

Global fisheries: Internet research

Go to the Ocean World website: <http://oceanworld.tamu.edu/>

Go to “Fisheries” and complete the following:

1. Almost everyone enjoys seafood. But the cost of our favorite dishes is rising fast.

Today, _____ and destructive fishing practices threaten millions of jobs, global _____, and the health of the marine environment. At least _____ percent of the world's _____ most valuable fish species are overfished or _____. Eleven of the world's _____ most important fishing areas are in decline. Even the remote, windswept Southern Ocean around Antarctica is no longer safe from _____ and _____ fishing.

2. Scroll down the toolbar on the left to “Location of the world’s fisheries”. Examine the map showing the location of world fisheries. Describe this distribution pattern.

3. Describe the two spatial associations that are illustrated on this map

4. Using the toolbar on the left scroll to “The ocean environment as a food resource”. Examine the map “Chlorophyll a Concentration”: Describe the distribution patterns of phytoplankton in summer and winter. (You may need to enlarge these maps to obtain the full effect)

5. What spatial change over time is illustrated in these two maps?

6. What are the implications of these patterns for fishers and the managers of fisheries?

7. Complete the following: This is a physical/environmental factor affecting the location of fisheries and spatial change over time in fisheries.

PERUVIAN FISHERIES and EL NIÑO

One of the world's richest fisheries is off the coast of _____. In most years winds from the southeast push warm surface water away from the coast. In its place, _____ brings to the surface cold water rich in _____. These provide nourishment for the microscopic plants known as _____. Plankton normally provide food for a vast community of _____ and other fish. The fish in turn supply food for seabirds. Not only is the fish catch economically important, but the harvesting of bird excrement _____ provides a supply of valuable _____. Every few years the pattern of air circulation of the equatorial _____ changes in a way that affects oceanic upwelling. This weather condition is known as _____. During El Nino, upwelling brings up _____ water with few nutrients. A serious

_____ consequences of El Niño is its devastating effect on the Peruvian _____ fisheries. Populations of fish and seabirds vanish and anchovy catches dwindle during El Niño. Some biologists fear that the _____ of the anchoveta by humans, plus the eating of anchovies by large fish and seabirds, combined with the injurious effects of an intense El Niño episode, like the one in 1997-98, could reduce the anchoveta stock to such critically low numbers that recovery could be difficult. The 1972-73 El Niño caused a serious drop in the fish catch which took years to recover. Since then, the Peruvian government has worked hard to _____ fishing in their territorial waters. Fortunately they have been successful, and the fishery has recovered from even severe El Niños like the one in 1988-1989.

7. Which body made a response to this situation? _____

8. Using the toolbar on the left go to “Red Tides”.

What natural factor that can affect fish stocks is identified here?

9. What causes this outbreak and what are its effects?

10. Using the toolbar on the left go to “Overfishing: A Real Threat”. Read this section and complete the table.

Stages in a fishery	Impacts/effects
1. A fishery first opens.	
2. News of the fishery spreads.	
3. Fishing goes unchecked with few regulations.	

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11. Maximum Sustainable Yield is

12. Three examples of fisheries that have been overfished are:

(1) _____

(2) _____

(3) _____

13. Identify two factors that make the management of fisheries ineffective or difficult.

(1) _____

(2) _____

Using the toolbar on the left go to “Other factors...”.

14. What factor may affect global fishing in the future? What might the effects be?

Using the toolbar on the left go to “Helpful links”

15. What organisation is responsible globally for fisheries?

16. What are some of the policies that this body has adopted?
