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Editor’s Note

Welcome to the new Sustainable Development Law & Policy (SDLP), formerly known as International and Comparative Environmental Law (ICIEL). Increasingly, the world’s leading policymakers, scientists, activists, and academics are working to address environmental problems through the lens of sustainable development. After many years of analyzing and fighting environmental problems in a near vacuum, it is now widely accepted that any successful effort to mitigate growing environmental degradation must focus on reconciling the tension between environmental health and economic sustainability. Implementing more sustainable economic models will ensure continuous environmental, social and economic health for generations to come.

This summer, the world will gather in Johannesburg for the World Summit on Sustainable Development (WSSD) to help move down the path of creating a healthier, more sustainable world. As environmental imbalance increasingly causes economic, social and political dislocation throughout the world, it is imperative that we begin addressing root causes instead of mere symptoms.

Our mission is to provide timely information and analysis of important issues relating to sustainable development law and policy. We hope to serve as a valuable resource for practitioners, policymakers, and others involved in or interested in sustainable development throughout the world. We appreciate your subscription and welcome your feedback.

Dave Newman
Editor-In-Chief

WCL Professor, Student & Alum Go to WSSD

By Roxanne Sher-Skelton

Durwood Zaelke, adjunct professor at WCL, president of the Center for International Environmental Law (CIEL) and Director of the Secretariat of the International Network for Environmental Compliance and Enforcement (INECE), is involved in two side events at the United Nations’ World Summit on Sustainable Development (WSSD) this August in Johannesburg, South Africa. Ana Maria Kleymer, ’02, and Roxanne Sher-Skelton, 3L, are working with him to carry out these events.

The first event is the Global Judicial Symposium. It will host Chief Justices and other senior Judges from fifty countries around the world. The participants will examine instruments that give legal validity to emerging international principles of environmental law, including those in the Rio Declaration on Environment and Development, and identify materials and information they will need in their daily practice to assist them in making informed decisions on issues of environmental law.

Professor Zaelke will also co-host the official announcement of Industry Genius: Inventions and People Protecting the Climate and Its Fragile Ozone Layer, written by himself and Steven O. Anderson of the U.S. EPA. The book, to be published this fall, profiles ten companies that have invented new technologies that benefit the environment. Each chapter blends the challenges and triumph of the engineers and managers behind the development of the invention with precise explanations of the new technology. Companies include Seiko-Epson, inventor of a kinetic powered watch; Honda, which recently released one of the first commercially available hybrid cars; and Energy Star, the government labeling program that inspired appliance companies across the country to reduce the energy consumption of their products.

The World Summit on Sustainable Development will bring together tens of thousands of participants, including heads of State and Government officials, national delegates and leaders from non-governmental organizations (NGOs), businesses and other major groups to focus the world’s attention toward meeting the difficult challenges of sustainable development. Participants will consider how to improve people’s lives and conserve our natural resources in the face of rising demands for food, water, shelter, sanitation, energy, health services and economic security.

FOR MORE INFO ON THE WSSD:
HTTP://WWW.IISD.CA/WSSD/PORTAL.HTML
By Dave Newman

The Nigerian government executed environmental activists Ken Saro-Wiwa and John Kpuinen, along with seven other individuals, on November 10, 1995. Family members of both Saro-Wiwa and Kpuinen brought suit against the Royal Dutch Petroleum Company and Shell Transport and Trading Company (“Shell”) in the United States District Court for the Southern District of New York. They alleged that Shell was complicit in the deaths of the activists, and in the events that led up to the executions. Following years of prodecural delays and numerous attempts at dismissal, Judge Kimba Wood recently found that Shell could be held liable in United States court for actions committed abroad.

The events that resulted in the executions of Saro-Wiwa and Kpuinen arose from increased protests by the Ogoni people during the early 1990's against the polluting practices of Shell. Shell discovered oil in the Niger Delta in 1958, around the farms and villages of the Ogoni people. Since this discovery, nearly 900 million barrels of oil have been extracted from the region. Today, oil accounts for approximately 90% of Nigeria’s total exports – 40% of which is exported to the United States. However, the wealth generated through the sale of oil has come at a great environmental and human cost for the region.

When local community leaders began to voice their disapproval of Shell’s practices, the Nigerian government became more forceful in its suppression of the protests. In the fall of 1990, the Nigerian Mobile Police Force responded to the rumor of an attack being planned against a Shell facility by raiding local villages. The raids left more than eighty villagers dead and over 495 homes destroyed.

In response, the people organized the Movement for the Survival of the Ogoni People (“MOSOP”) and issued the Ogoni Bill of Rights. Shell discovered oil in the Niger Delta in 1958, around the farms and villages of the Ogoni people. Since this discovery, nearly 900 million barrels of oil have been extracted from the region. Today, oil accounts for approximately 90% of Nigeria’s total exports – 40% of which is exported to the United States. However, the wealth generated through the sale of oil has come at a great environmental and human cost for the region.

In 1993, protests forced Shell to cease oil production in the Ogoniland region of Nigeria. In an effort to allow Shell to resume drilling, Nigeria’s dictatorial military regime continued to detain, arrest, and harass Saro-Wiwa, Kpuinen and the other local environmental activists. Saro-Wiwa, Kpuinen and other MOSOP leaders were hanged in 1995 amidst widespread protest from people throughout the world. Their executions followed a trial in which Shell and Nigerian authorities allegedly conspired to bribe witnesses to falsely testify. Although Shell denies any responsibility for these actions, there are many allegations of its complicity with the repressive military actions of the Nigerian government, in order to suppress and quash those organizing against Shell’s drilling activities.

This case was filed by family members of Saro-Wiwa and Kpuinen, as well as by an unnamed party representing a woman who was fatally shot at a 1993 MOSOP demonstration. The plaintiff’s asserted that the district court has jurisdiction to hear this case under the Alien Tort Claims Act. The amended complaint asserted thirteen complaints against Shell. The plaintiff’s contend that Shell conspired with the Nigerian government to intimidate, harass, jail, and ultimately execute MOSOP opposition leaders. They allege that Shell made direct payments to the Nigerian police force, shared intelligence information, helped to plan raids and “terror campaigns” against the Ogoni, bribed witnesses into asserting false charges against Saro-Wiwa and Kpuinen, and led a coordinated media campaign to discredit MOSOP and its leadership.

The plaintiff’s further allege that that the Ogoni people have been the victims of severe and persistent ecological and public health abuses resulting from Shell’s negligent and reckless activities. Examples of these abuses include repeated oil spills, unchecked gas flares and placement of unlined waste pits in the middle of Ogoni villages. In June of 1993, a spill from one of Shell’s pipelines was allowed to flow uncontrollably into the surrounding villages for forty days.

After being filed in 1996, the case was immediately challenged on issues of personal jurisdiction and forum non conveniens. In September 1998, Judge Wood granted the defendant’s motion to dismiss, finding that although the court had jurisdiction over the defendant, the United Kingdom was a more convenient forum. On appeal to the Second Circuit Court of Appeals, the plaintiffs claimed that granting the forum non conveniens motion was inconsistent with Congress’ intent in permitting individuals to seek redress against foreigners in United States courts under the Alien Tort Claims Act. The Court of Appeals agreed with the plaintiffs’ argument and remanded the case back to the district court. Shell appealed to the United States Supreme Court, but certiorari was denied in March of 2001. Judge Wood’s decision of February 2002 will allow the litigation to proceed to discovery, making either trial or settlement much more likely.

(ENDNOTES ON PAGE 20)

FOR MORE INFO ON THE CASE:
HTTP://WWW.EARTHRIGHTS.ORG/ SHELL/

FOR MORE INFO ON THE OGONI STRUGGLE:
HTTP://WWW.MOSOPCANADA.ORG/
ENVIRO MENTAL ENLARGEMENT IN THE EU-ROPEAN UNION: APPROXIMATION OF THE ACQUIS COMMUNAUTAIRE AND THE CHALLENGES THAT IT PRESENTS FOR THE APPLICANT COUNTRIES

By Patrick J. Kapios

The European Union (“EU” or “Union”) has begun the process of enlarging its membership. Currently, ten countries located in Central and Eastern Europe are under consideration for membership in the Union, in addition to Cyprus, Malta and Turkey. One of the requirements for accession to the European Union is that the applicant countries approximate their legislation to that of the acquis communautaire. The acquis contains the laws and regulations of the EU. One section of the acquis contains EU laws and regulations concerning the environment. Approximation of this section of the acquis by the applicant countries will not be an easy task. They face difficulties ranging from a lack of the necessary financial resources to an administrative structure that is not prepared to implement and enforce the EU legislation. Successful approximation, however, is necessary in order for accession to occur.

This Paper will discuss the challenges facing the applicant countries in approximating the European Union’s environmental acquis. Part II will discuss some of the EU’s environmental legislation and the Treaty provisions that are used by the Union to enact environmental legislation. An overview of the enlargement process will be given in Part III. Finally, Part IV of the Paper will discuss the process of approximation and the challenges that it provides the applicant countries. A discussion of the financial resources available to the applicant countries will also be included in this section.

ENVIRONMENT IN THE EUROPEAN UNION

Initially, the European Union did not regulate the environment of its member states. A common environmental policy was not provided for in the Treaty of Rome.2 Over time, however, the EU recognized the need to have a common environmental policy. Since environmental protection became a priority of the EU in the early 1970’s, over 400 pieces of environmental legislation, primarily in the form of directives, have been adopted.3 In fact, over half of all environmental legislation that member states are subject to has been the result of actions taken by the European Union.4 The European Union has passed legislation in a wide range of environmental disciplines, including air quality, water, and waste.5 The Union’s environmental legislation has developed in line with the three main beliefs it has relating to the environment: that prevention is better than a cure, that the polluter should pay, and that pollution should be rectified at the source.6 Environmental protection must be taken into account in any new policy that is considered by the Union. The result is that EU member states have some of the strictest environmental standards in the world.7

The majority of European Union environmental legislation occurs in the form of directives and regulations. Directives establish the policy that the EU wants to take. The requirements of a directive are binding on the member states, but it provides the member states with discretion on the methods used to achieve the policy.8 A regulation does not allow the member states discretion in how to implement it. Regulations are used when it is necessary that all of the member states have the same requirements. They become the law in the member states from the date that they are to become effective – transposition into national law is not required.9

Legislation within the European Union follows the principle of subsidiarity. Consequently, the EU can legislate only in areas where action at the Union level would serve to better achieve the desired results than would action at the national level.10 Any policy areas that are better addressed at the national level must be left to the discretion of the national governments. This principle applies to areas, such as the environment, where the Union does not have exclusive powers.11

Environmental policies are enacted by the European Union based on either Article 100a or Articles 130(r–t). It is up to the Commission to determine which of these articles serves as the appropriate mechanism for enacting environmental legislation.12 Article 100a of the EC Treaty allows the Union to enact environmental laws in areas that “affect the establishment or functioning of the common market.”13 Legislation enacted under this provision is intended to prevent against unfair competition and remove barriers to trade throughout the Union. An individual member state may apply stricter environmental standards only with the approval of the Commission and after demonstrating why stronger measures are necessary.14

Articles 130(r–t) give the European Union the authority to enact environmental legislation that does not directly affect the common market.15 These provisions apply to policy areas that are better developed at the Community level. Article 130r lists the principles of Union environmental policy. The legislative procedure to be followed in enacting environmental legislation is listed in article 130s. Finally, article 130t allows individual member states to adopt stricter standards for policies enacted under section 130s. This is a broader section than article 100a. It allows for the implementation of stricter standards provided that they do not arbitrarily discriminate and do not serve as a trade restriction. Under Article 100a the Commission must only be notified – its approval is not required.17
ENLARGEMENT OF THE EUROPEAN UNION

THE ENLARGEMENT PROCESS

Enlargement is the process of adding new member states to the European Union. Since its inception as the European Coal and Steel Community in 1951, the European Union has undergone enlargement four times. The most recent enlargement occurred in 1995 with the accession of Austria, Finland, and Sweden. Enlargement in the European Union occurs based on Article O of the Treaty of the European Union.18

Article O establishes the procedures to be followed in the application process, as well as setting out the requirements for which countries are eligible for European Union membership.19 Any country that is considered to be within Europe can be considered for membership in the Union.20

The application process begins by filing a formal application with the Council of Ministers. The Council then decides to either reject the application or request an opinion about the applicant from the Commission.21 Depending on the outcome of the Commission’s opinion, negotiations may be commenced with the applicant country. The terms of the applicant country’s accession to the Union are determined through the negotiations.22 Once negotiations have been initiated, the length of time before accession occurs varies depending upon the nature of issues that must be resolved between the applicant and the Union.23 After an agreement has been reached with the applicant, the agreement is submitted to all member states for ratification in accordance with the requirements of their national constitutions. Ratification by the member states must be unanimous for an applicant country to be approved for accession.24

ENLARGEMENT TO THE EAST

The European Union is comprised of nations mainly from Western Europe. Recently, the European Union began the process of enlarging to countries located in Central and Eastern Europe. The possible enlargement to include countries from this region has been referred to as a “historic opportunity.”25 It is also viewed as the most challenging enlargement that has been undertaken by the Union in its history. Enlargement to the countries currently under consideration would increase the EU’s population to roughly 500 million and nearly double the number of member states in the organization.26

The foundations for the current enlargement process were established by the Copenhagen European Council that was held in 1993. This Council meeting concluded that “[t]he associated countries in Central and Eastern Europe that so desire shall become members of the Union. Accession will take place as soon as a country is able to assume the obligations of membership by satisfying the economic and political conditions.”27 Thus, the basis for further expansion of the European Union was created. The Council also established the “Copenhagen Criteria” – the basic conditions that applicant countries must fulfill in order to join the Union. The Copenhagen Criteria consist of three requirements. The first is that the applicant must have stable institutions that guarantee democracy, the rule of law and human rights. Second, the applicant must have a functioning market economy. Finally, the applicant must have an infrastructure that is capable of implementing and enforcing European Union law.28

Thirteen countries have applied for accession to the European Union.29 Since March 1998, the accession process has begun for all of the applicant countries. However, due to the length of time necessary to meet the requirements for accession, it is not anticipated that any of the applicant countries will be ready for membership until 2002 at the earliest.30

One requirement for accession is that the applicant countries align their national legislation with the legislation that is currently in force within the European Union.31 This is a difficult process because the existing legislation in many of the applicant countries is vastly different from European Union legislation.32 Applicant countries must approximate their national laws in all areas covered by the acquis communautaire. Unfortunately, many applicants view the approximation process only in relation to economic issues, seeing accession as a guarantee of economic success.33 However, this would be a mistake. Approximation must occur in all areas of the acquis in order for the applicant countries to be admitted to the Union.

The environmental portion of European Union legislation is one area that the applicant countries should not ignore. Environmental conditions in the applicant countries are considered to be “abysmally low,” especially when compared with legislation within the EU.34 Standards between the applicants and the EU vary widely, and EU regulation of the environment covers a wider scope of issues.35 Failure by the applicant countries to properly approximate their environmental legislation, by focusing instead on economic issues, may prevent a country from membership in the Union.36 Because of this possibility, it is important that the applicant countries focus attention on approximating the Union’s environmental measures. Attention is especially needed in meeting the Union’s environmental requirements relating to drinking water, wastewater, solid waste management, and air quality.37

ENLARGEMENT AND THE ENVIRONMENT

THE EFTA ENLARGEMENT

The environment has played a significant role in accession negotiations of past enlargements, especially the 1995 enlargement to the EFTA countries of Austria, Finland and Sweden. However, the environmental situation faced by these three countries was vastly different from the situation currently faced by the applicant countries. The EFTA countries generally had what were considered to be high environmental standards, in many cases more stringent than what was required by the European Union.38 These countries sought to maintain their strict environmental standards upon their accession to the EU, despite the fact that the standards could influence the functioning of the common market.39 The result was that a compromise had to be achieved between the applicants and the member states. The compromise allowed the EFTA countries to maintain their stricter standards for four years.40 During that time period, the EFTA countries would work to increase the environmental standards of the Union. The EFTA countries would attempt to bring the environmental standards of the Union up to the level that was in force within the EFTA countries.41 At the end of the four years, common standards would be in force for all of the Union’s members.
Applicant countries seeking membership in the European Union must adopt the **acquis communautaire** ("acquis"). The acquis consists of the laws of the EU. It is roughly 80,000 pages of laws and regulations that applicant countries must approximate into their national legislation.\(^{42}\) It includes directives, regulations, and decisions adopted on the basis of the EU’s treaties.\(^{33}\) The acquis has been divided into thirty-one different chapters, corresponding to different areas of Union policy. One of the chapters of the acquis is devoted to the Union’s environmental rules and regulations.\(^{44}\) Adoption of the entire acquis is a prerequisite for Union membership.

The environmental acquis has been developing since the 1970’s, when environmental issues became a focus of Union policy. Since that time, the European Union has enacted approximately 400 pieces of environmental legislation. However, the environmental acquis only consists of about ninety-one pieces of the EU legislation—seventy directives and twenty-one regulations.\(^{45}\)

The challenge faced by the applicant countries is due to the scope of the legislation that comprises the acquis. The acquis is much more complex than in previous enlargements, and the EU is insisting that the applicants have adopted the entire acquis before accession occurs.\(^{46}\) This is despite the fact that no new member state has ever adopted the entire acquis before joining the Union.\(^{47}\) Typically, the EU allows the applicants a transition period during which the new Member State can continue to adopt the acquis.\(^{48}\)

Applicant countries have already begun the process of adopting the provisions contained in the acquis. Compliance with the requirements of the acquis is an expensive process, and the applicant countries have limited funding. Because of this, it is important for the applicant countries to set priorities to follow in their adoption process.\(^{49}\) The most significant investment is needed in the areas of drinking water, waste management and air quality.\(^{50}\) Priority should be focused in these areas because they are also important for adopting other EU legislation. However, in the long run, environmental priorities must be country specific, because different areas have different needs.\(^{51}\)

**Steps in the Approximation Process**

Applicant countries must approximate their legislation to resemble that of the European Union in all areas of the acquis, including the environmental chapter. Approximation is a difficult task that will require significant improvements and capital investments within the applicant countries.\(^{52}\) The goal of the approximation process is ensure 100 percent compliance with the acquis “not just on paper, but... also in fact.”\(^{53}\) To reinforce this requirement, the approximation process is typically seen as consisting of three elements: adoption or transposition, implementation, and enforcement.\(^{54}\) These three elements are highly dependent upon each other, meaning that all of them must be addressed for approximation to be successful.

1. Adoption/Transposition

The first element of the approximation process is transposition. Transposition means that competent national authorities take legislative, regulatory and administrative measures in order to incorporate into national law the obligations of the EU’s environmental directives, for the environmental chapter of the acquis.\(^{55}\) The first step in the transposition process is to compare existing national legislation with the measures that the environmental acquis requires the applicant countries to adopt. This will help the applicants to identify gaps that need to be addressed during the approximation process.\(^{56}\) Next, the national authority responsible for environmental approximation must determine the scope of discretion that they have when transposing EU laws into their national legislation. The responsibility for correctly transposing the environmental measures of the EU falls to the national governments, and in particular on the environmental ministry.\(^{57}\) After determining where legislation is required and the discretion that they have to transpose the EU requirements, actual transposition of the requirements must occur. This is done by either adopting new legislation or modifying existing legislation to achieve the requirements of the environmental acquis.\(^{58}\) Applicants must do more than merely copy the text of the EU requirements into their national legislation. Existing environmental legislation, as well as the administrative capabilities of the government should be taken into account when transposing the requirements of the environmental acquis. It may be necessary to create new administrative structures or modify and enhance the environmental standards within the country, in order to successfully transpose the acquis.\(^{59}\)

Applicant countries have begun the process of approximating their legislation to the requirements of the acquis. So far, transposing the requirements into the applicants’ national legislation has been the area where the most progress has occurred.

2. Implementation

While the applicant countries have started to transpose the requirements of the environmental acquis into their national legislation, the approximation process is far from complete. Transposing the requirements is actually the easy part of the approximation process. National legislatures can easily adopt the requirements of the acquis % just ratifying a piece of paper. The applicants still need to implement and enforce the legislation that is transposed into national law.\(^{60}\) Achieving progress in these portions of approximation has proven to be much more difficult for the applicant countries.\(^{61}\)

Implementation is the process of having the national authorities that are in charge of the environment take EU environmental requirements into account when making individual decisions.\(^{52}\) The European Union believes that implementation of the environmental requirements will provide the applicant countries with significant benefits.\(^{63}\) Because of this, the EU is requiring that the provisions of the environmental acquis be clearly implemented by the applicants. The failure to clearly implement the requirements or a delay in doing so may result in delays to the accession process.\(^{64}\) The possibility of a delay in accession resulting from the failure to successfully implement the environmental acquis serves to signify the importance that the environment has in the approximation process.

Applicant countries will have to make improvements in many areas in order for successful implementation to occur. Among the necessary improvements are the creation of reliable data collection systems, effective systems of monitoring and
reporting, increasing the awareness of industry and the public in environmental matters, and facilitation of public participation in environmental issues.\textsuperscript{65} Perhaps the most pressing requirement for the applicant states, in order to successfully implement the environmental \textit{acquis}, is the development of competent national authorities to carry out environmental administration.

European Union legislation often does not specify who is responsible for ensuring compliance with the law’s requirements. Typically, compliance is left to the discretion of the member states, or in this case the applicant countries. It is often done at the local or regional level of government.\textsuperscript{66} Therefore, it is necessary that the applicant countries have an administrative structure capable of ensuring compliance with the requirements of the \textit{acquis}. The EU expects that member states will have administrative agencies possessing an adequate capacity to implement and enforce EU law.\textsuperscript{67} Unfortunately, this does not exist in most of the applicant countries. Many applicant countries lack the qualified personnel necessary to implement and enforce the environmental \textit{acquis}.\textsuperscript{68} These tasks belong to several different administrative agencies in some applicant countries, resulting in a lack of coordination in ensuring compliance.\textsuperscript{69} The result is that significant improvement in administration is required in most applicant countries. Without improvement, implementation and enforcement of the \textit{acquis} will be impossible.

Due to financial constraints and the amount of improvement that is necessary, applicant countries have requested transition periods from the EU in order to comply with the environmental \textit{acquis}.\textsuperscript{70} However, the Commission insists that the \textit{acquis} should be complied with as soon as possible. For the most part, requests for transition periods have been viewed as “totally unacceptable.”\textsuperscript{71} Transition periods may be granted for some elements of the \textit{acquis} – those that require significant investments.\textsuperscript{72}

3. Enforcement

The adoption and implementation of the environmental \textit{acquis} by applicant countries does not ensure that these measures will be adequately enforced. Enforcement is the use of measures that encourage or compel others to comply with government legislation.\textsuperscript{73} The environmental \textit{acquis} contains the environmental standards that EU members must satisfy. Enforcement of these standards is then left to the member states.\textsuperscript{74} Enforcement is subject to many of the same problems, especially administratively, that plague implementation.

Enforcement of EU environmental legislation is often based on self-monitoring.\textsuperscript{75} Self-monitoring allows individuals within the country to monitor compliance with environmental regulations. Should a violation occur, an individual engaged in self-monitoring is expected to report the violation to the responsible authority. The EU views self-monitoring as the ideal mechanism for enforcement. This is because it passes the costs of monitoring to the individual and it satisfies the polluter pays principle.\textsuperscript{76} For a self-monitoring system of enforcement to prove effective, violations of the law must be reported and the results must be seen as trustworthy.\textsuperscript{77}

Even if a self-monitoring system of enforcement is followed, inspections should still be conducted as part of the enforcement process. Inspections conducted on the basis of information supplied through self-monitoring ensures that environmental requirements are being complied with.\textsuperscript{78} Inspections can be as simple as a walk through of an area to a full inspection of the area. The criteria used for an inspection have been established through an EU recommendation.\textsuperscript{79} While additional administrative personnel are necessary to adequately enforce environmental requirements, most applicant countries are seen as having “reasonable inspection procedures.”\textsuperscript{80}

Enforcement also requires that appropriate penalties be established for violations of environmental legislation. Penalties should serve to punish for violations of environmental legislation that do occur, while at the same time serving as a deterrent against future violations. Violations are punished by fines in most countries. Unfortunately, fines do not always serve as adequate punishment or provide effective deterrence against future violations. They are often included in the costs of operation by many individuals.\textsuperscript{81} More effective penalties, such as heavy fines or criminal prosecution, are not frequently used.\textsuperscript{82}

Applicant countries need to ensure that enforcement of environmental legislation is carried out. Self-monitoring may be appropriate as long as it is conducted in conjunction with periodic inspections. A system of penalties for failure to comply with environmental legislation also needs to be established. This system must adequately punish violators and deter individuals from committing further violations.

\textbf{Costs of Compliance with the Environmental Acquis}

Accession to the European Union has been made conditional on compliance with the environmental \textit{acquis} by the applicant countries. The applicant countries must adopt, implement and enforce the provisions of EU legislation. Currently, environmental standards within the applicant countries require significant improvement in order to meet the standards set forth in the environmental \textit{acquis}. The applicant countries are also expected to comply with the requirements of the \textit{acquis} as soon as possible. Complete compliance with the environmental \textit{acquis} by the applicant countries, as the EU desires before accession can occur, will be difficult to achieve. This is due to the significant amounts of financial resources compliance with the environmental \textit{acquis} requires.\textsuperscript{83}

Predictions of the costs of complying with the environmental \textit{acquis} vary depending on the factors that are taken into consideration. Typically, three factors must be known in order for an estimate to be made. These are the total amount of pollution, the amount of pollution that must be reduced, and the amount that it costs to reduce a specified unit of pollution based on different reduction techniques.\textsuperscript{84} Taking these factors into account, estimates of the costs of compliance have been made. These estimates have determined that it will cost the ten applicant countries located in Central and Eastern Europe approximately eighty to one hundred-twenty billion euros to satisfy the requirements of the environmental \textit{acquis}.\textsuperscript{85} These estimates include cost estimates for both the public and private sector. Cost estimates appear to be significantly higher in the private sector. Due to this fact, the EU suggests that all new project development that occurs within the applicant countries before they accede should comply with the environmental \textit{acquis}.\textsuperscript{86} This is because it is more costly to
retrofit an existing structure than it is to include the technology when the structure is initially constructed.

Approximation of the *acquis* is most costly in the areas of air pollution, water and wastewater management, and solid waste management. Setting up the administrative structure necessary to carry out the environmental *acquis* is also very expensive. Full compliance with the *acquis*’ requirements for water and wastewater is estimated to cost roughly fifty billion euros. The cost of complying with the requirements for air pollution is estimated at 1.4 percent of a country’s gross domestic product. In an effort to minimize the expense as much as possible, the applicant countries should seek to identify the most cost efficient methods available to meet the requirements of the *acquis*.

Obtaining the resources necessary to successfully approximate the environmental *acquis*, while at the same time, attempting to satisfy the other chapters of the *acquis* will prove to be extremely difficult for the applicant countries. It is made even more difficult by the fact that there is only limited funding available. The EU has established some programs (which will be discussed below) to assist the applicant countries in complying with the *acquis*. However, the applicant countries are expected to mobilize the majority of the necessary resources on their own. Thus, the applicant countries face a significant challenge.

**Benefits of Compliance with the Environmental Acquis**

While compliance with the environmental *acquis* may require significant investment on the part of the applicant countries, they also stand to receive significant benefits as a result of raising their environmental standards. Determining the impact of compliance with environmental legislation is difficult. However, it is anticipated that the benefits to the applicant countries will at least equal the costs, in monetary terms. Compliance with the *acquis* will result in improved health and quality of life throughout the European Union. The applicant countries that should benefit the most from compliance with the *acquis* are Poland, Turkey, Romania, and the Czech Republic.

Assuming that the applicant countries comply with the *acquis*, it is anticipated that they will receive benefits ranging between 134 billion and 681 billion euros through the year 2020. These benefits will range from better public health to increased tourism. Benefits will occur in areas covered by the water, air and waste directives. The ecosystem will also realize benefits. Half of the total benefits result from reduced air pollution. It is expected that between 15,000 and 34,000 premature deaths will be prevented and that up to 180,000 cases of chronic bronchitis will be avoided, through implementation of the air directives alone.

**Funding Mechanisms Available to the Applicant Countries**

The European Commission proposed “Agenda 2000” to the Parliament in 1997. Agenda 2000 contained the Commission’s opinions on how enlargement to the Central and Eastern European countries should be conducted. It called for the creation of accession partnerships between current EU members and the applicant countries. This program recognized that full compliance with the environmental *acquis* by the applicant countries can only be achieved in the long term. It is recommended that realistic strategies for approximation are established and that implementation should begin in all of the applicant countries.

Agenda 2000 also recognized that approximation would require significant financial resources. Recognizing that the EU could not meet the costs of approximation, this program contained proposals for other methods of financial assistance. Among the recommended programs were the Instrument for Structural Policies for Pre-Accession (“ISPA”) and PHARE. The amount of aid available to the applicant countries through these programs is approximately twenty-two billion euros. The EU wants the applicants to use these resources as a catalyst in the implementation of the *acquis*. Once a country becomes a member of the EU, it will lose any assistance from these programs, and the money will be redistributed admitted to the Union.

1. **PHARE Program**

The PHARE program is a financial assistance program that is used by the EU to help the applicant countries implement the accession partnerships. PHARE consists of roughly eleven billion euros. These funds are to be used for institution building and *acquis* related investments. Approximately 30 percent of the funding go towards institution building – the strengthening of institutions that implement and enforce the EU legislation. The remaining 70 percent of funds go towards strengthening regulatory infrastructure and investments in economic and social cohesion. In the environmental area, programs financed under PHARE helps address immediate environmental problems in the applicant countries.

2. **ISPA**

ISPA is a program created by the Commission to provide funding for improvements in environmental and transport infrastructure. It will provide partial funding for the large environmental projects that are necessary in the applicant countries prior to accession. It will also help the applicants’ to align their infrastructure standards with those of the *acquis*. ISPA encourages the applicant countries to obtain private funding for projects. The amount of funding that it provides is relatively small, compared to the total costs that these projects require. Up to seventy-five percent of the public funding can be provided to the applicant countries under ISPA. One hundred percent of the cost of preliminary studies will be covered under the program.

3. **Structural and Cohesion Funds**

A third possible source of financing exists for the applicant countries; however, they will not have access to it until they become members of the Union. These are the Structural and Cohesion Funds. These funds comprise approximately 80 percent of the EU’s budget. They provide financial assistance to the EU’s poorest member states. The goal is to reduce the economic and social disparities that exist in different regions of the EU. Resources from the Cohesion Fund are available to regions that have a per capita gross domestic product of less than ninety percent of the EU average. Structural Funds are available to regions that have a per capita GDP of less than seventy-five percent the EU average. The EU has not decided how these funds will operate upon accession of the applicant countries. Many current
member states do not want to lose the funds they presently receive and are therefore objecting to any modifications. The applicant countries have per capita GDP's that are significantly lower than those of the existing members. If the criteria for receiving funds from these programs are not altered, the majority of funding would go to the new members. However, it appears unlikely that this will occur, at least in the immediate future. The Commission has proposed a plan that would limit the amount of funding that the new member states could receive from these programs to four percent of the national GDP.

CONCLUSION

The European Union has entered into a period of enlargement. The candidate countries come from Central and Eastern Europe, in addition to Turkey, Malta, and Cyprus. The EU insists that the applicant countries approximate their legislation to include the entire acquis communautaire prior to accession into the Union. One of the chapters of the acquis is the environmental one. Compliance with this chapter of the acquis will be difficult for the applicant countries to achieve prior to accession. It may be necessary to provide the applicants' with a limited transition period to approximate some of the requirements. The applicant countries need to make improvements to the administrative agencies that will be responsible for implementing and enforcing the EU legislation. They also need to train employees to staff the agencies. Furthermore, the applicant countries are lacking the significant amounts of financial resources that are necessary to successfully approximate the environmental acquis. It has been left to the applicants to obtain the funding that is necessary – the EU is only provided limited assistance that is intended to serve as a catalyst in the approximation process. Due to the applicant countries desire to accede to the EU, it will only be a matter of time before they achieve full compliance with the environmental acquis. The result will be that the applicant countries gain access to a major economic market and the EU will receive a cleaner and healthier environment to live in.

1 The term applicant countries will be used throughout this paper for consistency. After negotiations have begun with the applicant countries, they are considered to be candidate countries.
5 See e.g., European Commission, New EU Instrument to Attract Fresh Funds for Environmental Investment, 15 Enlarging the Environment 1, 1-2 (Aug. 1999) (citing to the air, wastewater, drinking water, and waste directives).
8 See Ralph H. Folsom, European Union Law in a Nutshell 2 (2d ed. 1995) (citing to Article 189 of the Treaty of Rome which states that a directive is “binding as to the result to be achieved” but “leaves to the national authorities the choice of form and methods”).
9 See Folsom, supra note 8, at 87 (citing to Article 189 of the Treaty of Rome which states that regulations are “directly applicable in all member states”).
10 See Folsom, supra note 8, at 36 (stating that the Union can only act in areas where it does not have exclusive authority when the member states cannot sufficiently achieve the objectives by acting on their own).
11 See Folsom, supra note 8, at 36.
15 See Id. (CONTINUED ON PAGE 20)
PRACTITIONER’S CORNER:

An Interview with Perry Wallace on the United States’ Withdrawal from the Kyoto Protocol

Interviewed by Dave Newman

Professor Perry Wallace teaches Corporate Law, International Business Law, and a seminar in Environmental Issues & Business Transactions at American University, Washington College of Law. He has taught at WCL since 1991. Before that, he worked as an environmental litigator at the Department of Justice and taught at the University of Baltimore Law School.

DN: What interesting environmental classes have you taught recently?

PW: In my seminar on business transactions and environmental law, it really gives a lot of opportunities to explore the economic and business side and the interaction of actors and players. The evolution of environmental law in the United States – and I was around for a lot of that – has been one of a lot of conflict, and in some instances some softening of the conflict, between the business community and the pro-environmental community, with the government playing one role or another depending on the administration. I like to take the business context – like a real estate or merger transaction or just ongoing business activities – and use those to explore how these actors interact and play out their roles within the framework of some environmental legislation. I really see it like a drama with there being actors playing roles, having interests, having vulnerabilities, and the law playing a larger role than ever in sort of mediating the drama and dictating the drama. And lawyers, of course, representing their respective clients playing a large and important role.

DN: Now on to the Kyoto Protocol and climate change. First of all, do you expect Kyoto to be successfully implemented?

PW: Globally?

DN: Yes, globally.

PW: I don’t think in the form that it’s in. I think some version of it will see a great deal of progress and will move in the direction of the ultimate goals of the Kyoto Protocol. I think that in the particular form that it’s in, it’s probably not quite so realistic. In fact, I like what I’ve heard the European Union ministers call it: “an extremely important first step.” Whether we’ll get past that first step, I don’t know. I think that we’ll learn as we go. I think that we set some pretty ambitious goals. I don’t even mind that they’re unrealistic as long as we’re willing to continue to learn. So that’s it – I think that some form of attempt at addressing climate change will be implemented within the next decade.

DN: What specific aspects of the Kyoto Protocol’s current structure are unworkable in your opinion? Also, is it the United States’ lack of cooperation that leads to your pessimistic outlook or is the basic structure simply untenable with regard to other nations as well?

PW: I think you have both things in play. Let me make it really clear that I support the Kyoto Protocol and I certainly support its goals. And even though pragmatist that I am, I still think that it’s important to skew towards the more idealistic and ambitious side of it. As a practical matter, you’ve got the United States as the 800-pound gorilla. The United States is a central player not just because it produces the largest amount of greenhouse gases, but because it’s such an important player in the world.

DN: Is the recently proposed climate change plan from the Bush Administration simply a smokescreen to cover up doing nothing or do you think that voluntary greenhouse gas intensity targets could actually achieve any significant reduction in emissions?

PW: I think that the President’s plan is kind of much ado about nothing. I don’t say that with any animosity towards the administration because I appreciate the difficult job that they have. In fact, one of the interesting observations that I heard when I was giving a presentation at the University of Aix-Marseille was that under Clinton on the one hand and under Bush on the other hand you had the same lack of action, but a different rhetoric. Both men know that it’s very difficult to get the United States to sign on toward mandatory targets because that implicates a restructuring of the economy.

DN: Eileen Claussen, head of the Pew Center on Climate Change, recently described the changes required to combat climate change as “nothing short of a new industrial revolution.” Do you think that’s overstating it?

PW: Not in the least. That’s what’s implicated. And I would say that’s the reason that we’ve found resistance on so many levels, starting with the attack on the sciences, the attack on the promoters and the objectives.

DN: You just mentioned a conference that you recently spoke
at in France. You also recently spoke at a conference in Texas about climate change. Would you explain a bit about your experiences?

PW: Back in the Fall of 2001, I was invited to speak at Southern Methodist University Law School’s Corporate Council Symposium. Their law review sponsors this event every year and they bring together corporate practitioners and corporate executives to discuss a number of issues. They wanted me to deal with a broader issue, kind of a vision sort of issue, and I thought that the Kyoto Protocol was great. To go down to Texas and to talk about the Kyoto Protocol was a challenge to me because obviously I favor the Protocol and its direction, but I understood that I couldn’t turn off my audience. I was in oil country and I wanted to try to inform and educate them. It was interesting to try to talk to them about corporate governance, the Kyoto Protocol, and the challenge to the modern American corporation and to talk in business terms but to try to give them information about climate change and about what some progressive companies were doing in trying to deal with climate change. The other major presentation I gave was at the University of Aix-Marseilles in Aix-En Provence. I chose some subjects that would be provocative because I wanted to inspire a lot of debate.

DN: Who was your audience at that conference?

PW: French graduate students studying at a center for international and European Union law. I spoke about the tension between the United States and both France and the E.U.

DN: How would you characterize the response from these students?

PW: There was a certain amount of frustration and anger, which represented a larger reaction to the United States’ isolationist approach in a number of arenas. I found, interestingly, that it was hard to detach and to talk only about Kyoto. I had to talk broadly about the transatlantic relationship and about their perceptions of Americans, about George Bush and the Bush Administration, and about any number of decisions and failures to act on the part of the United States. So the Kyoto Protocol was only part of a characterization of the United States as arrogant and unilateralist.

DN: Are you surprised that there is not more debate or discussion connecting the issues of the war on terrorism to our dependence on middle-eastern oil to climate change? These issues seem extremely interconnected yet the mass media, at least in the United States, hasn’t made that connection much.

PW: It doesn’t surprise me because we still have more educating to do about the Kyoto Protocol, the implications and all of those connections as you described it. I’ll make reference to my SMU talk where most of the people were corporate lawyers and some corporate executives. Frankly, the only people who really got into my message were the kind of more visionary people. The kind of corporate lawyer business types listened but the best I accomplished with them was not to piss ‘em off and then to work in a little information. I had to talk like a corporate lawyer and talk about business objectives and at least it didn’t piss them off and maybe a seed or two was sewn. Here we had a group of highly educated professionals in the corporate sector and many of them in the energy arena and they partly had some defensiveness about the subject, partly didn’t understand the Kyoto Protocol and what it was trying to do (not in the kind of depth that you think a professional would) and also didn’t have as much of a sense of the international links. They had certain knowledge, but it was the kind of knowledge that represented their company policies and you didn’t get the sense that they’ve thought very deeply about it. So when you expand that out to members of the American public, you’re not surprised that people typically don’t see these connections. I’m not surprised that there is not more discussion because people don’t make the connection. Americans are generally not very good at understanding international relations and foreign affairs. We had proof of that in the post September 11 period where we had to scramble to learn more about Islam and more about the Third World and we’ve been forced to look outward. But we still don’t necessarily do so well with regard to these international issues. Kyoto is just one example. It’s infused with things to learn about science, about politics, about law, and about international relations. So to see the connection, you don’t expect it.

DN: A question about the emissions trading system of the Kyoto Protocol. There are already efforts under way with markets developing for greenhouse gas trading. How can these independently operating markets create a net reduction without a global cap on the overall amount of greenhouse gas emissions allowed?

PW: That’s a good point. If you can achieve reductions at all in this way, you do it relatively inefficiently. I guess the idea overall in using these market mechanisms is that you get reduction in some way, but not in the larger global sense. That’s the reason for Kyoto. It’s almost like people trying to run a localized effort to end the broader war without a larger solution that covers all the parties. The notion of a global system is what Kyoto aims at. Putting that in place is not going to be the easiest task, but to the extent that the parties are willing to begin to put a solution in place – tune it, fine tune it, do what they can – that’s the only way such a system will work. You think about the U.S. system that we’ve created under the Clean Air Act, and we’ve had some success with it. One of things you can take away from this is that if you look nationally and look regionally, then you might be able to reduce some emissions. But in terms of the system overall, there’s no way that it can be effective; you’ve got different standards, different approaches, different valuations of credits and units of gases. The lack of coordination that is needed in a global system, how can you actually achieve an aim of reducing global emissions when you’ve got these systems that are not interconnected. Thinking about the real-life way in which progress takes place, thinking about the growth of the European Union and the emergence of the United States. They started as sort of independent units operating on their own and then it made sense that they needed to cooperate and have even greater union and that created in effect tensions that in this
country last to this day when we talk about federalism. One can observe those tensions in the case of the E.U. as well. What probably made sense, though was for people to get started and not for one group, you know Italy or for Spain or whomever to wait around and see whether they could get a global system. I think that analogy as a practical matter might end up being what happens in the Kyoto Protocol setting.

DN: What about the voluntary pledges made by certain corporations to reduce their own emissions?

PW: And thinking about that kind of voluntary approach, people have talked about the emergence of a sort of parallel system of the Kyoto Protocol and the nations that are working within that framework and the alternative - with the United States in that category - with the voluntary compliance. It's not that nothing is happening in the voluntary arena, it's only that you can only be so effective. Similar to self-regulation of the legal and accounting professions, it depends on the extent to which people and companies are willing to move towards that goal. At the same time, this voluntary system is not failing to accomplish any results. These companies, I like to see them as experiments that are building real live institutional contributions to knowledge, to technology and so on. I think that these two paths will move along parallel to each other and at a certain point they'll probably become a little closer together because as we try to implement the Kyoto Protocol it's going to be a little harder for the E.U. to do that then they are saying.

DN: What incentive do these companies have, especially under the current Administration, to take these voluntary steps to reduce their emissions?

PW: The answer rests with the story that environmental protection and productivity need not be antithetical to each other. What we have seen is examples of simultaneously increasing environmental protection and economic productivity. The fact of the matter is that that's not always the case and it's important to recognize that. But what's most important is that it has happened, it does happen, and that there are possibilities. Companies that want to play it safe and have an enhanced return on their investment in the environment, they want to see that show up in either increased productivity or at least increased publicity. The good citizen game.

DN: How much of the motivation for corporations to adopt voluntary reduction measures stems from a concern that, with the possibility of a new administration right around the corner, new mandatory standards could be adopted and enforced?

PW: Absolutely. Going back to the SMU talk – they understand a couple of things, even if they can’t talk with their other colleagues about it. They understand that at any given point politically you might well have laws in place that push them. And they know enough about the history of environmental law in this country with issues like clean air, they’re going to be forced to come aboard. They want to look ahead – look down the line – and begin to prepare for this so the financial hit is not so hard and they can ease into it. The other thing they know is that the old traditional structure of industrial economy has taken some hits and probably will continue to and they don’t want to be stupid about that. They understand more than you might imagine about climate change and what the implications are in terms of our sources of energy and they recognize that it actually is more a part of their business planning, that they look to see what could be coming down the pipe in terms of energy dependence and energy availability. They even understand things like Arctic National Wildlife Refuge (ANWR) – how relatively little of a contribution it makes. The smarter ones – the British Petroleums and some others – are moving in that direction. Some others are doing it more quietly and they’re smart enough to take advantage of the voluntary programs to be able to come in a safe setting – one where they’re not pushed so hard and they get praised for everything that they do.

DN: Is there enough corporate leadership in taking these voluntary steps to counteract the power of the business lobby in pressuring the Bush administration against mandatory actions?

PW: The point is well taken. You’ve got a significant part of the business community that is grounded in the old system and that's still working for them. To that degree these interests are going to help limit the progress that occurs. At the same time, we've got pressure coming from a lot of places throughout the world – not only from the E.U., but also from many other sources. And here we are at a time when the U.S. is having to pay a lot more attention to these other sources. We have got to understand that we are a part of the whole world and not the whole world. I think that this is coming home to some degree or another. I’d also throw in the anti-globalization force – and it is a force that does have an impact in forcing people to think and rethink. American corporations have to work with the idea that their presence in many parts of the world is suspect.

DN: Would another energy crisis help to spur quicker action in dealing with climate change or would it simply lead to an increase in oil and gas development in environmentally sensitive areas of the U.S.?

PW: It would in part lead to some modest increases in that small, growing community of corporations who are willing to look more seriously at alternative energy sources and increased conservation. But I think in the main there are lots of diehards. To them, the system, they either feel like it works or that it’s all they’ve got.

DN: What are some of the fundamental roles that environmental lawyers play throughout this debate over how to best respond to climate change?

PW: One thing is to keep the matter in everybody’s face. Keep people aware and continue educating people. I’m not talking about the catch-phrases and the knee-jerk “oh, yes I’m an environmentalist.” I’m talking about really understanding why the environment requires protection, understanding that there are going to be both trade-offs and the kind of learning by doing and making mistakes along the way.
THE PRECAUTIONARY PRINCIPLE IN THE INTERNATIONAL ARENA

By Mary Stevens

"WHEN AN ACTIVITY RAISES THREATS OF HARM TO THE ENVIRONMENT OR HUMAN HEALTH, PRECAUTIONARY MEASURES SHOULD BE TAKEN EVEN IF SOME CAUSE AND EFFECT RELATIONSHIPS ARE NOT FULLY ESTABLISHED SCIENTIFICALLY." WINGSPREAD STATEMENT ON THE PRECAUTIONARY PRINCIPLE, 1998.

The purpose of this paper is to introduce the precautionary principle in terms of its history, use, and application in several different international agreements. The precautionary principle is preventative in nature and stems from the idea that just because an activity cannot be proven unsafe does not mean that it does not have any negative effects. It has been heralded and criticized by scientists alike, and it has been applied in so many different ways that its definition depends on which international agreement one is reading.

DEVELOPMENT OF THE PRECAUTIONARY PRINCIPLE

BEGINNINGS

The “precautionary principle” has not been present in the field of international environmental law for very long, yet it has achieved a prominent position as a major topic of debate over the past ten years. In essence, it advocates the use of precaution in situations where some scientific uncertainty exists. The point of the precautionary principle is to anticipate and avoid environmental damage before it occurs. This preventive measure, which is novel in many ways, would ultimately serve to lower mitigation costs of resultant environmental damage. The implementation of the precautionary principle is problematic in an economic sense because it places more responsibility on those who create potential risks than in the past. Its most important – and debatable - feature is that it shifts the burden of scientific proof from those who would like to prohibit or slow down a potentially dangerous activity to those who conduct the activity.

Most commentators agree that the precautionary principle originally emerged from Germany in the mid-1970’s. A decade later, during international conferences held to discuss the protection of the North Sea, Germany introduced its precautionary principle to the rest of the world. At first, the word “precaution” was not even used; the parties agreed instead that “damage to the environment can be irreversible or remediable only at considerable expense and over long periods and that, therefore, coastal states and the EEC must not wait for proof of harmful effects before taking action.”

In 1987, at the second conference where the London Declaration was adopted, a “precautionary approach” was introduced. Even with regard to the protection of the ozone layer, the Preamble to the Montreal Protocol provided for precautionary measures to be taken in controlling CFCs. By 1990, the Precautionary Principle was being referenced in its own right: the parties to the third conference at the Hague stated that they “will continue to apply the precautionary principle, that is to take action to avoid potentially damaging impacts of substances that are persistent, toxic, and liable to bioaccumulate even when there is no scientific evidence to prove that a causal link exists between emissions and effects.” It could also be found in the 1990 Bergen Declaration on Sustainable Development, which connected the importance of taking caution in innovation with the achievement of sustainable development.

In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The precautionary principle has been referenced in dealing with the protection of the marine environment. Article 2 of the OSPAR Convention states:

The precautionary principle, by virtue of which preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects.

Also in 1990, the principle of precaution was included in the White Paper on Britain’s Environmental strategy...
We must analyze the possible benefits and costs both of action and of inaction. Where there are significant risks of damage to the environment, the Government will be prepared to take precautionary action to limit the use of potentially dangerous pollutants, even where scientific knowledge is not conclusive, if the balance of the likely costs and benefits justifies it. This precautionary principle applies particularly where there are good grounds for judging either that action taken promptly at comparatively low cost may avoid more costly damage later, or that irreversible effects may follow if action is delayed.

Europe expressed its belief in the precautionary principle again in 1991 during a meeting between the parties to the 1972 London Dumping Convention. There the parties agreed that “appropriate measures are taken where there is reason to believe that substances or energy introduced into the marine environment are likely to cause harm, even when there is no conclusive evidence to prove a causal relation between inputs and their effects.” Also in 1991, the Bamako Convention, which was convened to discuss problems of hazardous waste shipments to African countries by wealthier, industrialized ones, employed a strict version of the precautionary principle. Under this convention, the parties agreed to prevent “the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm.”

1992 AND BEYOND

1992 was a big year for international environmental agreements and the precautionary principle is found throughout. In 1992, the landmark Rio Declaration was signed at the United Nations Conference on Environment and Development (“UNCED”), which was the second significant worldwide conference on the environment. Twenty years prior, the United Nations Conference on the Human Environment took place in Stockholm, Sweden. This first conference was motivated primarily by concern over transboundary pollution, particularly in the form of acid rain. The precautionary principle was not yet developed at the time of the Stockholm Convention.

However, the precautionary principle did emerge from the Rio Conference. Article 15 of the Rio Declaration elaborated upon this constantly-evolving concept. Article 15 is extremely important because it was the first time that the United States joined an international agreement that utilized the precautionary principle. Because of this, Article 15 was the result of painstaking negotiations and compromise.

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

During 1992, international parties convened for the United Nations Framework Convention on Climate Change. This Convention dealt with the problem of pollution, specifically that of greenhouse gases which are causing temperatures to rise on a global level. The precautionary principle was referenced at this convention as well. The text provides that

The parties should take precautionary measures to anticipate, prevent, or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost.

The Biodiversity Convention was also agreed to in 1992. Once again, the precautionary principle was mentioned. Interestingly, the use of the principle in the preamble of this agreement did not include the cost-benefit language found in Principle 15 of the Rio Declaration.

Where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat.

The principle was also found in the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, stating that precaution will be taken regardless of whether “scientific research has not fully proved a causal link . . . .” Finally, it was also included in the 1992 Maastricht Treaty and has continued to be an important principle guiding the European Union:

The Community policy on the environment . . . shall be based on the precautionary principle and on the principles that preventative action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. Environmental protection requirements must be integrated into the definition and implementation of other Community policies.

IMPLICATIONS

Some legal commentators have argued that the precautionary principle has approached the level of customary international law. On the other hand, it is also pointed out that this status has not yet been achieved due to the fact that
the precautionary principle is somewhat vague, has been interpreted in several different ways, and is not accepted by much of the world on a national level.\textsuperscript{19} One description of the precautionary principle is that it is an evolving, culturally-framed concept “that takes its cue from changing conceptions about the appropriate roles of science, economics, ethics, politics and the law in pro-active environmental protection and management.”\textsuperscript{20}

In many ways, the precautionary principle represents legal concepts that are not new. James Cameron, a proponent of the principle, points out several differing existing legal principles that he believes are “indirect” precautionary measures. Most significant is the tort concept of strict liability, which provides for absolute liability in activities, such as the burial of environmental waste, that are considered to be “abnormally dangerous.” Cameron explains that the possibility of being held strictly liable, where acting with reasonable care does not matter, causes actors to be more careful and consider the costs of potential liability before acting.\textsuperscript{21}

Cameron makes a second point. He believes that insurance mechanisms are also evidence of precautionary measures already in the system. “[I]nsurance schemes . . . create that insurance mechanisms are also evidence of precautionary uncertainty. Normally, the burden of proving that an activity will be harmful falls on those who suggest the potential harm, instead a requirement that the party proposing the project prove its harmless. See generally NEPA, Ronnie Harding & Elizabeth Fisher, Introducing the Precautionary Principle, in Ronnie Harding & Elizabeth Fisher, eds., Perspectives on the Precautionary Principle 2:22 (1999).

Thirdly, the precautionary principle has been analogized to environmental impact assessments. This is an important connection as well. The National Environmental Protection Act\textsuperscript{22} (“NEPA”) is an example. NEPA requires agencies of the United States government to prepare an environmental impact statement with respect to “major federal actions significantly affecting the quality of the human environment.”\textsuperscript{24} NEPA has been a model for several countries that have instituted similar laws and now can be found in various international treaties and declarations. Principle 17 of the Rio Declaration is instructive.\textsuperscript{25} Cameron points out that “in themselves . . . environmental impact assessments amount to a form of mandated information provision, with precautionary effects similar to those made possible by environmental empowerment; they are precautionary enabling devices.”\textsuperscript{26}

One final point needs to be made about the principle. It is most commonly criticized on the grounds that uncertainty is something that is inherent to the scientific process and that it is not scientifically possible to prove any fact with 100% certainty. The fundamental basis of science is to disprove a theory not prove it conclusively. Even when broad consensus of the scientific community is found, there will always be a few who disagree and some level of uncertainty will always exist.\textsuperscript{27}

Proponents of using precaution acknowledge this undeniable reality but point out that some problems have several layers of different types of scientific issues and therefore, several layers of uncertainty. It is this complexity of uncertainties that cause concern to many. The more uncertainties that exist increase the possibility that some unforeseen or otherwise unrelated factor could change the outcome or prediction of potential harm. In other words, the risk profile of the problem changes. Because of this added complexity, advocates say that the precautionary principle is a theory that should be essential in its guidance of policy, however imperfect it may be.\textsuperscript{28}

\textsuperscript{1} This shift of the burden of proof is not common in environmental law. For example, in the United States, environmental impact assessments, which are required under the National Environmental Protection Act (“NEPA”) and are extremely important mechanisms for determining the environmental, social and economic viability of a major project, do not shift the burden of proof where there is scientific uncertainty. Normally, the burden of proving that an activity will be harmful falls on those who suggest the potential harm, instead a requirement that the party proposing the project prove its harmless. See generally NEPA, Ronnie Harding & Elizabeth Fisher, Introducing the Precautionary Principle, in Ronnie Harding & Elizabeth Fisher, eds., Perspectives on the Precautionary Principle 2:22 (1999).

\textsuperscript{2} See Wybe T. Douma, The Precautionary Principle, T.M.C. Asser Institute, available at http://www.asser.nl/EEL/virtue/precrin.htm. The German conception of the precautionary principle, Vorsorgeprinzip, distinguished between human behavior that causes danger and human behavior that causes risk. Dangerous effects are to be prevented by the government by all possible means (Gefahrenvorsorge). If there is a risk of dangerous effects, the government must investigate the possibilities of risk prevention and take preventative measures if the risk is great enough (Risikovorsorge). See id.; See also Harding & Fisher, supra note 1. Some scholars also assert that the basic concepts behind the precautionary principle were discussed at the United Nations Convention on the Human Environment in Stockholm, 1972.


\textsuperscript{4} See Ministerial Declaration for the Second International Conference on the Protection of the North Sea (Nov. 25, 1987); See also Douma, supra note 1. Furthermore, the OSPAR Convention was organized for the protection of the marine environment and included the precautionary principle in Article 2.

The precautionary principle, by virtue of which preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects.


\textsuperscript{6} See Bergen Conference on Sustainable Development.


\textsuperscript{8} See This Common Inheritance: Britain’s Environmental Strategy, Sept. 1990.


International Calendar: Fall 2002

AUGUST

21 - 24
Victoria, Canada
14th IFOAM Organic World Congress 2002
Organised by International Federation of Organic Agriculture Movements (FOAM)
Web: http://www.cog.ca/ifoam2002

26 AUG - 4 SEPT
Johannesburg, South Africa
The World Summit on Sustainable Development
Organised by United Nations - UN
Web: http://www.johannesburgsummit.org

SEPTEMBER

1 SEPT 2002 - 1 SEPT 2003
Cambridge, United Kingdom of Great Britain and Northern Ireland
UNEP-WCMC Chevening Scholarships in Biodiversity. The Scheme will draw scholars from all regions of the world to work for one year at the Centre in Cambridge. Deadline for Applications: 1 March 2002.
Organised by UNEP World Conservation Monitoring Centre
UNEP World Conservation Monitoring Centre
Web: http://www.unep-wcmc.org

(TO BE DETERMINED)
Rome, Italy
FAO Expert Consultation on Biosecurity
Organised by U.N. Food and Agriculture Organization - FAO
Web: http://www.fao.org

SEPT - DEC 2002
New York, United States of America
Fifty-Seventh Session of the U.N. General Assembly
Organised by Economic and Social Commission of the U.N.
Web: http://www.un.org/ga/president/56/

2 - 3
Geneva, Switzerland
Special Session of the Committee on Agriculture
Organised by World Trade Organization
Web: http://www.wto.org

9 - 13
Copenhagen, Denmark

World Conference 2002: “Nature Interpretation as a Tool in Promoting Sustainable Development”
Organised by The Danish Forest and Nature Agency
Web: http://www.interpretation2002.dk

Norwich, United Kingdom of Great Britain and Northern Ireland
11th IALE Conference. Avian Landscape Ecology: Pure and Applied Issues in the Large-Scale Ecology of Birds
Organised by UK Association of the International Association for Landscape Ecology
Web: http://www.iale.org.uk/avian1.html

10 - 25
Rome, Italy
27th Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment
Organised by U.N. Food and Agriculture Organization - FAO

14 - 17
Bonn, Germany
11th Meeting of the Convention on Migratory Species Scientific Council
Organised by Bonn Convention on Migratory Species
Web: http://www.wcmc.org.uk/cms/

17 - 19
Geneva, Switzerland
Council For Trade-Related Aspects of Intellectual Property Rights
Organised by World Trade Organization
Web: http://www.wto.org

18 - 24
Bonn, Germany
Seventh Meeting of the Conference of the Parties to the Convention on Migratory Species
Organised by Bonn Convention on Migratory Species
Web: http://www.wcmc.org.uk/cms/

20
Geneva, Switzerland
Special Session of the Council for Trade-Related Aspects of Intellectual Property Rights
Organised by World Trade Organization
Web: http://www.wto.org
23 - 25
Geneva, Switzerland
Special Session of the Committee on Agriculture
Organised by World Trade Organization
Web: http://www.wto.org

25 - 27
Bonn, Germany
Second Session of the Meeting of the Parties to the Agreement on the Conservation of African-Eurasian Migratory Waterbirds Agreement (AEWA MOP2)
Organised by Bonn Convention on Migratory Species
Web: http://www.wcmc.org.uk/cms/

26
Geneva, Switzerland
Committee on Agriculture
Organised by World Trade Organization
Web: http://www.wto.org

27
Geneva, Switzerland
Special Session of the Committee on Agriculture
Organised by World Trade Organization
Web: http://www.wto.org

29 SEPT - 4 OCT
Sydney, Australia
5th International Congress on Education in Botanic Gardens
Organised by Botanic Gardens Conservation International
Web: http://www.rbgsyd.nsw.gov.au

30 SEPT - 4 OCT
Bonn, Germany
Ninth Meeting of an Intergovernmental Negotiating Committee for an International Legally Binding Instrument for the Application of the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (ICN/PIC-9)
Organised by UNEP Chemicals
Web: http://www.chem.unep.ch/pops

OCTOBER

1 - 3
Venue (to be determined), Liaison group meeting on rapid assessment/methods for inland waters
Organised by Secretariat of the Convention on Biological Diversity

8 - 9
Geneva, Switzerland
Committee on Trade and Environment
Organised by World Trade Organization
Web: http://www.wto.org

13
Beijing, China
GEF NGO Consultations

14 - 15
Beijing, China
GEF Council Meeting
Organised by Secretariat of the Global Environmental Facility
Web: http://gefweb.org

15-16
Geneva, Switzerland
WTO General Council
Organised by World Trade Organization
Web: http://www.wto.org

16
Trieste, Italy
Seafarming and Health Management Workshop
Organised by European Aquaculture Society
Web: http://www.easonline.org

16 - 19
Trieste, Italy
Aquaculture Europe 2002 - Seafarming Today and Tomorrow
Organised by European Aquaculture Society
Web: http://www.easonline.org

16
Trieste, Italy
Workshop on Certification in European Aquaculture
Organised by European Aquaculture Society
Web: http://www.easonline.org

16 - 18
Beijing, China
GEF Assembly
Organised by Secretariat of the Global Environmental Facility
Web: http://gefweb.org

18 - 19
Strasbourg, France
1st Meeting of the Signatory States to the European Landscape Convention (Florence)
Organised by Council of Europe
Web: http://www.nature.coe.int

21 - 25
Geneva, Switzerland
9th Intergovernmental Negotiating Committee (INC) for the PIC Procedure for Certain Hazardous Chemicals and
Pesticides in International Trade
Organised by U.N. Food and Agriculture Organization - FAO
Web: http://www.fao.org

21 - 25
Cairns, Australia
International Ecotourism Conference
Organised by Tourism Queensland

21 - 25
Montreal,
Ad-Hoc Technical Expert Group on Biological Diversity and Climate Change
Organised by Secretariat of the Convention on Biological Diversity

22 - 24
Bolivia,
Technical Expert Group on Clearing House Mecanism/Traditional knowledge
Organised by Secretariat of the Convention on Biological Diversity

23 - 24
Geneva, Switzerland
Committee on Sanitary and Phytosanitary Measures
Organised by World Trade Organization
Web: http://www.wto.org

23 OCT - 1 NOV
New Delhi, India
COP 8 and Sessions of the Subsidiary Bodies (SBI and SBSTA) UN Framework Convention on Climate Change
Organised by United Nations Framework Convention on Climate Change
Web: http://www.unfccc.de

24 - 28
Rome, Italy
International Conference on Marine and Turtles
Organised by Council of Europe
Web: http://www.nature.coe.int

27 - 29
Rome, Italy
19th Session of the Panel of Experts on Pesticide Specifications, Registration Requirements, Application Standards and Prior Informed Consent
Organised by U.N. Food and Agriculture Organization - FAO
Web: http://www.fao.org

27 - 29
Ottawa, Canada
Symposium: Biodiversity and Health, Using & Sustaining Medicinal Resources
Organised by Tropical Conservancy
Web: http://www.synapse.net/~tropical

28 OCT - 2 NOV
Rome, Italy
Council of FAO (123rd Session)
Organised by U.N. Food and Agriculture Organization - FAO
Web: http://www.fao.org

29 OCT - 1 NOV
Bishkek, Kyrgyzstan
Global Mountain Summit
Organised by UNEP World Conservation Monitoring Centre
Web: http://www.globalmountainsummit.org/Home_Page.html

NOVEMBER

3 - 15
Santiago de Chile, Chile
12th Meeting of the Conference of the Parties to CITES
Organised by Convention on International Trade in Endangered Species of Wild Fauna and Flora
Web: http://www.cites.org

7 - 9
Boston, United States of America
Conference on Ecolabels and the Greening of the Food Market
Organised by Friedman School of Nutrition Science and Policy, Tufts University
Web: http://nutrition.tufts.edu/conted/ecolabels

7 - 8
Geneva, Switzerland
Committee on Sanitary and Phytosanitary Measures
Organised by World Trade Organization
Web: http://www.wto.org

8 - 20
Geneva, Switzerland
Special Session of the Committee on Agriculture
Organised by World Trade Organization
World Trade Organization
Web: http://www.wto.org

18 - 26
Valencia, Spain
The 8th Conference of the Contracting Parties to the Ramsar Convention (COP-8)
Organised by Ramsar Convention Wetlands
Web: http://www.ramsar.org

18 - 20
Venue (to be determined),
Liaison Group Meeting on rapid assessment/methods for marine coastal biodiversity
Organised by Secretariat of the Convention on Biological Diversity
21
Geneva, Switzerland
Committee on Agriculture
Organised by World Trade Organization
Web: http://www.wto.org

22
Geneva, Switzerland
Special Session of the Committee on Agriculture
Organised by World Trade Organization
Web: http://www.wto.org

24 - 29
Havana City, Cuba
Biotechnology Havana 2002: Agro-Biotech in the New Millennium
Organised by Center for Genetic Engineering and Biotechnology
Nelson Cabrera
Web: http://bioagro.ceb.gu.cu

25 - 27
Geneva, Switzerland
Council for Trade-Related Aspects of Intellectual Property Rights
Organised by World Trade Organization
Web: http://www.wto.org

DECEMBER

9 - 13
Geneva, Switzerland
The Sixth Conference of the Parties (COP-6) to the Basel Convention
Organised by Basel Convention on Transboundary Movement of
Web: http://www.basel.int

9 - 17
Geneva, Switzerland
Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (Fourth Session)
Organised by World Intellectual Property Organization
Web: http://www.wipo.org

9 - 13
Venue (to be determined),
Ad-Hoc Technical Expert Group on mountain biodiversity
Organised by Secretariat of the Convention on Biological Diversity

10 - 11
Geneva, Switzerland
WTO General Council
Organised by World Trade Organization
Web: http://www.wto.org

Source: Convention on Biological Diversity’s Calendar of Events <http://www.biodiv.org/events>
ENDNOTES

Wiwa v. Royal Dutch Petroleum Co: (CONTINUED FROM PAGE 3)

3 See id.
4 See id.
6 See id.
7 See id.
8 See id.
11 See id.
13 See Manby, supra note 9.
14 See id.
15 See id.
16 See EARTHRIGHTS INTERNATIONAL, supra note 2.
17 See id.
18 See id. (listing the charges made in the complaint as: summary execution; crimes against humanity; torture; cruel, inhuman, or degrading treatment; arbitrary arrest and detention; violation of the rights to life, liberty and security of person and peaceful assembly and association; wrongful death; assault and battery; intentional infliction of emotional distress; negligence; and violations of the Racketeer Influenced and Corrupt Organizations Act).
19 See id.
20 See id.
21 See id.
22 See id.
23 See id.
24 See Wiwa v. Royal Dutch Petroleum Co., 226 F.3d 88, 94 (2d Cir. 2000).
25 See id.
26 See id. at 106-08.
27 See id.

Environmental Enlargement in the European Union: (CONTINUED FROM PAGE 9)

34 See DESMOND DINAN, EVER CLOSER UNION: AN INTRODUCTION TO EUROPEAN INTEGRATION 418 (2d ed. 1999).
36 See EUROPEAN COMMISSION, 5 ENLARGING THE ENVIRONMENT (July 1997) (interview with Environment Commissioner Bjerregaard) (commenting that environment could be a stumbling block for accession).
37 See EUROPEAN COMMISSION, New EU Instrument to Attract Fresh Funds for Environmental Investment, 15 ENLARGING THE ENVIRONMENT 1, 2 (Aug. 1999).
38 See JOHN PETERSON & ELIZABETH BOMBERG, supra note 17, at 54.
39 See DINAN, supra note 34, at 418.
40 See PETERSON & BOMBERG, supra note 17, at 54.
41 See MCCORMICK, DEEPENING AND WIDENING, supra note 2, at 201-02 (stating that it was expected that the EU would raise their environmental standards to the level of the new members, rather than having the new members lower their environmental standards to those of the Union).
42 See Nicole Lindstrom, Rethinking Sovereignty: The Politics of European Integration in Slovenia, 24 FLETCHER F. WORLD AFF. 31, 35 (Fall 2000).
43 See COMMISSION, APPROXIMATION GUIDE, supra note 14, at 8 n.2.
46 See GRABBE & HUGHES, supra note 32, at 1.
47 See GRABBE & HUGHES, supra note 32, at 30.
48 See id. at 106-08. (dealing that some areas of the acquis will not be covered by existing legislation, making it necessary to create new authorities).
49 See Helen E. Hartnell, Subregional Coherence in Regional Integration, 16 Wis. INT’L L.J. 115, 167-68 (1997) (suggesting that it is easy to adopt legislation, but to make the legislation function requires more effort).
50 See e.g., COMMISSION, ACCESSION STRATEGIES FOR ENVIRONMENT, supra note 35, at 3 (commenting on progress made by the applicant countries in the fields of air, waste and water). Implementation plans to comply with air emissions had not been developed yet. The waste sector also requires significant work by the applicant countries.
51 See COMMISSION, APPROXIMATION GUIDE, supra note 14, at 140.
52 See EUROPEAN COMMISSION, 6 ENLARGING THE ENVIRONMENT, supra note 45.
53 See COMMISSION, APPROXIMATION GUIDE, supra note 14, at 11.
54 See COMMISSION, APPROXIMATION GUIDE, supra note 14, at 11.
55 See COMMISSION, ACCESSION STRATEGIES FOR ENVIRONMENT, supra note 35, at annex 2 (stating that much of the acquis requires lengthy implementation periods, but a delay in implementation may result in delays in accession).
57 See ECOTEC Research & Consulting, Administrative Capacity for Implementation and Enforcement of EU Environmental Policy in the 13 Candidate Countries
81 (2000) [hereinafter ECOTEC, ADMINISTRATIVE CAPACITY] (contending that the regional level is most important for implementation in many applicant countries). This source also provides information on the administrative agencies that implement the acquis. For country reports on the progress made by the applicant countries in implementation and an overview of the administrative agencies that have responsibility for the approximation process visit http://europa.eu.int/scadplus/leg/en/s15000.htm. This site contains links to the applicant countries and how they are performing in approximating the environmental acquis.

See id. at 8 (referring to the need of the administrative agencies to have the resources and procedures necessary to carry out implementation).


See Alexander R. Savulescu, Enlarging the European Union Will Save Lives by Cutting Pollution (commenting that the applicant countries are requesting transition periods of up to fourteen years) (Apr. 30, 2001), available at http://ens.lycos.com/ens/apr2001/200104-30-04.html.

See id. Among the areas where time requests are seen as unacceptable is implementation of the framework directives and providing access to information.

See id. These include urban wastewater treatment and meeting requirements for large combustion plants.

See COMMISSION, APPROXIMATION GUIDE, supra note 14, at 140.

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 3.

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 7.

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 7 (asserting that it is important that self-monitoring is done honestly).

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 7.

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 122

See COMMISSION Recommendation 2001/331/EC (establishing the minimum criteria for environmental inspections).

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 135 (concluding that the types and nature of inspections in the applicant countries are similar to those in operation in the member states).

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 135.

See ECOTEC, ADMINISTRATIVE CAPACITY, supra note 66, at 143.

See COMMISSION, ACCESSION STRATEGIES FOR ENVIRONMENT, supra note 35, at 11.

See Leo De Nocker et al., Compliance Costing for Approximation of EU Environmental Legislation in the CEEC 12 (Apr. 1997).

See ECOTEC et al., The Benefits of Compliance with the Environmental Acquis for the Candidate Countries 3 (2001) [hereinafter ECOTEC, Benefits of Compliance]. This estimate for the cost of compliance with the environmental acquis does not include Turkey, Malta and Cyprus. Including these countries would significantly raise the expected costs. One United States Dollar is equal to approximately .90 euros.

See COMMISSION, ACCESSION STRATEGIES FOR ENVIRONMENT, supra note 35, at 9.

See EUROPEAN COMMISSION, 6 ENLARGING THE ENVIRONMENT, supra note 45 (estimating that forty percent of the investment is needed in air pollution abatement, forty percent in water and wastewater management, and twenty percent in solid waste management).

See EUROPEAN COMMISSION, 5 ENLARGING THE ENVIRONMENT, supra note 56.

See Nocker, supra note 84, at 50. This figure estimates compliance with the acquis for water supply, sewerage and wastewater treatment.

See Nocker, supra note 84, at 74. It only costs current EU members 2 percent of their GDP annually to satisfy this portion of the acquis.

See SCADPLUS, ENVIRONMENT: ACCESSION STRATEGIES FOR THE ENVIRONMENT (declaring that it is the responsibility of the applicant countries to acquire outside investing in order to receive the funds necessary to comply with the acquis), available at http://europa.eu.int/scadplus/leg/en/lvb/128057.htm (last visited Oct. 18, 2001).

See Savulescu, supra note 70.

See ECOTEC, Benefits of Compliance, supra note 85, at 10.

See generally ECOTEC, Benefits of Compliance, supra note 85.

See generally ECOTEC, Benefits of Compliance, supra note 85.

See generally ECOTEC, Benefits of Compliance, supra note 85. Water quality is expected to improve. It is estimated that six million households in Turkey will gain access to drinking water. There will be less groundwater pollution. Increased crop production is also predicted to occur after compliance.

See ECOTEC, Benefits of Compliance, supra note 85, at 12.

See Glockler, supra note 3, at 352.

See COMMISSION, ACCESSION STRATEGIES FOR ENVIRONMENT, supra note 35, at 1.


See EUROPEAN COMMISSION, ENLARGEMENT: WHAT HAS BEEN ACHIEVED SO FAR?, available at http://europa.eu.int/comm/enlargement/negotiations/aech_en.html (last visited Oct. 17, 2001). These funds were made available at the Berlin Conference in 1998. This conference resulted in the amount of funding available through these programs being doubled to twenty-two billion euros.

See COMMISSION, ACCESSION STRATEGIES FOR ENVIRONMENT, supra note 35, at 12 (concluding that the applicant countries could obtain leverage of two to four times the value of EU grants under the aid programs).


See Eritja & Rayo, supra note 49, at 637.

See EUROPEAN COMMISSION, 15 ENLARGING THE ENVIRONMENT, supra note 20.

See EUROPEAN COMMISSION, 15 ENLARGING THE ENVIRONMENT, supra note 20.


See Grabiec & Hughes, supra note 32, at 10.

See Baun, supra note 108, at 150.

One topic that warrants further consideration, but it outside of the scope of this paper, is whether other international and supranational organizations can force countries that desire to join their organizations to improve their environmental quality as a condition for membership. The EU has proven to be an effective model for improving the environmental quality of countries that join it.

**PREAMINATORY PRINCIPLE:**

**CONTINUED FROM PAGE 15**

13 The precautionary principle was applied in more than one agreement at Rio. For example, Agenda 21, an international blueprint for sustainable development, included the precautionary principle when dealing with radioactive waste. See Agenda 21, Ch 22, sub-s (5)(c) (agreeing that states should make “appropriate use of the concept of the precautionary approach”).

14 Rio Declaration, Principle 15.


17 See Maastricht Treaty, February 7, 1992, Title XVI, Article 130b, §2 of the Treaty of Rome as amended by Title II of the Treaty on European Union.


20 See Timothy O’Riordan & James Cameron, The History and Contemporary Significance of the Precautionary Principle, in TIMOTHI
See Cameron, supra note 18, at 50 (stating that systems of strict liability “stimulate proto-polluters to assess the likely effects of their actions before they take place, and in circumstances where those effects remain uncertain they create a strong incentive to refrain from the potentially damaging act altogether”).


See 42 U.S.C.A. §4332(c).

Principle 17 states: Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

Hunter et al, supra note 3, at 25-27 (discussing “Hume’s problem”: the idea that “[n]o matter how many times a phenomenon is observed, we cannot be sure that this represents a universal pattern of “law” . . . .”)
Upcoming Events at WCL

FALL 2002

INTERNATIONAL WILDLIFE CONFERENCE (OCTOBER 18)

PANEL DISCUSSION ON BIOENGINEERING: GUEST SPEAKER
JEREMY RIFKIND (NOVEMBER 7)

PANEL DISCUSSION ON THE PUBLIC HEALTH EFFECTS OF GLOBAL CLIMATE CHANGE (TBA)

PANEL DISCUSSION ON ENVIRONMENTAL JUSTICE:
REALITIES IN LATIN AMERICA (TBA)

ENVIRONMENTAL LAW FACULTY AND ALUMNAE RECEPTION (TBA)

CANOE TRIP ON THE ANACOSTIA WITH REGIONAL LAW SCHOOLS (TBA)
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Hunter, Salzman & Zaelke

As a reference book, the text is indispensable for those who wish to gain a better understanding of the forces responsible for our global environmental problems, in addition to the specific legal responses that are already reshaping the way governments, businesses, and civil society interact. As a textbook, the careful organization and comprehensive scope allows professors to design courses that fit their interests and background. Clear and engaging writing, combined with numerous problem exercises, makes the text easy to use for both professors and students.

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