
The International Convention for the Regulation of Whaling: From Over-Exploitation to Total Prohibition

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The biological family of whales consists of about 80 species of varying size. Commercial whaling traditionally focused on the big whale species, the blue whale being the largest living mammal on earth. Whales have been caught for their fat, their meat, their bones, and their baleen or teeth. Since ancient times whaling has been conducted in catcher boats starting from the coast (coastal whaling), with the catch being processed in land stations. In addition, indigenous people have always been whaling for their own usage (aboriginal whaling).¹

The first signs of the over-exploitation of whale stocks were confined to specific regions. The situation worsened, however, in the middle of the nineteenth century, when modern whaling on the high seas (pelagic whaling) became possible. Whaling was now conducted by 'expeditions', consisting of a floating factory for processing whales that was supplied by several accompanying catcher boats.² This enabled whalers to exploit the vast baleen whale resources in Antarctic waters to produce edible whale oil, the main product of whaling in the twentieth century. In contrast, the oil produced from sperm whales is non-edible and used for several other purposes. Whale meat is a traditional source of food in Japan.³

There have always been two partially competing motives that have driven the regulation of whaling. On the one hand, the economic goal of sustaining the whaling industry and avoiding the oversupply of whale products has been pursued. On the other, from an environmental point of view, whales should be protected to sustain the species. The regulation of whaling thus, in a way, provides an early example of an attempt to achieve 'sustainable development'.

Since the beginning of the international regulation of whaling, the definition of the problem has changed in line with a shift in the weight of the above mentioned motives for whale protection. Immediately after the Second World War the regulation of whaling was aimed mainly at limiting competition among companies in the whaling grounds and thus to protect whales for later catching. In contrast, by the 1980s and 1990s the main problem was perceived to be the threat to the survival of these species. An increasingly influential undercurrent in the debate even argues for the total protection of whales, irrespec-

tive of their abundance, especially for ethical reasons.⁴

At the same time, scientific knowledge of the size of whale populations, their reproductive processes, their sustainable yield, and a reliable procedure for determining sustainable catch limits has advanced decisively. To be sure, major uncertainties still exist, but they have been vastly reduced with respect to a number of whale stocks.⁵

Because major populations of big whales are found outside the waters under national jurisdiction, there is a demand for international co-operation. Since single governments have no exclusive authority over whale resources, unilateral regulation will hardly be effective. At the same time, unrestricted whaling will easily go beyond the threshold of sustainable use because self-restriction does not pay off, in the sense that the competitors will profit instead. It has furthermore been shown that, even without competition, it is economically profitable to catch rather than save whales because of their comparatively low reproduction rates.⁶

The History of the International Whaling Commission

Even before the Second World War attempts had been made to regulate whaling internationally because of an immanent oversupply of whale oil and a resulting decrease in prices.⁷ While the effects of these attempts had been limited, the International Whaling Conference of 1946 passed international regulations that were to guide the resumption of whaling after the war.

The International Convention for the Regulation of Whaling

Nineteen whaling nations present at the International Whaling Conference held in Washington in 1946 adopted the International Convention for the Regulation of Whaling (ICRW). The preamble partly mirrors the two motives for regulation mentioned above, by determining the emerging regime's twin goals as being to conserve whale resources while at the same time providing for an orderly development of the whaling industry.

The specific restrictions on commercial whaling were contained in the Schedule annexed to the ICRW. Most

importantly, pelagic whaling was limited to Antarctic waters and the North Pacific, and a quantitative limit (the so-called quota) was set on the Antarctic pelagic catch of blue, fin, sei, and humpback whales during a fixed whaling season. Other important provisions of the Convention concerned the right of all parties to issue licences for scientific whaling (Art. 8) as well as the right of indigenous peoples to pursue their traditional aboriginal whaling.⁸

Provision was made to establish the International Whaling Commission (IWC), composed of one commissioner for each contracting party, which was given far-reaching authority to amend the Schedule. While normal decisions required a simple majority, amendments to the Schedule had to be adopted by three-quarters of the commissioners. However, dissenting countries were given the right to opt out of such an agreement by filing an objection within 90 days—which could then be followed by reciprocal objections by others (Art. 3 and 5).

The ICRW was open to all countries and entered into force in 1948, after ratification by Norway, the UK, the USSR, and the USA. The IWC met for the first time in 1949, when it established committees on science, technical matters, and finance and administration. The Commission and its committees have since been convened at least once a year.

The Development of the International Management System

During the 1940s, Norway, the USSR, the Netherlands, the UK, and Japan engaged in pelagic whaling.⁹ Until the early 1970s the international management system of Antarctic pelagic whaling was based on the so-called blue-whale unit (BWU). One BWU equaled one blue whale, two fin whales, two and a half humpback whales, or six sei whales. Whalers were free to catch any of these species to fill the quota, irrespective of the state of the whale stocks. As a result, whalers focused on the biggest species that appeared to be in good supply (see Fig. 2).

Throughout the 1950s the Antarctic pelagic quota of baleen whales was set at 14,500 to 16,000 BWU which was far beyond any sustainable measure. The management system was special in that all whaling nations competed for the quota. Whaling expeditions had to report regularly on their catch to the International Bureau of Whaling Statistics in Sandefjord, Norway. If the quota limit was approached before the end of the whaling season, the catch was called off.¹⁰

At the end of the 1950s the IWC was unable to agree on a quota and nearly broke apart. This was caused mainly by distributive issues. With the decline of whale populations, countries with older whaling fleets (Norway) or without a strong economic basis of whaling (the Netherlands) were increasingly unable to sustain their indus-

tries in the global competition over the quota, and thus left the IWC. When they returned, not least because they were unable to operate their whaling more successfully outside the IWC, the quota was slowly reduced at the beginning of the 1960s. The turning point in the development of the IWC was reached in 1964/65, when the quota was finally reduced considerably and a process of further reductions was set in motion that was facilitated by agreements between the whaling nations on the distribution of catching rights.¹¹

Milestones in the further development of the IWC were the abolition of the BWU as the basis of regulation in 1972 and the adoption of the so-called New Management Procedure (NMP) in 1974. By distinguishing between 'initial management stocks', 'sustained management stocks', and 'protection stocks', harvesting whale populations that were found to be severely depleted was prohibited quasi automatically.¹² Furthermore, between the mid-1960s and the mid-1970s quota agreements were reached on more or less all whaling activities not yet covered, including pelagic whaling in the North Pacific and coastal and aboriginal whaling world-wide.¹³

The 1982 agreement on a temporary moratorium on commercial whaling starting in 1986 marked a new phase in the international management system. It was decided that the moratorium would last only until 1990 to provide time for an in-depth assessment of the status of whale stocks and the elaboration of a Revised Management Procedure (RMP). However, as discussed below, the IWC has not allocated a quota for commercial whaling since 1986.¹⁴

Instead, in 1994 the IWC declared Antarctic waters to be a whale sanctuary for the next 50 years. On the basis of the work of its Scientific Committee, the IWC has elaborated an RMP. This was a major step forward because the RMP allows catch limits to be set that can be said to be safe even if totally accurate information on the status of whale stocks and the actual catch is not available. Despite requests to implement the RMP, especially by Iceland, Norway, and Japan, the IWC has, however, not yet done so, mainly because of disagreement on an appropriate mechanism for monitoring and enforcing compliance. The IWC has repeatedly in recent years rejected requests by Japan to grant it a small interim quota for its 'small-type coastal whaling' of minke whales.¹⁵

The Driving Forces of Development

The major driving forces of this development have been science, growing concern in several countries paired with the increasing involvement of environmental non-governmental organizations (NGOs) in the issue, the increas-

ing membership and the decision-making rules of the IWC, and finally the declining importance of whaling. *Scientific knowledge* in the 1950s was virtually unable to influence the decisions of the IWC decisively because consensus in the Scientific Committee, which conducted its business in a highly politicized manner, was rare.¹⁶ In 1962 an independent committee of three scientists was set up to assess the status of whale stocks. The work of this committee led to a growing scientific consensus in the late 1960s and early 1970s which, however, weakened later on. As mentioned above, scientific consensus was enhanced again in the 1990s, but has had limited influence on political decision making.¹⁷

That scientific consensus was able to influence the decisions of the IWC in the 1960s was owing to the non-whaling nations opting to use science as the yardstick for their action. In the past individual whaling nations had been able to determine the course of affairs by threatening to file an objection; now, non-whaling nations, because of the growing public concern about the depletion of whale stocks, threatened effectively to use their voting power to prevent the IWC from agreeing on an unsustainable quota. Since this would have left the common action problem the whaling nations were facing unresolved, they were prepared to accept significant quota reductions beginning in 1965.¹⁸

On this basis, non-whaling nations pushed for reduced quotas throughout the 1970s. Growing world-wide *public concern* increased the pressure on whaling nations to agree to further quota reductions in order to legitimize their whaling. The virtual explosion of public concern over the fate of the whales, which became the symbol of the emerging environmental movement, is best illustrated by the participation of environmental NGOs in IWC meetings. The number of NGOs increased from six in 1972 to more than 50 at the beginning of the 1980s.¹⁹ Since this threatened to exceed the capacities of the IWC, it introduced some restrictions on NGO participation in the 1980s, including a participation fee.

The reduction of the quotas was also facilitated by the *decreasing importance of whaling* and the decline of the whaling industry. Immediately after the Second World War edible fat was in short supply on the world market, which made even non-whaling nations develop an interest in relatively high catches. This situation had changed by the 1950s and 1960s. Furthermore, first by the depletion of whale stocks, later by international political regulation (see below), the whaling industry declined, which also reduced its economic importance and political weight (Table 1). These changing circumstances facilitated agreement on quota reductions by whaling nations.²⁰

This development reached its limit when the morato-

Table 1. Antarctic Whaling Expeditions after 1945

	Whaling season				
	1949/50	1958/59	1964/65	1972/73	1982/83
Japan	2	6	7	4	1
USSR	1	1	4	3	1
Norway	10	9	4	-	-
Netherlands	1	1	-	-	-
United Kingdom	4	3	-	-	-
TOTAL	18	20	15	7	2

Note: The four United Kingdom expeditions in 1949/50 include an expedition registered in South Africa.

Source: International Whaling Commission.

rium on whaling clashed with cultural interests in the remaining whaling nations. The adoption of the moratorium decision was therefore made possible only by the *changing composition of the IWC*. Whereas the IWC had basically been a 'whalers' club' during the first two decades of its existence, a number of non-whaling nations joined the Commission, especially in the 1970s and 1980s, bringing the IWC membership from 14 countries in 1972 to 39 in 1982. Mainly as a result of this development, the three-quarters majority that was needed to pass the moratorium proposal was reached in 1982. At present, only a small fraction of the nearly 40 IWC members has a substantial interest in whaling.²¹

The Implementation Review and Response System

Implementation review and enforcement of the ICRW was originally based on national authority. Implementation was to be reviewed by national inspectors, compliance was to be enforced by national governments who had to submit reports on their related activities to the IWC ('infraction reports') (Art. 9 ICRW).

In response to the flagrant circumvention of international provisions by a whaling expedition operated by Aristotle Onassis under the flag of Panama in the 1950s, the IWC started efforts to establish an international system of inspection. A protocol to the ICRW authorizing the IWC to erect such a system finally came into effect in 1959. However, the elaboration of a concrete agreement on an international observer scheme was subsequently delayed, mainly by the USSR, who asked for more and more preconditions to be fulfilled before the implementation of such a scheme.²²

The international observer scheme was finally implemented in 1971/72. Whaling nations exchanged observers, who were to inspect their competitors' pelagic as well as coastal whaling activities. The international observer scheme was renewed after then until the implementation of the moratorium made it obsolete.

The discussion on an international implementation review system has, however, been renewed in the context of the debate on the implementation of the RMP in the 1990s. With many 'like-minded' non-whaling nations led by the USA striving for a 'perfect' system as a precondition for any resumption of commercial whaling—many of them more or less openly pursuing the goal of preventing the resumption of any whaling—there has been no agreement so far.

Achievements: From 'Whaling Olympics' to Whale Preservation

Because a considerable number of people were involved in pelagic as well as land-based whaling operations, these activities were relatively transparent in Western democratic countries. This is evident not least from the reckless whaling of Aristotle Onassis, whose practices soon became public, which eventually made him withdraw from pelagic whaling.²³ Consequently, the compliance of Western whaling nations with international catch limits is believed to have been high, although a large number of infractions certainly existed with respect to other provisions, most importantly the size limits.

As has become known since the breakdown of communism, the compliance record of the USSR looks far less encouraging. Soviet whalers caught without much consideration for international catch limits. Suspicions about Soviet non-compliance had been voiced before, but the actual extent of the catch of the USSR in the 1950s and 1960s was much greater than expected. However, this

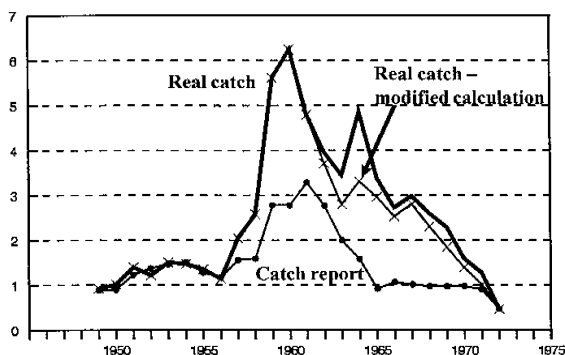


Fig. 1. Soviet Catch of Baleen Whales in the Antarctic, 1949-72 (thousand BWU)

Note: Own calculation on the basis of the figures given in the 1994 report of the Scientific Committee of the IWC. The modified calculation takes into account that a considerable amount of the Soviet catch consisted of minke blue whales, which rather equal a fin whale in terms of oil yield. For several years (1967-71) the data are incomplete. Where no new data were available, the original catch reports were used.

non-compliance ended suddenly when the international observer scheme was implemented in the early 1970s, which provides some evidence for the effectiveness of this arrangement (Fig. 1).²⁴

Despite the relatively good compliance record of other whaling nations, Antarctic pelagic whaling in the 1950s has been characterized as a 'whaling Olympics', meaning that there was fierce competition in the whaling grounds.²⁵ Allegations that the IWC caused this situation because whalers had to compete for the quota are untenable. Even without international regulation, whale resources would have been limited and whalers would have competed for them. Rather than causing the competition, the high IWC quota indeed restricted whaling throughout the 1950s, resulting in whaling companies not making full use of their capacities.

The IWC failed, however, to set lower quotas and to limit competition. As a result, whaling fleets became overcapitalized, because each company strove to acquire an ever bigger share of the total.²⁶ This, in turn, reinforced requests for a high quota so as to be able to recoup the investments made, rendering it more difficult to reduce the quota to sustainable levels. In sum, in the 1950s the IWC restricted whaling, but not competition among whalers. Restrictions were insufficient to bring the catch down to sustainable levels, and continuing competition and the resulting overcapitalization of whaling fleets prevented political conditions becoming more benign in this respect.²⁷

After the crisis of the IWC at the end of the 1950s, when whaling nations set their own catch limits, international agreement on reduced quotas was reached in 1962 and 1963, complemented by an agreement between whaling nations on fixed national shares of the catching rights. However, only Japan and the USSR were able to fill their quotas because of the continuing depletion of whale stocks. As a consequence, the Netherlands as well as the UK dropped out of pelagic whaling in 1963/64 and sold their catching rights to Japan.²⁸

With the reduction of the quota since 1965, the remaining whaling nations reduced their whaling fleets as well as their catch. Norway dropped out of pelagic whaling in 1968, leaving the field to Japan and the USSR. Even the non-compliant USSR was forced to lay up one of its expeditions to maintain its credibility, indirectly leading to a reduction of its catch. Given the constant resistance by whaling nations to lowering the quota, much of the decrease in the catch after 1964 has to be attributed to international controls, although the depletion of whale stocks would have necessitated some reduction anyway.

The process of reducing the quota, the catch, and, consequently, whaling fleets continued in the 1970s. As men-

tioned above, the USSR became an integral part of this process with the implementation of the international observer scheme in 1971/72. Furthermore, with the inclusion of virtually all whaling activities in the regulatory system of the IWC and the management of individual whale stocks under the NMP, several whale species were granted total protection. After the catching of blue and humpback whales was prohibited in the 1960s, the pelagic quotas for fin and sei whales were reduced to zero in the 1970s.

In response, whalers began taking larger numbers of the smallest species of the big whales, namely the minke whale. When the general moratorium on commercial whaling was adopted in 1982, several countries, including Japan, the USSR, and Norway—the last still conducted coastal whaling—filed objections against it. Nonetheless, commercial whaling was put on hold at the end of the 1980s. Norway and the USSR decided to stop their whaling activities temporarily while sticking to their objection, whereas Japan even withdrew its objection. While whaling fleets had been scaled down in the preceding process of reducing the quotas step by step, the whaling industry as it had been known for about a century thus came to an end (see Table 1).

Several countries including Norway and Japan subsequently issued permits for scientific whaling, leading to allegations that they would hide their commercial activities behind the banner of science. However, such scientific whaling has remained very limited, with at most a few hundred whales, mainly minkes, being taken per year.²⁹

When it became clear at the beginning of the 1990s that the IWC was not going to allocate a quota again, Norway resumed its coastal whaling activities under its still

valid objection to the moratorium decision in 1993, determining its quota unilaterally by using the RMP elaborated within the IWC. Several hundred minke whales have been taken by Norwegian coastal whalers annually since then.³⁰ In addition, up to a few hundred whales have been taken ever since the moratorium came into force under the exemption granted for aboriginal whaling. Related quotas are set regularly by the IWC. This has at times, especially in the late 1970s, led to serious conflict in the IWC and to a weakening of the US protectionist position, because the biggest share of aboriginal whaling rights has regularly been requested by the Alaskan Inuit to catch bowhead whales from a particularly severely depleted stock.³¹

A combination of three major factors can chiefly explain the catch level since the 1970s and thus the virtual phase-out of commercial whaling. First of all, world-wide public attention and concern have had a decisive impact on the activities of whaling nations. Given the symbolic value the protection of whales acquired in the 1970s, governments were extremely cautious not to be found in open non-compliance with international regulations. On the contrary, they sought to legitimize their whaling activities by following international rules. Being tracked down as breaching international law and disregarding the public's concern for whales, a real danger not least because of the international observer scheme, would have involved high political costs (in particular when taking into account the only small profit of still existing whaling activities).

Second, the USA put unilateral pressure on countries disregarding decisions of the IWC. This was based on two domestic laws, passed in 1971 and in 1979, which called for the prohibition of fish imports and the withdrawal of permits to catch fish within the US 200 mile exclusive economic zone if a country endangered the effectiveness of an international fishery agreement. The USA threatened to apply these sanctions against non-member whaling states in the 1970s and against the IWC members who continued their whaling activities under an objection after the start of the moratorium.³² In response to these threats, the indicated non-member whaling nations soon joined the IWC. Furthermore, Japan withdrew its objection to the moratorium as part of a private deal with the US government, which in turn did not apply sanctions.

While it might thus appear that the threat of US sanctions was the major driving force, the importance of US unilateralism should not be overestimated. First of all, the application of sanctions was made dependent on respective international decisions by the US legislation itself. Moreover, the General Agreement on Tariffs and Trade (GATT) compatibility of unilateral trade sanctions remains doubtful and the relationship between the USA

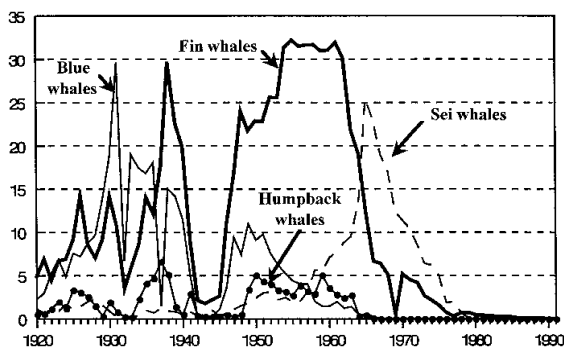


Fig. 2. Catch of Selected Whale Species, 1920–91 (in thousands)

Source: J. L. McHugh (1974), 'The Role and History of the International Whaling Commission', in William E. Schevill (ed.), *The Whale Problem: A Status Report* (Cambridge: Harvard University Press), 305–35; International Whaling Statistics, Reports of the IWC.

and the whaling nations was one of interdependence rather than dependence, which reduced somewhat the credibility of the threat.³³ Consequently, whaling nations yielded to US pressure only as long as it appeared to be somehow legitimate. When the USA certified Norway and Japan for their scientific whaling permitted by Article 8 of the ICRW, both maintained their position. Although the USA, in response, stopped allocating fishing permits to Japan, Japan continued its scientific whaling.

Demonstrating the force of international law and rules (the third factor), Japan, although there were no fishing permits the USA could threaten to withhold anymore, continued also to adhere to the moratorium because it had withdrawn its objection. When Norway resumed its whaling, the Japanese government explicitly regretted that it was not in a position to act likewise because it had no valid objection. In conclusion, it was the combination of high public concern, US threats, and international rules and the IWC, to name just the most important factors, that led to the reduction and phase-out of commercial whaling beginning in the 1970s.

Success or Failure?

As there are two goals laid down in the ICRW, there is a split answer to the question of whether the IWC has so far succeeded or failed in dealing with the issue of whaling. With respect to the *conservation of whale resources*, the performance of the IWC can be said to have improved over time, making it a moderate success from today's viewpoint. There are some species and stocks of whales that appear to be relatively abundant and could be exploited to a limited extent. This is especially true for several stocks of minke whales as well as several sperm whale populations. Many species and stocks of whales have, however, been severely depleted by commercial whaling, and in many cases it is still uncertain whether remaining stocks will be able to recover at all. Even if they turn out to recover, it will take decades to increase populations to anything near their original size. In some cases, signs of hope exist, with whale populations increasing by rates of up to 7 per cent annually. The future of the blue whale in particular appears to be uncertain (see Table 2).³⁴

In large part as a result of the only recent success in whale conservation, the IWC has certainly failed to reach the twin goal of the sustainable use of whale stocks and an *orderly development of the whaling industry*. Whereas in the first decades of the existence of the IWC the whaling industry suffered from overcapitalization and an unsustainable size, today's whaling industry is virtually non-existent (see Table 1). The whaling industry might have been about the size that whale populations could stand

Table 2. Estimated Population Sizes of Whale Species Before Large-Scale Whaling and Today

	Pre-exploitation	Today
Blue whale	more than 200,000	about 10,000
Humpback whale	more than 150,000	20–25,000
Fin whale	more than 500,000	about 30,000
Sei whale	more than 200,000	about 50,000
Sperm whale	2,500,000	about 2,000,000
Minke whale	fewer than 500,000(?)	about 900,000
Bowhead whale	more than 50,000	about 8,000
Grey whale	more than 20,000	21,000
Northern right whale	more than 45,000	fewer than 1,000
Southern right whale	100,000	3,500

Note: The estimated population sizes before the advent of large-scale whaling include only those areas and populations subject to whaling activities, whereas the current figures comprise all whale populations. As a result, the estimated population sizes 'before exploitation' and 'today' are in most cases not directly comparable.

Source: Reports of the International Whaling Commission.

for a few years in the 1970s. Whether a sustainable management of whale resources, including a sustainable catch of certain whale stocks, can become a reality in the future will depend not least on the direction the development of the IWC will take.

The Future of the IWC: A Matter of Ethics

There are generally two scenarios for the future development of the IWC corresponding to the two principal interests it represents. First, it could become a pure preservationist body, dealing with preferably non-lethal whale research, threats to whales beyond catch (for example, pollution or excessive whale watching), and the like.³⁵ This protectionist scenario is favoured by a majority of non-whaling countries, heavily influenced by a number of environmental NGOs.

Whereas Antarctic whaling will probably not be on the agenda for some time and a resumption of whaling without tight restrictions hardly belongs to the possible future, the second scenario of a moderate resumption of whaling would consist in a careful reopening of selected whale stocks, at least for so-called small-type coastal whaling.³⁶ According to the results of the Scientific Committee of the IWC, several stocks of whales could easily stand a fairly limited catch. Such a scheme for trying to establish the sustainable management of whale resources would probably reconcile the concerns of Japan, Norway, and Iceland, which appear to be the principal countries interested in whaling.

The chances of such a resumption of whaling will depend foremost on the action of the majority of non-whal-

ing states within the IWC. There are legitimate fears that a limited resumption of whaling will lead to over-exploitation in the end. In principle, however, this could be taken care of by building a reasonably strong implementation review and response system. The prevailing motivation of many non-whaling states, though, appears to be strong domestic support for a total protection of whales that is based largely on ethics. Important parts of the environmental movement have argued for the preservation of whales for reasons of their beauty, their intelligence, and the like. Governments of non-whaling nations have tended to appease such concerns by voting for the total protection of whales, which seems to cost them very little.

The costs might, however, be higher than calculated. First, by basing decisions exclusively on an environmental ethic that is not commonly accepted, non-whaling countries may undermine the foundations of the IWC and have already contributed to the current crisis. Iceland left the IWC in protest in 1991. Furthermore, Japan has been seriously questioning its involvement in the IWC. Norway's resumption of whaling in 1993 may also be a sign of a diminishing authority of the IWC, as might be the establishment in 1992 of the North Atlantic Marine Mammal Commission (NAMMCO) by Norway, Iceland, Greenland, and the Faeroe Islands.

Second, even if the IWC succeeds in prohibiting whaling permanently, basing decisions on questions of sustainable resource management predominantly on ethical considerations shared by only part of the world's societies implies serious problems of a political-ethical nature. Imposing value judgements not shared commonly by all nations (unlike those, for example, laid down in the Charter of the United Nations) may not least undermine the trust and mutual respect for different values needed to build and maintain a society of nations.

To be sure, to manage common resources sustainably it will in many cases be necessary to impose rules on dissenting members of the community. If, however, this is justified not by science but by ethics not commonly shared, the matter becomes problematic. Since international relations are based on the principle of reciprocity, imposition of rules in this case may risk being greeted by reciprocal action on other issues. Countries now in the majority may later find themselves in a minority position in which unacceptable values are imposed on them.³⁷

Partly as a result of such considerations, a number of non-whaling countries have showed sympathy in recent years for requests by Japan and Norway to allow a limited resumption of whaling. Furthermore, there are reportedly intense internal discussions within environmental

NGOs, most notably Greenpeace, on future positions on whaling. While this has not yet led to a change in the policy of the IWC, it appears possible that such a change will occur some time in the future. It is already felt by some observers that Norway's resumption of coastal whaling is being tacitly accepted within the IWC.³⁸ The remaining substantive issues concerning the implementation of the Revised Management Procedure could certainly be overcome in a concerted effort. If so, non-whaling nations within the IWC will face a hard choice and will need to make a thorough assessment of the benefits and disadvantages of continuing the total prohibition of whaling.

Notes and References

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3. On the use of whales, see *ibid.* Ch. 1; Frost (1979), *The Whaling Question*, 126-39.
4. See below and M. J. Peterson (1992), 'Whalers, Cetologists, Environmentalists, and the International Management of Whaling', *International Organization*, 46: 1, 147-86.
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7. Jørgen Wettestad and Steinar Andresen (1991), *The Effectiveness of International Resource Cooperation: Some Preliminary Findings* (Lysaker: Fridtjof Nansen Institute), 8; Birnie (1985), *International Regulation of Whaling*, Ch. 3.
8. For further information and analyses of the ICRW, see *ibid.*; the references section of this volume; Tønnessen and Johnsen (1982), *The History of Modern Whaling*, esp. 499-506.
9. Until 1951 the Japanese interest in whaling was protected by the United States; see *ibid.* 529-32.
10. Peterson (1992), 'Whalers, Cetologists, Environmentalists', 161-2; Scarff (1977), 'The International Management of Whales, Dolphins, and Porpoises', 359.

11. J. L. McHugh (1974), 'The Role and History of the International Whaling Commission', in William E. Schevill (ed.), *The Whale Problem: A Status Report* (Cambridge: Harvard University Press), 305–35.
12. Frost (1979), *The Whaling Question*, Ch. 4; Peterson (1992), 'Whalers, Cetologists, Environmentalists', 164; for a critical view of the New Management Procedure, see Sidney Holt (1985), 'Whale Mining, Whale Saving', *Marine Policy*, 9: 3, 192–213; Sidney Holt and Nina M. Young (1990), *Guide to Review of the Management of Whaling* (Washington, DC: Center for Marine Conservation).
13. See Steinar Andresen (1989), 'Science and Politics in the International Management of Whales', *Marine Policy*, 13: 2, 99–117, at 106; Steinar Andresen (1997), 'The Making and Implementation of Whaling Policies: Does Participation Make a Difference', in David Victor, Kal Raustiala, and Eugene Skolnikoff (eds.) (1997), *The Implementation and Effectiveness of International Environmental Agreements* (Oxford), forthcoming.
14. On the moratorium decision, see Andresen (1989), 'Science and Politics in the International Management of Whales'; Marine Mammal Commission (1983), *Annual Report of the Marine Mammal Commission 1982* (Washington, DC: Marine Mammal Commission), 23–7.
15. On the development of the RMP, see Holt and Young (1990), *Guide to Review of the Management of Whaling*; Gregory Rose and George Paleokrassis (1996), 'Compliance with International Environmental Obligations: A Case Study of the International Whaling Commission', in James Cameron, Jacob Werksman, and Peter Roderick (eds.) (1996), *Improving Compliance with International Environmental Law* (London: Earthscan), 148–75, at 159, 161. In addition to the annual reports of the IWC, the development of the Commission can best be followed, until the mid-1980s, by consulting Tønnessen and Johnsen (1982), *The History of Modern Whaling*, Birnie (1985), *International Regulation of Whaling*; for the development thereafter, see Andresen (1989), 'Science and Politics in the International Management of Whales', Peterson (1992), 'Whalers, Cetologists, Environmentalists'; Rose and Paleokrassis (1996), 'Compliance with International Environmental Obligations'; Andresen (1997), 'The Making and Implementation of Whaling Policies'; Sebastian Oberthür (1997), *Umweltschutz durch internationale Regime: Interessen, Verhandlungsprozesse, Wirkungen* (Opladen: Leske & Budrich), Ch. 5.
16. Until 1958 the Scientific Committee even voted on its scientific recommendations to the IWC, a rather questionable procedure to determine the state of knowledge; Oberthür (1997), *Umweltschutz durch internationale Regime*, 216.
17. Peterson (1992), 'Whalers, Cetologists, Environmentalists'; Andresen (1989), 'Science and Politics in the International Management of Whales'; Andresen (1997), 'The Making and Implementation of Whaling Policies'.
18. Oberthür (1997), *Umweltschutz durch internationale Regime*, 236–41.
19. Birnie (1985), *International Regulation of Whaling*, 420, 608; Andresen (1989), 'Science and Politics in the International Management of Whales', 108–9.
20. The political economics of whaling until the 1970s is best described by Tønnessen and Johnsen (1982), *The History of Modern Whaling*.
21. At times in the 1970s, the joining of non-whaling nations was compensated by some whaling nations also entering the IWC. Whaling outside the IWC was discussed as 'pirate whaling' in the 1970s and 1980s: Patricia W. Birnie (1989), 'International Legal Issues in the Management and Protection of the Whale: A Review of Four Decades of Experience', *Natural Resources Journal*, 29: 4, 903–34, at 917–19; see also David Day (1987), *The Whale War* (Vancouver: Douglas & McIntyre). On the importance of increased participation for IWC policies, see Andresen (1989), 'Science and Politics in the International Management of Whales'; Andresen (1997), 'The Making and Implementation of Whaling Policies'; see also Patricia W. Birnie (1985), 'The Role of Developing Countries in Nudging the International Whaling Commission from Regulating Whaling to Encouraging Nonconsumptive Uses of Whales', *Ecology Law Quarterly*, 12: 4, 937–75.
22. This story is best told by Tønnessen and Johnsen (1982), *The History of Modern Whaling*, 29–33.
23. *Ibid.* 534–8, 552–60.
24. Alexey V. Yablokov (1994), 'Validity of Whaling Data', *Nature*, 367: 6459 (13 Jan. 1994), 108; IWC-Documents IWC/46/4, International Whaling Commission, Report of the Scientific Committee, 1994, Annex E.
25. Scarff (1977), 'The International Management of Whales, Dolphins, and Porpoises', 359–60; M'Gonigle (1980), 'The "Economizing" of Ecology', 137; Wettestad and Andresen (1991), *The Effectiveness of International Resource Cooperation*, 10.
26. Peterson (1992), 'Whalers, Cetologists, Environmentalists', 161–2; see also Rose and Paleokrassis (1996), 'Compliance with International Environmental Obligations', 161.
27. In more detail, see Oberthür (1997), *Umweltschutz durch internationale Regime*, 218–24.
28. Tønnessen and Johnsen (1982), *The History of Modern Whaling*, 32–3.
29. On this problem, see for example, G. P. Donovan (1992), 'The International Whaling Commission: Given its Past, Does it Have a Future?', *Proceedings of the Symposium 'Whales: Biology—Threats—Conservation'* (Brussels, 5–7 June 1991), ed. J. J. Symoens, 23–44, at 36–8; Birnie (1989), 'International Legal Issues in the Management and Protection of the Whale', 930–33; for catches under scientific permits, see the annual reports of the IWC.
30. Rose and Paleokrassis (1996), 'Compliance with International Environmental Obligations', 154–5; Andresen (1997), 'The Making and Implementation of Whaling Policies'.
31. For catch quotas and catches of aboriginal whaling, see the annual report of the IWC; on this problem and in particular the Alaskan take of bowhead whales, see for example, Birnie (1985), *International Regulation of Whaling*, 485–6, 500–10, 604–5, 611, 619, 629.
32. On the so-called Pelly and Packwood–Magnuson Amendments, see Valeria Neale Spencer (1991), 'Domestic Enforcement of International Law: The International Convention for the Regulation of Whaling', *Colorado Journal of International Environmental Law and Policy*, 2: 1, 109–28; Ted L. McDorman (1991), 'The GATT Consistency of US Fish Import Embargoes to Stop Driftnet Fishing and Save Whales, Dolphins and Turtles', *George Washington Journal of International Law and Economics*, 24: 3, 477–525, at 482–90.
33. Trade sanctions under the Pelly Amendment have never been applied; see also David D. Caron (1989), 'International Sanctions, Ocean Management and the Law of the Sea', *Ecology Law Quarterly*, 16: 1, 311–54; on the deal between Japan and the USA, see Bryan R. Adel (1987), 'Japan Whaling Association v. American Cetacean Society', *Wisconsin International Law Journal*, 6: 1, 129–53; on the general importance of the whaling issue in Japanese–American relations, especially in the 1970s, see John R. Schmidhauser and George O. Totten III (eds.) (1978), *The Whaling Issue in US–Japan Relations* (Boulder, CO: Westview Press).
34. Assessing the abundance of whale stocks and the development of their size is a permanent task carried out by the IWC's Scientific Committee; see the annual reports of the IWC.
35. In this scenario, the scope of IWC regulations might also be expanded to include small cetaceans. Since these small whale

species live mostly in coastal waters, attempts to regulate their use within the IWC have met with vigorous resistance by a number of coastal states eager to protect their sovereign rights over coastal waters; see, for example, Birnie (1989), 'International Legal Issues in the Management and Protection of the Whale', 919–20; Holt (1985), 'Whale Mining, Whale Saving', 204.

36. IWC-Documents IWC/40/23, Small-Type Coastal Whaling in Japan, Report of an International Workshop, 1988.
37. On the political-ethical problems involved, see also Andresen (1989), 'Science and Politics in the International Management of Whales'; Donovan (1992), 'The International Whaling Commission'.
38. Andresen (1997), 'The Making and Implementation of Whaling Policies'.

