**Hope in a Changing Climate**

1. 1000’s of years of agricultural exploitation had left the soil unfertile and barren on China’s Loess 640,000 km2 Plateau. List several consequences of the unsustainable use of the Loess Plateau.

a)

b)

c)

2. Name and outline the feedback cycle that occurs between poverty and environmental degradation in many parts of the world.

3. The Chinese government with help from the World Bank decided to change the Loess Plateau for the better. The plan was to give a “hat” to the hilltop, a “belt” to the hills and “shoes” to the bottom of the hills. Describe the changes made to the mountainsides and valleys.

4. List the local consequences and impacts of the restoration of 35,000 km2 of degraded land on the Loess Plateau.

a)

b)

c)

d)

5. Briefly describe the consequences of soil left barren by unsustainable use in Ethiopia.

a)

b)

6. Six years of planting trees and planting plants in Ethiopia has reversed the soil degradation. Outline the improvements seen following this project.

a)

b)

c)

d)

7. In Rwanda, population growth is causing over-farming on the hillsides. The farmers began to drain the wetlands for farming. State the consequences of draining the marshes on the capital city, Kigali.

a)

b)

c)

8. The government of Rwanda created a project to improve the productivity of the land in order to protect the wetlands. State what measures were taken to improve the situation.

a)

b)

9. List the ecological value provided by forests and plants in this film. (“The miracles performed by trees”)

a)

b)

c)

10. As much as 25% of the World’s land mass has been degraded. List arguments in favor of restoring natural capital and ecosystems.

a)

b)

c)

d)

11. Evaluation: Assess the implications and limitations of restoration of degraded soil as seen in these three case studies.

Implications:

Limitations: