MONT100N – Environmental Mathematics

Study/Discussion Questions on Collapse, Prologue, Chapters 2,5

(*Note*: A few of these are adapted from some discussion questions on the publisher's web site for the book – `http://us.penguingroup.com/static/rguides/us/collapse.html`.)

To consider in reading the Introduction:

1. Exactly what does Diamond mean by a "collapse" and what are the five factors that Diamond identifies as contributing to the collapses he studies? (He uses these factors as a framework for analyzing each of the examples, so it will be helpful to have them in mind at all times.)

For Chapter 2 – Twilight at Easter

2. When was Easter Island apparently settled? What evidence does Diamond draw on for his conclusion? What does Diamond say about the apparent largest human population that lived on Easter Island? What do we know about how their society was organized and what people did? How did different subgroups of the society interact with each other?

3. What did the early Easter Island inhabitants eat? What does that show about resources available to them on the island? What happened to those resources over time? What did the island look like in 1722 when the first European visitors arrived?

4. Some of the distinctive features of Easter Island are how small and isolated it is in the Pacific Ocean. Diamond makes an argument that that smallness and isolation might be in effect a sort of model for Earth as a small, isolated planet in the rest of the universe. To what extent do you think it is valid to draw lessons for humanity as a whole based on the experience of the people on Easter Island?

For Chapter 5 – The Maya Collapses

5. How and when were the remains of the Classic Maya cities discovered? What does Diamond say about the geography, geology, and native plants of the Maya region in Central America?

6. Outline the history of the Classic Maya period as Diamond describes it. About how long a time are we talking about here? How advanced was the ancient Maya civilization? For instance, how do we know about their history? What sorts of scientific or mathematical knowledge did they have?

7. What five strands does Diamond suggest were the main causes of the Maya collapse? How did features of the geography, flora and fauna of this area contribute to this? To what extent were bad choices by the people involved?

8. There are *still* people in southern Mexico and Guatemala who identify themselves as "Maya." So the people did not entirely disappear when the Classic Maya civilization collapsed. What *did* collapse? What can we learn from this about resilience of humans in these situations?

Some general things to think about:

9. There is a lot of talk these days (especially from the more conservative end of the political spectrum) about how environmentalists have damaged their credibility by "crying wolf" – for example, issuing warnings about unchecked growth in human population and the effects of global warming that have not (yet) come true. Do you think Diamond is vulnerable to the charge of "crying wolf" in *Collapse*? If so, how would you dispute his analysis of the examples he cites? If not, why not?

10. "I am writing this book from a middle-of-the-road perspective," writes Diamond in the introduction, "with experience of both environmental problems and of business realities" (p. 17). The middle of the road is often a tough place to be, since it opens one to attacks from both sides. How successful is Diamond in staking out this position? How does he balance (or fail to balance) environmental concerns with the needs of human societies?