

Sustainable Southern Ocean Fisheries A Model of Responsibility?

Remarks by Denzil G.M. Miller
On Award of WWF Duke of Edinburgh Conservation Medal
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Your Royal Highness, it is a singular honour to receive the Duke of Edinburgh Conservation Medal and I am humbled to follow in the footsteps of previous distinguished recipients. To receive this honour during the International Polar Year makes it particularly significant. In thanking Your Royal Highness and WWF, I am not only personally overwhelmed, but see this award as reflecting the good work of a large number of dedicated people, and particularly the 25-nation Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). I also appreciate the love, devotion and support of my wife Jenny, and our family, who have tolerated my career with great forbearance and understanding.

In applauding CCAMLR's and WWF's commitment to the sustainable management of Antarctic seas, it is hoped that the following comments will be seen as an optimistic interpretation of the past and a positive vision for the future (Slide 1). As far as CCAMLR is concerned, I am deeply grateful for the rôle that I have been able to play in its perceived successes. I am also thankful to have been involved in other marine endeavours.

For more than 300 years prior to negotiation of the 1982 United Nations Law of the Sea Convention, international customary law for ocean spaces drew heavily on Hugo de Groot's (Grotius) *Mare Librum* doctrine. The key principles enshrined in this treatise (Slide 2) are generally perceived to indicate that:

- The High Seas are common & belong to no one (i.e. *res communis/nullius*);
- Ocean resources are essentially inexhaustible;
- Ocean sovereignty is limited to the adjacent (territorial) sea, &
- Freedom to fish is a high seas right as are the freedom of navigation & trade.

The first two principles have been challenged with time. Since a single nation's navy can exert control over large ocean areas, this renders them open to appropriation or prescription. Similarly, over the past century and a half, it has been acknowledged that oceanic living resources are indeed exhaustible. Such developments have tended to reinforce Grotius' concept of *res communis*, especially with high seas resources being viewed as the property of all. Consequently, *res communis* is seen to imply some expectation of collective benefit accruing from equal ownership of such resources. Equally, it follows that there is an attached, and collective, responsibility to ensure that any benefits are equally accessible to all humanity.

However, history tells a woeful and contrary story with the collective responsibility of *res communis* repeatedly falling victim to humanity's most pervasive trait – greed. Open-access stocks on the high seas such as whales, North Atlantic cod and other species, have all suffered ruthless and unsustainable exploitation. Truly the situation has come to pass where, in Olav Stokke's (1999) words – “*an old spectre haunts fisheries management today governance without government*” (Slide 3).

The 1982 United Nations Convention on the Law of the Sea (“Law of the Sea Convention”) represents the international community’s eventual attempt to resolve such issues. It was negotiated “*with due regard for the sovereignty of all States*” and to promote “*the peaceful use of the seas and oceans, the equitable utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment*” (Slide 4).

With Part III endorsing the legal status of the Territorial Sea, Parts V to VII of the Law of the Sea Convention elaborate various State rights, duties and obligations for the Exclusive Economic (EEZ), Continental Shelf and High Seas Zones (Slide 4). In particular, Articles 61 and 62 outlines modalities for coastal State jurisdiction in terms of responsibilities and rights attached to utilizing and conserving EEZ marine living resources. Equally, Articles 116-119 identify the rights of all States to fish the high seas in balance with a universal State duty to co-operate “*in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas*” (Article 117). Various other articles deal with so-called “straddling” (Article 63) and “migratory” stocks (Article 64) while mandating co-operation to ensure their conservation. This need for universal co-operation also extends to protection and preservation of the marine environment (Article 197).

The above history moves one to ask:

What have we actually done to conserve our marine living resources?

The answer, I am afraid, is not an auspicious one. You only need to look at the fishing trends (Slide 5) presented to the recent Twenty-Seventh Meeting of the Commission on Fisheries (COFI) to see why this is so. Over the past thirty years, the number of fully-exploited fish stocks globally has remained relatively consistent, while the proportion of overexploited, depleted or recovering stocks has increased markedly. With a steady decline in the number of moderately exploited and underexploited stocks, the message is simple – the situation is fast approaching where there are simply not enough fish to go round. In other words, demand is outstripping the supply of wild protein from the sea. The implications are that globally, we need to do more to conserve the marine living resources we have and actively rebuild those we have depleted or overexploited. We also need to find other ways of procuring protein from the marine and freshwater realm through mariculture and/or aquaculture.

What I am telling you is nothing new. It has long been recognised that the time for action is upon us in terms of conserving our marine living resource heritage. Similarly, it has been acknowledged that this requires a fresh look at how we have gone about things in the past and how we should deal with the future. There is also growing recognition that we should not undermine positive initiatives by allowing human activities in the marine environment, especially pollution, to impact negatively on key marine ecosystem components or fishery-target species. Global efforts have thus come to focus on harmonizing international and national law in a way that balances economic expectation and food security with the attendant environmental costs attached to exploitation of wild resources (Slide 6). Put bluntly, balancing human and ecosystem well-being is crucial. Under the Law of the Sea Convention, the regional fisheries management organisations (RFMOs) have been delegated the awesome responsibility of ensuring such a balance.

What does this entail?

The well-known quotation - “*Oh what a tangled web we weave*” - could well apply to the intricacies of modern fisheries management. At a fundamental level, however, I have always

believed that this is not the case. Drawing largely on common sense, it follows that negative outcomes from any management action or lack thereof, are confounded by increased risk due to uncertainty of purpose, function or form (Slide 7). As a counter, a cautious approach is advocated and this necessitates positive action to increase consequent benefit(s). Effective fisheries management to me, therefore, is aimed at ensuring that the glass remains half full at least and not half empty at worst. Put another way, managing target stocks to ensure Maximum Sustainable Yield is the bare minimum we should be striving for.

Is this achievable, one may ask?

Twenty-five years ago, the entry into force of the 1980 *Convention on the Conservation of Antarctic Marine Living Resources* (CAMLRL Convention) set out to address this conundrum. Its definitive articles not only identify CCAMLRL's area of responsibility (south of the Antarctic Convergence – ca. 45°S) in biogeographic terms, they also provide clear guidance on the management objectives to be addressed (Slide 8). In particular, CAMLRL Convention Article II equates conservation with rational (i.e. sustainable) use of Antarctic marine living resources. It also elaborates some key conservation principles – most notably the application of precaution in minimizing the risk of irreversible effects as well as the need to account for ecosystem considerations, including environmental change, in managing exploitation and associated human activities. Having evolved out of concern for potential exploitation of a key Antarctic marine prey species, Antarctic krill, the CAMLRL Convention drew heavily on the Antarctic “spirit” enshrined in the Antarctic Treaty, as well as on hard lessons from the collapse of the Antarctic whaling industry.

I have long contested that the CAMLRL Convention is a shining example of marine stewardship. Not only has CCAMLRL done much to influence the way fisheries management has evolved over the past two and half decades, its progressive initiatives have provided a pragmatic demonstration of scientifically-based management in the application of an ecosystem approach to fisheries (EAF). In this regard, it is worth noting that EAF does not necessarily imply managing an entire ecosystem. Rather it recognizes that managing human activities, such as fishing, with due care and consideration of possible ecological consequences, is what we should be striving for.

CCAMLRL has relied heavily on objective scientific input and advice to meet the Convention's objectives. Over the years, a clearer appreciation of how the various components of the Southern Ocean ecosystem(s) fit together has evolved along with the operationally-based procedures necessary to make things happen (Slide 9). CCAMLRL has developed a systematic approach to its daily business. This involves elaborating key management measures, such as protected areas and input or output controls, to account for key ecosystem structure and function. A rigorously-defined management process has also evolved to provide objective assessments of stock status, analyses of risk options and informed participation. Recently, this has meant that CCAMLRL has come to consider economic influences more explicitly, particularly in managing early fisheries development.

CCAMLRL's success has been built on free and open participation; a legacy of the consensus-based decision-making inherited from the Antarctic Treaty. Its achievements are impressive (Slide 10) and, while largely speaking for themselves, include:

- First elaboration of an ecosystem approach to fisheries management;
- Promulgation of the first precautionary catch limits by any RFMO;
- Effective seabird mortality mitigation in longline fisheries, and
- Phased fishery development.

Nevertheless, one significant blemish remains – Illegal, Unreported and Unregulated (IUU) fishing. Such fishing is essentially insidious, unfair and unsustainable (Slide 11). Not only has it negatively impacted Patagonian Toothfish (*Dissostichus eleginoides*) stocks across a large part of the CCAMLR Area during the past decade it has significantly impacted threatened seabird species, such as albatrosses and petrels. A shadow fishery has been created where significant financial gains accrue without due regard for either target stocks, or the health and safety of the fishers involved. Uncertainty associated with the sustainable management of the stocks concerned has thus increased, largely due to incomplete knowledge of what the IUU fishery is up to. This has forced CCAMLR Members to divert essential scientific, enforcement and logistic resources so as to monitor and police wide areas of ocean. IUU fishing is truly a distraction that the organisation can ill afford, reflecting as it does a global situation where IUU fishing threatens responsible fishing worldwide. Grotius’ “right to fish” has essentially been corrupted to favour *res individualis* where the ocean spaces run a very real danger of falling victim to the profit of a few, unscrupulous fishery operators.

Is there light at the end of this particular tunnel?

As an institution CCAMLR has instituted various innovative and robust measures to address, and monitor, IUU fishing. These have built on the co-operative spirit and collective will that characterize so many CCAMLR activities. Vigorous on-water patrolling by States with EEZs in CCAMLR waters, international legal co-operation in prosecuting offenders, a centralized, satellite-base vessel monitoring system (VMS) and an innovative catch document scheme (CDS) (Slide 12) have all played their part. There is also strong circumstantial evidence to suggest that such measures have had a positive effect and that recent declines in IUU fishing in the CCAMLR Area are a consequence. However, it would be misleading to conclude that there is not more to be done. While I am optimistic that we will get the better of IUU fishing eventually, only time will tell us how effective we have really been.

As indicated earlier, I am proud to have played a part in CCAMLR’s achievements to date. However, in conclusion, I would like to draw on my experience, my training as a scientist and the opportunities life has offered me to outline a more personal philosophy in promoting conservatory and responsible fisheries globally

Since the threats to responsible fishing are relatively easy to identify if addressed analytically (Slide 13), the emerging picture is that economic expectations for high value resources, such as Toothfish, are often mismatched with biological reality. As such, the anticipation of high and immediate profits does not fit well with low levels of resource productivity. Consequently, wide, and often, conflicting management objectives are accommodated to address equity issues associated with resource access expectations as well as uneven stakeholder participation in terms of regulation and enforcement. While, such shortcomings impede positive conservation efforts, they also tend to undermine legitimacy and provide justification to those fishing outside any regulatory framework. The problem is compounded by insufficient knowledge of resource potential in the first place, as well as by insufficient human or logistic capacity to ensure effective enforcement action in the face of any lack of regulatory compliance. The absence of a standardized ecological value system makes matters worse. Questions can then be raised such as: What is more valuable – a tuna or a krill? Should IUU fishers be fined more for overfishing rock lobster or anchovy? Or the big one - **Who is actually responsible for the last fish caught - the fisheries manager or the fisher?** Such questions clearly make the point that we have some way to go before reaching a universal appreciation of what we should do to ensure that “conservation” and “rational use” are appropriately balanced. In CCAMLR terms, the benchmark is that no harvested population is decreased “to a level below that which ensures its stable recruitment” or is

“allowed to fall below a level close to that which ensures the greatest net annual increment”. We have to tackle the problem by minimizing the risks of stock as well as recruitment over-fishing.

While an ecosystem approach to fisheries is not new, it is certainly difficult to achieve as its principles and objectives are both complex and uneven (Slide 14). A systematic, iterative and rigorous accumulation of knowledge is therefore required. In turn, we need to develop consistent indicators, or reference points, for ecosystem structure and function so that objective and precautionary decision rules may be formulated to underpin management action. Essential considerations to ensure that management outcomes are perceived as robust and legitimate include:

- Mandating full stakeholder participation to legitimize management actions;
- Refining existing measures & developing new measures if necessary;
- Harmonizing national & international legislation;
- Providing political as well as scientific input;
- Improving capacity for implementation, and
- Enhancing RMFO performance through objective/periodic review.

At the heart of these considerations is the need for political will to provide effective outcomes. And it is here that we all can contribute. I am sure there is no disagreement with the Brundtland Report notion that by assuring that *“development meets the needs of the present without compromising the ability of future generations to meet their own needs”* we will be leaving a lasting marine legacy to our children’s’ children. A Maori children’s song (Slide 15) my mother read to me many years ago serves as an inspiration of how this might be achieved:

“Here's to the long white road that beckons,
The climb that baffles, the risk that nerves;
And here's to the merry heart that reckons
The rough with the smooth and never swerves”.

I am also mindful of a moral, and political, imperative I highlighted some years ago:

It is the responsibility of those who fish responsibly
to convert those who don't.

Thank you once again Your Royal Highness, and thank you distinguished guests for your attention.
