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High Seas Fisheries Governance: A Framework for the Future?

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Abstract *This paper focuses on the importance of accountable governance arrangements to successfully manage high seas fisheries. It proposes replacing the current right of open access to high seas fisheries with defined property rights issued to nation states and managed within a governance framework designed to optimise environmental and economic outcomes from the use of high seas fisheries. 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. Management of high seas fisheries should ensure that: (i) all nations have a right to benefit from high seas fisheries, (ii) all harvesting is environmentally sustainable, (iii) fisheries resources are used efficiently, and (iv) management agencies are accountable. Rather than relying on the cooperation of nations through regional fisheries management organisations (RFMOs), we suggest the establishment of accountable management organisations of which nations are beneficial owners. The paper presents a proposal we hope will prompt discussion and further research on alternative governance arrangements to achieve sustainable management of high seas fisheries.*

Key words Accountability, governance, high seas fisheries.

JEL Classification Codes D02, P48, Q22.

Introduction

The last half of the 20th century saw a 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.

International agreements 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). Since the mid-1970s, the proportion of overexploited and depleted fish stocks has increased from 10% to approximately 25% (FAO 2004). Marine ecosystems are being simplified and made less resilient to disturbance as a result of fishing down the

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food chain (Pauly *et al.* 2002). In addition, overcapitalisation has resulted in inefficient harvesting and dissipation of global wealth. The current use of fisheries resources is, in general, neither biologically nor economically sustainable.

At one level—on the water—overcapitalisation causes overfishing: the harvesting capacity of the global fishing fleet exceeds the productive capacity of global fisheries. But, as Munro (2000) observes, overcapitalisation itself is not sufficient to explain the crisis—there is also a failure by fisheries managers to address overcapitalisation and its effects.

This paper asserts that current governance arrangements for high seas are central to the management failure. We propose to address the management failure through the establishment of accountable management organisations for high seas fisheries. The paper describes the governance arrangements and functions of these organisations, and suggests an approach to implementation.

Links between Overfishing and Governance Arrangements

Current Legal Framework

The current legal framework is centred on UNCLOS—the 1982 United Nations Convention on the Law of the Sea. UNCLOS defined specific rights for coastal states to harvest and manage fisheries within Exclusive Economic Zones (EEZs), and confirmed that all states have freedom to fish in the high seas, albeit with an attendant duty to take measures to conserve high seas fisheries and an obligation to co-operate in the management of high seas fisheries.

Limits on the ability of the UNCLOS regime to enforce obligations attached to the high seas right of open access were revealed by the high-profile depletion of high seas fish stocks in the Bering Strait Donut Hole (Alaskan pollock) and the Newfoundland Grand Banks (cod). Such management failures prompted a call at the 1992 Rio Summit (UNCED 1992) for a UN conference on the management of highly migratory and straddling stocks. This, in turn, led to the 1995 United Nations Fish Stocks Agreement (UNFSA 1995).

UNFSA enhanced the UNCLOS legal framework by better defining the rights and responsibilities of coastal and distant water fishing nations, in particular the duty to cooperate either directly or through joining or establishing an RFMO. Under UNFSA, coastal states and states fishing on the high seas are required to give effect to their duty to cooperate by becoming members of relevant RFMOs. Other states with a ‘real interest’ in the fishery may become members.

Problems with Existing Governance Arrangements

Despite the UNFSA enhancements, RFMOs still face difficulties in achieving sustainable fishing. Member states are often unwilling to make the tough decisions necessary to restore overexploited fisheries, and enforcement is given a low priority (Alder and Lutgen 2002). Differing interests of member states lead to compromise on the management goals, so that even where there is cooperation, effective management measures are not adopted (FAO 2002). RFMO decisions on allocation of access rights provide little incentive for non-parties to join the RFMO or cooperate with the management measures (Rayfuse 2006).

Effective governance arrangements are critical to achieving sustainable environmental and economic outcomes from the use of fisheries. In our view, the following

features of the current governance arrangements contribute to the failure to manage overfishing in the high seas.

(1) Rights and responsibilities under UNFSA are not defined in a manner that secures adequate investment in fisheries management by RFMOs or member states. The need to accommodate newcomers¹ and the inability to bind in non-parties (free riders) creates disincentives for RFMO members to adopt tough management measures to rebuild or conserve stocks, since they cannot secure the benefits of the management measures. As a consequence, insufficient resources are devoted to setting, monitoring, and enforcing rules to ensure that fishing is sustainable.

(2) There is no accountability for fisheries management outcomes. UNFSA does not specifically provide for RFMOs to be held accountable for their fisheries management performance, so there is no corresponding incentive for the RFMOs to create governance frameworks that ensure member states are held accountable. States can sign up to regional agreements, but are not held accountable for controlling their vessels or their nationals in a manner that meets the state's responsibilities.

(3) There are no benefits of responsible fishing. UNCLOS does not specifically address the responsibility of nations as consumers of fish products, and thus cannot effectively contribute to ensuring that fish trade is limited to product sourced from sustainably managed fisheries.

(4) RFMOs set their own management goals. In the absence of an accepted definition of sustainability, RFMO management goals and measures are driven by the short-term interests of member states.

In our view, the current legal and institutional framework does not adequately reward nations that choose to cooperate and behave responsibly and does not provide specific means to hold states accountable for their high seas duties and responsibilities. This is evident by the fact that more than a decade after negotiation of UNFSA, it has been ratified by less than one third of the signatories of UNCLOS, and significant areas of the high seas are still not covered by any regional agreement, however effective such agreements may be.

In summary, overfishing in the high seas is a result of a lack of incentives for states or RFMOs 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

The Preamble of UNCLOS states that the development of the law of the sea “will promote the economic and social advancement of all peoples of the world” (UNCLOS 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 allow 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.

While international law imposes a responsibility to cooperate in the management of high seas fisheries, economic models demonstrate that a cooperative solution is only possible when the cooperative outcome is better for all parties than

¹ Article 11 of UNFSA lists matters to be taken into account when determining the nature and extent of participatory rights for new members, but Article 8(3) states that the terms of participation must not preclude their membership. The effect of these requirements is that RFMO members must accommodate the interests of any state with a real interest in the fishery that wishes to join.

the non-cooperative outcome, and when the agreement is binding in a manner that deters non-compliance (Munro 2000; Bjorndal *et al.* 2000). Further, achieving a successful outcome often depends on having broad scope for bargaining, including opportunities for transfers between parties (Munro, Van Houtte, and Willmann 2004; Jones, Pearse, and Scott 1980).

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. This means revoking the right of open access and replacing it with a right to benefit from the wealth generated through sustainable management of high seas fisheries. If nations stand to gain from sustainable fisheries management, it is in their interest to support the new governance arrangement.

Theoretical Underpinning of a Revised Governance Framework

In our view, management of 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, (iii) fisheries resources are used efficiently, and (iv) 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 generated from high seas fisheries, 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, institutional arrangements must ensure that the exclusive management rights for a stock, or a complex of related stocks, are vested in a single entity.

To distribute the benefits of the wealth created, an organisational structure is needed that unambiguously specifies the beneficial interest of individual nations. Organisational structures that could distribute the wealth generated include trusts, cooperatives, and corporate models.

The ability to secure investment is critical to the choice of organisational structure. Townsend (1995) notes the benefits of corporate governance over cooperative governance, particularly in terms of making long-term investment decisions. Fisheries management requires investment, especially to rebuild stocks, where benefits accrue over the longer term. 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 structure, consistent with the OECD principles for corporate governance, can accommodate dispersed ownership and provide the necessary security of beneficial interest to elicit long-term investment (OECD 2004).

To ensure that fisheries are managed sustainably over the long term, performance standards to achieve sustainability should be set independently of the management organisation. This means that the short-term interests of current participants does not jeopardise responsibilities to conserve fisheries in the longer term.

Proposal

Sovereign rights in relation to high seas fisheries need to be redefined to generate accountable governance frameworks. We propose two new entities to achieve accountable governance: companies to manage high seas fisheries and an independent environmental standard setter.

High Seas Fisheries Management Companies

We propose that high seas fisheries be managed by high seas fisheries management companies (HSFMCs), to be owned by nations. Adopting this proposal would require initiatives and agreement among nations at the United Nations level. It requires a fundamental change in the legal framework currently applied to high seas fisheries; namely, the high seas freedom to fish would be extinguished. In its place, nations would have a right to be beneficial owners of HSFMCs.

The HSFMC would have a corporate ownership structure. Shares would be held by nations on behalf of their citizens. We envisage that, initially, one HSFMC would be established for each ocean. All nations that accede to the enabling international agreement would be allocated a share in each of the HSFMCs established. HSFMC shares should be transferable, allowing nations to rationalise their shareholding according to their particular interests.

Each HSFMC would have explicit and exclusive authority to manage the high seas fisheries within its portfolio—including allocating and enforcing the access rights. The aim of the HSFMC would be to maximise shareholder wealth by managing high seas fisheries in the relevant ocean, subject to meeting externally set environmental standards. Fisheries management costs would be met from the HSFMC's revenue, which is derived mainly from selling access rights. The difference between the HSFMC's revenue and management costs would be the return to shareholders.

To maintain the potential for further wealth creation, HSFMCs 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. HSFMCs 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.

A core feature of the proposal 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 to avoid meaningful accountability for the exercise of their rights.

Environmental Standard Setter

We propose that environmental performance standards be set by an independent body ('environmental standard setter') with powers to sanction or require remedial action when HSFMCs fail to meet the standards. The standard setter must operate under the highest possible level of international legitimacy and so should be established either under the auspices of the United Nations or of UNCLOS.

We envisage that a process similar to that of the Codex Alimentarius Commission could be used to set and revise science-based standards. Environmental standards would define outcomes or limits necessary to achieve environmentally

sustainable fishing. The standards would relate to harvested stocks and the direct and indirect impacts of fishing on the marine environment. We suggest the standards be developed to meet Articles 5 and 6 of UNFSA. Where a standard relates to fisheries managed by more than one HSFMC—for instance tuna fisheries or albatross bycatch—the standard setter may require HSFMCs to take a coordinated and consistent approach to meeting the standard.

Remedial actions required could range from additional monitoring to a verifiable plan to meet the standards in a particular timeframe. Sanctions imposed could take the form of ‘soft sanctions,’ such as public disclosure of HSFMC non-performance, or financial sanctions on the HSFMC. In the former case, citizens could lobby their government to ensure that the HSFMC meets its performance requirements. The effectiveness of soft sanctions will depend on the degree of government responsiveness to its citizens’ concerns. Financial sanctions may be more effective for ongoing non-performance. By decreasing the returns to shareholders, financial sanctions would align the interests of HSFMC shareholders with good environmental performance.

Given the requirement that HSFMCs meet environmental standards and the standard setter’s powers to ensure compliance, nations and HSFMCs should have a right to seek judicial review of any decisions on standards, sanctions imposed, or remedial actions required. Such judicial reviews could be considered by the International Tribunal on the Law of the Sea.

Governance Arrangements

The proposed governance framework is based on the specification—and separation—of the roles and responsibilities of shareholders, directors, managers, harvesters, the environmental standard setter, and auditors. Proposed accountability mechanisms seek to ensure that all players can be held accountable for their responsibilities. The ability of HSFMCs to earn and maintain the confidence of governments, NGOs, and the environmental standard setter is critical to its success and longevity.

Roles and Responsibilities

Shareholders are the owners of the HSFMC—that is nations. Shareholders would appoint HSFMC directors, receive dividends, and report to their citizens. *Directors* are responsible for setting the strategic direction of the HSFMC, monitoring its performance, and appointing the chief executive. Directors would be appointed based on competency, and would be required to disclose any direct or indirect interests that related to the activities of the HSFMC. *Managers* are responsible for managing the HSFMC to maximise shareholder wealth, consistent with the strategic direction and within environmental standards.

Harvesters are those with rights granted by the HSFMC to participate in fisheries it manages. Harvesters would have to comply with the conditions set for their access.

The *environmental standard setter* sets performance standards to achieve sustainable fishing, and when an environmental audit indicates HSFMC non-performance, it requires remedial action or imposes sanctions.

Auditors are external bodies appointed by the HSFMC directors to provide independent reports on the HSFMC’s performance. Financial auditors would audit HSFMCs and report on their financial performance and asset management. Environ-

mental auditors would audit HSFMCs and prepare an environmental audit report on their performance in relation to meeting environmental standards.

Accountability Mechanisms

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.

HSFMC Directors to Shareholders

As a corporate entity, HSFMC directors would face the standard corporate accountability requirements to shareholders, including holding an annual meeting open to all shareholders and presenting an annual report and audited financial statements. The annual report would also include the environmental audit report. If shareholders were dissatisfied with performance, they would have rights to make resolutions and vote on new directors.

Shareholders will have recourse to company and criminal law in the country where the HSFMC is incorporated to manage issues such as protection of minority shareholder interests or corruption by directors or managers.

HSFMC to Environmental Standard Setter

The environmental audit report would be distributed to the environmental standard setter (as well as HSFMC shareholders). If the HSFMC was failing to meet environmental standards, the environmental standard setter would be able to require remedial action or impose sanctions.

HSFMC Shareholders to Citizens

Since governments hold HSFMC shares on behalf of their citizens, disclosure by shareholders is an important element of ‘public accountability.’ HSFMC shareholders would have to report the company’s results, including the financial and environmental audit reports, back to their citizens. The HSFMC annual report would be made available to the public. If citizens and NGOs are dissatisfied with HSFMC performance, they can advocate for their government, as an HSFMC shareholder, to take action to improve the HSFMC’s performance. We also propose that states should disclose to their citizens (say, once a year) the receipt of HSFMC dividends and the sale or purchase of any HSFMC shares. If citizens and NGOs are dissatisfied with their government’s actions, they can take political action.

Environmental Standard Setter to the International Community

The environmental standard setter should report annually to the international community, for instance to the United Nations General Assembly, on its decisions on standards, the overall performance of HSFMCs in relation to meeting environmental standards, and any sanctions imposed or remedial actions required.

Functions of HSFMCs

HSFMCs would create wealth for their shareholders by managing the access rights to high seas fisheries. Each HSFMC would set conditions for access, allocate access rights, and enforce the access regime in the relevant ocean. Consequently, HSFMCs would have three main functions: regulatory, allocative, and enforcement.

Underpinning these three functions would be fisheries management services, such as stock assessment research, education and liaison, database management, and registry services—which HSFMCs would either provide or purchase. HSFMCs could also provide services to harvesters, such as operating a trading house for contracts, on a fee-for-service basis, or provide fisheries management services on contract to other fisheries agencies. These ancillary services would be limited to activities that do not conflict with managing access to high seas fisheries, and would be driven by their scope to increase shareholder value.

Regulatory Functions

The regulatory functions of HSFMCs relate to determining the operational rules for fishing, so that the environmental standards are met. The operational rules will determine the terms and conditions of the access rights.

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.

Allocative Functions

The allocative functions of HSFMCs relate to granting access (harvesting) rights. We suggest that the access right be specified as a contract between the HSFMC and harvester. The right would be granted to fishing companies rather than nations.² Depending on the type of fishery and the operational rules set to achieve the environmental standards, the access right contract could be defined in terms of catch limits or area limits.

We do not envisage that HSFMCs would grant permanent access rights. Instead, HSFMCs would grant variable term (for instance, 1 to 15 years) access rights to particular high seas fisheries. Granting 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 HSFMCs 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 increase the openness and transparency of the allocation decisions. Allocating access by auction can avoid the key problem of providing for newcomers in RFMOs, since newcomers are able to bid (Butterworth and Penney 2004). In addition, harvesters—faced with limited access rights for which they must pay—have incentives to maximise the value of their access right (Trondsen 2004).

² Certain nations might be harvesters (as well as HSFMC shareholders), by operating state-owned fishing vessels, but their harvesting responsibilities would be specified, and enforced, in the same way as any other harvester.

Enforcement Functions

Enforcement functions relate to non-compliance with the access right and illegal fishing.

Non-compliance

Since access rights are to be granted in the form of a contract, any non-compliance should be enforced using commercial law. Contracts would specify necessary measures to monitor compliance, such as record keeping, reporting and product-tracking requirements, allowed landing ports, and obligations to carry observers or allow inspectors on board. If necessary, the terms of the access-rights auction could limit participation to bidders of ‘good standing.’

In the event of non-compliance, the HSFMC could seek damages in civil courts or revoke the contracts. The penalties—both damages and revocation—should aim to establish effective deterrence. To ensure that contracts can be enforced, they should be registered only in countries that satisfy minimum jurisprudence standards.

Illegal 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.

HSFMCs 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 they would need to rely on the cooperation of coastal states to manage problems that might arise where fishing vessels operate both in the high seas (under a HSFMC contract) and in EEZs (under the coastal states’ access regimes). Achieving such cooperation would depend on the establishment of operational agreements between HSFMCs and coastal states—which might require HSFMCs to pay for coastal state services. The greater the overlap between HSFMC shareholders and coastal and port states, the easier it should be to secure effective agreements, since such states would then have a financial interest in sustainable high seas fishing. Agreements could lead to, and expand upon, cooperation between national enforcement agencies, in turn facilitating networking of intelligence and delivery of enforcement services such as inspection, surveillance, and investigation.

Building on the UNFSA features that allow boarding and inspection of vessels on the high seas, we suggest that HSFMCs 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 an HSFMC in the high seas permissible for the purpose of prosecuting under their national jurisdictions, or allow HSFMCs to contract out enforcement duties to nation states.

HSFMCs could not enforce their management regime against vessels flying flags of states that have not acceded to the enabling international agreement. However, HSFMCs and their shareholders would have an interest in disclosing any fishing by non-parties. HSFMCs could also seek to have member states use WTO-compatible trade measures to prohibit the importation of fish caught by non-parties. Going further, it may be possible to give HSFMCs—as entities that are a collective

of nations—the power to refer states to the WTO directly rather than relying on referrals by member states.

It is likely that illegal fishing can only be deterred through international trade measures, such as prohibiting sale of fish unless it can be demonstrated to have been taken legally (that is, under an HSFMC contract or in accordance with specific EEZ regimes). Product traceability processes and catch documentation schemes are already in use and should be encouraged and enhanced.

There will continue to be some non-compliance and illegal 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, HSFMCs, 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. We do envisage some residual responsibility for nation states in relation to enforcement, but these responsibilities would be negotiated between HSFMCs and states on a case-by-case basis, allowing specific capacity issues to be dealt with directly.

An Approach to Implementation

As noted earlier, establishing HSFMCs would require an international agreement to extinguish the UNCLOS high seas freedom to fish and replace it with sovereign rights for states to be beneficial owners of HSFMCs. This could be achieved through an enabling agreement that constitutes a new implementation agreement for UNCLOS or results in substantive amendment to UNCLOS as it relates to high seas fisheries.

The enabling agreement would set governance standards for HSFMCs, public disclosure requirements for shareholders, minimum jurisprudence standards for HSFMC incorporation and harvest contract registration, and establish the framework for the external environmental standard setter and auditors. Initially one HSFMC would be established for each ocean. All nations would be entitled to receive shares in each HSFMC. Shares would be issued once the state acceded to the enabling international agreement.

The enabling framework would allow specific arrangements for each HSFMC to reflect the particular management challenges of its ocean. We suggest these management challenges be resolved in a negotiating forum set up for each ocean.

Issues likely to arise include recognition of: the special dependency of certain nations on fisheries resources (*e.g.* Pacific Island countries), the existing fishing capacity of certain nations, and the initial costs of restoring fisheries. Addressing these issues could result in agreements for preferential access rights or special classes of shares. Munro, Van Houtte, and Willmann (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 is to recognise the disparate interests of shareholders. Nations with current high seas fishing interests are likely to face increased short-term costs, such as having to purchase access rights or retire fishing capacity. Nations with no current fishing interests will not face these costs, but could be called upon to fund investment to restore depleted fisheries. Ocean-specific negotiations could give rise to an agreement for shareholdings to partially reflect existing interests; for instance, one portion of the shares could be allocated on the basis of ‘one-nation, one-share,’ and another portion could be allocated on the basis of other factors, such as catch history or previous investment in conservation.

During an establishment period it might be appropriate to reserve a portion of

the access rights for incumbent fleets. Alternatively, shareholders might determine that certain bidder groups had preferential access through a first right of refusal.

It is also necessary to create 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.

Share transferability increases the incentives for nations to join the agreement by giving them the ability to convert their ‘high seas fisheries right’ to cash for other purposes. However, for oceans where many fisheries are depleted, it might be a long time before the HSFMC could declare a dividend to shareholders—creating an incentive to join and immediately sell shares to avoid any liability. To counter this, we suggest a moratorium on trading of HSFMC shares for a period of time—for instance five years from the date when a nation acceded to the agreement. Further, a member nation that sells all of its HSFMC shares must 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 the HSFMC to manage the high seas fisheries.

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

Conclusion

Current governance arrangements for managing high seas fisheries are not capable of delivering desirable environmental and economic outcomes. The high seas freedom to fish results in an open-access resource—fisheries are overexploited, resource rent is dissipated, and there are no rewards for cooperation or responsible fishing.

This proposal offers the potential to achieve sustainable management of high seas fisheries. It would provide ongoing benefit for all shareholders in the HSFMC—with all states having a right to be a shareholder. In essence, this proposal is a ‘Swiss Corporation’ as discussed by Jones, Pearse, and Scott (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 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. Existing fleets would face some short-term loss, as in any fishery that needs rationalisation of harvesting capacity, but limiting access in order to rebuild stocks would secure the long-run future for high seas fisheries. Effective management of high seas fisheries would not depend on the capacity and willingness of flag states to meet their responsibilities. HSFMCs would enforce the management regime.

Setting environmental standards externally would address the risk that shareholders could seek to maximise current returns at the expense of future generations. Accountability mechanisms that are central to this proposal provide an effective

means to enforce those environmental standards by imposing sanctions for non-performance and creating the incentives for appropriate investment in fisheries management services, such as research and enforcement.

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

The paper is put forward to prompt discussion on alternative governance arrangements to manage high seas fisheries. We recognise that implementation of this proposal raises formidable challenges to reform the international legal framework, to negotiate the establishment issues, and to replace RFMOs. But given the prospects for improved outcomes from this model, we believe it is worthwhile to pursue further research on an appropriate international instrument and on aspects of this proposal that could be applied to improve the performance and accountability of existing RFMOs. Such aspects include the use of auctions to grant access rights (Trondsen, Matthiasson, and Young 2006), management of access rights using contracts, and the possibility of establishing an external body to set environmental standards and monitor performance. A United Nations resolution could lead to the establishment of a standard-setting agency and a requirement that RFMOs report on how their fisheries management is achieving standards.

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