Foreword

Environmental Law at UCI

Alejandro E. Camacho,* Joseph F.C. DiMento,** and Michael Robinson-Dorn***

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It is fitting that one of the first symposia of the University of California, Irvine School of Law (UCI Law) addresses the law of environmental protection. In this Preface we describe the central role that environmental law has played in the history and development of UCI Law, look to the future of this important field at the Law School, and provide a brief overview of the articles from this issue.

I. ENVIRONMENTAL LAW AT UCI LAW

Since its early history, UCI Law focused on the environment and its protection through law. Interdisciplinarity was the key dimension of the new University of California, Irvine (UCI) comprehensive campus when the school opened in 1965, making course offerings on the environment a natural addition to the curriculum. Through the subject of the environment, links were fostered between the humanities and social sciences and the physical and biological sciences. The academic program Social Ecology was built on a mission statement that mirrored the goals of the National Environmental Policy Act, and several

^{*} Professor of Law and Director, Center for Land, Environment, and Natural Resources, University of California, Irvine School of Law; Member Scholar, Center for Progressive Reform.

^{**} Professor of Law; Planning, Policy and Design; and Transportation Sciences. Founding faculty, University of California, Irvine School of Law.

^{***} Clinical Professor of Law and Director, Environmental Law Clinic, University of California, Irvine School of Law.

^{1.} The National Environmental Policy Act states:

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter and (2) all agencies of the Federal

courses on the environment were in its original curriculum, including one course on environmental law. Other units also offered environmental policy and law courses at the undergraduate, master's, and doctoral levels. Many dissertations focusing on domestic and international environmental law, policy, and politics have been written under interdisciplinary faculty committees.² Nobel Prize winner F. Sherwood Rowland's pioneering work on ozone depletion, which was an important background for the signing of the Montreal Protocol,³ was done at UCI.⁴ In 1991, UCI established the interdisciplinary Department of Earth System Science, one of the leading academic departments in the nation devoted to studying Earth as a system.⁵ UCI currently has excellent departments and programs in civil and environmental engineering,⁶ environmental studies,⁷ environmental planning,⁸ public health,⁹ and ecology and evolutionary biology.¹⁰

Since its inception the campus has often reached out to the larger

Government shall— (A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment

National Environmental Policy Act of 1969, 42 U.S.C. § 4332 (2006). Similarly, "[t]he School of Social Ecology's students and faculty investigate social problems from multi-disciplinary and trans-disciplinary perspectives . . . [and their] research adopts a more multi-faceted approach. Social, legal, behavioral, and environmental sciences all overlap in Social Ecology's proposed solutions to real-life problems." UC Irvine's School of Social Ecology's History and Mission, UC IRVINE, http://socialecology.uci.edu/pages/history-and-mission (last visited Jan. 16, 2012).

- 2. Examples include Hilary Kathleen Nixon, Electronic Waste Management in California: Consumer Attitudes Toward Recycling, Advanced Recycling Fees, "Green" Electronics, and Willingness to Pay for E-Waste Recycling (2006) (unpublished Ph.D. dissertation, UC Irvine) (on file with the UC Irvine Library system), Jamie Faye Morgan, Considering the Effectiveness of International Environmental Agreements: A Case Study of the Ramsar Convention (2009) (unpublished Ph.D. dissertation, UC Irvine) (on file with the UC Irvine Library system), and Pamela Doughman, Discourse, Sustainable Development, Mexico, and Water (1999) (unpublished Ph.D. dissertation, UC Irvine) (on file with the UC Irvine Library system). For other examples of interdisciplinary dissertations written in the School of Social Ecology, see UC Irvine's School of Social Ecology's [Ph.D. Recipients 2004–2011], UC IRVINE, http://students.soceco.uci.edu/pages/phd-recipients (last visited Jan. 16, 2012), and UC Irvine's School of Social Ecology's Ph.D. Recipients Before 2004, UC IRVINE, http://students.soceco.uci.edu/pages/phd-recipients-archive (last visited Jan. 16, 2012).
- 3. See H. Res. 593, 110th Cong. (2007) (acknowledging Professor Rowland's contribution to the Montreal Protocol while at UCI).
- 4. Rowland, in fact, wrote about the use of science in law making. See F. Sherwood Rowland, Atmospheric Changes Caused by Human Activities: From Science to Regulation, 27 ECOLOGY L.Q. 1261 (2001).
- 5. See UC Irvine's About the Department of Earth System Science, UC IRVINE, http://www.ess.uci.edu/about (last visited Jan. 16, 2012).
- 6. UC Irvine's Department of Environmental and Civil Engineering, UC IRVINE, http://www.eng.uci.edu/dept/cee (last visited Jan. 16, 2012).
- 7. UC Irvine's Environmental Studies Program Blog, UC IRVINE URBAN STUDIES, http://sites.google.com/site/ucirvineurbanstudies/blog/urban-planning (last visited Jan. 16, 2012).
- 8. Planning, Policy, and Design, UC IRVINE SCH. LAW, http://ppd.soceco.uci.edu/ (last visited Jan. 13, 2012).
 - 9. Public Health, UC IRVINE, http://publichealth.uci.edu/ (last visited Jan. 13, 2012).
- 10. Ecology and Evolutionary Biology, UC IRVINE, http://ecoevo.bio.uci.edu/ (last visited Jan. 13, 2012).

community by hosting debates and conferences on environmental law matters such as the dispute over Proposition 15 of 1976,¹¹ which if passed by the voters would have determined the future of nuclear energy in California, and the proposed 1982 California "Bottle Bill." Earth System Science faculty, including members of the Nobel Prize-winning Intergovernmental Panel on Climate Change, made major contributions to the development of the science behind the Framework Convention on Climate Change and the Kyoto Protocol.¹³

In 2001, UCI established the Newkirk Center for Science and Society. ¹⁴ The Center's goals are "to improve science's response to community needs and to increase the effective uses of scientific results for the benefit of society." ¹⁵ Among its many other functions, in its first decade the Center has convened a host of conferences, lectures, and educational programs on a wide variety of environmental topics, including the greenhouse effect, climate change communication, surf zone pollution, U.S.-Mexican-Canadian cooperation, climate change and cities, climate change law, global change and oceans, the social ecology of fires, green development, environmental pollution in China, marine and freshwater conservation law and governance, the Arctic, the California coast, ice melt and sea-level rise, and global sustainability. ¹⁶

In 2008, UCI reinforced its commitment to environmental issues by establishing a new university-wide Environment Institute to foster educational and research opportunities that address interactions between the environment and society.¹⁷ The fundamental goals of the Institute are "to strengthen and link academic programs in environmental studies across Schools and Departments, develop a coherent image of the breadth and quality of ongoing research in the environment and related fields, and enhance the rise of UCI as a leader in

^{11.} Joseph F.C. DiMento, Proposition 15: A Legal Analysis (May 1976) (unpublished paper delivered to the May 1976 UCI Symposium "Facts of Nuclear Energy Utilization") (on file with author). In addition, an early symposium on international environmental law with experts from Kenya, Italy, Russia, Mexico, and Korea was held at UCI.

^{12. &}quot;The Bottle Bill," the California Beverage Container Recycling and Litter Reduction Act, was to be implemented by the Department of Conservation. The bill established redemption values on beverage containers and required the establishment of at least one certified recycling center in a convenience zone, as specified, to pay out the refunds. California Beverage Container Recycling and Litter Reduction Act, Cal. Pub. Res. Code §§ 14500–14599 (West 2007).

^{13.} United Nations Framework Convention on Climate Change, May 9, 1982, 1771 U.N.T.S. 107, 165; S. Treaty Doc No. 102-38 (1992); U.N. Doc. A/AC.237/18 (Part II)/Add.1; 31 I.L.M. 849 (1992); Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998).

^{14.} The Newkirk Center, UC IRVINE, http://www.newkirkcenter.uci.edu/index.html (last visited Jan. 13, 2012).

^{15.} Id.

^{16.} Past Programs and Series at The Newkirk Center, UC IRVINE, http://www.newkirkcenter.uci.edu/pastPrograms.html (last visited Jan. 13, 2012).

^{17.} UC Irvine Environment Institute: Global Change, Energy, and Sustainable Resources, UC IRVINE, http://environment.uci.edu/ (last visited Jan. 13, 2012).

addressing the challenges of global change, energy, and sustainable resources." The Institute supports on-campus research projects, public events, and campus-wide seminars; recruits new faculty with a particular emphasis on interdisciplinary research; and sponsors "research partnerships that focus on defining and understanding the dynamic interactions among science, technological innovation, and societal response." It also promotes programs directed at improving sustainable practices on the UCI campus.²¹

Environmental law was one of the foci of the law school proposal of 2001. The first major gift to UCI Law underscored "a special emphasis on materials relating to environmental law," ²² and a later major gift was made for the creation of the law school's first clinic, the Environmental Law Clinic. ²³ In addition to the founding faculty, two of the early faculty hires were in environmental law. ²⁴

From the start, UCI Law has attracted a cadre of students interested in environmental law. And, as in so many other areas, these students have been extraordinary. In the Law School's first two years, students founded the Environmental Law Society (ELS)²⁵ and hosted the Law School's first student-run conference: "Assemble, Advocate, Act" (A3), a conference examining "the social injustices faced by vulnerable populations who are disproportionately affected by climate change." Students have also fanned out across the country to work at public interest environmental law organizations and firms, and at UCI Law have helped set the direction for the Environmental Law Clinic and develop the new Center on Land, Environment, and Natural Resources.

II. THE ENVIRONMENTAL LAW CLINIC

More than a decade ago, the UCI Work Group charged with producing the proposal for the establishment of a School of Law at UCI, called for clinical

^{18.} Introduction to *UC Irvine Environment Institute: Global Change, Energy, and Sustainable Resources*, UC IRVINE, http://environment.uci.edu/introduction.php (last visited Jan. 13, 2012).

^{19.} *Id*.

^{20.} See UC Irvine Environment Institute: Global Change, Energy, and Sustainable Resources, UC IRVINE, http://environment.uci.edu/index.php (last visited Jan. 13, 2012).

^{21.} See Introduction to UC Irvine Environment Institute, supra note 19.

^{22.} Joseph F.C. DiMento, *UCI Law: The First Half Century*, 1 U.C. IRVINE L. REV. 25, 39 n.68 (2011). The gift was from the Joan Irvine Smith & Athalie R. Clark Foundation.

^{23.} See Press Release, UC Irvine School of Law Receives \$2 Million Grant to Start Environmental Law Clinic, UC IRVINE (May 19, 2009), http://www.law.uci.edu/press_releases/05-19-09.html.

^{24.} See Press Release, UC Irvine School of Law Hires Seven New Faculty Members, UC IRVINE (June 18, 2009), http://www.law.uci.edu/press_releases/06-18-09.html; Press Release, UC Irvine School of Law Hires Environmental Law Clinic Director, Tax and Business Faculty, UC IRVINE (June 1, 2010), http://www.law.uci.edu/press_releases/06-01-10.html.

^{25.} See Student Organizations, UC IRVINE, http://www.law.uci.edu/students/organizations/list.html (last visited Jan. 12, 2012).

^{26.} See Conference on Climate Justice, ASSEMBLE ADVOCATE ACT, http://www.assemble advocateact.org (last visited Jan. 12, 2012).

education to be "central" to the new law school's curriculum.²⁷ Supported by a generous gift,²⁸ and strongly backed by the faculty, the Environmental Law Clinic was the Law School's first clinic.²⁹ Clinics provide a critical part of students' legal training; they give students the opportunity to work on matters of consequence, serving real clients, under the training and supervision of faculty with years of experience in the field. The Environmental Law Clinic is one of the places within the law school where, together, students and faculty bridge the gap between environmental law doctrine and practice—where student learning takes place in context and theory meets action. The Environmental Law Clinic provides interested and dedicated students with hands-on learning and helps them to gain the knowledge, skills, creativity, practical experience, ethical awareness, and judgment necessary for the competent practice of law. All of this takes place within a pedagogical framework designed to teach and yield extraordinary results for the students and for the Clinic's *pro bono* clients.³⁰

As one of only two environmental law clinics at a public university south of San Francisco, and the only such clinic south of Los Angeles—an area with a population of more than 8 million³¹—UCI Law's Environmental Law Clinic has a remarkable opportunity to help conserve and protect the environment of one of this nation's most beautiful and significant regions. In its first semester, the Clinic has been working on matters ranging from climate change to hazardous waste and environmental justice; its clients are from the Mojave Desert and the Inland Empire to the Pacific coast and beyond. In addition, the Clinic is reaching out to work with environmental law clinics from other institutions and with other clinics at the Law School—such as the Community Economic Development Clinic and the Immigrant Rights Clinic—to more fully address the increasingly complex and vexing problems facing the Clinic's clients. In the coming years, while training and developing the next generation of topflight environmental attorneys and leaders, the Clinic will expand its ability to work with affected communities, to help solve the problems that they face, to effect change, and to protect and conserve the environment.

- 27. See DiMento, supra note 24, at 36.
- 28. UC Irvine School of Law Hires Seven New Faculty Members, supra note 26.
- 29. See Erwin Chemerinsky, The Ideal Law School for the 21st Century, 1 U.C. IRVINE L. REV. 1, 15 (2011) (explaining the goal of law clinics at UCI Law and the receipt of a two million dollar gift to help create the first clinic).
- 30. Much has been written about the pedagogy of clinical teaching. For a description of the role that an environmental law clinic of the type described here can play in teaching both environmental law and problem solving, see Michael Robinson-Dorn, *Teaching Environmental Law in the Era of Climate Change*, 82 WASH. L. REV. 619, 639–44 (2007).
- 31. The combined population of Orange County, Riverside County and San Diego County is over eight million. *See American Fact Finder*, U.S. CENSUS BUREAU, http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml (enter county name in "geography" search box; follow "Profile of General Population and Housing Characteristics: 2010" hyperlink). More than three million people live in Orange County.

III. THE CENTER ON LAND, ENVIRONMENT, AND NATURAL RESOURCES

Most recently, to help make UCI Law a national leader in scholarly discourse, education, and public engagement on environmental law, the Law School has established the Center on Land, Environment, and Natural Resources (the Center). Broadly stated, the mission of the Center is to promote innovative thinking and engagement about environmental law.³² The Center adopts a broad understanding of law to include legislation, regulation (including administrative guidance and policy), judicial decision making, and alternative forms of dispute resolution.³³ "The Center also adopts a broad understanding of environmental problems to include issues pertaining to environmental health, pollution control, land use, natural resources, public lands, and energy."³⁴

More specifically, the Center strives:

- to support interdisciplinary research aimed at revealing and addressing intractable environmental problems;
- to create programs and other educational opportunities through which to disseminate information and facilitate dialogue about environmental issues;
- to build advocacy networks among academics, students, activists, and policy makers that will play a leading role in framing debates, developing solutions, and challenging existing policies and practices where they fall short in protecting the environment;
- to involve and engage UCI Law students in these research, educational, and public engagement activities;
- to increase dialogue and promote collaboration among stakeholders about concrete conflicts over land use or environmental issues locally and globally; and
- to build collaborations and synergies with other centers at UCI, including the Environment Institute, the California Institute for Telecommunications and Information Technology, and the Newkirk Center for Science and Society.³⁵

Starting in early 2012, the Center will be hosting a lecture series and conferences, cohosting an international interdisciplinary summer institute for future sustainability leaders, and funding interdisciplinary research and policy papers.

Both the Environmental Law Clinic and the Center will continue UCI's strong tradition of working across disciplines to draw on this campus's

^{32.} Center for Land, Environment, and Natural Resources (CLEANR), UC IRVINE, http://www.law.uci.edu/centers/environmental_law.html (last visited Feb. 13, 2012).

^{55.} *1a*.

^{34.} Id.

^{35.} Id.

remarkable, world-class resources, and will reach out to work with communities in Southern California and beyond to help find creative solutions to some of the most complex and important environmental issues of our day.

The three substantive articles that follow reflect the intricacy and maturity of environmental law; they are written by four of the most experienced professionals in the field—experts who have witnessed and influenced how environmental law has evolved. In Lines in the Sand: Contrasting Advocacy Strategies for Environmental Protection in the Twenty-First Century, Joel Reynolds and Damon Nagami write about the evolution and future of advocacy strategies for environmental protection in response to the maturation of American environmental law.³⁶ Drawing on lessons from three representative and contrasting cases of recent environmental advocacy by the Natural Resources Defense Council, Nagami and Reynolds explain how environmental advocacy has expanded to include not only legislative advocacy and litigation but also administrative advocacy, community mobilization, and negotiation. The article also provides insight into the relative advantages of these various alternative strategies. Though acknowledging that "litigation is an enormously useful, often essential tactic in motivating an intransigent adversary to listen to reason—or at least to obey the law," the authors identify time, cost, and inflexibility for creative solutions as limitations on inherently reactive strategies for dispute resolution.³⁷ In contrast, administrative advocacy can be effective with conservation agencies when paired with "careful planning, focused advocacy, effective organization, adequate funding, and an issue of sufficient interest to the media and the public to get involved."38 Finally, negotiation strategies have the distinct advantage of allowing for more tailored, collaborative, and creative solutions to disputes in circumstances in which the key stakeholders are directly engaged and motivated, and the process is appropriately structured to promote agreement.³⁹ In this sense, the article serves to support the growing empirical literature on collaborative environmental dispute resolution.⁴⁰

In EcoFarming: A Realistic Vision for the Future of Agriculture?, Professor Buzz Thompson examines how the law can facilitate a fundamental transformation in agricultural land management, a sector of American society that historically has not been fully or effectively addressed by environmental law. Thompson asserts

^{36.} Joel R. Reynolds & Damon K. Nagami, Lines in the Sand: Contrasting Advocacy Strategies for Environmental Protection in the Twenty-First Century, 1 U.C. IRVINE L. REV. 1125 (2011).

^{37.} See id. at 1165.

^{38.} See id. at 1166.

^{39.} See id.

^{40.} See, e.g., LAWRENCE SUSSKIND ET AL., USING ASSISTED NEGOTIATION TO SETTLE LAND USE DISPUTES (1999); LAWRENCE SUSSKIND ET AL., NEGOTIATING ENVIRONMENTAL AGREEMENTS (2000); THE PROMISE AND PERFORMANCE OF ENVIRONMENTAL CONFLICT RESOLUTION (Rosemary O'Leary & Lisa B. Bingham eds., 2003); Carrie Menkel-Meadow, Getting to "Let's Talk": Commentary on Collaborative Processes in Environmental Dispute Resolution, 8 Nev. L.J. 835 (2008).

that agricultural land has the capacity to provide a wide range of environmental goods and services, such as renewable energy, climate regulation, hydrologic services, and wildlife habitat, which are largely neglected because under existing law the rewards of producing them are low, and uncertainty and transaction costs associated with obtaining any value for producing them are high.⁴¹ Thompson's article underscores the need to move beyond traditional government approaches that rely on prescriptive, static standards, because "prior efforts to increase environmental regulation of farmers have failed."42 Thompson analyzes a range of financial incentives, including philanthropy, ecolabeling, direct governmental payments, and governmental policies that drive third-party purchases of ecosystem services, all of which have the potential to reward landowners for producing ecosystem services.⁴³ Thompson suggests that by using a suite of such mechanisms, farmers can be transformed from "cultivation specialists" to "multifaceted and holistic land managers, evaluating how to preserve, improve, and utilize their land to produce that mixture of goods and services providing the greatest societal benefit."44

In Climate Change and the Evolution of Property Rights, Professor Holly Doremus traces how property rights have been in tension with environmental law, and suggests that the law of property may need to further evolve due to projected profound alterations in the global climate.⁴⁵ Doremus "consider[s] how and why climate disruption will require adjustments to the rules of property ownership, and why those adjustments must run in the direction of weakening, rather than strengthening, individual property claims."⁴⁶ Doremus asserts that though private markets, legislatures, state courts, and agencies will continue to shape property law, federal courts will have to play a primary role to facilitate greater deference to public property rights.

Environmental law is now over forty years old in the United States, and the perspectives reflected in the three substantive articles in this symposium find their roots in early considerations of what the field should emphasize: citizen activism, including activism through the courts; regulatory strategies, including command and control and hybrids integrating economic-based actions; information-oriented initiatives; environmental rights; and new understandings of property and

^{41.} See Buzz Thompson Jr., EcoFarming: A Realistic Vision for the Future of Agriculture?, 1 U.C. IRVINE L. REV. 1167, 1168 (2011).

^{42.} Id. at 1220.

^{43.} See id. at 1172.

^{44.} Id. at 1170.

^{45.} Holly Doremus, Climate Change and the Evolution of Property Rights, 1 U.C. IRVINE L. REV. 1091, 1092 (2011) ("In many ways, as a selective pressure on property regimes, climate disruption is reminiscent of the recognition of environmental protection as an important social goal in the second half of the twentieth century. Property rights evolution in response to climate disruption will face all the hurdles that have plagued their readjustment over the last several decades in response to environmental protection goals, in heightened form.").

^{46.} Id. at 1093.

ownership of valuable natural resources.

Each of the academic contributions included in this issue represents a different tradition in the legal community, and different strategies to confront the challenges of a degrading environment. We thank the authors for these important contributions to the field, and we are proud to publish their work in this symposium issue of the *UC Irvine Law Review*.