Fishy crimes: the societal costs of poorly governed marine fisheries

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Introduction

Earlier this year, the World Bank and the UN Food and Agriculture Organization published a report entitled 'The Sunken Billions' in which a case for improving the governance of the world's fisheries was made on the basis of the economic inefficiency of the sector (World Bank and FAO, 2009). The reports' authors calculate that the difference between the potential and actual net economic benefits from global marine fisheries is of the order of US $ 50 billion per year. This figure includes: revenues lost due to illegal, unreported and unregulated fishing (both direct losses from licence fee and tax income and revenues lost due to difference between potential, and actual value of fishery landings - i.e. overfishing); and the cost of 'perverse' production subsidies. More than half of these fishery sector losses come from developing countries. The cumulative global loss of economic potential from fisheries over the last 30 years is US $ 3 trillion. Impressive as these figures are, they are only the primary costs. They do not include what economists would call 'externalities' and what international relations scholars would consider as human security risks.

This paper aims to consider the additional costs, in terms of human insecurity, of governance failures and development policy neglect in fisheries. We first review what is at stake by elaborating the current and potential contributions of fisheries to human security and economic development. We then outline how fisheries are currently governed, and why governance is failing, before reviewing the consequences of governance failure for human security. We are not yet able to calculate the monetary costs of these human security risks, and therefore the benefits to be derived from improving fishery governance. We are, however, able to point to examples of clear costs to specified groups of people in the Asia-pacific region that result from poor governance of the fishery social-ecological system. We conclude with examples of promising policy responses to the challenges we identify, and thoughts on how a non-traditional security perspective could benefit the analysis of such complex societal and environmental issues.

What is at stake? Contribution of fisheries to nutrition, economy and society.

Fish is important to the food security of citizens of developing countries, both as a source of income - and therefore the means to buy food - and as a component of healthy diets. Currently, one-third of the world's 6 billion people rely on fish and other aquatic products for at least one-fifth of their annual protein intake, and catches by subsistence and artisanal fisheries make up more than half of the essential protein and mineral intake for over 400 million people in the poorest countries in Africa and south Asia. Fisheries and aquaculture directly employ over 36 million people worldwide, 98 per cent of whom are in developing countries. Taking into account ancillary occupations (trading and processing fish, boat-building, net-making and mending etc.,) and other members of fishing households, there are approximately 520 million people whose lives depend on sustaining fisheries and aquaculture. The sector also supported global trade worth over 78 billion dollars in 2008 (FAO, 2009). Both capture fisheries and aquaculture (fish farming) will need to be effectively governed and developed to ensure that fish are available to future generations.

How fisheries are governed, and how governance is failing

We define *governance* as the framework of social and economic systems and legal and political structures through which the fishery system is regulated. Fisheries systems are complex – they include the natural resource and the ecological system that supports it, the trading system that engages people at scales from the local to the global, and the human system, comprising the institutions and capabilities of individuals, households, communities and states. Governing fishery systems therefore involves a subset of governing the environment, trade and economy, and society and ideally applies effectively the existing instruments of good governance from across these sectors.

In contrast to the complexity of the fishery system, 'Modern' fisheries management (dating from the mid 20th century) has emphasised a reductive focus on regulation of access to the resource through schemes devised by sovereign states. A complex system of territorial waters and exclusive economic zones has evolved, partly codified in the1983 UN Conference on the Law of the Sea. In an attempt to match fishing capacity with the capacity of the resources to produce a harvestable surplus, state fisheries legislation uses a wide variety of technical measures to regulate access to resources, such as restrictions on the size and type of fishing gear that can be used, seasonal and area closures, and restrictions on the number of fishing licences that can be issued. Fishery regulations have more recently been supplemented by measures to conserve the marine environment, principally through the application of state-based coastal zone management. Since the 1980s, there has been increasing interest in involving fishing communities themselves in resource governance, for example through fisheries co-management (state –community partnerships). Even more recently, a more systems-based approach has emphasised the potential to govern fisheries using a range of market-instruments, including ways of influencing consumer behaviour through product standards and labelling (e.g. ecolabels) , and developing markets for fish quotas. A consequence of this broadening out of fisheries management to consider wider governance of the sector has been an increasing integration with wider development concerns, the engagement of civil society , and the use of non-sectoral policy and legal instruments, such as human rights and labour law, food safety standards, trade law and pro-poor development policy (Allison, 2001). These 'development policy' responses now sit alongside more traditional fishery enforcement measures that aim to address IUU fishing and are part of initiatives to maintain 'good order at sea' (Bateman *et al*., 2009).

Many of the shifts to a broader governance system described above are taking place partly in response to a growing acceptance that 'modern' fishery management – with its focus on the fish capture process and neglect of the wider political economy – has failed and is precipitating a crisis in fisheries. Evidence of failure in fishery governance can be found in the dismal statistics on fish catches; 75% of the world's fish stocks are fully or over-exploited (FA0, 2009) and the availability of the largest, most valuable ocean fish has apparently been reduced by 95% in the last 50 years (Myers and Worm, 2003). These reductions in catch, and governance failures in other parts of the fishery system have impacts on fishing-based livelihoods: many of the worlds' fisherfolk live in poverty and face declining incomes, poor living conditions, limited access to social and judicial services, increasing exposure to risks, and marginalization in development processes (Allison & Horemans, 2005; Bene et al 2007). Media reports on the global fisheries 'crisis' are becoming frequent; the recent film -'The End of The Line', predicts the extinction of capture fisheries, unless drastic action is taken to ameliorate the governance of fisheries.

The wider societal costs of governance failures in fisheries

The sunken US $ 50 billion per year is only the most obvious and easily quantified part of the costs borne by society as a result of the continued lack of appropriate investment in governing the world's coastal and ocean fisheries. Inadequate governance, as well as leading to lost revenues from the capture, sale and trade of fish, has human security implications that extend well beyond the sector and its economic inefficiencies.

Food and livelihood insecurity are two of the more obvious costs. Dietary contribution of fish is on average twice as high in the least developed countries as it is in transitional and developed countries, and reduced availability of fish as a nutritious food for poorer people can contribute to malnutrition and loss of human potential, as well as elevated health care costs (WorldFish Center, 2009). Furthermore, overfishing reduces fisherfolk's earnings, and diminishes the potential contribution of the sector to local economies through economic multipliers; free-spending crew members with daily cash incomes are a boon to rural communities otherwise remote from markets for their agricultural produce and other goods and services. In the more commercialized part of the fishery sector, overfishing pushes down the profitability of fishing firms, which in turn, leads to business owners adopting desperate and sometimes illegal ways of reducing their operating costs. This includes savings on health and safety provision for fish-workers, in what are already often dangerous workplaces, in violation of ILO international legislation on decent work. This leads to more deaths, injuries and long-term health costs associated with fishing-related work, and to increasing use of low cost labour – including illegal immigrants and children (Allison *et al*., submitted).

All this labour malpractice is made easier by lack of investment in governance and development in the sector. Neglect in resource governance is also reflected in neglect of service provision, with marginalized fishing communities receiving lower investment in social service provision than other sectors (Bene *et al*., 2007). Fishers often live in poor and unsanitary conditions – sometimes without legal tenure to the land they have settled on and therefore no official entitlement to state services, including primary health care. This results in higher incidences of communicable diseases, including HIV and AIDS (Kissling *et al*, 2005).

To add further insult to these various injuries, fisherfolk are highly exposed to the direct and indirect effects of global climate change (Allison et al 2009). Over-exploitation of fish stocks makes them more climate-sensitive, so that one of the most effective ways of building capacity of fisheries to adapt to climate change would be to reduce overfishing.

Finally, because they operate at the poorly governed margins of land-based society, and have often been socially and economically marginalized, fishing boats all over the world are implicated in a number of illegal activities, many of which have nothing to do with fishing. The highest-profile cases of the links between poorly governed fisheries and human insecurity are in the area of maritime crime - particularly the cases of fishing communities turning to piracy in Somalia, but there are many less heralded but no less damaging examples around the world. . In SE Asia "the sea is the preferred medium for the illegal movement of goods and people ... illicit shipments can also be trans-shipped....[by] local fishing boat, without detection by local authorities" (Bateman *et al*., 2009) The nature of fisheries activities, the high value of some fishery products and the low level of ocean regulatory enforcement, means that various crimes including illegal fishing, piracy, people trafficking, evasion of border controls by terrorist networks, smuggling of weapons, drugs and other contraband, and the wide-spread violation of human rights take place at sea and in coastal and island settlements. Fisherfolk facing declining catches may deploy their capital assets (boats, navigation skills, local contacts) for these purposes, so that there is a link between fisheries governance failure, and weaknesses in wider maritime security.

This hidden and highly dispersed maritime crime undermines human well-being, impedes recovery of legitimate fishing activities, raises the costs of regulating legitimate trade and threatens the security of regions such as the Horn of Africa, the Gulf of Guinea, and the South China Sea. Despite developments in the governance of the sector, there remains an inadequate exploration of the wider costs to society both the direct human costs of the marginalization of fishing-dependent communities, and the related maritime crime associated with fishing vessels. By revealing the hidden costs of poor fisheries governance and making a first attempt at identifying the loss to society that this incurs, we aim to make the case for increased investment in fisheries governance as a means to both sustain the positive contributions that fisheries can make to human development, and to reduce the costs that governance failure currently imposes, both on fisheries and on human security and economic development more generally.

Responding to governance failures in fisheries – a non-traditional security perspective.

The nation-state retains the greatest legal importance in fisheries management despite expanding international (regional and global) fisheries governance arrangements alongside multi-stakeholder collaboration at local levels in many countries. Fixing fishery governance issues, therefore, will need to consider multiple entry points in state responsibilities such as environmental, social and economic governance. Examples of attempts to address the human security threats of poor fisheries governance include: the incorporation of the sector in wider economic planning frameworks, such as national poverty reduction strategies; inclusion of fisheries in national plans of adaptation to climate change and the UN climate change negotiations; the targeting of fishing communities with HIV and AIDS prevention, treatment and care, through national AIDS Authorities; and the production of guidelines and codes on safety and decent work in fisheries by the International Labor Organization. These all represent responses to non-traditional human security concerns that do not require a 'securitization' of fisheries governance. While the need to address both illegal fishing and maritime crime through strengthening of traditional state security instruments is required, so too, are a range of responses from environment and development policy, including better environmental and coastal land use planning, improved social service delivery to coastal communities, and attention to the rights and 'voice' or poorer members of coastal communities.

A combination of economic and social development policies with a more traditional security response will thus be required to prevent the costs of governance failures in this one small economic sector from being passed on to wider society and multiplied to generate significant human insecurities.

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