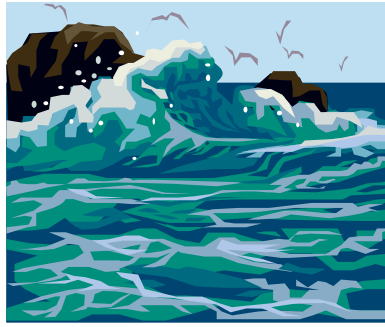




## PUBLIC GOODS

- A *public good* is a good that is provided in the same amount to all consumers if provided at all.
- A *pure public good* is *non-excludable* and *non-rival*. Once provided it is impossible to prevent agents from consuming it. One agent's consumption does not reduce the amount available to other agents  
Examples: Public TV – World Service Radio – Air
- A *free-for-all public good* is *non-excludable* and *rival*. It is impossible to prevent agents from using it. One agent's consumption does reduce the amount available to other agents.  
Examples: Roads – Fish – Public Beach

Visual 1



## TRAGEDY OF THE COMMONS

- 1832 – Wm. Forster Lloyd – Observed the devastation of common pasture and the puny and stunted draft animals that grazed there.
- 1968 – Garrett Hardin created the economic term, tragedy of the commons.
- The commons refers to any resource shared by a group of people.
- Each household has the right to take resources from and to put waste into the commons.
- As population grows, greed runs rampant, and the commons collapses. Hence, the tragedy of the commons.

Visual 2

# EXTERNALITIES

- Externalities
  - Occur when the production or consumption of one agent affects another's
- Negative Examples
  - Mobile phone use in public places, toxic waste dumping reducing fishing yields, loud music in residential neighborhoods.
- Positive Examples
  - A neighbor who landscapes his property, soothing music in dentists' offices, regular exercise program.

Visual 3



- Pigouvian Tax – The government taxes the company for each unit of pollution it emits.
- Companies have an incentive not to pollute.
- Extra costs get passed on to the consumer.
- Government uses the funds to fight pollution.

Visual 4



## COASE THEOREM

- Disputes over resources arise because nobody owns them or because everybody owns them.
- A private property system in which rights are clearly defined and in which the cost of exchange is negligible will achieve the optimal allocation and efficient use of resources.

Visual 5

	FACTORY PROFIT	FISHERMEN PROFIT	TOTAL PROFIT
NO FILTER, NO TREATMENT	500	100	600
FILTER, NO TREATMENT	300	500	800
NO FILTER, TREATMENT	500	200	700
FILTER, TREATMENT	300	300	600

## COASE THEOREM

- What if the factory is given the right to dump?
- Which alternative seems to be the most advantageous to the fisherman?
- How might a reasonable and equitable solution be achieved?
- Which of the alternatives seem to be the most equitable?
- What are the negative and positive externalities if property rights are assigned to the fishermen?
- What are the negative and positive externalities if property rights are assigned to the factory?
- What solutions apart from Coase could solve this problem?

Visual 6