WWF *for a living planet*®

Legislative Council Panel on Food Safety and Environmental Hygiene Meeting on 8 March 2011

WWF's Submission

I. Introduction

WWF welcomes the ban on all trawling in Hong Kong waters as announced in the Chief Executive's latest Policy Address. Banning trawling and banning commercial fishing in Marine Parks are two key measures that together will provide a major boost to revitalizing fish stocks, fisheries and conserving Hong Kong's marine life. Trawling is widely acknowledged as the most destructive legal fishing method used globally, and has turned much of the Hong Kong seabed into a wasteland (see pictures in Appendix 2a-2c). The policy will also largely remove a major threat to the continued survival of the Chinese white dolphin in Hong Kong, i.e. diminished food supply due to overfishing.

A report conducted by the University of British Columbia (UBC)[1] Fisheries Centre in 2007 indicates that HK$1.3 to HK$2.6 billion economic benefits can be generated over the next 25 years from fisheries and marine recreation if Hong Kong adopts sustainable fishery management practices (see Appendix I for key findings of the UBC report). A healthy sea full of fish once again will have numerous benefits to the fishing community and Hong Kong society. What Hong Kong needs now is the Government's commitment to help facilitate the reformation of the fishing industry, especially in easing the transition for the trawling fishermen most affected, by providing sufficient resources, regulatory support, and facilitating alternative livelihoods.

WWF also welcomes the other fisheries management measures such as registration system for local fishing vessels, limiting the entry of new fishing vessels and the designation of Fisheries Protection Areas (FPA) listed in the LegCo paper (CB(2)1197/10-11(03)) released on 3 March 2011. These are critical measures for

[1] U.R. Sumaila, W.W.L. Cheung and L. Teh (2007) Economic Impacts to the Fishing Industry and Society. Rebuilding Hong Kong's Marine Fishery – An Evaluation of Management Options. University of British Columbia Fisheries Center.

achieving sustainable fisheries management, and very much in line with international best practice.

Society is ready and supportive of a fundamental shift away from the industrial exploitation, pollution, dumping and other mistreatment of the sea around Hong Kong that have marked the past fifty years. The coastline, islands and sea itself are instead increasingly being valued as a playground for an increasing array of watersports and ecotourism. Some 58,000 people signed WWF's petition in 2008 calling for the banning of commercial fishing in Marine Parks and the introduction of sustainable fisheries management.

II. Ecological and Social Benefits Arising from a Healthier Sea

A trawl ban together with no-take Marine Parks (and Fisheries Protection Areas) have been scientifically demonstrated to be the most effective measures for restoring the devastated marine ecosystem in Hong Kong. The fishing industry as well as the eco-tourism industry in Hong Kong will benefit from these two measures in the short - long term. According to the UBC report, there will be major increases in the biomass and catch of the major indicator groups after the implementation of the trawl ban and no-take Marine Parks).

a) Increase in biomass

Biomass of reef fish, non-reef fish and pelagic fish groups will benefit most from the measures, with increases ranging from 20-200% from the *status quo*, after 5 to >10 years.

Fisheries Group	**Short Term Effect (~5 years) (compared with the *status quo*)**	**Long Term Effect (10-20 years) (compared with the *status quo*)**
Cephalopods e.g. squids and cuttlefish	~35% increase	~10-30% increase
Reef associated fish (all size) (e.g. wrasse, snappers, groupers)	~20% increase	~150-200% increase
Non-reef associated fish (medium to large size) (e.g. groupers, flatheads, croakers)	~40-70% increase	~40-80% increase

b) Changes in catch

The trawl ban will result in reduced catches of shrimps and small/medium pelagic fishes in both the short and long term. However, catches of cephalopods (such as squids and cuttlefish), larger reef and non-reef associated fish, plus the large pelagic fishes will increase from 10-200% above the *status quo*, after 5 to >10 years.

Fisheries Group	**Short Term Effect (~5 years) (compared with the *status quo*)**	**Long Term Effect (10-20 years) (compared with the *status quo*)**	**Sectors which can be benefit directly from the change**
Cephalopods e.g. squids and cuttlefish	~40% increase	~10-20% increase	• Purse seine sector • Recreational squid/ cuttlefish jigging fisheries
Reef associated fish (all size) (e.g. wrasse snappers, groupers)	~10-20% increase	~150-200% increase	• Small scale fishing sectors (e.g. P4, gill netter) • Recreational fishing • Diving industry
Non-reef associated fish (medium to large size) (groupers, flatheads, croakers)	~30-45% increase	~45-60% increase	• Small scale fishing sectors (e.g. P4, gill netter) • Recreational fishing
Large pelagic fishes (e.g. jacks, Spanish mackerel)	~25% increase	~15-20% increase	• Small scale fishing sectors (e.g. P4, gill netter) • Recreational fishing

c) Social Benefits

In general, a trawl ban combined with no-take Marine Parks, is predicted to result in the largest biomass and catch increase for most fish groups in the long term. All the measures will effectively help restore the fish stocks in the sea, and greatly benefit the remaining small-scale fisherman, diving and recreational fishing sectors (see tables above).

III. Policy Changes Required to Support the Transition to Sustainable Fisheries in Hong Kong

Policy and Alternative Livelihoods

- Hong Kong needs to have a long-term vision to develop sustainable fisheries within the context of coastal resource management, and create economic, social, cultural and environmental opportunities in relation to it.
- Hong Kong's Geoparks are an excellent example of a high-level policy initiative that has opened the doors to new kinds of employment. Banning fishing in Marine Parks is another, as the UBC report estimates this will cost HK$73 million yet will benefit Hong Kong to the tune of around 1.5 billion, with 150 new jobs created.
- A limited number of local residents and marine fishers, who initially opposed the Marine Parks, are now benefiting from increased eco-tourism and are making a better living, for example at Tung Ping Chau Marine Park.
- Numerous cases already exist within Hong Kong of fisherman who successfully transitioned from the fishing industry to other forms of marine employment (e.g. recreational fishing, boat operations).
- However, various government departments have imposed different types of restrictions that obstruct such changes. (e.g. complicated administrative procedures to convert fishing boats into passenger-carrying boats).
- A comprehensive plan to join the existing gaps between the needs of fishers and other local tourism industries (e.g. diving, leisure fishing, dolphin watching etc.) is needed so that the government can carefully evaluate the resources and policy changes required.

Registration and Enforcement

- Fishing vessel registration is a prerequisite to being able to limit the amount of fishing carried out in Hong Kong waters.
- A greater law enforcement capability at sea will be necessary to stop illegal fishing (i.e. fishing boats from China) in Hong Kong waters, and allow recovery of fish stocks and the marine ecosystem.

Sustainable Fisheries Funding Scheme

- The benefits of sustainable fisheries management to fish stocks and the fishing community may be undermined by infrastructure developments, particularly where reclamation covers fishing grounds. The Committee for Sustainable Fisheries has proposed a "Sustainable Fisheries Funding Scheme", which would in some way compensate for developments which negatively impact fisheries.

- The Scheme is a new idea and one sincerely welcomed in principle by WWF as it should stimulate local fisheries research, pilot studies, and/or workshops etc particularly in the areas of mariculture, recreational fishing and eco-tourism which are badly needed and almost non-existent at present.

Monitoring of Fishery Resources

- Information on the stocks, fishing effort, catches etc is of paramount importance to manage and maintaining a sustainable fisheries. It is advisable to set-up an expert advisory group or contract an expert consultant to design a fisheries monitoring programme to collect the necessary data for management.
- Data should discriminate by species, area, fishing method, effort, and report sizes, sex rations, age etc. to determine trends in the populations. In addition, a variety of surveys must be conducted to measure the biomass available for the different species to help set fishing limits. Details of catch data are necessary not just for the fisheries management, they will also allow for more accurate calculations of ex-gratia payments, which could potentially save taxpayers money.
- Information collected from the monitoring programme would be useful to help evaluate the effectiveness of the implemented fisheries management measures in the long run.

Preservation of the Culture of the Fishing Community

- The traditional fishing community, and its attendant traditions and culture form an important part of the fabric of Hong Kong, and should be preserved. A transition to sustainable fisheries management will not only support the preservation and promotion of the fishing culture, but with Government investment, create new cultural alternative livelihood opportunities.

Yours sincerely,

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APPENDIX 1 - KEY FINDINGS FROM THE UNIVERSITY OF BRITISH COLUMBIA STUDY (COMMISSIONED BY WWF IN 2007)

General

- Most fishers are barely earning a living, primarily as fish stocks are exhausted and fuel costs high.
- 54% of the fishing community are willing to switch away from fishing jobs.
- 75% are willing to have the vessels bought out of the fishery by government for a reasonable price.
- A trawl ban together with no-take Marine Parks (and FPAs) are the most effective measures for restoring the depleted ecosystem
- The greatest long-term economic benefits come from prohibiting fishing in Marine Parks, and a ban on bottom trawling. These result in overall benefits to the fishing community of HK$ 600 million and to society of HK$ 2.3 billion
- Up to 150 jobs created from stopping fishing in Marine Parks – from recreational fishing, diving and marine related tourism only

On fisheries resources

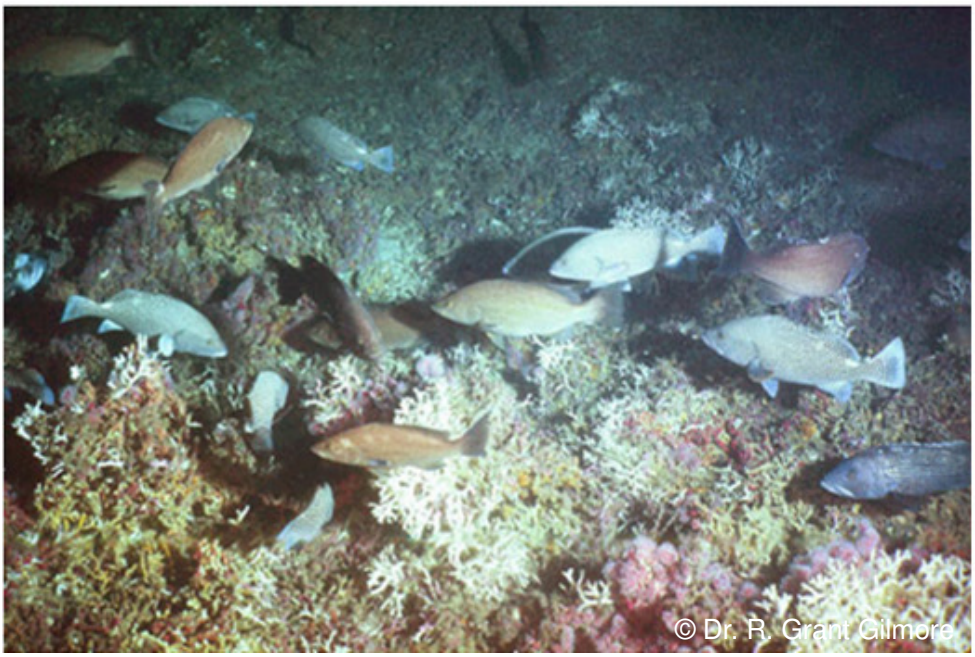
- Territorial-wide trawl ban is predicted to have a positive impact on the abundance of cephalopods, and 20-40% increase in biomass from the status quo). Cephalopods have a high recreational value through the recreational squid/ cuttlefish jigging fisheries. and passenger boats operators, especially in the Port Shelter area.
- Biomass of large pelagic fishes increases the most (over 30% from the status quo) in scenarios with territorial-wide trawl ban in 5, 10 and 25 years
- With a territorial-wide trawl ban, the non-reef fish catches increase up to 40% from the status quo. This would favour the P4 and miscellaneous fishing sectors.
- Most trawl sectors have lower profitability than small-scale sectors – a territorial wide trawl ban will enhance profitability.
- The annual catch of the fisheries in Hong Kong waters represents only about 10% of the total catch from the Hong Kong fleet.

Eco-tourism related

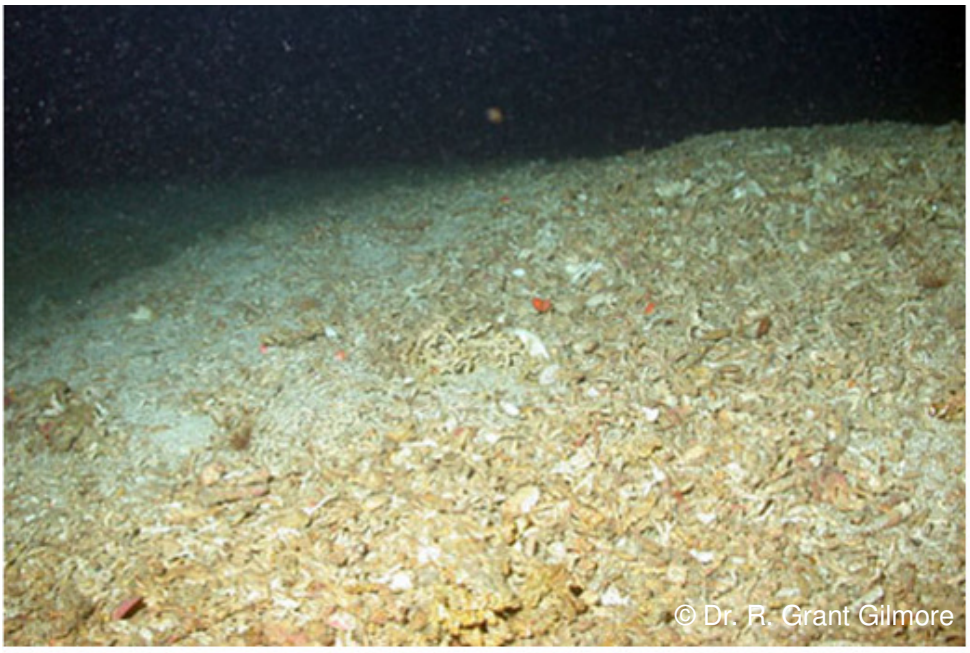
- The potential spending from overseas visitors on marine-related ecotourism is estimated to be HK$ 4.67 billion per year, of which, HK$1.0 and 0.53 billion goes to the accommodation and food sectors, respectively.
- The alternative livelihood survey estimated the total revenue from recreational fishing, scuba diving and marine-related tourism operators in Hong Kong to range from HK$ 121 to 816 million per year.

Appendix 2a – Photographs showing local trawl catches, which are mainly composed of dead seashells and crustaceans of small size. The average weight of fish caught in trawl nets these days is less than 5g.

Appendix 2b – Photographs showing the seabed of Oculina coral reefs off Florida's Atlantic Coast before and after trawling.



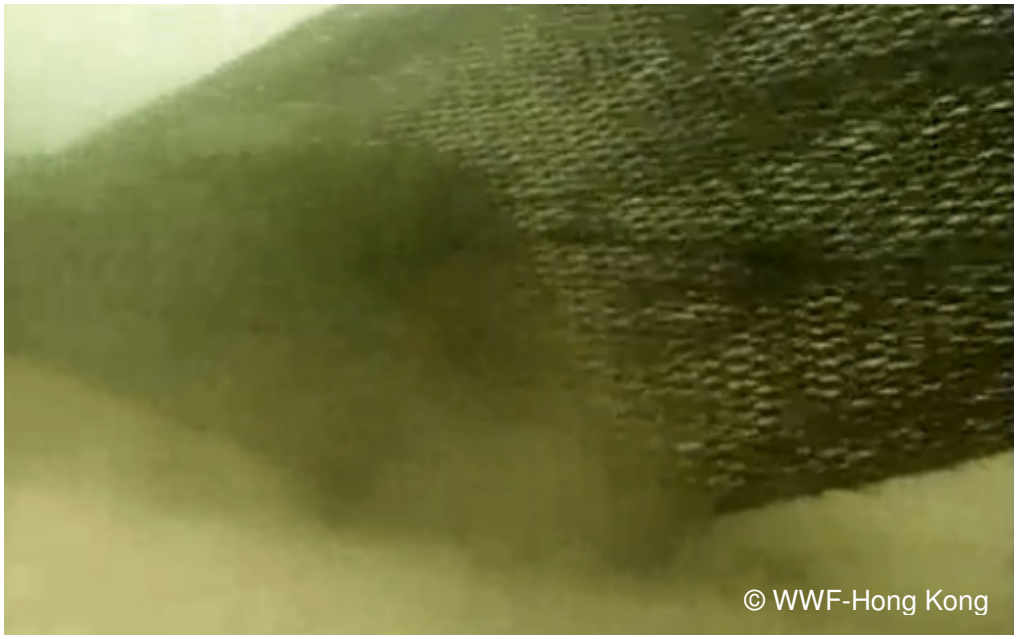
Groupers and corals were abundant before trawling.



Trawling has nearly eliminated the corals and large fishes in this ecosystem.

Appendix 2c – Photographs showing the seabed in various areas of Hong Kong that trawlers cannot reach.

Vibrant marine benthic communities with various species of corals, sponges and cucumbers can be found in the areas where trawling cannot be operate or are prohibited (e.g. Marine Parks). The living habitat forms important breeding, nursery and foraging grounds for many marine species of fish and invertebrates.



Like clear-cutting a forest, the heavy net towed by the trawler is devastating to corals and sponges growing on the seabed. Such cleared habitats can take decades to recover.