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## Implementation and Enforcement Issues in the Protection of Migratory Species: Two Case Studies: Waterfowl in North, Seals in Europe

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**RALPH OSTERWOLDT\***

# **Implementation and Enforcement Issues in the Protection of Migratory Species**

**Two case studies: waterfowl in North  
America, seals in Europe**

## **INTRODUCTION**

Migratory species of wild animals have long faced threats from man's activities. They seem to be suffering increasingly bad news recently, judging by the news headlines: "Pesticides killed 30,000 migratory birds in Spain";<sup>1</sup> "Fuel oil slick kills 2,500 birds";<sup>2</sup> "Norway must destroy thousands of reindeer irradiated by Chernobyl";<sup>3</sup> "Seal die-off, algal plague: the North Sea is a Cemetery."<sup>4</sup> The Exxon Valdez oil spill in Alaska is only the latest reminder that even when migratory species of birds and marine mammals are in the most pristine parts of their range, they are not safe.

Because migratory species of wild animals spend their life-cycles in ranges which cross national boundaries, their conservation requires international cooperation. A classic example of such cooperation focusing on one endangered species is the effort by Canadian and United States scientists and authorities to save the whooping crane from extinction. More generally and recently, states which exercise jurisdiction over any part of the range of a particular species have facilitated such concerted action by becoming parties to the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention).<sup>5</sup>

As an officer of the United Nations Environment Programme's (UNEP) Environmental Law Unit for two years, the author was posted to Bonn as interim coordinator of the Secretariat to the Convention in order to organize and follow-up the first meeting of the Conference of the Parties to the Convention, held in Bonn, October 21-26, 1985. Since returning

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1. Reuters, Oct. 8, 1986.

2. Toronto Globe, Jan. 21, 1987, at A-4.

3. Ottawa Citizen, Dec. 17, 1987, at C-4.

4. Der Spiegel, June 6, 1988.

5. 19 I.L.M. 15.

to federal government service in his native Canada, the author has had the opportunity to study an alternative approach to the conservation of migratory species, namely the North American Waterfowl Management Plan.

This paper describes a number of ways that implementation and enforcement problems have been or might be addressed. Efforts to protect the North Sea harbour seal through the Bonn Convention and waterfowl through the North American Management Plan will be described as case studies, but it is too early for an evaluation of these agreements as examples of the implementation of international law. The paper presents lists of prerequisites and techniques of enforcement, and the ingredients of administrative agreements currently in force. The author concludes from his experience with the UNEP Secretariat and the Canadian government that the *raison d'être* of international instruments and government guidance is to inform citizens, collect funds, and direct action to change activities at the local field level. Thus, the effectiveness of an international convention or agreement must be judged by its practical local implementation.

#### THE ORIGIN OF THE PROBLEM OF ENFORCING INTERNATIONAL OBLIGATIONS

The harvest and habitat loss of some migratory species provide examples of the "tragedy of the commons," which has been identified and elucidated in classic tracts by Garrett Hardin<sup>6</sup> and Colin W. Clark.<sup>7</sup> Experience shows that resources tend to be overexploited where individuals seeking to maximize their own benefits compete for an indivisible supply of openly accessible "public goods," such as whales and fish in the high seas and ducks and geese in the open skies. Assuming a profit-oriented economic structure and self-interested human behavior, there is a real danger of extinguishing species where: a) the bank interest rate and the rate at which the future value of public goods are discounted in the present are sufficiently high in relation to the biological rate of increase; and b) the number of individuals of a species fall below the minimum viable population. For individuals to meet, mate, and flourish requires more than an Adam and Eve pair, as demonstrated by the historic disappearance of the once vast flocks of the migratory passenger pigeons.

Countering the economic pressures toward overexploitation, social, political, and moral considerations have moved societies to try to avoid the tragedy of the commons. Even purely economically motivated indi-

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6. Hardin, *The Tragedy of the Commons*, 162 *Science* (1968).

7. Clark, *The Economics of Overexploitation*, 181 *Science* 630 (1973). More recently, see C. Clark, *Mathematical Bioeconomics, the Optimal Management of Renewable Resources*.

viduals realize that they may become worse off as natural resources are not conserved. Their contribution toward an environmental public good may take the form of forbearance, not activity; conserving, not utilizing. But experience has shown that while self-interest often includes caring for the community, and individuals might voluntarily restrain their activity, nonetheless altruism and cooperation may be better encouraged and realized through explicit agreements and further, through enforceable laws and regulations.

Cooperation in the "real world" is made difficult by inadequate information, lack of flexibility, infrequency of choices, and general mistrust. A framework for cooperation would seek to enhance information, flexibility, choice, and trust. According to philosopher David Hume, individuals do develop a general sense of the common interest. In the history of political theorists, when the common interest became more widely recognized, members of society voluntarily agreed to regulate their conduct by certain rules,<sup>8</sup> and thus conventions arose. A "convention" was originally defined as an agreement without a promise wherein one's actions depended upon the behavior of others. In other terms, a convention was a solution by individuals who shared "suitably concordant mutual expectations" to a recurrent "coordination problem,"<sup>9</sup> such as the management of shared natural resources.

In the following examination of the Bonn Convention and the North American Waterfowl Management Plan, it will be seen that Hume's notion survives in the formal texts of modern treaties and agreements. Without an international enforcer or "Leviathan," agreement to join is voluntary, and adherence to provisions, selective. A convention regime resembles less a binding contract than a "coordination game." A convention's worth is judged by how its envisaged conferences, reports, secretariats, and input from interested and informed parties and non-parties provide a framework for cooperation by enhancing information exchange, frequent communication, fair decisionmaking, and trust, all necessary for effective local action.

International legal obligations are not enforceable. Such a bald statement will provoke some disagreement from academics and judges, but it reflects practical reality. Only domestic law is enforceable. The problem with international law as set out in a convention, ratified by states which voluntarily wish to become parties to that convention, is the separation between the subject bound by the legal obligations, that is the government, and on the other hand, the actors in the field, whose activity is meant to

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8. D. Hume, *A Treatise on Human Nature* (Oxford 1888), cited in M. Taylor, *Anarchy and Cooperation* 122 (London, 1978).

9. D. Lewis, *Convention: A Philosophical Study* (Harvard University Press, 1969), cited in *id.* at 123.

be regulated by the convention. A conservation convention binds governments; it does not purport to bind hunters, engineers, industrial polluters, or regional planners. Thus, what is crucial to the effectiveness of a convention is the government's interest in implementing the convention in its domestic law and enforcing its provisions through its domestic administration.

A further problem arises from the lack of clear legal obligations set out in conventions. While private contracts normally stipulate that a party "shall" do a particular action, international conventions often employ wording which requests rather than commands government action. Where provisions are discretionary rather than mandatory, the question arises whether a legal obligation, in its strict sense, actually obtains. This is well illustrated by the language of a global convention on migratory species, launched under the auspices of UNEP, which will be introduced here and referred to periodically throughout this paper.

### THE BONN CONVENTION ON MIGRATORY SPECIES<sup>10</sup>

The 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) aims at conserving migratory species. But as does every international legal instrument, the convention relies on the attitude and actions of states to carry out its aims. The conservation of migratory species depends on measures taken by "Range States," that is, the governments of States which exercise jurisdiction over areas and activities within the range of a particular species. To be effective, conservation measures should extend throughout a species' range.

The convention displays the "soft" law of many international conventions. For example, article II, paragraph 3 on Fundamental Principles states:

*The Parties:*

- a) *should* promote, co-operate in and support research relating to migratory species;
- b) *shall endeavour* to provide immediate protection for migratory species included in Appendix I;
- c) *shall endeavour* to conclude agreements covering the conservation and management of migratory species included in Appendix II.<sup>11</sup>

Thus the convention takes two approaches, each reflected in a separate appendix to the convention text. Only with respect to appendix I species, those which are endangered, are parties under a strict legal obligation.

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10. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), 19 I.L.M. 15.

11. Emphasis added.

Article III, paragraph 5, states in part: "Parties *shall* prohibit the taking of animals belonging to [appendix I] species." But even this paragraph allows exceptions: for scientific purposes, propagating the species, traditional subsistence use, or extraordinary circumstances. Further, "such taking *should* not operate to the disadvantage of the species." Most other operative provisions are hortatory: for example article III, paragraph 4 stipulates that parties "*shall endeavour*" to conserve habitat, remove obstacles, and control endangering factors; and article IV, paragraph 3, stipulates that parties that are Range States of migratory species listed in appendix II *shall endeavour* to conclude agreements where these will benefit the species.

Such a formal regional agreement can stipulate more precise and perhaps more onerous obligations than a global general framework convention, such as the Bonn Convention, because under an agreement, relatively few states undertake to respond to a specific problem under definable, localized circumstances. Each agreement should require each party to designate a responsible national authority and to set up the administrative machinery necessary to implement the agreement. Article V of the Bonn Convention sets out guidelines for agreements and these will be discussed later in the context of conservation of the North Sea harbour seal.

Without sanctions, the convention provisions serve as a sophisticated information document, guiding but not fettering its parties. It is not uncommon for international conventions to be framed in general terms, so that potential parties are not inhibited by the fear of encroachment upon their sovereignty or the burden of precise legal obligations. As expressed by the UNEP coordinator, "the Convention is 'soft,' in such a way that no state need be reluctant to ratify it, yet it encourages and guides Parties to undertake practical and effective 'hard' work under specific regional 'Agreements.'"<sup>12</sup>

### MODELS FOR BETTER ENFORCEMENT

Because the threats to migratory species are diverse and covered by different types of domestic legislation and administration, the enforcement of policies to conserve migratory species will involve a variety of instruments. The enforcement of a prohibition on hunting will differ in practice from the enforcement of a pollution abatement regulation. The different situations do have some items in common, however, and theoretical models and government policies are being developed with the aim of improving enforcement of environmental regulation in general.

These models may be tailored to migratory species conservation to

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12. United Nations Environment Programme/Bonn Convention Secretariat Information Sheet 3 (Feb. 28, 1986).

improve the implementation of international obligations under such instruments as the Bonn Convention. The recent concern for the North Sea seal population resulted in public pressure and political promises for the promulgation and implementation of laws and regulations ranging from prohibition of hunting or tourist disturbance, to the reduction of farm fertilizers and industrial discharges into rivers upstream.

In order to develop the conditions necessary for enforcement, an expert study<sup>13</sup> for the Environment Committee of the Organization for Economic Co-operation and Development (OECD) identified the following prerequisites:

- a) development and adoption of an enforcement strategy,
- b) definition of target groups,
- c) existence of public support for enforcement,
- d) availability of technology,
- e) availability of trained personnel,
- f) clear and unambiguous specification of performance,
- g) availability of judicial sanctions,
- h) clear and unambiguous specification of self-monitoring and reporting requirements,
- i) effective provision of information, and
- j) political willingness to enforce.<sup>14</sup>

Before an administration resorts to enforcement sanctions, alternative ways to achieve the aim of conservation, referred to as "compliance" techniques, might be invoked. In Canada, a compliance and enforcement policy has been formulated with public input to accompany passage of the new Environmental Protection Act.<sup>15</sup> This policy draws upon similar "compliance" policies formulated for other regulatory sectors such as labor, health and safety.<sup>16</sup> In order to avoid costly administrative and judicial procedures, which might also be politically embarrassing or publicly unpopular but are needed to penalize violators of regulations, a compliance policy seeks to prevent violations.

Techniques to facilitate compliance include public information and counseling, the participation of interested parties in developing regulations and standards, public consultations, the participation of interested citizens or organizations in monitoring or assessing their own activity, or internal auditing of industrial plants. The aims of inviting wide partici-

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13. B. Bower & E. Clark, *OECD Environment Committee Study on Enforcement* (Oct. 25, 1985) (VNV/ECO/85.9) (authors are from the Conservation Foundation, Washington, D.C. and the OECD Secretariat, Paris, respectively).

14. *Id.*

15. 1987 Canadian Environmental Protection Act, Compliance and Enforcement Policy, issued by Environment Canada, May 1987.

16. Canadian Department of Justice, Compliance Policy for Canada Labour Codes, Part IV (Dec. 1986).

pation are to engender a sense of direct responsibility and desire to comply, and to increase the effectiveness and economy of the activity by those affected, while reducing the need for direct government involvement and reducing the time lost to private and commercial activity through government inspections. In the development of standards and regulations, a performance standard will stipulate the desired objective, while leaving the means to achieve that objective to the discretion of the regulatee. Where permits for activities are granted, conditions and exemptions may be appended according to circumstances.

A compliance policy needs to provide for eventual non-compliance. A method to provide an opportunity for correction with punishment is a so-called "assurance of voluntary compliance" by which the regulatee gives a formal guarantee he or she will henceforth comply with the standards or regulations. The administration can also issue a "directive" stipulating a particular action or forbearance, without penalizing a non-complying party.

Since encouragement to comply might go unheard or be consciously ignored, regulators will need the option of stronger measures to enforce regulations. Where there is an urgent risk caused by non-compliance, civil injunctions should be sought, and where non-compliance is repeated and serious, criminal prosecution may be appropriate.<sup>17</sup>

Enforcement sanctions were classified by the OECD expert study as administrative or judicial.<sup>18</sup> Administrative sanctions by a regulatory agency include:

- a) informal administrative communications, such as prior notification of a regulation, phone calls, site visits, and warning letters;
- b) formal administrative sanctions, such as administrative consent orders, emergency orders, delayed compliance fees, and the suspension, revocation, or modification of permits; and
- c) ancillary administrative sanctions, such as adverse publicity, blacklisting firms from which goods and services would not be purchased by the government agencies, and withholding governmental benefits.

Judicial sanctions range from civil injunctions which either order or prohibit specific behavior, penalties for contempt, extraordinary equitable relief, civil penalties usually combined with injunctions, damage and cost recovery (restitution or reimbursement for damages), and finally criminal penalties including probation with specified conditions, fines, and incarceration of private, corporate, or public officials. The theories and policies

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17. For a discussion, see Canadian Law Reform Commission, *Crimes against the Environment*, Working Paper No. 44 (1986).

18. *Supra* note 13.



presented above do not all apply to the conservation of migratory species, but rather to environmental protection (and indeed regulation in general).

Consideration of the conditions for enforcement of environmental regulations raises again the fundamental problem in the implementation of international legal obligations. The obligation rests with the government which has ratified the convention, rather than with the actors in the field. Unless the government has the interest and authority to enforce domestically those obligations into which it entered internationally, the international obligation will have no effect on the local actor. In order to discover delicts contrary to domestic law, such as excessive discharges by industrial polluters, society needs paid public servants and/or interested private parties. But who checks whether delicts contrary to public international law are committed by states? There is a lack of an effective inspectorate at the international level and the notorious absence of an international "policeman." While state action can be the subject of criticism, those who would criticize—citizens, politicians, and the media—are often not aware of what international legal obligations a state has entered into and thus do not know which obligations a state has not fulfilled.

#### ROLE OF NGOs AND CONVENTION SECRETARIAT

To fill this gap in awareness is a major role of non-governmental organizations and of an active convention Secretariat. Through direct criticism or by drawing media attention, non-governmental organizations (NGOs) may inform governments of non-compliance and mobilize the public to exert pressure upon governments to conform with the law, stated policies, or widely accepted morality. The important role of NGOs in implementing conventions was recognized by officials from government and inter-governmental as well as non-governmental organizations at hearings "on the state of legislation on conservation in the European Community," convened by the Environment Committee of the European Parliament.<sup>19</sup> NGOs play a role in drafting, implementing, and updating regulations by providing expert advice and criticism, often unsolicited but later appreciated by public authorities. But NGO contributions are hampered by bureaucratic secrecy, lack of resources in personnel and funding, and an underestimation of their value. It has been submitted that if NGOs or individuals were to be granted clear rights to sue governments and individuals for non-compliance in national courts or the European Court, the application of conservation conventions would dramatically improve.<sup>20</sup>

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19. Proceedings of Hearing of the Committee on the Environment, Public Health and Consumer Protection (H. Muntingh ed. 1986) (held in Luxembourg, Nov. 19-20, 1986).

20. Royal Society for the Protection of Birds, Brief to the Hearing of the European Parliament Committee on the Environment, *id.* at 12.

A Secretariat serves as a focal point for monitoring and reporting on state compliance. Parties to a convention provide for a budget in order to hire competent personnel and establish an administrative infrastructure. Under the convention, parties agree to submit periodic reports on their implementation, a requirement that in itself encourages progress, particularly if a meeting of the Conference of the Parties reviews these reports. Governments are sometimes moved to substantive action through the wish to avoid embarrassment among their peers. Still, tardiness is commonplace: in 1988 only one party, the Federal Republic of Germany, had submitted its country report to the Bonn Convention Secretariat before the due date, stipulated by the convention as six months before the biennial meeting of the Conference of the Parties.<sup>21</sup> To supplement the self-reporting and self-regulation exercised by most parties, the Secretariat could arrange third-party monitoring and direct inspection if the parties, always wary of infringements upon their sovereignty, would permit such techniques of compliance and enforcement, normally more applicable in the domestic sphere. Ideally, the convention Secretariat should serve as neutral ground for: communication among parties, constructive criticism, the negotiation of remedial action, and decisions on appropriate and proportionate responses to violations of obligations.

The point is to make compliance more attractive than non-compliance. In the international sphere, even more than domestically, regulators can often only resort to the "moral" sanction. The influence of shame in altering behavior varies according to the propensity of a subject of shame to blush. Private citizens might seem, at first glance, more prone to the moral sanction of their peers and neighbors than a state bureaucracy. It seems obvious that a private oil company would be more vulnerable to a consumer boycott than a state monopoly public corporation. Yet, governments which are popularly elected are accountable to their electorate, at least at election time. The role of citizens and NGOs in generating shame and embarrassment among those government ministers and their "public servants," who have not ensured that international obligations are adhered to, is thus crucial to the future fulfillment of the objectives of an international conservation instrument.

### **CASE STUDY I: MIGRATORY BIRD CONSERVATION IN NORTH AMERICA**

#### **Cooperative Agreements between Canada and the United States**

In North America, the conservation of migratory species, especially of migratory birds, has an international tradition extending back at least to 1916 when the United States and Great Britain (on behalf of Canada)

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21. Interview with Judith Johnson, Coordinator of UNEP/Bonn Convention Secretariat, in Bonn (May 1988).

ratified the Convention for the Protection of Migratory Birds.<sup>22</sup> By this, their earliest conservation treaty, Canada and the United States "resolved to adopt some uniform system of protection."<sup>23</sup> The text is of historical interest, long preceding later accords on environmental issues such as Great Lakes water quality.

The treaty is noteworthy for its brevity, precision, and longevity. It has only nine articles. It specifies the dates of the closed season on migratory game birds as from March 10 to September 1, with exceptions. In its operative articles, the text: lists the species covered (art. I); sets hunting seasons (art. II); bans hunting of endangered species such as whooping cranes (art. III); prohibits shipping or exporting birds during closed seasons (art. IV); and allows permits to kill protected birds which, under extraordinary circumstances, seriously threaten agricultural interests (art. VII). An explicit enforcement obligation is expressed in article VIII:

The High Contracting Parties agree themselves to take, or propose to their appropriate lawmaking bodies, the necessary measures for insuring the execution of the present Convention.

The declining populations of ducks, to be discussed below, indicate that the implementation required by article VIII has only partially fulfilled the objectives of the parties. Article VIII affirms that the parties are "desirous of saving from indiscriminate slaughter and of insuring the preservation of such migratory birds as are either useful to man or are harmless. . . ."<sup>24</sup> The convention drafters did not foresee that habitat loss would threaten migratory waterfowl at least as much as overhunting, but article IV does refer to the establishment of refuges for the wood and eider ducks, two of the species singled out for special protection.

The 1916 convention has endured until the present day having been amended only once, in 1979, in order to authorize the parties to regulate the taking of birds by the indigenous people for their "essential needs" in order to preserve and maintain stocks.<sup>25</sup> Originally, Indians and Eskimos had been declared exempt for some species. Subsequent to the 1979 amendment, their traditional spring hunt had been curtailed or banned by domestic legislation. Currently, native and environmental groups have called upon the Canadian government to resume negotiations with the United States to further amend the convention to sanction the traditional

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22. 1916 Convention between the United States and Great Britain for the Protection of Migratory Birds, T.S. No. 628.

23. *Id.* (preambular paragraph 4).

24. *Id.* (operative paragraphs, articles I to VIII).

25. Protocol amending the Convention of August 16, 1916 for the Protection of Migratory Birds in Canada and the United States, January 30, 1979, Treaty Registry, Dept. of External Affairs, Ottawa.

spring hunt by aboriginal peoples with provisions to ensure adequate conservation.<sup>26</sup> More generally, interested groups insist upon the need for better enforcement of the convention (and the legislation and regulations which incorporate it domestically) by officials of the Royal Canadian Mounted Police, the Canadian Wildlife Service, and relevant provincial authorities. The government has been criticized for transferring enforcement officers to other duties in 1988 without any consultation with the Canadian Wildlife Service.

Treaties similar to the 1916 convention were entered into by the United States with Mexico in 1936,<sup>27</sup> and later with Japan in 1972<sup>28</sup> and the USSR in 1976.<sup>29</sup> Entitled "A Convention for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment," the treaty between Japan and the United States is also brief.<sup>30</sup> Its eight articles set out: the area of application; definitions; a prohibition on taking with exceptions; a control on exportation or importation of species determined to be in danger of extinction; and standard clause on ratification and termination of the convention. The mandatory provisions state that the contracting parties "shall" exchange data and publications,<sup>31</sup> and "shall" control the exportation and importation of endangered species.<sup>32</sup> But most provisions are hortatory or discretionary rather than commandatory. The parties undertake that they "shall endeavour" to establish sanctuaries and to take appropriate measures to preserve and enhance the habitat (a notable addition to the 1916 convention), "shall encourage" the establishment of joint research programs, and "seek means" to prevent pollution damage. As the enforcement clause, article VII states "Each Contracting Party agrees to take measures necessary to carry out the purposes of this convention."

In recent years, the alarming decline of some species of migratory birds in North America has prompted governments to reevaluate actions previously taken within the framework of the migratory bird conventions. In Canada, new hunting regulations were announced in 1985 after the duck populations had declined in the productive prairie regions of Man-

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26. Greenprint for Canada (Ottawa) 18 (June 1989) (a conservation strategy issued by Canadian non-governmental organizations, including Friends of the Earth, Canadian Wildlife Federation et al.).

27. Convention between the United States of America and the United Mexican States for the Protection of Migratory Birds and Game Mammals, Mexico City, February 7, 1936, 50 Stat. 1311, T.S. No. 912, 178 L.N.T.S. 309.

28. Convention for the Protection of Migratory Birds in Danger of Extinction, and their Environment, Mar. 4, 1972, United States-Japan, 25 U.S.T. 3329, T.I.A.S. No. 7990.

29. Convention for the Conservation of Migratory Birds and their Environment, Nov. 19, 1976, United States-U.S.S.R., 29 U.S.T. 4647, T.I.A.S. No. 9073.

30. *Supra* note 28.

31. *Id.* at art. V, para. 1.

32. *Id.* at art. IV, para. 3.

itoba, Saskatchewan, and Alberta by 31 percent, 23 percent, and 26 percent respectively between 1975 and 1985, with the Mallard duck declining particularly severely by 37 percent in Southern Saskatchewan. In 1984, 415,000 migratory bird hunting permits were sold across Canada. As part of a long-term waterfowl harvest strategy being developed jointly by Canada and the United States, the new 1985 regulations aimed to reduce by 25 percent the sport harvest of Mallard ducks since its continental population had dropped below the critical replenishment level of 6.5 million breeding birds to only 5.47 million.

Canada and the United States attended the first meeting of the Conference of the Parties to the Bonn Convention in October 1985, but declined to express any intention to ratify in the foreseeable future. A proactive effort was made by the author as coordinator of the Bonn Convention (UNEP/Bonn Convention) Secretariat<sup>33</sup> to encourage the governments to consider the potential utility of the Bonn framework to managing and conserving their migratory species. The Bonn Secretariat requested information from the Canadian Committee on the Status of Endangered Wildlife in Canada which revealed that a number of the species endangered in Canada were also to be protected within the Bonn framework. The Eskimo curlew, Courtland's warbler, white pelican and a number of whale species endangered or threatened in Canada appear on the Bonn Convention's appendix I. The whooping crane, trumpeter swan, and a number of birds of prey, most notably peregrine falcon, appear on appendix II.

With this overlap in mind, the UNEP/Bonn Convention Secretariat invited the Canadian authorities at the federal Departments of the Environment and External Affairs to reconsider adhering to the Bonn Convention. However, officials in Canada as in the United States iterated their view that for North America, conservation measures for migratory species which were in place or planned could be implemented without the assistance of a new international convention. The 1916 convention was considered to be an adequate framework. In addition, under the federal division of powers, American states and Canadian provinces had jurisdiction over wildlife management to the virtual exclusion of federal jurisdiction. The federal system made it difficult for the national governments to enter into international legal obligations without the full support of state and provincial governments. Such support was not forthcoming due to local mistrust and fear of potential international criticism expressed within international convention fora such as conferences or secretariats. Often cited, with more or less relevance, is the experience of the New-

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33. This position was observed by the author between June 1985 and October 1986, and the following impressions were received through letters and interviews with various officials from Canada and the United States.

foundland seal hunters who encountered a focused opposition from NGOs, which successfully lobbied the European Parliament and European Commission to ban sealskin imports into Europe. More to the point, governments remember being embarrassed by NGOs and the media at the often controversial and high profile biennial meetings of the Parties to the Convention on International Trade in Endangered Species and of the International Whaling Commission. North American officials perceived that the Bonn Convention was tailored to the Western palaeartic biogeographic zone covering Europe and Africa, with only India and Chile being parties outside of that zone. Finally, for the North American continent, a different instrument for international cooperation had been envisaged.

### **North American Waterfowl Management Plan (NAWMP)**

In May 1986, the North American Waterfowl Management Plan was unveiled by the Canadian Minister of the Environment and the United States Secretary of the Interior.<sup>34</sup> It is a strategy for cooperation and coordination of management activities within the framework of the 1916 and 1936 migratory bird conventions. With a fifteen-year horizon, and review and updating at 5-year intervals, the plan envisages regional agreements (perhaps of the Bonn Convention type), which may be implemented locally through plans covering particular flyways, or national and provincial or state territories. Such regional agreements or "ventures" will set out more specific management details for pursuing wildlife conservation in both countries. Nothing in the plan is intended to change either the fiscal or regulatory processes already used in each country to establish funds to protect habitat, or to regulate the waterfowl harvest. Rather, the plan identifies desirable goals and some general recommendations that should be considered in developing additional governmental and non-governmental measures.<sup>35</sup> In order to enable expansion of waterfowl conservation programs, the plan recommends joint ventures of private and governmental organizations to finance high-priority research and management projects of international concern which would require a pooling of resources.

During the negotiations of the plan, the Canadian and American officials agreed to abide by a common principle of international politics: that this would be an agreement between two sovereign nations, neither of which would "meddle" in the legislation or regulations of the other.<sup>36</sup> Because

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34. North American Waterfowl Management Plan: A Strategy for Cooperation (May 1986), issued under the authority of the Minister of the Environment, Canadian Wildlife Service, henceforth also referred to as NAWMP (ISBN0-662-14905-X).

35. *Id.* at 2 (Introduction).

36. Interview with Robert Bailey, Canadian Wildlife Service official, in Ottawa (Jan. 1988).

migratory waterfowl are harvested along a latitudinal gradient as they migrate down flyways north to south, political leaders along the flyway have in the past sought to maximize the share of the resource permitted to be taken by their particular constituents. Waterfowl hunting regulations in some American states are so politically controversial that compromises for the sake of conservation have in the past provoked electors to vote state governors out of office. Thus, recreational hunting will continue to be managed under existing regulatory processes in Canada and the United States.

Whether an international plan of goals and recommendations will actually assist a pair of ducks to breed, nest, and migrate depends upon how local agencies implement the plan. The plan is intended to actively channel a flow of funds and information, rather than passively await a "trickling down" of principles into practice.

The plan's goals are ambitious. Although it is a broad framework for management in the United States and Canada through the year 2000, the plan's objectives are quantified in terms of numbers of birds and acres of marsh. Based on average continental duck populations from 1970–1979, the plan aims at a total breeding duck population index of 62 million, producing an average annual fall flight of about 100 million ducks. Numbers of ducks—mallards, pintails, black ducks—are significantly below their past levels and are also below levels aimed for in the plan: the 1988 breeding population was only 33.6 million, and the fall flight only 66 million. Habitat to be protected and improved for 100 million migrating ducks and 6 million overwintering geese amounts to vast areas based on a ratio of three acres of upland nesting cover per acre of water: 3.6 million acres of the Canadian prairies and 1.1 million acres in the United States plains for duck production; 686,000 acres of migration and wintering habitat in the Mississippi–Gulf Coast region; 80,000 acres of California's Central Valley, of which 95 percent is already lost to waterfowl; as well as substantial acreage in key priority habitat ranges along the Great Lakes, St. Lawrence River, and Atlantic Coast.<sup>37</sup> Costs are staggering and yet probably underestimated: 1.5 billion U.S. dollars, of which \$1 billion will be spent in Canada, and \$0.5 billion in the United States.<sup>38</sup>

Because no one government or organization can meet the challenge alone, "joint ventures" have been drafted to involve regional and local government agencies, private organizations, businesses, and individual citizens. By late 1989, ten joint ventures were in progress. Of the four in Canada, two are oriented to preserve habitat in the prairies and along

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37. *Supra* note 26.

38. Interview with James McCuaig, Director of Implementation Branch of Legislation Regulation and Enforcement Division, Canadian Wildlife Service, in Ottawa (Oct. 1989).

the Atlantic coast, and two focus on research of the declining species of black duck and Arctic goose.

Although a high-level international initiative signed by the two federal government ministers, the plan invites activity at all levels. To bring the plan "down to earth," administrative, legal, and financial arrangements are needed in the various regions. Establishing these is an incremental process. For example, an "ad hoc" Prairie Habitat Joint Venture Steering Committee (PHJV) has been set up to facilitate agreements between all those participating: federal and provincial agencies, and non-governmental organizations.<sup>39</sup>

Technical Committees in each of the prairie provinces of Alberta, Saskatchewan, and Manitoba include representatives of: the lead NGO—Ducks Unlimited; the federal Canadian Wildlife Service and Prairie Farm Rehabilitation Administration; and provincial ministries for agriculture, lands, parks, and other jurisdictions related to wildlife. The Manitoba NAWMP Technical Committee also includes experts from the Delta Waterfowl and Wetlands Research Station. In Saskatchewan, a Steering Committee also invites representatives from the non-governmental Saskatchewan Wildlife Federation and Wildlife Habitat Canada to provide direction to the Technical Committee.<sup>40</sup>

The provincial implementation strategies or plans typically describe the current population and habitat status, the methodology for site selection, data collection, and computer modeling, and the direct and indirect programs needed to achieve the plan's objectives. Illustrative of the technical detail in the solutions proposed is Alberta's direct program for land management.<sup>41</sup> The "intensive" program provides for fencing duck nesting cover to keep predators and cattle out, building nesting structures, converting former cultivated land to dense cover, and leasing hayland to idle as fallow. "Extensive" land management programs involve demonstrations in order to invite the cooperation of the most important stakeholders affecting waterfowl habitat—the farmers. The plans aim to compensate farmers for crop losses, to prevent damage with bait stations, lure crops, and, above all, to promote more environmentally-friendly farming techniques.

Information and incentives will be costly. In Alberta, \$2 million will be spent on a communications and public information program, and \$7.5 million is earmarked for evaluation to monitor the effectiveness of action under the plan.<sup>42</sup>

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39. Manitoba NAWMP Technical Committee, *Manitoba Implementation Plan 1988–2000 I* (July 1988) (overview).

40. Saskatchewan Technical Committee, *NAWMP Saskatchewan Implementation Strategy—Prairie Habitat Joint Venture* (June 1989) (foreword).

41. Alberta Technical Committee, *NAWMP Alberta Plan* (July 15, 1989).

42. *Id.* at 15.



The Canadian federal Ministry of Agriculture will pay farmers to retire land from marginal agriculture to permanent dense nesting cover. Farmers may be offered a modest sum per acre "to grow ducks."<sup>43</sup> Cash incentives will invite farmers to defer or rotate grazing and cultivating so as not to disturb nests, and to "underseed legumes" or practice "stubble mulch fallow"<sup>44</sup> for improved soil moisture retention, erosion control, and waterfowl nesting cover. Procurement of lands through leases, easements, or purchase will enable conversion of marginal land and habitat restoration.

More than direct intervention in key habitats, indirect programs aim for policy changes to influence land use which is more "waterfowl-friendly." The plan envisages amendments to laws and policy to reduce the incentives created by grain price support, tax deductions, or farm fuel allowances, which subsidize drainage and cultivation of marginal lands and concomitantly penalize landowners of non-cultivated wildlife habitat.<sup>45</sup>

Incentives carry a certain risk, judging by some past experience. Under the United Kingdom's 1982 Countryside Act,<sup>46</sup> landowners were to be paid *not* to drain marshes or cut hedges. That gave rise to claims by those who, but for the act, would not have made plans for drainage or clearing. The British Columbia Agricultural Land Reserve Act<sup>47</sup> prohibited urbanization of certain "high quality" agricultural land, and as a result, some landowners consciously ruined their land so as to render it unsuitable for agriculture and therefore open to urban development.

A tradition of government assistance was initiated by the 1935 Prairie Farm Rehabilitation Act<sup>48</sup> which offset 50 percent of farmers' losses during drought. The proposed new 1990 Crop Insurance Act would compensate for waterfowl damage, but only for 80 percent of the value of lost crops. Compensating 100 percent is considered too generous because it would cover the "cash on delivery" value which includes harvesting and transport costs. Officials leave unsaid the unfortunate possibility that such high compensation might also tempt some landowners to attract duck damage.

Farmers, whose livelihood allows them particular insight into the inputs required to reap the bounty of nature, hope that they will benefit equitably from the ducks produced on their lands which others freely shoot. Canadian farmers would feel encouraged if their efforts to protect waterfowl

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43. *Supra* note 31.

44. Defined in *supra* note 39, at 6 as an alternative to conventional summerfallow tillage by which an undercutting implement severs weeds below the surface but leaves the dead plants standing to provide cover.

45. *Supra* note 40, at 20.

46. United Kingdom Countryside Act (1982).

47. British Columbia Agricultural Land Reserve Act.

48. Prairie Farm Rehabilitation Act (1935).

habitat were complemented with reasonable compensation, with assured local hunting rights, and with the assurance that American hunters are also subject to shorter or shifted hunting seasons.<sup>49</sup> For crop damage from wild animals, farmers can already benefit from the Wildlife Damage Compensation Fund created from hunting license fees. A waterfowl damage rate of 80 percent compensation would be perceived as fair, so long as its administration is efficient. However, if bureaucratic procedures and delays discourage applications, many farmers will simply incur the loss without compensation.

Farms situated along the major stopover points bear the brunt of damage from migrating flocks. To mitigate or prevent crop losses, very practical, simple techniques, often government assisted, have been deployed, such as scare cannons and bait stations, described as "just a pile of barley along the side of a lake with signs informing that the hunting season is closed within a half mile radius."<sup>50</sup> Descending flocks consume up to a truckload of grain per day per site before continuing south.

There are no easy solutions to the basic problem of habitat loss: as agricultural field size and machinery increase in scale, farmers annoyed by the inconvenience of driving large tractors and equipment around tight corners are tempted to plough straight through marshy spots in their fields, especially in dry seasons. Those "economically rational actors," who suffer damage without receiving benefits or compensation, tend to have little motivation to bear all of the costs required for the "public good" of conservation.

### **Agreements to Implement the NAWMP**

Now let us consider what legal arrangements might assist local field activities.

In law, contracts arise because individuals wishing to enter and receive commitments set out the substance of their agreement on "legal paper." Documentary commitments have accordingly been drafted by the parties who wish to implement the North American Waterfowl Management Plan at the regional level. Let us consider some of the provisions of a draft "Agreement Concerning the Implementation of the NAWMP through the Eastern Habitat Joint Venture."<sup>51</sup> Although the agreement is not yet signed and not all provisions can be discussed here, a list of its elements might be a useful guide for similar agreements elsewhere.

The parties interested in the joint venture include federal and provincial (or state) governments represented by ministers of the environment and/

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49. Interview with Malcolm Henderson, farmer and biologist near Mannville, Alberta (Dec. 1989).

50. *Id.*

51. The Eastern Habitat Joint Venture, copy received from Dept. of Environment, Ottawa, Dec. 1989.

or natural resources, and NGOs described as non-profit foundations or corporations such as Ducks Unlimited. After a verbose but instructive preamble of shared principles, the operative sections and paragraphs deal in turn with: (i) the objectives, (ii) the administrative mechanism—the venture's Advisory Board, (iii) funding arrangements, and (iv) a communications plan for public information. Finally, standard convention clauses (v) exclude application of the agreement to non-parties and independent projects, but provide for (vi) additional parties, (vii) termination on one year's notice, (viii) duration of agreement for 15 years with interim reviews, and (ix) recognition of the preamble as a substantive part of the agreement.

The objective of the agreement is to coordinate and ensure that all the waterfowl habitat programs of the joint venture are in accord with the plan (NAWMP) and the joint venture prospectus, and that the funding conforms to the terms of reference and procedures for "banking agents." The plan, prospectus, and funding terms are annexed to the agreement in schedules. Those appointees of the parties on the Advisory Board are responsible, *inter alia*, to establish priorities, facilitate funding, liaise between parties, committees and groups, and inform the public. With the assistance of provincial steering committees, the Board is to consider proposals identifying: (a) the aims of the plan, (b) the work intended with expected costs and benefits, (c) evaluation procedures, (d) total cost and annual expenditure, (e) all contributing agencies, and (f) any shortfall for which funding will be sought from the banking agents. Later, the Board will evaluate progress in annual reports.

To fund the 50 percent Canadian share of the total cost of implementation, the agreement requires "the best efforts" of the parties, with any obligation to contribute on an individual basis contingent upon funding from each of the other parties. By the funding terms of reference, donors may impose constraints on the disbursement of funds to fit their priorities and the objectives of protecting waterfowl habitat.

It is in "The Prospectus for Sponsors of the Joint Venture" that the specific objectives and priorities are set out in terms of numbers. The prospectus invites the financial participation of governments and organizations "that will benefit from a generous investment in the future of this environmental resource."<sup>52</sup> Specified acres of priority wetland are slated for acquisition or management with land stewardship to be promoted through contracts, financial incentives, education, demonstration projects and technical experts. Some of the aims are unabashedly ambitious and reflect the complexity and scale of the task: for example,

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52. See for example, "A Prospectus for Sponsors of the Eastern Habitat Joint Venture," copy received from Dept. of Environment, Ottawa, Dec. 1989.

habitat is to be protected from acid rain, hydroelectric dams, water diversion, forestry and mining. As well, bureaucratic and business rivalries are expressly discouraged. All agencies are called upon to promote the integration of programs, to use existing delivery mechanisms, and generally to cooperate.

It is to define and encourage the areas and means of cooperation that commitments and guidelines are set out in documentary form and, sometimes, legal language. The North American Wildlife Management Plan was designed under the umbrella or within the framework of the 1916 Convention to Protect Migratory Birds. Its implementation requires lower-level, specific, and local agreements on joint ventures. For alternative legal documents, let us return to consider how some European countries, in seeking to cooperate on seal conservation, have entered into "administrative agreements" or agreements akin to the agreements envisaged by the Bonn Convention. As we shall see, not every agreement is an "Agreement."

#### **CASE STUDY II: EUROPEAN EFFORTS TO PROTECT SEALS OF THE NORTH SEA**

##### **Agreements between Denmark, Germany, and the Netherlands**

A fine example of the challenge facing local, national, and international authorities charged with the duty of improving or protecting the conservation status of a species of migratory animal is presented by the case of the seals in the Waddenzee, along the vast tidal flats which stretch along the North Sea coasts of Denmark, the Federal Republic of Germany, and the Netherlands.

Negotiations to establish an infrastructure to coordinate protection of the *Phoca vitulina* population has stretched out for years. Already in October 1985, at the first meeting of the Conference of the Parties to the Bonn Convention, the three Range States expressed their commitment to a Regional Agreement under the Bonn Convention, with respect to the Waddenzee seals. The sudden shock of the large-scale mortality of seals in the Waddenzee in May and June 1988 added political urgency to finalize an agreement.

At the first Bonn meeting in October 1985, the federal German government had submitted a report included as annex II to the proceedings prepared by the Secretariat<sup>53</sup> entitled "Report by the Federal Republic of Germany on the conclusion of Agreements in accordance with Article IV, paragraph 3 of the Convention." The text of that report warrants quotation here:

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53. Proceedings of the first meeting of the Conference of the Parties to the Bonn Convention (Oct. 21-26, 1985) (document CMS/Conf. I. 3/rev. 1).

Considering the fact that it has so far not been possible to gather experience with Agreements concluded in accordance with Article IV, paragraph 3 of the Convention, the Federal Government intends, for the time being, to conclude an agreement for the conservation of the population of the harbour seal, which permanently occurs in the Wadden Sea areas of Denmark, the Netherlands and the Federal Republic of Germany. This population is endangered in number and regularly migrates across the national boundaries between its Range States. The harbour seal is a significant species of the Wadden Sea, thus being of great importance both as an indicator of its condition and as a symbol. Therefore, the Federal Government proposed to the Conference that this population be included in Appendix II of the Convention.

In the framework of a long-standing and well-established co-operation with the Governments of the Kingdoms of the Netherlands and Denmark, particularly in matters concerning nature conservation in the Wadden Sea, the Federal Government hopes to be able to carry on the necessary negotiations at a steady rate so that it will be able to submit results for an internationally co-ordinated protection of this species. The experience gathered in connection with this agreement is intended to form the basis of endeavours to improve the conservation status of other animal species or groups of animal species for which the Federal Republic of Germany is a Range State.

Let us consider what progress was made in the four years after that declaration of intent.<sup>54</sup> In draft texts dated November 1987 and June 1988,<sup>55</sup> the governments of the three range states had appeared to reach agreement except for a few outstanding but significant points. By December 1989, a radically streamlined text had been agreed upon by the authorities but had still not been signed.<sup>56</sup>

Rooted in the overlap of laws and administrations concerning hunting, conservation, national parks and local or regional government within the respective countries, one stumbling block was the different views regarding the "taking" of seals. While henceforth the hunting of seals would be prohibited by legislation in both Denmark and the Netherlands, the division of powers and jurisdictions within the Federal Republic of Germany made such an outright legal ban by the federal government practically impossible without first entering into protracted negotiations with the governments of the states.

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54. Interviews in 1988-89 with officials from the relevant Danish, Dutch and German authorities and the UNEP/Bonn Convention Secretariat, and with Francoise Burhenne, Director, Environmental Law Centre of International Union for the Conservation of Nature and Natural Resources (IUCN). Bonn provided information for the following account.

55. Draft texts of Agreement for the Protection of Seals in the Wadden Sea, received from the Federal German Ministry of the Environment.

56. Interview by telephone with Friedrich Dietrich, official of the Federal German Ministry of the Environment, in Bonn (Dec. 1989).

What is the present status of seal hunting in the three countries? In the Netherlands, there is now a total ban on the hunting of seals. In Denmark, the hunting of seals has also been prohibited in principle, but exceptions exist for the benefit of fishing, resulting in an annual take of some 20 seals.

In the Federal Republic of Germany, the seal is subject to the hunting law which stipulates the seal to be a huntable species. In the State of Lower Saxony, there is no hunting season for the seal. In Schleswig-Holstein, the seal may be hunted under strict conditions from September 15 to October 31 by officially appointed seal hunters who take no more than 20 seals per year for research and nature conservation purposes.

While in practice no quota is granted and seals are not hunted, the responsible German Federal Ministry of Agriculture has been opposed to amending the law in spite of representations from the relatively new Federal Ministry of Environment (created in 1986). The Ministry of Agriculture is, however, prepared to continue the practice of not granting quotas for seals and therefore *de facto* banning their hunt. This legal nicety had stimulated lengthy negotiations which prevented approval of an early Waddenzee seal agreement draft text.

An example of where measures are implemented exclusively by the regional state government level is the Federal Republic of Germany. It is instructive to consider in more detail the present regulatory regime covering the Waddenzee seals. The conservation of seals is strictly managed by the law and authorities of the Wattenmeer (Waddenzee) National Park, which covers all the natural range of the seals along the coast of Schleswig-Holstein, from the border of Denmark to the estuary of the Elbe River.

The Law on the Protection of the Schleswig-Holstein Waddenzee (National Park Law) was passed on July 22, 1985 and became effective on October 1, 1985.<sup>57</sup> It established the largest national park in Central Europe, with three zones covered by various degrees of protection. Under article IV on protected areas, zone 1 comprises the most important seal banks, breeding, feeding, and moulting grounds of birds, and the geomorphologically important outer sands and salt marshes, with the exception of the shipping lanes marked in the charts. In zone 1, there is an outright ban on hunting birds, but agricultural activities continue. From 1988 to 1991, the national park authorities have negotiated a 20 percent reduction in sheep-grazing in order to enable greater variety of the flora which "now resembles a golf green."<sup>58</sup>

Other than the cull of approximately 20 animals per year, performed

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57. Nationalpark Wattenmeer (Wadden Sea National Park) (1985) (booklet issued by the government of the Land of Schleswig-Holstein).

58. Interview with Matthias Kundy, Warden of Wattenmeer National Park, at Sankt Peter-Ording (May 15, 1988).

exclusively by official personnel only authorized to hunt down sick animals or those required for research purposes, there has been a zero quota for seal hunting since 1973. However, hunters have in recent years increasingly clamoured for some permission to hunt. The seals within the present national park increased in population from less than 1,500 in 1975 to 3,500 in early 1988, but this increase was noted only in Schleswig-Holstein. There was no increase in the seal populations in either the Netherlands, Denmark, or Lower Saxony—the other coastal German State. The massive die-off of seals in May and June 1988 has silenced any political pressure to re-open the hunt.

Zone 2 of the national park includes the salt marshes that are not part of zone 1, together with areas requiring special protection due to their particular characteristics and natural state, or to the variety of species of flora and fauna found there, or because they add to the protection required by areas of zone 1. Zone 3 covers the main remaining areas within the national park.

In zones 2 and 3, bird hunting is still permitted as a “traditional use” under the hunting law (*Jagdgesetz*). The Ministry of Food, Agriculture and Forestry of the Land of Schleswig-Holstein is officially in favor of continuing that hunting, although its National Park Service is opposed. Politically, it is unusual and somewhat risky for the National Park Service to publicly express its opposition to hunting contrary to the official ministerial line, but this has enhanced the public debate.

The national park will continue to face the challenge of balancing nature conservation with human activity. Although some access by tourists to special areas will be reduced, military artillery practice and low-level jet flights continue in spite of tourist complaints, because the jurisdictions for defense and international obligations related to defense remain too far removed from the national park authorities for them to exert any influence. In addition, one oil drill site remains, enabled by a special exemption in the act. While this site is not productive and produces only heavy oil, it is retained by Texaco in order to develop and help sell new technology, and to maintain an old legal right or easement.

### **An “Administrative Agreement”**

As for the various layers of administration over the seals' natural habitat, the overlap of agreements and conventions is confusing to both casual and informed observers. It is instructive to regard agreements on the Waddensee in their larger context. At the regional level, the three coastal states concerned entered in 1987 into the “Administrative Agreement on a Common Secretariat for the Cooperation on the Protection of the Waddensee between the Ministry of the Environment of Denmark, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

of the Federal Republic of Germany and the Ministry of Agriculture and Fisheries of the Netherlands.”<sup>59</sup> Trilateral, it sets out the duties of its parties to cooperate in research and management of the Waddenzee ecosystem as a whole. The duties of the Common Secretariat, set out in article 2 of the administrative agreement include: assisting trilateral conferences and consultations on policy, practical management, and scientific research; collecting information; analyzing legal instruments to ensure fulfillment of obligations; and facilitating a coordinated approach by the three states within international fora and with respect to adjacent North Sea states and the European Community.

The administrative agreement naturally focuses on the administrative infrastructure, its supervision, budget, and rotating location. A triennial, high-level meeting of ministers had preceded the 1987 administrative agreement, which provided for further such meetings. The fifth trilateral governmental conference on the Waddenzee was held in November 1988 in Bonn. The chairmanship and responsibility for the envisaged Trilateral Common Waddenzee Secretariat is meant to rotate every two or three years.

The reasons for such an administrative agreement are rooted in the overlap and confusion stemming from various international instruments.<sup>60</sup> With respect to the many migratory bird species that frequent the Waddenzee's tidal flats and marshes, the measures to be applied are to be in accordance with the provisions of the Ramsar Convention of Wetlands of International Importance, especially as Waterfowl Habitat.<sup>61</sup> At the most species-specific level, the Waddenzee seal agreement will fit within the framework of the Bonn Convention on the Conservation of Migratory Species.

The implementation of the Ramsar Convention is primarily a matter exclusive to national legislation respecting wetlands within the national territory of the respective parties. On the other hand, the subject matter of the Bonn Convention is by definition international, and the regional agreements called for are akin to conventions in their own right. The fact that the political follow-up to the draft texts of regional agreements on seals, bats,<sup>62</sup> and the white stork<sup>63</sup> is proceeding very slowly is in part

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59. Administrative Agreement on a Common Secretariat for the Cooperation on the Protection of the Wadden Sea, published in the Federal German Gazette (Bundesgesetzblatt, pt. 11, no. 3, Bonn, Jan. 26, 1988).

60. Interview with Mr. Veit Koester, Senior Official of Ministry of Environment of Denmark (Apr. 28, 1988).

61. Convention on Wetlands of International Importance especially as Waterfowl Habitat, Feb. 2, 1971, I.L.M. 969 (1972).

62. A draft European Agreement on Bat Conservation has been drafted at the request of the UK government authority by Simon Lyster, author of *International Wildlife Law* (Cambridge, 1985) and environmental lawyer with the World-Wide Fund for Nature (WWF).

63. Texts of an agreement and management plan for white stork have been drafted by the International Council for Bird Preservation (ICBP), headquartered in Cambridge, UK.



due to the reluctance of national administrations to embark on complex internal political and legal procedures to obtain approval to enter into new international legal obligations, year after year, as new agreements under the Bonn Convention are formulated.<sup>64</sup>

In the United Kingdom, parliamentary approval is required for each new regional agreement. In the Federal Republic of Germany, an international agreement automatically becomes domestic law. That is why no international legal obligations are entered until the domestic legal situation is clarified.<sup>65</sup> That can be very complicated where jurisdiction is divided between the federal ministries of agriculture and environment and between national and state governments. In France, ratification of the Bonn Convention has been held up for years because the administration submitted that proposal, along with the ratification of other nature conservation conventions, together in an omnibus bill which has been stalled in the French National Assembly for political reasons unrelated to migratory species conservation and related legal obligations.

It was to avoid the above-noted parliamentary procedures and political delay accompanying international conventions that conservation officials in Denmark, Germany, and the Netherlands advised their governments to enter into the "administrative agreement." As noted above, it does not contain legal obligations other than with respect to purely administrative measures to be taken within the competence of the relevant line ministry, rather than the foreign affairs ministry of each national government. The measures provided for in the administrative agreement do not go beyond the powers delegated to the relevant administration.

It will be interesting to compare the differences between the eventual agreement specifically restricted to the Waddensee seals with the administrative agreement establishing the common Secretariat to administer the trilateral cooperation on the protection of the Waddensee generally.

### **Ingredients of a-Bonn Convention Type "Agreement"**

Negotiators of both the general administrative and the seal-specific agreements have been able to take account of the guidelines for agreements set out in article V of the Bonn Convention. Paragraph 4 of article V reflects the kinds of provisions dealt with by the 1987 administrative agreement, that is: 4.c) that each party designate a national authority concerned with the implementation of the agreement; 4.d) that the agreement establish appropriate machinery to assist in carrying out the aims of the agreement, to monitor its effectiveness, and to prepare reports; and 4.e) that dispute settlement procedures be provided for.

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64. *Supra* note 49.

65. M. McDougal, *Studies in World Public Order* 222 (1960).

Beyond the framework administrative machinery mentioned in paragraph 4, the substance of an agreement under the Bonn Convention is suggested in paragraph 5 of article V. These substantive items are paraphrased in the following list:

- a) periodic review of conservation status and harmful factors;
- b) coordinated conservation and management plans;
- c) research;
- d) exchange of information;
- e) conservation and restoration of habitats and strict control of detrimental exotic species;
- f) maintenance of a network of suitable habitats;
- g) provision of favorable new habitats or re-introduction of the migratory species into favorable habitats;
- h) elimination of or compensation for activities and obstacles which hinder or impede migration;
- i) pollution control;
- j) measures to control and manage the taking (hunting);
- k) coordination to suppress illegal taking;
- l) exchange of information on substantial threats;
- m) emergency procedures; and
- n) public education of the contents and aims of the agreement.

The envisaged Waddensee Seal Agreement will not include provisions on most of the items listed above in the Bonn Convention's article V guidelines for agreements. In 1989, it emerged as a streamlined "administrative agreement." Thus it will serve mainly to coordinate administrative measures taken domestically by each of the three Range States. A draft, as it stood in December 1989, could not be seen by this author because the text still required official translation into Danish and Dutch before it would be ready for signature in 1990. After deliberating on the 1987 and 1988 drafts, officials had decided that the requirements for reporting, conferences, a commission, and a four-person permanent Secretariat might be too cumbersome. To serve as an example to other parties to the 1979 Bonn Convention, it was decided to demonstrate the possibility of a straightforward, simple agreement requiring minimal infrastructure. A management plan would follow to prescribe more specific, practical action in the field. As it stands now, the three nations recognize that they have formulated an agreement, "with lower case 'a,'" rather than a "capital A" Agreement incorporating the guidelines set out in article V of the Bonn Convention.<sup>66</sup> It remains to be seen what other agreements (or Agreements) will appear within the Bonn Convention framework following this rather slim but pragmatic precedent.

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66. *Supra* note 40, at 20.

International initiatives on pollution control or habitat networks are not likely to flow from the seal agreement, *per se*, but might be facilitated by the common Secretariat assigned to deal not only with seal conservation, but also with Waddenzee protection in general. As does any Secretariat of a convention, the Trilateral Waddenzee Secretariat will be occupied mainly with exchanging information, organizing meetings, and preparing reports from and for the parties. If one or two parties are particularly active, then the Secretariat may play an important role in inspiring activity among other parties. As well, events occasionally occur which provoke action even without the prepared text of an agreement or the good offices of a Secretariat. The North Sea "eco-catastrophe" provides a case in point.

### **The Wider Context: Reaction to the North Sea Seal Die-off**

New impetus to political action suddenly arrived in the late spring of 1988 with indications that the North and Baltic Seas were affected by an environmental crisis that severely threatened the seal populations. Until then, *Phoca vitalina* had remained a subject of lengthy, careful negotiations. Suddenly media reports of an "eco-catastrophe" accelerated research and stimulated promises of political action. In mid-May, a massive algal bloom in the Kattegat channel between Denmark and Sweden moved into the Baltic and north along the Norwegian coast and the Skagerrak channel to threaten most forms of marine life along the coasts of the North Sea from Norway south to the Federal Republic of Germany. Already in April, dead seals had washed up on the beaches of the Danish Kattegat. As millions of fish died from lack of oxygen and ever more seals were discovered dead or dying on the sandbanks, environmental organizations called for an immediate stop to the dumping of pollutants in the North and Baltic Seas. Greenpeace protested by blockading ships specially designed and charged with dumping up to 12,000 tons of hazardous waste in designated areas of the North Sea.<sup>67</sup> A special conference with representatives from Scandinavian and North Sea coastal states was called by the Federal German Environment Minister, Mr. Klaus Toepfer,<sup>68</sup> and a scientific symposium of international experts was held in Bonn on June 23, 1988. By coincidence, the author was on the North Sea island of Sylt on the weekend when the first dead seals were discovered. Within ten days, 37 dead seals had been found and the worrisome trend continued.

Politicians and scientists insisted that there was no direct connection between the algal bloom which suffocated the fish and the seal mortality which appeared to result from an epidemic virus infection. From mid-April to June 23, 1988, the following casualties were counted: in Den-

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67. Communication from Alan Thornton, Director, Greenpeace—UK, London (June 1988).

68. Frankfurter Rundschau, May 31, 1988, at 1.

mark, 860 dead seals, in the beginning especially pregnant seals, and later also other adults and juveniles; in Schleswig-Holstein, 257 dead; in Lower Saxony at least 9 bringing a total of 266 dead seals within the Federal German coastal area; in the Netherlands, 20 dead and 5 miscarriages; in Sweden, 139 dead and 17 miscarriages. The population of seals before the die-off was approximately 3,500 in Sweden, 3,500 in Schleswig-Holstein with a relatively high reproduction rate of 20 percent, 2,500 in Lower Saxony, and 1,000 in the Netherlands. Scientists agreed that in spite of the alarming trend, the survival of the populations as a whole was not threatened.<sup>69</sup>

Of the numerous scientific explanations for the possible causes of the radical mortality of the seals, none was proven with certainty, but the most probable theory suggested that a viral infection, followed by a bacterial infection and then pneumonia or other lung infections, caused death within two or three days.<sup>70</sup> Two types of virus were found to be present: a herpes and a picorna virus. Other theories are less plausible: overpopulation (100 years ago, the populations were double those of today and the general condition of the investigated specimens was good); environmental pollution (in spite of high concentrations, especially of PCBs and heavy metals, there was no sudden increase or fundamental change of the pollution situation from that in other years); and poisonous algae (there seemed to be no toxic contents of the specimens' stomachs nor did a toxic algal bloom appear in the Waddensee). Other human causes such as poaching or poisoning were ruled out.

As the dead seals were being examined, reports of the algal plague of *Chrysochromulina polylepis* continued to attract speculation. Biologists were surprised by the explosive reproductive rate of the tiny algae but not by the phenomenon's occurrence: when environmental conditions are so extremely altered as they had been in the North and Baltic Seas for years, the expansion of unusual organisms must be expected sooner or later. Why did the algal plague occur now in the spring of 1988? The winter had been unusually mild and the heavy precipitation had washed an extra dose of phosphates and nitrates from the fields into the rivers which already deliver more than 1 million tonnes into the Baltic Sea annually. Aside from fertilizer from farmers' fields being flushed into the seas causing eutrophication of marine flora thereby suffocating fish, the North Sea has become the destination for a host of other pollutants from land-based sources.<sup>71</sup>

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69. Summary of scientific symposium held in Bonn June 23, 1988, kindly distributed by German Federal Ministry of the Environment.

70. Interview with Dr. Sidney Holt, marine biologist and environmental activist, in Rome (July 1988).

71. Many of the preceding statistics are cited from the German weekly journal: Der Spiegel, No. 23, June 6, 1988, the title page story "The North Sea: Indications of a Fatally Ill Nature," pp. 18-28.

At the second North Sea Protection Conference in November 1985, one sobering conclusion was that international conventions had not led to any significant reduction in marine pollution. Coastal states had ratified but not sufficiently implemented such conventions as: the Convention for the Prevention of Marine Pollution from Land-based Sources;<sup>72</sup> the Convention on Civil Liability for Oil Pollution Damage;<sup>73</sup> the Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage;<sup>74</sup> the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter;<sup>75</sup> and the Convention for the Prevention of Pollution from Ships<sup>76</sup> and its 1978 Protocol. Yet the North Sea remained a dumping area for some 11,000 tonnes of lead, 28,000 tonnes of zinc, 950 tonnes of arsenic, 335 tonnes of cadmium, and 75 tonnes of mercury per year. In addition, some 150,000 tonnes of oil are legally released into the sea from ships and oil drilling platforms, and 6,000 tonnes of oil are illegally dumped and 20,000 tonnes of garbage are thrown overboard annually.

Additional toxic input comes from the 100,000 tonnes of hazardous waste which are incinerated at sea annually and the 2 million tonnes of acids which are introduced through sewage pipes or special ships into the waters of the North Sea. About 100,000 tonnes of phosphates and 1.5 million tonnes of nitrate compounds are washed into the sea annually. These fertilizers nourish the flora and enable the explosive growth of "killer algae," while the toxic chemicals and heavy metals impair marine fauna more directly.

Indications that the Waddenzee seals suffered from a weakened immunological system due to the environmental stress of their North Sea waters have been observed for years: sores heal slowly, life expectation is shorter, and the incidence of miscarriage and crippled young has increased.

In successive weeks, reports showed that the algal plague was receding due to the appearance of another type of algae, *Emiliana*, feeding upon the "killer algae" *Chrysochromulina polylepis* which had suffocated life from the sea's surface to a depth of 12 meters.<sup>77</sup> Meanwhile, the high rate of seal mortality continued. A new count in Lower Saxony of 2,600 seals was compared with a count 12 months previously of only 2,316, and indicated that seals might be migrating south from the area of high mortality off the coast of Schleswig-Holstein.<sup>78</sup> Dead seals were increas-

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72. June 4, 1974, 13 I.L.M. 352.

73. Nov. 29, 1969, 9 I.L.M. 45.

74. Dec. 18, 1971, 11 I.L.M. 284.

75. Dec. 29, 1972, 26 U.S.T. 2403, T.I.A.S. No. 8165.

76. Nov. 2, 1973, 12 I.L.M. 1319.

77. *Dernières Nouvelles d'Alsace*, June 4, 1988.

78. *Frankfurter Rundschau*, June 13, 1988.

ingly found in Lower Saxony and the Netherlands, but seemed to be victims of a different virus than in the North. Two weeks later, the already low population of 2,000 Baltic seals was also seen to be infected by the same virus, which until then had killed more than 1,500 seals in the North Sea and the Skagerrak and Kattegat channels.<sup>79</sup>

The so-called "eco-catastrophe" did stimulate rapid political responses. The Federal German Environment Minister announced a 10-point program for the protection of the North Sea Coast.<sup>80</sup> The program did seem to address the marine crisis in the greater context of land-based sources of pollution. In particular, it called for a reduction of phosphates and nitrates from municipal sewage and industrial plants. Because this program was the first practical initiative in years of discussion about the more remote sources of marine pollution, it bears a detailed scrutiny.

As the main point, the deadline for reducing phosphate and nitrate released from municipal sewage systems as a result of technical improvements of these plants was brought forward to January 1, 1989. Secondly, industry was requested to follow suit to comply with the newly stringent standards according to a staggered schedule between March 31 and June 31, 1989. Third, by January 1, 1991, tax incentives should reduce the use of these artificial fertilizers. Fourth, after June 30, 1989, more stringent minimal standards for hazardous materials in industrial waste water would be enforced. Further, the program promised an end to the dumping of acids from German industrial production in the North Sea by the end of 1988 and a staggered reduction of the incineration of hazardous waste on the high seas by the end of 1994.

Finally, the German government intended to set aside 10 million Deutschmarks (DM) to assist farmers with a payment of 100 DM per hectare to abstain from applying fertilizers or pesticides near the edges of waterways. This sum would protect some 10,000 kilometers of 100 meter wide borders along rivers and coastlines. While the conservative Christian Democrat caucus supported the Environment Minister's program in the Bundestag, its governing coalition partner, the Free Democratic Party (FDP) and the opposition Social Democratic Party (SPD), as well as the Greens, criticized the program as not adequate. Still, in comparison to previous political action, the program seemed promising, so long as the government assures that it will be implemented.

With respect to the Waddenzee seals in particular, the scientific experts at the symposium held on June 23, 1988 in Bonn (the same day as the Environment Minister unveiled the 10-point political program in the Bundestag) made the following recommendations:

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79. *Der Tagesspiegel*, Berlin, July 1, 1988.

80. *Frankfurter Rundschau*, June 23, 1988, at 1.

- a) Improved monitoring and enforcement of regulations protecting the seals, and measures to minimise their disturbance through tourist observation cruises and overland travel in the tidal flats. On 1 July 1988, the three most important seal banks in Schleswig-Holstein were closed to ship traffic in order to prevent any disturbance of the already stressed seal populations there.
- b) Strengthened and co-ordinated research in the fields of pathology, virology, bacteriology, parasitology and toxicology to better understand the sources of the mortality.
- c) Establishment of a co-ordinated monitoring system to check population trends and conservation requirements.
- d) Establishment of seal care stations (as in the Netherlands) to take care of sick animals, to research the effects of pollution as well as to inform the public.
- e) The reduction of pollutants in the North Sea which negatively affect the reproduction rate and the general condition of the seals.
- f) Seal hunting should be prohibited.
- g) The trilateral agreement for the protection of the seal population in the Waddensee should be concluded as quickly as possible.<sup>81</sup>

Shortly thereafter, a meeting between the Environment Ministers of the Netherlands and of the Federal Republic of Germany promised closer cooperation in research and the installation of an early warning system for algae. Overflights of the coastal sea as well as field research of the seal banks would involve Dutch-German cooperation.<sup>82</sup>

While the reduced ship traffic would directly benefit the seals, the recommendations for research monitoring and early warning systems could only hope to enhance human information rather than seal conservation, unless the added information led to practical reduction in the threats to the seals. With the greater context in mind, the Dutch and Federal German Environment Ministers, to their credit, called for earnest international cooperation of upstream countries such as the German Democratic Republic and Czechoslovakia which dump substantial amounts of untreated chemical waste into the Elbe River. They also called upon the riparian states of the Rhine River, which would meet at a special Rhine Protection Conference in Bonn in October 1988 to drastically reduce river pollution. The envisaged seven-year deadline to reduce Rhine pollution by half was to be accelerated. Not only were chemical and agricultural pollution to be addressed, but also the potash salt still introduced into the Rhine from France contrary to a legal agreement.<sup>83</sup>

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81. Berliner Tagesspiegel, July 1, 1988, at 24.

82. Bonn General-Anzeiger, July 8, 1988, at 3.

83. Interview with Dr. Albert Rest, Law Professor, University of Cologne, F.R. Germany, expert in international environmental law, who represented the City of Amsterdam versus the Government of France in a series of negotiations and legal suits to diminish potash pollution of the Rhine, in Cologne (Oct. 1986).

By mid-July 1988, the seal die-off no longer made headlines in the media but continued to attract public attention. In accordance with biological curves, the death count was expected to continue to increase exponentially until a natural slow-down stage and plateau was reached. Scientists studying the lethal effects of the virus stated that they did not expect the seal population to be wiped out.<sup>84</sup> Some seals would be immune to the virus, but it would take at least 15 years for the populations to recover to their 1987 levels.

The fact that no direct connection could be drawn between the seal mortality and industrial pollution from PCBs and heavy metals or the agricultural pollution which resulted in the algal bloom, raised the question whether this was simply a natural phenomenon which required no practical political action. But in fact, scientific debate about exact causal links does not change the political situation. Calls for environmental protection demand a political response.

It remains to be seen whether the parliamentary opposition, interested citizens, and non-governmental organizations will hold the politicians to implement promises made during the environmental crisis, even though pressure will subside with the media disinterest and public amnesia which inevitably comes with the passage of time. In this regard, the regularly scheduled meetings, annual reports, and other events to which government officials are committed under the various agreements will serve periodically to refocus attention upon the seals and the Waddenzee, and to remind the public and politicians of the efforts already made and still required to ease the plight of migratory species.

### CONCLUSION

To draw conclusions from the foregoing discussion of attempts to effect real protection as provided for in conservation conventions or management plans, it may be useful to consider the following questions. (While personally convinced that intrinsic values justify nature conservation, the author does also employ the vocabulary of economics by referring to species and their habitat as "resources" in some contexts. Some migratory species formerly hunted as resources have now been reduced to such population levels that the primary interest in their survival is ethical, aesthetic, or recreational rather than economic.)

What were the origins of the problem? Quite simply, a transboundary resource declines due to the cumulative effect of uncoordinated local actions. Those who observe a decline in certain migratory species seek to find the responsibility elsewhere. Hunters blame farmers for habitat loss; farmers charge hunters for excessive hunting; northerners assume

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84. International Herald Tribune, July 21, 1988, at 1.



that it is southerners (and vice versa) who hunt too many birds, pave too many ponds, spray too many pesticides, etc. For individual actors in each region to diminish their respective small contributions to the larger cumulative problem requires an appeal to each of those actors. But the "tragedy of the commons" phenomenon occurs wherever there is open access to a resource owned by no one. Economists argue that each actor, motivated by rational economic thinking alone (that is without a sense of public good or community spirit) will seek to maximize his benefit by using as much as possible of the resource, and to minimize his costs of contributing to its conservation by reducing his consumption or paying for restoration. Thus, intervention needs to be agreed between those interested in sustaining the resource for the future, and limits need to be imposed upon those "free riders" who try to benefit without contributing.

A convention aims to diminish the temptation of excessive present use and to assure that self-restraint will be rewarded by the survival of species. In the absence of a "Leviathan" enforcer, international conventions rely more upon political persuasion than legal coercion. By providing for conferences and secretariats, conventions provide a framework for debate, compromise, and cooperation, not only between the state-parties but also domestic pressure groups, international NGOs, and intergovernmental agencies. Such organizations often provide the vehicle by which public attitudes become reflected or entrenched in international agreements.

What steps have been taken to deal with the problem? Conservation activity has occurred *ad hoc* at the individual and local level and principles for action have been expressed through conventions and plans at the international level. Still wanting is effective action at the intermediate level where funds need to be collected and disbursed, priorities selected, and successful action ensured. The framework instruments of the Bonn Convention and the North American Waterfowl Management Plan both envisage lower level agreements to gather funds and guide fieldwork. Between global principles and local practice, numerous layers of authority are called upon to mediate. Whether such mediation inspires or accelerates field action is often asked.

What lessons have been learned? Because awareness of high-level principles and plans as they are inscribed in international instruments does not easily trickle down to inspire field action, experience points to the need for channels through which the flow of concrete instructions or regulations can be directed and assured.

This paper contains various checklists and precedents for use by administrators and legislators: the OECD's prerequisites for enforcement; lists of administrative and judicial sanctions; provisions of an agreement to implement the North American Waterfowl Management Plan; priorities for sponsors funding a NAWMP joint venture; ingredients of a tri-party

administrative agreement; and guidelines for a regional agreement under the Bonn Convention.

What needs to be done in the future? The instruments already at hand now need to be practically applied without delay. Instead of investing precious effort and energy devising new instruments and institutions to do long-awaited tasks, administrators should heed the advice offered at the United Nations Environment Programme: "Use well before shaking." In bureaucratic practice, too often a declaration of intent does not crystallize into practice. To a question regarding what would happen with a particular declaration, laboriously drafted well into the night at one conference, the author recalls a delegate's resigned response that "it would go onto the file."

The fate of migratory species is tied to the future of the global environment. While particular actions to reduce harvests and habitat loss will improve the conservation status of some species, Waddensee seals and North American waterfowl will only flourish in the long-term if society effectively tackles problems in the larger context: industrial pollution, agricultural land use, and consumer demand for goods and energy. Exacerbated by such interrelated burdens as drought, debt, war, illiteracy, poverty, high population growth, and urban migration, the recently re-discovered environmental "crisis" calls for economic activity to respect the environment upon which future sustainable human development, and the whole web of life, depends.

Considering that the benefits of current efforts may be more appreciated in the future than in the present, it seems appropriate to consider international conservation conventions as more than agreements between contracting parties, but also, in the words of Peter Sand, as "pacts between this generation and the next."<sup>85</sup> In the present they serve as catalysts for local action. At the domestic level, there is "no secret to the implementation and enforcement of environmental laws and regulations."<sup>86</sup> What is needed is commitment.

On this note, the words of the German philosopher, Goethe, inspire action:

Until one is committed, there is hesitancy. The moment one definitely commits oneself, then providence moves too, raising in one's favour all manner of unforeseen incidents and meetings and material assistance. Whatever you can do or dream you can, begin it. Begin it now.

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85. Interview with Peter Sand, former Secretary to CITES (Endangered Species Convention), Chief of UNEP Environmental Law Unit, and current Secretary to UN/ECE Convention on Long-Range Transboundary Air Pollution, Geneva, in Bonn (Oct. 1985).

86. Interview with Linda Duncan, editor of Proceedings of National Conference on Enforcement of Environmental Law, consultant to Compliance and Enforcement Branch, Environment Canada, and Professor, Faculty of Law, Dalhousie University, Halifax, Nova Scotia, Canada, in Ottawa (Oct. 1989).