MARINE PROTECTED AREAS

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The case of Cabo Pulmo

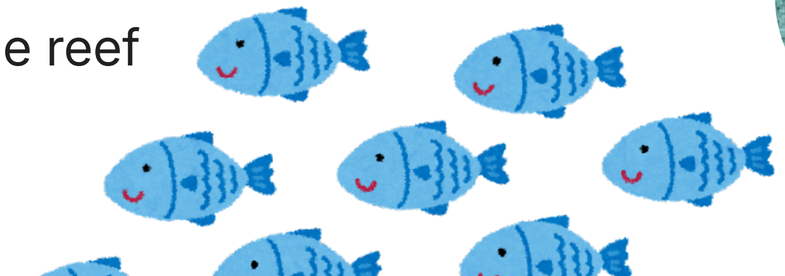
A thriving fishing village before overfisihing destroyed their livelihoods





SOLUTION ⟶ Marine Protected Area

- Strict conservation rules were put in place by local residents
- Commercial fishing was banned
- Scientists were invited in to monitor the reef



Marine Protected Area





- The marine park was established in 1995
- Zone of only 27 square miles
- No fishing policy

After 20 years it's having an effect on a far greater area

The Spillover Effect

The "SpillOver" Effect



Recovery



Marine life slowly returned, and biodiversity exploded across the entire protected zone

Biomass



The total biomass of marine life inside Cabo Pulmo increased

Spill-Over



As fish populations explode, they restor life beyond the park's borders

The Return of Bull Sharks



Top predator

- Control prey populations
- Remove sick and old animals
- Make the whole reef more productive



- Sharks are part of the most importants species on the reefs of Cabo pulmo

It’s a sign of a thriving and balanced ecosystem

A New Livelihood : Eco-Tourism





From Fishing to Tourism

- Economic benefits
- Diving industry
- Increase the human well-being of the Cabo pulmo community



Conservation brought millions of dollars a year to the local economy → It’s more than they ever made from fishing

Madagascar
A Different Challenge



In the village of Andavadoaka, over 90% of the population are small-scale fishermen, who depend entirely on the ocean to feed their family



The foreign demand for octopus grew

↓

Fishing became unsustainable

↓

Octopus stocks were in drastic decline



The seasonal closures

A total fishing ban was impossible because the community depended on it



New Solution :

- A seasonal fishing bans
- Stocks replenish themselves
- The community can fish sustainably

A innovative plan was needed





It works! Octopuses grow much larger during the rest period. Local fishermen now earns 90% more at market



The Bigger Threat Ahead



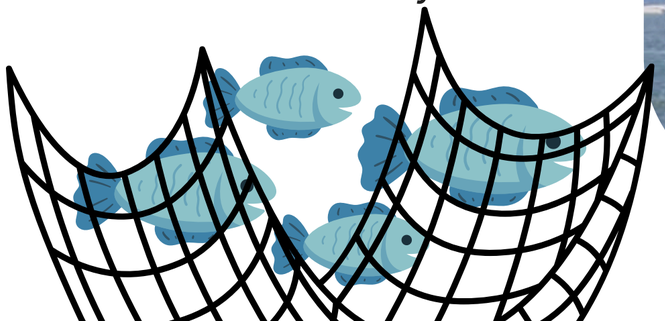
Foreign industrial fishing

One ship catches in a single year what a whole village catches in a year



In Madagascar, communities have created locally managed marine areas.

Only 3,6% of the ocean’s World are marine protected area. We need urgent action to protect 30% of the world's oceans by 2030.



The Bigger Threat Ahead

Protecting the ocean while allowing local people to earn a living.

- Unlike Cabo Pulmo, fishing could not be completely banned : more than 90% of the population depends on small scale fishing.
- The solution : seasonal fishing closures → octopus have time to grow and reproduce !
- When fishing reopens catches can be larger.
- Main idea : the ocean needs time to recover, but communities also need income.



Ocean protection + Community needs = finding a balance

Vocabulary

The economy and livelihoods

- Foreign demand → la demande étrangère
- Income → le revenu
- Livelihood → le moyen de subsistance
- Processing plant → une usine de transformation
- Marine protected area → Zone océanique protégée
- Spillover effect → Effet de débordement (quand les poissons repeuplent les zones voisines)
- Top predator: Superprédateur
- Biomass: Biomasse (quantité totale de matière vivante)
- Stock : Les réserves de poissons
- Human Well-being: Le bien-être humain

Verbs

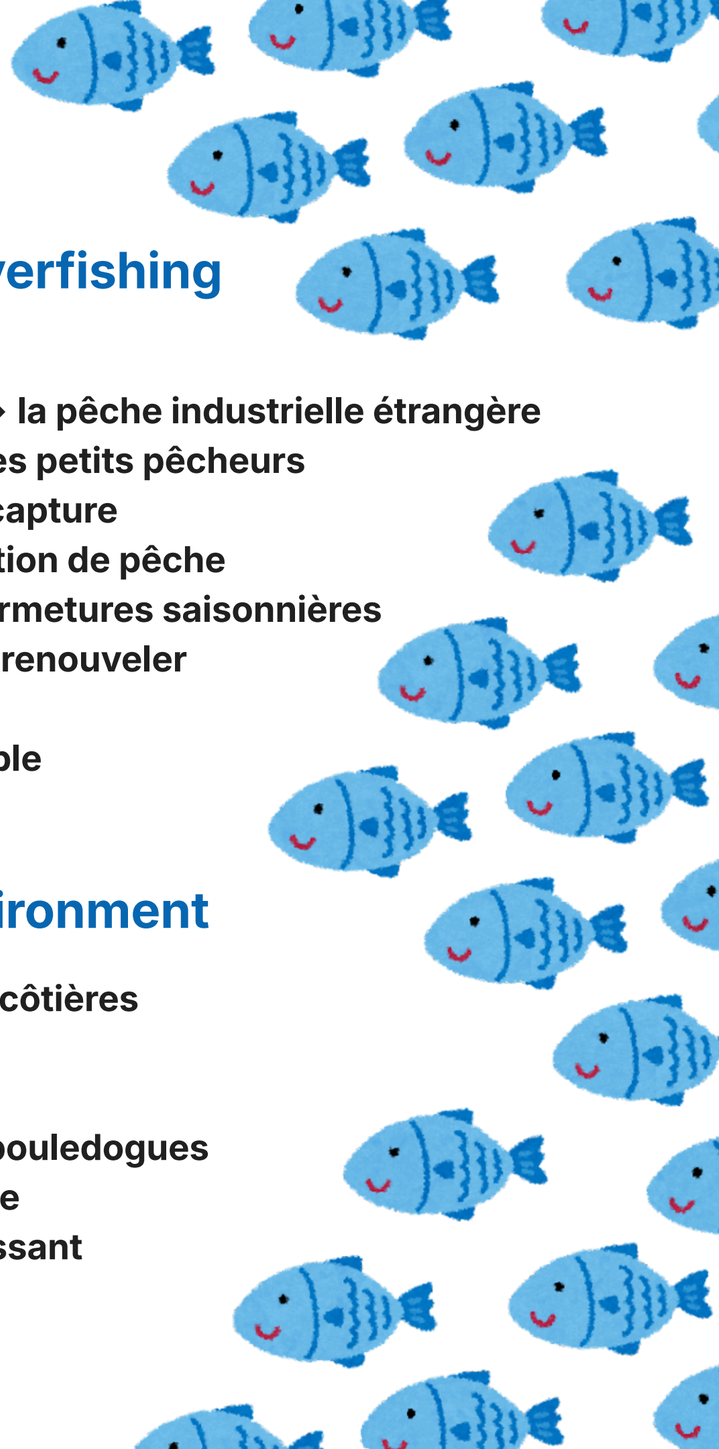
- To recover → récupérer / se rétablir
- To replenish → reconstituer / renouveler
- To monitor → surveiller
- To survey → étudier / enquêter
- To struggle → lutter / avoir des difficultés
- To dive → plonger
- To survey → étudier, enquêter

Fishing and overfishing

- Overfishing → la surpêche
- Foreign industrial fishing → la pêche industrielle étrangère
- Small-scale fishermen → les petits pêcheurs
- A catch → une prise / une capture
- Fishing ban → une interdiction de pêche
- Seasonal closures → les fermetures saisonnières
- Replenish → reconstituer / renouveler
- Sustainable → durable
- Unsustainable → non durable

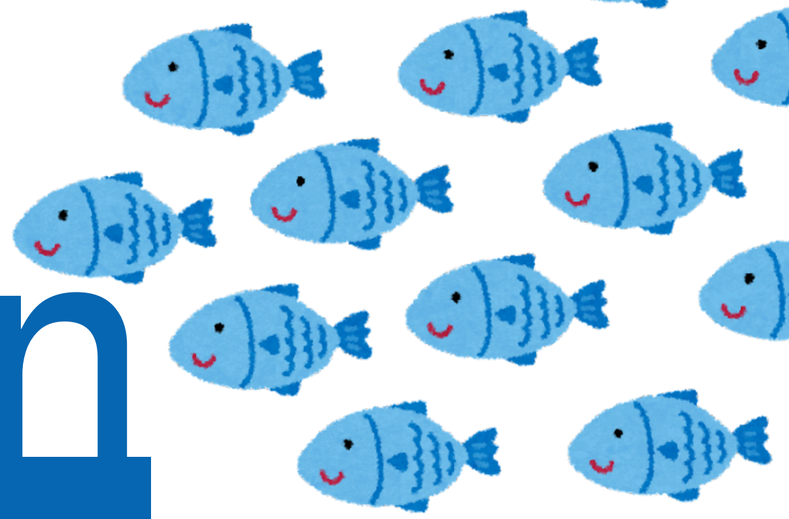
The sea and the environment

- Coastal waters → les eaux côtières
- Reef → un récif
- Octopuses → les poulpes
- Bull sharks → les requins-bouledogues
- Ecotourism → l'écotourisme
- Thriving → prospère / florissant



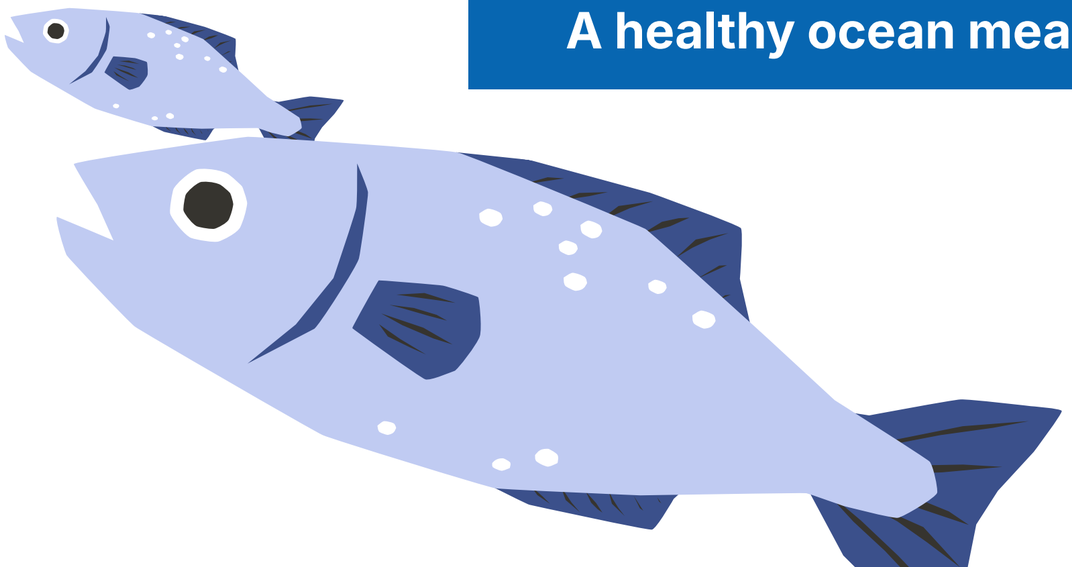


Conclusion



- Protect the ocean
- Let marine life recover
- Support local communities
- Find a balance between nature and fishing

The main idea:
A healthy ocean means a better future for everyone.

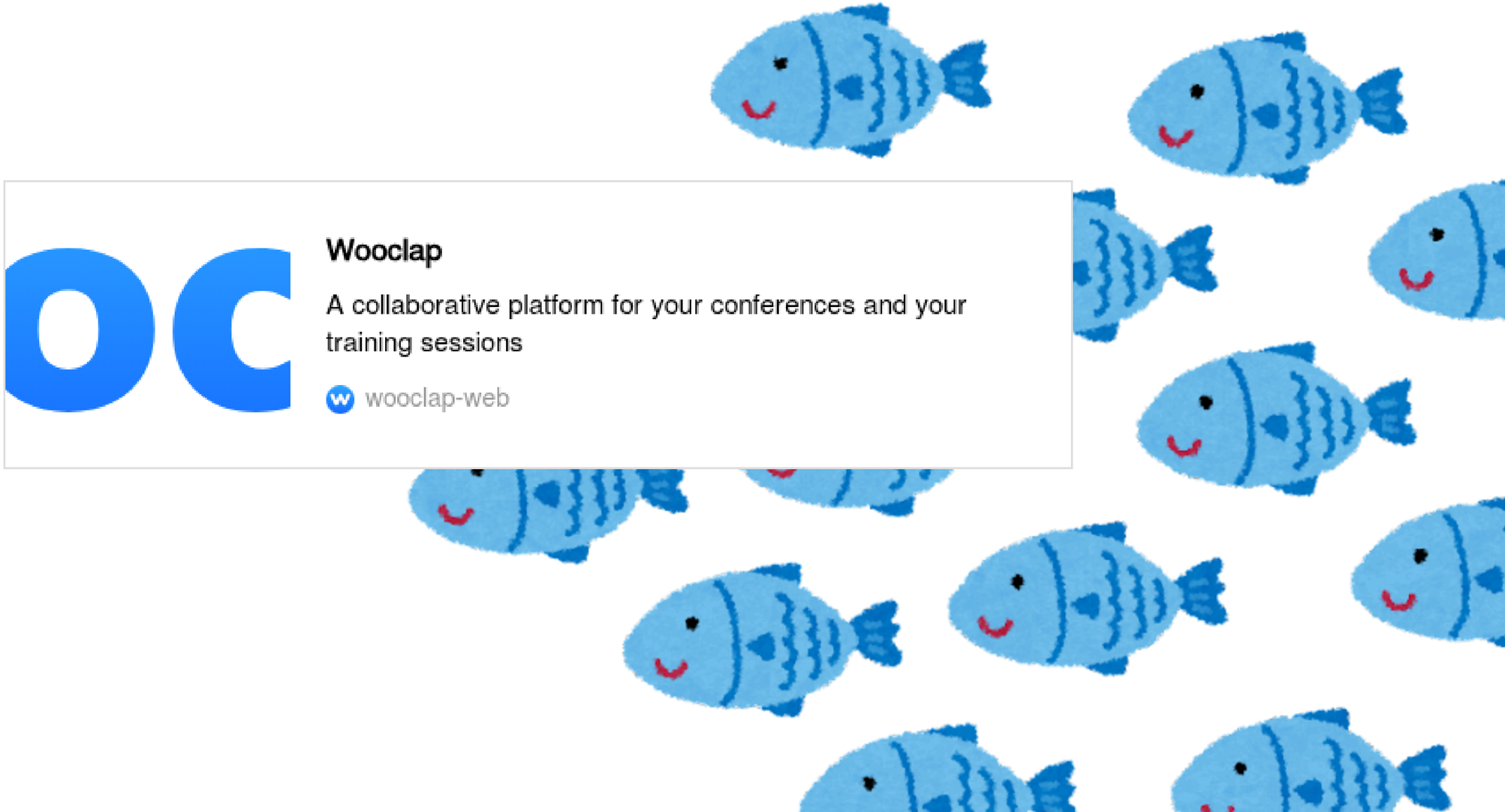




Time to watch the video and play a quick game!



Quiz Wooclap

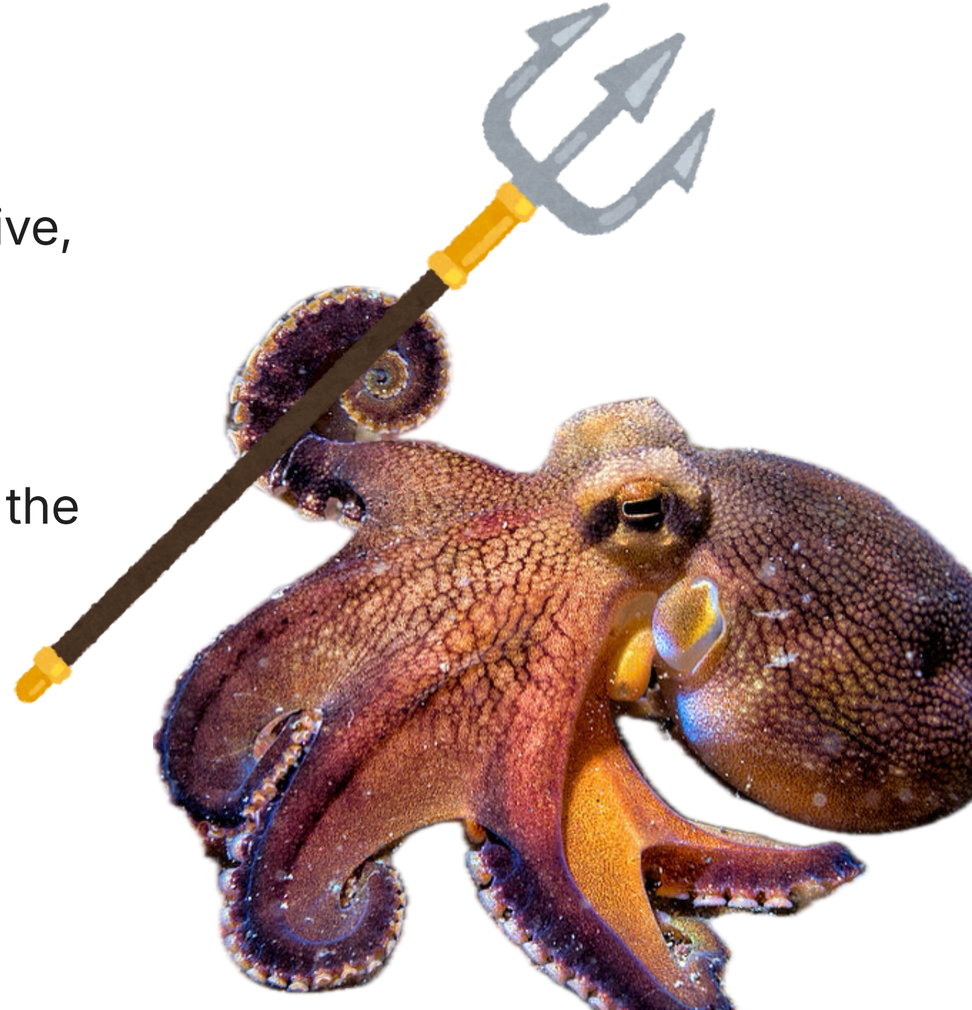


Rules of the game : Marine Guardians

In Marine Guardians, players step into the shoes of the team of scientists, villagers, and local fishers from Cabo Pulmo and Madagascar. Your goal: protect the ocean, help marine wildlife thrive, and fight against overfishing by using the vocabulary correctly!

Required Materials :

- A deck of Vocabulary cards (the words from the list written on the front of small slips of paper or cards).
- A timer (or one player's phone).
- A piece of paper and a pen to keep score (or tokens/buttons representing Biomass).

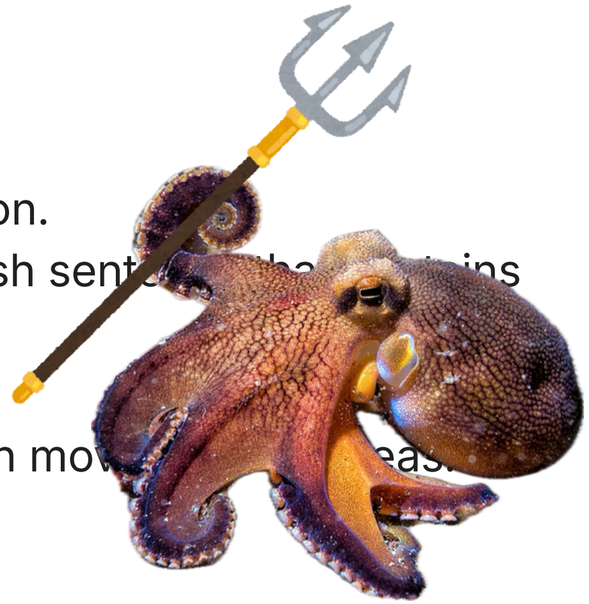


Rules og the game :

How to play ?

- Example: For "Bull shark" : "It's a top predator, very strong, lives in Cabo Pulmo and eats other fish."
- Points: +1 point for the person who guesses, +1 point for the person who explains.

- **Phase 2: The Scientific Project (Integrating Words into Sentences)**
- Goal: Use words correctly in a sentence related to the script or environmental protection.
- How to play: A player draws 2 cards at random. They have 45 seconds to form a English sentence that contains both words and makes sense in the context of the documentary.
- Example cards drawn: "Thriving" + "Spill over effect"
- Possible sentence: "When the marine park is thriving, the spill over effect helps the fish move to the seas."
- Points: +2 points if the sentence is relevant.



- **Phase 3 : The Conservation Pitch (Storytelling Under Pressure)**
- Goal: Improvise a speech as a marine biologist (like Professor Octavio) or a fisher (like Rusa).
- How to play:

1) The active player draws 4 cards and places them face up for everyone to see.
2) They have 1 minute to tell a mini-story or give a short awareness speech in English, incorporating all 4 words.

- Example cards: "Overfishing", "Livelihood", "Octopus", "Rest"
- Possible speech: "Overfishing destroyed our ocean, and the fishermen lost their livelihood. But when we give the sea a rest, stocks of octopus can recover!"

Points: +4 point per word correctly incorporated and used in context within the time limit