

# Regionalism and Environmental Governance

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### Introduction

The European Union is widely seen as a global leader in environmental protection. In areas ranging from the control of chemicals, the reduction of packing waste, the promotion of e-waste recycling, and the development of renewable energy to the reduction of greenhouse gas emissions, the EU sets examples that are looked to by many other countries in the world.

There are many examples of areas where EU standards are among the leading ones globally. The EU's policy regulating chemicals and their safe use (Registration, Evaluation, Authorisation, and Restriction of Chemical Substances (REACH)) requires industry to register chemicals they use, provide information about potential hazards, and reduce the use of the most hazardous chemicals. REACH regulations are setting new global standards, and other states are choosing to adopt similar national chemical control approaches. EU recycling requirements not only for glass, paper, packaging, and metals, but also batteries and electronic components, are among the most demanding in the world. Here too the EU is setting high internal standards that are having a global reach (Selin and VanDeveer 2006; Schreurs *et al.* 2009). The EU is also very active in relation to the promotion of renewable energy and the setting of greenhouse gas emission reduction targets. Under the Kyoto Protocol, the EU took on a target to reduce its greenhouse gas emissions by 8% of 1990 levels by 2012 (Harris 2007). This target has been met, with EU emissions for 2010 estimated to be 10.6 % below their 1990 level (European Environment Agency 2011). The EU has set goals to obtain 20% of its primary energy from renewable sources by 2020, albeit with different targets for individual member-states, and introduced an international carbon emissions trading system (Skjærseth and Wettestad 2008). The EU has established a target to reduce its greenhouse gas emissions by 20% of 1990 levels

by 2020 and pushed for the establishment of a global climate treaty with binding targets to follow the first phase of the Kyoto Protocol (Schreurs and Tiberghien 2007, 2010; Jordan *et al.* 2012). A 2050 roadmap sets a target for reducing greenhouse gas emissions by 80–95% relative to a 1990 base year.

How is it that a supranational entity composed of 27 (and soon to be more) states with diverse economic, cultural, and geographic conditions has managed to achieve this? What factors have driven the EU to become an environmental leader? In addition to understanding what factors have driven EU efforts to promote high environmental standards across the Union, it is important to consider what shortcomings there are to the EU's approach. It is also important to consider to what extent other regions are trying to emulate the EU's approach to dealing with regional and global environmental problems.

### **Institutionalizing Environmental Protection**

Environmental protection is one of the most advanced areas of cooperation in Europe. In comparison, taxation, military security, and energy are areas where national sovereignty remains strong and European regionalism is less well developed.

One reason environmental protection is relatively advanced in Europe is because it has been incorporated into the EU's governing treaties and institutionalized in its governing structures. No other regional governance structure has institutionalized environmental protection as deeply as has the EU.

Environmental protection has become an increasingly important area of community activity. The EU is based on a series of treaties. The founding treaties of the Union made almost no mention of the environment, but today environmental protection is considered a key aspect of the Union's activities.

Initially, European integration was about promoting peace across the continent through economic integration. In its first decades, the community focused strongly on promoting trade and creating a single market. Slowly, beginning in the 1970s, greater attention began to be paid to environmental protection matters. Harmonization of environmental standards was considered important in order to eliminate barriers to trade. With major differences in the environmental standards of different member-states, there was concern that uneven environmental rules in different states could result in competitive disadvantages for industry. Growing international attention to environmental problems and the first United Nations Conference on the Human Environment in Stockholm in 1972 contributed to new understandings of the importance of pollution control and nature conservation that went beyond mere trade coordination. Over time the importance of environmental protection in its own right came to be recognized as critical for the protection of human health and ecosystems and for the quality of life in Europe.

The European Community launched its first five-year environmental action plan in 1972 and established a Directorate-General for the Environment (better known as DG Environment) the following year. In 1986, the Single European Act, the first major modification of the 1957 Treaty of Rome establishing the European Coal and Steel Community (the predecessor to the European Union), elevated environmental protection to a Community responsibility. The Treaty of Maastricht, establishing the

European Union, made environmental protection a central element of Community policy (European Communities 1992). Article 130(r) of the treaty stated that Community policy on the environment shall contribute to “preserving, protecting, and improving the quality of the environment” and promote steps at the “international level to deal with regional or worldwide environmental problems.” It moreover states that environmental protection will be

based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

Importantly, it also requires that environmental protection “be integrated into the definition and implementation of other Community policies.” The Treaty of Lisbon that came into effect in 2009, abolishing the Community and replacing it with the Union, maintained these basic principles and added new provisions related to climate change and renewable energy (European Communities 2007). The precautionary principle, climate change, and sustainable development are central elements of EU environmental policy (Vogel 2012).

### **Environmental Leadership through Multi-level Reinforcement**

Beyond the treaties, the three main EU institutions – the European Council, the European Commission, and the European Parliament – all play important roles in promoting environmental protection.

The European Council and the Council of Ministers bring together heads of government and ministers of the member-states. They provide an avenue for states to push environmental issues onto the European agenda. On different environmental issues, various states tend to be pioneers or trend setters in terms of establishing national environmental regulations. On issues with a European dimension, these states often try to put these issues on the agenda of the European Council (Liefkerink and Andersen 1998; Schreurs and Tiberghien 2007). Examples of this include Germany’s push in the mid-1980s to have similar controls introduced on emissions from large combustion plants at the EU level as it had introduced domestically (Ramus 1991) or Denmark’s efforts to promote sustainable development policy with the EU (OECD 2007: 123). Often efforts to promote new policies are made by the country holding the rotating presidency of the Council. Thus, during its presidency in the first half of 2012, Denmark prioritized establishment of an Energy Efficiency Directive, which is to increase energy efficiency by more than 17% by 2020 (Danish Presidency of the Council of the European Union 2012: 19). As a world leader in deployment of wind energy, Denmark also has substantially influenced EU renewable energy goals.

In the European Commission in Brussels, the Directorate General for the Environment is charged with formulating environmental regulations, enforcing member-state compliance with environmental regulations, representing member-states in some international negotiations, and overseeing programs to promote environmental protection within the Union. The Directorate General Climate Action established in 2010

has taken over responsibility for promoting climate change action, negotiating on climate, reaching the EU's 2020 goals, and implementing the carbon emissions trading system. As the European Commission is responsible for drafting and implementing laws, it has considerable ability to influence both environmental agenda-setting and policy implementation. This can be seen, for example, in the Commission's active role in promoting a carbon emissions trading system and greenhouse gas emission targets (Skjærseth and Wettestad 2008).

Decision-making rules pertaining to environmental protection have also been altered so that most environmental regulations no longer need unanimous support but can be passed by qualified majorities (a voting procedure that takes the population of a member-state into account when assigning a weight to its vote). Efforts to make decision-making procedures more democratic have resulted in a re-evaluation of the roles of the main EU institutions. Whereas in the past, the European Parliament had limited ability to influence the shape of European regulations, it now shares co-decision authority with the European Council, meaning that the Parliament can now require substantial modifications to regulations. The Parliament, for example, has issued numerous resolutions demanding tighter regulations on oil and gas drilling, energy efficiency, pesticides, and nanomaterials, as well as higher targets for greenhouse gas emission reductions.

The multiple decision points in the relatively loose structure of the European Union provide many avenues for influencing the EU agenda (Schreurs and Tiberghien 2007, 2010). While certainly there are many cases of veto players attempting to block EU environmental policy formation – such as Poland's veto of efforts to raise the EU's greenhouse gas emission reduction target from 20% to 25% at the spring 2012 summit of the EU Council or the German auto industry's efforts in 2007 to block tighter emission standards for automobiles – there are many avenues by which European environmental policy can be moved forward. The drivers may be progressive member-states within the European Council, technocrats working in the European Commission, members of the European Parliament, or the holder of the EU presidency. The entrepreneurial push for policy change tends to pass between and among these actors depending on the issue and circumstances. The relatively loose structure of the EU has allowed for a kind of multilevel reinforcement of European environmental leadership. When a state or actor that led in the past can no longer lead, they may pass the baton on to another state or actor to take over. Alternatively, other actors may themselves seize the baton and run with it when they feel no other actor is playing this role.

### **The Normative Dimension to Environmental Protection**

Calls for stricter environmental regulations in Europe are also tied to relatively high levels of environmental awareness throughout Europe (albeit with differences among member-states). A June 2011 Eurobarometer survey found that respondents considered climate change to be the second most serious problem facing the world today (poverty, hunger, and lack of drinking water being the first). There were some differences among member-states, with countries hardest hit by the economic recession putting economic concerns higher on the list. Sixty-eight percent of respondents

ranked climate change as a very serious problem (with an average score of 7.4 out of a possible most serious score of 10) (Directorate General Climate 2011).

The reality of living in a densely populated region where little truly natural environment remains certainly has heightened Europeans' appreciation of protecting what nature does still exist. Sensitized by the wide-scale biodiversity loss that has already occurred as a result of many centuries of human settlement and development, Europe has in recent years tried to expand its protected areas and connect them through the Natura 2000 initiative. Natura 2000 is the centerpiece initiative of the EU in its efforts to protect the survival of Europe's most important species and habitats.<sup>1</sup> The EU also has proposed measures for halting the loss of biodiversity in Europe in connection with the biodiversity strategy that came out of the Nagoya Conference of the Parties to the Biodiversity Convention in 2010. Europe's many environmental non-governmental organizations have demanded stronger protections for nature at the European level.

Numerous environmental crises – the *Torrey Canyon* oil spill off the coast of England in 1967, the accident at the Seveso chemical plant in Italy that resulted in a toxic vapor cloud contaminating the region around the plant in 1976, the Chernobyl nuclear accident in 1986, the Baia Mare cyanide spill in Romania that polluted the Danube in 2000, food safety problems like mad cow disease, among countless others, have played their part in sensitizing the European population to the importance of preventive action and precaution. The severe pollution of the former Eastern bloc states, which first became fully apparent after the fall of the Iron Curtain, was also of major concern to the original members of the EU given that the air and water pollution affected wide regions. A central activity of the EU has been to strengthen the environmental standards throughout Europe in order to reduce the likelihood of such future environmental catastrophes.

Efforts to deepen environmental awareness in Europe have been made by the environmental community, environmental-leaning political parties, the more environmentally progressive member-states, the Commission, and the Parliament. Various European instruments have been established to support environmental projects. The LIFE+ Programme, for example, supports best practice and demonstration projects that contribute to the implementation of the Natura 2000 network, the Birds and Habitats Directives, and biodiversity preservation goals. It also promotes awareness-raising tied to nature protection and biodiversity.<sup>2</sup> Pre-accession funding is made available to EU candidate and potential candidate countries to help bring their national laws, including those tied to the environment, into compliance with EU laws. The 12 states that joined the EU between 2004 and 2007 were beneficiaries of such funding, with the funding beginning prior to actual accession (Andonova 2004).

Yet, as hinted above, it would be wrong to suggest that there is not also considerable conflict regarding environmental standards and policy direction. One way the EU deals with the different environmental and financial capacities of member-states as well as their different levels of environmental concern is to establish burden-sharing arrangements that assign different targets to member-states but preserve a common EU target. This has been used in relation to greenhouse gas emission reduction targets, renewable energy targets, and emissions trading. In the case of the 2020 renewable energy target, for example, the EU common target is 20% but with different targets taken on by each member-state. The highest target is held by Sweden with

49% and the lowest by Malta with 10%. Similarly, although there is a 20% CO<sub>2</sub> emission reduction target for Europe by 2020, there are different targets for member-states. The highest reduction targets of 20% are shared by Denmark, Ireland, and Luxembourg, and the lowest is a 20% growth in emissions target set by Bulgaria.<sup>3</sup>

This flexibility in approach may have stymied opposition to policies that would otherwise have been blocked by various member-states (Jordan *et al.* 2012).

### **Framing Environmental Leadership as an Opportunity**

David Vogel *et al.* (2010: 36) argue that one reason EU institutions have been eager to harmonize environmental standards across the member-states is in order to support the still relatively young single market. The single market functions better when environmental standards are harmonized.

The push for environmental leadership, however, goes beyond simple harmonization of standards. In relation to global environmental issues, the European Union has pursued a prominent role. This is seen as important in terms of promoting long-term planetary sustainability, addressing growing resource scarcities, exporting European environmental norms and standards abroad, creating greater international avenues of cooperation, and even enhancing potential export markets for Europe's green technologies.

EU environmental leadership is increasingly portrayed as critical to the EU's future and as a key means of assuring Europe's long-term economic competitiveness. The EU is highly dependent on imported fuel and mineral resources. To the extent that the EU can become highly energy and resource efficient, production costs can decline substantially. Expanding the use of renewable energy will reduce the need to import fossil fuels and have other positive environmental consequences (such as reducing greenhouse gas emissions and pollutants from the burning and extraction of fossil fuels). The EU argues that this can be an important way of keeping money within Europe rather than sending money to regimes with political systems that do not share many EU values and approaches. Beyond the environmental benefits to be derived from efficiency improvements, environmental leadership is seen as a way of stimulating new jobs and potential new export industries. Individual European states are already leaders in many environmental technologies and processes. In 2011, the EU had over 1 million jobs in the renewable energy sector and sales worth €127 billion (Observ'ER 2011).

The concept of sustainable development has become increasingly prominent in European policy documents. Much of the EU's effort at the United Nations Conference on Sustainable Development (Rio+20) focused on winning greater international support for the concept of green growth – the idea that there are many win-wins that can be achieved for environmental protection and economic stability through more efficient use of resources and more environmentally sensitive forms of production (Cléménçon 2012; Schreurs 2012).

### ***The EU and Environmental Norm Diffusion***

EU environmental leadership is also understood as an opportunity for the EU to influence environmental developments in would-be accession states, neighboring

countries, other regions, and at the global level. Within European decision-making circles, reference is often made to the idea of Europe serving as a model that other countries or regions can follow. There is evidence that many European environmental norms are diffusing regionally and globally (Busch and Jørgens 2012).

Certainly the strongest influence the EU has is on its own member-states' environmental policies. Member-states are required to transpose EU regulations into national law and can be punished for non-compliance.

For Europe, promotion of environmental protection in neighboring states has been a means of supporting cooperation and diffusing European norms and values. States that accede to the EU are required to transpose the *Acquis Communautaire*, the complete body of EU law. They are aided in preparing this transition in the years prior to accession and are usually accorded additional years to come into compliance with EU regulations and directives after accession. This has been one of the most powerful and rapid ways the EU has influenced policy change (Carmin and VanDeveer 2005).

The EU also uses its neighborhood policy to try to promote environmental policies, programs, and norms in closer and more distant neighbors, and integrates environmental protection into its overseas activities. Finally, the EU has tried – with different levels of success and also considerable failure – to upload its environmental standards, norms, and approaches to the international level and in this way to influence environmental negotiations.

### *Monitoring, Enforcement, and Compliance*

One of the differences between the European Union and many other regional groupings is that the EU has the authority to enforce compliance with EU regulations.

Member-states do not always manage or choose to comply with EU regulations in a timely fashion. DG Environment is responsible for ensuring compliance with EU laws. Citizens and non-governmental organizations (NGOs) can lodge complaints about member-state non-compliance with environmental regulations with DG Environment. DG Environment is then expected to evaluate the situation, warn member-states that are not in compliance, and initiate infringement procedures against member-states that remain in non-compliance. In May 2012, for example, the Commission initiated infringement procedures against Romania and Slovakia, urging them to bring their national laws on end-of-life vehicles banning hazardous metals in materials and components of vehicles into line with EU legislation. Hungary and Romania were warned to do more to protect natural habitats and ensure that environmental impact assessments are conducted as required by habitats protection legislation. Italy was urged to ensure adequate pre-treatment of waste that is landfilled as stipulated in EU landfill legislation. Greece has been told it needs to improve its treatment of waste water. In each of these cases, the member-states were given two months to come into compliance with the EU regulations. Member-states can be brought before the European Court of Justice and penalized financially for failure to comply with EU laws. Thus in May 2012, Germany was referred to the EU Court of Justice for allegedly not fully applying the principle of cost recovery for water services in order to promote efficiency as stipulated in the Water Framework Directive. In April 2012 the European Commission referred Bulgaria, Hungary,

Poland, and Slovakia to the EU Court of Justice for not meeting the December 2010 deadline for establishing national laws bringing the countries in line with the EU's Waste Framework Directive and requested the court to impose penalty payments.<sup>4</sup> Research suggests, however, that member-states tend to delay in complying with court orders and that the Commission is under-resourced, hindering its ability to fully carry out its mandate to ensure compliance (Jack 2011).

### *Stimulating Sub-national Civil Society Cooperation at the Regional Level*

Regional cooperation can occur at multiple levels of government. Stimulated by the success of the US Conference of Mayors Climate Protection Agreement that has led over a thousand US cities to agree to take action to address climate change and share best-practice information, the European Commission launched the Covenant of Mayors in 2009. The Covenant of Mayors now has over 4000 cities as members; they have committed to take action on energy efficiency and the promotion of renewable energies in order for the EU to meet and exceed its goal to reduce greenhouse gas emissions by 20% of 1990 levels by 2020.<sup>5</sup>

### *Regionalism and Environmental Cooperation in the International Context*

The EU has certainly attracted much interest in other regions of the world that are themselves experimenting with greater regional cooperation. The EU has also actively sought to export its own model of cooperation to other regions of the world. Efforts to expand regional environmental cooperation are becoming more numerous.

In other regions, too, states have entered into multilateral arrangements that have as one of their goals the promotion of environmental protection. These include broader associations, such as the Association of Southeast Asian Nations (ASEAN), the North American Free Trade Agreement (NAFTA), the South Asian Association for Regional Cooperation (SAARC), the Union of South American Nations (UNASUR), and the African Union (AU), as well as more focused forums, such as the Northeast Asian Sub-Regional Programme on the Environment or the Mekong River Commission. Regional approaches to environmental governance are also forming at the sub-national level, such as the European Covenant of Mayors mentioned previously, as well as the Regional Greenhouse Gas Initiative and the Western Climate Initiative, greenhouse gas emission trading systems that have formed between US states and Canadian provinces. What factors are driving the formation of these arrangements and how effective are they?

### **Bilateral Environmental Agreements**

The cross-border nature of many environmental matters has led to the birth of many bilateral environmental agreements. In the North American context, there is a long history of bilateral environmental agreements. In 1909 the Boundary Waters Treaty was established. Advanced for its time, it not only called for free navigation between Canada and the United States along its rivers, tributaries, bays, and lakes, it stipulated that any activity that would change the water levels of a boundary water resulting in adverse impacts in the other country would require

the approval of an International Joint Commission established between the two countries. It also stated that the boundary waters “shall not be polluted on either side to the injury of health or property on the other” (International Joint Commission 1909). The Great Lakes Water Quality Agreement of 1972 (amended in 1978 and with a protocol established in 1987) was formed to address the increasingly severe pollution of the Great Lakes Basin ecosystem. It aims to restore and maintain the chemical and biological health of the Great Lakes through the control of the release of toxic substances, the abatement, control, and prevention of pollution from municipal and industrial sources and shipping, the promotion of waste water treatment, and the control of agricultural runoff (International Joint Commission 1989).

In terms of air pollution and acid rain, Canada and the United States were pushed into greater cooperation due to early transboundary air pollution disputes. In 1941, the two countries’ governments settled a transboundary water and air pollution dispute caused by a mine and smelting company in Trail, British Columbia that was impacting agriculture and forestry in Washington. Eventually, the arbitration tribunal found the Canadian side responsible and compensation was paid by the Canadian government to the US government (which then distributed the funds to the landowners). The case was important in terms of establishing the polluter pays principle in transboundary contexts and in promoting the development of international environmental law (Wirth 1996). Decades later new disputes arose between the two countries related to acid rain. Canada’s lakes and forests were being adversely impacted by the burning of coal for the production of electricity and other industrial purposes in the US Midwest. Prevailing winds carried the acidic compounds produced by coal-burning from the Midwest northward toward New England and Canada. After almost a decade of cross-national tensions tied to the issue, the 1991 Agreement between Canada and the United States on Air Quality was formed. The agreement promoted joint scientific research and domestic measures to reduce sulfur dioxide and nitrogen oxides, the primary precursors to acid rain. Later, the agreement was extended to include measures to address transboundary air pollution leading to ground-level ozone (smog) problems (International Joint Commission 1991; Munton 2007).

### **North American Agreement on Environmental Cooperation**

One of the striking features of the growing number of regional governance structures is that all have deemed it necessary to incorporate environmental protection concerns into their structures. When the North American Free Trade Agreement, which has as its main aim the removal of trade barriers for the promotion of cross-border trade, was being negotiated, there was considerable opposition from labor and environmental groups. Environmentalists argued strongly for the inclusion of environmental protection standards in order to prevent downward pressure on states to remove environmental legislation as a barrier to free trade and to prevent a flight of US industry to Mexico due to its weaker environmental standards. Their pressure succeeded in persuading the three governments to conclude an environmental side agreement in parallel to the free trade agreement, the North American Agreement on Environmental Cooperation (NAAEC).

The NAAEC seeks to ensure that domestic environmental standards are protected and improved, that environmental protection and trade are better integrated, and that environmental cooperation be strengthened among Canada, Mexico, and the United States (Commission for Environmental Cooperation n.d.). The three member-states are expected to submit reports on the state of their environment, make use of environmental impact assessments, and cooperate on regional environmental matters.

The NAAEC does not seek to harmonize environmental laws, as is done in the EU, nor does it create supranational institutions with authority to develop and implement environmental laws. It is an example of a more decentralized form of regional cooperation.

The NAFTA environmental side agreement led to the establishment of a Commission for Environmental Cooperation in 1994 that includes a Council of Ministers (the three environmental ministers), a Secretariat (based in Montreal), and a Joint Public Advisory Committee (JPAC) that provides for civil society input to the Council. The Council of Ministers is at cabinet level and meets at least once a year. It must approve the Commission's budget and the work of the Secretariat; assess the environmental effects of the NAFTA; and develop recommendations on public access to information, limits for pollutants, and transboundary environmental assessments. It has some agenda-setting capacity through the development of strategic plans. The 2010–2015 strategic plan is focused on climate change (improving comparability of emissions data, establishing an interactive online platform with information on climate change), greening the economy and healthy communities and the environment (e.g. green building, sound management of electronic wastes across the continent) (Podhora 2011).<sup>6</sup>

The Secretariat is charged with implementing the agreement and issuing reports. NGOs can submit complaints to the Secretariat regarding the failure of any of the three countries to enforce their existing national environmental regulations (Markell and Knox 2003; Hufbauer and Schott 2005), and if the Secretariat makes a recommendation that a factual report be produced and the Council approves the recommendation, the Secretariat is expected to issue a neutral report on the matter. The Secretariat is not, however, a court and can issue no opinions or decisions. Apparently, even this relatively weak oversight capacity can have its effects, pressuring the states in question to review their own situations. Many cases are submitted to the Secretariat. Examples include a complaint that the government of Quebec is failing to enforce its environmental law with regard to vapor emissions from service stations in suburban Montreal; another that alleges that tailing ponds tied to the extraction of bitumen from oil sands in northern Alberta are polluting groundwaters, soil, and surface water; a third, that the United States government is failing to enforce the federal Clean Water Act against coal-fired power plants for mercury emissions that are degrading water bodies; and a fourth that charges that the Mexican government is failing to enforce environmental legislation related to a hazardous waste landfill in Sonora, Mexico. The submissions tend to be made by environmental NGOs as well as individuals.<sup>7</sup>

In cases where there is a consistent pattern of non-enforcement of a domestic law, the Council may oversee an arbitration process that is performed by an expert arbitration board appointed from a list of candidates that is consensually

established. The arbitration panel can recommend that the party complained against adopt and implement an action plan to remedy the situation. Panel decisions are not, however, binding. Countries are not mandated to implement the decisions of the panel. They can instead choose to forgo trade concessions established by the NAFTA (Abbott 1993).

The NAAEC is a very different model from the regional environmental cooperation that is found in Europe. It provides a model for greater regional environmental cooperation in cases where countries are not prepared to pool their sovereignty to the degree that is being done in the European Union. Still, it must be recognized that as environmental protection is in this case still primarily seen as a responsibility of national authorities and no efforts are made to harmonize environmental laws, there are substantial limitations to what can be achieved in comparison to the situation in Europe. Michelle Betsill (2009), for example, argues that there are few prospects that regional carbon emissions trading will be embedded into the NAFTA environmental side agreement, as is the case with carbon emissions trading in the EU.

### *Regional Approaches to Addressing Climate Change in North America*

Considering the difficulty of achieving global agreements on climate change, and the reality that in 2001 the United States pulled out of the Kyoto Protocol and Canada followed suit in 2011, more regional approaches may at least in the shorter term play a critical role in addressing the continent's major contributions to global greenhouse gas emissions. Canada, Mexico, and the United States combined account for about 22% of global carbon dioxide emissions and are respectively the seventh, eleventh, and second largest emitters globally. Per capita emissions in Canada are particularly high (Marland *et al.* 2008).

One of the more interesting developments related to climate change in the North American context has been the development of regional carbon emissions trading regimes. The Regional Greenhouse Gas Initiative (RGGI) links nine eastern US states in a carbon emissions trading system that is to reduce emissions from power plants. Several Canadian provinces are observers to the RGGI. More ambitious is the Western Climate Initiative that links California and several Canadian provinces in a greenhouse gas emissions system covering seven greenhouse gases beginning in 2013. Partners in the Western Climate Initiative have agreed to reduce their greenhouse gas emissions by 15% of 2005 levels by 2020.<sup>8</sup> It is far more ambitious than the RGGI as it is to cover not just emissions from the power sector but also from industry, transportation, and residential and commercial fuel use (Western Climate Initiative; Selin and VanDeveer 2009).

### **The Association of Southeast Asian Nations**

Other regions of the world are also developing new regional environmental structures. The Association of Southeast Asian Nations (ASEAN) includes 10 member-states: Brunei Darussalam, Cambodia, Indonesia, the People's Democratic Republic of Lao, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. ASEAN has developed an ASEAN free trade area (AFTA) and set a goal to establish an ASEAN Community by 2015 (Schreurs 2010). The ASEAN Community, which

is already beginning to take shape, is composed of three pillars: a Political Security Community, an Economic Community, and a Socio-Cultural Community. The Socio-Cultural Community addresses a wide variety of issues including education, health, labor, rural development, women, and environment. ASEAN is developing an approach to environmental protection that has taken many lessons from the EU model while still retaining greater degrees of national sovereignty in decision-making. Cooperation within ASEAN is guided by the ASEAN Way, the principle of non-interference in internal affairs of other states but the idea that cooperation can be achieved through common norm development. Thus, unlike in the EU, where qualified majorities can pass environmental legislation, in ASEAN consensus is required.

Still, as ASEAN becomes increasingly institutionalized greater degrees of sovereignty may be pooled in ASEAN institutions. Along with the main goals of creating a liberal trade arrangement and enhancing regional security, environmental protection and nature conservation are important aspects of the region's growing cooperative governance structures (Elliott 2003). The impacts of the Indian Ocean tsunami in December 2004 and regional haze problems have highlighted to the region the importance of deepened regional cooperation and harmonization of standards and rules.

An ASEAN Ministerial Meeting on the Environment was formed in 1981 and brings together the environmental ministers of the region on a periodic basis to establish joint goals and policy directions. Ten priority areas guide the community's work: global environmental issues, managing transboundary environmental pollution (and especially transboundary haze and the movement of hazardous waste), sustainable development through public participation, environmentally sound technology, quality living standards in urban areas, harmonizing environmental policies and databases, sustainable use of coastal and marine environment, sustainable management of natural resources and biodiversity, sustainability of freshwater resources, and climate change.<sup>9</sup>

ASEAN has issued numerous joint declarations on key environmental and sustainable development matters. One example includes the Singapore Declaration on Climate Change, Energy and the Environment and the ASEAN Declaration on Environment Sustainability. The Singapore Declaration, which was issued by the ASEAN member-states plus Australia, China, India, Japan, South Korea, and New Zealand, called for the long-term stabilization of greenhouse gas emissions at a level that will not cause dangerous anthropogenic interference with the climate system while also stressing that developed countries need to play a leading role in greenhouse gas mitigation and adaptation and that action should follow the principle of common but differentiated responsibilities.

Working groups are expected to carry out the priorities spelled out in declarations. ASEAN working groups have been formed to address nature conservation and biodiversity, the coastal and marine environment, and environmentally sustainable cities, among other issues. In January 2011, representatives of ASEAN cities and national governments plus the ASEAN Secretariat met in Jakarta to exchange information on best practices and lessons learned (ASEAN 2011).<sup>10</sup>

A handful of international environmental agreements have been formed as well. After years of tensions due to the transboundary haze that is caused by the burning of forests, ASEAN member-states established the ASEAN Agreement on

Transboundary Haze Pollution in 2002. The goal of the agreement is to address the transboundary haze through national efforts and regional and international cooperation. The agreement has entered into force and is the first legally binding international agreement among the ASEAN member-states. Indonesia, the source of most of the haze and the last hold-out on ratification of the agreement, has indicated that it will work to ratify the agreement soon (Maruli 2011).

In the area of natural-disaster management, painful lessons tied to the loss of human life that could conceivably have been reduced with better regional cooperation have resulted in a reassessment of regional cooperation. After the Indian Ocean tsunami, the ASEAN Agreement on Disaster Management and Emergency Response was formed to enhance coordination on disaster response and prevention.

Within ASEAN, environmental governance is less well institutionalized and environmental protection a less well developed area than is the case in the European Union. Yet, signs are pointing towards growing concern about population and development pressures that are threatening the region's highly biologically diverse and rich ecosystems and the impacts of severe pollution on human health. Both as a result of bottom-up initiatives and assistance provided from outside, the region is strengthening national environmental laws and slowly embracing more regional approaches to environmental governance.

## Conclusion

Several factors are pushing states towards greater use of regional governance strategies for dealing with environmental matters. One obvious reason is that many environmental problems have transboundary and international impacts. Addressing transboundary environmental problems from a regional perspective can reduce conflicts among neighbors while improving regional environmental quality.

A second reason appears to be that harmonization of environmental standards is considered useful for improving trade relations and limiting industrial flight to regions of lower environmental standards, although this may be more true for Europe, which has aggressively pursued harmonization of standards, than North America. It may also be the case that in North America, Canada and the USA have already converged in many of their environmental standards and the expectation is that with greater interaction and the development of the Mexican economy, it too will raise its environmental standards. ASEAN appears to be considering the benefits that could derive from greater harmonization of standards.

A third factor may be related to norm diffusion and a growing recognition of the importance of environmental protection. In regions where there is close interaction due to economic and cultural exchange, environmental norms may diffuse from environmentally more advanced countries or regions to other states.

In some instances it may also be the case that regional environmental governance is being pursued in reaction to the lack of national leadership on environmental matters. Pursuit of environmental protection at the regional level is not just occurring at the state level, but also among sub-national actors. This is the case with the regional greenhouse gas emissions trading initiatives in the United States.

Other regions of the world not discussed in this chapter are also taking steps towards greater environmental cooperation. It may well be that as global

environmental agreements become increasingly cumbersome and hard to advance attention will turn to the possibilities for promoting sustainable development and environmental conservation at the regional level.

## Notes

- 1 Natura 2000, [http://ec.europa.eu/environment/nature/natura2000/index\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/index_en.htm) (accessed July 19, 2012).
- 2 Life+ Programme, <http://ec.europa.eu/environment/life/about/index.htm> (accessed July 15, 2012).
- 3 Europe 2020 Targets, [http://ec.europa.eu/europe2020/pdf/targets\\_en.pdf](http://ec.europa.eu/europe2020/pdf/targets_en.pdf). (accessed July 20, 2012).
- 4 European Commission, Environment Infringement Cases, [http://ec.europa.eu/environment/legal/law/press\\_en.htm](http://ec.europa.eu/environment/legal/law/press_en.htm) (accessed July 14, 2012).
- 5 Covenant of Mayors, [http://www.eumayors.eu/index\\_en.html](http://www.eumayors.eu/index_en.html) (accessed July 22, 2012).
- 6 Commission for Environmental Cooperation, [http://www.cec.org/Page.asp?PageID=751&SiteNodeID=1008&BL\\_ExpandID=155](http://www.cec.org/Page.asp?PageID=751&SiteNodeID=1008&BL_ExpandID=155) (accessed July 22, 2012).
- 7 Commission for Environmental Cooperation, [http://www.cec.org/Page.asp?PageID=751&SiteNodeID=1008&BL\\_ExpandID=155](http://www.cec.org/Page.asp?PageID=751&SiteNodeID=1008&BL_ExpandID=155) (accessed July 22, 2012).
- 8 Western Climate Initiative, <http://www.westernclimateinitiative.org> (accessed July 19, 2012).
- 9 ASEAN, <http://environment.asean.org/index.php?page=overview> (accessed July 22, 2012).
- 10 ASEAN, <http://environment.asean.org/index.php?page=overview> (accessed July 22, 2012).

## References

- Abbott, Frederick M. 1993. "The NAFTA Environmental Dispute Settlement System as a Prototype for Regional Integration Arrangements." *Yearbook of International Environmental Law*, 3(4): 3–29.
- Andonova, Liliana. 2004. *Transnational Politics of the Environment: The European Union and Environmental Policy in Central and Eastern Europe*. Cambridge, MA: MIT Press.
- ASEAN. 2011. "ASEAN Cities Explore Methods and Tools to Address Climate Change," <http://environment.asean.org/index.php?page=media:jps:aseancities> (accessed July 22, 2012).
- Betsill, Michelle M. 2009. "NAFTA as a Forum for CO<sub>2</sub> Permit Trading?" In *Changing Climates in North American Politics: Institutions, Policymaking, and Multilevel Governance*, ed. Henrik Selin and Stacy D. VanDeveer, 161–180. Cambridge, MA: MIT Press.
- Busch, Per Oluf and Helge Jörgens. 2012. "Europeanization through Diffusion? Renewable Energy Policies and Alternative Sources for European Convergence." In *European Energy Policy: An Environmental Approach*, ed. Francesc Morata and Slorio Sandoval, 66–82. Cheltenham: Edward Elgar.
- Carmin, Joann and Stacy D. VanDeveer. 2005. *EU Enlargement and the Environment: Institutional Change and Environmental Policy in Central and Eastern Europe*. New York: Routledge.
- Cléménçon, Raymond. 2012. "From Rio 1992 to Rio 2012 and Beyond: Revisiting the Role of Trade Rules and Financial Transfers for Sustainable Development." *Journal of Environment & Development*, 21: 5–14.
- Commission for Environmental Cooperation. 2012. "North American Agreement on Environmental Protection, 1993," <http://www.cec.org/Page.asp?PageID=1226&SiteNodeID=567> (accessed October 20, 2012).
- Commission for Environmental Cooperation. n.d. "Registry of Submissions," [http://www.cec.org/Page.asp?PageID=751&ContentID=&SiteNodeID=250&BL\\_ExpandID=156](http://www.cec.org/Page.asp?PageID=751&ContentID=&SiteNodeID=250&BL_ExpandID=156) (accessed July 22, 2012).

- Danish Presidency of the Council of the European Union. 2012. *Europe at Work: The Results of the Danish Presidency of the Council of the European Union in the First Half of 2012*. Copenhagen: Ministry of Foreign Affairs, <http://eu2012.dk/en/NewsList/Juni/Uge-26/~media/702749D703AB4F1790A110951A22E8FE.pdf> (accessed October 20, 2012).
- Directorate General Climate. 2011. *Climate Change*. Special Eurobarometer 372, Wave EB754, October. Brussels: European Commission, [http://ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_372\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_372_en.pdf) (accessed October 20, 2012).
- Elliott, Lorraine. 2003. "ASEAN and Environmental Cooperation." *Pacific Review*, 16(1): 29–52. doi:10.1080/0951274032000043235.
- European Communities. 1992. "Treaty of Maastricht: Provisions Amending the Treaty Establishing the European Economic Community with a View to Establishing the European Community," February 7, 1992, <http://www.eurotreaties.com/maastrichtec.pdf> (accessed October 20, 2012).
- European Communities. 2007. "Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community," December 13, 2007. *Official Journal of the European Union*, C 306 (50), <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTML> (accessed October 20, 2012).
- European Environment Agency. 2011. *Greenhouse Gas Emission Trends and Projections in Europe 2011: Tracking Progress towards Kyoto and 2020*. EEA Report No. 4. Copenhagen: European Environment Agency, <http://www.eea.europa.eu/publications/ghg-trends-and-projections-2011> (accessed October 20, 2012).
- Harris, Paul G. 2007. *Europe and Global Climate Change: Politics, Foreign Policy and Regional Cooperation*. Cheltenham: Edward Elgar.
- Hufbauer, Gary Clyde and Jeffrey J. Schott. 2005. *NAFTA Revisited: Achievements and Challenges*. Washington, DC: Institute for International Economics.
- International Joint Commission. 1909. "Treaty between the United States and Great Britain relating to Boundary Waters, and Questions Arising between the United States and Canada," <http://bwt.ijc.org/index.php?page=Treaty-Text&hl=eng> (accessed October 20, 2012).
- International Joint Commission. 1989. "Great Lakes Water Quality Agreement of 1978 as amended by Protocol," <http://www.ijc.org/rel/agree/quality.html> (accessed October 20, 2012).
- International Joint Commission. 1991. "Air Quality Agreement," <http://www.ijc.org/rel/agree/air.html> (accessed October 20, 2012).
- Jack, Brian. 2011. "Enforcing Member State Compliance with EU Environmental Law: A Critical Evaluation of the Use of Financial Penalties." *Journal of Environmental Law*, 23(1): 73–95.
- Jordan, Andrew, Dave Huitema, Harro van Asselt, and Tim Rayner, eds. 2010. *Climate Change Policy in the European Union: Confronting the Dilemmas of Mitigation and Adaptation?* Cambridge: Cambridge University Press.
- Jordan, Andrew, Harro van Asselt, Frans Berkhout *et al.* 2012. "Understanding the Paradoxes of Multi-level Governing: Climate Change Policy in the European Union." *Global Environmental Politics*, 12(2): 43–66.
- Liefferink, Duncan and Michael Skou Andersen. 1998. "Strategies of the 'Green' Member State in EU Environmental Policy-Making." *Journal of European Public Policy*, 5(2): 254–270.
- Markell, David L. and John H. Knox, eds. 2003. *Greening NAFTA: The North American Commission for Environmental Cooperation*. Stanford, CA: Stanford University Press.
- Marland, G., T.A. Boden, and R.J. Andres. 2008. "Global, Regional, and National Fossil Fuel CO<sub>2</sub> Emissions." In *Trends: A Compendium of Data on Global Change*. Oak Ridge, TN: US Department of Energy, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, [http://cdiac.ornl.gov/trends/emis/tre\\_tp20.html](http://cdiac.ornl.gov/trends/emis/tre_tp20.html) (accessed October 20, 2012).

- Maruli, Aditia. 2011. "Indonesia to Ratify ASEAN Agreement on Trans-boundary Haze Pollution," *Antaraneews.com*, March 7, <http://www.antaraneews.com/en/news/68888/indonesia-to-ratify-asean-agreement-on-trans-boundary-haze-pollution> (accessed July 23, 2012).
- Munton, Donald. 2007. "Acid Rain Politics in North America: Conflict to Cooperation to Collusion." In *Acid in the Environment: Lessons Learned and Future Prospects*, ed. Gerald R. Visgillio and Diana M. Whitelaw, 175–202. New York: Springer.
- Observ'ER. 2011. *The State of Renewable Energies in Europe*. EurObserv'ER Report 11. Paris: Observ'ER, <http://www.euobserv-er.org/pdf/barobilan11.pdf> (accessed October 20, 2012).
- OECD (Organisation for Economic Co-operation and Development). 2007. *Environmental Performance Reviews: Denmark*. Paris: OECD.
- Podhora, Aranka. 2011. "Environmental Assessment and the Greening of NAFTA: Das Instrument der Umweltprüfung in der Ökologisierung des NAFTA." PhD dissertation, Technische Universität Berlin, <http://opus.kobv.de/tuberlin/volltexte/2011/3013/> (accessed October 20, 2012).
- Ramus, Catherine. 1991. *The Large Combustion Plant Directive: An Analysis of European Environmental Policy*. Oxford Institute for Energy Studies EV7. Oxford: Oxford Institute for Energy Studies, <http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/03/EV7-TheLargeCombustionPlantDirectiveAnAnalysisofEuropeanEnvironmentalPolicy-CA-Rasmus-19911.pdf> (accessed October 20, 2012).
- Schreurs, Miranda A. 2010. "Multi-level Governance the ASEAN Way." In *Handbook on Multi-level Governance*, ed. Michael Zürn, Sonja Wälti, and Henrik Everlein, 308–322. Cheltenham: Edward Elgar.
- Schreurs, Miranda A. 2012. "Rio+20: Assessing Progress to Date and Future Challenges." *Journal of Environment & Development*, 21: 19–23.
- Schreurs, Miranda A., Henrik Selin, and Stacy D. VanDeveer, eds. 2009. *Transatlantic Environment and Energy Politics: Comparative and International Perspectives*. Farnham: Ashgate.
- Schreurs, Miranda A. and Yves Tiberghien. 2007. "Multi-level Reinforcement: Explaining European Union Leadership in Climate Change Mitigation." *Global Environmental Politics*, 7(4): 19–46.
- Schreurs, Miranda A. and Yves Tiberghien. 2010. "European Union Leadership in Climate Change: Mitigation through Multi-level Reinforcement." In *European Union Leadership in Climate Change: Mitigation through Multilevel Reinforcement*, ed. Kathryn Harrison and Lisa McIntosh Sundstrom, 23–66. Cambridge, MA: MIT Press.
- Selin, Henrik and Stacy D. VanDeveer. 2006. "Raising Global Standards: Hazardous Substances and E-waste Management in the European Union." *Environment*, 48(10): 6–17.
- Selin, Henrik and Stacy D. VanDeveer, eds. 2009. *Changing Climates in North American Politics: Institutions, Policymaking, and Multilevel Governance*. Cambridge, MA: MIT Press.
- Skjærseth, Jon Birger and Jørgen Wettestad. 2008. *EU Emissions Trading: Initiation, Decision-making, and Implementation*. Aldershot: Ashgate.
- Vogel, David. 2012. *The Politics of Precaution: Regulating Health, Safety, and Environmental Risks in Europe and the United States*. Princeton, NJ: Princeton University Press.
- Vogel, David, Michael W. Toffel, Diahanna Post, and Nazli Uludere. 2010. *Environmental Federalism in the European Union and the United States*. Harvard Business School Working Paper 10-085, March 17, <http://www.hbs.edu/research/pdf/10-085.pdf> (accessed October 20, 2012).
- Wirth, John D. 1996. "The Trail Smelter Dispute: Canadians and Americans Confront Trans-boundary Pollution, 1927–41." *Environmental History*, 1(2): 34–51.