
MARKET FAILURE

EE211





THE DIFFERENT KINDS OF GOODS



INTRODUCTION

We consume many goods without paying

- Rivers, mountains, beaches, lakes, playgrounds, parks

Without prices, private markets cannot ensure that such goods are made available and used correctly for the maximum benefit of society as a whole

CHARACTERISTICS OF GOODS

Excludability

- Property of a good whereby a person can be prevented from using it

Rivalry in consumption

- Property of a good whereby one person's use diminishes other people's use

TYPES OF GOODS

Private goods

- Goods that are both excludable and rival in consumption

Public goods

- Goods that are not excludable nor rival in consumption

TYPES OF GOODS

Common resources

- Goods that are rival in consumption but not excludable

Club goods

- Goods that are excludable but not rival in consumption

		Rival in consumption?	
		Yes	No
Excludable?	Yes	Private Goods <ul style="list-style-type: none"> • Ice-cream cones • Clothing • Congested toll roads 	Club Goods <ul style="list-style-type: none"> • Satellite TV • Fire protection • Uncongested toll roads
	No	Common Resources <ul style="list-style-type: none"> • Fish in the ocean • The environment • Congested nontoll roads 	Public Goods <ul style="list-style-type: none"> • Tornado siren • National defense • Uncongested nontoll roads

FOUR TYPES OF GOODS

- Goods can be grouped into four categories according to two characteristics:
 - A good is excludable if people can be prevented from using it.
 - A good is rival in consumption if one person's use of the good diminishes other people's use of it.

ACTIVE LEARNING 1: CATEGORIZING ROADS

- A road is which of the four kinds of goods?
- Hint: The answer depends on whether the road is congested or not, and whether it's a toll road or not. Consider the different cases.





PUBLIC GOODS



THE FREE-RIDER PROBLEM

Free rider

- A person who receives the benefit of a good but avoids paying for it

The free-rider problem

- Public goods are not excludable
- Prevents the private market from supplying the goods
- Market failure

Government can remedy the free-rider problem if total benefits of a public good exceeds its costs

- Provide the public good
- Pay for it with tax revenue
- Make everyone better off

Problem: Measuring the benefit is usually difficult

SOME IMPORTANT PUBLIC GOODS



National defense

Very expensive public good

Everybody agrees national defense is a public good the government should provide



Basic research

Subsidized by government

The public sector fails to pay for the right amount and the right kinds

Difficulties: Hard to measure the benefits and decisions are made by members of Congress, not scientists

SOME IMPORTANT PUBLIC GOODS

Fighting poverty

- TANF (Temporary Assistance for Needy Families program)
 - Provides temporary income support for poor families with children
- SNAP (Supplemental Nutrition Assistance Program)
 - Subsidizes the purchase of food for those with low incomes
- EITC (Earned Income Tax Credit)
 - Provides tax rebates for those who work at low-wage jobs

THE DIFFICULT JOB OF COST–BENEFIT ANALYSIS

The government

- Provides public goods because the private market on its own will not produce an efficient quantity
- Must determine what kinds of public goods to provide
- Must determine what quantity of the public good to provide

COST–BENEFIT ANALYSIS

Cost–benefit analysis

- A study that compares the costs and benefits to society of providing a public good

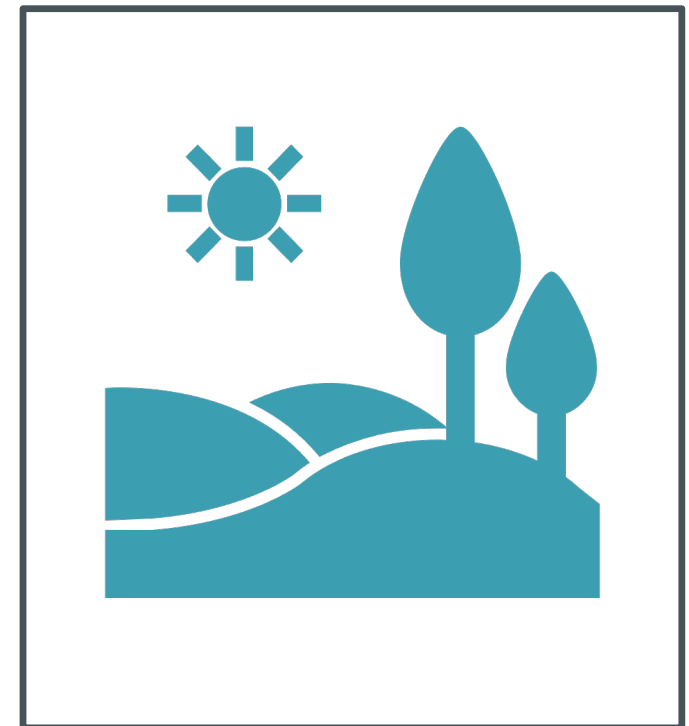
Estimate the total costs and benefits of the project to society as a whole

- Are rough approximations at best
- There are no price signals to observe

ACTIVE LEARNING 2: LET'S BUILD A FOUNTAIN

You and your neighbors (about 200 people) would love to have a water fountain in the neighborhood park. Each of you values having the fountain at \$100. The neighborhood association finds a construction firm that will build the fountain for \$7,000. A hat is passed around for the contributions, but once the money is counted, there are only \$3,000 collected.

- A. Should the fountain be built?
- B. What happened? Will the fountain be built?
- C. Can the government help build the fountain? How?





COMMON RESOURCES



THE TRAGEDY OF THE COMMONS

Tragedy of the commons

- A parable that illustrates why common resources are used more than is desirable from the standpoint of society as a whole

Medieval town where sheep graze on common land

- As the population grows, the number of sheep grows
- The amount of land is fixed, the grass begins to disappear from overgrazing
- With no grass left, raising sheep is impossible

THE TRAGEDY OF THE COMMONS

Social and private incentives differ

- The private incentives (using the land for free) outweigh the social incentives (using it carefully)

The tragedy arises because of a negative externality

- Allowing one's flock to graze on the common land reduces its quality for other families
- People neglect this external cost, resulting in overuse of the land

THE TRAGEDY OF THE COMMONS

Possible solutions:

- Regulate the number of sheep per family
- Internalized the externality by taxing sheep
- Auction off a limited number of sheep-grazing permits
- Make land private property: divide the land among town families

SOME IMPORTANT COMMON RESOURCES

Clean air and water

- Negative externality: pollution
- Regulations or corrective taxes

Congested roads

- Negative externality: Congestion
- Corrective tax: Charge drivers a toll
- Tax on gasoline

SOME IMPORTANT COMMON RESOURCES

Fish, whales, and other wildlife

- Oceans: Least regulated common resource
- Needs international cooperation
- Difficult to enforce an agreement

Fishing and hunting licenses

- Limits on fishing and hunting seasons
- Limits on size of fish
- Limits on quantity of animals killed

**CONCLUSION: PROPERTY RIGHTS AND
GOVERNMENT ACTION**



CONCLUSION

Market fails to allocate resources efficiently

- When something of value has no price attached to it
- When property rights are not well established

Government can potentially solve the problem

- Help define property rights and unleash market forces
- Regulate private behavior
- Use tax revenue to supply a good that the market fails to supply

REFERENCE

- Mankiw, Principles of Microeconomics, Tenth Edition. 2024 Cengage.