ENVIRONMENTAL SCIENCE JOURNAL FOR TEENS

Can science and business work together to save the ocean?

TEACHER'S KEY

Check your understanding

1 How does the seafood business potentially harm the ocean?

Answer

Companies might deplete stocks of fish and other sea creatures by overfishing. Also, the way they catch wild fish can have very damaging consequences for other marine life. For example, turtles are often caught in nets, and habitats are destroyed by ocean trawlers that rip up the seabed.

Fish farming also damages the ocean if not done responsibly. It produces waste which is sometimes released into the ocean. Farmed fish are often given antibiotics and these have a damaging effect on life forms both within the farms and in the ocean surrounding them. Farmed fish are different from wild fish and if they escape they can pose a threat to wild species.

2 What are some advantages of science and business working together to address how industry impacts the ocean?

Answer

Industry, especially the biggest companies, have a huge influence on the ocean and on other smaller companies operating there. If they are willing to listen to scientists, any changes they make can have great knock-on effects for large expanses of ocean. Industry works internationally so getting them on board with fishing sustainably potentially reaches many parts of the world. What's more, the companies themselves might be keen to work with scientists as they too recognise that they need sustainable fish stocks to keep running their businesses. If scientists can tailor their responses to the challenges the businesses face, then their actions will be better for the ocean and the planet as a whole. Ultimately, given what a huge impact seafood industry has on the ocean, we are not going to be able to address the problems without these companies' involvement.

3 What do you think some of the difficulties of working with big business are, from a scientist's perspective?

Answer

Scientists must seek to remain independent and not produce science to merely support business interests. This can be a hard balancing act when scientists need to build trust and a good relationship with companies in order to engage with them on environmental sustainability. Often the environmental scientists' agenda is not the same as a CEO's agenda (preserving the environment vs. trying to make a profit), and it can be hard to convince a CEO to do things which will limit his or her profits in the short term. Even when businesses are keen to do things to protect the environment, scientists may not have the authority to help them keep their promises.

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4 What are some of the issues that the seafood corporations hoped to address in their ocean stewardship agreement (SeaBOS)?

Answer

The use of forced labour, the use of antibiotics in the ocean, climate change, and illegal and unregulated fishing.

5 Can you think of any other contexts in which science and business could work together to limit industrial impacts on the environment?

Answer

Science and business working together is important in every environment where businesses use natural resources, whether land, plants, animals, or minerals under the earth's surface. Ultimately, all industries have an impact on the planet by using up resources and producing waste. For example, science and business could work together to address how farming damages surrounding wildlife and habitats, ultimately depleting the richness of the soil and limiting the ability to grow crops or provide food for farm animals.

6 What can you do to help protect our ocean?

Answer

Always buy fish that is certified as sustainable and/or certified as being farmed responsibly. Look into which species are currently under threat and avoid eating those. It's not just what we eat, though; it's what we put into the ocean as well. Plastics are a huge and growing problem in our ocean as they break down into smaller particles and enter the food cycle of marine creatures (ultimately ending up on your plate!). Reducing your use of plastics, especially throw-away items like plastic cutlery and eating equipment, can help less plastic end up in the ocean.