

1. Downtown Vancouver suffers from peak-hour traffic congestion. Explain why this happens (define downtown as a good) and suggest a way to reduce peak-hour congestion.

2. What's Hayek's main point about knowledge? What instrument allows us to share knowledge?

3. Draw supply/demand curves for (a) a public good and (b) a common-pool good (showing rivalry). Label everything

4. Dolan says that GNP/GDP measures of "throughput" fail to include important information. Give one example of what GDP misses.

5. Your oil-producing company uses an internal discount rate of 6 percent to decide whether to invest money today for production in the future. (Production occurs in the US, which has no carbon tax or permit system.) According to your calculations, a proposed project will make a small net profit for the company over its lifetime. Would the project still be a good investment if the company used a 3 percent discount rate? Explain why.

6. Now you (from question 5) go to a conference and present your company's plans. An environmentalist asks you what discount rate you've used for the project. You say 6 percent. The environmentalist says you should not do the project because the social discount rate is 3 percent. Explain why he's correct using TWO factors from cost/benefit analysis.

7. Professor Reynold mentioned that the Food and Agriculture Organization classifies fisheries as "non-fully exploited," "fully exploited" and "over-exploited." What was the FAO's original term for "non-fully exploited," and why did FAO change it?

8. What does it mean when a renewable resource (e.g., a fishery) is mined?

9. Hardin discusses two ways to regulate access to resources — private property or government regulation. What is an additional way of regulating access to resources? Give an example for forests.

10. Hardin suggests that moral awareness will lead people to have fewer children. Name two other forces (that I discussed in class, using examples of Taiwan and Bangladesh) that lead to lower birth rates.

11. Gordon mentions that fisheries biologists who focus on “maximum sustainable yield” (MSY) miss the point of fishing. What goal does he prefer? Give an example of how fishing at MSY may be a bad idea.

12. The government has to choose between two projects. Project A produces \$100 of social surplus and employs 100 people. Project B produces \$100 of social surplus and employs 50 people. Which is better? Why?

13. A company builds an oil pipeline to bring oil from A to B. True or False (and explain why):
 - (a) The pipeline raises oil prices at B

 - (b) The pipeline creates a benefit of tax revenue to the government

 - (c) House prices will rise in areas where well-paid workers live

References

- Coase, R. H. (1960). “The Problem of Social Cost” in *J. Law and Economics* (3): 1-44
- Dietz, T.; Ostrom, E. & Stern, P. C. (2003) “The Struggle to Govern the Commons” in *Science* (302): 1907-1912
- Dolan, Ed (2011) *TANSTAAFL* (There Ain’t No Such Thing As A Free Lunch). Searching Finance Ltd.
- Gordon, H. S. (1954). “The economic theory of a common property resource: the fishery” in *J. Political Economy* (62): 1241-1242
- Hardin, Garrett (1968) “The Tragedy of the Commons” in *Science* (162:3859): 1243-1248
- Hayek, F. A. (1945) “On the Use of Knowledge in Society” in *American Economic Review* (35): 519-530