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**--More boats in the oceans, but we cod be fishing more efficiently**

*Abstract: ---* Since the 50s, the number of boats in the oceans has vastly increased, and so has their power. The quantity of fish we catch? Not so much. This indicates that globally, we could manage our fishing activities a bit better.

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A large portion of the world’s population depends on marine fishing to maintain their way of life, whether from a diet, cultural or employment perspective. The action of fishing cannot be separated from one of its most basic technical elements: the fishing boat. At global level, even though institutions such as the United Nations’ Food and Agriculture Organisation have invested a significant amount of time and effort into broadening our knowledge on fishing fleets, much is still unknown of the number of boats accessing the oceans and more so on their impact on the marine life.

We have aimed to reduce this knowledge gap by collecting information on fishing fleets of (almost) all countries having access to the sea, and formulated a mathematical analysis to fill in the gaps and determine the size (motor power) of the world’s fishing fleet. One specific aspect, which had been overlooked in previous studies and could be at the base of some of the uncertainties, is that we considered fishing fleets to be composed of 3 distinct elements: industrial boats, artisanal (with a motor) and artisanal (without a motor). Estimating them separately for each country allowed to vastly reduce the error.

We found that, since 1950, the number of boats in the oceans has more than doubled, from 1.7 up to 3.7 million. The increase is that much more dramatic in the artisanal (motorized) fleet of the world, which represents now the majority of boats in numbers. At the same time, motors kept on becoming more efficient, and the pressure that fishing fleets put on the ocean (fishing effort) increased.

Unfortunately, fish population did not recover as fast as the fishing fleet was becoming bigger and more efficient, and that led to worldwide reductions in the efficiency of the fishing activity: we are spending way more time at sea than we used to, but comparatively are catching as much fish, if not less. This could become a problem, as many people rely on fish simply to survive, and motorization and fishing technologies keep on increasing. At this rate, drastic measures are required from fisheries management, at local, national and international level, to ensure that we can maintain our impact on the oceans at sustainable levels. Some of these shifts in management are already observed, particularly in Europe and North America, but the change needs to be widespread to ensure that we keep having access to oceans’ resources.