

Professor Hsu has taught in the areas of environmental and natural resource law, law and economics, quantitative methods, and property. He is an expert in U.S. and Canadian environmental and natural resource law, specializes in the area of climate change and climate policy, and writes in those areas as well as economic aspects of environmental and natural resources regulation. He is the author of *The Case for a*



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Carbon Tax (Island Press, 2011), and the co-author of *Ocean and Coastal Resources Law* (Aspen, 2019).

Professor Hsu has a B.S. in Electrical Engineering from Columbia University, and a J.D. from Columbia Law School. He also has an M.S. in Ecology and a Ph.D. in Agricultural and Resource Economics, both from the University of California, Davis.

Oren Perez, Dean and Professor, Bar Ilan University Faculty of Law



Oren Perez has an LLB (*Magna Cum Laude*) from Tel Aviv University and LL.M. (1997), Ph.D. (2001) from London School of Economics and Political Science and BA Philosophy from University of London (*First Class Honours*) (2015). He primarily works in the fields of Environmental Law and policy, Transnational Law and Globalization, Torts, Legal Theory and Networks. He currently serves as the Dean of Bar-Ilan Faculty of Law. Among his most recent publications are: *The Prospects of E-Democracy: An Experimental Study of Collaborative E- Rulemaking* (April 14, 2018). 15 *Journal of Information Technology & Politics* (2018) 278-299; *Governance through global networks and corporate signaling. Regulation & Governance* (2019); *Transnational Networked Constitutionalism, Journal of Law & Society* (2018) Pages S135-S162 and *The Network of Law Reviews: Citation Cartels, Scientific Communities, and Journal Rankings* (August 31, 2018). *Modern Law Review*, 2019; Nahmias, Yifat and Perez, Oren and Shlomo, Yotam and Stemmer, Uri, *Privacy Preserving Social Norm Nudges* (September 4, 2019). *Michigan Telecommunications and Technology Law Review*, Vol. 26, 2019. Available at SSRN: <https://ssrn.com/abstract=3447857>.