THE USE OF FADS IN TUNA FISHERIES

Floating objects have been used for centuries to enhance fishers' capacity to catch fish. Over the past half century, fishers have intentionally placed or modified floating objects, both natural and man-made, into the sea to attract fish with increasing frequency. Fish Aggregating Devices (FADs) now support thousands of fishing vessels all over the world. Two general categories of FADs are used, industrial and artisanal, which serve different user groups in somewhat different ways and the scale of operations and objectives are different. Industrial-scale FADs are anchored or drifting objects that are put in the ocean to attract fish. Tuna and other fish gather around FADs, which makes it easier to find and catch them, and so increases a fisher's capacity to catch fish. While FADs attract species of interest to the tuna fleets, they also draw in non-targeted marine life, such as sharks and other bony fish. Developing methods to mitigate the impact of FAD fishing on non-targeted, by-catch, is an active research area. Since the early 1990s, the use of FADs for tuna fishing has widely and rapidly expanded, especially for the purse seine fleet targeting tropical tunas: skipjack (Katsuonus pelamis), yellowfin (Thunnus albacares), and bigeye tuna (Thunnus obesus). A number of factors contribute to a vessel's increased ability to catch fish, especially those related to FAD fishing. Purse seine fishing in general, and especially in FAD fishing, has experienced a large number of innovations that have made fishing more effective over time. The application of tracking buoys are likely the most significant technological development that has occurred within the last 20-30 years for increasing the efficiency of FAD fishing for tuna

There is no strong evidence that the use of FADs necessarily leads to overfishing of the tunas although harvesting large amounts of certain small tunas (e.g. bigeye or yellowfin) can reduce Maximum Sustainable Yields and contributes to the overall condition of these stocks, which are also harvested by other fisheries having impact (e.g. longline fishery). While the tropical tuna stocks impacted by FAD (and other) fishing are mostly in healthy condition, further increases in fishing pressure could well change that picture. Unabated, the continued growth of FAD fishing for tropical tunas at the pace witnessed over the past few years would increase overall fishing pressure on these stocks. While all skipjack stocks are in healthy condition and could sustainably support some degree of increased fishing pressure (although skipjack in the western Pacific, Atlantic, and other areas may now be close to fully exploited), further increase in fishing pressure on bigeye and yellowfin stocks should be avoided. All sources of fishing mortality reduce spawning

biomass, either immediately or at some time in the future. A stock can be overfished by taking too many immature or too many mature fish, or both. All sources of fishing mortality need to be monitored and managed.

Research is ongoing on development of further mitigation actions to reduce impacts of FAD fishing on by-catch species, including sharks, turtles, small bigeye and yellowfin, much of it in collaboration with the fishing industry.

A number of Best Practices have been identified for use in purse seine fishing on FADs and these have been communicated to a broad range of vessel owners and skippers through workshops conducted across the globe. A broad acceptance and application of these practices should reduce the impact of FAD fishing on by-catch species and tuna Regional Fishery Management Organization's (tRFMO) have established some Conservation and Management Measures (CMM) to mitigate by-catch in purse seine FAD fisheries.

FISHERIES AND AQUACULTURE CERTIFICATION

Concerns about sustainability and the effectiveness of fisheries management on the part of the public have resulted in demand from Non-governmental organizations (NGOs), retailers and consumers for assurances that the food they purchase has been sustainably produced. This has led to a number of private entities responding to this demand by establishing eco-labels and certification schemes that claim to provide credible information to the consumer. These labels intend to serve the interest of fishers and processors who need to transmit positive information to the consumer to maintain their markets, and serve consumers by providing information not elsewhere available.

As certification and eco-labels become more prominent in the marketplace, finding the appropriate role for governments in their design and implementation has gained in importance. Even more so as NGOs and other groups see labels as an opportunity to promote their own agendas and seek to expand and influence the content of food labels.

For consumers, the bottom line is to be assured that the choices they make in the marketplace are responsible and sustainable. While the impact of certification on sustainability remains subject to debate, if certification results in healthier stocks, everyone benefits. Primary producer see reduced production costs due to increased catchability. The industry benefits from reduced resource and management risk, and

society as a whole benefits from moving to a greener growth path. These benefits can be very large relative to revenue in any season, and do not depend on receiving a higher price for certified products. Certification can also contribute to improved traceability of products, which is increasingly seen as a way to ensure public health, promote efficiency, and deter Illegal Unreported Unregulated (IUU) trade.

The proliferation of different eco-labels in the marketplace has led to concerns regarding consumer confusion, which weakens the effectiveness of the labelling effort. It also risks segmenting markets according to where different labels are in use. This raises concerns that retailers may "choice edit" what is available for consumers in a manner that is most profitable for them but may not serve the public interest and the policy objective of member countries. Moreover, multiple and incompatible certification systems and labels may prevent a level playing field for fishers and aquaculture producers and act as a barrier to trade.

SUSTAINABILITY FOR FUTURE GENERATIONS

‘For the next generation’ was a term repeated often, and it became increasingly apparent that many fishers were concerned for future sustainability and that fishing should remain an attractive occupation for the young.

Change appears to be most effective where fishers and the fishing industry are organized, have their voices heard and are involved in designing solutions to the challenges. It has often been the personal commitment of key players in the fisheries that has pushed through the changes. There will always be competing demands on a fishery, and one of the key challenges is balancing social, economic and environmental objectives. However, these numerous examples show that through clever design, realigning incentives and involving stakeholders it is possible to achieve objectives and mitigate impacts.

Each fishery is different, and there is no end point to the quest for sustainably managed fisheries. It may be the constant fight against IUU or the adaptation of management of environmental variation; in all cases sustainable global fisheries need investment in their future and participants.

ºWHAT IS SHARK FINNING?

Shark finning is the practice of slicing off the shark's fins while the shark is still alive and throwing the rest of its body back into the ocean where it can take days to die what must be an agonizing death. Some sharks starve to death, others are slowly eaten by other fish, and some drown, because sharks need to keep moving to force water through their gills for oxygen. Shark fins are used as the principal ingredient of shark fin soup, an Asian "delicacy". Demand for shark fin soup has rocketed in recent years due to the increased prosperity of China and other countries in the Far East. Shark fin soup, which can easily cost $100 a bowl, is often served at wedding celebrations so that the hosts can impress their guests with their affluence. Because there is such a high demand for shark fins, traders can make a lot of money from shark fin, but it is the restaurant owners who really "make a killing" in this foul trade.

Fishermen are only interested in the fins because shark meat is of low economical value and takes up too much space in the hold. It also contains urea, which turns to ammonia once the shark has died and contaminates other fish.

Shark fin itself is tasteless, it just provides a gelatinous bulk for the soup which is flavored with chicken or other stock. Many people, especially the consumers, are unaware of the suffering that finning causes