The New Zealand fisheries quota management system (QMS) using individual transferable quotas (ITQs) has an international reputation for good fisheries management. The consequences for many coastal fishermen and their communities, are, however, another story. My fear is that if this form of ITQs is used for the coastal fisheries of developing nations, the consequences for artisanal fishermen and their communities will be far more devastating.

Ideologically, “think big” was a forerunner of neoliberalism which emphasizes privatization (in this case, of catch rights), market forces (globalization) and deregulation (less government control). The fisheries were the first industry restructured by New Zealand’s form of neoliberalism—“Rogernomics”—with the introduction of the QMS in October 1986. In particular, it facilitated the corporatization of the coastal fishery and the exclusion of small and community fishermen. Restructuring of the fisheries with the QMS went further with a change from fisheries management using input controls to a neoliberal, property rights-based management system with ITQs. Ostensibly, the QMS was introduced in New Zealand to resolve a perceived crisis of overfishing and overcapitalization experienced by coastal fishermen.

In 1978, New Zealand declared the 200-nautical mile exclusive economic zone (EEZ) which enclosed the deepwater fishery. The political ideology was to “think big”, so the New Zealand fishing industry expanded to meet the growing international markets. New Zealand companies became increasingly corporatized and bought the ‘big boats’ (100-footers, 30 m in length). Though big by New Zealand standards, they were inadequate for deepwater conditions. To remain economically viable, they fished prime species on the coast, threatened the livelihoods and economics of the coastal fleet, and established fishing history that later translated to quota, and, with the loan schemes to enlarge coastal vessels, facilitated the inshore crisis that justified the QMS. Since some of these ‘big boats’ were pair trawlers and the coastal snapper fishery was the only fishery using this method, it seems more a ploy to take over the coastal resources than to develop the deepwater fishery.

A government discussion document noted the top 50 boats, including these newly imported ‘big boats’ belonging to the big companies, landed 45 per cent of the annual coastal catch and just 2.2 average ‘big boats’ caught the catch landed by the bottom 2,000 boats.

Deep waters
In 1983, rather than converting these ‘big boats’ into vessels more suitable for the deep waters, the Ministry of Agriculture and Fisheries...
(MAF) left them on the coast and changed the legislated criteria for commercial fishing licences as a result of which 2,260 fishermen were excluded from the fishery, without compensation. Of these, 1,500-1,800 were part-timers. MAF knew the importance of these rural/urban differences between part-timers but were concerned to ‘professionalize’ the fishery. Clearly, government priorities lay with big business, not with the interests of small fishermen and coastal communities. The Ministry of Fisheries (Mfish, as it is currently known) now realizes that the exclusion was a failed and unnecessary policy.

Had the ‘big boats’ been restricted to the deepwater or ‘translated’ into vessels more appropriate for the deep waters, there may have been no need to restructure the coastal fleet so radically. Part-timers may have been numerically difficult to administer, but the amount of fish they caught, although crucial for their communities, was comparatively infinitesimal. They could have been managed outside the QMS—as with recreational and Maori fishermen or using overseas precedents such as in Chile, where artisanal or inshore fishermen are managed separately from industrial fishers. Given the increase in number of Mfish staff required to administer the QMS, part-timers could have had their own QMS if necessary. Restricting the ‘big boats’ more tightly to the deep waters or to less preferred species might have been a suitable compromise.

The big companies, already vertically integrated, corporatized and market-oriented, were poised to compete in the quota market and an increasingly neoliberally globalized arena. They quickly aggregated (consolidated) the quota to control access to the resource. This is so-called ‘rights-based’ since the core element of privatization creates the property right, with ownership overriding the human rights of communities and their fishermen on the basis of proximity and customary use. In addition, quota became an investment, putting it even more out of the reach of ordinary fishermen.

ITQs in New Zealand are a right to harvest a particular proportion of the total allowable commercial catch (TACC) of a particular species from a particular quota management area (QMA). The actual amount that can be taken on an annual basis is referred to as the annual catch entitlement (ACE). Thus, the quota might not change, but if the TACC is changed, then the amount of the species able to be caught in the specific year also changes, but remains the same proportion of the TACC. With the system came more stringent reporting requirements (catch/landing returns).

Fish must be landed to licensed fish receivers (LFRs), a low-profile but intrinsic part of the QMS, as a crosscheck on fishermen’s returns, for compliance purposes. Most LFRs were larger companies; with company closures and consolidations and increasing vertical integration, there are fewer fish buyers. Increasingly, most fish is exported overseas or processed for value-added
...commodities for supermarkets. Compared with fishermen's perhaps more personal relationships with their buyers before the QMS, control over fishermen is now greater since many are dependent on the company for ACE so they are tied more formally by contractual relationships. The company sets both the price for ACE and the landed price for fish.

In keeping with corporate needs to minimize costs, the landed price of fish to the fishermen remained at pre-QMS levels, and ACE-dependent fishermen were increasingly marginalized. Corporate control of quota also transferred the food and nutrition of fresh, locally caught fish from the community to international markets. The financial benefit went to corporates and their shareholders.

Before the QMS, the three communities I studied in the Hauraki Gulf all had thriving fishing fleets. There were some 37 registered fishing vessels based on Waiheke Island, with a fishing co-operative for about 20 fishermen that put a million dollars into the community annually and was probably the largest industry on the island. In Coromandel, there were 49 vessels and 18 in Leigh. After the QMS, the Waiheke co-operative folded up but the two or three remaining fishermen run charter trips for recreational fishers and now one of them sells a tiny amount of fish at the wharf one day a week. On Coromandel, only five or six boats were still operating. At Leigh, though, some 20 remain and the company, Leigh Fisheries, specializing in selling chilled fish internationally, services more than 44 fishing boats in the Hauraki Gulf and on the northeast coast of New Zealand. So, unlike Waiheke and Coromandel, Leigh is still a fishing village.

In the late 1970s and early 1980s, most Waiheke fishermen were long lining prime snapper, with each fish spiked and chilled for the high value Japanese *iki jimi* market. Snapper that were not suitable and other species such as gurnard and John Dory supplied the local fish shops and 'home freight' where fishermen and crew took 'a meal' to feed their families and neighbours. This 'informal economy' and the fish sold through the shops made a significant contribution to the community's food security. These boats provided jobs not just for the owner-operators and crew in the schooling season but also for engineers, boat maintenance men and repairers, and other tradesmen and suppliers and, importantly, they were also the salvation for a number of teenagers diverted from delinquency.

Before the QMS, commercial fishing was more community-oriented. For example, for 22 years a fisherman launched his boat across the beach in front of the Onetangi Hotel, perhaps the only place in New Zealand where this happened, and supplied the guests and the local community with the fish they wanted. Just before the QMS, the hotel won a national competition for the best restaurant fish dish. After the QMS, the hotel, as required, applied to become an LFR, but the application was declined since the hotel "was not unique enough". Now tourists and visitors coming to Waiheke Island to eat in top restaurants are disturbed to find the fish is not caught locally and bought directly from the fishermen but is bought by a wholesaler, transported to the Auckland Fish Market, processed by filleters, and ferried to the island for the restaurant.

**Output controls**

For local fishermen, the QMS meant the complexity of another bureaucratic change from a controlled fishery, with limited entry and input controls, to the output controls of ITQs and uncertainty from new rules, regulations and processes. It meant their ethos changed from fishing as a lifestyle or vocation; a change from the flexibility and relationship of supporting their community and the fishing co-operative to business...
transactions where they fed products into a supply chain over which they had no control.

The fishermen's response varied. Reporting requirements and other restrictions compounded paperwork and, for some, increased the incentive to lease or sell their quota and 'get out' with a nest egg to do other things. Others remained fishing and either sold their quota but leased it back on the promise that fishing would continue as before; some others, particularly the more business-minded, some with the backing of Leigh Fisheries, came to grips with the system, retained ownership of their quota or bought more and continued fishing. The Waiheke fishing co-operative collapsed. Those leasing quota, especially from the companies, were obligated to sell them their catch, and so lost the previous flexibility to sell within the community. Places like Leigh that still had fishing companies remained fishing communities but others like Waiheke and Coromandel lost fishing livelihoods for their members and the basic food security and nutrition that had been provided by fresh, locally caught fish.

So the expressive aspects of the fishermen's ethos, their identity, independence and freedom 'out there', contending with the large marine environment and hunting elusive prey were reduced, and they became closer to being just instrumental operators, micro-managed at the beginning of the commodity chain.

Comparatively few fishermen, new part-timers, are debt-free, and retain a passion for their work and a detailed ecological knowledge of species and fishing grounds, so they can easily catch the fish their market requires, meet increasingly stringent company requirements and still enjoy their boats and the marine environment. In general, though, the coastal fleet is in decline and, particularly, ACE-dependent fishermen are increasingly marginalized.

Quota ownership reinforces the hierarchical relationship between skipper and crew, shifting emphasis from the prime focus on fishing skills to quota acquisition ability in a more dominantly commercial market. The property rights-based management system has taken fisheries in New Zealand from an expressive system in which fishermen experienced an ethos of 'freedom' and serviced local communities and domestic and export markets, to a far more instrumental and utilitarian system.

For communities like Waiheke and Coromandel, the QMS has meant a general loss of access to the fisheries, and, therefore, to a source of livelihood and nutrition, as well as the loss of a significant aspect of community identity. Fishermen and crew in the community miss out directly in terms of occupation but others such as engineers, mechanics, boat repairers, fish shop retailers and consumers do also indirectly. The fishery seems as, or even more, marginal for small operators and community members than it was before the introduction of the QMS.

Bureaucracy

The requirement to land to LFRs and the bureaucracy involved for local retail outlets in becoming and remaining an LFR meant that communities did not have fish receivers, and so fishermen were generally no longer able to land or distribute fish to community outlets. Thus, residents in most coastal communities were deprived of fresh,
locally caught fish. The few fishermen around the Hauraki Gulf with wharf sellers licences improved the situation only slightly. Communities were deprived of fresh fish, lost livelihood opportunities and had to make do with expensive processed supermarket commodities such as crabsticks or fish fingers.

The change with rights-based management has not led to the simplification intended but, instead, to an exponential expansion of bureaucracy, costs and corporatization that has shifted allocation of fish from community and coastal fishermen to big business. From having fish and fishermen supplying a local market, New Zealand now deprives much of the local market of fresh, locally caught prime fish species and, instead, exports them to service a predominantly international market, mitigating the loss to communities with convenience commodities. In the domestic markets, restaurants compete with international markets for high-value fish, while in the communities of Coromandel and Leigh, ‘ordinary’ fish are the rejects from international orders.

As fish have become products for a globalized market, fishermen are no longer providing food for their communities; for many, their livelihoods have become a mere struggle for employment. The give-and-take of community reciprocity has become a regime of contracts and instrumental transactions.

The fishermen’s ethos has changed from being enterprising owner-operators with relatively egalitarian relationships with buyers. Increased prices for levies, annual boat surveys and fuel mean that many fishermen are now marginal players. Additionally, the cost of ACE, especially for ACE-dependent fishermen, implies that they have, in effect, become contractors, with all the costs and responsibilities but none of the privileges of independent operators, and with little hope of realizing reasonable returns on their investments in boat and gear, either now or at retirement. From being community-based, fishermen are now contractors, just a component of the commodity chain.

The social costs of the QMS were, therefore externalized to the fishermen, especially those ACE-dependent, to their families through increased uncertainty and stress and financial pressure, and to their communities through the loss of fresh, locally caught fish. The so-called rights-based QMS has facilitated corporates to take over the access to fish which coastal communities had rights through closeness to them (propinquity) and their usage (usufruct) and reliance.

In the communities studied, the QMS has meant the loss of commercial fishing livelihoods and services as well as the nutrition and food security that was provided by fresh, locally caught fish. For these communities, there were alternatives from the tourism industry, with support from vineyards, wine making and restaurants. There has now been a shift to external markets.

For developing nations, where coastal communities and artisanal fishermen are dependent on local fish, the outcome of ITQs may be much more devastating and not so easily compensated.