

THE CONTROVERSIAL DRIFTNET FISHING IN THE SOUTH PACIFIC AND THE DUTY OF CONSERVATION AND MANAGEMENT OF THE LIVING RESOURCES OF THE SEA

By

M. Rafiqul Islam*

Introduction

The driftnet fishing technique involves the deployment of flat nets made of fine mono or multi-filament nylon mesh lying in straight lines to hang vertically in the water like curtains. The operation is controlled through the adjustment of the buoyancy of the nets with its floats on the surface and its bottom weights under the water. It can be anchored to fish at one place or left to drift with wind and current overnight and then retrieved. It is a passive fishing device capable of entangling bodies of fish and other marine creatures that swim into it. It is also called “gillnet” as the mesh entraps victims behind the gills. Since it is visually and acoustically invisible and nearly unbreakable, virtually nothing larger than the size of the mesh can pass through its path. A driftnet can be as much as 15 metres deep and 60 kilometres long.¹

Many components of nature, which were once thought to be inaccessible and inexhaustible, are now both accessible and exhaustible due to massive population expansion and continuing technological advancement. Modern science has exposed the vast areas of the high seas to unprecedented levels of commercial exploitation. Among these, fishery resources of the sea has come under tremendous pressure, indeed there is an imminent threat to extinction. Consequently, over half of the world’s marine fishery has been brought under some form of regulation,² but the remainder is left to over-exploitation. The introduction of driftnet fishing has augmented the persisting process of over-fishing. Many coastal states are exploring and mounting strategies of attack against driftnetting following an appreciation of its adverse repercussions on marine life and environment. In pursuance of this growing trend, the South Pacific coastal states purport to declare a “driftnet-free zone” — an idea that has received its greatest boost and sustenance from the shared expectation generated at the 20th South Pacific Forum meeting in Kiribati on 10-11 July 1989.³

An examination of relevant provisions of the 1982 Third United Nations’ Convention of the Law of the Sea (LOS Convention) on the exploitation of common fishery stocks occurring both within the exclusive economic zones (EEZs) and on the high seas reveals that the determination of optimum levels of maximum sustainable yields (MSY) of these stocks is peremptory. These provisions are not mere statements of distinct aims but involve precise

* Faculty of Law, University of Papua New Guinea.

1. In fact, there is no functional or fundamental difference between a driftnet and a gillnet other than their length and geographical utilisation. Driftnet refers to those nets in excess of two miles in length and are used outside of coastal areas, whilst gillnet refers to those nets less than two miles in length and are used in coastal waters. This is however an arbitrary distinction drawn to avoid confusion between the two types of fishing gear. For the background, technicalities and economics of driftnetting, see LaBudde, *Stripmining the Sea: A Global Perspective on Driftnet Fisheries*, a report and documentary prepared by Earthtrust, Honolulu, Hawaii, 1988, pp.6-10.
2. See J.N. Bhagwati ed., *The New International Economic Order: The North-South Debate* MIT Press Massachusetts 1977 at 109-110.
3. The “Tarawa Declaration” of the meeting of the South Pacific Forum on 10-11 July 1989, para.3. See also *Niugini Nius* Papua New Guinea 25 July 1989 at 8.

legal obligations to fulfil the objective of conservation and management of the living resources of the sea. The driftnetters are obliged to observe this duty in cooperation with the South Pacific coastal states. Almost any negotiated arrangement promises to yield a desirable and better result for the driftnetters compared with a forced total regional ban on driftnet fishing.

Conservation and Management of Common Fish Stock

The objective of conservation and management of the living resources of the sea has been conceived in the LOS Convention to be the pre-eminent task of all fishing states, especially the coastal states. Implicit in this objective is the duty of every fishing state to maintain or restore fish stocks always at levels of MSY which pre-supposes the proper determination of total allowable catch (TAC).

The MSY denotes definite restrictions and controls of fishing efforts, or exploitation of a particular fish stock at a given level, over and above which the fish stock is believed to be over-exploited.⁴ The TAC is '... that catch which, if taken in any one year will best enable the objectives of (fisheries) management to be achieved'.⁵ The two terms seem to convey the same idea and may be used interchangeably in that fishing states must ascertain, on the basis of best scientific evidence available to them, the TAC at a limit that does not diminish, but sustains or restores the level of MSY. In other words, both the MSY and TAC generate revenue and improve, rather than worsen, the stock of fish simultaneously. Unrestricted access to commercially viable fisheries will lead to over-fishing, implying that the fishing level is higher than that desirable both from conservationist and economic viewpoints. Fishing is essentially a search and gather activity, the cost of which varies inversely with the total fish stock. The smaller the stock, the higher will be the cost of fishing. Hence, overfishing reduces the stock and enhances the cost of a given harvest.

There are certain species of fish stocks which are very migratory in nature. Species like anadromous, catadromous, tuna, reptiles and marine mammals do not remain in the EEZ of one coastal state throughout their entire life cycle. They often spend some of their life outside the EEZ of one coastal state in the EEZ of another neighbouring coastal state or on the adjacent high seas, or both. It is indeed impossible for a single coastal state to bring under control the whole stock of these species in its EEZ. The conservation and management of these stocks necessarily comprehends all portions of the stocks both within the EEZ of coastal states and on the adjacent high seas. These species are common fish stocks in the sense that they migrate frequently between more than one EEZ and beyond to the high seas and are exploited by more than one state. As a result, a different legal regime governs their conservation and management. The LOS Convention requires all states engaged in fishing the same stocks both within the EEZ of coastal states and on the adjacent high seas to maintain or restore these stocks at levels of MSY. In other words, over-fishing is forbidden (Art. 63).

Pursuant to this requirement, states engaged in fishing the same stocks in the EEZ and on the high seas of the South Pacific are obliged to maintain or restore the population of harvested species at levels capable of producing the MSY. The need for cooperative endeavours to attain this goal is of paramount importance. The LOS Convention favours an

4. An excellent analysis of the concept of maximum sustainable yield may be found in J.P. Harville 'Multidisciplinary Aspects of Optimum Sustainable Yield' in *Optimum Sustainable Yield as a Concept in Fisheries Management*, proceedings of a symposium at Honolulu on 9 September 1974; see American Fisheries Society special publication no.9 Washington DC 1975 pp. 51-64.

5. M. Dahmani, *The Fisheries Regime of the EEZ* Martinus Nijhoff Pub. Dordrecht 1987 at 51.

international approach to this end. The coastal states and other states fishing for the common stocks covering both the EEZ and the high seas shall seek, if required through the appropriate organisation, 'to agree upon the measures necessary for the conservation of these stocks in the adjacent area' (Art. 63.2). Dealing with this cooperation, Article 117 imposes a duty upon states to adopt conservation and management measures for their nationals and to cooperate with other states in taking such measures. Similarly, Article 118 calls upon states fishing for identical or different living resources in the same areas of the high seas to negotiate and cooperate with a view to working out and implementing measures for the conservation and management of the living resources concerned. In these Articles the exploitation of common fish stocks on the high seas pre-supposes the establishment of a legal regime for their effective conservation and management through mutual negotiation and cooperation among the states concerned.

It is in this sphere of negotiation and cooperation that the coastal states and the driftnetters differ on the effects of driftnetting in the South Pacific. The former argue that driftnet fishing is fast depleting regional marine resources, and threatening regional fisheries, economies and the environment. The South Pacific Forum Fisheries Agency (FFA) estimates that the number of driftnet vessels in the South Pacific has increased from 10 Japanese and 7 Taiwanese in 1987-88 to 60 Japanese and 130 Taiwanese in 1989. It predicts a collapse of regional fisheries within five years should driftnetting continue at its current rate. And the longline fishery industries of the region would have to bear the full brunt of a disastrous impact. Japan and Taiwan, the major driftnetters in the South Pacific, decline to stop their operations and argue that the FFA does not have scientific evidence to support its claim. The FFA on the other hand accuses Japan and Taiwan of not providing any information about their driftnetting and of not negotiating or cooperating in the conservation and management of joint stocks of fish in the South Pacific.⁶

Driftnet fishing in the South Pacific is very recent. The presence of driftnet vessels in the region was discovered accidentally in 1988 when a disabled vessel was towed to a harbour of New Zealand.⁷ One can hardly expect any pertinent scientific evaluation of its impacts on regional marine resources, economy, and environment. It would take some more years to obtain valid statistical data estimating precise impacts. Nonetheless it is possible to draw an analogy from experience elsewhere, particularly in the North Pacific, where driftnet fishing has inflicted gross degenerative effects on marine life. Scientific studies testify that driftnetting has diminished the salmon stocks and eroded tuna stocks in the North Pacific.⁸ In 1983, Canada conducted experimental driftnetting in its EEZ with the help of a Japanese vessel. In 1985 and 1986 recorded mortalities included a large number of marine mammals, seabirds, whales, dolphins, and porpoises. The Canadian Minister for Fisheries and Oceans

6. For all these claims and counter-claims, see (1989) July *Pacific Islands Monthly*, 8-9; (1989) August *Pacific Islands Monthly* 12-13; *The Dominion*, 1 July 1989, 1; 'High Seas Driftnets' — a report prepared by Greenpeace Pacific Campaign, Auckland, 1989, 3; *supra* n.1, 22-23; (1989) 4 No.8 *Pacific News Bulletin*, 3; *Islands Business*, July 1989, 8-9. The Republic of Korea has agreed to prevent its fishing vessels from using driftnets in the South Pacific, see (1989) 81 n.169 *Christian Sc. Monitor*, 10B. Recently Japan has declared that it will reduce its driftnet vessels in the South Pacific to two-thirds, from 60 — 20 during the 1989-90 season, see *Post Courier*, PNG, 21 Sept. 1989, 2.

7. Only in 1988 did regional governments come to know the existence of driftnet fishing, see *supra*, n.1 at 22.

8. As a result of over-fishing the migratory young fish on the high seas of the North Pacific, the catch went down from 120 thousand tonnes to 40 thousand tonnes, see (1989) Aug *Pacific Islands Monthly* 13. For a detailed report on salmon interception by driftnetters, see *supra* n.1, at 26-27; T.F. Chen, 'High-Sea Gill Net Fisheries of Taiwan' and Y. Gong, 'Distribution and Abundance of Flying Squid Caught by Korean Gill Nets in the North Pacific', working papers of a workshop on the *Fate and Impact of Marine Debris*, Honolulu, Hawaii, Nov. 1984.

promptly terminated the operation because of serious environmental concern.⁹ Serious adverse consequences of driftnetting in Alaskan waters, and in the Atlantic and Indian oceans, have but added to mounting concerns.¹⁰ Yap Island in the Federated States of Micronesia experimented with driftnetting in February 1989 prior to considering a Japanese plan to launch a driftnetting venture in its EEZ. Yap abandoned it after a trial period showing a rapid depletion of tuna and other species with devastating consequences on its entire fishery stocks.¹¹ These examples conclusively explain why the United States and Canadian coastal fishermen have long been seeking a ban on driftnetting. The United States has already forced Japan and Taiwan to conclude agreements enforcing control on driftnet vessels in the North Pacific.¹² An United States-Canadian conference has been scheduled to be held soon in Vancouver to devise additional restrictions on the high seas driftnetting in the North Pacific.¹³

By its nature, the driftnet as a fishing device is remarkably effective. This distinguishes it from other types of fishing gear. The latter are capable of targeting and selectively catching only desired species with a minimal amount of by-catch and relatively infrequent mortalities to marine wildlife. A driftnet cannot selectively target species on the basis of their desirability but catches every creature that moves into its vicinity. The over-fishing of target species, if any, and the incidental killing and waste of non-target species of fish, marine mammals and seabirds are inevitable, causing their commercial or biological extinction.¹⁴ Entire driftnet or large fragments are lost, abandoned or thrown away at sea every year. Being non biodegradable, these nets with their surface floats and bottom weights maintain buoyancy, and drift unseen and untended to entrap and kill marine creatures for several years until they sink with the weight of victims or wash ashore. These "ghost nets" are also hazardous to safe navigation, as the ships' propellers and shafts are likely to be entangled.¹⁵

Given the available historic data on population dynamics for the affected species in the North Pacific and elsewhere viewed in conjunction with the general problems of driftnet fishing, it is easier to affirm, than to deny, that the technique is susceptible of inflicting

-
9. In his address to the 1987 annual meeting of the International North Pacific Fisheries Commission (INPFC), he said: "Given our experience, I believe uncontrolled high seas driftnet fishing represents an unacceptable toll within the Canadian economic zone. For that reason I am announcing today that Canada will no longer sponsor a commercial driftnet fishery for squid within our waters. I encourage you, as representatives of INPFC member countries, to take more effective action to assess and regulate the use of driftnets in international waters". See *Experimental Flying Squid Fishery of British Columbia*, 1985 and 1986, *Canadian Industry Report of Fisheries and Aquatic Sciences* No. 179, Department of Fisheries and Oceans, Fisheries Research Branch, Nanaimo, BC, V9R 5K6, quoted in S. LaBudde, *Stripmining The Seas: A Global Perspective on Driftnet Fisheries*, *supra* n.1 at 15.
 10. For an account of these effects, see *supra* n.1 at 13 (for Alaska) and at 25 (for the Atlantic and Indian Oceans). See also *Time Australia* Aug. 1989 at 50-51. In the early 1970's, Danish high seas salmon driftnetting in the Atlantic was estimated to be killing over 500,000 diving seabirds each year which caused their decline until the fishing depleted the salmon stocks so severely that it was closed in 1976; see Christensen and Lear, 'Bycatches in Salmon Driftnets at West Greenland' (1972) 5 *No.205 Medd. Greenland*, at 1-29.
 11. The experiment used a very short net of only 15km long for only 22 nights causing the death of many sea turtles, one great whale, two small whales and 97 dolphins. For every nine tuna caught one dolphin died, see the Greenpeace Pacific Campaign Report cited at *supra* n.6; see also *Post Courier*, PNG 12 July 1989 at 25.
 12. These agreements allow for high seas boarding of driftnet vessels and require satellite transponders placed on such vessels so that the United States can keep track of them, see (1989) 9 *No.8 South Sea Digest*, 1; *The Dominion*, 1 July 1989, 1; (1989) July *Pacific Islands Monthly*, 8.
 13. See (1989) 81 *No.169 Christian Sc. Monitor*, 10B.
 14. For an analysis, based on scientific studies, of problems that are usually caused by the driftnet fishing, see R. Eisenbud, 'Problems and Prospects for the Pelagic Driftnet', (1985) 12 *Environmental Affairs*, 478-79.
 15. For an examination of the effects of a lost driftnet, see DeGrange and Newby, 'Mortality of Seabirds and Fish in a Lost Salmon Driftnet', (1980) 11 *Marine Poll. Bull.*, 322-323; also *supra* n.1, at 37; and Eisenbud *ibid* at 479-480.

irreversible damage in the South Pacific region. And one can reasonably predict that the impact of driftnetting would be similar, if not more severe, in tropical waters of the South Pacific. In the presence of convincing evidence of adverse effects of driftnetting referred to, it would be very difficult for the driftnetters to persuade any impartial third party arbitrator that driftnet fishing in the region is safe.

However, let it be conceded that there are few scientific studies about the exact effects of driftnetting on levels of MSY of affected species in the South Pacific and that the states concerned would require a few more years to equip themselves in order to work out proper conservation measures. The apposite question is: Can driftnetting in the South Pacific continue in the absence of any conservation and management measures? As mentioned earlier, Articles 63 and 118 require all states interested in fishing common stocks to negotiate and cooperate for the conservation and management of these stocks. Article 300 calls upon states concerned to observe this duty in "good faith" in that they must act reasonably and with common sense in performing their obligation. The end in view is to devise agreed upon conservation and management measures. Merely going through the motions of negotiating and cooperating is not enough. The parties must make every genuine and constructive effort to bring conflicting views into harmony. In the North Sea Continental Shelf Cases, the International Court of Justice held that the negotiating parties 'are under an obligation so to conduct themselves that the negotiations are meaningful, which will not be the case when either of them insists upon its own position without contemplating any modification of it'.¹⁶

The act of "good faith" requires all states involved in driftnetting in the South Pacific to unveil and exchange available information on their operations. Even if it is admitted that the onus of proof of adverse effects of driftnetting lies with the South Pacific coastal states, the driftnetters are not exonerated from the burden of proof that their fishery is safe. Both claims and counter-claims are of the same order and encounter the same problem — the paucity of data to support the claim.

Under these circumstances, perhaps the most logical inference is the suspension of driftnetting pending an agreement on measures for the conservation and management of common stocks. When an act is challenged on the basis of its serious injurious effects and the challenging state is willing to negotiate and cooperate to find a solution, the rule of law demands that the challenged state is obliged not to proceed with the execution of the alleged act unilaterally.¹⁷ The prolongation of driftnetting in the South Pacific in the absence of any proof of its harmless effects would gainsay the objective of conservation and management of the living resources of the sea. It would also permit the driftnetters to act as judges in their own cause — a striking negation of any legal system. The continuation of driftnetting on the pretext of lack of scientific data is tantamount to a posture of waiting for evidence that may bring about a disaster. For a steady and perpetual yield of common fishery resources, it is submitted that prevention is better than cure. Otherwise, it would allow the driftnetters to gain some more years of uninterrupted driftnetting and to establish a *fait accompli* without expressly repudiating the basic duty of negotiation and cooperation with a view to devising conservation and management measure.

16. (1969) *ICJ Rep.* 47. For a discussion of "good faith" as a principle of international law, see Justice Lauterpacht's opinion in the *Norwegian Loans Case*, (1957) *ICJ Rep.* 53; see also the *Interhandel Case*, (1959) *ICJ Rep.* 113.

17. It has been asserted 'that there is an international law rule which requires suspension of the works in case of dispute', see E.J.D. Arechaga, 'International Legal Rules Governing Use of International Watercourses', (1980) 2 *Inter-Am.L. Rev.*, at 339.

Articles 64-67 of the LOS Convention confer upon the coastal state a predominant status in the management and conservation of highly migratory species — marine mammals, anadromous and catadromous stocks — both in the EEZ and on the high seas. The albacore tuna, billfish and other tuna-like fishes of the South Pacific are the principal target of driftnetters. The South Pacific coastal states are entitled under Article 64 to devise some form of international management of these stocks, determine their TAC to maintain or restore these species at levels of MSY both in the EEZ and on the high seas. They may require other fishing states, who are enjoined to fish these stocks even on the high seas without conservation measures, to follow these arrangements.

Whilst the tuna is the primary target, by-catches of non-target species and wildlife are unacceptably high and wasteful.¹⁸ The South Pacific coastal states may cooperate and impose any stringent measures under Articles 65 and 120, including a regional ban on driftnetting for the conservation and further protection of South Pacific mammals. Relying on the characteristics and definition of anadromous stocks,¹⁹ it is possible to classify South Pacific turtles, estuarial crocodiles, dugong and penguins as anadromous. These species depend for their breeding on the nutrient-rich coastal soil and shallow waters and move out to the open seas in their harvestable cycles. Being “the state of origin”, the South Pacific coastal states have, under Article 66, the “primary interest in, and, responsibility for, such stocks” and may require other fishing states to adhere to certain specified measures for the conservation and management of these stocks. Similarly, the South Pacific coastal states possess a greater right under Article 67 on the high seas fishing and preservation of catadromous species, such as fresh water eels, which spend a substantial period of their adult life in coastal waters.

The combined effect of these Articles suggests that the South Pacific coastal states are competent to adopt and implement measures for the conservation and management of these common stocks occurring both within and outside their EEZ's. Such measures would not undermine or take away the right of other fishing states to the freedom of fishing on the high seas of the South Pacific. The freedom of fishing on the high seas has never been absolute but contingent upon the fulfilment of the objective of conservation and management of the living resources of the sea.²⁰ It is inconceivable that the drafters and participants of the LOS Convention, who were so much concerned about the rational conservation and efficient management of common fishery stocks, have admitted an unqualified right to the freedom of fishing on the high seas to frustrate their goal. In order to dispel any doubts on the competence and interest of coastal states in stocks occurring within the EEZ and in an area beyond and adjacent to it, the freedom of fishing on the high seas in Article 116 of the LOS

18. See *supra* n.8-15 and their accompanying texts.

19. Dealing with these species, Art. 66 does not provide any definition, though these species refer to all species of fish that spawn in fresh or estuarine waters of the coastal state and migrate to the oceans. Section 102 of the *Fishery Conservation and Management Act 1976* (United States) contains a definition to this effect.

20. The doctrine of the “freedom of the seas” was formulated by Hugo Grotius in 1609 on the assumptions that oceans were vast and unappropriable and that their resources inexhaustible. These premises are no longer valid. Challenging the wisdom of the freedom of the seas, Gidel argues that it may be adopted to use the sea as a means of communication for international trade but it does not fit in with the use of the seas as a source of wealth, see (1932) 1 *Droit International de la Mer* at 208-12; also M. McDougal and W.T. Burke, *The Public Order of the Oceans* Yale Uni. Press New Haven 1965 at 307 et seq. However, the ‘freedom of fishing’ is one of the four freedoms of the high seas recognised in Art. 2 of the High Seas Convention adopted by the 1958 United Nations Conference of the Law of the Sea. But the Article maintains that these freedoms may only be exercised with ‘reasonable regard to the interests of the states in their exercise of the freedom of the high seas’. Indiscriminate exercise of the freedom of fishing on the high seas would be in the long run contrary to the individual and collective interests of the coastal states, many of whom have concluded a number of conventions imposing limits on this freedom. See J.E. Carroz and A.G. Roche ‘The International Policing of High Sea Fisheries’, (1968) VI *Can. Yearbook Int. L.*, at 61-62.

Convention has explicitly been made subject, *inter alia*, to Articles 63-67. This means that the prohibition or restriction of the fishing of joint stocks on the high seas embodied in Articles 63-67 supersedes the right to the freedom of fishing on the high seas in Article 116. If the driftnetting of tuna and other common stocks in the South Pacific is based solely on the freedom of fishing on the high seas, the act infringes not only Articles 63-67 but also Article 116 of the LOS Convention.

Conclusion

It is therefore in the best interest of the driftnetters that they should negotiate and cooperate with the South Pacific coastal states either directly or within the formal or informal structure of any organisation, perhaps the FFA, to arrive at a conciliatory solution. Adverse consequences of driftnetting may be reduced through the adoption of effective regulatory measures, such as selecting or specifying mesh size, lengths of nets, fishing areas and season. Regular monitoring systems can identify problems and set the stage for working out remedial measures. This cooperative pursuit may in turn provide a safety-valve to avert the danger of an outright ban on driftnet fishing in the South Pacific. More importantly, such an approach will not only minimise the ongoing controversy over driftnet fishing in the region but also concurrently maximise the conservation and management of the living resources of the South Pacific.