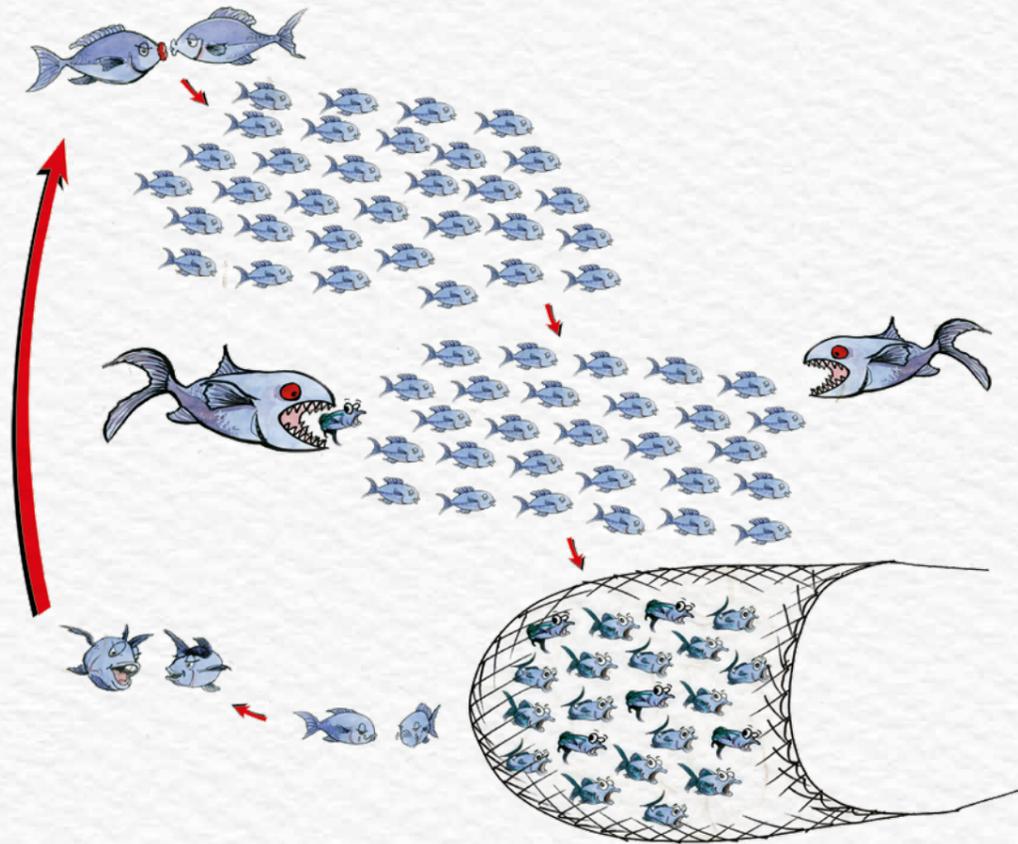


IT'S A NUMBERS GAME



Fishing is a numbers game. Fish need to be able to reproduce themselves at least as fast as they are taken out of the water. If not: NO FISH! Put simply, if enough fish are left behind to allow the fish to recover their numbers, fishing is said to be SUSTAINABLE.

Here two fish meet, mate and reproduce. Their young, called fry, are caught by other fish and by humans. Fish usually have lots of fry so that enough survive to the next generation. However, fish did not count on modern technology. It takes millions of years of evolution to develop food chains and ecological balance. In just a few tens of years industrial humanity, with huge nets, massive fishing boats, and modern fish-finding techniques have totally altered the marine environment. The human predator is just too effective. Fish have no time to catch up.

Once upon a time, it was said: *'If you give a man a fish you feed him for a day; if you teach him how to fish, you feed him for a lifetime'*.

This is no longer true. Fish stocks (i.e. the numbers of fish in the sea) are running out. The reasons are two fold.

1. Firstly, there are now far more people than ever before - 7.8 billion people in fact. Seven billion is seven thousand thousand thousand. So the total is 7,800,000,000 (2021). It is difficult to describe in words how many people that is. Needless to say, it is a lot, and the number of people is increasing all the time. More people means more need for fish. Not only that, but with international transport of foodstuffs, people all over the world are eating more fish.
2. Technology has also increased our ability to catch fish. Very often, traditional fishing practices, using nets or hooks, are sustainable. Modern fishing by big companies involves using nets as long as 133 elephants! Lines are placed in the water one hundred kilometres long. It would take a man a day and half of non-stop walking to reach the end of this line.



Big factory ships travel all over the world fishing in different waters, chasing the same fish. Because no one owns the fish, they suffer from something known in economics as 'THE TRAGEDY OF THE COMMONS'. A common resource is shared by many people. No one person or family are responsible for it; it does not belong to any one in particular. This can be a very good thing as many people get to share in it. However, common resources suffer from over-exploitation.

This is because people feel that if they do not take as much as they can, someone else will. There is no point being careful or planning for the long term because tomorrow there will be none left. This is of course especially true when people come from other countries to fish in foreign waters. Tragedy of the commons can be changed into delight of the commons if people share well.