The Trickle-down Catch

Broad governance issues hamper the sustainable management of small-scale fisheries in developing countries

Problems cannot be solved at the same level of awareness that created them.
—Einstein

The current world fisheries crisis is characterized by vast overcapacity of fishing fleets, growing depletion of major fish stocks, evaporation of economic rent, and high incidence of illegal, unreported and unregulated (IUU) fishing. The crisis has been fuelled by ineffective governance, and is now exacting increased efforts from fisheries administrations worldwide to dedicate increased resources to improve governance of fisheries sectors, and reverse current trends.

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The crisis has been largely driven by expanding world markets for fisheries products. Demand for fish has been rising unabated for the last three decades, and fish has now become the most traded and most valuable natural resource commodity in the world. About 40 per cent of all harvested marine products enter global fish trade, whose export value has reached nearly US$90 bn per year, a value which has increased by around 1,000 per cent since 1976. All of this is not without impact on small-scale fisheries.

My musings address some of the broader governance issues that hamper the sustainable management of small-scale fisheries in developing countries.

"The development of national fisheries" is a catch-phrase that stems from the 1960s and 1970s, when newly independent countries looked at fisheries as a means of fuelling national economic development and growth. The policies pursued at the time were often entirely production- and output-oriented, with little, if any, thought being given to the need to manage renewable but finite resources in a sustainable manner, and making them work for the fishers and their dependents, as much as making them work for big money and large-scale investments sourced from outside. The argument that fisheries resources are finite is one that has still not been accepted by many today—administrators and exploiters alike.

Many formal government policies drafted at the time positioned the fisheries growth paradigm as the central clause of formal fisheries policy letters. Fisheries have 'developed' a lot since then, and have formally entered the age of the 'global fisheries crisis'. However, instead of this crisis giving rise to more and more revised national fisheries policy frameworks, production-oriented fisheries policies have often remained in place and continue to drive national fisheries affairs—in those countries where national policies on fisheries exist, of course.

Development-oriented policies

There is a clear need to steer clear of purely production-oriented policies. Development-oriented policies have to be replaced with

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policies pursuing goals of sustainable management. The term 'sustainable' is understood to apply to the three dimensions of social, economic and biological imperatives. Only under scenarios where these three dimensions are accommodated effectively, may successful outcomes in fisheries management ensue and be maximized.

In many countries, there is an urgent need for policy reform—and then, and most importantly, policy implementation. New policies will call for reforms of the sector, and reforms invariably prove to be costly undertakings—both in financial and political terms. The international blueprint for fisheries policy reform and orientation was published by the Food and Agriculture Organization of the United Nations (FAO) in 1995, in the form of the Code of Conduct for Responsible Fisheries. The Code is widely recognized as the instrument of reference for policymaking and fisheries management. Its scope is encompassing and universal, its principles are anchored in international law, and its nature is voluntary. The goal of the Code is to assist all entities to formulate approaches to fisheries management that ensure sustainability at all levels. At 41 pages in length, it is the shortest and best resource available for fisheries policymakers worldwide to source from. It has been translated into dozens of languages. Although the Code has been paid a lot of lip service, its effective implementation by governments worldwide—as shown in a string of studies and papers published in recent years—is generally low.

Formal fisheries management consists of a set of government services that generally requires plenty of financial resources, in order to produce desired results. In countries of the Organization for Economic Co-operation and Development (OECD), it has been shown that 4 per cent of the total value of the production is a reasonable figure that should be allocated for fisheries management. Fisheries management is an overly technical matter that requires a pool of competent technicians. Many developing countries face the situation where neither financial nor human resources are available in sufficient supply. In such instances, fisheries management services from government are provided under severely limiting conditions.

This situation has led to a state of de facto resignation, where the objective of achieving sustainable fisheries management has seemingly given way to the day-to-day execution of administrative tasks, far removed from the needs for fisheries reform and strategic planning.

In addition to this, many developing countries have taken to the concepts of fishing at maximum sustainable yield (MSY), putting in place total allowable catch (TAC) limits and quota systems, having imported these directly from developed country and temperate fisheries contexts, as the seemingly only way of 'seriously' managing fisheries. However, few have got the necessary research capacity to confidently establish stock status figures, and to administer such highly complex (and questionable) systems. A 2007 European Union (EU) Court of Auditor's report established that the EU itself did not have the necessary structures in place in its major fishing nations to administer its own TAC and quota system to any reasonable degree. It arises that

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Artisanal fishing vessels landing their catch at the Dar-es-Salaam port, Tanzania. Many developing countries have to cope with scarce financial and human resources

many developing countries have been advised to adopt complex Western fisheries management systems that stand no single chance of proving effective under the given limitations.

With respect to traditional fisheries, we generally observe that fisheries that were managed under community management rules before national independence from colonial rule, then fell under the mandates of centralized government authority after independence. Systems that, in some instances, had been functioning for centuries were scrapped to be replaced with centralized schemes that often did more harm than good. While it is not possible to generalize, we find in many instances that established community-based fisheries governance systems—some of which were full-fledged rights-based systems—were replaced with centralized schemes that effectively contributed to liberalizing access in coastal fisheries that had previously been regulated and policed locally through formal or less formal community structures. One of the reasons why governments failed in centrally administering coastal fisheries was the limited manpower available to interact with communities—communities being spread along coastlines, sometimes thousands of kilometers long, or hundreds of archipelagos across vast maritime spaces.

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There is little salvation in science- and technology-driven fisheries management approaches for countries that cannot afford them. Developing countries that cannot afford to allocate vast budgetary resources to fisheries management should, nevertheless, figure out individually what mix of simple and robust fisheries management tools are of use for their particular situations. A situation of 'limited resources' does not have to be synonymous with 'dysfunctional fisheries management'—although experience sadly shows that it often is.

As a first step, it is useful to take a look at which management systems have existed in the past, and were developed and owned by fishing communities themselves. Some of these have been highly effective in limiting access, in conserving spawning grounds, spawning cycles, juveniles and emblematic species. Working with communities transfers part of the burden of management to coastal communities, and directly involves primary stakeholders in the efforts to conserve and sustainably manage the resources they depend upon for their livelihoods. While the transition from a current model to a new model takes time, will and resources, it is necessary to bear in mind that all transitions do.

Countries such as Samoa have already provided the world with excellent examples of how coastal fisheries reform can be successful by putting coastal fishing communities back on to the centre stage, and endowing them with the legal rights and duties to manage and protect their own—and hence the nation's—resources.

A second step is to take a look at the spiralling sophistication of adopted management frameworks. In many instances, new fisheries laws and regulations have not contributed to making fisheries management simpler and more pragmatic, but have rather contributed to making things more complex—irrespective of past experience.

Stock assessments

Countries that have not got the capacity to run reliable stock assessments should refrain from adopting or maintaining TAC and quota systems. These are meaningless under limiting conditions, and generally harbour the danger of increasing allocations under the excuse that vast margins of error allow for this in the first place. Instead of

controlling what comes out of the water (that is, output controls), administrations would be well advised to stick to input controls. Input controls can be adopted under (community) rights-based mechanisms, which are generally favoured from the point of view of addressing problems related to overcapacity.

The first limit on input is access, in the form of mandatory licence schemes. While this is practical in semi-industrial and industrial-scale fisheries, it is often not so in small-scale fisheries.

Simple data collection schemes on basic biological indicators such as catch per unit effort (CPUE), length-frequency distributions, species diversity in the catch or mean species size can provide sound information to monitor and manage coastal fisheries with a reasonable amount of knowledge and confidence. Such indicators require simple sampling schemes, a few enumerators in strategic locations, and a few people at the centre to process and evaluate information. Instead of pursuing Western goals of establishing complete snapshots of how much fish exactly there is in the sea, trends arising over time from the aforementioned simple indicators provide just as good a picture of how the resources are doing. Management decisions can, and should, flow from such gained insights in an adaptive fashion.

Also, fisheries management plans should be put in place for specific fisheries. The FAO Code of Conduct for Responsible Fisheries conveys such an approach. The 2009 FAO review on the implementation of the Code, with emphasis on Africa, found that very few countries have put proper fisheries management plans in place—which diminishes their capacity to regulate, monitor and adjust measures directed at discrete fisheries in a coherent manner. Fisheries management plans at the community level should be short, simple and pragmatic.

In many countries, small-scale fisheries are de facto social and economic safety nets for the rural poor—and are sometimes referred to as 'poverty traps'. In other countries, small-scale fisheries have been a choice of life for generations, and are deeply anchored in cultural and social exchanges which structure those communities. While small-scale fisheries are often a last-resort lifeline in the first instance, they are a chosen professional and productive pursuit in the second instance, creating important employment, large volumes of landings, downstream value addition, economic multiplier effects, healthy societies, and intra-regional and international trade in fisheries products, and are an important contributor to national and regional food safety.

In 2007, FAO estimated that some 40 mn people worldwide were dependent on small-scale fishing, with another 123 mn dependent on ancillary activities (processing, trade, etc.) for their livelihoods—excluding temporary fishermen. The authors of Sunken Billions note that these figures are likely to represent substantial underestimates. The world population of small-scale fishers is growing faster than the total human population. Growth centres are located in Africa and Asia.

Coastal fishing communities are amongst the most vulnerable of all human communities. They are at the whim of the elements—engaging in the most hazardous profession on earth—and are exposed to climate change, diminishing resources, low education levels, inadequate health and social services, poor access to infrastructure and markets, and lack of alternative employment opportunities; much of this is not least because their voices are often not heard in national politics. Many small-scale fishing communities suffer national development strategies, instead of actively

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participating in their design, and contributing to shaping the future of their livelihoods. In many cases, national strategies overlook and omit coastal communities, and fail to bind them into functional societal development projects.

In various parts of Africa, we have been witnessing the development of major export markets for fisheries products, and with it, the concomitant arrival of foreign fleets, foreign investment, some onshore processing and packaging facilities, fish-export brokers, and an overall growing contribution of developing-country fish landings to global fisheries production. While the developed and the developing world were producing about the same volumes of marine capture harvests in the late 1980s, the developed world now produces less than one-third, and the developing world the rest.

Catches and exports are rising, export values are sky-rocketing, while small-scale fishing communities remain stuck in poverty, facing ever-increasing economic hardship as stocks start to dwindle. It would appear that poverty in fisheries is also intimately linked to rising numbers in fishers in both African and Asian continents—coincidentally also the two continents where fishers earn least. It is clear that in Africa, the rising prices of fisheries commodities are not being captured at the level of the individual fisher and the wider small-scale fishing communities.

'Trickle-down' effects of foreign direct investment (FDI), the holy grail of development banks, seem to be few, and the benefits of FDI—under scenarios where these go hand-in-hand with important tax breaks, free trade zone establishments, and transfer pricing—benefits for national treasuries and the wider national economies may be largely forfeited, or even result in a net drain of national wealth. While profits are being captured by, and accrue to, a small number of individuals, the costs and impacts of resource depletion (amongst others) are borne by society, and small-scale fishing communities, in particular.

A 2008 OECD working paper shows that there might be very little direct relationship between international trade in fisheries products, and poverty alleviation in sub-Saharan Africa. Data presented reveal that no demonstrable relationship exists between fish trade and economic growth or poverty alleviation.

The authors of the OECD paper argue that this is due to weak or missing 'trickle-down' effects, failing to redistribute revenues generated by fish exports to the poorest segments of the population.

What seems clear is that fisheries access agreements, free trade agreements (FTAs), FDI schemes and increased trade in fisheries products are not going to be the tools of choice to achieve the Millennium Development Goals (MDGs) with respect to small-scale fisheries and the communities depending on them. In neglecting the very existence of these communities, governments are forfeiting the opportunity to turn small-scale fisheries and their communities into engines of economic growth and human development. Why is it possible for South Pacific island fishing communities to pursue dignified livelihoods as small-scale fishermen and women, while this seems to be a mostly elusive pursuit in much of Africa?

For more

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