

# The Effectiveness of the International Whaling Commission

STEINAR ANDRESEN<sup>1</sup>

(Received 10 December 1991; accepted in revised form 3 November 1992)

**ABSTRACT.** In this article, the effectiveness of the International Whaling Commission (IWC) is discussed in relation to three criteria: stated goals, correspondence between scientific advice and political decisions, and relative improvement in relation to the status quo. Under these criteria, the IWC has a low score on effectiveness in its initial phase (1949 to mid-1960s), but increased effectiveness in the next stage (mid-1960s to late 1970s). However, in the most recent history of the IWC, effectiveness has again been decreasing. Two main perspectives have been used in trying to explain the development within the IWC; first and most important, the assumption is that effectiveness will vary according to differences in the type of problems and related state preferences; the more "malign" the problem, the lower the effectiveness. Also, it is assumed that, although to a lesser degree, effectiveness will be influenced by the problem-solving capacity related to the cooperation in question. This approach is based on the design outlined for a large comparative research project on the effectiveness of international resource and environmental management. In this article, however, this perspective is used in a very simplified form, primarily to systematize the history and performance of the IWC.

**Key words:** effectiveness, International Whaling Commission, science, policy, international, resource, management, interests, power, institutions

**RÉSUMÉ.** Dans cet article, on discute de l'efficacité de la Commission baleinière internationale (CBI) selon trois critères: les buts exprimés, l'accord entre les avis scientifiques et les décisions politiques, et l'amélioration relative par rapport au statu quo. Selon ces critères, la CBI affiche une faible efficacité dans sa phase initiale (1949 — milieu des années 60), mais augmente son efficacité dans la phase suivante (milieu des années 60 — fin des années 70). Dernièrement cependant, l'efficacité de la CBI est de nouveau en baisse. On utilise deux grands axes pour tenter d'expliquer cette évolution au sein de la CBI. On suppose d'abord et surtout que l'efficacité variera en fonction des types de problèmes et des préférences de chaque État à leur sujet; plus le problème sera «épineux», moins il y aura d'efficacité. On suppose aussi, bien qu'à un degré moindre, que l'efficacité sera influencée par la capacité de résolution de problèmes reliée à la coopération en question. Cette approche est fondée sur le plan d'un grand projet de recherche comparative sur l'efficacité de la gestion des ressources et de l'environnement au niveau international. Dans cet article, cette perspective n'est cependant utilisée que sous une forme très simplifiée, surtout dans le but de systématiser l'histoire et la performance de la CBI.

**Mots clés:** efficacité, Commission baleinière internationale, science, politique, international, ressource, gestion, intérêts, puissance, institutions

Traduit pour le journal par Nésida Loyer.

## HOW AND WHY STUDY EFFECTIVENESS?

Over the years, political scientists have been preoccupied with conditions for the establishment of international cooperation. Less attention has been paid to whether the different regimes created have actually been able to solve the problems they have been established to deal with. Such an approach, however, is necessary if the international community is to be able to learn from past "successes" and "failures." There are severe methodological ambiguities and problems associated with the concept of regime effectiveness (Underdal, 1992). Nevertheless, however crude and impressionistic the findings prove to be, the effectiveness of international resource and environmental management is the perspective chosen by a joint research project conducted by the University of Washington, the University of Oslo and the Fridtjof Nansen Institute (Miles *et al.*, 1991).

One main approach behind this research project is the comparative perspective, how do some international resource regimes compare to others (Wettestad and Andresen, 1991)? This article assesses one cooperative venture, the International Whaling Commission (IWC). However, the analytical perspective is used in a very simplified form, basically to systematize the broad lines in the history and performance of the IWC. The aim is not to give a detailed empirical account of the history of the IWC. Others have covered that topic in great depth (Tønnesen and Johnsen, 1982; Birnie, 1985). The focus here is on the changing nature of the IWC based on some critical turning points and exploring what the implications of these changes are for the IWC and how they can be explained. The main sources used are relatively few and mainly of a secondary nature. However the more recent history of the IWC

is based on more independent research — observations of the actual negotiations, as well as interviews with key actors, for example, in the IWC Secretariat.

The methodological problems of defining effectiveness will not be dealt with here. Suffice it to say that three indicators of "effectiveness" are relied upon: 1) the degree to which the cooperating parties have achieved the declared goals of cooperation; 2) the degree of correspondence between expert advice (indicating what would be the technically/scientifically ideal solution) and the regulatory/political decisions taken; 3) the degree of improvement in relation to the hypothetical state of affairs that would have occurred had no international cooperation been initiated in the field in question (Wettestad and Andresen, 1991).

Two main explanations are focused on. First, "effectiveness" will probably vary due to differences in the nature of the problems and related state preferences. International agreements designed to solve harder or "malign" problems, characterized, for example, by differing preferences and strong interests, will normally be less effective than agreements to solve easy, less complex and less conflictual problems. However, it is a fairly trivial assumption that difficult problems will lead to reduced effectiveness and vice versa. Therefore, I also want to see whether the problem-solving capacity related to the cooperation in question makes any difference to the degree of "effectiveness." Problem-solving capacity can be conceived of as a function of, for example, the institutional setting and the skill and energy invested in the politics of cooperative solutions (Underdal, 1992). Will such "softer" factors succeed in influencing the effectiveness of the organization in question,

<sup>1</sup>The Fridtjof Nansen Institute, P.O. Box 326, N-1324 Lysaker, Norway  
©The Arctic Institute of North America

or is effectiveness exclusively the result of the interests and state preferences following from the nature of the problem?

First, a short overview of the background and history of the IWC and some of its main organizational features are presented. Thereupon an assessment of the effectiveness of the IWC is given and finally an explanation of the changing performance of the IWC is accounted for. The history of the IWC is split into three phases due to differences in its performance as well as differences in the nature of the problem facing the IWC.

THE INTERNATIONAL CONVENTION  
FOR THE REGULATION OF WHALING (ICRW):  
BACKGROUND, PURPOSE AND ORGANIZATION

Although whaling has been conducted for hundreds of years, it was not until the technological progress of this century that it became a large industry. Whaling moved into Antarctic waters and by the end of the 1930s the Antarctic seas were producing some 85% of the world catch (Tønnesen and Johnsen, 1982). Although some 8-10 countries undertook pelagic whaling in the 1930s, the industry was completely dominated by Norway and the United Kingdom, which between them accounted for more than 95% of the catches (Tønnesen and Johnsen, 1982). By the 1930s the whaling industry constituted a significant segment of these countries' national economies and it accounted for one-sixth of the world sea catch by weight (Holt, 1985:193).

Although there were attempts both internationally and nationally to regulate whaling prior to World War II, generally "all sizes and all species were fair game" (McHugh, 1974:322). Also, it was not concern for the whale populations that motivated regulations but rather the huge expansion of the whaling industry, causing the supply of whale oil to exceed what the market could absorb. As the two countries that demonstrated the strongest resistance to international regulation of whaling during the 1930s, Japan and Germany, were no longer active players in the whaling business, "the period following World War II marked a tremendous opportunity for whale conservation" (Scarff, 1977:351).

The present International Convention for the Regulation of Whaling (ICRW) was set up at an international conference in Washington in 1946, based mainly on a U.S. draft. The ICRW came into force in 1948, and by 1950 sixteen nations, including all major pelagic whaling nations, had ratified the convention (Birnie, 1985). During the first stage of its history (late 1940s-mid-1960s), the IWC was for all practical purposes a "whaling club," completely dominated by the interests of the pelagic whaling nations operating in Antarctic waters. The larger whales especially were heavily depleted in this period. However, in the next phase, from the mid-1960s to the end of the 1970s, the number of Antarctic whaling nations was greatly reduced and several conservation measures to protect remaining whales were taken. In the third and most recent history of the IWC, there has been a strong influx of new members to the organization and commercial hunting of whales has been banned (Wettestad and Andresen, 1991).

The purpose of the ICRW is to provide for the proper conservation of whale stocks and thus enable the orderly development of the whaling industry. The Schedule (Articles I and V) forms an integral part of the convention and is an instrument to secure flexibility in that it allows for the amending of the more detailed regulations written down in the Schedule. In Article V(1) the provision of the Schedule is spelled out,

including fixing protected and unprotected species, open and closed seasons and waters, size limits and maximum catch of whales for one season. A three-fourths majority is required to amend the Schedule. The proposed amendments become effective unless the contracting governments present objections, thus giving the members a de facto right of veto on issues they value as crucial to their national interests.

Article III provides for the establishment of an International Whaling Commission (IWC), operative in 1949, "to be composed of one member from each Contracting Government." Each member casts one vote and may be accompanied by one or more experts and advisers. The main function of the IWC is to implement the ICRW. A Scientific Committee (Scicom), where the member nations may have any number of representatives they choose, reviews catch data and research programs and makes scientific recommendations based on their review. All states may become members of the IWC, irrespective of their whaling interests. A secretariat for the IWC is in Cambridge, England.

ASSESSING THE EFFECTIVENESS OF THE IWC

*Phase I (1946 to mid-1960s):*

*No Conservation and No Orderly Development*

With the benefit of hindsight, many analysts have pointed out the incompatibility between the goals of conservation of whales and consideration for the interests of the whaling industry. Still, these two goals, although both vague and maybe inconsistent, differ little from what is often reflected in national laws for fisheries management today, attempting to balance different interests (M'Gonigle, 1980; Andresen, 1989a). As the convention is written, conservation is primarily looked upon as a means to secure the orderly development of the whaling industry. This is not surprising, as at the time of the drafting of the ICRW conservation as such had little meaning for the majority of the "founding fathers."

If goal achievement is to be judged by the end of this period, it is bound to be low, since by the mid-1960s whaling in Antarctic waters, the area within the realm of IWC regulations in this period, was about to become history. Catches were down to a fraction of what they had been; 4500 blue whale units (one bwu equals one blue whale, two fins, two and a half humpbacks or six sei whales and is related to the oil produced from each species) in 1965 compared to approximately 16 000 bwu the two preceding decades and a mere 10-15% of catches just prior to World War II (Tønnesen and Johnsen, 1982). Moreover, the whaling nations were no longer able to fulfil the strongly reduced quotas (McHugh, 1974). Thus, the IWC was unsuccessful in managing the whale stocks both as regards "conservation" and "orderly development."

Scientific uncertainty was very high at the conception of the ICRW. The quota was set at 16 000 bwu, but this figure was little more than a "guesstimate" arrived at by three scientists (Tønnesen and Johnsen, 1982:157). According to one of them: "the two others were pleased that I suggested this figure instead of 15 000 or 20 000 bwu. It looked more reliable." Although uncertainty as to the size of the whale stocks was somewhat reduced throughout the 1950s, it was still considerable. Initially there was a "perfect match" between scientific advice and regulations adopted, as the IWC decided to set the quota at

16 000 bwu. Later on, however, when more regular procedures for scientific advice were adopted, it became evident that the majority of scientists on the Scientific Committee declared that the quotas were too high, but they found it difficult to quantify necessary reductions (Røssum, 1984; Andresen, 1989). This general concern, however, did not result in reduced quotas. Beginning in the early 1960s, concrete reductions were also suggested, but initially the IWC failed to follow the advice of the scientists (Andresen, 1989a:104). Later even a quota of 3000 bwu might have been too high (McHugh, 1974:309).

What about relative improvement in relation to the status quo? Obviously, nobody knows what would have happened to the Antarctic whales in the absence of international regulations. Still, some speculations seem warranted. On the one hand, the quota set by the IWC and the actual catch was quite modest compared to catches in the period immediately prior to World War II, when some 30 000 bwu were taken — indicating that depletion would have been even stronger with no international regulation. On the other hand, it was a common assumption that the resources were already seriously depleted as a result of intensive catches in the prewar period (Tønnesen and Johnsen, 1982). It is therefore an open question whether the whalers would have been able to catch more than the stipulated quota had they been allowed to. In addition, the adoption of the bwu as a regulative tool, based on the whaling companies' prewar oil production agreements, as well as the fact that there were no national quotas and no limitation of number of factory ships and land stations, intensified competition and laid the ground for the "whaling olympics" in the 1950s and the first part of the 1960s (Scarff, 1977). Thus it may be that at least by the beginning of the 1960s the situation would have been no worse with no regulation at all. Improvement in relation to the status quo was thus marginal or non-existent.

#### *Phase II (mid-1960s to late 1970s): Increased Effectiveness*

Goal achievement is fairly easy to assess in the first phase of the history of the IWC, as failure is so obvious. When moving into the latter half of the 1960s, goal achievement is clearly on the increase. A number of concrete measures were taken to protect the remaining Antarctic whales as well as whales in other parts of the oceans in this period.

As important Antarctic stocks were depleted, the whaling industry gradually shifted focus from the Antarctic to the North Pacific and the North Atlantic. While approximately 75% of all whales taken in the 1950s came from Antarctic waters, this was down to 62% in 1966/67 (Hoel, 1985:54). However, the IWC responded to this development by including new species and areas that had previously been unregulated, and by 1976 all whale stocks had their own quotas. In this period, the bwu as a management unit was finally abolished and separate quotas were set for different species (Andresen, 1989a:106). Another important decision taken in the mid-1970s was the adoption of a new management procedure (NMP). The stocks were divided into three categories depending upon their "health" and the different stocks were to be managed in such a manner that they could be classified as sustained management stocks (SMS). The adoption of these and other measures pointed towards an increased emphasis on the conservation of "new" and "old" whale stocks (Hoel, 1985). As such this also provided for a more orderly development of the remaining whaling industry.

National quotas reduced competition, and from the end of the 1960s there remained only two Antarctic whaling nations (the U.S.S.R. and Japan). The problem of "pirate whaling" was also reduced, as many of the nations conducting smaller scale whaling outside their respective coasts and those that had not previously been members of the IWC were now gradually brought into the IWC (Hoel, 1985). Thus, goal achievement was obviously increasing in this period.

From the mid-1960s, there was also a stronger inclination to follow scientific advice, and in 1967, "21 years after it had been established, the IWC had agreed on a quota that was below scientific estimates of the sustainable yield of the stock" (Scarff, 1977:366). It is said that the adoption of the NMP "marked the strongest and most specific commitment to conservation that the IWC had ever undertaken" (Scarff, 1977:366). Later on it was amply demonstrated that the introduction of the concept of sustainability, upon which the NMP is based, concerning fish as well as whales is no "magic words" in the sense that management of the living resources of the ocean automatically became more effective. As with the slogan "sustainable development," "sustainable yield" is also difficult to bring into operation and the data fed into the models are often inferior (Hoel, 1985). The point here, however, is that the very adoption of the NMP was a manifestation of a strong inclination on the part of the IWC to give science a much more prominent place in the decision-making system. However, there was still disagreement in the Scicom, the advice given was not always unambiguous and the match between advice and decisions was far from perfect (Birnie, 1985).

There was considerable improvement in the achievements of the IWC in this period compared to the status quo. It is hardly conceivable that the Antarctic whaling nations or the smaller coastal-based whaling nations would have been able to accomplish by themselves what was accomplished by the IWC in this period in terms of both conservation and orderly development. Experience from the early and unregulated days of whaling as well as from open-access regimes for fisheries supports such an assumption (Underdal, 1980).

#### *Phase III (late-1970s to the Present): A "New" IWC Emerges*

In 1982, at the 34th meeting of the IWC, a proposal for the cessation of commercial whaling (zero quotas, not a moratorium as such) from 1986 was approved and became operative two years later (Andresen, 1989a:110). The so-called moratorium on commercial whaling was temporary, pending a comprehensive stock assessment by 1990. The IWC has still not opened up for commercial whaling, but one of its member states, Norway, has declared its intention to start commercial whaling in the 1993 season (Cherfas, 1992a). Thus, over the last years, the function of the IWC has not been the management of whales through stipulating quotas, as before. Issues now being discussed are aboriginal rights to land whales, small cetaceans, humane killing and, not least, whaling for so-called scientific purposes (Birnie, 1985).

Due to the adoption and effective implementation of the moratorium, the whaling industry has virtually disappeared, although there are a few remnants left mainly due to the controversial whaling for scientific purposes. Provided there are whales to catch commercially, as appears to be the case, the effectiveness again appears to be reduced in relation to goal

achievement, recalling the dual purpose of the ICRW. Logically, it may be that "extreme conservation" has been needed for some time to enable the whale stocks to recover in order to lay the foundation for an "orderly development" of a future whale industry. As will be shown later, this is not a very probable interpretation, considering the present "climate" of the IWC. Rather, it appears that not only conservation, but also preservation is now seen as a goal in itself by the majority of the IWC members. In a sense a de facto redefinition of the goal of the ICRW has been made by the majority of the IWC members, although de jure the convention is the same. Should such a redefinition in the direction of preservation be accepted as the "real" aim, the present goal achievement would be very high. However, as long as the suggestions of a revision of the ICRW have been rejected, although the question has been on the IWC agenda for more than a decade, such a redefinition of the goal cannot be accepted.

A key question in assessing the effectiveness in this period concerns the scientific basis for the moratorium. Unfortunately this question is very difficult to answer, due to extreme polarization and blurring of the lines between science and policy in the IWC in the 1980s (Andresen, 1989a). Generally, scientists representing non-whaling nations have supported the moratorium, claiming that scientific uncertainty and lack of knowledge of the size of the different stocks should come to the benefit of the whale, a kind of "precautionary approach." This view has also been supported by scientists working in close cooperation with certain environmental NGOs strongly opposed to whaling. Scientists from the (previous) major whaling nations, on the other hand, have claimed that there was no scientific justification for a "blanket moratorium" on whaling (Birnie, 1985; Hoel, 1985; Andresen, 1989a).

Due to the strong infusion of politics and emotions in the Scicom over the last decade, it is debatable whether it is possible to assess the correspondence between scientific advice and political decisions in this period. Moreover, a political scientist is not in a position to judge the scientific content of this intense controversy. The fact that the author is from Norway, which strongly opposes the so-called moratorium, increases the obvious danger of bias on this point. In my opinion, however, science was not a driving force behind the adoption of the moratorium; it was mainly politically motivated. Emphasis should be placed on a statement by the United Nations Food and Agricultural Organization (FAO) — presumably not a part of the controversy — at the IWC special meeting in 1982: "the conservation of commercial whaling can also be threatened by management measures that are too restrictive. The most extreme example is a moratorium on all commercial whaling . . . there seems to be no scientific justification for a global moratorium . . . A justification . . . can be put forward on aesthetic or moral grounds, but these seem outside the terms of reference of the Commission. The best if not the only way to determine the sustainable yield of the whale stocks is carefully monitored harvesting" (Birnie, 1983:64). It should also be mentioned that Switzerland, which cannot be accused of considering its whaling interests when voting, did not think the proposal of zero quotas was fully justified by scientific findings and voted against it (Birnie, 1985). Also, a selective moratorium on threatened whale stocks had already been introduced by the strict implementation of the NMP (Birnie, 1985). This being said,

others have reached the opposite conclusion on this point: that the so-called moratorium was indeed scientifically justified. For example, a key person in the controversy over management of whales, Dr. Sidney Holt, maintained that a moratorium would enable the IWC at least to get down to "real science"; social relations of whales could only be studied if there was no whaling (Birnie, 1985).

More recently, there is no longer any scientific doubt that certain whale species are abundant enough to be commercially taken, but the majority of the IWC members still maintain that no commercial catch should be allowed (Cherfas, 1992b). This considerably strengthens the assumption that the distance between scientific advice and policies adopted is considerable and points towards reduced effectiveness in our perspective.

The difference between the hypothetical "no regulation" and the policy adopted by the IWC in this period is considerable. There is no doubt that whaling would have been conducted on a considerably larger scale had it not been for the IWC decisions. Before the adoption of zero quotas, increasingly strict regulations had reduced the catch of whales successively, but only very reluctantly did Japan, as the last whaling nation, quit commercial operations by 1988 (Andresen, 1989a:111). Considering the negative experience from pre-IWC history as well as the early history of the IWC, it may be that the race for the (last) whales would have continued throughout the 1980s had it not been for the IWC moratorium — although economic considerations would probably have prevented that (Hoel, 1987). The cautious management policy of the IWC in this period and then the moratorium have undoubtedly contributed to an increase in the population of most whale species (Gulland, 1988). Considering the depleted state of many major stocks, this is undoubtedly a step in the right direction.

However, a continued moderate catch of certain species in line with the IWC policy of the 1970s and early 1980s would probably have been justified from an ecological point of view and would also have considered the interests of the remaining whaling industry, mostly based in small coastal communities in countries like Norway and Japan (Hoel, 1987). Whether a moderate catch would have been possible without the IWC, however, is maybe not very likely based on previous experience from the history of whaling.

#### *Overall Effectiveness*

It is not possible to give an "average score" on the effectiveness of the IWC in its more than 40 years of existence, as there has been considerable variation over time. Effectiveness was low in the first period, but increased over the next decade or so. The last phase is more difficult to evaluate due to the politicized nature of the issue. The latest developments within the IWC indicate that effectiveness has again been reduced. However, the nature of the "low" scores in the first and the last period are quite different. In a sense the score should probably be lower in the first years of the history of the IWC, as important whale stocks were about to become extinct. Now, after all, whale stocks are gradually recovering. A key question for assessing the effect of the moratorium as well as the future developments of the IWC is whether the present zero quotas are seen as a means for whale stocks to recover and subsequently be hunted commercially or whether they are seen as a step to stop all whaling irrespective of the status of the stocks.

## EXPLAINING THE EFFECTIVENESS OF THE IWC

*Phase I: Difficult Problem and Low Problem-Solving Capacity*

What was the nature of the problem facing the IWC nations at its inauguration? The major challenge for the IWC was to reduce the competitive element in a way that secured an "orderly development" of the industry as well as avoiding pressure upon the total quota. The Antarctic whaling nations, the dominating players deciding the direction and the pace of the IWC in this period, were neither able nor willing to address these problems due to the perceptions of their short-term economic interests (Tønnesen and Johnsen, 1982). As for the other IWC members, although they had no material interests in the Antarctic issue, they were generally also engaged in some kind of whaling and were anxious that their interests should not suffer due to a stronger IWC (Birnie, 1985). Although the contracting parties had agreed to set up the IWC, few or none of them initially had any intention of giving this body a strong position. Thus, the regime they had created allowed for the continued over-exploitation of the large Antarctic whales.

The most important issues in this period — the question of national quotas and the limitations of factory ships and land stations — were dealt with outside the realm of the IWC. The whaling nations had defined this as their problem and the ICRW explicitly prohibited the IWC from involvement in this issue (Article V[2][c]). The IWC could only set a total quota, and already in 1947/48 the catch capacity of the whaling industry was sufficient to take the total quota of 16 000 bwu (Tønnesen and Johnsen, 1982). This problem was aggravated by the fact that there were significant differences among the whaling nations as to the size and structure of their whaling industries. Japan and the Soviet Union were "upcoming" whaling nations, with new equipment, and they were steadily expanding. Some were small, like South Africa and the Netherlands, but eager to stay in operation, while others, such as Great Britain and Norway, were still big, but with old ships and equipment. Thus, the whaling nations had different interests and would be differently affected by the regulations adopted. Obviously, Japan and the U.S.S.R. as the stronger parties saw their interests best served by a total quota. The other Antarctic nations gradually came to favour national quotas, but if this could not be achieved they wanted the total quotas as large as possible. The main reason an agreement between the whaling nations was finally reached after many years of difficult negotiations in the early 1960s was that most Antarctic whaling nations no longer found it profitable to continue their operations. Thus, Japan and the U.S.S.R. bought the quotas from the others and were left alone on the scene (Tønnesen and Johnsen, 1982).

The nature of the problem and related perceived state interests constitute the main explanation for the poor performance of the IWC in this period. Did the IWC as an institution and its problem-solving capacity make any difference at all? The de facto veto right of the IWC members made the "law of the least ambitious programme" (Underdal, 1980) work unflinchingly in the greater part of this period; that is, no decision went beyond the interests of the least enthusiastic (Antarctic whaling) member. The Netherlands and Norway also left the IWC for a short time around 1960 due to differences with other whaling nations (Birnie, 1985). As the independent institutional basis in the larger part of this initial phase in the history of the IWC

was so weak, the IWC as such had no means of checking the power and interests of the whaling nations. The important game was played outside the IWC over the questions of quotas. Also, meetings of the Scientific Committee were infrequently held and a number of countries did not participate (Allen, 1980).

In the early 1960s the first signs of a somewhat stronger role for the IWC can be observed in the setting of quotas. First only the whaling industry was involved in the negotiations, then the states were brought in and finally the IWC, indicating that it was about to become something more than a passive prolongation of the interests of the whaling nations (Tønnesen and Johnsen, 1982). Gradually, the commission also realized that the IWC was in acute need of improved scientific advice. In 1961 a committee of three independent scientists, later extended to four, drawn from countries not engaged in pelagic whaling in Antarctic waters was set up. The group was appointed by the chairman of the commission and vice-chairman of the Scientific Committee (Andresen, 1989a:104). This small group of scientists was able to do what the Scicom had failed to do: provide specific and detailed advice. This group worked from 1961 to 1964, and then another "outside" organ was brought in; the FAO carried out stock assessments on behalf of the commission until 1969 (Andresen, 1989a:104). This improvement in procedures and substance as regards knowledge production no doubt strengthened the authority and legitimacy of the IWC. The more precise advice was probably also one reason for the reduction of quotas gradually taking place in the 1960s, although of at least equal importance was surely the fact that the whaling nations were no longer able to fulfil their quotas (McHugh, 1974). The scientists gradually also exerted stronger and more independent pressure upon the Antarctic whaling nations. Due to frustration over the unwillingness of these countries to accept the advice for reduced quotas, the chairman of the Scicom threatened to resign. Similarly, the FAO representative of the "Committee of Three" made it clear that the FAO would not continue to cooperate with the IWC if scientific findings were merely used for a more efficient depletion of whale stocks (Røssum, 1984).

The fact that the power base of the whaling nations diminished (fewer nations and reduced economic importance) also gradually created more room for political "entrepreneurs," or leaders (Young, 1991) within the IWC. The U.S. commissioner, Brian Kellogg, the main entrepreneur behind the ICRW, had long worked unflinchingly for a reduction of the total quota as well as the introduction of national quotas. In the long run his work, status and active role, in combination with these other factors, probably had a bearing on the gradual change in the role of the IWC. Thus, the reduced economic importance of whaling combined with a more active and independent role of the IWC in the 1960s created the basis for a more effective IWC in the next period.

*Phase II: Easier Problem and Increased Problem-Solving Capacity*

This middle phase in the history of the IWC is a transitional one. It represents a continuation of the positive trend started in the 1960s, but the first signs of the IWC being turned into a purely preservationist organization also begin to emerge. Catches of whales in Antarctic waters continued to decrease in the 1970s, the competitive element was strongly reduced and the economic stakes were no longer so high for the nations

involved. By 1980, whaling constituted less than 0.2% of the global marine harvest by economic value (Allen, 1980:17). However, as whaling in other ocean areas was also brought under IWC regulations, the number of whaling nations affected by IWC regulations increased (Hoel, 1985). The most important development regarding whaling in the 1970s, however, did not take place within the IWC, as the whale was about to be adopted as maybe the most important symbol for the environmental movement (Andresen, 1989b). During the UN Conference on the Human Environment in Stockholm in 1972, a 10-year moratorium on all commercial whaling was called for. Thus, by the early 1970s whaling was no longer the concern of the limited (*ca.* 15) group of IWC members only. The gradually changing perception of the whale strengthened the position of the non-whaling nations and with the reduced economic interests involved made a more conservation-oriented policy in the IWC possible (Wettestad and Andresen, 1991).

Generally the institutional problem-solving capacity of the IWC increased strongly in this period. In short, the IWC as an organization seemed to have "grown up"; communication both within the Scicom and between the Scicom and the commission improved (Andresen, 1989a; Hoel, 1985). As a result of decreased political tension and polarization, the work of the IWC ran more smoothly. In sum, it appeared that due to a combination of an "easier" problem and increased problem-solving capacity, the issue of whaling was about to be "solved" in the sense that whaling was now carried out on a comparatively modest level along the lines of more legitimate scientific advice. However, the strong emotional element of conservation that had started to grow concerning whaling was soon to enter the IWC with full force, in essence creating a completely new setting for the management of whales.

### *Phase III: New Perceptions, Power Coalitions and Decreased Effectiveness*

In the most recent history of the IWC, the dynamics in the battle over whaling have changed completely. This is due both to the changed nature of the problem as well as the institutional setup of the IWC.

Again the IWC has been faced with a most difficult problem. However, this time it has not been the challenge of limiting the race to catch whales, but tackling a complex political and environmental problem in an atmosphere where "saving the whale is for millions of people a crucial test of their political ability to halt environmental destruction" (Holt, 1985:12). The large coalition of NGOs and non-whaling nations, with backing from the public, especially in the U.S. and the U.K., has succeeded in changing the agenda and the very thinking about whales and whaling. It has been turned into a moral question, where saving the whales has become associated with the morally "good" approach, whereas catching them is morally inferior, or "bad." It is no longer a question of managing a living resource, but a question of "saving" or "killing" whales. A strong anti-whaling position has become a rather convenient way of acquiring a "green" image, as no (material) costs were involved for the non-whaling nations. This was especially the case for large industrialized countries, such as the U.S., Great Britain, Germany and France, who were often unable to claim a green image concerning other international environmental issues (Andresen, 1989b).

In this period, the issue-specific power of the whaling nations, the fact that they were catching whales, has lost most of its relevance. Countries like Iceland, Norway and Japan have argued that management is both justifiable and reasonable provided it takes place within the limit of sustainable yield of the relevant species, but they have not managed to "sell" this idea. Nor has it helped that these countries are the major ones with regard to knowledge and research on the issue of whaling. Research efforts are generally very modest both by the non-whaling nations and the IWC secretariat (Andresen, 1989a). Thus, the former whaling nations have lost the battle for the media and the public, although a more offensive counter-strategy has been adopted over the last couple of years; for example, lobbying activity is no longer confined to environmental NGOs only. Although in a small minority, groups supportive of commercial whaling are following suit. The fact that the Scientific Committee has now been able to agree on a revised management procedure (RMP), not least as a result of the large research programs launched by the former whaling nations, has put the whaling nations more on the offensive. It is no longer so easy to argue that all commercial whaling should be banned. Still, this has apparently failed to convince the NGOs or the majority of the IWC members that whaling on a limited scale could justifiably be resumed (Cherfas, 1992b).

But why did the whaling countries, some of them albeit very reluctantly and after some time, abide by the moratorium in the first place? As a traditional international organization the IWC had no means of halting commercial whaling as long as the whaling nations wished to continue. They could simply make use of the objection procedure and continue as they wished or they could leave the IWC. Both options had previously been used on several occasions.

Although the role of massive public opposition as well as the force of the moral argument should not be underestimated, the role of the U.S. in this context has probably been decisive for the halt in commercial whaling (Aron, 1988). For one thing, the U.S. has put legal instruments to use to stop whaling; sanctions will be used against nations found to be "diminishing the effectiveness" of an international conservation agreement to which the U.S. is a party (Andresen, 1989a:111). Fisheries allocation in the U.S. economic zone may be reduced by 50% and there is also an option for a partial or complete embargo on fish products from relevant countries. The U.S. has made use of these instruments as well as traditional power politics, and at least until recently they seem to have served their purpose (Andresen, 1989a:111). An agreement between the U.S. and Japan in 1984 is illustrative. The U.S. agreed not to apply these provisions to Japan during a three-year period. In turn, Japan undertook to withdraw its objection to the 1981 IWC ban on sperm whaling and its objection to the 1982 moratorium. In the meantime, the U.S. "allowed" Japan a catch of 400 sperm whales in the two following seasons (Birnie, 1986). Obviously this was political "horse-trading" of the traditional kind; neither the IWC nor scientific recommendations were left much room.

As the U.S. has now phased out all foreign vessels from its fishery zone, this provision no longer has any effect. It is still unknown what political and/or legal measures, if any, will be taken by the U.S. against Norway. The fact that Norway has declared its intention to resume commercial whaling indicates that the threats of a trade embargo on fish products are no longer viewed as being as credible as they used to be. Iceland has left

the IWC and will probably also resume commercial whaling (Cherfas, 1992b). The important point to be made here, however, is that the U.S. position on the issue of whaling has been, and probably still is, more important than the IWC position.

The core of the conflict in the IWC over the last years has dealt with principles and values concerning marine mammals, which are possibly even more difficult to agree on than conflicts over more tangible material interests that characterized the earlier days of the IWC. This game, however, cannot be properly understood without considering the dominant role of the U.S. in the implementation of the moratorium. Thus, again the general problem structure accounts for the broad lines in explaining the turn of events in the IWC.

However, the creation of an essentially "new" IWC cannot be properly understood without considering its institutional aspects. As mentioned earlier, the IWC is an "inclusive" organization, in the sense that all countries may become members irrespective of their interest in the whaling issue. This aspect proved to be a crucial one in the history of the IWC from the end of the 1970s to the beginning of the 1980s.

From the establishment of the IWC and for approximately the next 30 years, the number of contracting governments was fairly stable, approximately 15 (Hoel, 1985). Although the non-whaling members generally were the majority, they did not have the three-fourths majority needed to amend the Schedule against the will of the whaling nations. When membership started to grow by the end of the 1970s, the first group of nations to enter were the new whaling nations, mainly as a result of U.S. pressure in order to reduce the problem of "pirate whaling" outside the IWC. Although this contributed to dealing with this problem, it also reduced the majority of the non-whaling members (Hoel, 1985:69). However, the next and really large influx of new members consisted mostly of countries with no whaling traditions coming from the Third World. By 1979 the number of contracting governments had increased to 23, in 1981 it was 32, and in 1983 it was 41. If this trend was to continue, it seemed that the IWC was about to turn into a truly global organization (Hoel, 1985:80). However, thereafter the number of participants has again been reduced.

There is little doubt that the non-whaling countries' sudden concern for the whaling issue came as a result of active lobbying by environmental organizations (Gulland, 1988:45) who needed to mobilize new nations in order to secure a three-fourths majority behind the moratorium. The procedures of the IWC made this possible, and consequently the IWC was transformed from a "whaling club" of the 1950s to a "preservationist club" of the 1980s — as the overwhelming majority of members had no (commercial) stakes in whaling. If the IWC had employed more restrictive membership criteria, characterizing, for example, the Antarctic Treaty System, this would not have been possible (Wettestad and Andresen, 1991).

The increased number of observing international organizations has been no less dramatic. In 1965, five organizations sent observers, with obvious interests as to how marine mammals were managed (Røssum, 1984:161). Throughout the 1980s, some 50 NGOs have usually been present as observers. By traditional standards, these NGOs' links to whales and whaling were not as clear as they had been for the organizations present in the 1960s, but then again the perception of the whaling issue was not as it had been formerly (Birnie, 1982:75).

The upshot of the increase in membership and observing NGOs was that the IWC was no longer one of those more or less anonymous international organizations dealing with difficult technical issues mostly of concern to the participants only. Now the strong emotional atmosphere surrounding the issue was brought into the negotiations, tending to further isolate the whaling nations. It is more doubtful whether the sharp increase in membership as well as in attention increased the problem-solving capacity of the IWC. Rather, it created special problems of its own; many of the newcomers were not seriously interested in the activity of the IWC. By the end of the 1980s, 13 of the new IWC members had failed to pay the required fees. Some had never paid since they entered in the early 1980s. Often they did not attend meetings and many lost their right to vote. At the last IWC meetings, the number of parties with the right to vote was down to 27 (Andresen, 1990). Obviously, this lends support to the assumption that these countries had been "recruited" to secure the adoption of the moratorium. Considerable energy and time have been spent on this and related questions, diverting attention from the other more important tasks of the IWC.

Within the strong anti-whaling sentiment surrounding the IWC for the last decade, there is a relatively small group or coalition of some five or six scientists within the Scicom who have had an important impact upon the turn of events within the "new" IWC through their scientific competence and knowledge and understanding of the game (Wettestad and Andresen, 1991). The informal "group leader" has been Dr. Sidney Holt, now representing the Seychelles, but originally from the U.K. He has been one of the leading scientific experts in this field for decades, but for quite some time now he has had very close associations with the environmental movement and perhaps the preservationist movement (Schweder, 1993). Other members of the group of scientists (from the U.S., the Netherlands and Australia) share his views on whaling and have equally close ties to the environmental movement (Schweder, 1993). The large majority of the non-whaling IWC members, on the other hand, have tended to be very passive and mainly confine their activity to the last phase of the negotiations by supporting the views of the "activist" non-whaling nations such as the U.S., U.K., Australia and New Zealand (Andresen, 1990). The traditional whaling nations have been active and vocal in their opposition to this group, but they have had difficulty in handling their very capable opponents. However, the dominance of this group cannot be seen isolated from the formidable power groups they represent. Also, the strong scientific effort of the previous whaling nations, as well as the higher political priority given to the issue in these countries, may come to alter this balance of power somewhat, provided they do not follow the example made by Iceland.

Although Dr. Holt and his associates in a sense have been excellent entrepreneurs, given their views on the mission of the IWC, it is more doubtful whether they deserve this label, considering the original and official purpose of the IWC, which is not preservation of whales, but conservation and orderly development of the whaling industry. Also, their mixing of scientific and political roles and motives — the key factor underlying their success — can hardly be said to be consistent with the procedural setup of the IWC. Nevertheless, the functioning of this group is very interesting in a more general analysis of international negotiations.

## CONCLUDING COMMENTS

The effectiveness of the IWC has varied considerably over time. While effectiveness was low in the first phase due to the "malign" nature of the problem and low institutional capacity, the effectiveness was on the increase from the mid-1960s to the end of the 1970s. The issues at stake for the whaling nations were more moderate, making the problem "easier," and the problem-solving capacity of the IWC was on the increase. In the most recent phase this has changed once more and the whaling issue has again become more difficult as a result of increased political complexity, with strong emotional and moral elements involved. Thus, polarization is again strong, preferences incompatible and, according to this analysis, effectiveness is again reduced. Needless to say, others may arrive at the opposite conclusion concerning this last phase, considering the very disparate opinions on the issue of whaling.

The main structure of the changing problem at hand explains some of the most important variations in effectiveness. However, the importance of the problem-solving capacity and especially institutional aspects can by no means be disregarded, illustrated by the significance of the inclusive nature of the IWC for the adoption of the moratorium. On the other hand, the analysis of this case illustrates that one should avoid placing too much emphasis on the formal structures and goals of organizations. Clearly, the IWC is a totally different body today from what it was in its early years, although goal(s) and formal structure remain the same. In order to understand the more detailed working of the relationship between our two explanatory perspectives, the analysis has to be broadened to include more cases as well as more in-depth analysis of the different cases than has been provided here (Underdal *et al.*, 1992). As noted in the introduction, the aim of this article has been to provide an outline of the analytical perspective as a way of systematizing the history and performance of the whaling regime.

Finally, as to the future of the IWC, its next meeting in Tokyo in 1993 may prove to be quite decisive in the sense that the revised management procedure is now in place and certain whale species may be hunted according to the formula adopted. We will then learn which countries stick to the original goal(s) of the ICRW and which are opposed to whaling on moral grounds. If this latter view prevails, surely a new convention should be negotiated reflecting the real goal of these countries. If that should prove to be the case, however, it may be expected that countries with material interests involved in whaling will seriously consider setting up an alternative organization to the IWC. A North Atlantic Marine Mammals Committee has already been established by previous whaling nations. So far, this can be considered a supplement to the IWC. If, however, the IWC does not allow any commercial whaling at the next meeting, it may be a real alternative to the IWC (Hoel, 1993). Two possible competing bodies with different goals would clearly increase tension over the management of whales. On the other hand, if commercial catching of whales is again allowed within the framework of the RMP, countries like Iceland may consider rejoining the IWC and the organization may once more be on the track of cautious management of whales within the limits of scientific advice.

## REFERENCES

- ALLEN, K.R. 1980. Conservation and management of whales. London: Butterworth.
- ANDRESEN, S. 1989a. Science and politics in the international management of whales. *Marine Policy*, April:99-117.
- \_\_\_\_\_. 1989b. Increased public attention: Communication and polarization. In: Andresen, S., and Østreg, W., eds. *International resource management*. London: Belhaven Press. 25-46.
- \_\_\_\_\_. 1990. Experiences from the 41st IWC meeting: Report to the Norwegian Research Council of Fisheries. Unpubl. note. Available at the Fridtjof Nansen Institute, P.O. Box 326, N-1324 Lysaker, Norway.
- ARON, W. 1988. The Commons revisited: Thoughts on marine mammals management. *Coastal Management* 17(2):99-110.
- BIRNIE, P. 1982. IWC — A new era. *Marine Policy* 6(1):74-76.
- \_\_\_\_\_. 1983. Countdown to zero. *Marine Policy* 7(1):64-68.
- \_\_\_\_\_. 1985. *International regulation of whaling*. 2 vols. New York: Oceana Publications.
- \_\_\_\_\_. 1986. Are whales safer than ever? *Marine Policy* 10(1):62-64.
- CHERFAS, J. 1992a. Key nations defy whaling commission. *New Scientist*, 4 July:7-11.
- \_\_\_\_\_. 1992b. Whalers win the numbers game. *New Scientist*, 11 July:12-13.
- GULLAND, J. 1988. The end of whaling? *New Scientist*, 29 October:42-45.
- HOEL, A.H. 1985. The International Whaling Commission 1972-84: New members, new concerns. The Fridtjof Nansen Institute, R:003.
- \_\_\_\_\_. 1987. Norway, the USA and the catch of minke whales: The difficult choice. The Fridtjof Nansen Institute, R:002. In *Norwegian*.
- \_\_\_\_\_. 1993. Regionalization of international whale management: The North Atlantic Marine Mammals Commission. *Arctic* 46(2):116-123.
- HOLT, S. 1985. Whale mining, whale saving. *Marine Policy* 9(3):192-214.
- McHUGH, J.L. 1974. The role and history of the whaling commission. In: Schevill, W.E., ed. *The whale problem: A status report*. Cambridge: Harvard University Press.
- M'GONIGLE, R.H. 1980. The "economizing" of ecology: Why big, rare whales still die. *Ecology Law Quarterly*, Reprint. 120-137.
- MILES, E., UNDERDAL, A., ANDRESEN, S., and WETTESTAD, J. 1991. Science, technology and international collaboration: Conditions for effective global and regional action concerning the problem of global climate change. Unpubl. research prospectus. Available at University of Washington, School of Marine Affairs, HF-05, 3707 Brooklyn Avenue, Seattle, Washington 98195, U.S.A.
- RØSSUM, J. 1984. The negotiations over reduction of the catch quota in Antarctica. The International Whaling Commission 1960-65. Master's thesis, Institute of Political Science, University of Oslo. In *Norwegian*.
- SCARFF, E. 1977. The international management of whales, dolphins and porpoises: An interdisciplinary assessment. *Ecology Law Quarterly* 6:323-571.
- SCHWEDER, T. 1993. Intransigence, incompetence or political expediency? Dutch scientists in the International Whaling Commission in the 1950s: Injection of uncertainty. *Ocean Development and International Law*, in press.
- TØNNESEN, J., and JOHNSEN, A. 1982. *The history of modern whaling*. London: C. Hurst and Co.
- UNDERDAL, A. 1980. The politics of international fisheries management. The case of the northeast Atlantic. Oslo: Universitetsforlaget.
- \_\_\_\_\_. 1992. The concept of regime "effectiveness". Oslo: Center for International Climate and Energy Research.
- UNDERDAL, A., ANDRESEN, S., SKJÆRSETH, J.B., and WETTESTAD, J. 1992. The effectiveness of international resource cooperation. Paper presented at the Inaugural Pan-European Conference in International Relations, Heidelberg, 16-20 September 1992. Available at the Fridtjof Nansen Institute, P.O. Box 326, N-1324 Lysaker, Norway.
- WETTESTAD, J., and ANDRESEN, S. 1991. The effectiveness of international resource management: Some preliminary findings. The Fridtjof Nansen Institute, R:007.
- YOUNG, O. 1991. Political leadership and regime formation: On the development of institutions in international society. *International Organization* 45(3):281-309.