High seas fisheries governance

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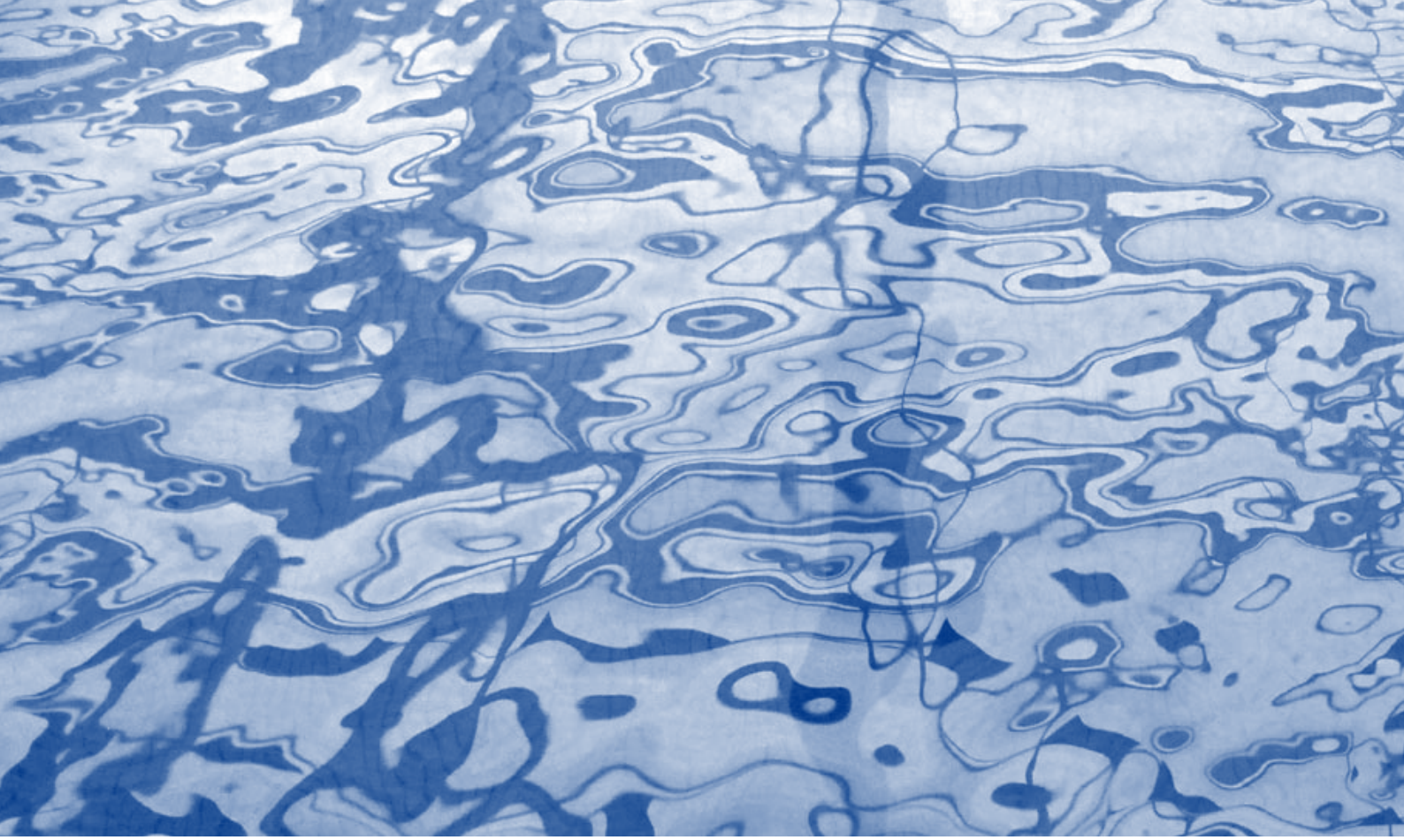

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High seas fisheries governance: a framework for the future?

G. T. (Stan) Crothers & Lindie Nelson
Ministry of Fisheries, New Zealand
crothers@fish.govt.nz; nelsonl@fish.govt.nz[1]

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Table of contents

Abstract	v
Introduction	1
Causes of overfishing	3
Challenge	5
Components of the proposal	7
Accountability	13
An approach to implementation	15
Conclusion	17
References	19

Abstract

This paper proposes a redefinition of the rights and responsibilities of states in relation to high seas fishing, and a model for governance of high seas fisheries that would ensure accountability for fisheries management performance. We propose that the high seas freedom to fish be transformed to a right to share in the net wealth generated from sustainable harvest of high seas fisheries. The features of this right would be: (i) all nations have a right to benefit from high seas fisheries, (ii) all harvesting should be environmentally sustainable, and (iii) management agencies should be accountable. Rather than relying on the cooperation of nations through regional fisheries organisations, we suggest the establishment of a management organisation in which nations are beneficial owners. The paper is put forward as a 'think piece' to prompt discussion and further research on alternative governance arrangements to manage high seas fisheries.

INTRODUCTION

Over the last 40 years there has been a very rapid worldwide expansion in fishing, a growing acknowledgement that marine fisheries need to be managed, and a corresponding proliferation of international agreements to try to address the problem of orderly—and sustainable—development of fisheries.

In the high seas, the rights and responsibilities of states were defined in the 1982 United Nations Convention on the Law of the Sea (UNCLOS). Under UNCLOS, all states have freedom to fish in the high seas (Articles 87 and 116), a duty to take measures to conserve high seas fisheries (Article 117), and an obligation to cooperate in the management of high seas fisheries (Article 118). The 1995 United Nations Fish Stocks Agreement (UNFSA) further defined the rights and responsibilities of coastal and distant water fishing nations in relation to highly migratory and straddling stocks, in particular the duty to cooperate either directly or through joining or establishing a regional fisheries management organisation.

These international initiatives sought to give coastal states and flag states defined rights and responsibilities in relation to fisheries management, yet there continues to be evidence of serious problems (see Garcia and de Leiva 2001, for an overview). The current use of fisheries resources is, in general, neither biologically sustainable nor economically sustainable.

Causes of overfishing

At one level—on the water—overcapitalisation causes overfishing: the harvesting capacity of the global fishing fleet exceeds the productive capacity of global fisheries. Put simply, there are too many boats pursuing the available fish. But, as Munro (2000) observes, overcapitalisation itself is not sufficient to explain the crisis—there is also a management failure to address overcapitalisation and its effects.

In general the definition of rights and responsibilities under UNFSA has not secured adequate investment in fisheries management by regional fisheries organisations or member states: insufficient resources are devoted to setting, monitoring and enforcing rules to ensure that fishing is sustainable. Member states are often unwilling to make the tough decisions necessary to restore overexploited fisheries, and enforcement is given a low priority (Alder and Lugten 2002).

While international law imposes a responsibility to cooperate in the management of high seas fisheries, economic models (Munro 2000; Bjorndal et al 2000) demonstrate that a cooperative solution is only possible when the cooperative outcome is better for all parties than the non-cooperative outcome, and when the agreement is binding in a manner that deters non-compliance. Achieving a successful outcome often depends on having broad scope for bargaining, including opportunities for transfers between parties (Munro *et al.* 2004; Jones *et al.* 1980).

UNFSA does not specifically provide for regional fisheries organisations to be accountable for their management performance, so there is no corresponding incentive for the regional fisheries organisations to create governance frameworks to ensure member states are held to account. States can sign up to regional agreements, but are not held accountable for failing to control their vessels or their nationals in a manner that meets the state's responsibilities. Similarly, UNCLOS accords states the high seas freedom to

fish but provides no specific means to hold states accountable for their high seas duties and responsibilities.

Overfishing in the high seas is therefore a result of a lack of incentives for states to act responsibly in dealing with the effects of an overcapitalised fishing sector. Free riding and non-cooperation appear to be better choices for both fishers and states, and there is little reward for investing in fisheries management.

Challenge

In our view, overfishing of high seas fisheries is attributable to the nature of existing rights and the resultant institutional arrangements that do not align the self-interest of nations with sustainable management of fisheries. We see the challenge as one of defining rights that generate a governance framework aligning the interests of nations with sustainable management of high seas fisheries.

The Preamble of UNCLOS says that the development of the law of the sea 'will promote the economic and social advancement of all peoples of the world' (United Nations 1982). High seas fisheries should be treated as global resources to be managed for the benefit of all peoples of the world. Despite this, rights are currently defined in a way that allows states to derive unilateral benefit from fishing and do not provide the means for accountability to be imposed on states for any fishing that does not accord with their responsibilities.

We propose that specification of rights for high seas fisheries should ensure that (i) all nations have a right to benefit from high seas fisheries, regardless of whether they participate in fishing, (ii) all harvesting is environmentally sustainable, and (iii) management agencies are accountable.

For all nations to benefit, the net wealth created from sustainable fishing should be distributed to nations. To maximise the net wealth available for distribution a management regime with the characteristics of a 'sole owner' should be adopted (Scott 1955). That is, we should create an entity capable of co-ordinating—and minimising the transaction costs of—the processes of information collection, harvest right allocation, and enforcement for an entire stock or series of stocks (Hanna 1998). Consequently the governance arrangements must ensure that the exclusive management rights for a stock, or a complex of related stocks, are vested in a single entity. To ensure that the entity manages fisheries sustainably over the long term, environmental performance standards should be set independently. To distribute the

benefits of the wealth created, an organisational structure is needed that unambiguously specifies the beneficial interest of individual nations.

One further feature is critical to the choice of organisational structure: the ability to secure investment. Effective fisheries management will require investment, especially to rebuild stocks, with benefits that accrue over the longer term. Townsend (1995) notes the benefits of corporate governance over cooperative governance particularly in terms of long-term investment decisions. Corporate shareholders have certainty in relation to the allocation of costs and benefits of such investment whereas under a cooperative structure the distribution of benefits is not directly related to the distribution of costs, creating reluctance to invest except in circumstances where everyone invests and benefits equally.

Governance rules for trusts and cooperatives could be established in a manner that unambiguously specifies nations' obligations and beneficial interests, however these would in essence be based on a corporate ownership model. A corporate organisational model, consistent with the OECD principles for corporate governance (OECD 2004), can accommodate dispersed ownership and provide the necessary security of beneficial interest to elicit long-term investment.

Components of the proposal

We propose that high seas fisheries be managed by organisations jointly owned by nations. A necessary pre-requisite for this is the transformation of the high seas freedom to fish into a right to share in the wealth generated from the sustainable harvest of high seas fisheries. All nations would be allocated a share in each of the organisations established ('one nation one share'). Each organisation would have explicit and exclusive authority to manage the high seas fisheries within its portfolio.

This proposal would not create an allocation of state harvesting rights. Instead the allocation would be of state shares in the proposed organisation. A core feature is that states could not exercise their right to benefit unless a governance arrangement was in place that was capable of ensuring that fisheries management resulted in the generation of wealth on a sustainable basis. This would remove the current ability of states to act for unilateral benefit and avoid meaningful accountability for the exercise of their rights. In addition, all nations would receive a return from sustainable management of high seas fisheries, rather than benefits only accruing to nations with the capacity to invest in fishing fleets.

The management organisation would have a corporate ownership structure. Its shares would be held by nations on behalf of their citizens. For the purpose of this paper we call the proposed organisation 'Marco' and refer to it as a single entity, although we envisage that several organisations would be established.

The aim of Marco would be to maximise shareholder wealth by managing the high seas fisheries in the relevant ocean, subject to meeting externally set environmental standards. The governance structure proposed is based on the specification—and separation—of the roles and responsibilities of shareholders, directors, managers, harvesters, environmental standard setters, and auditors.

Shareholders are the owners of Marco. Shares would be held by nations that acceded to the enabling international agreement. Shareholders would appoint Marco directors and receive dividends, and would report to their

citizens. Directors are responsible for setting the strategic direction of Marco, monitoring its performance, and appointing the chief executive of Marco. They would be appointed based on competency, and be required to disclose any direct or indirect interests that related to Marco activities. Managers are responsible for managing Marco to maximise shareholder wealth.

Harvesters are those with rights—granted by Marco—to participate in fisheries managed by Marco. Harvesters would have to comply with the access conditions.

The environmental standard setter is an external, scientific body specifying the performance standards (i.e. outcomes or limits) that must be met with respect to the impact of fishing on harvested stocks and the marine environment. The environmental standard setter would define the standards, set a timeline to achieve the standards, and have an open process to review and revise the standards.

Auditors are external bodies appointed by Marco directors to provide independent reports on Marco's performance. Financial auditors would report on Marco's financial performance and asset management. Environmental auditors would report on Marco's performance in relation to meeting environmental standards.

Transferability of shares

We propose that Marco shares should be transferable, allowing nations to rationalise their shareholding according to their particular interests. Share transferability would increase the incentives for nations to join the agreement, by giving them the option of converting their 'high seas fisheries right' to cash for other purposes.

Unfettered transferability could increase the incentives for nations to 'cash in and opt out' by selling their shares and then failing to comply with the agreement. The enabling treaty should therefore specify that a member nation that sold Marco shares could not opt out of the agreement unless it agreed to continue to act in a manner consistent with the agreement. Having benefited from the agreement, all member nations would have to remain bound to the commitment to allow Marco to manage the high seas fisheries.

For oceans where many fisheries are depleted, it might be a long time before the management organisation could declare a dividend to shareholders—creating a disincentive to join the agreement or, alternatively, an incentive to join and immediately sell shares to avoid any liability. To counter this, we suggest a moratorium on the trading of Marco shares for a period of time, for instance 5 years from the date when a nation acceded to the agreement.

Functions of Marco

Marco would create wealth for its shareholders by managing the access rights to high seas fisheries. To manage the access rights to high seas fisheries, Marco would need the exclusive right to authorise access to the fisheries it managed, and to enforce any access conditions it set.

Marco's fisheries management costs would be met from its revenue. Revenue would come mainly from selling access rights. The difference between Marco's revenue and management costs would be the return to shareholders.

In managing the access to fisheries, Marco would set conditions for access, allocate access rights, and enforce the access regime. Thus Marco would have three main functions: regulatory, allocative, and enforcement. Underpinning these functions would be management services, such as stock assessment research, compliance services, and registry services, which Marco would either provide or purchase.

Regulatory functions

The regulatory functions of Marco would relate to determining the operational rules for fishing, so that the standards set by the environmental standard setter were met. Operational rules could include catch limits, gear and area restrictions, and requirements for record keeping, reporting and vessel monitoring. Determining the operational rules would require scientific input on stock abundance, the environmental impacts of fishing, and the effectiveness of alternative management measures. The operational rules would determine the terms and conditions set for the access rights.

Allocative functions

The allocative functions of Marco would relate to letting the access (harvesting) rights. We suggest that the access rights be specified as a contract between the harvester and Marco. The rights would be let to fishing companies rather than nations. Certain governments might be harvesters (as well as shareholders), because they operate state-owned fishing vessels, but their harvesting responsibilities would be specified, and enforced, in the same way as any other harvester.

We do not envisage that Marco would allocate permanent access rights. Instead, Marco would allocate variable term (for instance, 1 to 15 years) access rights to particular high seas fisheries. Letting some long-term access rights would allow for efficient rationalisation of fishing capacity over time.

The mix of short, medium and long-term access rights offered would depend on the characteristics of the fishery.

We propose that Marco would allocate most, if not all, of the access rights by auction. Auctions are a means to maximise the revenue gained from sale of access rights, and can increase the openness and transparency of the allocation decisions. Allocating access by auction can also avoid the problem of providing for newcomers since newcomers are able to bid (see Butterworth and Penney 2004). Recent experience with quota auctions (Anferova *et al.* 2005) suggests that it is difficult to pre-specify optimal lots for auction. Trondsen (2004) suggests dealing with this by auctioning access rights within season and allowing unused rights to be returned and re-auctioned. Alternatively, access rights could be sold using combinatorial auctions, or the access rights could be tradable once purchased.

Enforcement functions

Two enforcement issues need to be addressed: non-compliance with the access right and illegal fishing.

Non-compliance

If, as suggested above, access rights took the form of a contract, then non-compliance should be enforced using commercial law. In the event of non-compliance, Marco could seek damages in civil courts and/or revoke the contracts. The penalties—both damages and revocation—should aim to establish effective deterrence. To ensure that contracts could be enforced, contracts could be registered only in countries that satisfied minimum jurisprudence standards. The enabling charter for Marco should specify the jurisdictions where contracts could be registered and include provisions for jurisdictions to be added and deleted over time. If necessary, the terms of the auction could limit participation to bidders of 'good standing'.

Illegal and unregulated fishing

Illegal fishing—in this case, fishing without a contract—is a more fraught area of enforcement. Upton and Vitalis (2003) review the measures taken to curb illegal fishing in the high seas, noting the difficulties in imposing treaty-based enforceable obligations on flag states, and the promise of using port states' authority and catch documentation schemes to prevent landing and marketing of illegal take.

Marco would need to rely on the cooperation of port states to take action against boats landing illegally taken fish—as provided for in Article 23 of UNFSA. And it would need to rely on the cooperation of coastal states to manage problems that arise where fishing boats were operating both in the high seas (under a Marco contract) and in EEZs (under the coastal

states' access regimes). Achieving such cooperation would depend on the establishment of operational agreements between Marco and coastal states—which might require Marco to pay for coastal state services. The greater the overlap between Marco shareholders and coastal and port states, the easier it should be to secure effective agreements, since the coastal and port states would have a financial interest in sustainable high seas fishing. Agreements could lead to, and expand upon, cooperation between national enforcement agencies in relation to intelligence, inspection, surveillance and investigation services.

Building on the UNFSA features allowing boarding and inspection of vessels on the high seas, we suggest that Marco should have rights to board and inspect fishing boats from acceding parties, seize catch and gear if no contract is held, and divert a boat to port. Operational enforcement agreements could result in port states making evidence obtained by Marco in the high seas permissible for the purpose of prosecuting under their national jurisdictions.

Marco could not enforce its regime against boats flying flags of states that have not acceded to the enabling international agreement (i.e. 'unregulated fishing'). However, Marco and its shareholders would have an interest in disclosing any fishing by non-parties. Marco could also seek to have member states use World Trade Organization (WTO)-compatible trade measures to prohibit the importation of fish caught by non-parties. Going further, it may be possible to give Marco—as an entity that is a collective of nations—the power to refer states to the WTO directly rather than relying on referrals by member states.

There will continue to be some non-compliance and illegal and unregulated fishing. The key issue is whether compliance rates are likely to be higher or lower under the proposed arrangement than under the existing arrangements. Under this proposal Marco rather than flag states would be responsible for enforcing the management regime for high seas stocks. Consequently, capacity issues for nations to meet flag state responsibilities would be substantially reduced. As discussed, we do envisage some residual responsibility for nation states in relation to enforcement, but these responsibilities would be negotiated between Marco and port states on a case by case basis, allowing specific capacity issues to be dealt with directly.

Accountability

Accountability—that is, being held responsible for one's duties—is fundamental to this proposal. Clear accountability is important to maintain credibility, make performance transparent, and avoid conflicts of interest. As a corporate entity, Marco directors would face standard corporate accountability requirements to shareholders. This model proposes additional accountability requirements, discussed below.

Marco directors to shareholders and public

Marco directors would have transparent shareholder reporting requirements including presenting an annual report and holding an annual meeting open to all shareholders. The annual report would include a financial report signed off by the financial auditors, and an environmental report signed off by the environmental auditors. The environmental report would audit Marco's performance with respect to meeting the environmental standards. The annual report would be made available to the public.

Marco to environmental standard setter

The environmental audit report would be distributed to the environmental standard setter (as well as Marco shareholders). We suggest that the environmental standard setter should be able to sanction Marco for failing to meet environmental standards. Sanctions could take the form of 'soft tools' such as public disclosure of non-performance. Financial sanctions for ongoing non-performance would align the interests of Marco shareholders with good environmental performance, since sanctions would decrease the returns to shareholders.

Marco shareholders to citizens

Since governments hold Marco shares on behalf of their citizens, disclosure by shareholders is an important element of 'public accountability'. Marco shareholders would have to report the company's results back to their citizens. Citizens and nongovernmental organizations (NGOs) could then advocate for their government, as a Marco shareholder, to take any necessary actions to improve Marco's performance. In addition, we propose that states would have to disclose to their citizens (say, once a year) the receipt of Marco dividends, and the sale or purchase of any Marco shares. Marco's constitution should require it to maintain a share register, accessible to the public, which recorded changes in share ownership.

An approach to implementation

Establishing Marco would require initiatives, and agreement among nations, at the United Nations level. Under this proposal the UNCLOS high seas freedom to fish would be transformed to a right to share in the wealth generated from sustainable fishing. This would be brought about by creating sovereign rights for states to be the beneficial owners of the management company, while extinguishing the high seas freedom to fish. Shares would be allocated to all states and issued once the state acceded to the enabling international agreement.

Possible avenues for reforming the legal framework are to work toward a new implementation agreement on UNCLOS or to work toward a revision of UNFSA. The new agreement would set governance standards for Marco, public disclosure requirements for shareholders, minimum jurisprudence standards for Marco incorporation and harvest contract registration, and establish the framework for an external environmental standard setter and external auditors. Initially one management organisation would be established for each ocean. All nations would be entitled to receive a share in each of the organisations.

We suggest that establishment details should be determined in a negotiating forum specifically set up for each ocean. Issues likely to arise include the distribution of dividends, and recognition of the special dependency of certain nations on fisheries resources (e.g. Pacific Island countries), of the existing fishing capacity of certain nations, and of the initial costs of restoring fisheries. Addressing these issues could result in agreements for preferential access rights or special classes of shares. Munro *et al.* (2004) note the importance of allowing for such 'side payments' to broaden the scope for all nations to gain from the agreement to cooperate.

A critical issue in establishment is creating incentives for countries—especially port and coastal states—to join the agreement as early as possible.

One option could be a provision for early signatories (say within the first five years) to be eligible for a class of share with early dividend payments.

To maintain the potential for further wealth creation, the management organisations should have as much flexibility as possible in their approach to generating wealth for shareholders. In particular they should be allowed to merge, divide, or specialise over time, provided the latent right for nations to be allocated shares whenever they accede to the agreement is protected. The management organisations could issue shares to raise equity, however shares issued to investors rather than governments would not be voting shares. Issuing voting shares to any entity other than governments would dilute the accountability requirements for shareholders to report to citizens.

There would be a transition period and process for Marco to assume management responsibilities for high seas fisheries. Discrete high seas fisheries that are currently not managed by regional fisheries organisations could be managed by Marco immediately. A transition from the existing arrangements would enable Marco to replace regional fisheries organisations for highly migratory stocks. Straddling stocks would require a more complex transition, as Marco would need to work with coastal states to agree on a management regime.

Conclusion

Under current governance arrangements for high seas fisheries there is under-investment in fisheries management and overcapitalisation of fishing capacity. Resource rent is captured by early fishers and subsequently dissipated. This proposal offers the potential for investment in high seas fisheries to provide ongoing benefit for all shareholders—with all states having a right to be a shareholder. In essence, this proposal is a 'Swiss Corporation' as discussed by Jones *et al.* (1980)—the governance structure separates the fisheries management decisions from the decisions about the distribution of the benefits.

Transforming the current high seas freedom to fish into a right to share in the net wealth generated from sustainable harvest of high seas fisheries would better reflect the intentions of UNCLOS by enabling states to benefit from sustainable high seas fishing regardless of their fishing capacity. It would also remove the ability of states to derive unilateral benefit from fishing for which they cannot be held accountable.

Vesting explicit authority to manage high seas fisheries in an agency would allow for wealth creation through limited access. Effective management of high seas fisheries would not depend on the capacity and willingness of flag states to meet their responsibilities. A corporate ownership structure for the management agency would enable nations to vote and receive returns in accordance with their shareholding.

Existing fleets would face some short-term loss, as in any fishery that needs rationalisation of harvesting capacity, but this approach would secure the long run future for high seas fisheries. The corporate organisational structure would allow access to capital to increase investment in fisheries management. Setting environmental standards externally would address the risk that shareholders could seek to maximise current returns at the expense of future generations, and provide a benchmark to monitor environmental performance.

Fundamentally, this proposal is about improving fisheries management outcomes through effective accountability for fisheries management performance. Marco would be accountable to its shareholders and to the wider international community for its performance in meeting environmental standards and generating wealth for its shareholders. In the absence of this accountability, no one is responsible for avoiding the environmental and economic loss associated with overfishing high seas fisheries.

The paper is put forward as a 'think piece' to prompt discussion on alternative governance arrangements to manage high seas fisheries. We recognise that implementation of this proposal would raise formidable challenges to reform the international legal framework, to negotiate the establishment issues, and to replace regional fisheries organisations. But given the prospects for improved outcomes from this model we believe it is worthwhile to pursue further research on an appropriate international instrument, on operational aspects such as the viability of a contract-based approach to controlling access to high seas fisheries, and, in particular, on aspects of this proposal that could be applied to improve the governance and accountability of existing regional fisheries organisations.

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