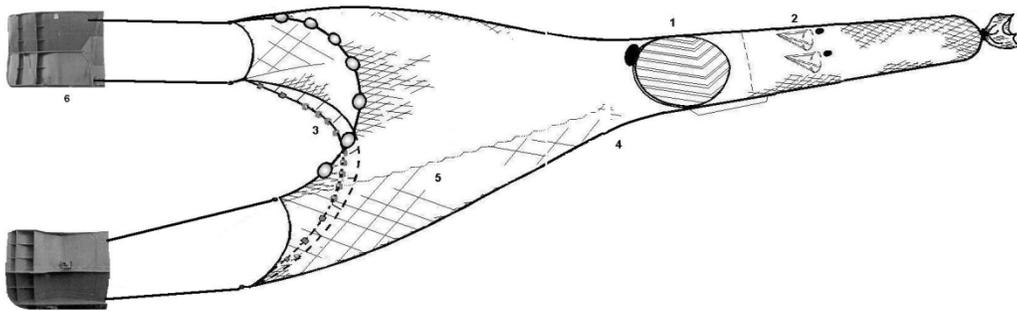


The RS-INP shrimp trawling prototype¹: The best technology for replacing shrimp drift gillnets in the Upper Gulf of California.

The RS-INP trawling prototype for shrimp trawling significantly differs from the traditional trawling systems used in the Gulf of California (Mexico's most important fishery region and a global center for biological diversity) and represents a better and much more environmentally friendly option. The RS-INP prototype design is available for artisanal and industrial fishing operations, varying its dimensions, but conserving its configuration.



- 1) "Super Shooter" turtle excluder device.
- 2) "Fish Eye" bycatch reduction devices.
- 3) Double tensioned footropes with rollers and light steel chain.
- 4) Spectra® mesh material.
- 5) Progressive reduction in mesh size along the net body.
- 6) Hydrodynamic trawl doors.

The RS-INP prototype offers reduced impact to the seabed. The use of Spectra® mesh material significantly reduces the weight of the gear. Its industrial version requires weights lighter than 30 Kg per net and the use of small hydrodynamic trawl doors (e.g. 3m² instead of 5m² in the industrial version) maximizes the spreading of nets and reduces the seabed plowing in 60% (45kg instead of 360kg in the industrial version). Hydrodynamic trawl doors for pangas can be constructed by artisanal blacksmiths.

The lighter gear weight reduces water resistance and fuel consumption by up to 50% during trawling operations.

The RS-INP prototype is a highly selective trawling gear that reduces bycatch by means of a progressive reduction in mesh size along the net body (from 4" up to 1/4" in the

¹ The RS-INP prototype has been developed by INAPESCA over the past 20 years. Before 2007, INAPESCA undertook experimental assessments only with the industrial shrimp fleet from the southern Mexican Pacific. In 2007, INAPESCA and WWF performed joint assessments with artisanal and industrial shrimp fleets from the Gulf of California, confirming its technical merits (see <http://www.wwf.org.mx/wwfmex/descargas/rep-tec-RS-INP-INAPESCA-WWF-1030.pdf>). The RS-INP prototype reached the final judging rounds of the 2009 International Smart Gear Competition. In 2010, CONANP adopted it as technical option for massively replacing shrimp drift gillnets at the Upper Gulf of California.

industrial version), allowing the escape of juvenile organisms. Two “Fish Eye” fish excluder devices per net are used during the entire catch along with one turtle excluding device. The result is less shrimp damaged by compaction, reduced catch sorting times and 60% lower bycatch volumes. Two tensioned footropes with rollers allow the escape of benthic fishes, arthropods and mollusks.

Additional recent evaluations undertaken by INAPESCA, WWF and their partners have confirmed the good performance of the RS-INP for fishing blue and brown shrimp at the Upper Gulf of California. The recent political willingness demonstrated for considering feasible a next massive phasing out of drift shrimp gillnets by the RS-INP shrimp trawling prototype at the Upper Gulf has motivated INAPESCA, WWF and its partners to assess the economic performance of the prototype under typical conditions of the commercial fishing season.