

Chapter 8

ECOLOGY and STEWARDSHIP IN ACTION

THEMES: Environmental conditions and resources vary as a function of location on Earth; human management strategies must consider that each biome is different; solutions can be found if humans are willing to place needs of people and biodiversity ahead of material gain.

STRATEGY: Skim Chapter 8, pages 145-156 and review Section 8-K with sufficient care so that you can answer two questions: “What are biomes”? and “Why is it important to recognize the uniqueness of each biome?” Then, review the Video Viewing Guide below in preparation for viewing.

RACE TO SAVE THE PLANET: REMNANTS OF EDEN – Viewing and Discussion Guide

I. Introduction

As the human population of Earth increases so do the demands for resources. This video clip addresses the challenge of meeting human needs without destroying species and ecosystems that are the life support systems of planet Earth. We will review the human impacts upon biodiversity, and look at several strategies to protect wild species and ecosystems.

II. Tropical Rain Forest Biodiversity

Q1. What is Peter Raven's point about wild plants?

Q2. According to E.O. Wilson, what are three kinds of wealth?

1) _____ 2) _____ 3) _____

To which do we pay least attention?

Q3. What does Terry Irwin's insect research in tropical trees suggest?

III. Thailand's Khao Yai National Park

If you establish a park, it does not follow that species will stop disappearing. It is not enough just to keep people out. The Great Hornbill needs mature trees and large foraging areas, and can represent the entire ecosystem.

Q4. Why was the Great Hornbill chosen as an "indicator" of how the forest should be

managed? _____

PRINCIPLE: Economic self-sufficiency must come before conservation can be successful.

Q5. How is this principle illustrated in the case of the Baan Sap Tai villagers? What are some

components of this plan? _____

IV. Environmental Stewardship – Making a Difference with Christ-like Compassion in Chesapeake Bay

PRINCIPLE: Our Scriptural beliefs as stewards of God’s creation should be evident in our professional and lifestyle choices.

Q6. Watch for answers to the following as you view the video of “Tangier Island:”

a. ECOLOGICAL CONSIDERATIONS – Chesapeake Bay:

> Why are **environmentalists** concerned for the Bay? _____

> How are the **watermen** dependent upon the Bay? _____

b. SOCIO-POLITICAL – Chesapeake Bay Foundation (CBF) and Government Regulations

> What attitude did the Tangier Isl. culture have toward “outsiders?” _____

> What action caused conflict between CBF and the watermen? _____

c. RELIGIOUS CONSIDERATIONS:

> Describe the role of religion on Tangier Island. _____

> How did Susan Drake approach the conflict between watermen and environmentalists?

> How did the watermen and their wives respond? _____

Q7. What were several key elements in the conflict resolution accomplished with Susan Drake’s leadership?

a. _____

b. _____

c. _____

Q8. What applications do you see from the Tangier Island experience to possible conflicts in your community or to other environmental problems?

TAKE-AT-HOME QUIZ #4**Lab Section** (Day of Week and Hour – e.g. W-3) = _____

INSTRUCTIONS: Select the correct choice in response to each question and, in the correspondingly numbered box near the bottom of the quiz, write the UPPER CASE letter of the correct choice. Do NOT score your answers by circling or otherwise making marks on the letters of the individual choices. Otherwise, you may write on the quiz if it helps your thinking process. **You should have this quiz completed and ready to hand in when requested during lecture either on or after the date of the assignment to which this quiz is attached. You may complete the quiz alone or work with others, but be sure you are mentally involved in answering the questions. You must be present on the day the quiz is requested to receive credit.**

1. Which of the following is a density independent limiting factor on population growth?
 - A. food
 - B. space
 - C. predation
 - D. parasitic disease
 - E. toxic chemical spill

2. The average number of children that a woman will bear during childbearing years is referred to as the
 - A. Birth rate (r)
 - B. Death rate (d)
 - C. Total Fertility Rate (TFR)
 - D. Replacement Level Fertility (RLF)

3. As one applies the concept of carrying capacity to the human population among different cultures, there must be a consideration of
 - A. the number of individuals per unit area.
 - B. both the number of individuals and the per capita consumption.
 - C. the fact that population principles derived from study of animals do not apply to humans.
 - D. Scriptural truth which teaches us to "multiply and replenish" without placing limits on family size

4. The primary reason for the increasing world population, especially in many LDC's is
 - A. Increasing birth rates (TFR's).
 - B. Decreasing death (mortality) rates.
 - C. Increasing rates of emigration and immigration.
 - D. The waning influence of communism in Russia and neighboring nations.
 - E. World population increase is only a false fabrication by anti-family, pro-abortion groups.

Score Answers Here -->	1.	2.	3.	4
------------------------	----	----	----	---