Australia’s Environmental Protection and Biodiversity Conservation Act: The Second Wave

By Lee Godden

Over the past few years, Australia has conducted a review of major pieces of national environmental legislation, which found significant deficiencies in the existing regime. The existing national regime commenced with a raft of environmental legislation introduced in the ‘first wave’ of the environmental movement in the early seventies. Several of the most important Acts such as the Environment Protection (Impact of Proposals) Act of 1974 had not been substantially amended in over 20 years. In most instances, they no longer represented best practice.

In light of this review, on July 2, 1998, The Environment Protection and Biodiversity Conservation Bill (EPBC Bill) was introduced into Commonwealth (Federal) Parliament. There are two major sections to the proposed Act: environmental protection and biodiversity conservation.


The previous legal framework for impact assessment at the Commonwealth level provided only minimal protection for the environment and involved a cumbersome administrative process. Much of the reform process concentrates on delimiting what are the ‘triggers’ for impact assessment. The adoption of the criterion of national environmental significance is central to the new process. In addition the process provides more of a comprehensive and

Agreement Nears on Caribbean/Mesoamerican Center for Environmental Law

By Robert J. Goldstein

Approval by Madeline Albright, US Secretary of State, is the final step before an historic agreement can be signed creating the Center for Environmental Protection and Natural Resources Management in the Caribbean Basin and the Mesoamerican Region. The agreement will engage the nations in both the Caribbean and Central America in an effort to provide extensive training, networking and sharing of information to solve regional environmental problems. The Pace Center for Environmental Legal Studies was chosen to be the academic component of the initiative based largely on its reputation as a global center for the teaching of environmental law.

Mesoamerica -- continued on page 13, col. 3
Alumni Corner

Marla Rubin ’84 is now with the New York City firms Londa and Traub, LLP and Wohl & Entwistle LLP practicing environmental law and professional responsibility. She served on the State Bar Association’s Committee on Professional Ethics and has published articles on legal ethics in the Association’s newsletter, The New York Environmental Lawyer.

Andrea Bull Brainard ’89 has moved to Pennsylvania after working as an environmental lawyer in Washington, D.C. until 1993. She currently works at a small firm doing environmental, corporate and commercial real estate law. Her husband, Brad, owns and operates a small company that manufactures hardware and software for aircraft and medical applications.

Andrew R. Tulloch ’89 writes that in September 1997 he left his position as Law Secretary, Commercial Division, N.Y.S. Supreme Court where he oversaw the New York State tobacco litigation for Justice Charles Ramos. He has joined Borah, Goldstein, Altschuler & Schwartz, P.C., as Special Counsel. He is a contributor to Guardianship Practice in New York State, NYSBA, 2 vol. 1997-1998. He is currently involved in environmental insurance litigation related to PERC exposure from dry cleaning establishments.

Michael D. Kessler ’90 works for the New York City Council’s Office of Oversight and Investigations, attached to the Environmental Protection Committee.

David R. Everett ’91 is an associate in the environmental practice group of Whiteman Osterman & Hanna in Albany, New York. He regularly publishes updates on administrative decisions for the New York Environmental Law Journal.

Adam Grossman ’91 has been appointed as Town Attorney of Riverhead in February. Adam was chosen because of his experience in municipal law, especially that governing land-use issues and based on his experience as an environmentalist.

Paul Schmidt ’92 has been appointed Assistant Counsel for the Pennsylvania State Department of Environmental Protection.

Barbara DiTata ’93 is Deputy Commissioner and Chief Counsel of the New York State Commission of Investigation. She was formerly Chief of the Environmental Crimes Bureau for the Westchester County District Attorney’s Office.

Mark Ford ’94 has accepted a position with the United States Environmental Protection Agency (EPA) Region 6 in Dallas, Texas. Elizabeth Citrin Pober ’94 is Assistant Corporation Counsel, Special Litigation Unit, Office of the Corporation Counsel, City of New York Law Department, handling high profile, high liability cases in federal and state courts.

Robert Snow ’94 has been working on Colorado River environmental issues.

Rosalind Rowen Rossi ’97 is with the National Labor Relations Board (NLRB). She serves on various committees for the Sierra Club and the ABA. In November she married Angelo Rossi, a research scientist and chemistry professor.

Barbara McIntosh ’96 has become an associate of Graham & James LLP/ Riddell Williams P.S., a full-service international law firm. Barbara practices general litigation and environmental law.

Rafael E. Santos-Toledo ’96 LL.M. has joined the law firm of Mercado Soto P.S.C. in March 1998 as a litigator in the areas of environmental law, labor law, and torts. Rafael and his wife are the proud parents of twins, Valeria and Beatriz, born November 22, 1998.

Marc Yaggi ’97 is on the staff of the Environmental Law Reporter as Litigation Coordinator and writer.

The Editor is pleased to receive materials from Alumni for publication in this column.
Pace Advisors Spearhead an Environmental Court in Brazil

In The Fight To Save The Rain Forests And Halt Global Warming, A Small State In Brazil Is On The Front Lines

By Robert J. Goldstein

WHITE PLAINS, N.Y.—One hundred miles south of the equator in Sao Luis, Brazil, the cause of climate disruption seems far away. The skies are clear in this coastal capital of the state of Maranhao. There are no smokestacks belching pollutants here, there’s no ozone-laden smog, but this serene place holds one of the keys to global warming. This is the edge of Amazonia, where the next battle against climate disruption will be fought.

In the industrial Northern Hemisphere, the concern is the emission of greenhouse gases that lock heat in the atmosphere and allegedly cause climate disruption, including weather phenomena like El Nino. Also causing concern is the decreasing ability of the planet to absorb these greenhouse gases and process them. That ability, a function of forests and other plant-life is being jeopardized in the Southern Hemisphere by the destruction of large tracts of green in developing countries. One major attempt to resolve this conflict of interest between North and South has been undertaken in the remote Brazilian state of Maranhao.

Lino Moreira seems out of place in his native city of Sao Luis. He was trained at the University of Notre Dame and has a fondness for South Bend, Ind.

Strip mining is one of many threats to the Brazilian rainforest.

Moreira is secretary of state for the environment—a daunting job in a state whose capital city has no sewage treatment, no waste-disposal facility and an abundance of mineral riches that mining executives find mouth-watering.

One hundred miles south of the equator, this city is always hot, and Moreira perspires incessantly.

Though technically Amazonia, Maranhao is not really part of the Amazon rain forest, but is an eastern neighbor. The state, roughly the size of Germany, has abundant forests and vast tracts of mangroves. Mangroves are both among the world’s richest and most highly endangered ecosystems. Clinging to tidal wetlands, the mangroves form a wide band of forest on Maranhao’s Atlantic coast. Farther inland begins the vast tract that Northerners think of as a blanket of green rain forest.

Flying over Amazonia, one realizes instantly that “blanket” could not be further from the truth. The land is pockmarked with tracts deforested for grazing and marginally productive agriculture. Also, large tracts are burning, the result of this year’s drought and the desire of individuals to clear even more of the virgin forest. Most of these activities are illegal, Moreira notes, yet they are causing the greatest devastation of the rain forest. To remedy this, Moreira, together with a team from Pace University in New York, has brokered an agreement among state judges and legislators in Maranhao to establish the first environmental court in Brazil, actually the first of its kind in the world.

The current president of the court in Maranhao, Judge Antonio Bayma, was immediately receptive to creating a Pace University Advisors visit Maranhao’s Vice Governor (pictured from left to right Eric Arbogast, Eli Medeiros, Jordan Young, Vice Governor Jose Reinaldo Carneiro Tavares , the author and Lino Moreira).

Brazil -- continued on page 15, col. 2
During the 1970s, the Malaysian economy grew at an amazing rate and the development of the country’s infrastructure to encourage industrial development became priority. Hundreds of acres of primary forests were cleared to make way for the development of infrastructure such as industrial estates, housing and commercial premises.

During the 1970s, the Malaysian economy grew at an amazing rate and the development of the country’s infrastructure to encourage industrial development became priority. Hundreds of acres of primary forests were cleared to make way for the development of infrastructure such as industrial estates, housing and commercial premises.

Laws related to the environment have existed in Malaysia since the 1800s. During that time the mining industry flourished, which became the main cause of the pollution of the rivers. Chinese immigrants working at the mines became squatters, as housing provisions were inadequate. Under British rule during the time, laws were introduced to prevent further pollution from mining activities. Among them are the Mining Enactment of 1889 and the Water Act of 1920. These specific laws were introduced to maintain “good housekeeping” of specific sectors of the economy rather than protect the environment per se.

Between 1889 to 1974, more environment-related laws were introduced. During the 1970s, the Malaysian economy grew at an amazing rate and the development of the country’s infrastructure to encourage industrial development became priority. Hundreds of acres of primary forests were cleared to make way for the development of infrastructure such as industrial estates, housing and commercial premises.

The EQA was amended in 1988 to introduce the Environmental Impact Assessment (EIA) under Section 34(a) in order to regulate the economic activities of the nation. The EIA was applicable to 19 prescribed activities such as building of dams and airports, mining activities, drainage and irrigation, and development of resorts and housing.

There are now over 47 environment related laws in Malaysia.

Oil Spills and Hazardous Waste Woes

In 1996, as Malaysian environment took a turn for the worse due to pollution from oil ships in the ocean and the absence of regulations for hazardous wastes, an amendment included provisions to deal with these two problems.

Environmental auditing also became compulsory for companies and an environmental fund was also established. Monetary fines and imprisonment periods were steeply increased.

Despite these amendments, the state of the environment in Malaysia has worsened. Air Quality in Kuala Lumpur exceeds World Health Organization (WHO) standards, more hills are being cut to make way for highways and housing developments, golf resorts are mushrooming. The government has also encouraged mega projects with serious environment and social consequences such as the Bakun Dam in the state of Sarawak. Enforcement by agencies is very weak and the lack of knowledge of existing laws contributes to further degradation of the environment. Malaysia’s three-tier government system (federal, state and local governments) also makes it difficult for effective enforcement to be carried out as there is overlapping and confusing issues of jurisdiction.

There are many legal loopholes in the various environment-related Acts and there is a need to co-ordinate the agencies’ activities. Environment officers need to be trained and more must be recruited to have effective enforcement of the laws. Nevertheless, awareness among the general public is encouraging as more and more schools are integrating environmental education in their curriculum, and there is an increase in the number of memberships in nature societies. More university students are also requesting that the subject of environmental law be included in their curriculum.

Environmental law in Malaysia is still in its infancy. Until the decision-makers are equally concerned about the environment as the public, it will be an uphill struggle in the years to come for the few who strive to promote the protection of the environmental in the country.

AZRINA ABDULLAH teaches environmental law in Malaysia and is currently working with a research institute on a conservation strategy for the state of Penang, Malaysia.
Authors addressing the problem of power industry expansion mostly confine themselves to the fairly general statement that price signals provide information for investors who make decisions on commissioning power plants and transmission lines expecting profits. However there are some papers where certain aspects of the problem are addressed in detail. These papers are summarized and addressed in the following sections.

**Key points of market-based power industry expansion**

If one considers the problem of making decisions on expansion of the electric power industry under market conditions the following major points inevitably arise:

I. What are appropriate incentives for investment decisions on commissioning generating capacities of various types and transmission lines? Can under- or over-investments be expected in the future and under what conditions?

II. Is coordination of these decisions needed and, if needed, how and by whom would these decisions be coordinated, especially accounting for the fact that various power plants and transmissions belong to different owners, and the there are also market (generation) and monopoly-regulated (transmission) sectors in electric power?

III. Will these decisions made separately by different market participants provide solutions, which are optimal for the entire electric power industry, economy and society?

These points will be addressed further as available papers allow.

**Investment decisions on power industry expansion**

**General considerations**

Regulated electric power utilities were less risky than their unregulated counterparts in other industries and that is why they enjoyed low interest rates for investments. It was determined by the fact that return of investments was guaranteed for utilities because they passed all their costs to captive customers who virtually guaranteed this return. Many power plants would not have been built if utilities had not been regulated, and therefore customers would not have suffered from excess of capacities for which they now have to pay.

Unlike regulated cases there are no guarantees of return of investments for unregulated utilities. Thus, the power business is becoming more risky and costs of capital are supposed to increase in this industry. It may cause reduction of investment input to industry and therefore insufficient electricity supply, inadequate transmission system reliability and reduced economic efficiency.

However under market conditions, utilities will commission mainly small and medium size power plants. Investments in several small plants can spread (diversify) risk of investors in comparison with the case when investments are made in one large plant. There are some other ways of risk mitigation, like risk-sharing agreements. Moreover, higher risk supposes higher potential rewards. Thus, the problem of increased risk can be handled.

It is warned that market forces will likely make planning horizons shorter, which may result in less capital-intensive power supply decisions and bias toward short-term investment. As result it may cause high profit in a short-term and losses in longer-term. In fact it means that utilities will phase-in mostly small and medium size power plants.

The tendency of reduction of power plant size appeared earlier, first having been caused by availability of high-efficiency combined cycle gas-fired units. Changing generation technology has shifted the minimum efficient plant size down from approximately 1,000 MW for thermal power plants in early 1980s to much lower values ranging between 50 and 250 MW. The market will strengthen this tendency because it matches the financial capabilities of unregulated utilities well. Also, adequate gas resources have become available. Because of environmental concerns (first with acid rain and then with greenhouse gases) the move to gas also is seems to be inevitable. In such cases concern over a possible bias toward short-term investment may not be very serious.

**Capacity Investment**

In a market in which price is determined on the basis of competitive demand and supply, bidding so as to clear the market in every period, price will correctly balance the underlying costs and benefits of increasing capacity. When perfectly competitive generators base their investment decisions on such prices an efficient capacity level should result.

However real electricity markets are not perfectly competitive and it causes distortion of optimal prices and undermines incentives for expedient investments. Two opposite cases may occur as result of market distortion: under-investment and over-investment.

The first case appears when barriers (regulatory and/or others) to enter the market exist. In this case generator with market power is able to increase its profit by not investing in capacity up to its optimal level. In the absence of barriers, new investments in electric power industry are more likely than in other industries.

**Market-Based Power — cont. on p. 11 col. 1**
Pollution Trading: A “Sound” Strategy?

By Ann Powers

Long Island Sound is a magnificent estuary, stretching over 110 miles from the windy eastern stretches of water and sand at its junction with the Atlantic Ocean, to its western end where it meets Manhattan’s East River amidst one of the nation’s most urbanized areas. Draining a watershed of 16,000 square miles reaching northward to Canada, with a population of almost eight and a half million people, it is home to a great diversity of plants, animals and fish. With an estimated annual value exceeding $5 billion from commercial and recreational fishing, beach swimming and boating, the Sound provides jobs and recreation, and solace to the soul. Beneath the surface beauty, however, troubles abound. Fish catches are down, species diversity continues to decline and the waters are often unappealing, and occasionally unsafe.

Of the numerous pollution problems facing Long Island Sound, the most prominent is over-enrichment of its waters by excess nitrogen. Nitrogen, an nutrient essential for plant growth and survival, can disrupt the natural balance of a water body when present at high levels. It fuels the growth of algae which eventually die, sink to the bottom, and decompose. The decomposition process consumes oxygen, thereby reducing the amount available generally in the ambient water [a condition know as hypoxia], depriving fish and other aquatic life of the oxygen critical to sustain them.

The excess nitrogen in the Sound derives from numerous sources, but primarily from sewage treatment plants which dot the Sound’s shores and tributaries. The cost of improved sewage treatment is dauntingly high for many of the localities, faced as they are with competing needs for scarce tax dollars. Those costs may vary with the age and condition of the plant, and the benefits to be gained in improved water quality in the Sound as a whole may shift according to the location of the particular treatment plant. These factors have led to the suggestion that pollutant trading among plants might potentially achieve water quality goals in a more cost efficient manner than a traditional regulatory program alone. The federal-state Long Island Sound Program has been reviewing the feasibility of developing a nitrogen trading program to facilitate progress toward the program’s ultimate nitrogen reduction goal.

The actual structure of the program is still under discussion, but it will likely be limited to sewage treatment plants located in the coastal areas of Connecticut. The program would be carried out within the context of current Clean Water Act requirements, including the wastewater permit discharge program. In simplified terms, the program would allow those sewage treatment plants which could most cost effectively reduce their nitrogen discharges to control beyond established permit limits, and to sell the excess credits thus created to less efficient plants.

Scholars, advocates and agencies have for some time debated the efficacy and utility of market based incentives for pollution control. In one corner are those, often economists, who contend that market instruments, rather than regulation, are the most efficient way to prevent environmental damage and restore degraded resources. In the other corner are those, including many environmentalists, who believe that market solutions, particularly pollution trading, achieve little, are overly complex to administer and enforce, and fail to reduce pollution where most needed. They criticize the trading programs, arguing that the same degree of pollution reduction might have been achieved using traditional regulatory controls, and that the trading system fails to protect the most vulnerable populations and ecosystems and may delay full compliance with regulatory requirements.

Still, the sulfur dioxide trading program under the Clean Air Act, aimed at controlling acid deposition, has encouraged market advocates to explore the applicability of pollution trading programs to water pollution, land use and even climate change problems. Trading programs already have been undertaken to control water pollution in specific water bodies, both from point source dischargers and from overland runoff, or nonpoint sources. These programs have sometimes been controversial, but interest in trading remains strong at the federal level, and in some localities. This interest is stimulated in part by the growing recognition that some water quality problems can be addressed only on a large geographic scale. A federal policy shift toward increasing emphasis on watershed management coincides with, and perhaps encourages, consideration of trading schemes.

Although a trading program for Long Island Sound is still in the discussion phase, a review of other trading programs shows that few trades have been achieved under most of them, and suggests that for a program to have any hope of success certain elements must be present. The program should have clear goals, carefully spelled out and agreed upon by participants. A trading baseline should be established, optimally in the form of a stringent limit on pollutant loadings that preferably should decrease over time, to accord with goals established by the Clean Water Act. Sufficient differences in control costs must exist to provide an incentive to trade. The trading participants should be relatively homogeneous, and there should be enough participants to insure a viable market, but not so many that it becomes difficult to identify trading partners and raises transaction costs. The pollutant traded should be regional in nature, and emissions from various sources should have identical impacts on the protected resource. Monitoring must be adequate both to insure against local impacts and
to prevent evasion of control limitations. There must be a credible enforcement program and the political will to carry it out. Overall, the program should be as simple as possible and transaction costs kept low.

While it is too early to tell whether a Long Island Sound trading program would meet these guidelines, several obvious problems are already presented. First, the impact of various dischargers on hypoxic conditions varies with location. The areas of severest oxygen deprivation and therefore greatest environmental concern generally occur in the western end of the Sound, near New York City. Nitrogen from sources in that region has a direct impact on oxygen levels. The impact of nitrogen from sources farther removed from this area is attenuated. Thus a given amount of nitrogen discharged in eastern locales contributes much less to hypoxic conditions than does a nitrogen discharge of equal magnitude in western regions. This complicates a trading program, because nitrogen cannot be traded among dischargers on a pound for pound basis, and trading ratios must be employed. Add to that the fact that nitrogen may also have a substantial local impact at the point of discharge, which could be exacerbated by a trading program.

Another potentially important consideration is the extent to which state funding for sewage treatment plants may distort the market. Moreover, any decision to engage in nitrogen trading is a political as well as an economic issue. There may be real difficulty in convincing elected officials that making large unmandated capital expenditures in the hopes of selling credits in the future is politically wise. Sending local tax dollars to another jurisdiction through credit purchases may be equally unpalatable.

Questions of equity also may be raised, since the areas having the most impact on water quality in the Sound tend to be the more affluent ones. If these wealthier counties choose to make the large capital investment in new or upgraded facilities, would less prosperous localities forego construction of their own and instead purchase credits, thereby transferring funds to the wealthier jurisdiction? These and other questions remain to be answered.

To the extent that officials developing a trading program for Long Island Sound are able to learn from previous programs and to incorporate the appropriate elements, the chance of success will increase. Otherwise, we may only wind up with an interesting, but unsuccessful, experiment.

1 See LONG ISLAND SOUND STUDY, COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN 1 (1994). Long Island Sound is bordered by the states of Connecticut and New York, but its watershed encompasses all of Connecticut, those parts of New York lying near the Sound, as well as substantial portions of Massachusetts, New Hampshire and Vermont. It reaches into Canada, where the headwaters of the Connecticut River lie.

ANN POWERS is Associate Professor of Law, Center for Environmental Legal Studies, Pace University School of Law. This article is based on her recent article, Reducing Nitrogen Pollution On Long Island Sound: Is There A Place For Pollutant Trading? 23 COLUMBIA JOURNAL OF ENVIRONMENTAL LAW 137 (1998)

PACE PUNCHES POWER PLANT POLLUTION

On May 29th Professor David Wooley presented testimony to the United States Environmental Protection Agency supporting its proposal to cut nitrogen oxide emissions from electric power plants. The rulemaking is the first time in history that EPA has proposed to use its powers under the interstate air pollution provisions of the Clean Air Act to address regional-scale air pollution problems.

Smog, caused by emissions of nitrogen oxides, hydrocarbons and particulate matter from power plants and motor vehicles causes widespread violations of national air quality standards for ozone and fine particles in the eastern US. Power plants throughout the 22 state regions addressed by the EPA rule are a major contributor to ozone standard violations, which cause serious public health damages in the form of increased death, hospital admission and sickness rates. Children, the elderly and persons with preexisting lung disease are especially harmed. Healthy adults, particularly those who work or exercise outdoors during summertime smog events are adversely affected by the corrosive effect of ozone on lung tissue.

Professor Wooley appeared on behalf of 25 national organizations and state citizen groups from the Midwest, Southeast, Mid-Atlantic and New England states. The groups represented included NRDC, American Lung Association, Southern Environmental Law Center, and the Tennessee, Michigan, Illinois, Hoosier and Ohio Environmental Councils. Support for power plant pollution cuts from the Midwest and Southern states is considered crucial to convincing the Clinton Administration to act in the face of strong opposition from coal and utility industries in those regions.

DAVID WOOLEY is a Professor of Environmental Law at Pace and serves as counsel to the Clean Air Task Force, a foundation-supported advocacy project, funded through Pace University School of Law.
Peru: Land of the Incas Goes Face-to-Face with El Niño

By Hernan Lopez

While checking my e-mail at the end of last semester, I found a message from PROMPERU, a Peruvian governmental agency responsible for the promotion of Peruvian culture around the world. The e-mail described the main ideas of a summer research program that the agency was offering to students of foreign universities interested in Peru. Among a number of issues suggested as research topics, sustainable development figured as a prominent one. My first thought was what an incredible opportunity this would be to deepen the research paper I was writing for Professor Nicholas A. Robinson’s course on Comparative Environmental Law with hands-on experience! This research program would also offer to me the possibility of working for two months in the field of international environmental law with a government such as that of Peru – a leading proponent of the goals of the Kyoto Protocol of the Climate Change Treaty in the Latin America. I was very fortunate to be accepted into the program, and as my topic of research I chose the new international sustainable development legal framework and its implementation into the Peruvian environmental legal framework. I was finally ready to enjoy this experience in my beloved Latin America!

I was somewhat disconcerted when PROMPERU e-mailed me back to let me know that there was a change in the scope of the research program because the President of Peru, Alberto Fujimori, was interested in devoting the attentions of a group of the students already accepted to the natural disaster known as ENSO – the famous El Niño phenomenon. I was surprised to discover my name among the “select group of students of the most important universities of the world!” I considered it an honor that an environmental lawyer trained at Pace University School of Law had been chosen to study and discover the relationship between environmental law and natural disasters!

I had to review my original research proposal. As the end of the semester was burning my neurons and no ideas appeared related to the El Niño phenomenon, I decided to knock on Professor Robinson’s office door one more time. After one hour of truly creative discussion about life and sustainable development, I came out of his office with one certainty: I had been challenged to develop an unexplored topic in environmental law and my task would be to do so!

“What an exciting challenge for your first job as a Master of Environmental Law!” he told me and advised me on which tools to look at while reviewing the Peruvian Environmental Legal framework.

“Take a close look at the environmental impact assessment process (EIA), land use and planning regulations of countries located near mountains, as well as public participation processes,” he told me. I took mental note of everything and came out with a new research topic: ENSO and Environmental Law: Analysis of Preventive Tools within Peruvian Environmental Legal Framework. I started packing my luggage with a lot of doubts in mind, my dreams for a better livable world and great expectations.

The Peruvian experience

“After a long trip through the rough waters of the Pacific Ocean coming from the southern part of the continent, the General San Martin landed in the Peruvian coast in 1812 at the Paracas beach. That night they slept comfortably on its sands and he had a dream about the Peruvian flag. The following morning he woke up and told his soldiers to create the Peruvian flag as he saw in his dreams: two red strips with a white band in the middle. Nobody knows exactly if this dream was true or if the general saw the pink flamencos flying around him when he was waking up. The flamencos inhabit this beach and when they open their wings they are red and their chests white.” –Author unknown, ancient local legend.

Perhaps most of us know little pieces of Peruvian history and geography. Pieces such as the Peruvian historical culture discovered by European explorers and the exploration of the ruins of the “lost” city of Machu Pichu of the ancient Inca Empire. Environmental experts and curious conservationists also have an idea of Peruvian biodiversity richness because of the Mangroves National Reserve in the northern region of Tumbes. But unfortunately, most of us have a minimal idea of the effects that a natural disaster such as El Niño has had on Perú, which has hit the country more than one time in its long history.

Since my arrival at the airport of the city capital of Lima, I was faced with environmental issues. The winter weather is not very tough, Peru’s weather is moderated by its location near the Equator. Its humidity, mixed with air pollution from the massive transportation system of the city capital can be quite dangerous, and similar conditions at the beginning of this Summer left New York City affected by an asthma crisis due to unusual levels of pollution.

It was June 1 and I was ready to enter the first stage of my Peruvian experience: to attend ten days of official conferences that PROMPERU had organized for the special task force to deal with El Niño. Most of the ministries, agencies, international and regional cooperation agencies involved with any aspect of ENSO lectured us on the facts and effects of the phenomenon in their areas of involvement. The lectures were extremely interesting and it is fair to say that almost all the officials showed a high level of knowledge of the matters of their competence. Being an emerging country I found Peru to be
served by a professional, well-trained and well-equipped bureaucracy, with the capacity of developing high-level and high quality presentations.

The second stage of the Peruvian experience was perhaps the most emotional part of the summer. These were field trips, which allowed me to travel the country from south to north, and west to east. “Sustainable Development Practice Series” or “Real life” could be the perfect title of this part of the experience. Although I went to Peru with an outline of which environmental legal tools could be helpful to mitigate the effects of El Niño, once I was in the field I soon realized that those tools would be hard to apply in the short term. Some of the reasons are developed in the following paragraphs.

The country has an incredible biodiversity richness with hundreds of unknown animal and plant species; untouched landscapes; a coast explored solely for fishing; the Andes Mountains keeping the secrets of ancient cultures; and the magnificent rain forest with all its mystery and unexplored richness. Although hit with a disaster like El Niño, nature repeatedly showed its capriciousness. For instance, after the intensive rains and floods which affected the northern desert region of Chiclayo, a new lake naturally appeared. Peruvians named it La Nina and they are currently evaluating the way to take advantage of this positive consequence of a natural disaster.

Peru is inhabited by extraordinary people, although many of them live under extreme poverty and with marginal health care resources, which makes them more likely to be affected by phenomena such as El Niño (anthropological studies track the occurrence of the phenomenon to ancient times in earlier Peruvian civilizations). However, many of the people were involved in vital efforts to cooperate with government officials to rebuild their towns and cities, to go back to their activities, and to understand their relationship with Mother Nature -- called Pachamama -- which they believe comes back from time-to-time to show-off its power to humans. I saw people with almost no choice between environmental protection and their daily fight against hunger. Although timber activities are prohibited by law, there is a social need to cut down the “algarrobo” (which grows in the northern desert of the Piura region) to cook the “chicha” -- a sort of home-made beer which contains high amounts of proteins. There is no police enforcement against violations of laws because the first law is to get food for the day. There is no enforcement of land use and urban planning laws, because each piece of land is supposed to be good for cultivation. There is also no way to explain to fishermen that they are affecting not only the availability of their own as well as coastal resources, but also surrounding ecosystems like the mangroves in the National reserve of Tumbes.

There is also minimum citizen involvement in the decision-making process, because decisions are made in Lima, many miles away from the center of the problems, where the power is concentrated in the President and his ministers -- who are, most of the time, lost in macroeconomic issues. It is hard to imagine the negative consequences that would have occurred if the government had not taken the preventive steps it took since it knew about the magnitude of the up-coming phenomenon.

I spent the last stage of my summer experience visiting and interviewing officers, asking them questions to learn what they did in their areas to mitigate the negative consequences of El Niño and to save their fellow citizens from the disaster. El Niño phenomenon is a para-cyclic event or a high peak manifestation of a local weather structure, so the government has learned that it must live with El Niño in the future. Since the last El Niño in 1983 -- which left the country with terrible conditions of poverty -- the government has shown more preparedness to mitigate its negative effects, more willingness to spend money efficiently to correct errors of the past and to prioritize preventive actions and measures. However, these efforts are not enough and Peruvian officials must work tirelessly if they want to correct what their people have been doing for hundreds of years. More education, scientific research, community training and involvement are the keys that I suspect will help them to live with this natural disaster in a less harmful way. The international community must pay more attention to natural disasters like El Niño because it is affecting not only the Peruvian coast, but it is also suspected to contribute to Indonesian fires on the west side of the Pacific Ocean, to affect Los Angeles’ ocean banks, and to flood southern South American cities.

This is just a brief informal description of my two months in Peru, mixing some academic insights with more personal remembrances. A book containing the complete reports of the program will be published by PROMPERU by the end of this year. Principally I developed Peru -- continued on page 10
a deep level of respect for a different culture, admiring the willingness of the people to learn more, and enjoying their nature and the warmth and friendliness of the people.4

1 Other members of the El Niño group came from different universities of the world such as Cadiz (Spain), New York University, Yale and Princeton (USA); Tsukuba (Japan), and East Anglia (UK).

2 General San Martin was an Argentinean military leader who led the fight for Latin American independence from the Spain crown at the beginning of 18th Century. He started his military campaign in Argentina and spread it throughout the Latin American continent freeing countries such as Chile, Bolivia, Peru, Ecuador, Colombia and Venezuela.

3 The lost city of Machu Pichu (meaning ‘Old Peak’ in the Quechua language) was rediscovered in 1911 by Yale archaeologist Hiram Bingham.

4 Thanks to PROMPERU for giving me the opportunity to have this experience and all the people involved in the coordination and development of the program such as Lucha Fiocco, Beatriz Boza, Welby and Patty, for assisting me. Thanks also to Professor Nicholas Robinson for his never-ending support and contagious enthusiasm for our common interest: the desire to live in a sustainable world.

HERNAN LOPEZ is an Argentinean environmental lawyer. He earned his LL.M. degree in environmental law in May 1998 at Pace University School of Law. He was selected by the Peruvian governmental agency PROMPERU, based on his academic qualifications from among more than 180 foreign students of different universities of 26 countries to complete the 1998 Summer Research Program. More information about this program and the agency can be obtained from their Internet web site located at: http://www.promperu.gob.pe

The author visits a Peruvian mangrove swamp

University, Yale and Princeton (USA); Tsukuba (Japan), and East Anglia (UK).

Another feature of the proposed legislation, in contrast to many earlier pieces of legislation, is an increased emphasis upon on-going management regimes. There are also extensive provisions putting into place administrative support for the implementation of the substantive provisions of the proposed Act. Enforcement of the objectives of the Act has been given some ‘bite’ by revision of existing penalty structures, in line with developments in Australia’s criminal code.

The EPBC Bill is in keeping with trends toward ‘co-operative federalism’ that were formalized by an Inter-Governmental Agreement on the Environment in 1992. Historically within Australia, there have been tensions between states and the Commonwealth government over environmental regulation. Today, responsibility for the environment is more widely recognized at all levels of government. Most States have enacted relatively comprehensive environmental law regimes. If successfully implemented, the proposed reforms should promote a more holistic approach to environmental protection, rather than an administrative stand-off between various government depart-
Market-Based Power -- cont. from page 5

competitors enter the market and invest up to the optimal capacity level. However, under-investment occurs even though barriers to enter the market do not exist.\textsuperscript{21} This is caused by economy of scale when a generator is not small in comparison with the size of the market and hence does not behave like a perfect competitor. Such generator can limit its output to drive the optimal level of capacity down, and thus collect additional profit.

The second case appears when prices are distorted upwards, for example by collusion or non-competitive bidding. The resulting increase of return on investments can attract new market entries -- investors. It can lead to over-investment in capacities.

In the model described in \textit{Capacity Investment and Long Run Efficiency in Market-Based Electricity Industries: Competition in the Electricity Supply Industry},\textsuperscript{22} above-market prices continuously balance demand and supply so that price is equal to marginal willingness to pay in all contingencies. However continuous adjustment of price to reflect varying demand and supply conditions may be impractical.\textsuperscript{23} Other schemes like “Priority Rights” and “Bids for Load-Shedding” have been suggested.\textsuperscript{24} They suppose to set stable prices for electricity at marginal cost in all contingencies but allow consumers to purchase additional priority rights or make avoided load-shedding payments. These schemes allow permanent uncertainty of prices to be alleviated.

British experience demonstrates the following: in order to encourage the supplier to provide appropriate capacity to meet increasing demand, the loss of load probability (LOLP) is calculated and the value of lost load (VOLL) is specified.\textsuperscript{25} Generators available to supply, even if not dispatched, receive a payment approximately equal to LOLP-VOLL. The intention is that if demand rises relatively to capacity, so will LOLP and consequently payment determined by LOLP-VOLL, and generator gets higher return. The VOLL was set at £2/kWh in 1990 (rising with inflation). Typical bid price is about 2 p/kWh. Thus, LOLP of 1% would double (in comparison with the bid price) the payment made to the generator. This will induce extra investment. The problem is that LOLP is highly sensitive to the relation between demand and supply. Small excess in capacity drives LOLP to zero, whereas small shortages rapidly increase the return.

The situation described in the paragraph above is very similar to theoretical model on price fluctuation considered earlier. According to \textit{International Comparison of Electricity Regulation},\textsuperscript{26} as demand is forecasted to increase, generators would persuade customers to sign long-term contracts that cover required capital costs, rather than facing unpredictability of the LOLP-VOLL payment.

Thus, both theoretical considerations and practical experience confirm that approaches for capacity investment decisions in the imperfectly competitive electric power industry have yet to be addressed.

\textbf{Transmission investment}

Because it is supposed that a single transmission company can serve the entire market at a lower cost than several ones, transmissions will remain regulated monopolies.\textsuperscript{27} However approaches and incentives to make investment decisions to expand transmission grids are changing. Special system of prices, adopted by regulators, have led transmission companies to respond to the present delivery needs of electricity generators and users, as well as to expand their facilities to meet future demands for electricity delivery.\textsuperscript{28} Locational marginal prices (LMPs) would play the role of such prices providing market incentive for transmission investment.\textsuperscript{29} LMPs are market-clearing prices based on marginal costs and explicitly account for congestion and therefore differ by location whenever the grid is constrained.\textsuperscript{30} LMPs reflect scarcity value of transmission between locations. When transmission is unconstrained, that is, when there are no binding constraints limiting the ability to move power between any two locations on the grid, the scarcity value will be zero. The absence of constraints will allow the energy prices at all locations to equalize (except for losses) at the same marginal cost. Thus, if a competitive market were operating in a grid system with no constraints, market participants could, in theory, make beneficial trades until the marginal cost of serving another increment of load would be the same at every location, leading to uniform market-clearing prices at all locations. Conversely, if transmission were constrained between any two locations, trading would be restricted, forcing the energy prices to diverge to reflect the different marginal costs of the serving load at each location. The scarcity value of transmission between any two points of congested grid would therefore be the difference in the LMPs for energy, determined at each location.\textsuperscript{31} Market incentive to invest in the transmission grid in the considered case will be realized as follows. Market participants, if they do not wish to be constrained and if they expect to benefit from relief of constraints, pay special charges equal to scarcity values. These charges are accumulated and invested in grid expansion, which relieves constraints. Locational marginal pricing in theory is supposed to be an appropriate instru-
ment to provide market incentives for power grid investment. However, its practical implementation is very complicated because it raises issues about equity, price certainty and complexity.12

In a simplified case study on making investment decisions in power grid was addressed.13 It was supposed that there were a three-node power grid, one owner of the grid who is at the same time the sole investor in the grid, two power marketers who purchase from generators and sell to retailers. Transmission market is organized on the basis of nodal injection and withdrawal contracts. The grid owner sells transmission contracts to the power marketers to get profit and accrue money to invest in the grid. Under these suppositions the profit of power marketers and owner of the grid, consumer welfare and total welfare were addressed. It was concluded that an analysis of more general model was needed.

Thus, further studies on making investment decisions on power grid expansion under market conditions have to be conducted.

Coordination of decisions on power industry expansion

Despite the fact that in theory competition is antithetical to coordination proceeding under the aegis of the regulator,14 it is acknowledged internationally that some kind of “market coordinator” in an electricity market is needed.15 It stems from this fact that uncoordinated, strictly decentralized market participants operating under real power system conditions can not properly maintain system balance, frequency and reliability. “Market coordinator” (or more commonly accepted, independent system operator - ISO) should have some means to implement its coordinating functions. These means have to be market-based to be compatible with creation of a competitive electricity market.16 There are a many publications pertained to ISO and its coordinating functions.17 However almost all of them address the aspect of functioning of the electricity market. The problem of decision coordination on the expansion of a market-based power industry is almost untouched.

Some nagging questions arise in conjunction with the problem. How to coordinate commissioning of various power plants (including plants of different types: base-load, cycling and peak-load) to provide a rational mix of generating capacities? How to coordinate transmission lines commissioning? How to coordinate expansion of generating capacities and power grid? Will the obtained generation and transmission mix be economically efficient from the standpoint of the entire power industry? What body can be responsible for such coordination? And there is the more generic question: is such coordination needed at all? Perhaps these decisions will be properly coordinated by purely market forces and any external regulation is not needed.

All these questions have to be addressed carefully. Preliminarily, it can be said that by analogy with the functioning of an electricity market, where an external coordinator is acknowledged to be needed, the introduction of a coordinator for expansion of power generation and the grid perhaps could also be of use. However, means for coordination should be implicit and compatible with the competitive market. Perhaps ISO could perform the functions of such a coordinator.

British experience also confirms to a certain extent that some kind of a market coordinator for power industry expansion is required. It is noted that though decisions on power plants location are now decentralized, generators are encouraged to discuss their plans with the National Grid Company as early as possible and they have to negotiate a connection agreement that may include the costs of reinforcing the grid to accept the new generation and load.38 Also, the grid provides crude signals to encourage generators to locate new power plants in areas where power is needed by differentiating the price of access to the grid in different areas.39 However, these signals may be insufficient incentive.40

According to Deregulation and Reliability Pricing: Deregulation of Electric Utilities, the new market environment in the power industry can be simulated as a non-cooperative game between producers.31 Therefore one of theoretical grounds for making coordinated decisions on power industry expansion could be the theory of non-cooperative games. However, studies in this field are just nascent.

Thus, the problem of coordination of decisions on market-based power industry expansion has still to be addressed.

Environmental compatibility of market-based power industry expansion

In the era of regulation, both federal and states legislation formed quite appropriate conditions for making environmentally compatible decisions on power utility expansion. Social cost accounting for external environmental costs of electricity production was incorporated in planning process by many utilities.42 Demand-side management and renewable resources programs were also regulatory-determined.43 Thus, deregulation, introduction of competition into electric power industry and therefore demise of integrated resources planning, can undermine grounds for making environmentally favorable investment decisions. However restructuring also may lead to less environmental impact from electric power in the long term.44 As was mentioned earlier, new combined-cycle technology is most favorable for and promoted by market because it is not capital intensive and corresponds to financial possibilities of deregulated utilities. At the same time this technology is highly energy efficient and emits much less pollution than the usual coal-fired power plants. Thus, commissionings of combined-cycle gas-fired power plants, caused by market forces, are supposed to be environmentally friendly investment decisions.

Nonetheless it can be concluded that solely market forces will not bring about environmentally compatible decisions of power industry expansion.45 Therefore the search for new regulatory policy tools consistent with the changes in power industry is necessary.

A policy tool that has gained the widest interest is the use of “adders” to account for externalities in financial analysis.46 Adders are similar to taxes, but they are not actually charged. Instead they serve as place-holders intended to influence the choice of technology in investment decisions. Nonetheless, they will have an indirect effect on price and utility costs due to the reordering of investment options in favor of environmentally compatible ones.

Another way to account for environmental impacts of expanding power industry is to implement environmental taxes. Restructuring could make it more likely that such taxes would lead to efficient emission reduction, because deregulated utilities have stronger incentives to control costs.47 Under conventional rate-of-return regulation, such taxes simply might be passed along to ratepayers without influencing investment.

It is needed to note that implementation of adders or taxes favor higher-cost and less polluting power plants. It may cause a shift of consumers from electricity toward other fuels, whose prices do not reflect their pollution costs. That is why it seems reasonable to impose appropriate emission taxes throughout the economy to force everyone to incorporate the costs of environmental damage.48

Various policy tools are proposed to promote renewable energy sources in deregulated electricity market.49 For example, companies using renewable resources may be paying twice as much in taxes as those using fossil-fuel technologies because capital and construction are taxed heavily relative to operating and maintenance expenses. Expanding EPA’s investment tax credits for renewable elec-
tricity generation, while eliminating all other preferences, may be an appropriate police tool in a deregulated electric power industry, tilting investment decisions in favor of renewable resources.

In any event for a deregulated power industry to make environmentally competent investment decisions requires clear signals concerning the future costs of environmental requirements. Lacking such signals, the industry may make socially inefficient investment choices.

Conclusion

Even though restructuring of national power industries is underway in a number of countries, there is no clarity in the problem of the expansion of a market-based power industry. There is not enough experience in this field so far, and there are not enough studies on mechanism of expansion of a power industry under market conditions, including incentives for investments in generation and power grids, coordination of investment decisions, and the social acceptability of such decisions.

The approach “just in time” is usually pursued in this field, which means, “if something goes wrong it will be corrected somehow.” However the price of such a correction can be high. Therefore, enlargement and deepening of the theoretical base for making decisions on a power industry extension under market conditions is urgent.

References (citations of source material for this article have been maintained in the style as written by the author)

6 Id.
10 Enholm, supra note 4.
11 Id.
12 Galloway, supra note 9.
15 Bundhjara, supra note 13.
18 Gilbert, supra note 2.
19 Id.
20 Fehr, supra note 7.
21 Id.
23 Id.
24 Gilbert, supra note 2.
25 Id.
26 Brennan, supra note 1.
27 Id.
29 Id.
30 Id.
31 Id.
32 Smeers, supra note 7.
33 Finon, supra note 14.
35 Id.
36 Brennan, supra note 1; Smeloff, supra note 1.
37 Gilbert, supra note 2.
38 Id.
39 Finon, supra note 14.
43 Hohmeyer, supra note 41.
44 Brennan, supra note 1; Smeloff, supra note 1.
46 Brennan, supra note 1; Smeloff, supra note 1.
47 Brenna, supra note 1.
48 Id.; Smeloff, supra note 1.
49 Smeloff, supra note 1.
50 Finon, supra note 14.
51 Finon, supra note 14.
Pace Environmental Litigation Clinic Case Docket


The Clinic represents the Riverkeeper, local residents and the NAACP in their opposition to a solid waste transfer station being operated without proper approvals and in violation of zoning requirements in an African American neighborhood in the Village of Ossining. The Clinic achieved a substantial victory when the operator announced that it was abandoning its plans to expand the transfer facility in the face of DEC’s acquiescence in the Clinic’s demands for a full adjudicatory hearing before DEC. In the meantime, the Clinic commenced a lawsuit to enjoin the transfer station’s violations of local zoning laws and maintenance of a common law nuisance. We ultimately reached a settlement that substantially limits the hours of operation of the transfer station, requires all materials transfer and processing to be conducted indoors, and provides for an environmental monitor to be paid for by the transfer station operator. In July, 1998, the Clinic commenced a new action on behalf of the neighborhood, captioned Neighborhood Association of Hamilton Avenue and Hunter Street, et al. v. Barlow Properties, Inc., No. 98-09763 (Westchester Co.), in order to enforce the terms of the settlement agreement.


Two abandoned industrial sites, the former Anaconda Copper wire manufacturing site and the former Tappan Terminal, in Hastings, New York, contain hazardous waste that is seeping into the Hudson River. In addition, one of the buildings on the site has been used as an illegal construction and demolition debris dump. The Clinic initiated an action under RCRA and the Clean Water Act against ARCO, the corporate successor to Anaconda Copper, as well as others who share liability for the sites. The Clinic is currently engaged in settlement discussions with most of the parties regarding a clean up of a site that contains one of the only deep water ports on the Hudson River north of New York City.

Thanks to the Clinic’s efforts, the parties reached a settlement requiring the prompt removal of the accumulated construction and demolition debris by the site owner. Meanwhile, the Clinic continues to press for a full clean-up of the toxic contamination remaining from the Anaconda operation and Tappan Terminal.

In the Matter of the Application of the New York City Department of Environmental Protection for Renewals of the State Pollution Discharge Elimination System Permits for New York City’s 14 Wastewater Treatment Plants. Department Environmental Conservation Case No. 0026131

The Clinic represents Riverkeeper in the administrative proceeding for renewal of the discharge permits for New York City’s sewage treatment plants. During the past year, Clinic interns have addressed issues of the requirements for whole effluent toxicity testing and control. The Clinic successfully appealed to the Commissioner of DEC from an adverse ruling by the Administrative Law Judge, on the protocol for whole effluent toxicity testing to be conducted.

Long Island Soundkeeper Fund, Inc., et al v. Department of Environmental Protection of the City of New York, et al., No. 98 Civ. 1635 (RJD/RLM) (E.D.N.Y.

Nitrogen discharges from sewage treatment plants are a major cause of hypoxic, or low oxygen conditions, in the Long Island Sound and New York Harbor estuary. The Clinic represents Soundkeeper, Riverkeeper, Baykeeper, as well as several individuals, in a suit to enforce the nitrogen limits in the Clean Water Act permits for eight of New York City’s 14 sewage treatment plants. On July 24, 1998, a clinic student appeared in federal court to argue against New York City’s motion to dismiss the lawsuit.


Orange County attempted to create a landfill in federally protected wetlands without first obtaining the required Army Corps of Engineers permit to fill a wetland. In January, 1993, the U.S. District Court granted the Clinic and co-plaintiff, Orange Environment, Inc. (OEI) summary judgment against Orange County holding that the County could not operate a landfill in filled wetlands without a permit from the Army Corps of Engineers. Subsequently, the Orange County Legislature unsuccessfully sought to appeal this decision to the Second Circuit. The court has deferred the Clinic’s application for attorney’s fees and costs until final determination of the


The Clinic has represented an environmental organization as well as several individual citizens in connection with the attempt by the Pyramid Companies
to develop the largest mall in the United States (in terms of retail space) on the site of a hazardous waste landfill adjacent to a public drinking water supply. The primary effort of the Clinic’s involvement has been to enforce the Clarkstown voters’ right to a permissive referendum on the sale of Town-owned real property needed by Pyramid to build its mall. The Clinic’s taxpayers’ suit was dismissed, and this dismissal was affirmed by the Appellate Division, Second Department. Leave to appeal was denied by the Court of Appeals. In related litigation, the Clinic succeeded in obtaining an order of the Supreme Court, Rockland County, nullifying Pyramid’s site plan for its mall on the grounds that it could not legally receive a signed site plan before the Town lands in question were properly transferred. The Clinic also obtained a ruling from the Town Zoning Board of Appeals that a building permit modification allowing the construction of two extra levels over part of the mall was invalid without a revised site plan. The Clinic’s environmental quality review act challenge to a revised site plan that remedied this defect was unsuccessful. This litigation is now concluded.

T&E Development, Inc. v. Town of Dover, Dutchess Co. Index No. 2215/98. A favorable decision was granted. The Clinic has been representing the Town of Dover in its efforts to revise its zoning code in order to control solid waste and mining developments within the Town. The Town adopted a moratorium on all new solid waste facilities within the Town last October, and extended that moratorium this past March. A developer who sought to build a sludge composting facility challenged the moratorium, claiming that the Town lacked sufficient justification to impose a moratorium on all solid waste uses. The developer also challenged the Town’s requirement that it prepare an environmental impact statement if it wanted to seek a hardship exemption from the moratorium. Supreme Court, Dutchess County (Hillery, J.) rejected both these challenges, holding that a Town engaged in a comprehensive rezoning process need not establish “dire necessity” to impose a moratorium, and further holding that the initial determination that an EIS was required was not ripe for judicial review. This matter came to the Clinic through the Land Use Law Center, whose aid the Town of Dover initially sought.

Riverkeeper, et al. v. General Electric, et al., Westchester Co. Index No. 98-02503. The Clinic represents a coalition of environmental organizations interested in protecting the New York City drinking water supply in opposition to a proposal by General Electric to construct a new hangar facility and ramp area at Westchester County Airport, in close proximity to Rye Lake (part of the drinking water system). The Clinic brought an Article 78 proceeding challenging the County of Westchester’s grant of a lease to General Electric for the hangar without preparation of an environmental impact statement. Supreme Court, Westchester County granted the Clinic’s petition and annulled the lease.

Riverkeeper, et al. v. County of Westchester, et al., No. 98 Civ. 5305 (CLB) (S.D.N.Y.). On behalf of Riverkeeper, Clinic students reviewed the discharge monitoring reports filed by the County of Westchester and discovered a history of permit violations by the Yonkers Sewage Treatment Plant. On July 13, 1998, a spill of over 100 million gallons of contaminated effluent occurred at the plant, resulting in beach closings throughout the lower Hudson River and advisories against using the River for fishing, boating, or swimming. On July 24, 1998, the Clinic commenced a federal Clean Water Act citizen suit against the County of Westchester to require compliance with its permit requirements at the Yonkers facility.

Brazil -- continued from page 3 court that would be presided over by a judge who understood environmental matters. His legislative counterparts were equally enthusiastic about giving the court the jurisdiction to rule on both state-brought actions and citizens’ complaints regarding environmental degradation. As a North American observing this, I was taken aback by the willingness by all involved to move in this direction, but I understood that these changes cannot have substance unless there is support from the North.

We have to support these initiatives by promoting businesses that set up shop in places like Maranhao and act responsibly. An example of this is the Aluminum Company of America. The aluminum giant covets the rich bauxite reserves in Maranhao and has established a presence in the state. According to Dr. Leonard Weinstein, a plant physiologist from Cornell University who has consulted with Alcoa, the plant in Maranhao is one of the cleanest anywhere, also one of the most productive. Despite high costs, the plant has initiated programs to demonstrate productive agricultural techniques to the local farmers and runs an educational nature reserve on the premises. Plants like Alcoa’s, and others sprouting in Maranhao, will operate under Secretary of State Moreira’s watchful eye and be subject to the jurisdiction of his state’s new environmental court.

This climate for business, in which the rules are clear and fairly enforced, is what Northern corporations are looking for in a prospective facility site. Corporate culture is changing to include an understanding that working with authorities to resolve environmental problems is the most efficient and responsible way of doing business. Operations like Alcoa’s are proof that this change benefits both the residents of Maranhao and the bottom line.

Brazil -- continued on page 16, col. 1
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Brazil -- continued from page 15

We can’t dictate policy to the Brazilians, even our suggestions can be misunderstood as meddling. What we can do is partner with them, recognizing that both aspects of the climate disruption problem have to be dealt with. Lino and his environmental court can go a long way toward that goal, but only if the incentives are there to support his efforts.

ROBERT J. GOLDSTEIN is Director of Environmental Programs at Pace University School of Law. This article was originally published by Bridge News.

In Print:

Professor Jeffrey Miller is the author of a Chapter entitled Environmental Law and the Science of Ecology in Environmental and Occupational Medicine (3d ed.).


Message from the Dean: The Role of a Law School in Environmental Protection

By Richard Ottinger

An important facet of legal education today involves learning by doing; giving students supervised real life lawyering experiences as a part of their study of the law — and also having students participate in the research and lawyering activities of the faculty. Through this rapidly expanding paradigm, schools of law can play an important role in advancing protection of the environment (and, indeed, in advancing other fields of legal endeavor).

The most obvious role a school of law can play is through its clinical programs. Thus, Tulane School of Law has had groundbreaking success in bringing pollution from chemical manufacturers and environmental justice to the fore of public attention, to the point at which the Governor and Legislature of Louisiana have moved to limit the jurisdiction of its clinic. I suspect that this will have an effect similar to the efforts of General Motors to curb Ralph Nader’s auto safety activities. It will backfire to such an extent as to enhance the national stature of the Tulane clinic and to engender new and successful efforts to control industrial polluters, even in Louisiana.

The Environmental Litigation Clinic of the Pace University School of Law, representing the Hudson Riverkeeper in bringing cases against polluters of the Hudson River and Long Island Sound, has had resounding success in reducing pollution of the River. It has also been a role model inspiring a dozen other Riverkeepers throughout the country, supported by regional law school clinical programs.

Beyond strictly clinical activities, however, there are many other ways schools of law can contribute. At Pace, for example, our Land Use Law Center advises many of our local governments and their planning and zoning boards, on how to negotiate conflicts between developers and environmental interests. Students have published a local guide to New York State land use issues, containing land use laws and regulations and court cases that guide resolution of land use issues. The Center has created a Leadership Alliance for Sustainable Development, which brings together regional leaders to assist and train them in land use issues. Students do supervised papers on current issues which are published in law reviews and on the Center’s data base, L.U.C.A.S. The Center’s latest project unites developers, environmentalists and local and state governments in seeking sensible reforms of SEQRA, New York’s little NEPA.

Pace’s Energy Project intervenes, with student participation, in five states to promote utility investments in conservation and renewable energy to displace polluting power plants. The Energy Project also maintains a Global Warming Central web site for the exchange of information on climate change. It has just started a project to issue a moral call for the Protection of Future Generations and to create a moral mandate to implement the Kyoto climate change resolutions for the protection of our children and grandchildren. The Project contemplates using legal means to enforce the NEPA mandate of protecting future generations in review of all federally sponsored projects.

The reach of a school of law can even extend to direct international activities, as with the training of environmental professors in the Pacific Rim countries at the National University of Singapore (NUS) by the faculties of Pace, NUS and the University of Sydney, Australia. A similar endeavor will soon be started in India and the Caribbean. Our Director of Environmental Programs has just assisted the state of Maranhão in Brazil to organize a unique Environmental Court. And through our Center for Environmental Legal Studies, we are starting an Environmental Law Center in Moscow. As a part of the Center’s Virtual Environmental Library on the Internet, we have been the first to publish the environmental laws of Nigeria and provide lawyers, faculty and students throughout the world with free access to environmental treaties and laws.

Students also participate as research assistants to faculty in writing scholarly treatises on a variety of subjects, most recently participated in preparation of a products liability casebook, a hazardous waste treatise, and a plan for the clean up of Long Island Sound.

In sum, a school of law can have an important impact on environmental policies and practices, nationally and internationally, as an integral part of its legal education mission.

RICHARD OTTINGER is Dean of Pace University School of Law and a former eight-term Congressman who was instrumental in adopting key energy and environmental laws.