

Policy Brief

Towards the Adoption of Circle Hooks to Reduce Fisheries Bycatch in the Coral Triangle Region

WWF Coral Triangle Programme

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Executive Summary

The incidental catch of non-target species in longline fisheries remains a serious problem in the Coral Triangle. For marine turtles – species already officially listed as either endangered or highly endangered – their continued mortality in longline fisheries in the region represents an urgent conservation and management issue. It also represents a major economic imperative in terms of the growing marketplace demands for responsibly-caught seafood and the current inability of the longline industry to meet this demand.

Measures exist to effectively mitigate impacts on marine turtles in longline fisheries, with relatively few (if any) negative economic impacts on fishing communities. Studies have confirmed that the use of “Circle” or “C” hooks – hooks which are sharply curved back in a circular shape – can reduce the hooking rate of marine turtles by as much as 80 percent compared to traditional longline hooks, leading to significant reductions in mortality rates. “C” hooks have also been found to be less prone to swallowing compared to traditional hooks, improving post-hooking survival of marine turtles. In over half the studies surveyed, the use of “C” hooks led to a higher catch rate of target species compared to traditional hooks, while in most of the remaining studies the catch rates for target species were comparatively the same. It is strongly indicated that “C” hooks – due to their tendency to hook in the mouth and thus increase post-hook survival times of the tuna themselves – lead to harvesting of fresher, better quality tuna and ultimately higher quality seafood products.

The above figures and considerations, coupled with estimates of fishing level and activity in the region, suggest that tens of thousands of marine turtles are killed each year in the Coral Triangle by longline operations. It is estimated that less than five percent of longline operations utilize “C” hooks, which translates into a reduction in the number of hooked marine turtles of about 1,000 individuals annually. The corollary implication then is with widespread use of “C” hooks in these fleets, *tens of thousands of marine turtles would be saved annually in the region.*

The positive benefits of “C” hooks are unequivocal and largely unanimous. Yet despite their proven efficacy, these hooks have yet to become the standard in the region, where older technology – the more traditional “J” hooks (and similarly shaped hooks i.e. “Japan tuna hooks” and “Terashima” hooks, etc.) – remain entrenched as the hook of choice for most fishers. Given the longstanding and global recognition of the perilous condition of marine turtle populations, the many important ecosystem services they provide, and their iconic status worldwide, the slow transition to “C” hooks is as surprising as it may seem unacceptable.

The continued prevalence of traditional “J” and Japan tuna hooks may stem from a variety of factors, including misconceptions regarding “C” hooks. Undoubtedly, the front-end cost of converting to “C” hooks remains a major obstacle, even though such costs would be largely outweighed by their benefits to economic sustainability and conservation for the fishery. At a more fundamental level, the lack of regulatory measures requiring their use is a clear obstacle to their implementation.

Failing to adopt “C” hooks represents a clear impediment for any longline fishery to ever become sustainable. Considering the likely beneficial economic benefits of “C” hooks and their proven history in providing “win-win” scenarios, it is also a lost opportunity.

Ten specific conclusions are elaborated, namely that:

1. “C” hooks are widely effective in reducing both marine turtle encounters and mortality rates.
2. “C” hooks are unlikely to negatively impact target catch or other threatened species, thus fisheries using them can remain viable.
3. “C” hooks provide the most direct, demonstrable and effective means of ensuring that targets towards the reduction of bycatch mortality are being met.
4. “C” hooks are good for business and can provide a “win-win” solution for industry and governments.
5. Progress in “C” hook adoption has been significant but still insufficient.
6. The use of appropriate bait, de-hooking and turtle rescue techniques, as well as onboard observers, are important components of the bycatch mitigation tool kit.
7. The continued application of tariffs and/or import tax on “eco-friendly” fishing gear and equipment remains a confounding obstacle to reducing bycatch impacts on marine turtles.
8. The inclusion of “C” hook transition programmes as part of government support programmes offer an opportunity to provide “positive” subsidies.
9. Regulatory provisions for transition to “C” hook use (mainstreaming) is urgently required.
10. The full transition to the utilization of “C” hooks is practical and achievable.

In reviewing and assessing the “C” hook implementation gap, this policy brief has mapped out and described a general process for a transition to full “C” hook utilization that is both practical and effective in achieving more responsible fisheries and in protecting marine turtle populations. Finally, based on these results and conclusions three main policy recommendations are presented, namely:

1. Develop, enact and implement clear regulatory provisions for the transition to “C” hooks and the mainstreaming of their use as an industry standard.
2. Remove tariff and import tax for “C” hooks and related equipment.
3. Devise and implement national *Action Plans* for a phased transition to “C” hooks.

Recommendations

Flowing from these conclusions and all evidence available, WWF and the indicated endorsers of this policy brief offer the following recommended policy options for national and regional government bodies within the Coral Triangle region:

1. **Develop, enact and implement clear regulatory provisions for the transition to “C” hooks and the mainstreaming of their use as an industry standard.**
 - i. Identify enabling legislation and responsible management bodies
 - ii. Draft regulatory provisions mirroring/aligned with the proposed regional Conservation and Management Measure for marine turtles under the WCPFC
 - iii. Conduct a series of public consultations with fishing communities and seafood supply line actors to communicate the benefits of “C” hook provisions, address concerns, and develop fleet-wide Action Plans in a participatory manner with stakeholders

2. Remove tariff and import tax for “C” hooks and related equipment

As evidenced by the 2010 Coral Triangle Fishers Forum, many stakeholders involved in “C” hook use and expansion report that import tax or tariffs on hooks and other related gear (such as de-hookers and equipment for bycatch experimentation) have created a significant obstacle to field programmes, trials and private sector projects. The differentiation of “C” hooks in customs offices and the removal of all tariffs in close cooperation with national trade and customs agencies would go a long way to ensuring that existing programmes meet their fullest potential.

3. Devise and implement national *Action Plans* for “C” hook transition

Action Plans could include the identification of priority fleets or areas to begin efforts. Steps would include rigorous data collection, categorization of the fleet, deployment of trials concurrent with expansion of observer programmes, and identification of an

optimum mitigation package for each category including circle parameters (hook size and best practices guidelines) and research protocols. Resources for making “C” hooks, rescue kits, guidelines and observer programme training programmes readily available should be concurrently mobilized. The Coral Triangle Fishers Forum is proposed to serve as an information clearinghouse and as a monitoring function for measuring and reporting progress in national implementation to all stakeholders. The Coral Triangle Seafood Savers programme can likewise provide a regional Business-to-Business platform for developing new partnerships and resources for “C” hook use across the seafood supply chain.

For more information

Download the full brief: <http://wwf.panda.org/coraltriangle/bycatchpolicybrief>

Find out about the WWF Coral Triangle Programme’s Bycatch Strategy:
wwf.panda.org/coraltriangle/bycatch