

Tragedy of the Commons

Introduction

The “Tragedy of the Commons” was first coined by Garrett Harding. It applies to common resources that are used by individuals or groups. Everyone can use the resource, but no one is responsible for preserving it.

Objectives

- Students will be able to describe “tragedy of the commons”.
- Students will explain sustainable means of working with the “commons”.

Materials

- Bag of assorted dried beans
- Plastic bowls (ocean basins)
- Straws for each student
- Spoon for one student in each group
- Stop watch
- Paper towel for each student

Procedure

1. Divide the class into groups of 3-4. Each group should sit in a circle around the “ocean”.
2. Each student represents the head of a country that is starving. In order to survive, each student must catch enough fish for his/her people to eat. Participants can only fish once a year. It is each participant’s choice how many fish to take. If only one is taken, the people will starve. If more than 2 fish are taken, they can be sold for profit. The fish will reproduce once a year. Participants will have 30 seconds to fish by sucking up fish through a straw. Participants may not use hands to touch the straw.
3. At the end of each year, the teacher will go to each group and add more fish when they reproduce. The fish left in the bowl will double each year. If any country starves then they obviously cannot fish the next year.
4. There is no talking or communication during the “fishing”.
5. Each group will fish for 5 “years” recording results on Data Table.
6. Repeat the game a second time. This time participants may communicate. One of the students in each group will fish by using a spoon. If you run out of fish, you have the option to fish in another ocean.

STUDENT DATA TABLE

GAME 1

NAME _____

YEAR	Number of fish (after reproduction)	Number of fish caught by you	Number of fish caught per year (by everyone)
1			
2			
3			
4			
5			
TOTAL			

STUDENT DATA TABLE

GAME 2

YEAR	Number of fish (after reproduction)	Number of fish caught by you	Number of fish caught per year (by everyone)
1			
2			
3			
4			
5			
TOTAL			

Discussion Questions

Answer questions 1 and 2 after the first game.

1. Did anyone in your group take too many fish? How did that make you feel? Did everyone try to take as many as possible? Why or why not? Does society reward those with the “most”?

2. Did anyone sacrifice the number of fish, for the good of the world? Why or why not? Does society ever reward that type of person?

Answer the following questions after second game.

1. In game 2, how did your strategy change, if at all? Does it make a difference to know what the rewards are?

Is it possible to maximize the number of fish caught per person AND the number of fish remaining in the pond at the same time? Why or why not?

Think of a local commons that you are familiar with such as a park or parking lot. Do similar situations arise? Explain. How might those problems be solved?

2. What are some natural resources that are common resources?

3. What are some global commons? Are these being used wisely? Why or why not?

4. In a paragraph, explain what you think the following quote means:

In the end, our society will be defined not only by what we create, but by what we refuse to destroy.
-John C. Sawhill (former president and CEO of The Nature Conservancy)
