

# Environmental Economics

## Lecture 1

Ashraf Samir Ph.D.

## Contents

Introduction

How could policy maker manage the behavior of economic agents?

Economics: What is it About and How Does it Relate to the Natural Environment?

## 1- Introduction

Economics is concerned with **decision making** by agents, which include

consumers

firms

government agencies

non-profit organizations

environmental advocacy groups

Everyone in environmental studies must:

understand the fundamentals of **economic thought**

understand how the way of **economic thinking** is applied to **environmental problems** and to **environmental policy**.

The course will focus on the following main points:

how economics proceeds to analyze **resources related problems** and how it attempts to solve them

what is the **behavior** of consumers and firms and other economic agents in dealing with **environmental problems**?

Understanding the concept of the **common good** of society

Examining main **economic tools** to solve environment related problems

Slide 8-4

## How could policy maker manage the behavior of economic agents?

It is difficult to make **reasonable statements** about consumers, firms, and other economic agents.

Why?

There is **no single** consumer but rather numerous consumers who are different, in terms of:



Slide 8-5

There is **no single** firm but rather numerous firms that are different, in terms of:

Location

Size

Type of  
Technology

Type of  
Industry

So when economist makes statements about the **decisions** and **behavior** of consumers and firms,

it is neither referring to specific consumer nor specific firm.

Slide 8-6

Instead, he refers to the decisions and the behavior of **“dummies” (generic entities)**, which are thought to be useful serving as **representatives** of consumers and firms.

So, the role of economic theory is to depict the **behavior** of economic agents in **a simplified model**.

Consumers

Firms

Governments

Environmental  
Advocacy Groups

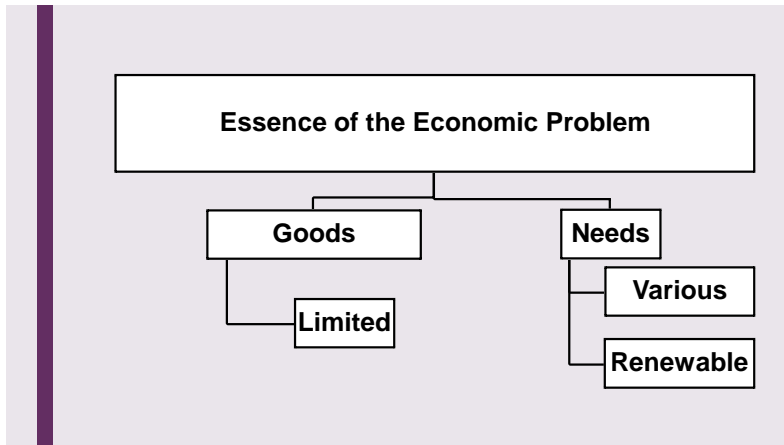
In such model, the **interaction** and the **conflict** among these economic agents are represented.

Slide 8-7

## Economics: What is it About and How Does it Relate to the Natural Environment?

Economics is a soft science that aims at solving the problem of **scarce resources**.

Economic problem is represented in **the existence** of **various** and **renewable needs** and **limited goods**.



## 1- Needs

A need is a feeling of suffering or dissatisfaction, e.g.,

Hunger

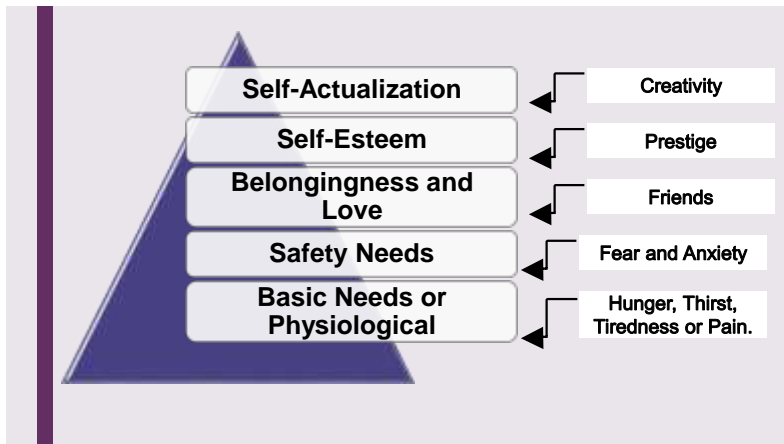
Fear

Loneliness

Rejection

Boredom

Abraham Maslow classification



## Maslow stressed the following points:

Needs at lower levels are stronger than needs at higher levels, while both remain unfulfilled.

Needs at higher levels are unimportant, even non-existent, as long as needs at lower levels are unsatisfied.

Once the needs at lower levels are satisfied, other needs at higher levels come into focus.

Slide 8-12

In economics,

Human beings are **endowed** (and burdened) with needs

Human beings are permanently attempting to **satisfy** those needs.

The needs of human beings are perceived as principally **unbounded**.

Thus, the question arises of what is required to satisfy those needs. ?

## 2- Commodities and Services

A commodity

A **physical, tangible** item that satisfies some human need.

and

Something that people find **useful** or **desirable** and make an effort to acquire it.

A service

An **intangible** item that satisfies some human need.

and

It is considered as **actions** undertaken by other people which satisfy our own needs, such as:

Banking

Education

Insurance

Transportation

### → Different Types of Goods

Many goods have the ability to satisfy human needs **directly**

**Consumer Goods.**

The more **consumer goods** are consumed



The more **satisfaction** is obtained

The previous statement is true till a certain level, then

additional units of a certain good may imply a **decline** in the degree of satisfaction.

Other types of goods have the ability to satisfy human needs **indirectly**.

**Investment good or Capital good**

Another classification of goods is based upon the two criteria of

**Excludability of Use**

**Rivalry in Use**

**This classification is of special importance for economists because**

certain problems arise concerning the provision of goods which do not exhibit the characteristics of **excludability** and/or **rivalry**.

such problems are crucial in the case of some **natural goods**, and cause, for example, phenomena like **global warming** and **overfishing**.

**Excludability of Use**

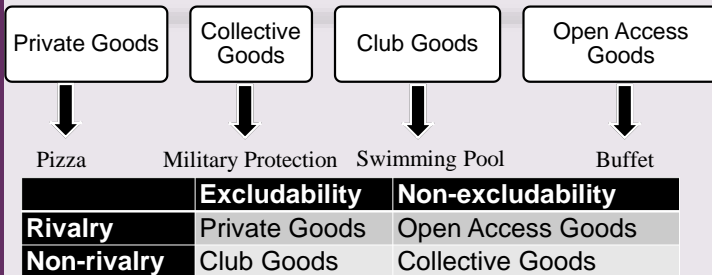
The possibility of **preventing** potential users of a good from actually using it, after the good has already been provided.

If, however, **non-excludability** is a feature of a good, it is not possible to prevent any person from using the good once it has been provided.

**Rivalry in Use**

that if a person A uses the good, it makes that **difficult** or even impossible for a Person B **to use** the good simultaneously.

**Types of Goods Based on Previous Criteria:**



If goods are necessary to satisfy human needs, the question immediately arises of **where goods should come from**.

**3- Production**

a process in which inputs are combined in a certain manner to obtain a desired output.

**This implies that**

Inputs often do not have the ability to satisfy needs directly.

**Investment good or Capital good**

They are types of goods that:

- ✓ have the ability to satisfy human needs **indirectly**.
- ✓ are utilized to help **increase future production**, such as equipment.

**Important Note:**

The distinction between consumer goods and investment goods does not always depend on the **characteristics** of a certain good but often on its **mode** of use.

For example,

A pen (a consumer good)



if used for writing a personal letter

A pen (an investment good)



if used to sign a contract in a firm.

Even though production exists, **does this imply that nowadays human needs are perfectly satisfied?**

**4- Scarcity**

The tension between the bounded availability of goods and the boundlessness of human needs.

**This implies that**

The provision of goods is restricted

it is impossible to satisfy all the needs of all the people simultaneously

**Note:**

The problem of scarcity exists at every level of cultural development.

Thank you