

Reflection Answer Guide

Note: The reflection questions are meant to encourage students to think critically about what they have read. There are no right or wrong answers.

THINKING ABOUT THE ENVIRONMENT

What are some of the benefits forests provide to your community?

Students should answer this based on their own experience. Students may do this in groups or individually, or you may hold a class discussion. Students should think not only of nearby forests, but should also consider the benefits gained from forests more distantly located from the community.

INQUIRY 1

Describe the majority of forests worldwide. You can either use one or two categories to do this.

Just over half of forests worldwide are modified natural forests. These forests have native trees that have grown naturally. There is evidence of human activity in these forests, even though they have native trees that have grown naturally. A little over one-third of forests worldwide are primary forests. These forests also have native trees that have grown naturally and there is no visible sign of human activity in these forests. Therefore, over 80 percent of forests worldwide are made up of native trees that have grown naturally, and most of these forests show signs of human activity.

What are two major trends in the categories of forests?

The amount of forest with naturally-growing native trees is decreasing. The amount of forest worldwide that has been planted by humans is increasing.

INQUIRY 2

Do you think FAO found that Earth is gaining, losing, or keeping about the same amount of forests over time?

This question can be discussed as a class or in small groups. Whatever answer students

give, they should be able to back up their answer with logically-constructed arguments for why they answered as they did.

If more forests are lost than are being planted, what will happen to the benefits provided by forests?

The amount of benefit provided by forests will be reduced.

Why is it important to understand whether the amount of forest land world wide is shrinking, growing, or staying about the same?

Because forests provide benefits to people and other living beings. If we know that forests are shrinking in size worldwide, we can take action to stop that trend.

Look at Figure 17. Find the region and subregion where your home is located. How does your region or subregion compare with the rest of the world? Why do you think that is?

This must be answered individually by each classroom, group of students, or individual student. When giving reasons, the student should be able to support his or her claim with logical thinking.

Now compare cartograms 20 and 21 with the blue and green bars in Figure 17. What do Figures 17, 20 and 21 tell you about the forests in Asia?

Figure 17 shows that Asia lost forests from 1990-2000 (blue bars) but gained forests from 2000-2005 (green bars). This Figure doesn't say in which countries these changes have occurred. Cartograms 20 and 21 show that the greatest increase in forests has occurred in China, while many other countries in Asia are still losing forests.

INQUIRY 3

Reflection Section: Do you think Earth's climate could be changing due to human activity? Why or why not?

Students should be aware that the burning of fossil fuels by humans is causing the amount of carbon dioxide in the atmosphere to rise.

This rise in carbon dioxide is believed to be one of the major causes of global climate change. While most scientists believe this to be the case, some people believe the recent changes in weather patterns are not caused by an increase in carbon dioxide. Therefore, students should state what they think and be able to support their claim with a logically-constructed argument.

In Inquiry 2, you learned that more forests are being lost than are gained each year.

Now re-read the last sentence on page 19. Does that sentence make sense in light of what you know about the loss of forests? Why or why not?

It should make sense to students that if the amount of forests worldwide is decreasing, the amount of carbon held in the world's forests would be declining as well.

FAO scientists found that the amount of forests worldwide is declining. They also found the amount of carbon held by forests is declining. If, as most scientists believe, climate change is caused largely by an increasing amount of carbon dioxide in the atmosphere, what conclusion might you reach about the need for a greater or lesser amount of forest land?

Students should recognize that trees and forests play a role in holding carbon on Earth and keeping some of it out of the atmosphere. They should conclude, therefore, that it would be wise to protect our current forests and if possible, increase the amount of forests.

INQUIRY 4

What characteristic do all of the indicators listed in Table 2 have in common? Hint: The common characteristic has something to do with their ability to be compared across regions.

They can all be measured.

Think about a forest that is near you or that you have visited. Based on FAO's criteria and indicators, would you say that forest is sustainable?

This is an individual question and must be

answered individually. Students should be able to support their answer with logical reasons.

Do you think it is important to consider subregions of the world when trying to understand progress toward sustainable forest management? Why or why not? *This question can be answered individually, within a small group, or in a class discussion. Students should be able to support their answer with logic. Since subregions are smaller and more homogeneous than regions in general, students should realize the importance of examining sustainable management at a subregional level.*

Using Table 3, consider the indicators of forest sustainability for your own subregion or region. For which is your subregion or region doing well? What should it improve? *This answer will depend on the geographic location of the student.*