

HUMANITIES

HUMANITY

- Humanity is the human race, which includes everyone on Earth.
- The word Humanity is from the Latin
 - “Humanitas”
for
“human nature, kindness”.

HUMANITIES

Humanities are academic disciplines that study aspects of human society and culture.

The humanities include the study of:

- Ancient and modern languages: A **language** is a structured system of communication used by humans, based on speech and gesture (spoken language), sign or often writing.
- Literature: **Literature** broadly is any collection of written work. Literature is a method of recording, preserving and transmitting knowledge and entertainment and can also have a social, psychological, spiritual or political role.
- Philosophy: **Philosophy** is the study of general and fundamental questions, such as those about existence, reason, knowledge, values, mind, and language.
- History: is the study of the past.

Contd.

- **Archaeology**: Archaeology or archeology is the study of human activity through the recovery and analysis of material culture.
- **Anthropology**: Anthropology is the scientific study of humanity, concerned with human behavior, human biology, cultures, societies and linguistics, in both the present and past, including past human species.
- **Human geography**: Human geography or anthropogeography is the branch of geography that is associated and deals with humans and their relationships with communities, cultures, economies, and interactions with the environment by studying their relations with and across locations.
- **Law**: Law is a system of rules created and enforced through social or governmental institutions to regulate behavior.
- **Religion**: Religion is a social-cultural system of designated behaviors and practices, morals and beliefs.
- **Art**: Art is a wide range of human activities (or the products thereof) that involve creative imagination and an aim to express technical proficiency, beauty, emotional power or conceptual ideas.

MAN AND SOCIETY

UNIT 1

SOCIETY

- The word society comes from the latin root “*socius*”, meaning companion or being with others.
- A society consists of people who share a territory, who interact with each other and who share a culture.
- Some societies are in fact, groups of people united by friendship or common interests.

Our respective societies teach us

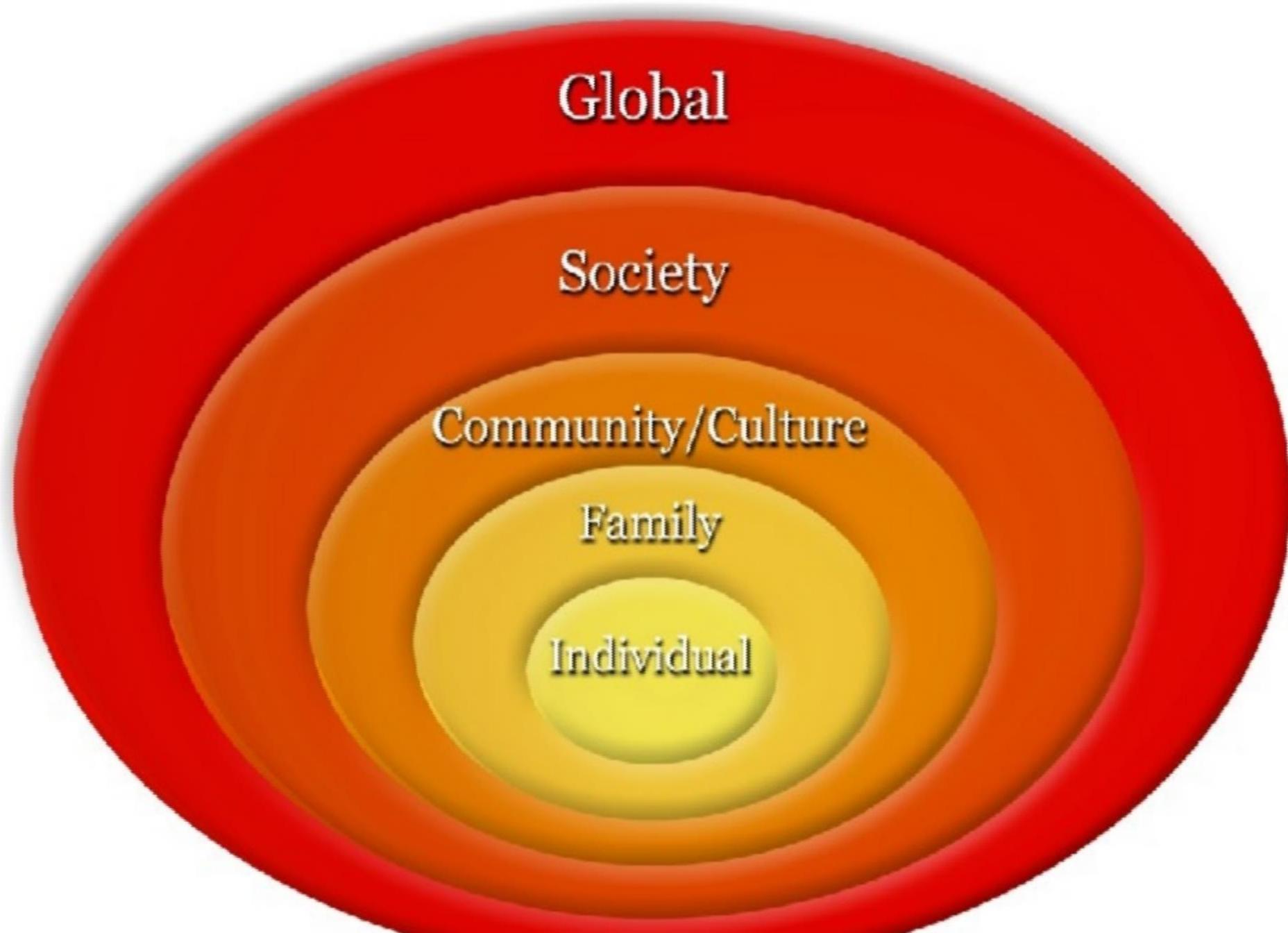
1. how to behave
2. what to believe
3. how we will be punished if we don't follow the laws or customs in place.

COMMON FEATURES OF SOCIETY

1. **TERRITORY**: most countries have formal boundaries, however a society's boundaries don't have to be geopolitical borders.
2. **INTERACTION**: members of a society must come in contact with one another. Geographic distance and language barriers can separate societies within a country. e.g. Although Islam was practiced in both parts of the country; the residents of East Pakistan spoke Bengali while the residents of West Pakistan spoke Urdu.
3. **CULTURE**: refers to the language, values, beliefs, behavior and material objects that constitute a people's way of life. e.g. some features of American culture are the English language, a democratic system of Govt, cuisine and a belief in individualism and freedom.

Characteristics of Society

1. Society consists of people
2. Mutual Interaction and Mutual Awareness
3. Society depends on Likeness
4. Society rests on difference too
5. Co-operation and Division of Labor
6. Society implies Interdependence also
7. Society is dynamic
8. Social control
9. Culture - “Man is a Social Animal”



TYPES OF SOCIETIES

1. Hunting and Gathering Societies
2. Horticultural and Pastoral Societies
3. Agricultural Societies
4. Industrial Societies
5. Post industrial Societies

Hunting & Gathering Society



HUNTING AND GATHERING SOCIETIES

- Existed 12,000 years ago
- Survive by hunting game and gathering edible plants.

- **BASIC CHARACTERISTICS**

1. Primary institution is family
2. Tend to be small
3. They tend to be nomadic
4. Members display a high level of interdependence
5. Labor division is based on gender; men hunt and women gather

The **First Social Revolution**- the domestication of plants and animals- led to the birth of **Horticultural and Pastoral societies**.

Twilight of the Hunter-Gatherers: Pygmies in Africa

HORTICULTURAL AND PASTORAL SOCIETIES



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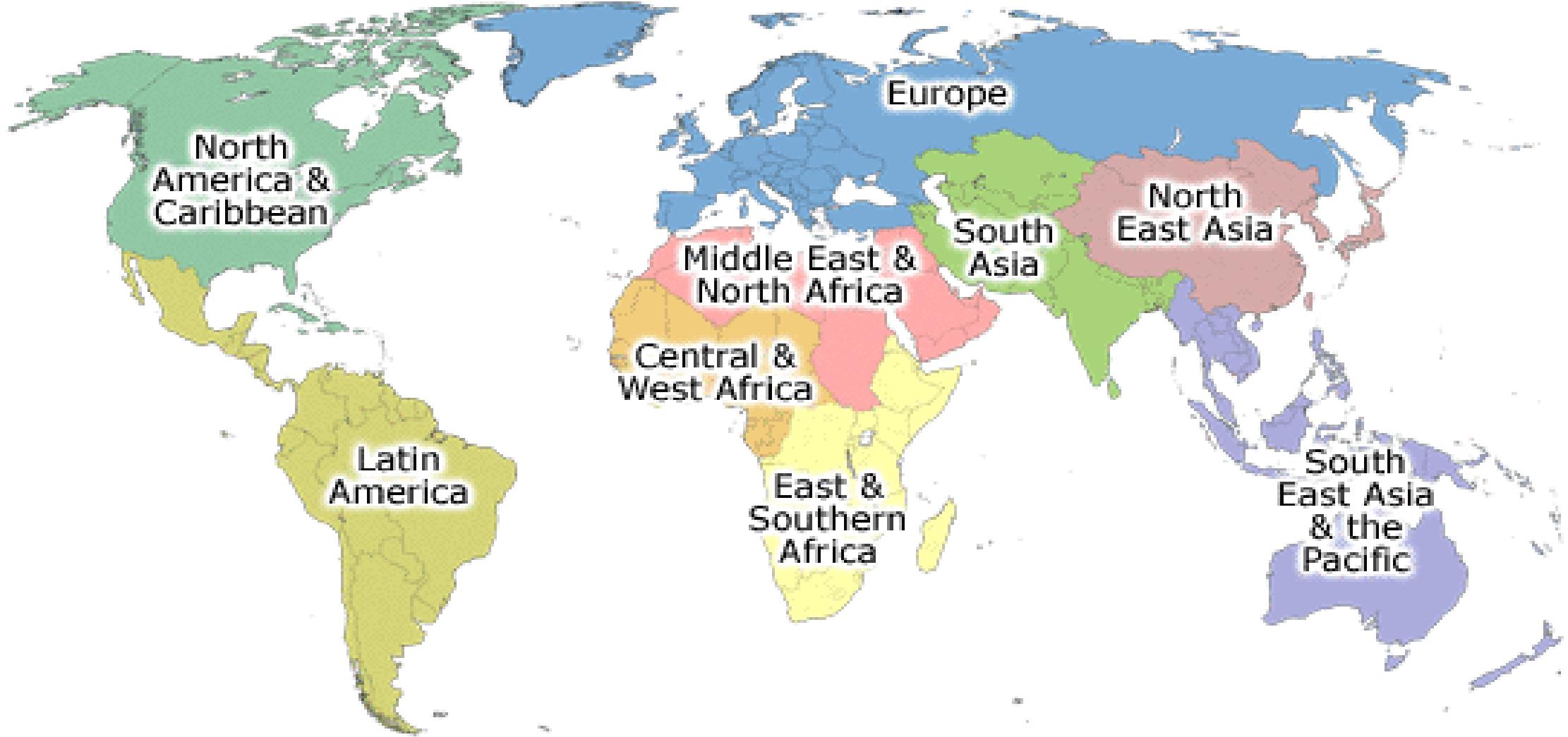


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HORTICULTURAL AND PASTORAL SOCIETIES

HORTICULTURAL SOCIETIES

- 10,000-12,000 years ago.
- Sprang in the most fertile areas of the **Middle East(Egypt, Iran, Iraq, Qatar, Saudi, UAE), Latin America and Asia.**
- Hand tools used to tend crops(sticks or hoe/ khurpi like instruments used to punch holes in ground so that crops could be planted).
- People could now grow their own crops.
- They no longer had to leave an area when the food supply was exhausted, as they could stay in one place until the soil was depleted.



Hoe



A hoe is an ancient and versatile agricultural tool used to move small amounts of soil.

HORTICULTURAL AND PASTORAL SOCIETIES

PASTORAL SOCIETIES

- Relies on the domestication and breeding of animals for food.
- Some geographic regions, such as the desert regions of North Africa, cannot support crops, so these societies learned how to domesticate and breed animals.
- Members move only when the grazing land ceases to be usable.

This led to **Job Specialization** as not all people were engaged in gathering or production of food, others produced:

1. crafts,
2. became involved in trade or
3. provided goods as farming tools or clothing.

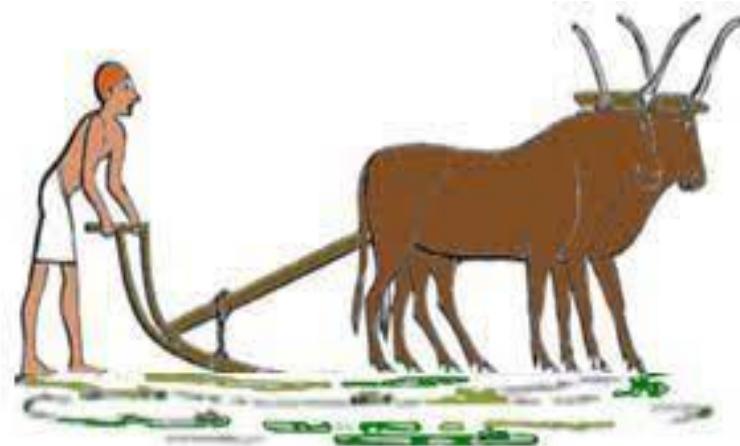
AGRICULTURAL SOCIETIES



AGRICULTURAL SOCIETIES

- 5,000-6,000 YEARS ago
- **Second social revolution**
- Invention of plough(hal)
- The development of agricultural societies followed this general sequence:
 1. Animals are used to pull ploughs.
 2. Larger areas of land can then be cultivated.
 3. As the soil is aerated during plowing, it yields more crops for longer periods of time.
 4. Productivity increases, plenty of food, people do not have to move.
 5. Towns form, then cities.
 6. Job specialization increases.
 7. Economy becomes more complex.

Plough



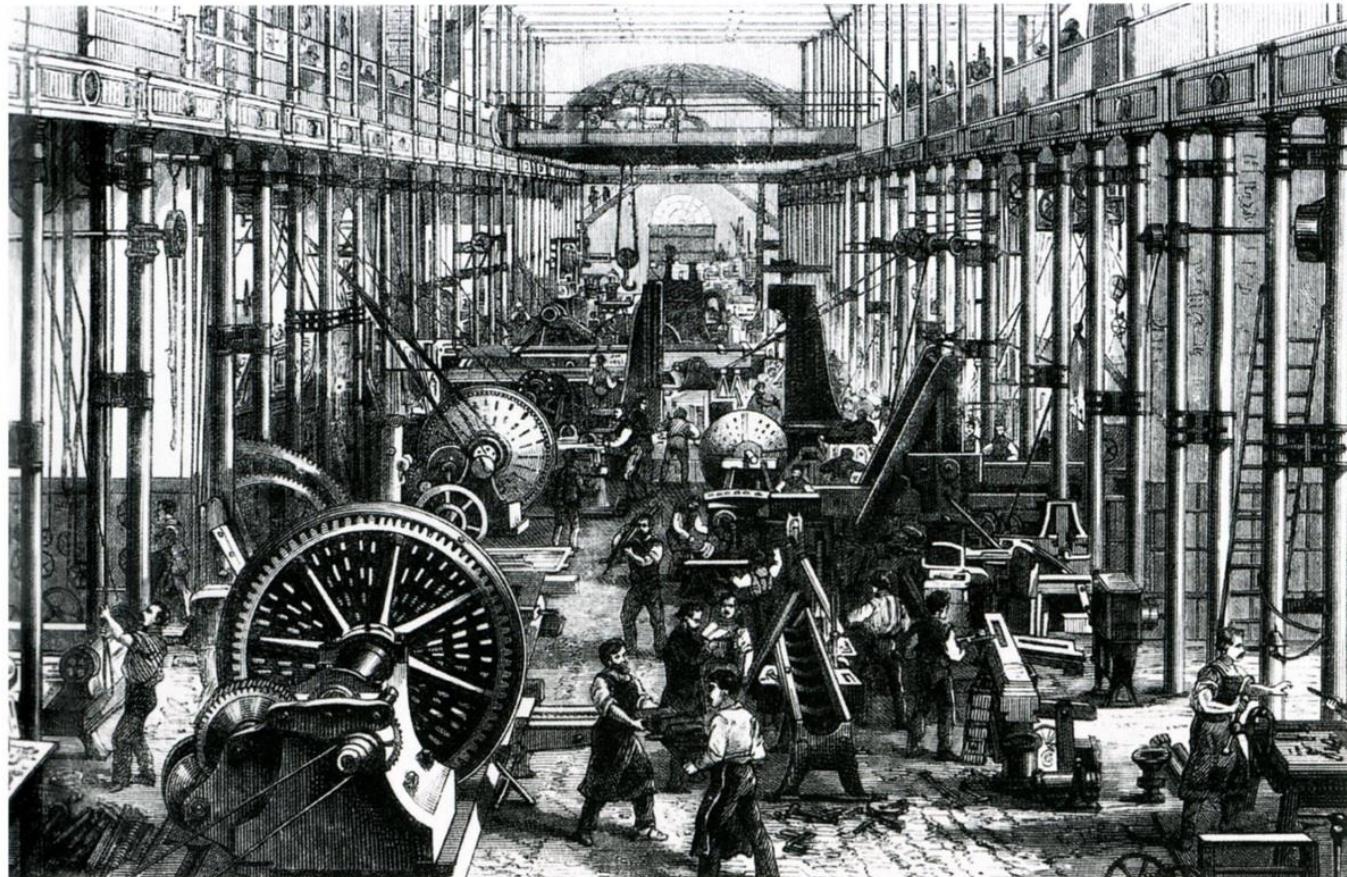
- Around this same time, the **wheel was invented**, along with **writing, numbers and what we would today call the arts**.
- The invention of the **steam engine**- **the third social revolution** – took humans from agricultural to industrial society.

Roots of Gender Inequality

Males tended to dominate more of the workforce, since physical strength was necessary to control animals.

Since then, more prestige has been accorded to traditionally male jobs than to female jobs and hence to more males than to females.

INDUSTRIAL SOCIETIES



INDUSTRIAL SOCIETIES

- Began in the **mid 1700's** when the **steam engine** was first used in **Great Britain** as a means of running other machines.
- Uses **advanced sources of energy**.
- **By 20th century, industrialized societies changed dramatically:**
 1. People and goods traversed much longer distances because of invention of automobiles and harnessing of electricity.
 2. Rural areas lost population.
 3. Societies became urbanized.
 4. Suburbs grew around cities to provide city dwellers alternate places to live.
 5. Better food storage.
 6. Mass communication.
 7. Occupational specialization became more pronounced.
 8. Person's vocation became more of an identifier than his or her family ties.

GEMEINSCHAFT AND GESELLSCHAFT

Sociologist Ferdinand Tonnies divided societies into two large categories:

1. Gemeinschaft Societies:

- primarily of villages
- everyone knows everyone else
- relationships are lifelong and based on kinship(blood relationship)

2. Gesellschaft Societies:

- modernized
- people have little in common with one other
- relationships are short term and based on self interest with little concern for the well being of others.

POSTINDUSTRIAL SOCIETIES



POSTINDUSTRIAL SOCIETIES

- Developed over past few decades
- Economy based on **services and technology** not production.

CHARACTERISTICS:

1. Focus on ideas
2. Need for higher education
3. Shift in workplace from cities to home

MASS SOCIETY: in this, individual achievement is valued over kinship ties and people often feel isolated from one another. Personal incomes are generally high and there is great diversity among people.

NORMS

- A norm is a guideline or an expectation for behavior.
- Each society makes up its own rules for behavior and decides when those rules have been violated and what to do about it.
- Norms change constantly.

How Norms Differ

Norms differ widely among societies and they can even differ from group to group within the same society.

Norms differ according to;

- **Different settings**

e.g. the way we are expected to behave in a church differs from the way we are expected to behave at a party, which also differs from the way we should behave in a classroom.

- **Different countries**

e.g. In some African countries, it is acceptable for people in movie theatres to yell frequently and make loud comments. In USA, people are expected to sit quietly during a movie and shouting would be unacceptable.

- **Different time periods**

e.g. In US IN 1950s a woman almost never asked a man out on a date nor did she pay for the date, but most women today feel comfortable.

Man & Society

Theories

1. Social Contract Theory

- Thomas Hobbes, John Locke and Jean Jacques Rousseau.

2. Organism Theory

- Herbert Spencer

3. Group Mind Theory

- Plato, Hegel

Social Contract Theory

- A social contract is an act by which individuals agree to form a government
- According to social contract theory, governments are established by the people who combine to achieve some goal
- Thomas Hobbes, John Locke, and Jean-Jacques Rousseau were social contract theorists
- They hypothesized the existence of a state of nature prior to any government

Social Contract Theory

Man in a state of nature is fundamentally good



When the idea of private property developed, society had to develop a system to protect it



This system evolved as laws imposed by those with property onto those without property



These laws bind people in unjust ways



Man is born free, yet everywhere he is in chains

Human Nature: A Continuum

Pessimistic



HOBBES



Man is “evil”,
a wolf unto
his fellow
man.

Optimistic



LOCKE



ROUSSEAU



“Man is born
free; and
everywhere he
is in chains”

Man
possesses
perfect
liberty.

Summary

	Human Nature	State of Nature	Social Contract
Hobbes	Man is a wolf unto his fellow man.	A state of War.	Leviathan
Locke	Man has perfect freedom.	Property is not secure.	Commonwealth
Rousseau	Man is free but 'immoral'.	No security or morality.	State guided by the general will.

Organismic Theory

Herbert Spencer believed that society is a living organism possessing organs, which perform functions analogues to those of a plant or animal.

Spencer indicates that society resembles an organism in the following important respects.

- (i) Society like organism grows or develops gradually.
- (ii) Society and organism both exhibit differential structure functions.
- (iii) Both society and organism are composed of units. Society is composed of the individuals and thus, individuals are considered as the units of society. Similarly, organism is also composed of different organs such as eyes, ears, hands, legs, head etc., and these are regarded as the units of an organism.
- (iv) In both society and organism there exists close integration or interdependence of parts.

Structural Analogies

SYSTEM	SOCIETY (Agricultural and Industrial)	ORGANISM
Sustaining System	Production	Growth and Development
Distributing System	Communication and Transportation	Circulatory System
Regulative System	Government	Nervous System

Spencer is of the view that society differs from human organism in the following important respects:

- (i) In organic growth, nature plays a dominant role and organism naturally grows. Social growth may be checked or stimulated by human beings themselves.
- (ii) The units of a society are not fixed in their respective positions like those of the individual organism.
- (iii) In an organism, consciousness is concentrated in the small part of the aggregate, that is, in the nervous system while in a society it is diffused throughout whole aggregate.

SOCIAL STRUCTURE

Structure refers to any recurring pattern of social behavior or more specifically to the ordered interrelationship between the different elements of a social system or society.

Social Structure comprises of

1. Institutional Structure
2. Relational Structure

The core institutional norms and meanings are cultural phenomenon that exist only as shared ideas and representations in the minds of individuals.

The Components of Social Structure

Social Institutions

Complex social forms that reproduce themselves.

Family, government, legal systems, the economy

Social Groups

Networks of individuals bounded by a particular relationship

Fraternal associations, corporations, classmates

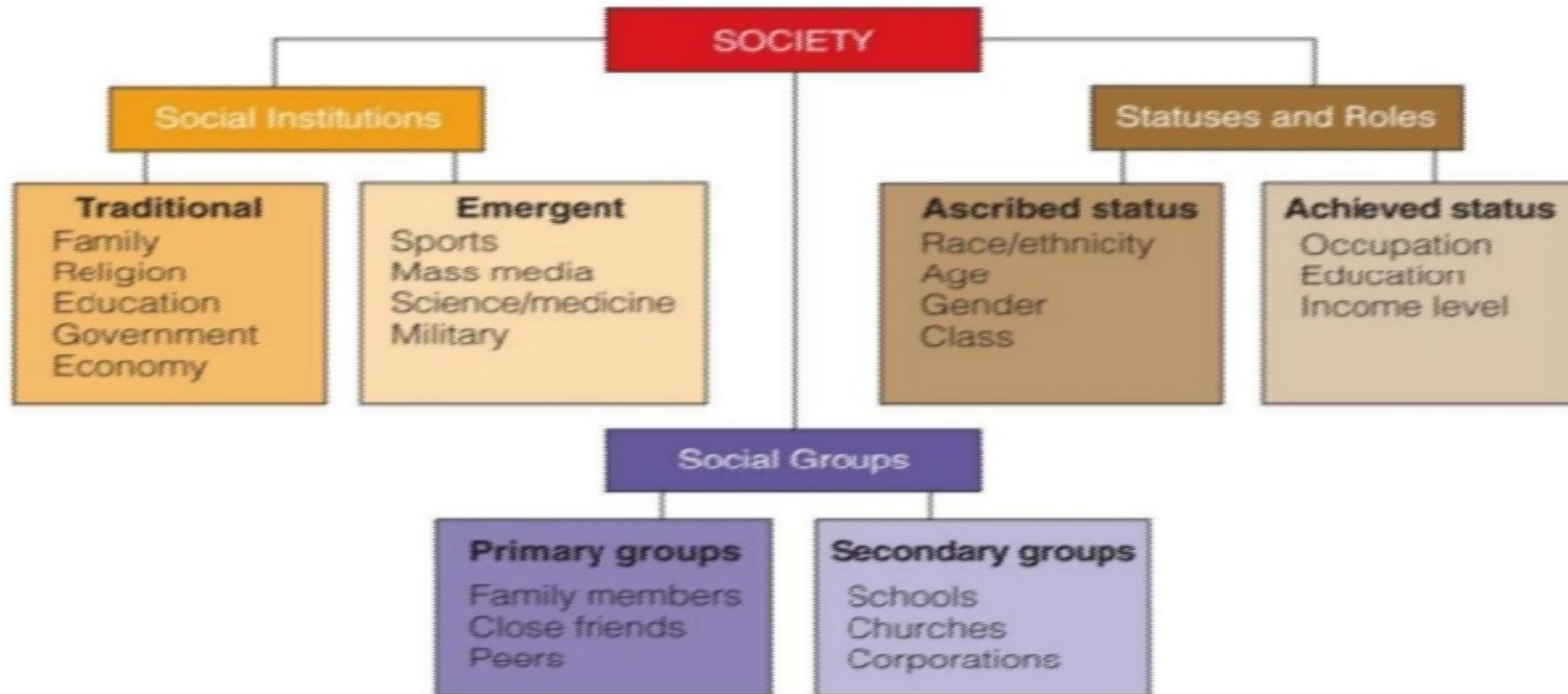
Social Status

The position one holds in a society

Race, Class,
Gender

**Social Structure
(The Whole
Triangle)**

Social Structure Framework



SOCIAL INSTITUTIONS

- An institution is a set of norms surrounding for carrying out the functions necessary for the survival of a society.

Functions of an Institution?

- Institutions are purposeful.
- They are relatively permanent in their content.
- Institutions are structured.
- Institutions are a unified structure.
- Institutions are necessarily value-laden.

Various social institutions are:

1. **Economy**: provides for the production and distribution of goods and services. When people rely on others for goods and services, they must have something to exchange, such as currency(in industrialized societies) or other goods or services(in non industrialized societies).

2. **Government**: institution entrusted with making and enforcing the rules of a society as well as with regulating relations with other societies.

3. Family

- a group of people related by either blood, marriage, or adoption.
- a social institution that unites individuals into cooperative groups that care for one another, including any children.
- people with or without legal or blood ties who feel they belong together.

The institution of family has three important functions:

1. To provide for the rearing of children.
2. To provide a sense of identity or belonging among its members.
3. To transmit culture between generations.

Basic Types of Families

- **Nuclear Family**: family structure comprised of parent(s) and children
- **Extended Family**: family structure comprised of two or more generations of adults who live in the same household & share economic resources

Additions to Family Types

- **Blended Family**: family structure formed when at least one partner in a marriage has been married before and has children from the previous marriage.
- **Single Parent Family**: family structure in which one parent is head of household raising children without the other parent.
- **Childless Family**: family structure in which the married couple choose to or cannot have children.
- **Same Sex Family**: family structure composed of a homosexual couple living together as a family with or without children.

Marriage

Reasons for Marriage

- Love
- Arrangement
- Economic Benefit
- Social Class
- Companionship

Two Basic Forms of Marriage

- **Monogamy:** marriage between one man & one women
- **Polygamy:** marriage of man/women to more than one person

Two Types of Marriage

- **Exogamy:** marriage to person outside kind or group
 - Result: Heterogamy (different)
- **Endogamy:** marriage to person inside kind or group
 - Result: Homogamy (similar)
 - Ex: within race/age/cast

Divorce

- Reasons for Divorce
- women's independence;
- too early marriage;
- economic factors;
- poor intellectual, educational, **and social skills**;
- liberal divorce laws;
- sexual factors leading to incompatibility;
- role conflicts;
- alcoholism and substance abuse;
- risk-taking behavior;
- differences between the partners

4. Religion

Uniting Traditions: When families attend religious services or put up decorations, they teach their children about their religion and how to observe it.

Two types:

- **Monotheistic:** based on the belief in a single deity
- **Polytheistic:** encompass many deities

Major World Religions:

- **Christianity:** most widespread religion, believe that Jesus Christ was the son of God
- **Islam:** Followers are Muslims, believe that the true word of God was revealed to the prophet Muhammad around 570 AD.
- **Hinduism:** oldest major World Religion, dominant in India. Believed in principle of karma and reincarnation.
- **Buddhism:** follow the teachings of Siddhartha Gautama, a spiritual teacher of the 6th C B.C.

5. Education

Every society has to prepare its young people for a place in adult life and teach them societal values through a process called education.

Unequal Education

Economic status often determine the quality of education a student receives.

Social Stratification

- **Social Stratification** = a social hierarchy, or evaluation-ranking-reward system
 - People at the top are considered **better** than those at the bottom.
 - The definition of 'better' depends on the criterion of evaluation: Braver, Smarter, Stronger, Purer...
 - People are not only *different*, they are seen as superior or inferior.



SOCIAL STRATIFICATION

It refers to a system of structured inequality which rates and ranks members of a society based on select criteria and limits access to wealth, power, privileges and opportunities.

It is not a classification of individuals based on their attributes but an established system of classifying groups.

Gisbert defines social stratification as “ **division of society into permanent groups or categories linked with each other by the relationship of superiority and subordination**”.

Four basic principles

- Social stratification is based on four basic principles:
 1. Social stratification is a trait of society, not simply a reflection of individual differences;
 2. Social stratification carries over from generation to generation;
 3. Social stratification is universal but variable;
 4. Social stratification involves not just inequality but beliefs as well.

3 Commonly Recognized Systems of Stratification

1. estate
2. caste
3. class

ESTATE SYSTEM

- Part of the feudal system
- Prevalent in Europe
- During middle ages
- Closed system
- Social mobility is restricted
- Person's social position is defined by law based on : *land ownership*
occupation
hereditary status

The estate system consists of:

1. feudal lords
2. clergy
3. merchants and craftsman
4. serfs

Wealth was concentrated in the hands of the few who enjoyed hereditary status and prestige.

CASTE SYSTEM

- Rigid form of stratification
- Based on:
 - hereditary status
 - traditional occupation
 - restrictions on social relationships

CHARACTERISTICS:

1. Hierarchy
2. Hereditary status
3. Traditional occupation
4. Endogamy
5. Theory of pollution
6. Restrictions on social interaction and access to opportunities
7. Castes are localized groups

CASTE SYSTEM

- Brahman (Priests and teachers)
- Kshatriya (Rulers and soldiers)
- Vaishya (Merchants and traders)
- Shudra (Peasants and laborers)
- Dalit (outcastes doing degrading or polluting labor)



The status is ascribed determined by birth.

CLASS SYSTEM

Social Class- group of individual or families who occupy a similar position in the economic system of production, distribution and consumption of goods and services in industrial societies.

CHARACTERISTICS:

1. Not rigid but flexible
2. Open system with increased social mobility
3. Based more on achievement than birth
4. Status is achieved than ascribed

Sociologists rely on the following to classify people into classes:

- income
- wealth
- level of education
- type of occupation
- material possession
- lifestyle

Stratification can also be based on:

- **GENDER:**

Men have had and continue to have more physical and social power and status than women in the public sphere.

- **AGE:**

Gordon Marshal '**Dictionary of Sociology**' defines age stratification as system of inequalities linked to age.

It separates people in 3 groups according to age:

young,

old and

the rest.

There is unequal distribution of wealth, power and privileges among people at different stages in the life course.

THANK YOU

HUMAN BEHAVIOUR

UNIT 2

HUMAN BEHAVIOUR

Behavior comprises the reactions and interactions of an organism to its environment and with other organisms.

In a general sense, anything an organism does is behavior.

The human behavior is greatly affected by the attitudes we utilize on a regular basis.

One can find three types of behaviors:

- Aggressive
- Passive
- Assertive

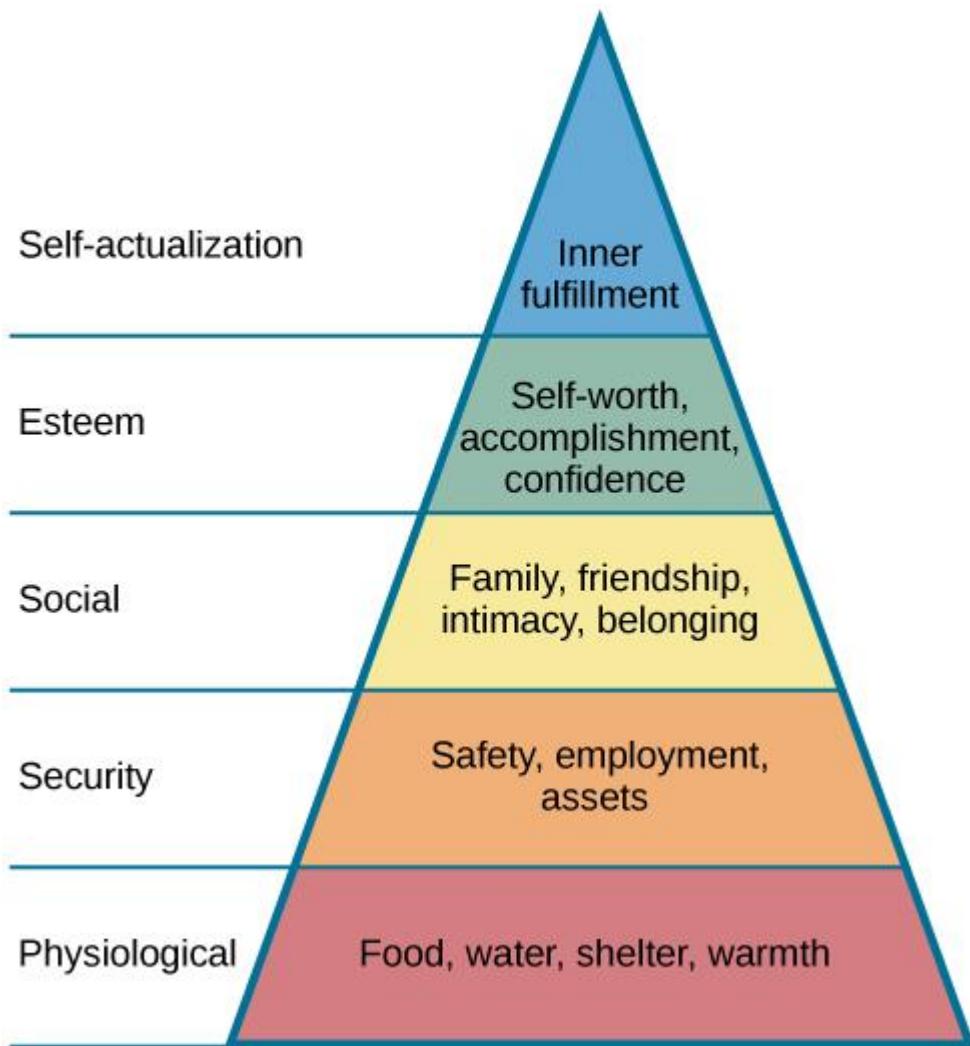
A diagram illustrating the interconnected nature of three concepts: ACT, FEEL, and THINK. The concepts are represented by blue rectangular boxes with white borders and red, bold, sans-serif text. The word 'ACT' is at the top center, 'FEEL' is on the left, and 'THINK' is on the right. They are connected by a large, thin blue curved line forming a triangle.

ACT

FEEL

THINK

Maslow's Hierarchy of Needs

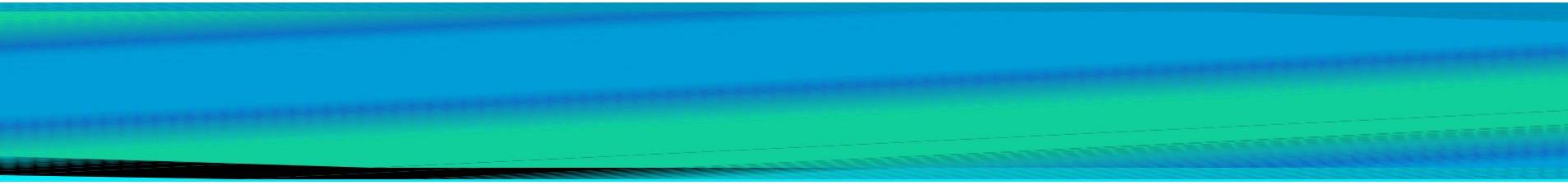


NEED BASED THEORY BY ABRAHAM MASLOW

One of the widely accepted theories that explain human behavior is the need based theory by Abraham Maslow viz. basic needs, security needs, social needs, esteem needs and self actualization are cited as some of the reasons strongly controlling and influencing human behavior.

Factors that affect development

- Genetics
- Environment



Philosophy and Psychology Shared **BIG** Issues!

How much is our behavior determined
by “**innate**” factors and
how much by “**experiential**” factors?
Nature vs. Nurture debate.

Nature

The argument that **biological factors** have the strongest influence on development.

- Any capabilities or limitations are innate
- “**genetic blueprint**” for development exists.

People behave the way they do because they are animals who act in accordance with their animal instincts and are ***determined by their biology.***



Genetics

- Family traits,
- physical appearance,
- similarities,
- height,
- hair color,
- eye color



Nurture

The argument that environmental factors have the strongest influence on a person's nature.

Environmental influences:

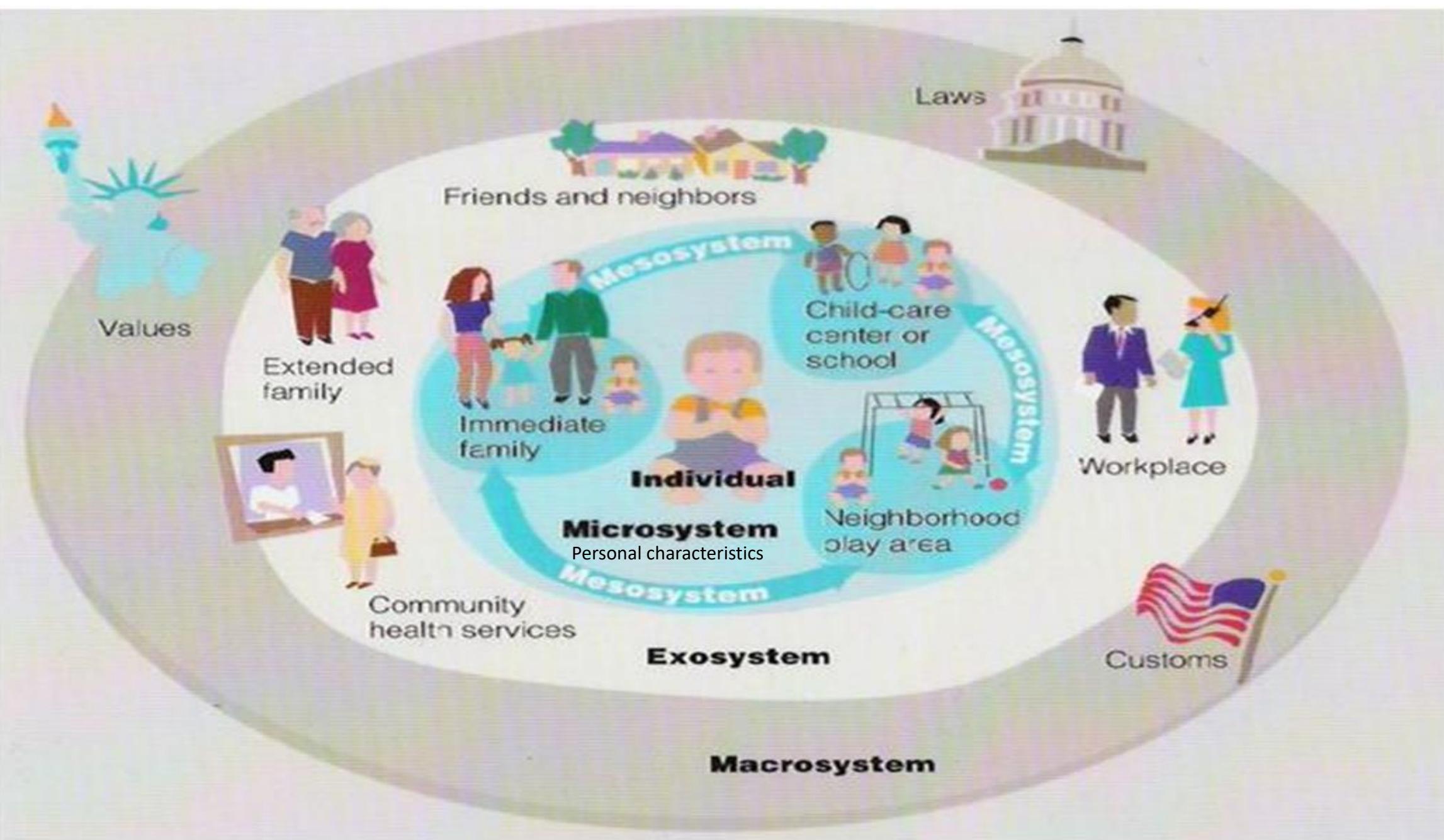
Family

School

Peers

Culture

People behave the way they do because
they are **determined**
by the things other people teach them, the things
they observe around them, and
because of the different situations they are put in.

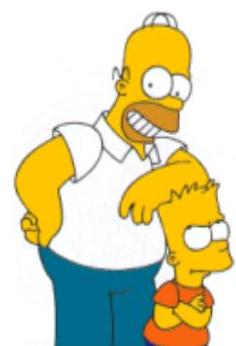


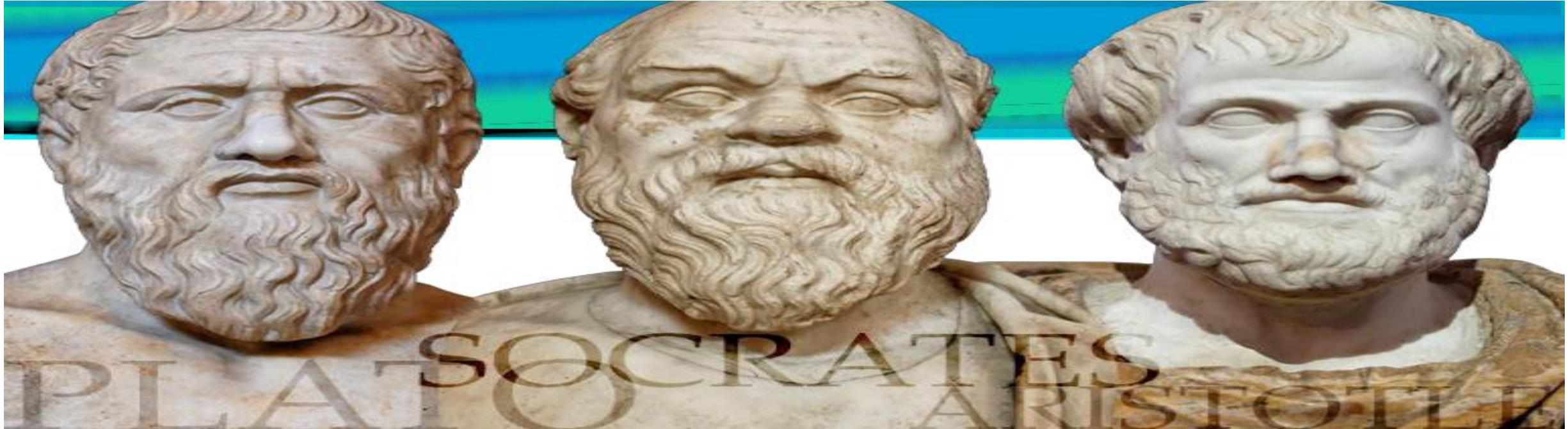
Environmental Factors

- Income
- Housing
- Nutrition
- Education
- Access to health facilities
- Parenting Styles
- Play Opportunities
- Weather

Parental Influence

- ❖ Behavior
- ❖ Attachment
- ❖ Gender roles
- ❖ Language





Knowledge according to ancient Greeks (300 B.C.):

Socrates – all nature (born with ALL knowledge).

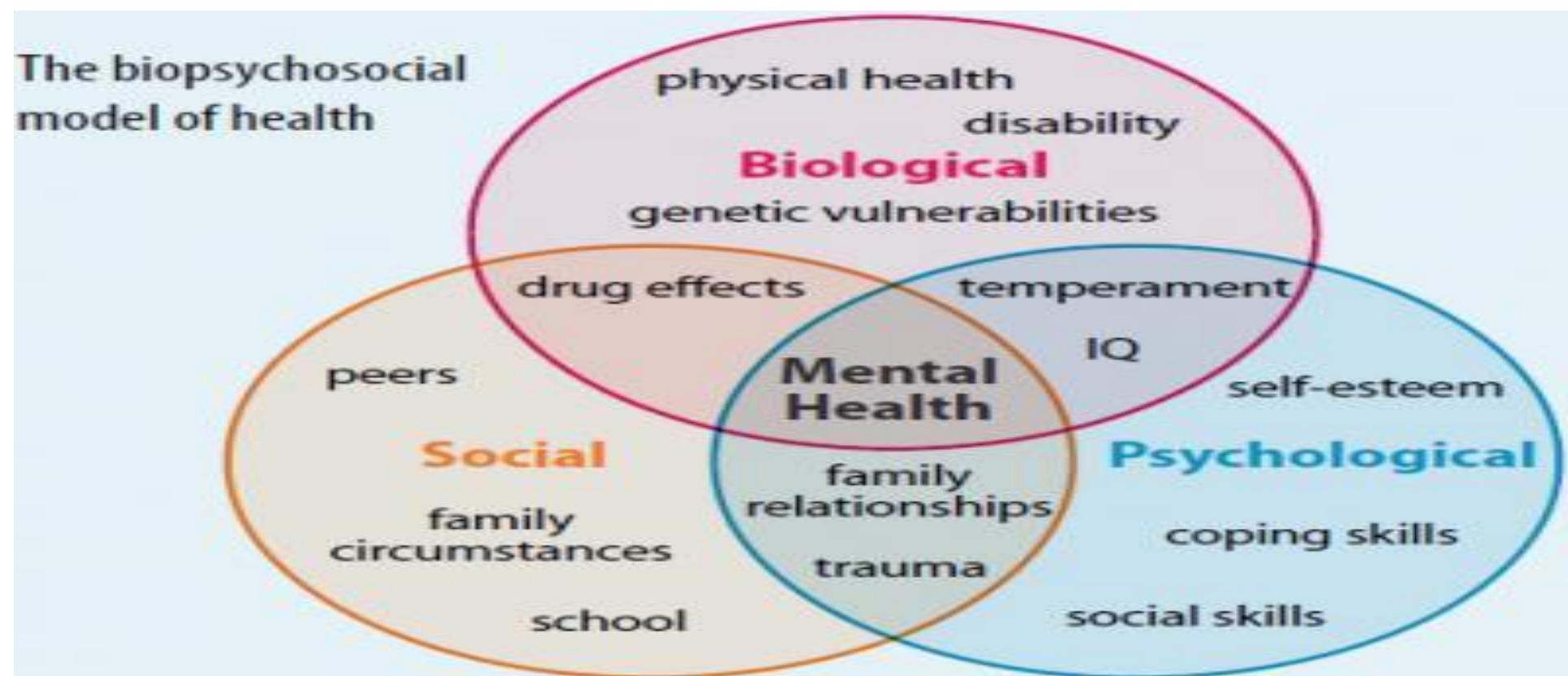
Plato – some nature and some nurture.

Aristotle – all nurture

Contemporary View

Nature and Nurture both play a role in human psychology (Interactionism)

Biopsychosocial Approach



The Brain and the Behavior

When we sense, perceive and react to stimuli we offer a response.

e.g. if we go to the beach and smell the salty air, hear the waves crash in the ocean and feel the sand beneath our toes, we are sensing and perceiving many different types of stimuli simultaneously.

Receptors, which are specialized cells, allow us to sense these stimuli. Our brain will then process this information and make sense of what we perceive. Then our brain tells us that we need to elicit a response.

Factors Affecting Behavior

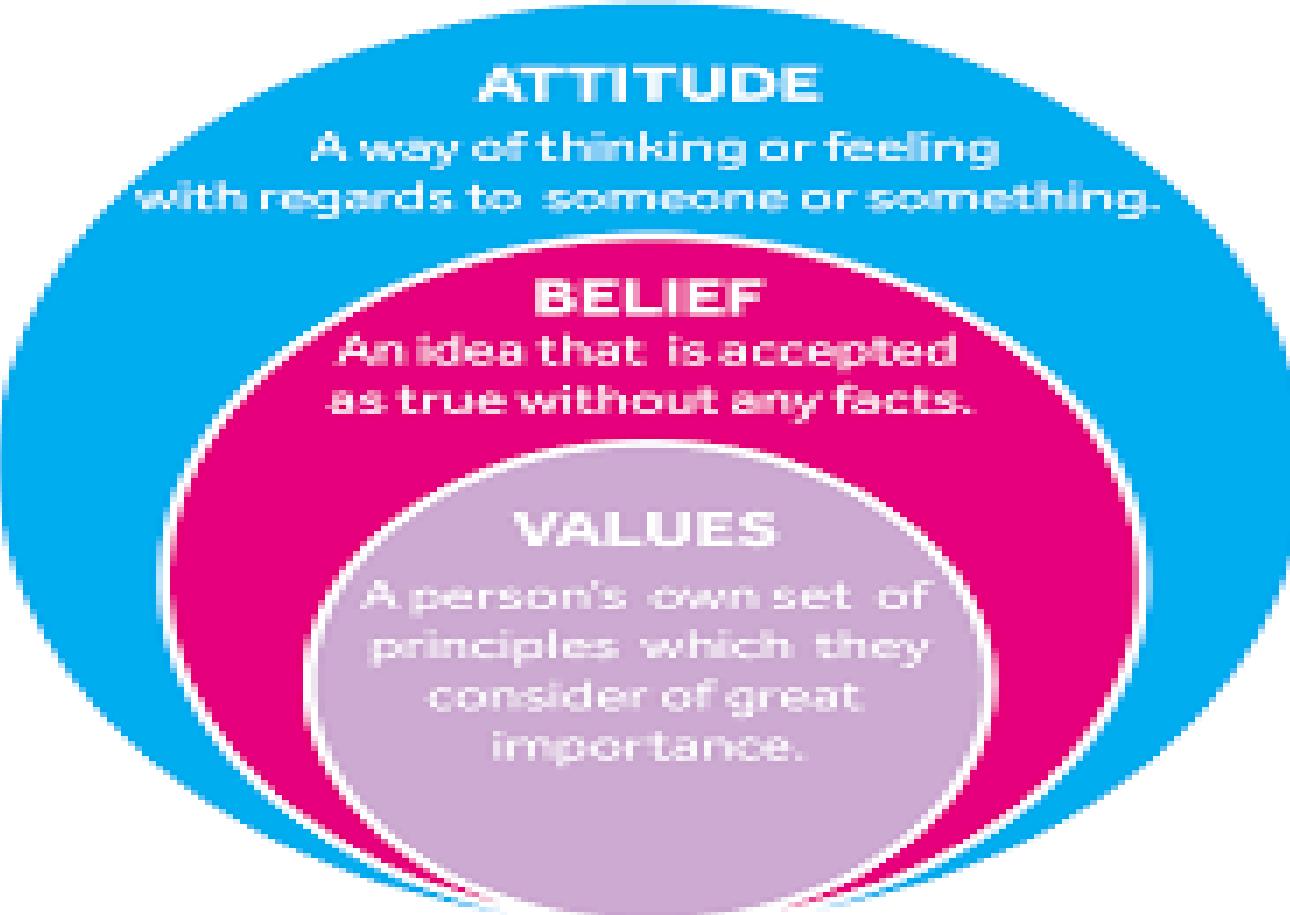
- Predisposing factors
- Enabling factors
- Reinforcing factors

PREDISPOSING FACTORS

Those characteristics of a person or population that motivate behavior before the occurrence of that behavior.

Various predisposing factors are:

1. Knowledge-the state of knowing about a particular fact or situation.
2. values
3. believes
4. attitudes
5. self efficacy



SELF EFFICACY: person's perception of how successful he or she can be in performing a particular behavior.

ENABLING FACTORS

Factors that make it possible for individuals or populations to change their behavior or their environment.

Enabling factors include:

- resources
- conditions of living
- social support and
- the development of certain skills

e.g. enabling factors for a mother to give ORS to her child with diarrhea include having time, a suitable container and the salt solution itself.

REINFORCING FACTORS

Positive or negative influences or feedback from others that encourage or discourage us from performing certain behaviors.

The most important reinforcing factors are usually related to social influences from family, peers, teachers or employers.

SOCIAL INFLUENCE: positive or negative influence from those influential people around us that might encourage or discourage us from performing certain behaviors.

Choose either smoking or alcohol use among young men and think about some of the reinforcing factors or reinforcing people that might encourage them to continue smoking or give up smoking or alcohol.

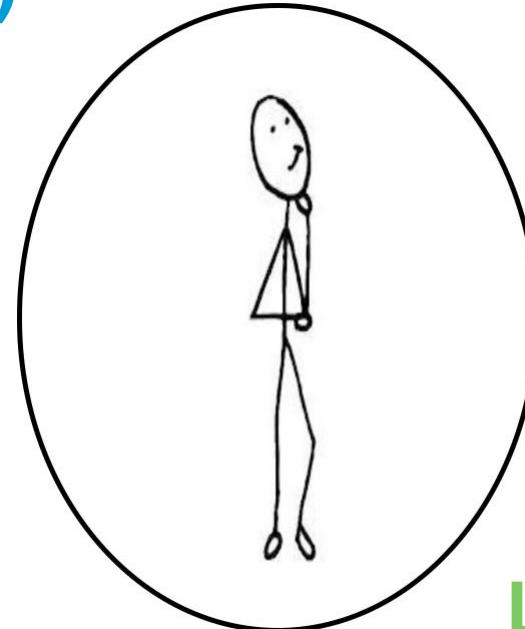
Learning ???

- Learning, the act of gaining & holding on to new information
- Knowledge or skills acquired by experience
- Modification of Behavior tendency through experience

The Circle of Learning

MOTIVATION
(intrinsic/extrinsic)

META-COGNITION
(self monitoring)

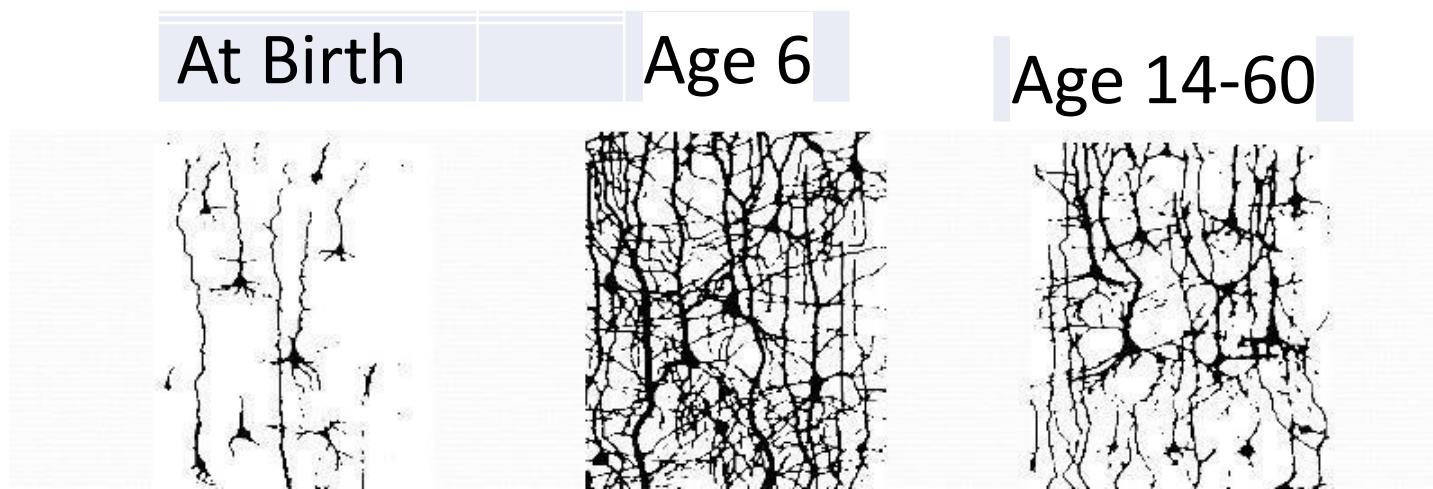


**PRE-EXISTING
KNOWLEDGE**

**LEARNING WITH
UNDERSTANDING**

What is learning

formation of new synapses between neurons in your brain,
strengthening or removal of connections (**neural plasticity**)



What is teaching?

*creating conditions that promote these structural changes
in our students' brains*

How do we Learn?

- ❖ **Through association:** More than 2000 year ago philosophers came to the conclusion that we learn through association. Our minds put two & two together. We experience something which causes a reaction, then the next time we experience it we anticipate the same reaction.
- ❖ Trial & Error
- ❖ Observation

THREE MAJOR TYPES OF LEARNING

1. Learning through association-CLASSICAL CONDITIONING

Associate an involuntary response and a stimulus

2. Learning through consequences-OPERANT CONDITIONING

Associate a voluntary behavior and a consequence

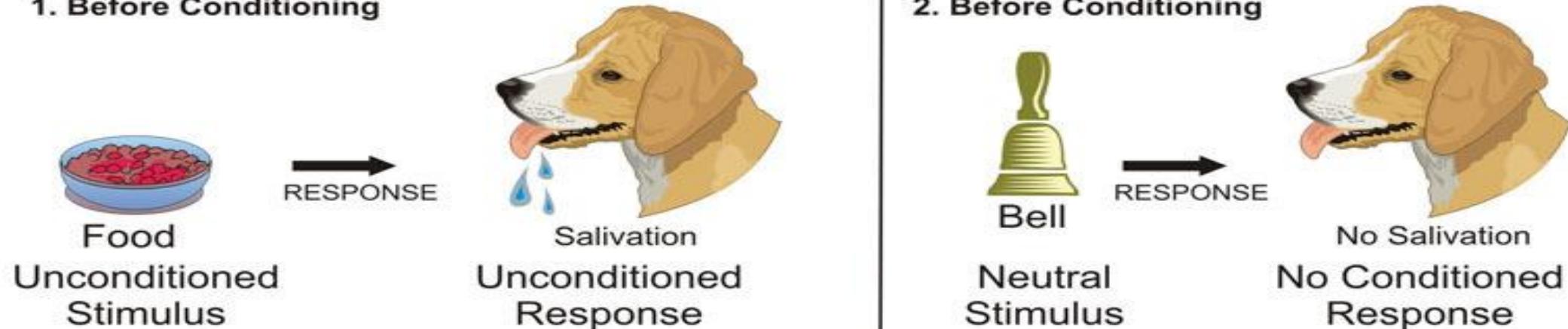
3. Learning through observation-MODELING/OBSERVATIONAL LEARNING

CLASSICAL CONDITIONING- Ivan Pavlov

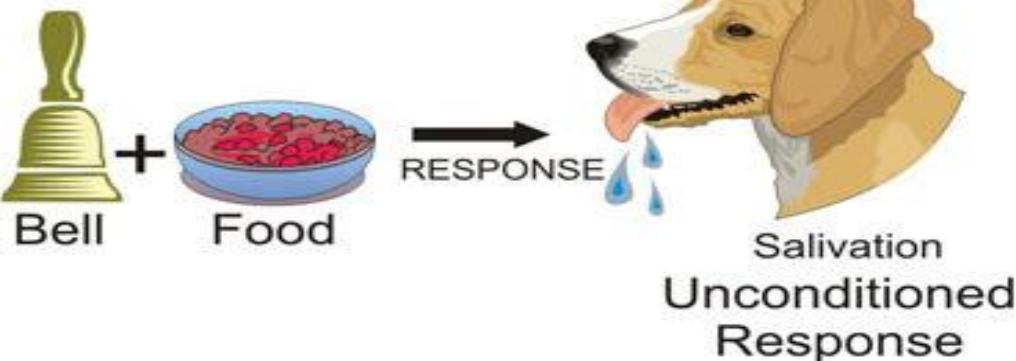
1. Before Conditioning



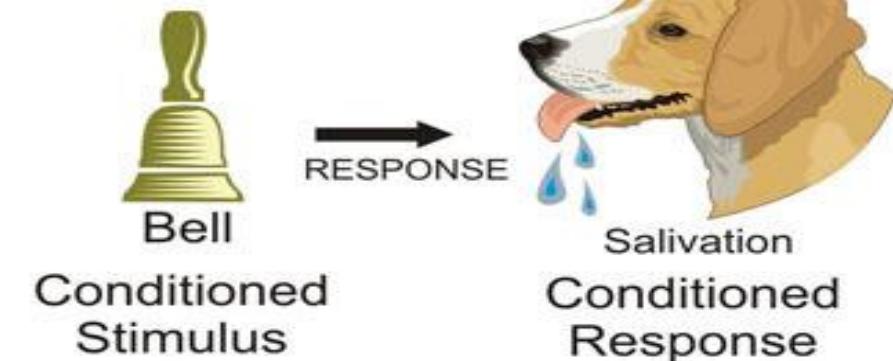
2. Before Conditioning



3. During Conditioning



4. After Conditioning



Classical Conditioning

Operant Conditioning

by B.F. Skinner

	Punishment (decreasing behavior)	Reinforcement (increasing behavior)
Positive (adding)	adding something to decrease behavior	adding something to increase behavior
Negative (subtracting)	subtracting something to decrease behavior	subtracting something to increase behavior

Classical vs Operant conditioning

	Classical conditioning	Operant conditioning
Nature of response	<u>Involuntary</u> (reflexive)	<u>Voluntary</u> (usually) but can be both – Vol & Involuntary
Timing of Stimulus	<u>Precedes</u> the response	<u>After</u> the desired response
Timing of Response	<u>After</u> the stimulus	<u>Before</u> the stimulus
Role of learner	<u>Passive</u>	<u>Active</u>

Learning and Memory

Three gross stages of learning and memory

Acquisition

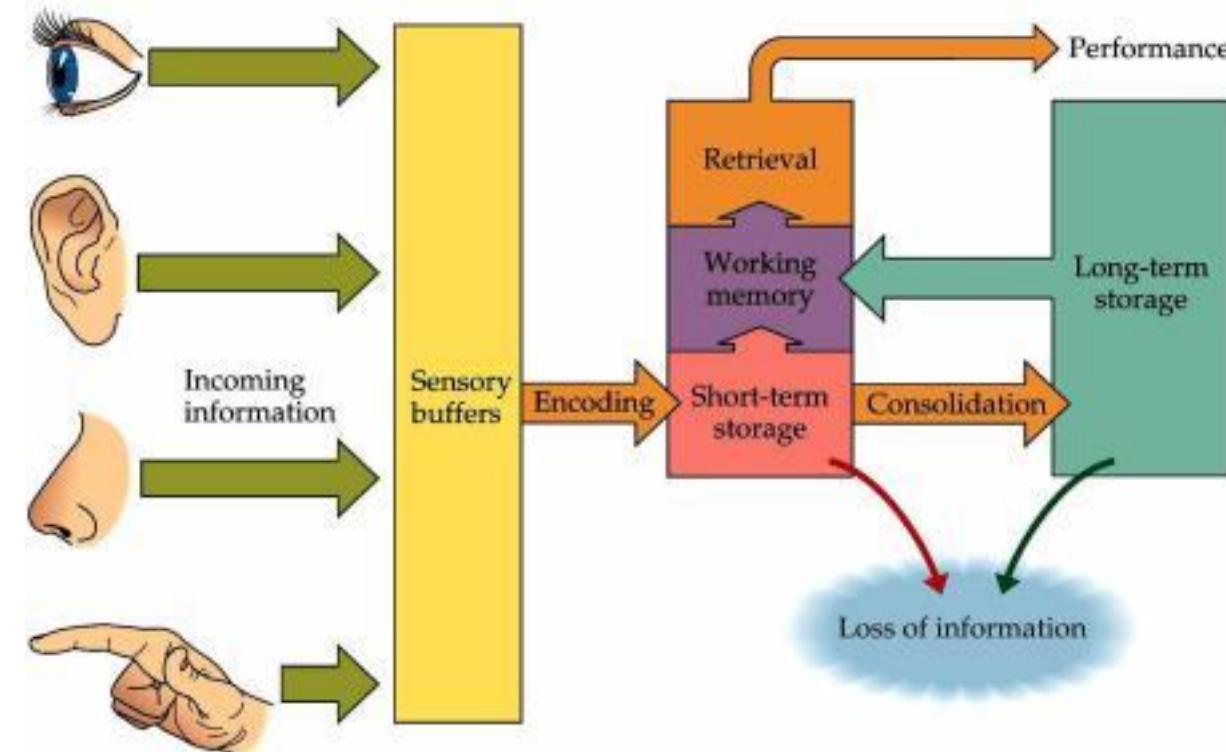
Storage

Retrieval

Organizational Aspects of Learning and Memory

Three gross stages of learning and memory

Acquisition
Storage
Retrieval



Let's define memory...

- is an ability to store, retain, and recall information and experiences.
- is our ability to encode, store, retain and subsequently recall information and past experiences in the human brain.

TYPES OF MEMORY

- **SENSORY MEMORY(<1 sec):**iconic(0.5 sec)-visual
and echoic(3-4 sec)-auditory
- **SHORT TERM MEMORY(<1 min):** working memory
- **LONG TERM MEMORY:** life time

Human Memory

**Sensory
Memory**
(< 1 sec)

**Short-term
Memory
(Working Memory)**
(< 1 min)

**Long-term
Memory**
(life-time)

**Explicit
Memory**
(conscious)

**Implicit
Memory**
(unconscious)

**Declarative
Memory**
(facts, events)

**Procedural
Memory**
(skills, tasks)

**Episodic
Memory**
(events, experiences)

**Semantic
Memory**
(facts, concepts)

Memory Retrieval

Once information has been encoded and stored in memory, it must be retrieved in order to be used.

Basic ways in which information can be pulled from long-term memory

- Recall or Recollection
- Recognition
- Relearning

PERSONALITY

- Gordon Allport defined Personality as “**the dynamic organization within the individual of those Psycho-Physical Systems that determine his unique adjustments to his environment**”.
- Personality can be defined more specifically as “**how a person affects others, how he understands and views himself and his pattern of inner and outer measurable traits**.”
- **Personality is**
 - ❖ A unique set of characteristics
 - ❖ Relatively stable over time

•Personality: Some Terms

- **Personality:** a person's internally based characteristic way of acting and thinking
- **Character:** Personal characteristics that have been judged or evaluated
- **Temperament:** Hereditary aspects of personality, including sensitivity, moods, irritability, and distractibility
- **Personality Trait:** Stable qualities that a person shows in most situations
- **Personality Type:** People who have several traits in common

DETERMINANTS OF PERSONALITY

Personality is the result of both heredity and environment and also the situation.

- **HEREDITY:** physical appearance
temperament
energy level
biological rhythms
- **ENVIRONMENT:** culture i.e. early conditioning
- **SITUATION**

TYPE AND TRAIT APPROACHES TO PERSONALITY

Cattel (1973) identified 16 source traits/personality traits. These traits were found to be generally steady and constant sources of behavior.

1. reserved- outgoing
2. less intelligent- more intelligent
3. affected by feelings- emotionally stable
4. submissive- dominant
5. serious- happy go lucky
6. expedient- conscientious
7. timid- venturesome
8. tough minded- sensitive
9. trusting- suspicious
10. practical- imaginative
11. forthright-shrewd
12. self assured- apprehensive
13. conservative- experimenting
14. group dependent- self sufficient
15. uncontrolled- controlled
16. relaxed- tensed

THEORIES OF PERSONALITY

Carl Jung identified three basic assumptions in theory:

1. Personalities are developmental in that they are influenced by past and hopes for the future.
2. All people have the potential for growth and change.
3. Personality is the totality of a person's interacting sub systems.

Types of Personality Theories

- **Humanistic Theories**: Focus on private, subjective experience and personal growth.
- **Trait Theories**: Attempt to learn what traits make up personality and how they relate to actual behavior.
- **Personality Theory**: System of concepts, assumptions, ideas, and principles proposed to explain personality.
- **Psychodynamic Theories**: Focus on the inner workings of personality, especially internal conflicts and struggles.
- **Social-Cognitive Theories**: Attribute difference in personality to socialization, expectations, and mental processes.

Eysenck's Three Factor Theory

Hans Eysenck, English psychologist, believed that there are three fundamental factors in personality:

- **Introversion versus Extroversion**
- **Emotionally Stable versus Unstable (neurotic)**
- **Impulse Control versus Psychotic**

The first two factors create 4 combinations, related to the four basic temperaments recognized by ancient Greeks:

- **Sanguine** (extroverted + stable): cheerful, hopeful
- **Choleric** (extroverted + unstable): hot-tempered, irritable
- **Melancholic** (introverted + unstable): sad, depressed
- **Phlegmatic** (introverted + stable): sluggish, calm

Galen's Personality Theory

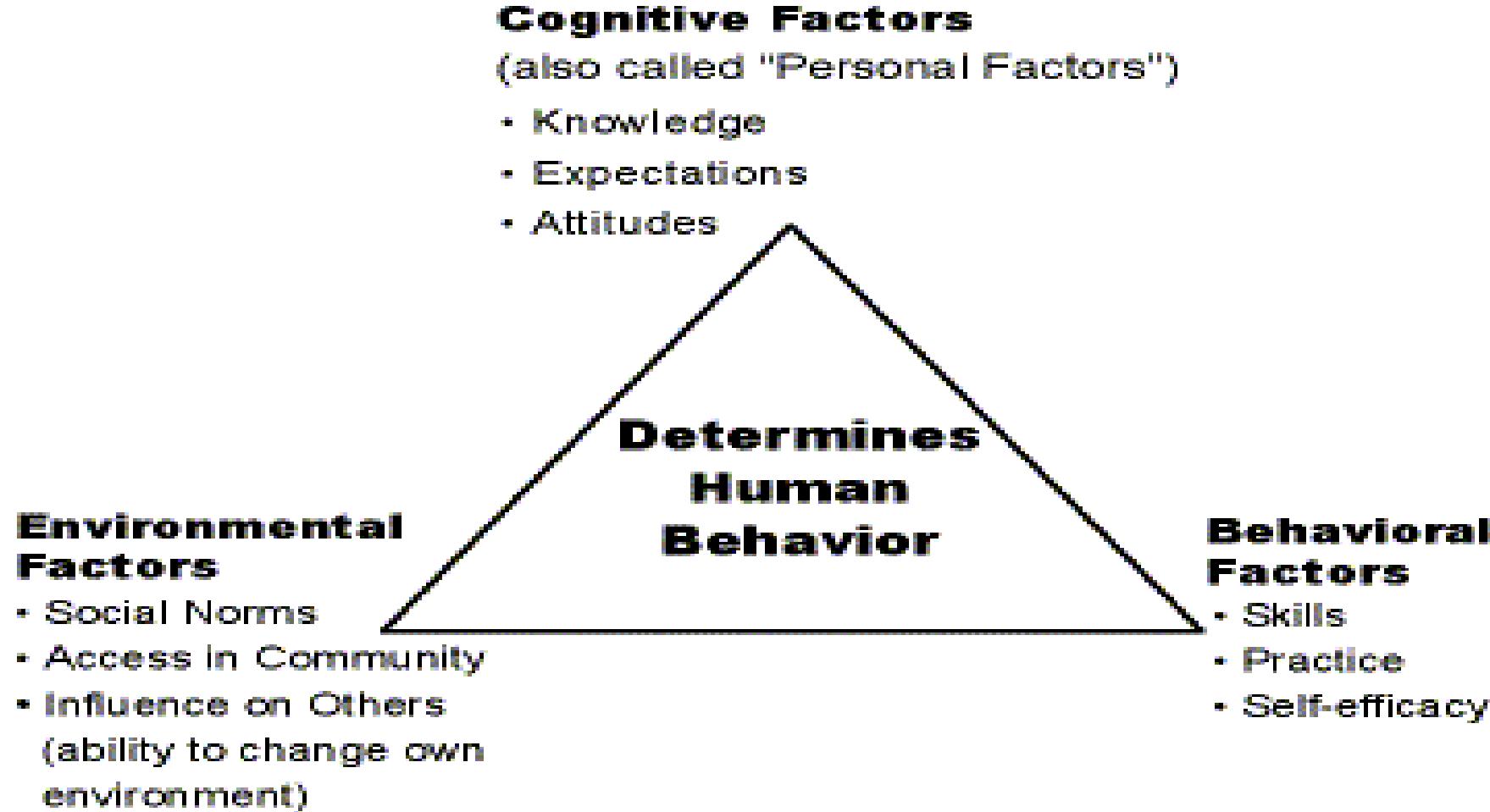
Humor	Fluid
Choleric	yellow bile
Melancholic	black bile
Sanguine	blood
Phlegmatic	phlegm

Psychodynamic Theory by Sigmund Freud

<i>Stage</i>	<i>Age Range</i>	<i>Development Task</i>	<i>Associated Personality Traits</i>
<i>Oral</i>	0–18 months	Moving from infantile dependency toward autonomy	Dependency
<i>Anal</i>	18–36 months	Learning to exercise control over one's body, one's impulses, and other people	Obsessiveness
<i>Oedipal</i>	5–6 years	Mastering competitive urges and acquiring gender role related behaviors	Competitiveness
<i>Latency</i>	6 years–puberty	Investing energy in productive, rewarding tasks and activities	---
<i>Genital</i>	Puberty onward	Mature sexuality (sexuality blended with intimacy)	---

Note: Dashes indicate that no associated character traits exist for that stage (fixation in the latency and genital periods does not play a role in classical psychoanalytic theory).

Bandura's Social Cognitive Theory



EMOTIONS

The term ‘emotion’ is derived from the Latin word ‘emovere’ which means to stir up, agitate, excite or move.

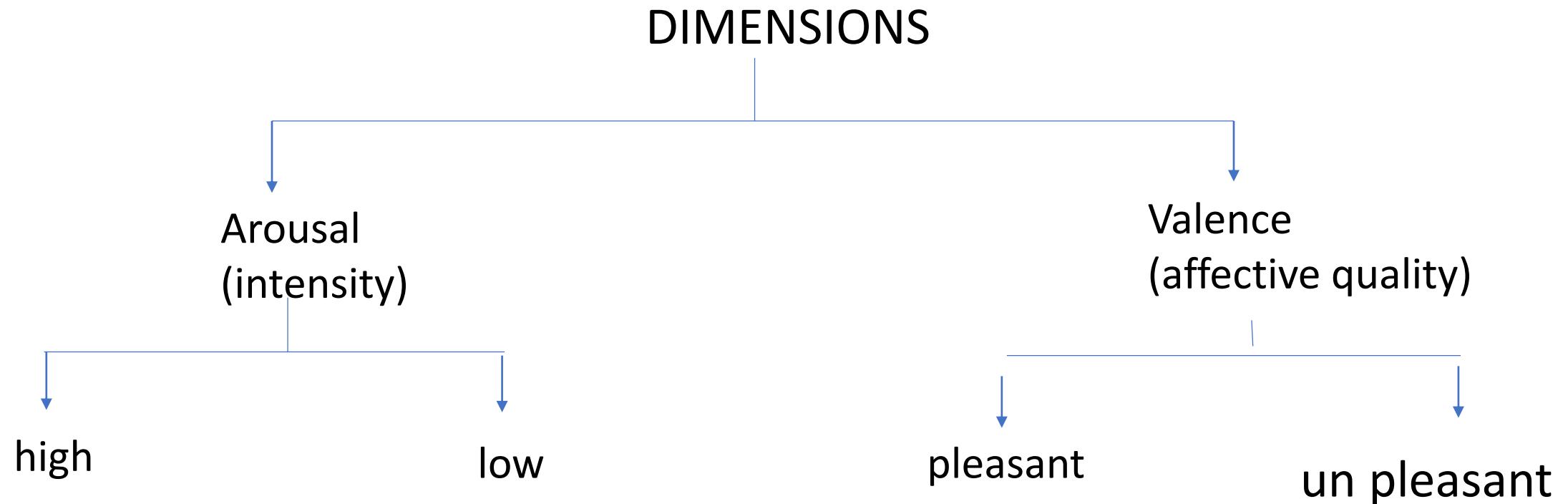
Emotions involve:

- subjective experience
- affective reactions

Each emotion has three basic aspects:

1. **COGNITIVE ASPECT:** thoughts, beliefs, expectations
2. **PHYSIOLOGICAL ASPECT:** involves physiological activation like an increase in BP, pulse rate and respiration when one is in fear or anger.
3. **BEHAVIOURAL ASPECT:** facial expressions, bodily postures and tone of voice vary with anger, joy and other emotions.

Dimensions and Development of Emotions



Important Features of Emotions

- One experience an emotion when any of the basic needs are not satisfied or challenged. One also experience positive emotion on satisfaction of a need.
- Under the influence of an emotion you experience physiological changes such as facial expressions, gestures etc.
- Thinking, reasoning, memory and other psychological functions are affected by emotions.
- During an emotional state tremendous amount of energy is released which helps facing critical situations.
- Both maturation and learning play an important role in development and expression of emotions.
- The experience of emotion can first increase your performance to some extent but if heightened and prolonged it will decrease the level of performance.

Emotion and Physiology

Physiological activity is controlled by autonomic nervous system's

- sympathetic (arousing)
- parasympathetic (calming) divisions

ORGANS RELATED WITH EMOTIONAL EXPERIENCE ARE:

1. **Adrenal glands:** secrete adrenaline which prepare the organism for emergency reactions.
2. **ANS:** 2 parts: sympathetic(emotional arousal) and parasympathetic(normal state)
3. **Hypothalamus:** sends impulses to muscles and glands

Three Ways to Measure Emotions

- Body/Physical

- blood pressure
- heart rate
- adrenaline levels
- muscle activity when smiling, frowning, etc.
- neural images
- posture
- tears
- perspiration
- lie detector readings

- **Thoughts (observed indirectly through)**
 - spoken and written words on rating scales
 - answers to open-ended questions on surveys and during interviews
 - responses to projective instruments, sentence stems, etc.
 - self-assessments or perceptions regarding the behavior and intentions of others
 - other cognitive operations such as rational/logical thinking

- Behavior

- facial expressions
- activity level
- alertness
- screaming
- laughing
- smiling
- aggression
- approach/avoidance
- attention/distraction
- insomnia
- anhedonia

Expression of Emotions

- **Startle Response:** rapid closing of eyes and widening of the mouth
- **Facial Expressions:** eye, nose, lips and forehead twist and twitch and take different shapes.
- **Vocal expressions:** voice trembles and breaks when you are sad, you groan when you are in pain, your voice is loud and high pitched in anger.
- **gestures and postures:** **sorrow:** slump your face
joy: hold your head high
fear: either run or rooted to the spot

Types of emotions



HUMAN TEMPERAMENT

Temperament is **an individual's characteristic level of emotional excitability or intensity** and is typically recognized within the first few weeks after birth.

It is often assumed to be an early indication of personality, though personality combines temperament with experiences to shape life long traits.

Nine Temperamental Traits

❖ **Activity Level:**

child's idle speed or how active the child is generally.

❖ **Biological Rhythms or Regularity:**

predictability of biological functions like appetite and sleep. As grown ups irregular individuals are more likely to adapt to careers with unusual working hours.

❖ **Approach/Withdrawal:**

refers to child's characteristic response to a new situation or strangers.

❖ **Intensity of Reaction:**

energy level of a response whether positive or negative. Does the infant react strongly and loudly to everything? Intense children are more likely to have their needs met but may be exhausting to live with.

❖ **Sensory Threshold:**

how sensitive a child is to a physical stimuli? It is the amount of stimulation needed to produce a response in the child. Highly sensitive individuals are more likely to be artistic and creative.

❖ Adaptability:

relates to how easily the child adapts to transitions and changes, like switching to a new activity. A slow to adapt child is less likely to rush into dangerous situations and may be less influenced by peer pressure.

❖ Distractibility:

degree of concentration and paying attention displayed when a child is not particularly interested in an activity. This trait refers to the ease with which external stimuli interfere with ongoing behavior. High distractibility is seen as positive when it is easy to divert a child from an undesirable behavior but seen as negative when it prevents the child from finishing school work.

❖ Persistence:

the length of time a child continues in activities in the face of obstacles. e.g. a puzzle. When a child persists in an activity he is asked to stop, he is labeled as stubborn. When the child stays with a tough puzzle he is seen as being patient. The highly persistent child is more likely to succeed in reaching goals. A child with low persistence may develop strong social skills because he realizes other people can help.

❖ Mood:

tendency to react to the world primarily in a positive or negative way.
(pessimistic or optimistic)

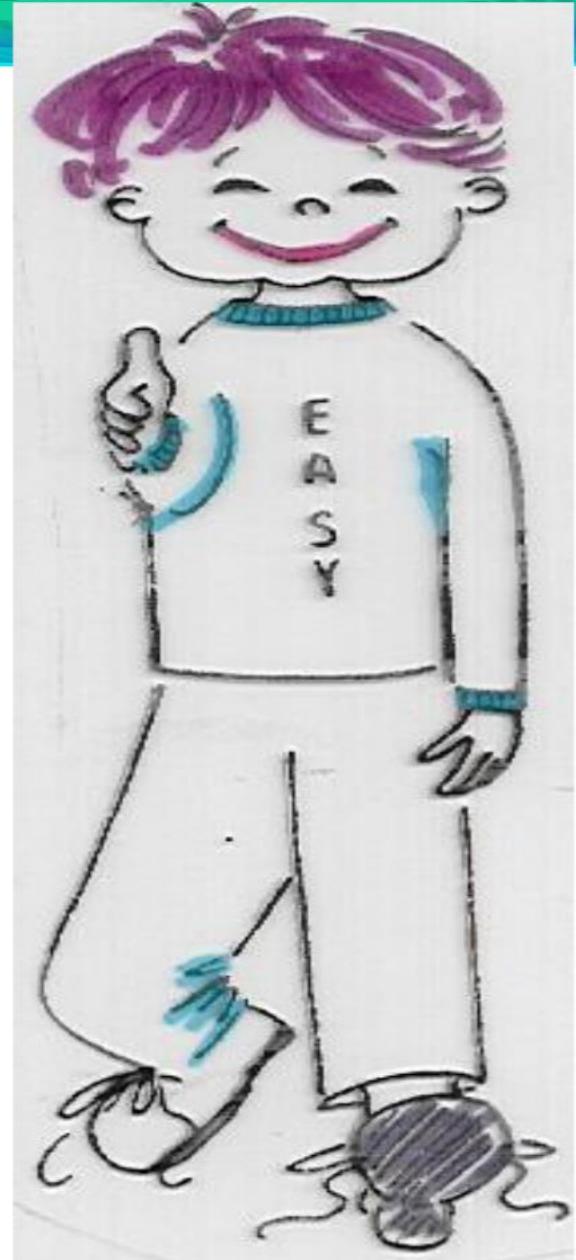
Three Types of Kids

- Easy
- Slow-to-warm-up
- Difficult

Easy

- ❖ Happy, cheerful
- ❖ Adapts easily
- ❖ Smiling and friendly
- ❖ Optimistic
- ❖ Moderately active
- ❖ Cooperative
- ❖ Relaxed, easy going

Moderate emotions



Slow-to-warm-up

- ❖ Timid
 - ❖ Fearful
 - ❖ Anxious
 - ❖ Tense
 - ❖ Shy
- Uncooperative



Difficult

- ❖ Very emotional
- ❖ Resists changes
- ❖ Moody
- ❖ Pessimistic
- ❖ Very active
- ❖ Quick trigger temper

Fidgets and wiggles



HAPPINESS

Overall happiness is the degree to which an individual judges the overall quality of his/her own life as a whole favorably.

The key terms in this definition may be elucidated as follows:

- **DEGREE**: denotes more or less of something
- **INDIVIDUAL**: describe the state of an individual person only
- **SUBJECTIVE**
- **JUDGEMENT**: assessing past experiences and estimating future experiences and estimating average quality of life.

Components of Happiness

- HEDONIC LEVEL OF AFFECT(AFFECTIVE COMPONENT)

It is the degree to which various affects that someone experiences are pleasant in character.

- CONTENTMENT(COGNITIVE COMPONENT)

Degree to which an individual perceives his/her aspirations are met.

The Meaning of Life



Theories about the meaning of life can be divided into two types: subjective and objective

1) Subjective

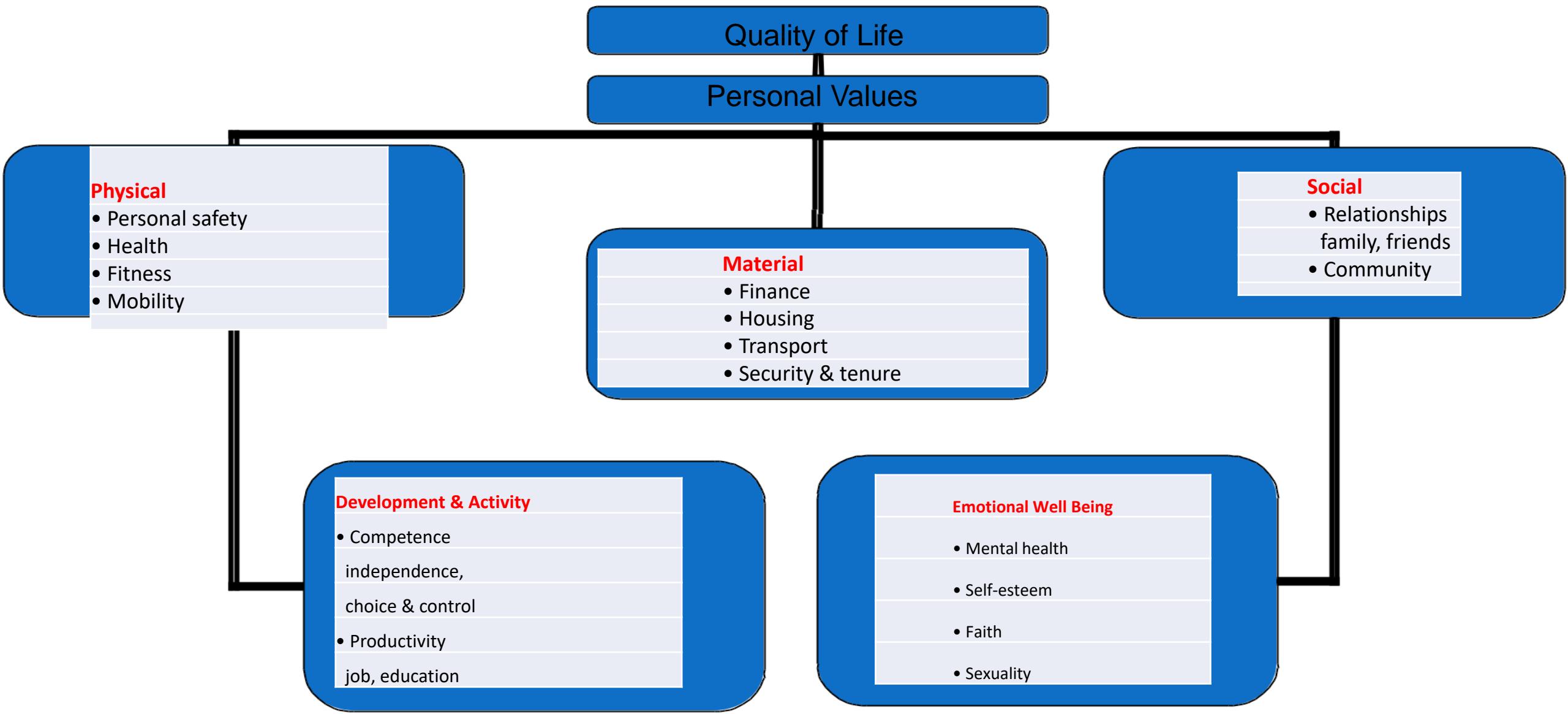
To have a meaningful life = to feel that one has a meaningful life

In other words, what is valuable/meaningful is one's own personal happiness or a sense of fulfillment or psychological health.

2) Objective

Meaning exists outside of ourselves. Some things have value beyond how they benefit us or how they make us feel.

Renwick & Brown's Conceptualization



Eight Main Conceptual Categories for Understanding the Concept of Quality of Work Life

- **Adequate and fair compensation:** refers to a just and fair balance between effort and reward.
- **Safe and healthy working conditions:** work environment should be free from hazards or other factors responsible for health and safety of the employees.
- **Development of human capacities:** refers to the use of skills and abilities of the employees autonomously and requires immediate feedback to take corrective action.
- **Growth and security:** career opportunities of the employees in the job which finally lead to the personal growth and security.
- **Social integration in work organization:** refers to the self esteem and self identity of the employee that should be free from prejudice based on sex, caste, race, creed and religion.
- **Constitutionalization in work organization:** this refers to the “rule of law” and should also ensure zero violation of the constitutional guarantee by executive or organization decision making body.
- **Work and total life space:** means demands of work, like late hours, frequent travel etc. which are both psychologically and socially very costly to the employee or his/her family.
- **Social relevance of work life:** refers to the organization’s lack of concern for social causes like waste disposal, low quality products, over aggressive marketing and employment practices make workers deprecate the value of their work and career which effects their self esteem.

PERSPECTIVES ON KNOWLEDGE, SCIENCE AND TECHNOLOGY

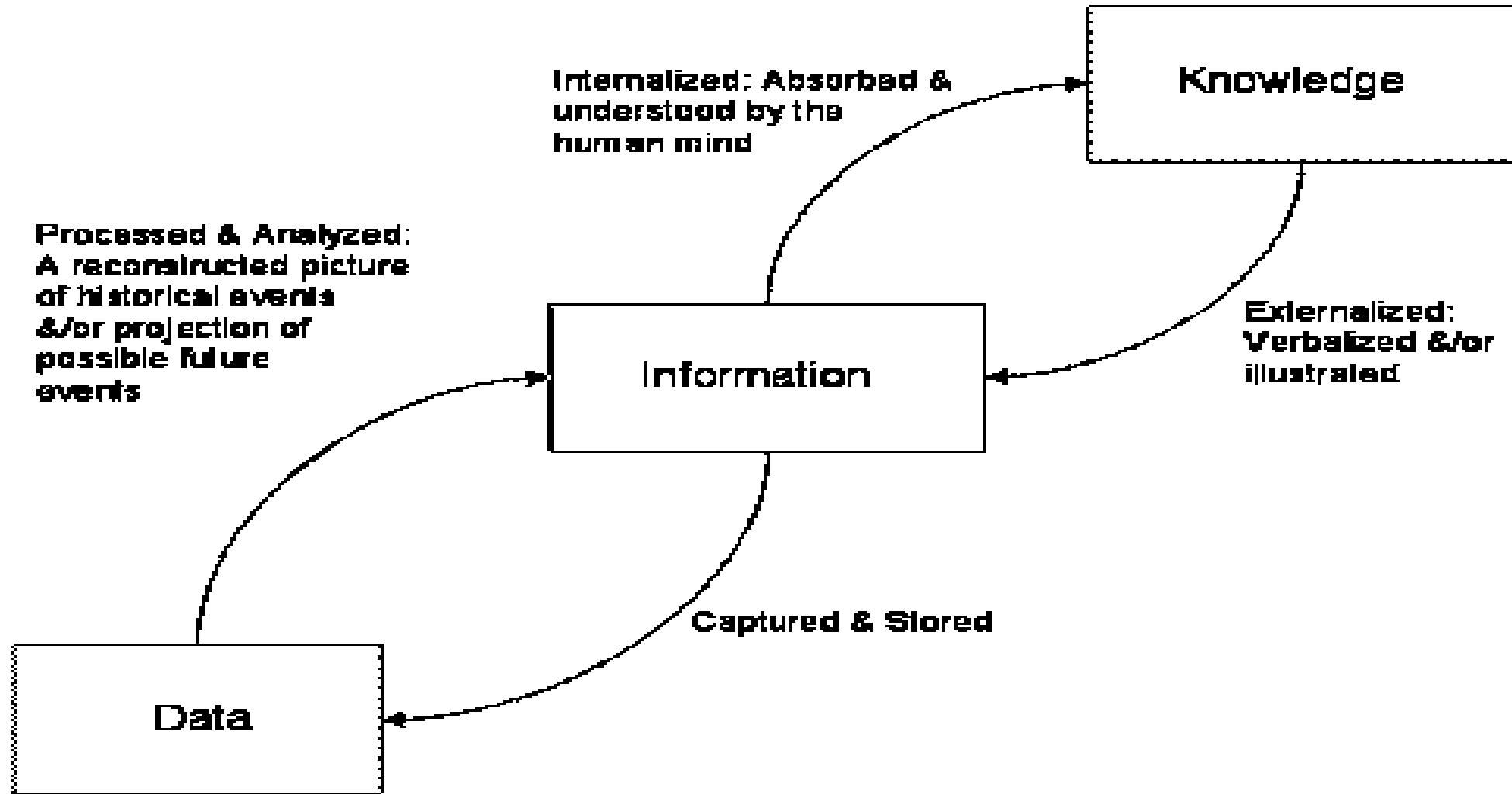
UNIT 3

KNOWLEDGE

- **Definition 1:** justified true belief. Can be justified by facts.
- **Definition 2:** information in context. Coherent with a larger system (rational) and can be useful in decision making and problem solving (pragmatic).
- **Definition 3:** understanding based on experience.
- **Definition 4:** capacity for effective action.

Human knowledge is encoded and communicated in a natural language (e.g. English, Hindi). Knowledge helps us to solve problems.

KNOWLEDGE SYNTHESIS



Data, Information, and Knowledge

- ❖ **Data**: Unorganized and unprocessed facts; static; a set of discrete facts
 - about events
- ❖ **Information**: Aggregation of data that
 - makes decision making easier
- ❖ **Knowledge** is derived from information in the same way information is derived from data; it is a person's range of information

DATA

Data is a set of unorganized information; a quantification or measurement of the real world by a set of variables.

Data are recorded as:

- **Symbols** include words (text/verbal), numbers, diagrams and images(still/video) which are the building blocks of communication.
- **Signals** include sensor/sensory readings of light, sound, smell, taste and touch.

CHARACTERISTICS:

1. Raw materials of information
2. Distinct piece of information
3. Data must be disorganized or unprocessed

INFORMATION

Information is a message that contains relevant meaning, implication, or input for decision and/or action. Information comes from both

- *current(communication)*
- *historical(processed data) sources.*

Information must:

1. be something
2. provide new information
3. be true
4. be about something

CHARACTERISTICS:

- Resultant version of some data
- Always be processed or organized
- It is the context in which data is taken

KNOWLEDGE

Knowledge is information put into a specific context.

Knowledge is the:

1. cognition or recognition (know-what)
2. capacity to act (know-how)
3. understanding (know-why)

CHARACTERISTICS:

- General awareness or possession of information, facts, ideas, truths or principles.
- Clear awareness or explicit information e.g. of a situation or fact.
- All the information, facts, truths and principles learned throughout time.
- Familiarity or understanding gained through experience or study.

TYPES OF KNOWLEDGE

- **Episodic knowledge**

- Refers to our biological memory reflecting not only what happened, but also where and when it happened.
- It means that the memories of our childhood days, our first day in school or cell phone number of our loved ones are all example of episodic knowledge.

- **Semantic knowledge**

- In contrast to episodic knowledge, deals with memories and information that are not tied to our personal biographies.
- The organized knowledge about facts,
 - concepts and generalizations including their
 - associations form part of our semantic knowledge.

Types of semantic knowledge

DECLARATIVE KNOWLEDGE - deals with the statement of truth, it also deals with what we know about the world.

PROCEDURAL KNOWLEDGE- is the knowledge about how things are to be done.

CONDITIONAL KNOWLEDGE- if the declarative knowledge accounts for knowing *what* and procedural knowledge accounts for knowing *how* then, conditional knowledge account for knowing *when*.

Varieties and Types of Knowledge

- **A posteriori**: “from the latter”. Extends from experience or empirical evidence- Operant Conditioning
- **A priori**: from causes to the effect- Classical Conditioning
- **Dispersed knowledge**: information about a topic is fragmented with no single source of truth.
- **Domain knowledge**: describes the knowledge, skills and abilities of experts in a particular field.
- **Empirical knowledge**: stems from quantitative and qualitative observations, measurements and experiments.
- **Encoded knowledge**: represented as data such a document, database etc
- **Explicit knowledge**: can be articulated in a natural language such as French or Japanese.

contd

- **Known unknown**: knowing that you don't know is a form of knowledge that is useful in decision making.
- **Meta knowledge**: knowledge about knowledge such as bibliographic data.
- **Procedural knowledge**: it is often difficult to encode or make explicit.
- **Propositional knowledge**: statements of fact.
- **Situated knowledge**: highly specific knowledge
- **Tacit knowledge**: few individuals achieve mastery of a particular skill

Knowledge can also be divided into:

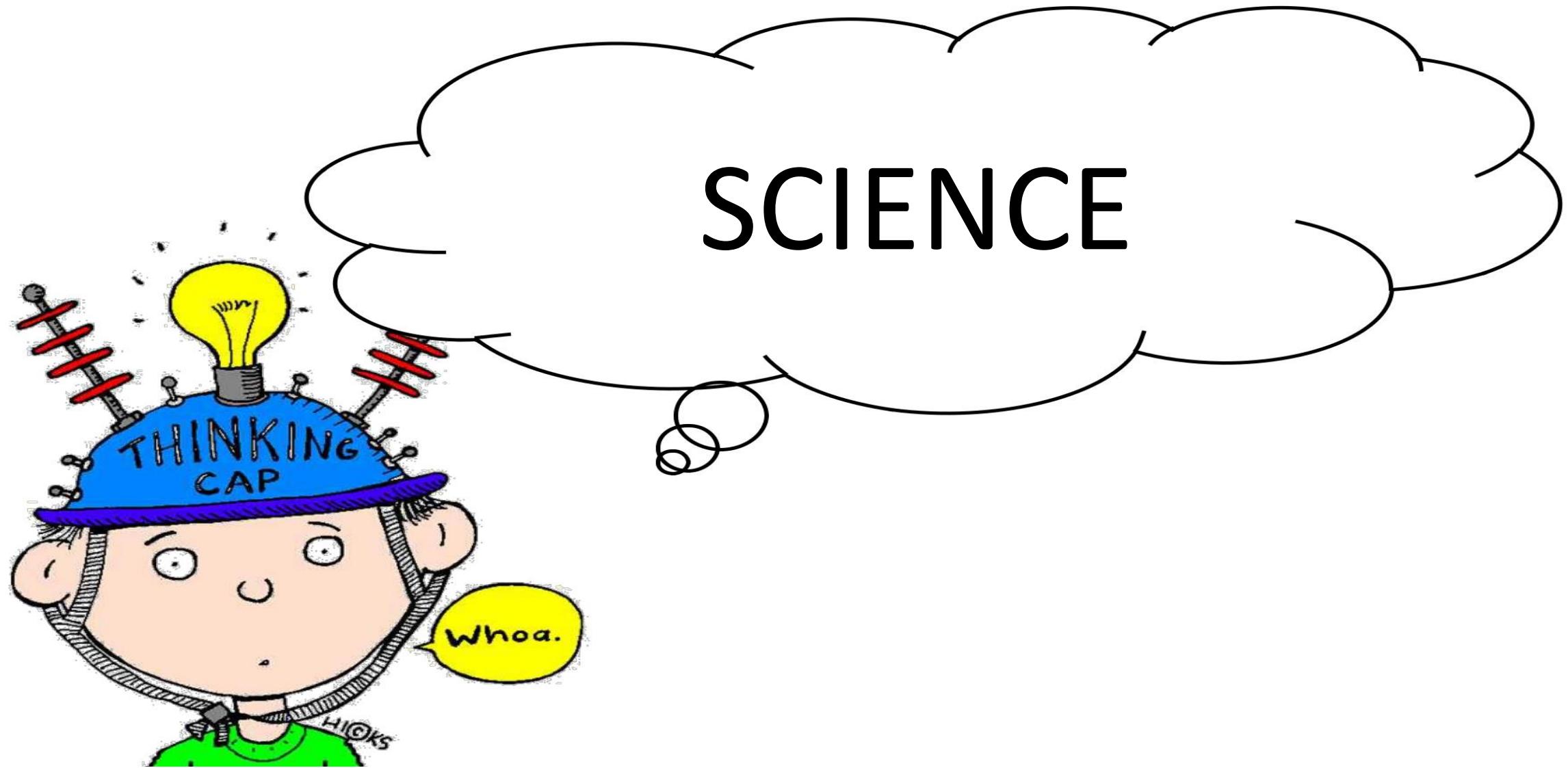
- **MENTAL KNOWLEDGE**: knowledge on the surface which pieces things together but never knows the whole and never knows the depths.
- **SUBLIMINAL KNOWLEDGE**: instinct in animals. knowledge that perceives everything and remembers everything ,even when we are not mentally conscious.e.g. Greek scholar and uneducated servant.
- **SUPRAMENTAL KNOWLEDGE**: it is always knowledge of the whole, not just the parts and it automatically sees the solution to any problem. Moving to the supramental consciousness is long and difficult path. It is a path of yoga.

• INTUITIVE KNOWLEDGE

Sir Aurobindo defines intuition as reason without the influence of the senses. Intuition is a direct knowledge, a direct experience of something else.

Different types of intuition:

1. **Spiritual intuition:** the surface personality surrenders to the psychic and the psychic surrenders to the supramental. If we have sincerity and purity of consciousness, we can always know intuitively which things are true and which are false.
2. **Mental intuition:** mental intuition is with a little bit of vital enthusiasm. E.g. Einstein discovered in his intuition the relationship between mass and energy. While Archimedes, the ancient Greek philosopher, was bathing, he suddenly figured out the relationship between the mass of water in his bathtub and the weight of his body which was displacing the water.
3. **Vital intuition:** if someone knows who is calling on the phone even before they pick up the receiver, that is vital intuition.
4. **Physical intuition:** animals have physical intuition. It is a natural sense that tells them what is good for them to eat. They can also sense danger approaching.



SCIENCE

Science is the
knowledge we get from
study, experiment and
observation

We use **science**
to make our lives **easier**

Technology & Society

What is Technology?

Technology is the application of scientific knowledge of materials & processes to benefit people.

Technology can be

1. Any human made object
1. Knowledge or skills needed to operate a human – made object
1. A system of people & objects used to do a particular task

Understanding the Social Construction of Technology

- ❖ Both technical processes and social processes
 - shape technological development.
- ❖ Thus, what we think of as‘technology’ is produced through many
 - factors, including:
 - ❖ Behaviors of individuals and groups
 - ❖ Economy and markets
 - ❖ Consumer needs and wants

How is technology shaped?

- ❖ The development of technology is affected by society and its changing values, politics, and economics.

A. Social Forces that Shape Technology

- ❖ If consumers fail to buy a product, companies usually will not spend additional money on that type of technology.
- ❖ People will support the development of technologies that agree with their personal values, directly and indirectly.

B. Economic Forces that Shape Technology

. Federal Government

- ❖ One way in which funds are allocated for research and development of technology is through the federal government.

Private Industries

- ❖ Industries budget a portion of their profits for research and development.

C. Responsible Technology

Environmental Issues

- ❖ Sometimes the consequences of technology are known, but the benefits are perceived to outweigh the risks.
- ❖ Sometimes the benefits of technology are known immediately, but the consequences are not known for a period of time.

Consumers and voters have a responsibility to weigh the benefits and consequences of technology.

- ❖ **Example:** The Chernobyl Accident → The worst technological accident in modern times occurred on April 26, 1986, at the Chernobyl nuclear power plant in the Ukraine.
 - An accumulation of radioactive fallout in the upper layers of soil has destroyed important farmland.
 - Groundwater and surface waters were contaminated.

Moral and Ethical Issues

- ❖ Ethical issues in science pose questions and establish rules about how scientific hypotheses should be tested and how society should use scientific knowledge.

Ethics help scientists establish standards that they agree to follow when they collect, analyze, and report data.

What is the Nature of Human Knowledge?

- ❖ **Positivism** – accepts as knowledge only that which can be verified by the scientific method (objective / rational).
 - ⋮
 - ⋮
- ❖ **Social construction theory** – knowledge stems from the interpretations, beliefs and meanings shared by groups of people (subjective).

Engineers

A researcher responsible for bringing technology to the Consumer is called an Engineer.

Technological problems often create a demand for new scientific knowledge.

The Essence of Your Engineering Career

- Engineering is one of the most important professions in society.
 - As engineers we *don't just build things and develop processes*.
 - We build things and make processes *in order to better society*.
- In order to make society better we have to reflect constantly on the products and processes that we make.

Social Responsibility

- ❖ One main connection between ethics and engineering comes from the impact that engineered products and processes have on society.
 - .
 - .
 - .
- ❖ Engineers have to think about designing, building, and marketing products that benefit society.
 - .
 - .
 - .
- ❖ **Social Responsibility** requires taking into consideration the needs of society.

Typical Ethical Issues that Engineers Encounter

- ❖ Safety
- ❖ Acceptable risk
- ❖ Compliance
- ❖ Confidentiality
- ❖ Environmental health
- ❖ Data integrity
- ❖ Conflict of interest
- ❖ Honesty/Dishonesty
- ❖ Societal impact
- ❖ Fairness
- ❖ Accounting for uncertainty, etc.

Professional Responsibility

- ❖ Ethics has a second connection with engineering.
 -
 -
- ❖ It comes from the way in which being socially responsible puts duties and obligations on us individually.
 -
 -
 -
- ❖ Ethics fits into engineering is through **professional responsibility**.

Professional Obligations

- Engineers shall be guided in all their relations by the **highest standards of honesty and integrity.**
- Engineers shall at all times **strive to serve the public interest.**
- Engineers shall **avoid all conduct or practice that deceives the public.**
- Engineers **shall not disclose, without consent, confidential information concerning the business affairs or technical processes** of any present or former client or employer or public body on which they serve.
- Engineers **shall not be influenced in their professional duties by conflicting interests.**
- Engineers **shall not attempt to obtain employment or advancement or professional engagements by untruthfully criticizing other engineers or by other improper or questionable methods.**
- Engineers **shall not attempt to injure maliciously or falsely, directly or indirectly the professional reputation, prospects, practice or employment of other engineers.**
- Engineers **shall accept personal responsibility for their professional activities.**
- Engineers **shall give credit for engineering work to those to whom credit is due and will recognize the proprietary interests of others.**

Role-Responsibilities

ROLE	RESPONSIBILITY
Friend	Look out for the interests of your friend.
Athlete	Play your sport in a professional manner.
Employee	Perform the duties of your job.
Parent	Look after your children and their interests
Citizen	Follow the laws of the country in which you live.

GOVERNANCE AND ENGINEERS

UNIT 4

Concept of Governance

Governance is the exercise of authority or power in order to manage a country's economic, political and administrative affairs.

The 2009 Global Monitoring Report sees governance as:

- power relationships
- formal and informal processes of formulating policies and allocating resources
- processes of decision making and
- mechanisms for holding governments accountable.

Government comprises the set of legal and political institutions that regulate the relationships among members of a society and between the society and outsiders.

Differences between Governance and Management

GOVERNANCE

- Set the norms, strategic vision and direction and formulate high level goals and policies.
- Oversee management and organizational performance to ensure that organization is working in the best interests of the public.
- Direct and oversee the management to ensure that the organization is achieving the desired outcomes and to ensure that the organization is acting prudently, ethically and legally.

MANAGEMENT

- Run the organization in line with the broad goals and directions set by the governing body.
- Implement the decisions within the context of the mission and strategic vision.
- Make operational decisions and policies, keep the governance bodies informed and educated.

Types of government



Democracy

System of government in which the citizens exercise power directly or elect representatives from among themselves to form a governing body, such as a parliament.

Democracy is sometimes referred to as rule of the majority.

Examples: India, Japan, USA, France, Australia.

According to political scientist Robert Dahl, the democratic idea is based on two principles:

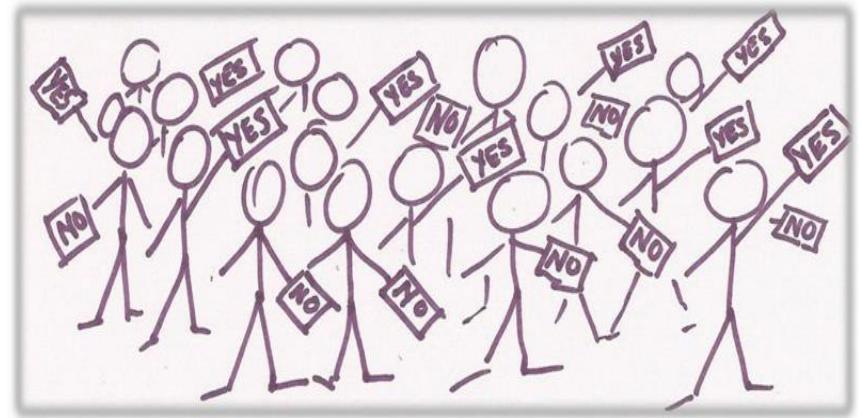
- **POLITICAL PARTICIPATION**: requires that all the people who are eligible to vote can vote.
- **POLITICAL CONTESTATION**: refers to the ability of the people to express their discontent through freedom of speech and press.

Features of Democracy

- A political system for choosing and replacing the government through free and fair elections.
- The active participation of the people as citizens in politics and civic life.
- Protection of the human rights of all citizens.
- A rule of law, in which the laws and procedures apply equally to all citizens.

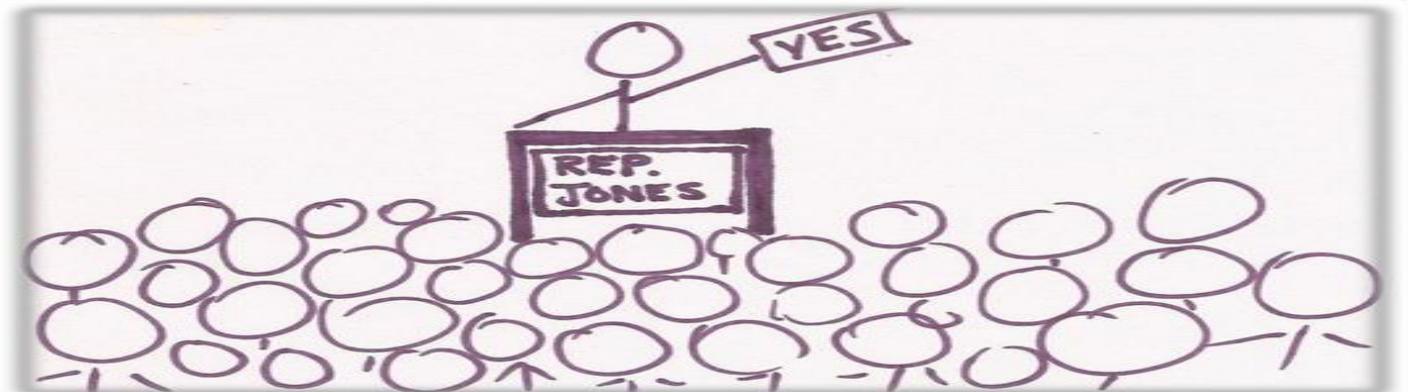
Types of Democracy

- ❖ Direct Democracy: The power of gov't is controlled directly by the people
- ❖ Example New England Town Meetings



Representative Democracy:

- ❖ Through the electoral process, one person or a group of people are elected and assigned with the task of making decisions on behalf of the group of citizens that they represent. Example
- ❖ The United States
- ❖ India



Models of Democracy

- **DELEGATE MODEL:** it is the responsibility of the elected representative to carry out the wishes of the constituency, even if it harms them.
- **TRUSTEE MODEL:** some argue that politicians are specialists who understand the intricacies and implications of policies more than their constituents ever could, so in some circumstances, political leaders should be given the benefit of the doubt.

Systems of Democracy

Two subcomponents of the representative type:

- PARLIAMENTARY SYSTEM e.g. Germany, UK
- PRESIDENTIAL SYSTEM e.g. America
- MIXED SYSTEM

The factors that distinguish one system from another are:

1. electoral procedure
2. distribution of power between the executive and the parliament
3. role of the political parties

Monarchy

A form of government in which a group, usually a family called the dynasty, embodies the country's national identity and one of its members, called the monarch, exercises a role of sovereignty.

e.g. Saudi Arabia

FEATURES:

The actual power of the monarch may vary from

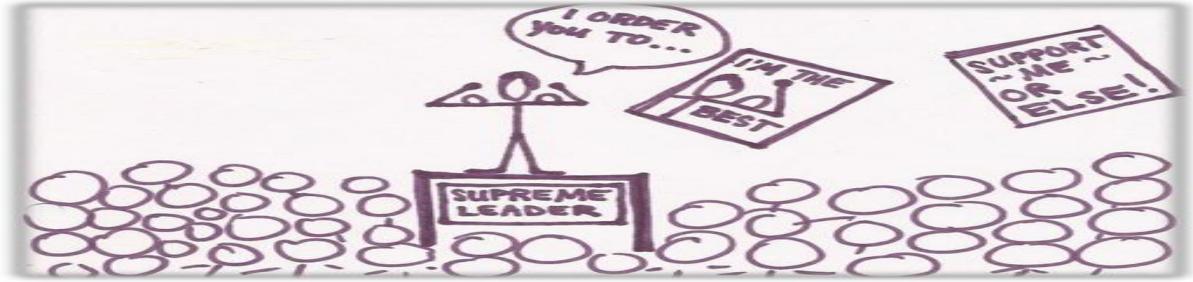
- purely symbolic – CROWNED REPUBLIC
- to partial and restricted – CONSTITUTIONAL MONARCHY e.g. UK



- to completely autocratic – ABSOLUTE MONARCHY
e.g. king of Saudi Arabia



Dictatorship



Form of government where a country is ruled by one person or political entity.

e.g. North Korea under Kim Jong

Dictators usually come to power through some kind of violent struggle, rather than the peaceful passage of power.

FEATURES:

- It comes into existence by force.
- Nearly every aspect of the public and private behavior of citizens is regulated.
- Such systems generally employ political propaganda to decrease the influence of proponents of alternative governing systems.
- Characterized by arbitrary, unaccountable and irresponsible role of the dictator.

Theocracy

Form of Government in which God or deity is recognized as the king or immediate ruler.

In a pure theocracy, the civil leader is believed to have a personal connection with the civilization's religion or belief.



- Description
 - The leaders of gov't are also the leaders of the religion
- Example
 - The Vatican & Iran

Anarchy

❖ Description

- ❖ No gov't and no laws
- ❖ Total disorder

❖ Example

- ❖ Usually comes from gov't failure, overthrown





Politics of India

Republic of India

- A federal republic with a parliamentary system of government
- capital: New Delhi

India is a Sovereign Socialist Secular Democratic Republic with a Parliamentary form of government which is federal in structure with unitary features. There is a Council of Ministers with the Prime Minister as its head to advise the President who is the constitutional head of the country.

The **Government of India** is the [national government](#) of the [Republic of India](#), a federal democracy located in [South Asia](#), consisting of 28 union states and eight union territories. Under the [Constitution](#), there are three primary branches of government: the legislative, the executive and the judiciary, whose powers are vested in a [bicameral Parliament](#), [President](#), aided by the [Council of Ministers](#), and the [Supreme Court](#) respectively.

A federal system

- ❖ Relatively centralized
 - **federal government controls the most essential government functions**
 - : ❖ defense
 - : ❖ foreign policy
 - : ❖ taxation
 - : ❖ public expenditures
 - : ❖ economic (industrial) planning
 - ❖ state governments formally control
 - : ❖ agriculture
 - : ❖ education
 - : ❖ law and order within states
 - dependent on central government for funds

Parallel state structure

- Formal political structure of the states parallels that of the national government

national	state
<hr/>	
• President	Governor
• Prime Minister	Chief Minister
• Parliament	Assembly
• Supreme Court	High Court

The legislature

❖ Parliamentary system of government

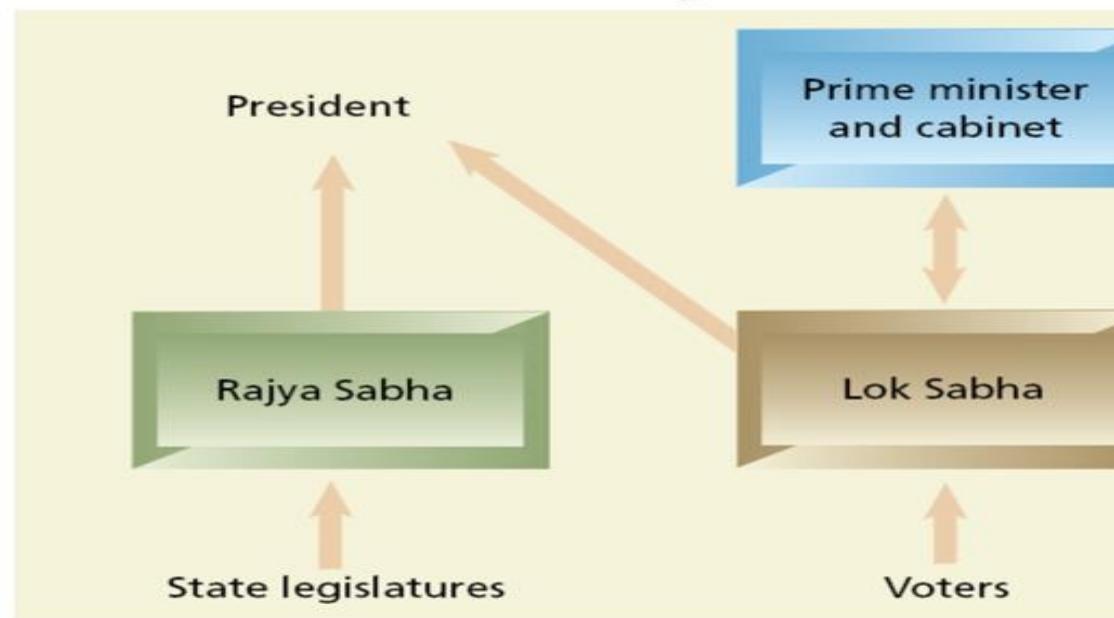
- the executive authority is responsible to the Parliament

❖ bicameral Parliament

- . ❖ Rajya Sabha (Council of States)
❖ Lok Sabha (House of the People)



■ FIGURE 12.2 Decision Making in India



Rajya Sabha (Council of States)

- The Upper House
 - not more than 250 members
 - 12 are nominated by the President of India
 - the rest are indirectly elected
 - by state Legislative Assemblies
 - The Council of States can not be dissolved
 - members have terms of 6 years
 - 1/3 members retire at end of every 2nd year

Lok Sabha

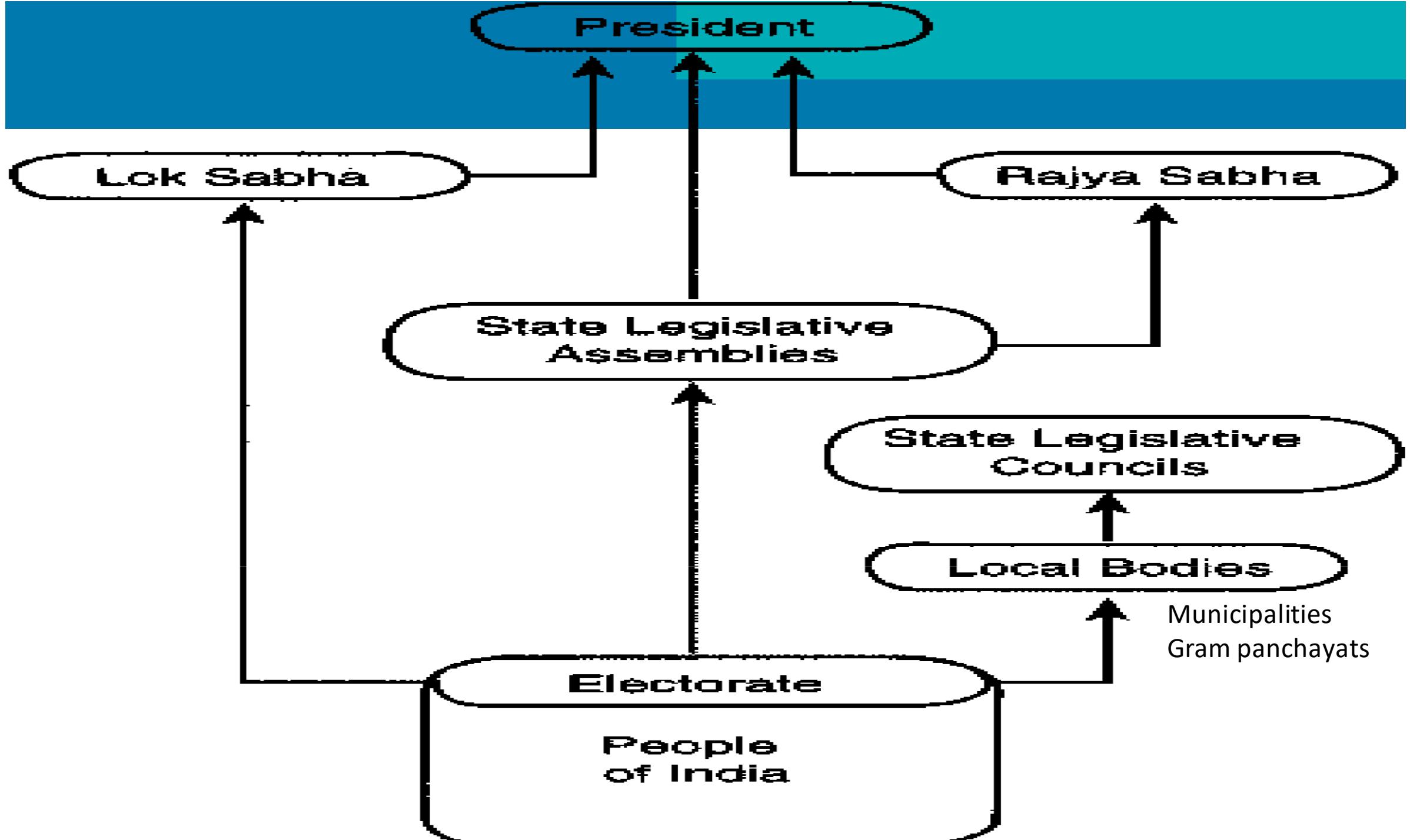
- House of the People
 - 545 members
 - 2 are appointed by the President of India
 - the rest are directly elected from single-member districts
 - 5-year terms unless dissolved
 - Lok Sabha elects its presiding officer
- the Speaker
 - Elections held at least every 5 years
 - Prime Minister may call elections earlier
 - 543 single-member districts of roughly equal population
 - party nomination

Prime Minister

- ❖ Leader of the majority party leader in Lok Sabha becomes the prime minister
- ❖ prime minister nominates a cabinet
 - ❖ members of Parliament in the ruling coalition
 - ❖ Council of Ministers
- ❖ effective power is concentrated in the office of the prime minister
 - ❖ where most of the important policies originate

The President of India

- ❖ Head of the State
- ❖ Commander-in-Chief of the armed forces
- ❖ elected by an electoral college
 - .. ❖ national Parliament
 - .. ❖ state legislature
- ❖ 5-year terms
 - can be reelected



Political Party

A political party is generally described as an organized body of people who share common principles and cherish certain common goals regarding the political system.

A political party operates and seeks political power through constitutional means to translate its policies into practice.

CHARACTERISTICS:

1. it is an organized group of people.
2. These people believe in common principles and common goals.
3. Its objectives revolve around seeking political power through collective efforts.
4. It employs constitutional and peaceful methods in seeking control over the government through elections.
5. While in power, it translates its declared objectives into government policies.

The Judiciary

- ❖ “The judiciary is the system of courts that interprets, defends and applies the law in the name of the state”.
- ❖ It can be thought of as the mechanism for the resolution of disputes.
- ❖ Under the doctrine of the separation of powers, the judiciary generally does not make statutory law (which is the responsibility of the legislature) or enforce law (which is the responsibility of the executive), but rather interprets law, defends and applies it to the facts of each case.
- ❖ **There is**
 - principle of parliamentary sovereignty
 - principle of judicial review.
- ❖ **judiciary tries to preserve the constitution's basic structure.**
- ❖ to ensure that legislation conforms with the intent of the constitution.
- ❖ parliament tries to assert its right to amend the constitution.

ECONOMIC SYSTEM

It is a mechanism which deals with the production, distribution and consumption of goods and services in a particular society.

It is composed of:

- people
- institutions and
- their relationships

The purpose of every economy is to satisfy human wants by using limited or scarce resources available and known to a society. These wants can be satisfied by production and consumption of goods and services.

These economic activities bring income to the economic agents that can either be consumed or saved and invested.

Factors of Production

They work as a unit and the removal of any of them will bring production to a halt.

1. Land
2. Labor
3. Capital
4. Entrepreneur

Salient Features of an Economy

- Economic institutions are man made.
- Economic institutions can be created, destroyed, replaced or changed.
- Levels of economic activities keep on changing.
- Producers and consumers are the same persons.
- Production, consumption and investment are the vital processes of an economy.
- In modern complex economies we use money as a medium of exchange.
- Now a days the government intervention in the economy is considered undesirable.

Types of Economies

Resources or means of production remain either in private ownership with full individual freedom to use them for the profit motive or they can be in collective ownership (government control) and can be used for the collective welfare of the society as a whole.

Based on the criterion of degree of individual freedom and profit motive, economies are labelled as:

1. Capitalist or free enterprise economy
2. Socialist or centrally planned economy
3. Mixed economy

CAPITALISM

- ❖ Capitalism is an economic system based on **PRIVATE OWNERSHIP** of the means of production and on **INDIVIDUAL ECONOMIC FREEDOM**
- ❖ *Growth of towns and cities and the expansion of trade in the late Middle Ages sparked this economic development*
- **Three Main Features :**
 1. Private Ownership
 - 2. Profit motive
 - 3. Market Economy

CAPITALISM

1. Private Ownership: Capital belongs to individuals who are FREE to do what they wish with it. For this reason, capitalism is also called the “free-enterprise” system



CAPITALISM

2. Profit Motive: based on the economic laws of supply and demand, when enough people want something, producers make it because they want a PROFIT



CAPITALISM

3. Market Economy: a money value can be placed on everything in the marketplace:

land,

goods,

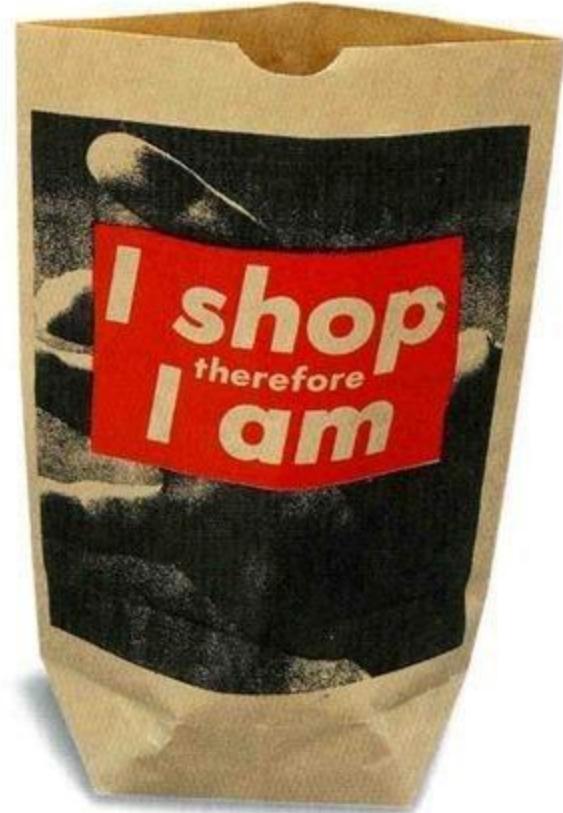
time and

labor.

Buyers and sellers are free to exchange goods and

services at prices determined by..... “SUPPLY and

DEMAND”



THERE IS

- **FREE COMPETITION:**

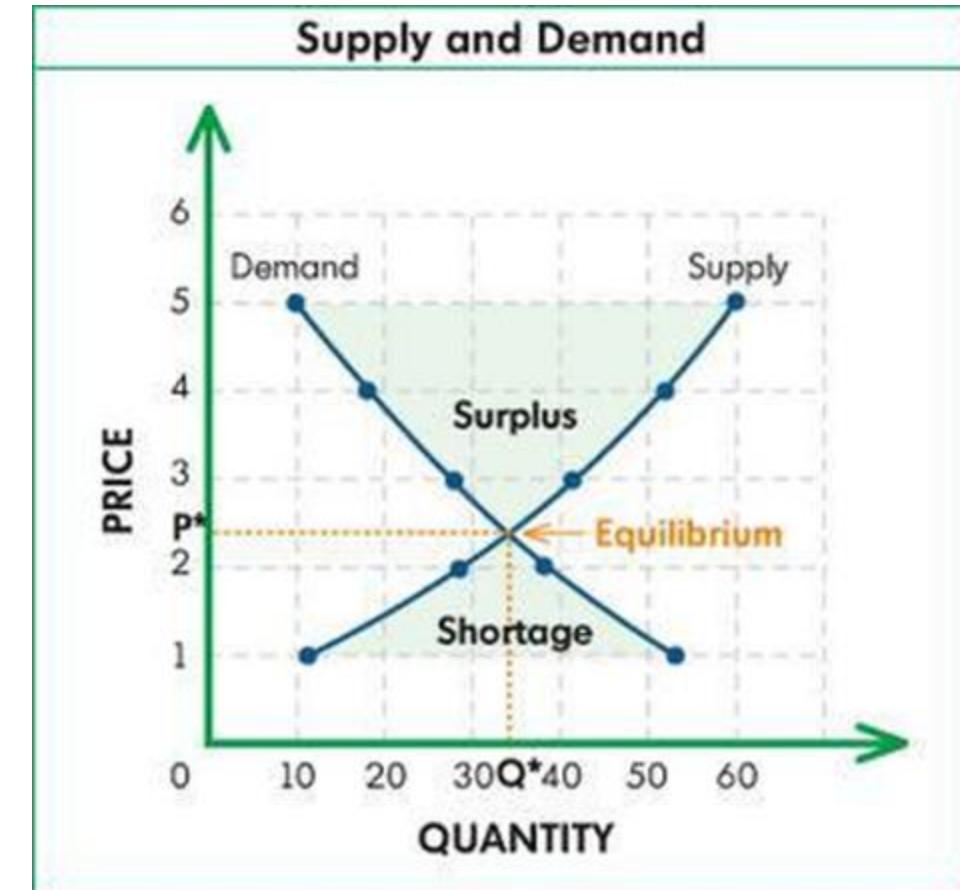
Prices will be kept as low as possible because consumers will seek the best product for the least amount of money.

- **SUPPLY AND DEMAND:**

In a capitalist system prices are determined by how many products there are and how many people want them. When supplies increases, prices tend to drop. If prices drop, demand usually increases until supplies run out. Then prices will rise once more, but only as long as demand is high. These laws of supply and demand work in a cycle to control prices and keep them from getting too high or too low.

Q: Why does a DEMAND curve always slope downward?

Answer: The demand curve always slopes downward because as more of an item becomes available, the lower the price



CAPITALIST ECONOMY

It is the oldest form of economy. They advocated minimum govt intervention in the economic activities.

MAIN FEATURES:

1. **Private Property-** there is no restriction on ownership of land, machines and to earn profit and accumulate wealth. After the death of a person the property is transferred to the legal heirs.
2. **Freedom of Enterprise-** govt does not coordinate production decisions of the citizens. Individuals are free to choose any occupation.
3. **Consumer's Sovereignty**
4. **Profit Motive**
5. **Competition-** there are no restrictions on the entry and exit of firms. There are a large number of producers to supply a particular good or service , so no firm can earn more than normal profit.
6. **Importance of Markets and Prices**
7. **Absence of Govt Interference**

SOCIALIST ECONOMY

In the socialist or centrally planned economies all the productive resources are owned and controlled by the govt in the overall interest of the society. A central planning authority takes the decisions.

MAIN FEATURES:

1. Collective ownership of means of production
2. Social welfare objective
3. Central planning economic planning: it keeps the national priorities and availability of resources in mind.
4. Reduction in inequalities
5. No class conflict: every person is a worker, so there is no class conflict.

BASIS OF DIFFERENCE	CAPITALIST ECONOMY	SOCIALIST ECONOMY
Resources Ownership	Privately owned	State owned
Foundation belief	competition brings out the best in people	cooperation is the best way for people to coexist
Earning of wealth	everyone works for his own wealth	everyone works for wealth which is distributed equally to everyone
Market Scenario	Level playing field	Protection to PSUs, Private enterprises are permitted in few businesses only
Govt. interference	Only in situations where laws have been broken	Fully involved
Employees motivation	Highly motivated on account of proportional benefits	Rarely motivated as performance is not rewarded
Merit	Perception of better economic growth because of competition	Equal distribution of income results in welfare of all
Demerit	Few individuals/groups attain powers, rest are exploited	Hard work is not rewarded, lazy employees also enjoy equal level of benefits

MIXED ECONOMY

Any economy in which private corporate enterprises and public sector enterprises exist side-by-side, and decisions taken through market mechanism are supplemented by some form of partial planning, is to be described as a mixed economy.

FEATURES

- Co existence of public and private sectors
- Individual freedom: but producers are not given the freedom to exploit consumers and laborers.
- Economic planning: the private sector is provided encouragement, incentives, support and subsidies to work as per national priorities.
- Price mechanism: for those who cannot afford to purchase the goods at market prices, govt makes the goods available either free of cost or at below market prices. So people enjoy individual freedom and govt support to protect the interests of weaker sections of the society.

Communism

- ❑ A political and economic system in which the government controls all business.
- ❑ Individual people cannot own property or industries and in theory, people of all social classes are treated equally.
- ❑ Communist countries have totalitarian governments.
- ❑ All communists are socialists, but not all socialists are communists.
- ❑ Provides a clear demarcation of the boundaries of public sector and private sector so that the core sector and strategic sectors are invariably in the public sector.
- ❑ The government intervenes to prevent undue concentration of economic power, and monopolistic and restrictive trade practices.
- ❑ The rights of the individual are respected and protected subject only to the requirements of public law and order and morality.

DIFFERENCES BETWEEN COMMUNISM, CAPITALISM AND SOCIALISM

COMMUNISM	CAPITALISM	SOCIALISM
No Private Ownership	Total Private Ownership	Limited Private Ownership
Central Government	Market Forces	Government and Private Entities
No Class Distinction	Class Distinction	Limited Class Distinction
Production for Basic Needs	Production for Profit	Production for Societal Needs
Karl Marx	Adam Smith	Charles Fourier

Utilitarianism

- **Utilitarianism**- idea that society should aim to produce the greatest good for the greatest number of people
- Government involvement might be needed to make sure this happens . . .
- Based on the **Principle of Utility** :
 - an action is "right" if it produces more of an increase in happiness for all affected by it than any alternative action, and wrong if it does not".
- In other words . . . *Pleasure* and *happiness* are intrinsically valuable, while *pain* and *suffering* are not .
 - . . .
- Things have value to society only if they cause more happiness than suffering.

MARXISM

- Marxism is a social, political, and economic theory originated by Karl Marx that focuses on the struggle between capitalists and the working class.
- Marx wrote that the power relationships between capitalists and workers were inherently exploitative and would inevitably create class conflict.
- He believed that this conflict would ultimately lead to a revolution in which the working class would overthrow the capitalist class and seize control of the economy.

Marxism and Neo Marxism

Marxism: Marxism is based on the writings of Karl Marx, he argued that society was shaped by the economy and it is a conflict based perspective.

Neo Marxism: Neo Marxist have developed the ideas of Marx but took into account the changes that occurred in the 20th century. Rather than only considering class, they also consider the role of ideas and culture.

TYPES OF ECONOMICS ON THE BASIS OF LEVEL OF DEVELOPMENT

- **DEVELOPED ECONOMY**
- **DEVELOPING ECONOMY**

The countries are labeled developed or rich and developing or poor on the basis of real national and per capita income and standard of living of its population.

Developed Countries

These have :

- Higher national and per capita income
- High rate of capital formation i.e. high savings and investment
- Highly educated human resources
- Better civic facilities
- Better health and sanitation facilities
- Low birth rate
- Low death rate
- Low infant mortality
- Developed industrial and social infrastructures
- Strong financial and capital market

Developing Countries

- These are low on the ladder of development.
- They are sometimes also called **underdeveloped, backward or poor countries.**
- The national and per capita income is low.
- They have backward agricultural and industrial sectors with low savings, investment and capital formation.

Economic Growth and Development

ECONOMIC GROWTH is a sustained increase in national income.

ECONOMIC DEVELOPMENT includes not only economic growth but also various other economic changes that improve the quality of life or standard of living of people in a country.

Some important institutions like **UNESCO** and **ILO** include the basic needs approach such as availability of food, clothing and shelter, availability of drinking water, sanitation and public transport facilities, good health and education as an index of economic development.

The United Nations Development Programs emphasizes on **Human Development Index (HDI)** that is based on per capita income, educational attainment and life expectancy. Thus it is a composite index of economic and social indicators.

Determinants of Economic Development

ECONOMIC FACTORS

- **Natural Resources:** quality and quantity of natural resources affect the rate of growth.
- **Human Resources:** educated and technically qualified manpower helps in achieving higher growth rate.
- **Capital Formation:** rate of savings must be high.
- **Technology:** depends on continuous research and development.

NON-ECONOMIC FACTORS

- **Caste System**
- **Family Type**
- **Racial Factors**
- **Government Policies**

Engineering and Corporate Social Responsibility

UNIT 5

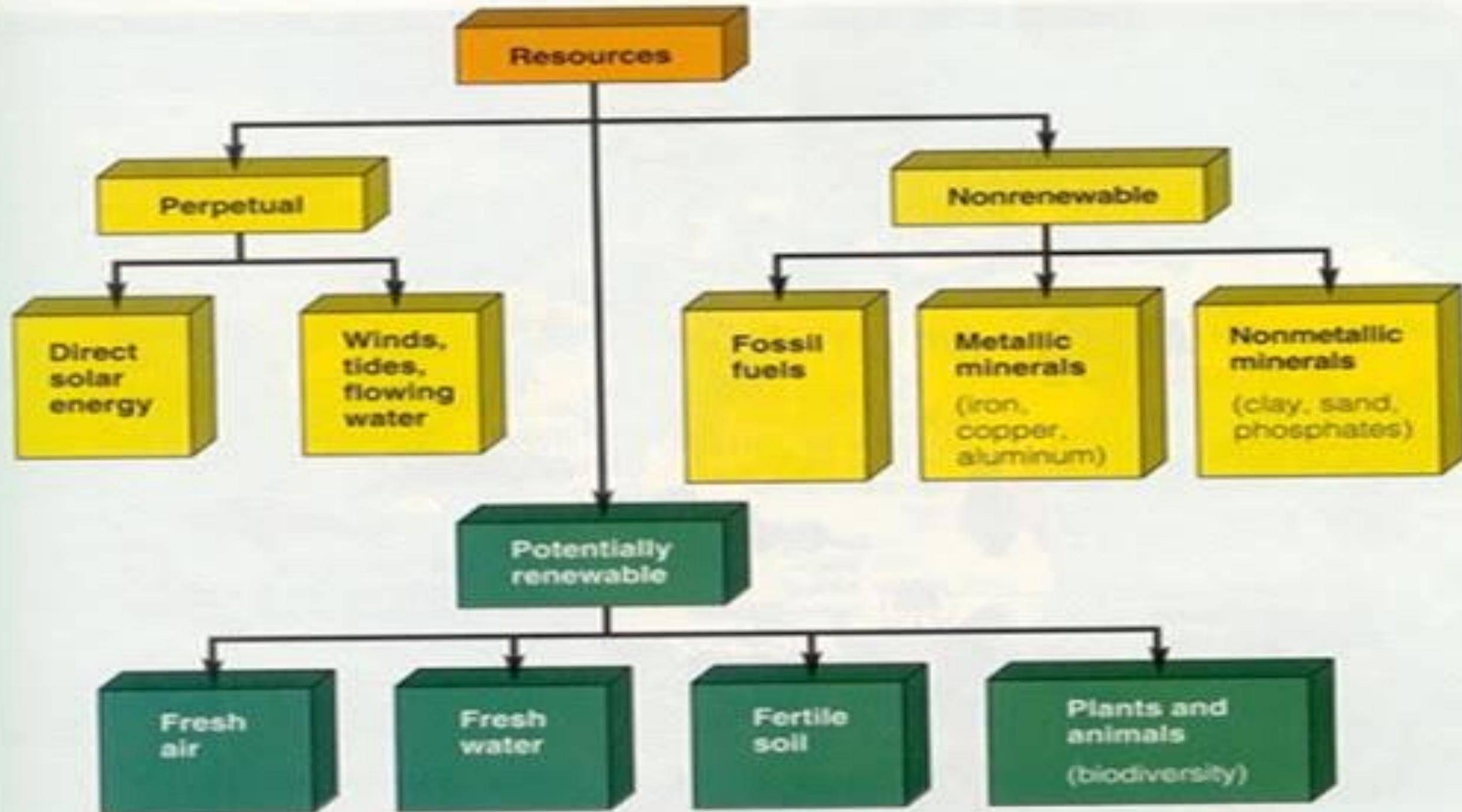
Natural Resources

❖ Natural resources are the substances that are supplied by nature and needed for survival.

- - ❖ Include air, water, soil, sun, plants, animals, and *fossil fuels* (coal, oil, and natural gas).
 - Many natural resources are limited in supply and cannot be renewed.

❖ Pollution is the action or process of making natural resources unsafe or unusable.

- - ❖ Smoke and exhaust causes the air to become dirty and harmful to breathe.
 - - ❖ Waste dumped into waterways harms fish and animals.
 - ❖ Nuclear waste can pollute air, water, and soil.



Atmosphere

- Oxygen for human respiration (metabolic requirements).
- Oxygen for wild fauna in natural ecosystems and domestic animals used by man as food.
- Oxygen as a part of carbon dioxide, used for the growth of plants (in turn are used by man).

The atmosphere forms a protective shell over the earth.

The lowest layer, the **troposphere**, the only part warm enough for us to survive in, is only 12 kilometers thick.

The **stratosphere** is 50 kilometers thick and contains a layer of sulphates which is important for the formation of rain. It also contains a layer of **ozone**, which absorbs ultra-violet light known to cause cancer and without which, no life could exist on earth.

The atmosphere is not uniformly warmed by the sun. This leads to air flows and variations in climate, temperature and rainfall in different parts of the earth. It is a **complex dynamic system**. If its nature is disrupted it affects all mankind.

To continue to support life, air must be kept clean.

- . The buildup of carbon dioxide which is known as '**greenhouse effect**' in the atmosphere is leading to current global warming.
- Air pollution leads to **acute and chronic respiratory diseases** such as various lung infections, asthma and even cancer.

Hydrosphere

- Clean water for drinking (a metabolic requirement for living processes).
- Water for washing and cooking.
- Water used in agriculture and industry.
- Food resources from the sea, including fish, crustacea, sea weed, etc.
- Food from fresh water sources, including fish, crustacea and aquatic plants.
- Water flowing down from mountain ranges harnessed to generate electricity in hydroelectric projects.

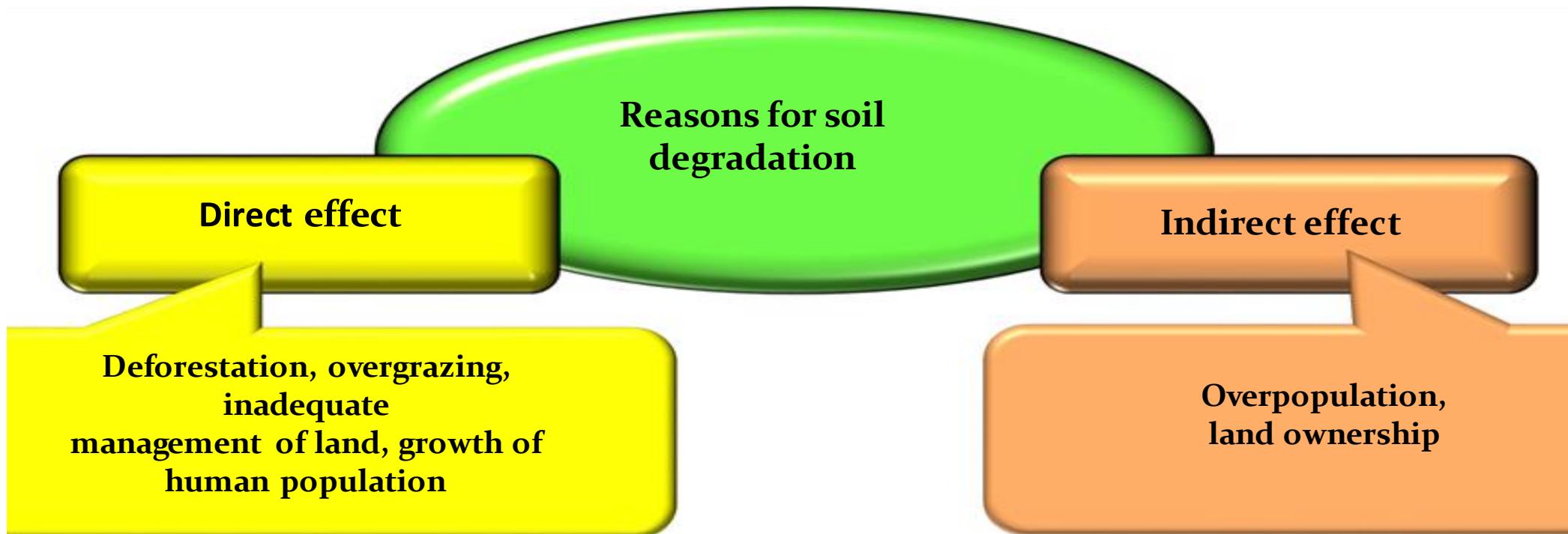
Lithosphere

- Soil, the basis for agriculture to provide us with food.
- Stone, sand and gravel, used for construction.
- Micronutrients in soil, essential for plant growth.
- Microscopic flora, small soil fauna and fungi in soil, important living organisms of the lithosphere, which break down plant litter as well as animal wastes to provide nutrients for plants.
- A large number of minerals on which our industries are based.
- Oil, coal and gas, extracted from underground sources. It provides power for vehicles, agricultural machinery, industry and for our homes.

Soil resources

One of the most important renewable natural resources is soil – the biologically active upper layer of land with a unique property – **fertility**.

To provide the world's population with food, it is imperative that land degradation be reduced.



Biosphere

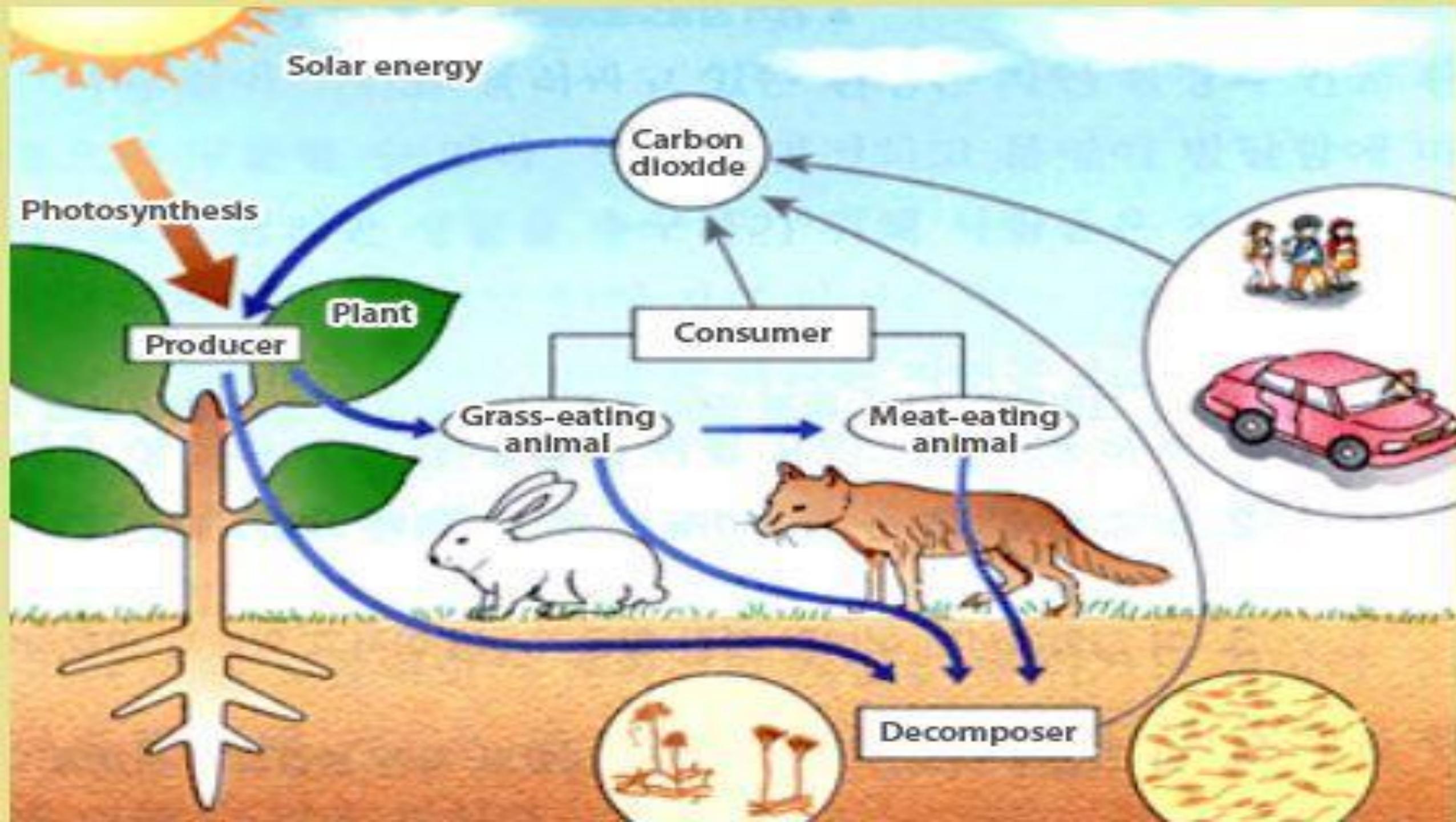
- Food, from crops and domestic animals, providing human metabolic requirements.
- Food, for all forms of life which live as interdependent species in a community and form food chains in nature on which man is dependent.
- Energy needs: Biomass fuel wood collected from forests and plantations, along with other forms of organic matter, used as a source of energy.
- Timber and other construction materials.

This is the relatively thin layer on the earth in which life can exist.

Ecosystem

An **ecosystem** is a community of living organisms in conjunction with the nonliving components of their environment, interacting as a system. These biotic and abiotic components are linked together through nutrient cycles and energy flows.

Energy enters the system through photosynthesis and is incorporated into plant tissue. By feeding on plants and on one another, animals play an important role in the movement of matter and energy through the system.



Ecology

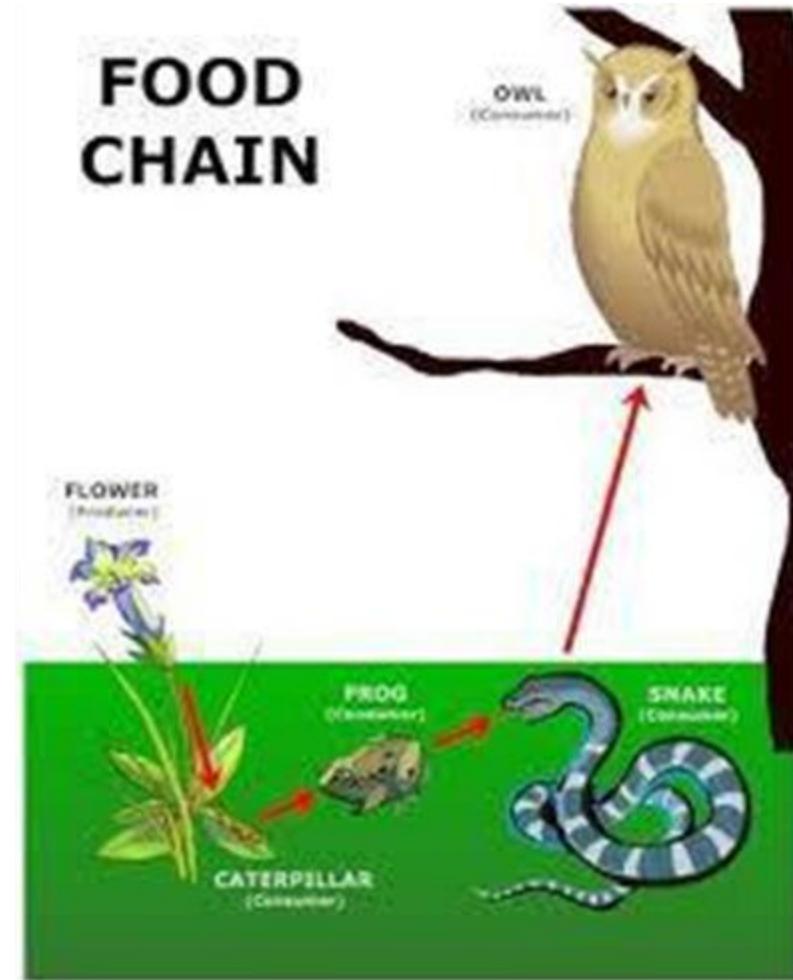
- ❖ Ecology is the study of all living things in relation to each other and the environment.
- - ❖ Helps people to better understand the environment.
 - ❖ Teaches people how to protect it.

Environment

- ❖ The surroundings in which a person, animal, or plant lives. the natural world of land, sea, air, plants, and animals.
- What happens to the environment affects all living things.

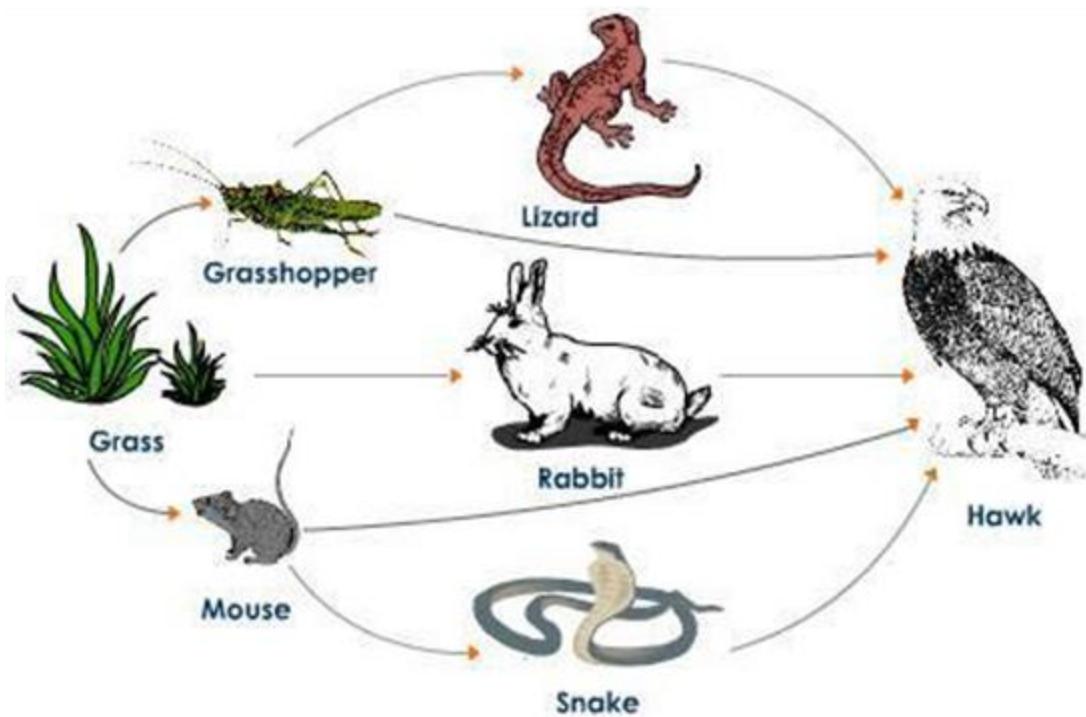
Food Chain

- A food chain shows the flow of energy between the organisms in environment.



Food Web

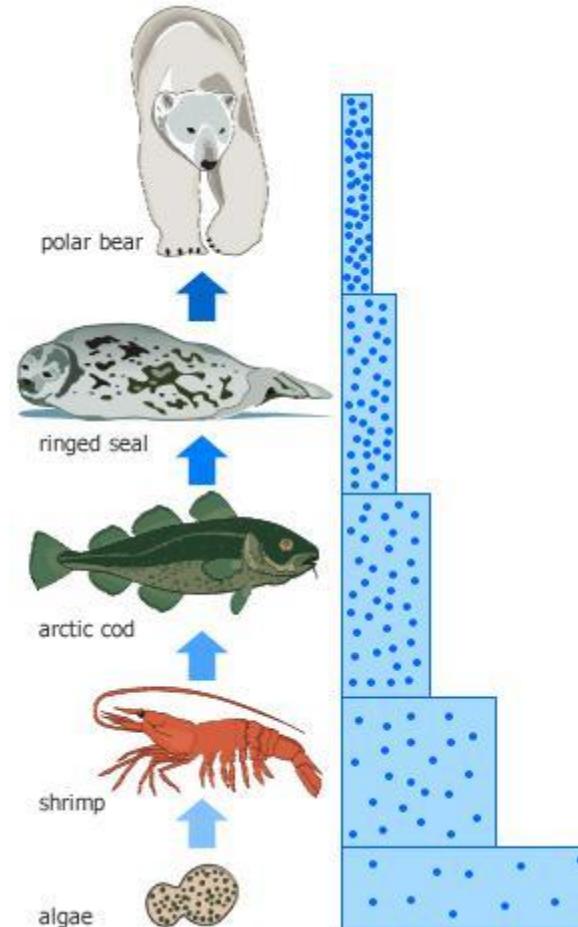
- Food web is put many food chain in one ecosystem.



A Food Web In a Grassland Ecosystem With Five Possible Food Chains

Bioaccumulation

The buildup of toxins in top consumers after eating many smaller organisms in a food web.



VALUE OF THE ENVIRONMENTAL RESOURCES

- To convert the aggregate natural resources that are used or can be used for producing various goods into monetary value, economists use the notion
 - ‘natural capital’.
-

Direct profit



Logging

Indirect profit



Tourism

Pollution:

- Agricultural
 - DDT
 - Fertilizers
 - Animal wastes (nitrogen)
- Homes
 - Strong cleaning agents
- Industry
 - Toxic gases and wastes
 - Acid rain

Causes of Environmental Problems



Population
growth



Unsustainable
resource use



Poverty



Excluding
environmental costs
from market prices



Trying to manage nature
without knowing enough
about it

The need for sustainable lifestyles:

The quality of human life and the quality of ecosystems on earth are indicators of the sustainable use of resources.

There are clear indicators of sustainable lifestyles in human life.

- Increased longevity
- An increase in knowledge
- An enhancement of income.

These three together are known as the '**Human development index**'.

The quality of the ecosystems have indicators that are more difficult to assess.

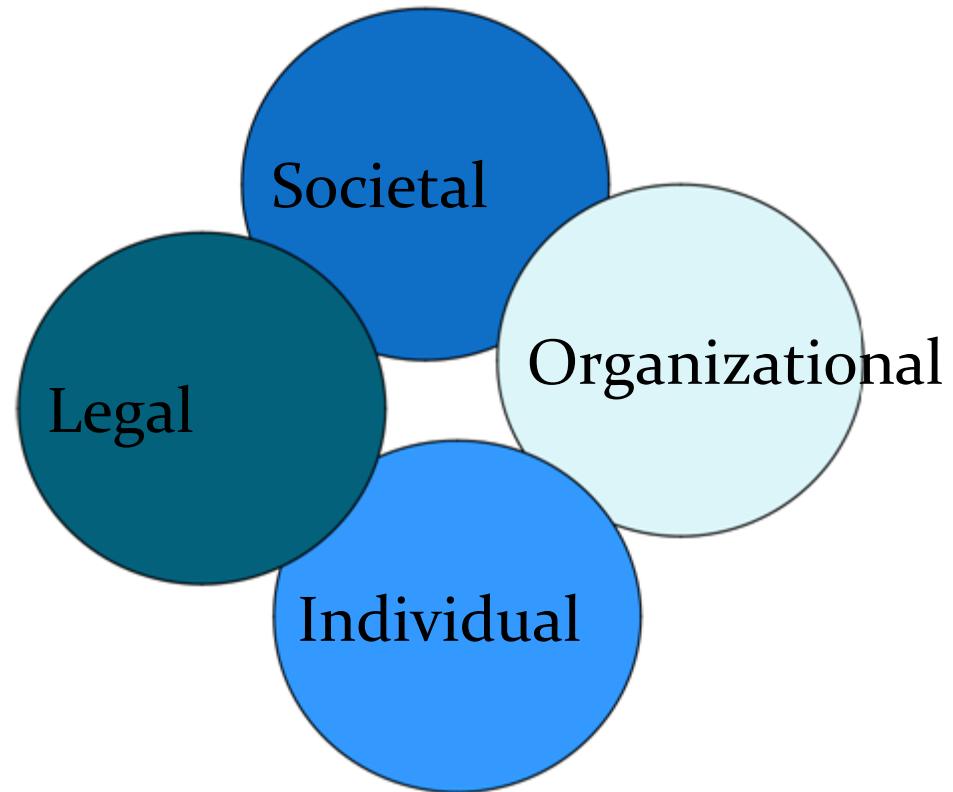
- A stabilized population.
- The long term conservation of biodiversity.
- The careful long-term use of natural resources.
- The prevention of degradation and pollution of the environment.

Ethics:

- *A set of rules and values that define right and wrong conduct.*
- They indicate when behavior is acceptable and when it is unacceptable



Ethical Perspectives for Evaluating Behavior



Societal Perspective

- Societal Ethics – standards that govern how members of a society are to deal with each other on issues of fairness, justice, poverty, and individual rights.
- - The idea of what is ethical behavior is largely influenced by the society in which the behavior occurs.
- Various public opinion surveys suggest a growing disenchantment with the lack of ethical behavior



Legal Perspective

- *Laws:* society's values and standards that are enforceable in the courts.
- *Employment-at-will:* a traditional common-law concept holding that employers are free to discharge employees for any reason at any time and that employees are free to quit their jobs for any reason at any time.

Organizational Perspective

- To provide guidance for employees, an organization can define ethical and unethical behaviors.
- Organizations can also guide employee actions both formally and informally.

Individual Perspective

- Despite prevalent societal, legal, and organizational interpretations of what is ethical, individuals have their own values and a sense of what is right or wrong.
- Lawrence Kohlberg
 - Suggested people develop morally, much as they do physically, from early childhood to adulthood.
 - As they develop, their ethical criteria and patterns of moral reasoning go through **stages of moral development**

CORPORATE SOCIAL RESPONSIBILITY

It can be described as the continuous commitment by corporations towards the economic and social development of society in which they operate.

It is more of a social obligation as to how the corporate relate to their

- customers,
- employees,
- suppliers,
- society and
- also towards the environment from which they use various resources for their profits.

Four Pillars of Corporate Sustainability Concept

According to Wilson (2003) Corporate Sustainability¹ includes:

- Sustainable development
- Corporate Social Responsibility
- Stakeholder Theory

Accountability

Key Issues in CSR



Labour rights:

child labour

- forced labour
- right to organise
- safety and health

- **Environmental conditions**

- water & air emissions
- climate change

- **Human rights**

- **Poverty Alleviation**

- job creation
- public revenues
- skills and technology

Need for Corporate Social Responsibility

- To reduce the social cost.
- To enhance the performance of employees.
- It a type of investment.
- It leads to industrial peace.
- It improves the public image.
- Can generate more profit.
- To provide moral justification.
- It satisfies the stakeholders.
- Helps to avoid government regulations & control.
- Enhance the health by non polluting measures.

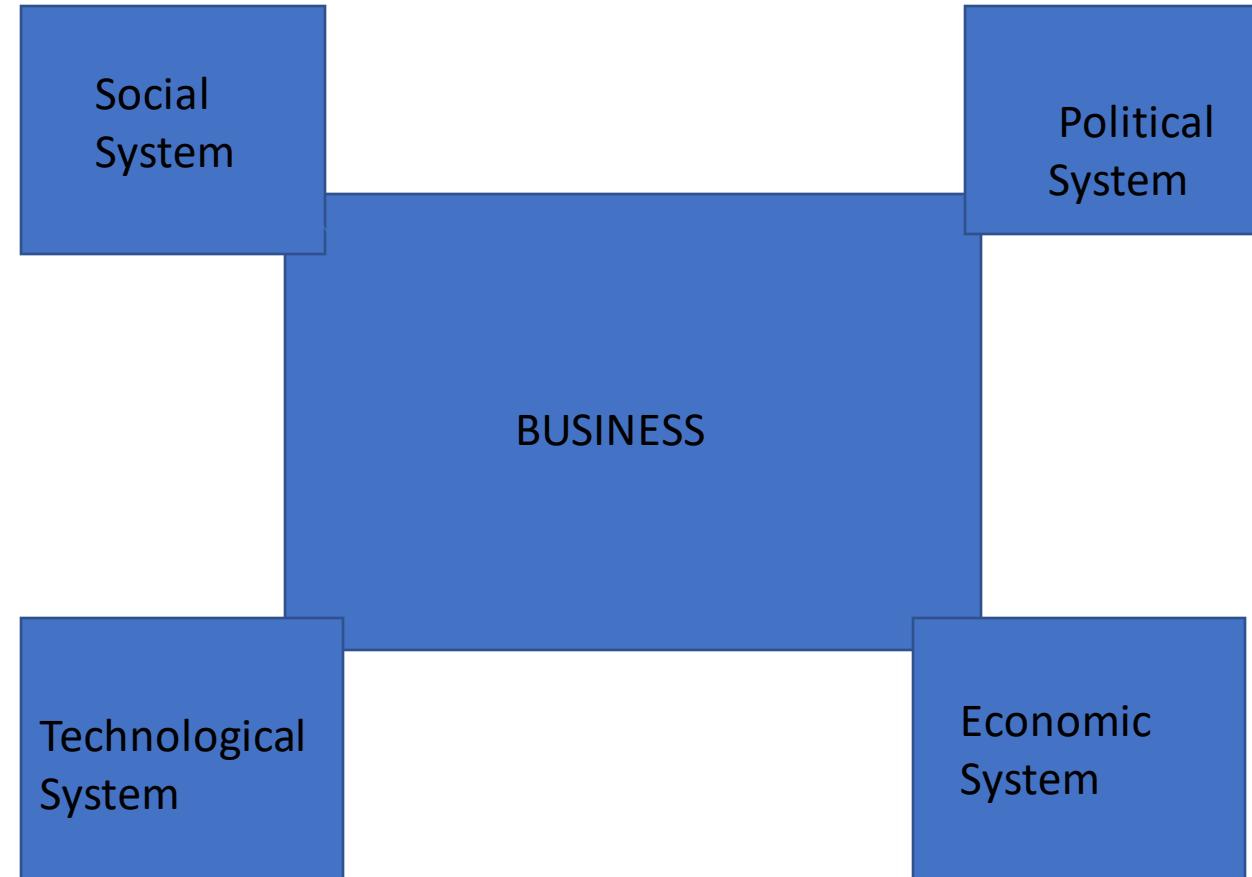
Business and Social Responsibility

Business plays a significant role in

- economic,
- social,
- political and
- technological affairs.

So business owes responsibility to all segments of society.

The wealth of a country is to a great extent controlled by business. This gives business and its executives “**enormous power**” to affect the lives of employees, consumers, shareholders, etc.



CORPORATE SOCIAL RESPONSIBILITY THEORIES AND MODELS

- The Stakeholder Theory
- The Archie Carroll Model
- Ackerman's Model

The Stakeholder Theory

Stakeholders are “any group or individual who can affect or is affected by the achievement of a corporation’s purpose”.

2 TYPES:

1. **Primary or Participant Stakeholder**: is one without whose continuing participation the corporation cannot survive as a going concern.
2. **Secondary or Non Participant Stakeholder**: are defined as those who influence or affect, or are influenced or affected by the corporation, but they are not engaged in transactions with the corporation and are not essential for its survival.

Stakeholders

These include:

- Shareholders
- Employees
- Customers
- The local community

A single person may have different stakes in the organization, e.g. they may be a customer, a prospective employee or an investor.

Stakeholders Groups

Three Main Groups:

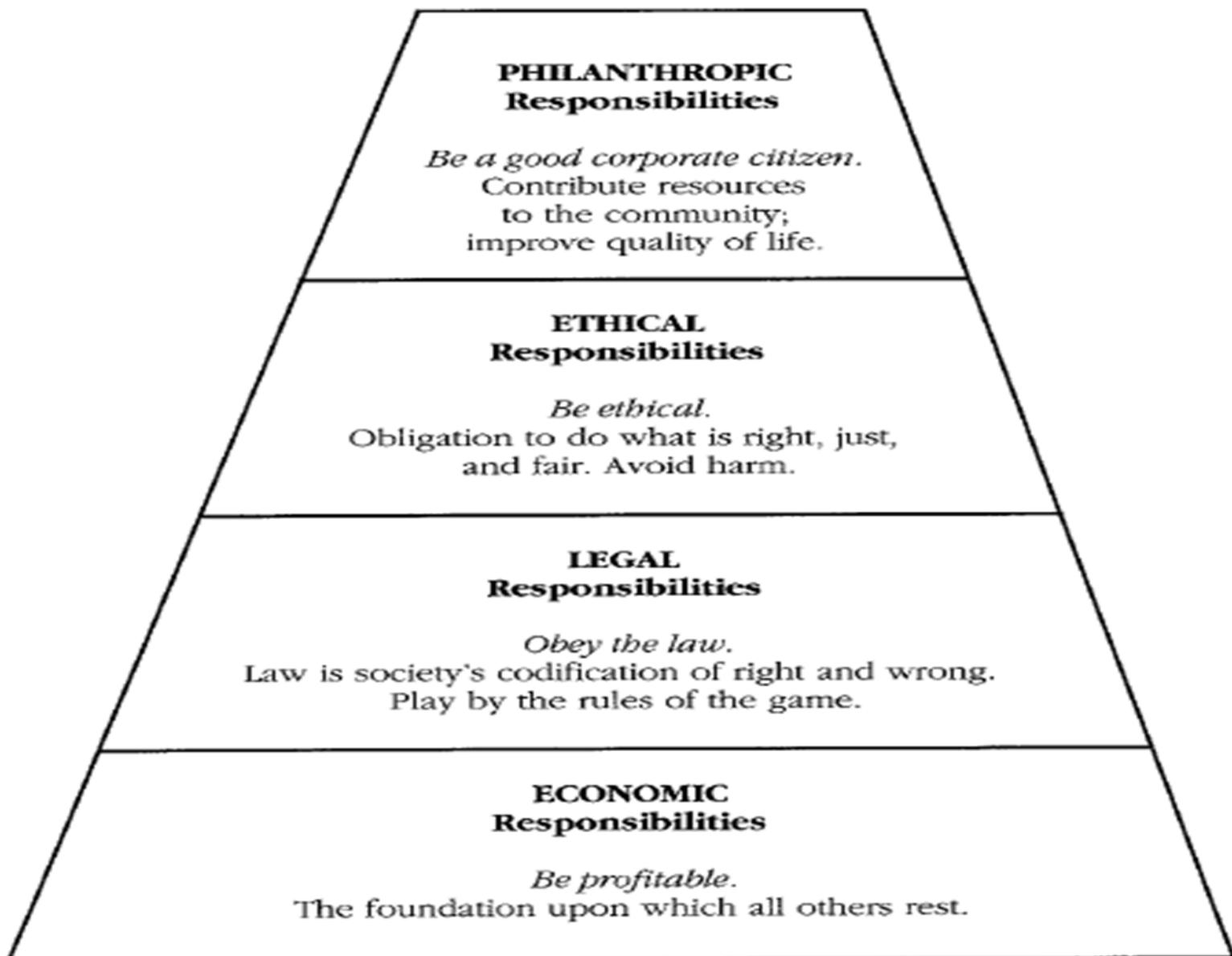
1. **Organizational stakeholder:** are the stockholders and the managers.
2. **Economic stakeholder:** customers are the most vital stakeholders. Bankers, creditors and suppliers are also included here. These parties serve as the important interface between the company and the larger societal environment.
3. **Societal stakeholder:** These determine the business environment under which the companies operate. The most common players here are-
 - various governmental agencies
 - non govt. organizations
 - regulators
 - communities

The Archie Carroll Model

According to this model, four kinds of social responsibilities constitute total Corporate Social Responsibility:

- economic
- legal
- ethical
- philanthropic

The Pyramid of Corporate Social Responsibility



Ackerman's Model

Micro-level theorist Robert Ackerman was among the earliest people to suggest that responsiveness should be the goal of corporate social endeavor.

Ackerman described three phases through which companies commonly tend to pass in developing a response to social issues.



Social Responsibility Models

Ackerman's model - three phases

- **First phase** - Top management recognizes social problem
- **Second phase** – The company appoints staff specialists to look into the issue and find measures to tackle it
- **Third phase** - Implementation of the strategy derived by the specialists

Corporate Social Responsibility Towards Various Stakeholders

Responsibility towards Government

- Obey rules & regulations.
- Regular payment of taxes.
- Cooperating with the Govt to promote social values.
- Not to take advantage of loopholes in business laws.
- Cooperating with the Govt for economic growth & development.



Responsibility towards Society

- Carrying on business with moral& ethical standards.
- Prevention of environmental pollution.
- Minimizing ecological imbalance.
- Contributing towards the development of social health, education
- Making use of appropriate technology.
- Overall development of locality.



Responsibility towards Shareholders

- To ensure a reasonable rate of return over time.
- To work for the survival & the growth of the concern.
- To build reputation & goodwill of the company.
- To remain transparent & accountable.



Responsibility towards Employee

- To provide a healthy working environment.
- To grant regular & fair wages.
- To provide welfare services.
- To provide training & promotion facilities.
- To provide reasonable working standard & norms.
- To provide efficient mechanism to redress worker's grievances.
- Proper recognition of efficiency & hard work.

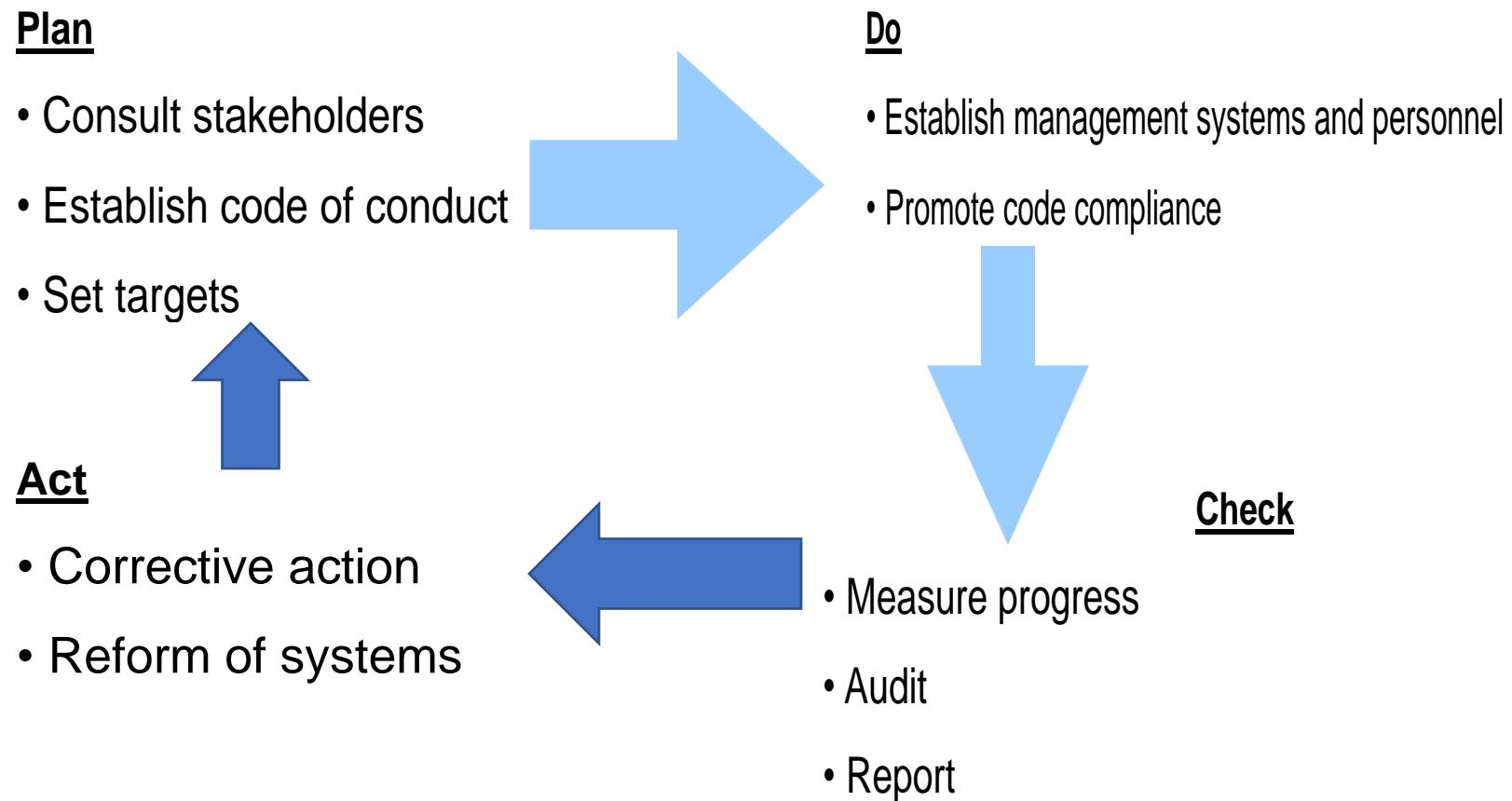


Responsibility towards consumers

- Supplying socially harmless products.
- Supplying the quality, standards, as promised.
- Adopt fair pricing.
- Provide after sales services.
- Resisting black-marketing & profiteering.
- Maintaining consumer's grievances cell.
- Fair competition.



CSR Management



Engineering and Corporate Social Responsibility

UNIT 5

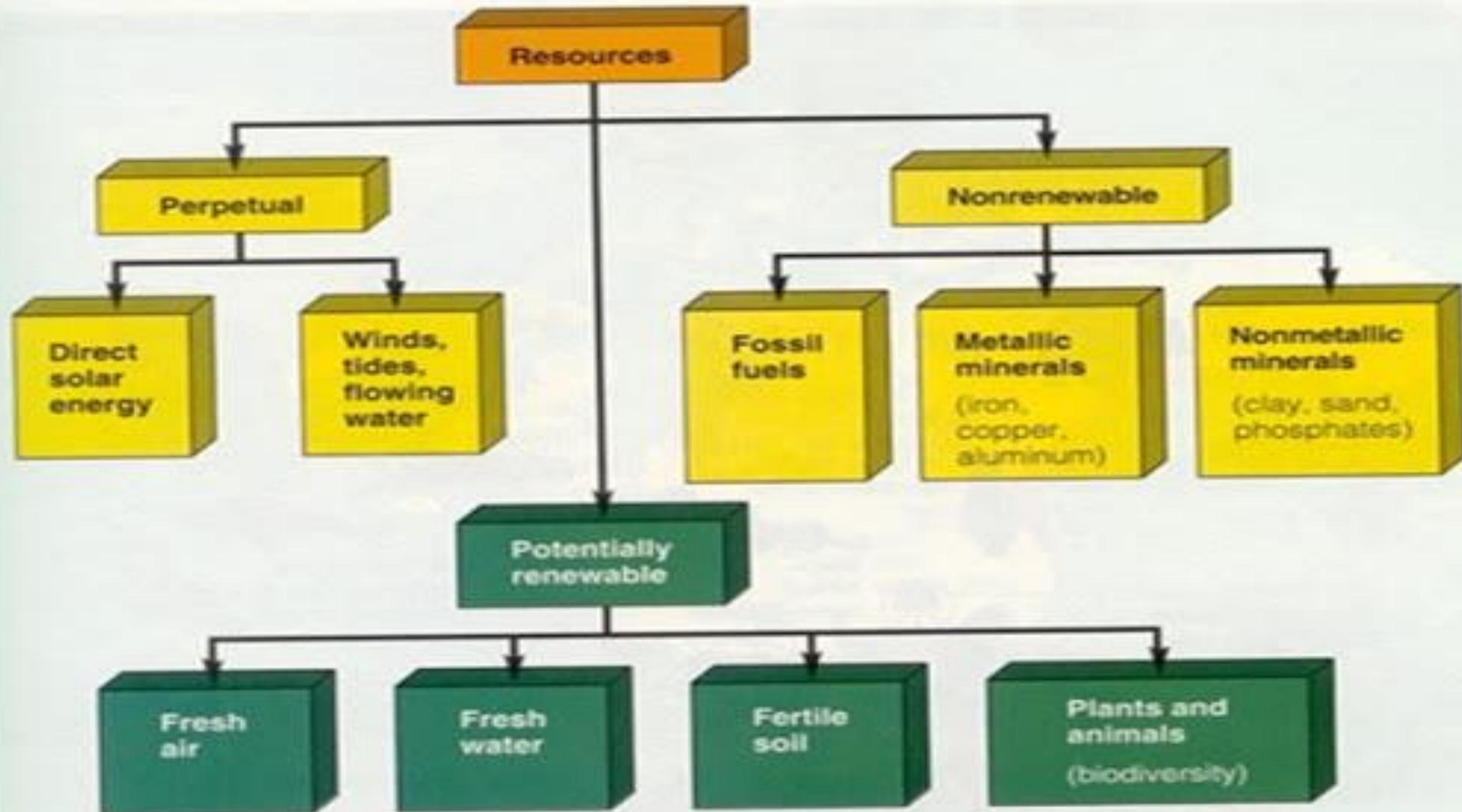
Natural Resources

❖ **Natural resources** are the substances that are supplied by nature and needed for survival.

- - ❖ Include air, water, soil, sun, plants, animals, and *fossil fuels* (coal, oil, and natural gas).
 - Many natural resources are limited in supply and cannot be renewed.

❖ **Pollution** is the action or process of making natural resources unsafe or unusable.

- - ❖ Smoke and exhaust causes the air to become dirty and harmful to breathe.
 - - ❖ Waste dumped into waterways harms fish and animals.
 - ❖ Nuclear waste can pollute air, water, and soil.



Atmosphere

- Oxygen for human respiration (metabolic requirements).
- Oxygen for wild fauna in natural ecosystems and domestic animals used by man as food.
- Oxygen as a part of carbon dioxide, used for the growth of plants (in turn are used by man).

The atmosphere forms a protective shell over the earth.

The lowest layer, the **troposphere**, the only part warm enough for us to survive in, is only 12 kilometers thick.

The **stratosphere** is 50 kilometers thick and contains a layer of sulphates which is important for the formation of rain. It also contains a layer of **ozone**, which absorbs ultra-violet light known to cause cancer and without which, no life could exist on earth.

The atmosphere is not uniformly warmed by the sun. This leads to air flows and variations in climate, temperature and rainfall in different parts of the earth. It is a **complex dynamic system**. If its nature is disrupted it affects all mankind.

To continue to support life, air must be kept clean.

- . The buildup of carbon dioxide which is known as '**greenhouse effect**' in the atmosphere is leading to current global warming.
- Air pollution leads to **acute and chronic respiratory diseases** such as various lung infections, asthma and even cancer.

Hydrosphere

- Clean water for drinking (a metabolic requirement for living processes).
- Water for washing and cooking.
- Water used in agriculture and industry.
- Food resources from the sea, including fish, crustacea, sea weed, etc.
- Food from fresh water sources, including fish, crustacea and aquatic plants.
- Water flowing down from mountain ranges harnessed to generate electricity in hydroelectric projects.

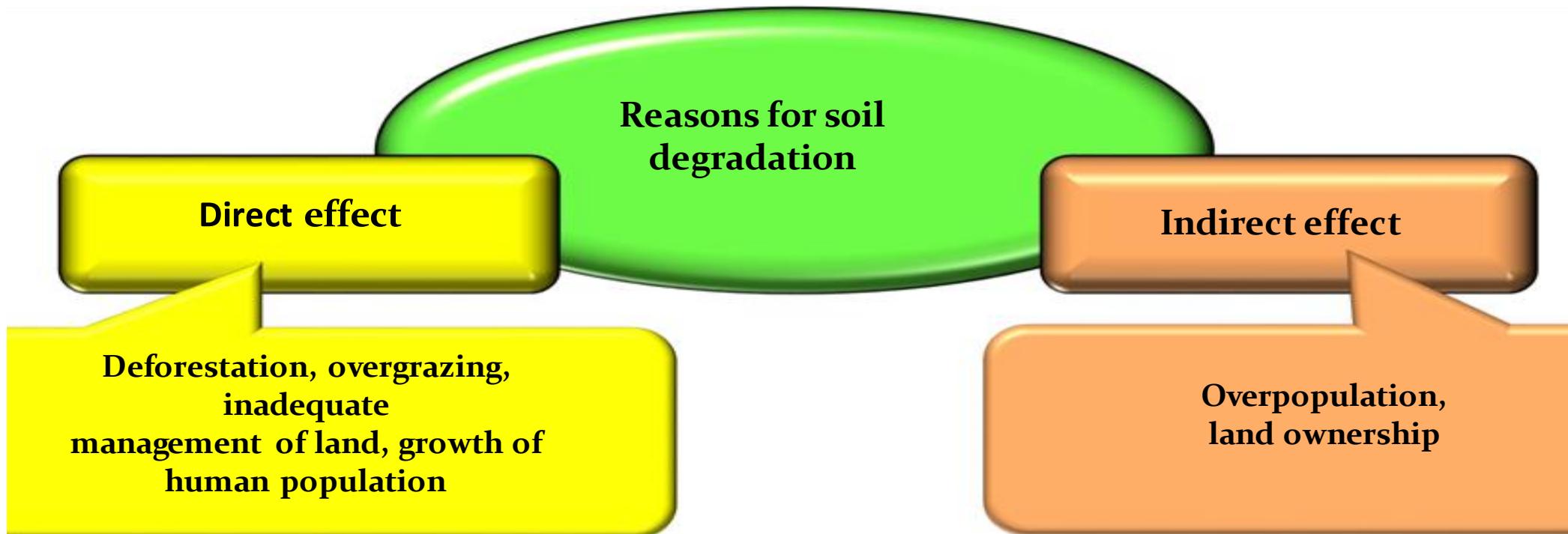
Lithosphere

- Soil, the basis for agriculture to provide us with food.
- Stone, sand and gravel, used for construction.
- Micronutrients in soil, essential for plant growth.
- Microscopic flora, small soil fauna and fungi in soil, important living organisms of the lithosphere, which break down plant litter as well as animal wastes to provide nutrients for plants.
- A large number of minerals on which our industries are based.
- Oil, coal and gas, extracted from underground sources. It provides power for vehicles, agricultural machinery, industry and for our homes.

Soil resources

One of the most important renewable natural resources is soil – the biologically active upper layer of land with a unique property – **fertility**.

To provide the world's population with food, it is imperative that land degradation be reduced.



Biosphere

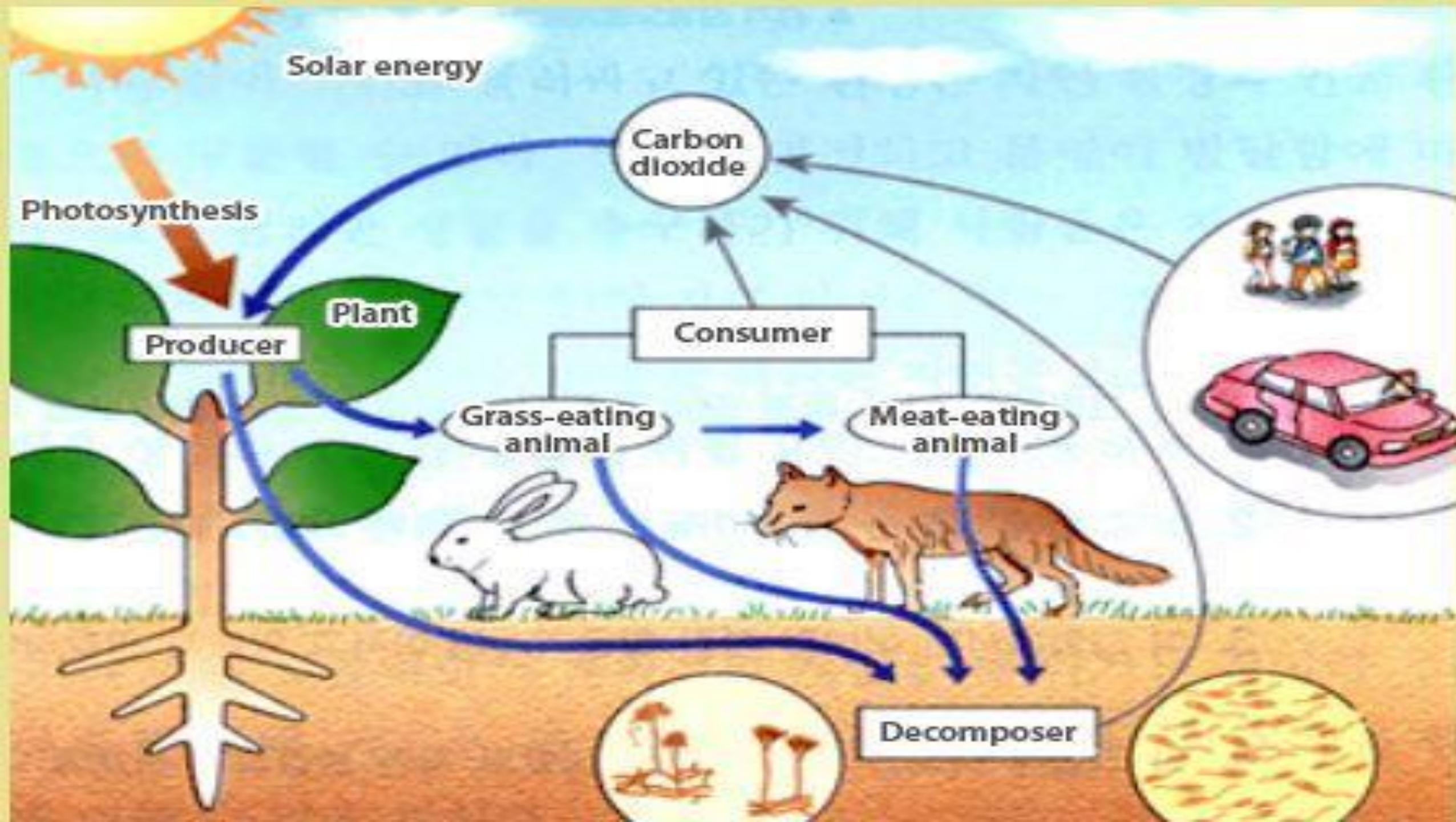
- Food, from crops and domestic animals, providing human metabolic requirements.
- Food, for all forms of life which live as interdependent species in a community and form food chains in nature on which man is dependent.
- Energy needs: Biomass fuel wood collected from forests and plantations, along with other forms of organic matter, used as a source of energy.
- Timber and other construction materials.

This is the relatively thin layer on the earth in which life can exist.

Ecosystem

An **ecosystem** is a community of living organisms in conjunction with the nonliving components of their environment, interacting as a system. These biotic and abiotic components are linked together through nutrient cycles and energy flows.

Energy enters the system through photosynthesis and is incorporated into plant tissue. By feeding on plants and on one another, animals play an important role in the movement of matter and energy through the system.



Ecology

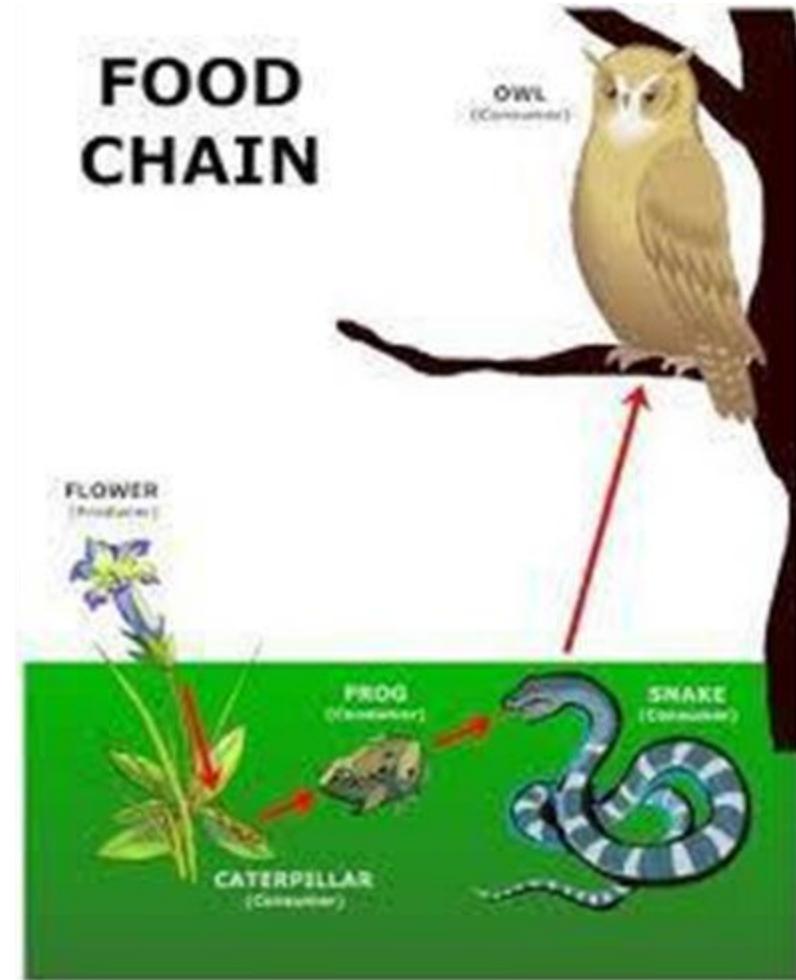
- ❖ Ecology is the study of all living things in relation to each other and the environment.
- - ❖ Helps people to better understand the environment.
 - ❖ Teaches people how to protect it.

Environment

- ❖ The surroundings in which a person, animal, or plant lives. the natural world of land, sea, air, plants, and animals.
- What happens to the environment affects all living things.

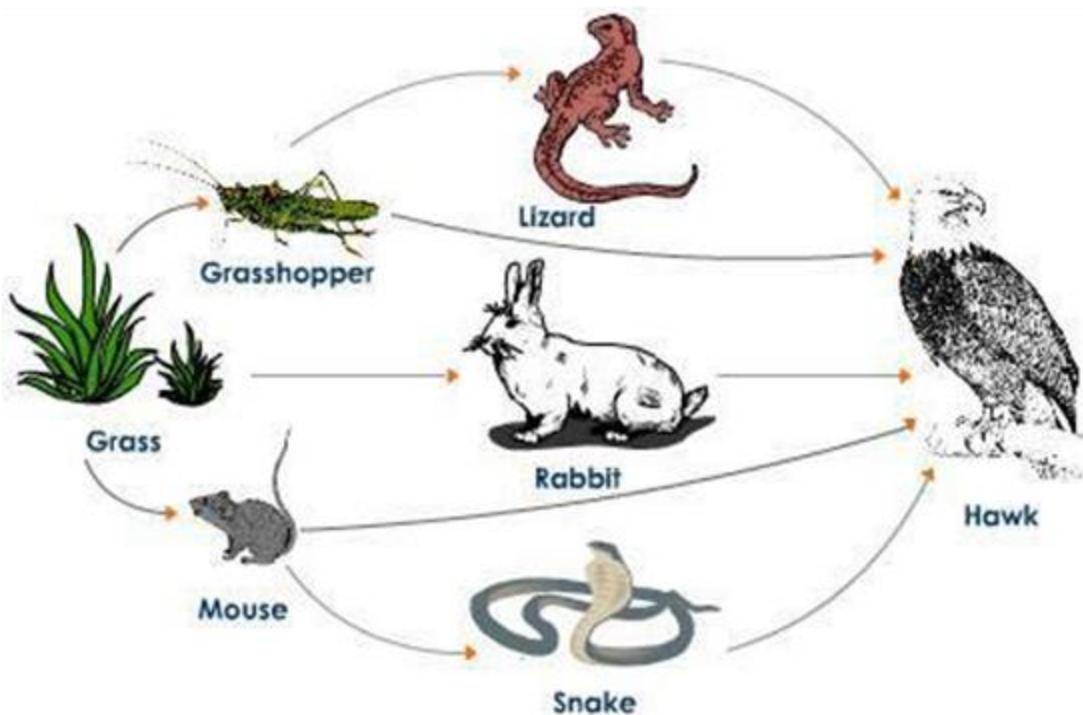
Food Chain

- A food chain shows the flow of energy between the organisms in environment.



Food Web

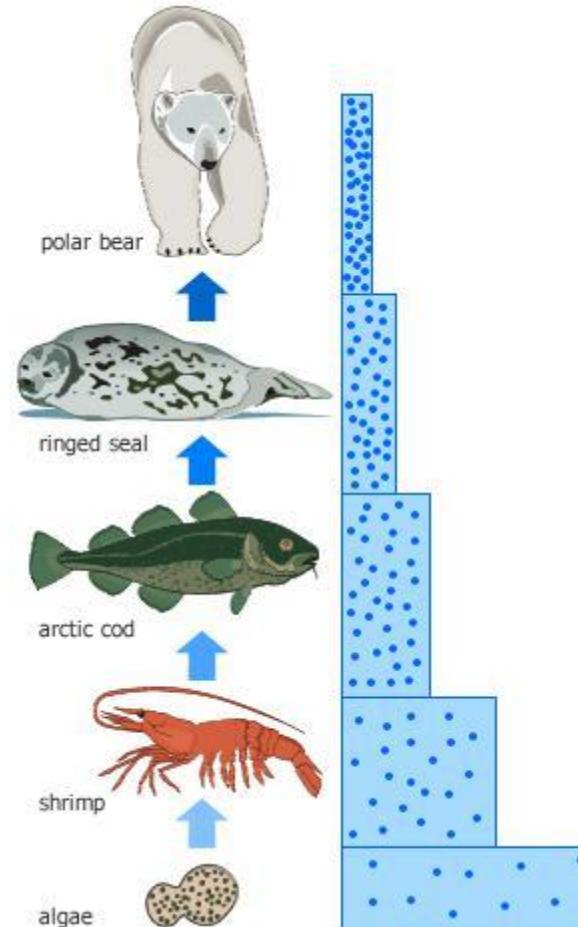
- Food web is put many food chain in one ecosystem.



A Food Web In a Grassland Ecosystem With Five Possible Food Chains

Bioaccumulation

The buildup of toxins in top consumers after eating many smaller organisms in a food web.



VALUE OF THE ENVIRONMENTAL RESOURCES

- To convert the aggregate natural resources that are used or can be used for producing various goods into monetary value, economists use the notion
 - ‘natural capital’.
-

Direct profit



Logging

Indirect profit



Tourism

Pollution:

- Agricultural
 - DDT
 - Fertilizers
- Animal wastes (nitrogen)
- Homes
 - Strong cleaning agents
- Industry
 - Toxic gases and wastes
 - Acid rain

Causes of Environmental Problems



Population
growth



Unsustainable
resource use



Poverty



Excluding
environmental costs
from market prices



Trying to manage nature
without knowing enough
about it

The need for sustainable lifestyles:

The quality of human life and the quality of ecosystems on earth are indicators of the sustainable use of resources.

There are clear indicators of sustainable lifestyles in human life.

- Increased longevity
- An increase in knowledge
- An enhancement of income.

These three together are known as the '**Human development index**'.

The quality of the ecosystems have indicators that are more difficult to assess.

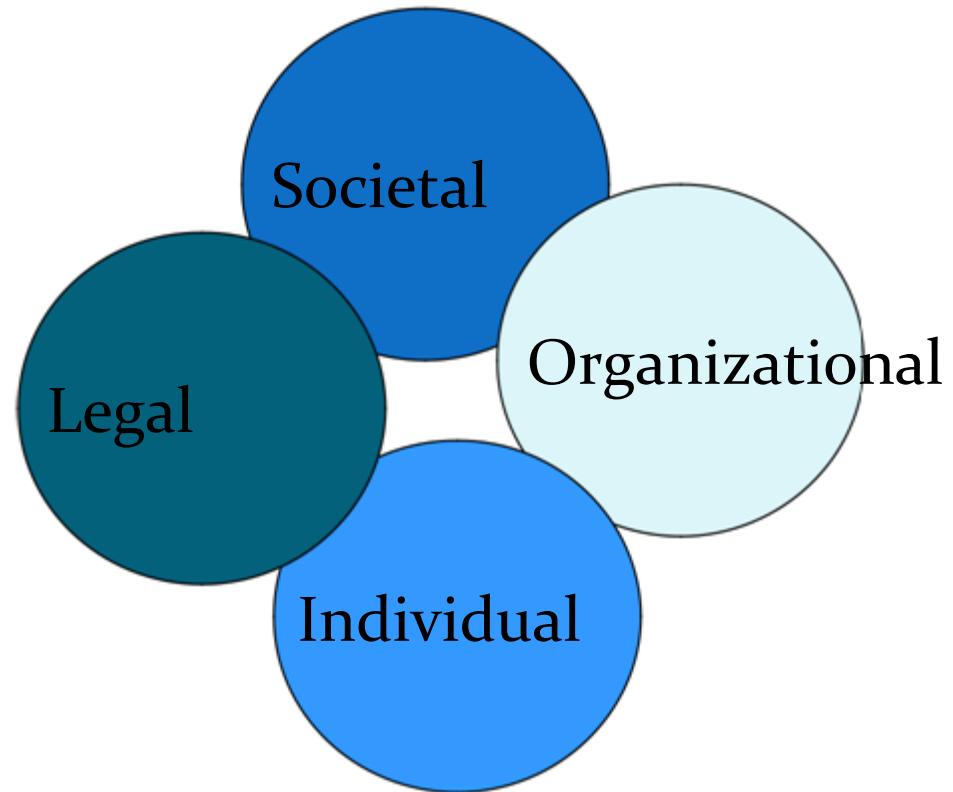
- A stabilized population.
- The long term conservation of biodiversity.
- The careful long-term use of natural resources.
- The prevention of degradation and pollution of the environment.

Ethics:

- *A set of rules and values that define right and wrong conduct.*
- They indicate when behavior is acceptable and when it is unacceptable



Ethical Perspectives for Evaluating Behavior



Societal Perspective

- Societal Ethics – standards that govern how members of a society are to deal with each other on issues of fairness, justice, poverty, and individual rights.
- - The idea of what is ethical behavior is largely influenced by the society in which the behavior occurs.
- Various public opinion surveys suggest a growing disenchantment with the lack of ethical behavior



Legal Perspective

- *Laws:* society's values and standards that are enforceable in the courts.
- *Employment-at-will:* a traditional common-law concept holding that employers are free to discharge employees for any reason at any time and that employees are free to quit their jobs for any reason at any time.

Organizational Perspective

- To provide guidance for employees, an organization can define ethical and unethical behaviors.
- Organizations can also guide employee actions both formally and informally.

Individual Perspective

- Despite prevalent societal, legal, and organizational interpretations of what is ethical, individuals have their own values and a sense of what is right or wrong.
- Lawrence Kohlberg
 - Suggested people develop morally, much as they do physically, from early childhood to adulthood.
 - As they develop, their ethical criteria and patterns of moral reasoning go through **stages of moral development**

CORPORATE SOCIAL RESPONSIBILITY

It can be described as the continuous commitment by corporations towards the economic and social development of society in which they operate.

It is more of a social obligation as to how the corporate relate to their

- customers,
- employees,
- suppliers,
- society and
- also towards the environment from which they use various resources for their profits.

Four Pillars of Corporate Sustainability Concept

According to Wilson (2003) Corporate Sustainability¹ includes:

- Sustainable development
- Corporate Social Responsibility
- Stakeholder Theory

Accountability

Key Issues in CSR



Labour rights:

child labour

- forced labour
- right to organise
- safety and health

- **Environmental conditions**

- water & air emissions
- climate change

- **Human rights**

- **Poverty Alleviation**

- job creation
- public revenues
- skills and technology

Need for Corporate Social Responsibility

- To reduce the social cost.
- To enhance the performance of employees.
- It a type of investment.
- It leads to industrial peace.
- It improves the public image.
- Can generate more profit.
- To provide moral justification.
- It satisfies the stakeholders.
- Helps to avoid government regulations & control.
- Enhance the health by non polluting measures.

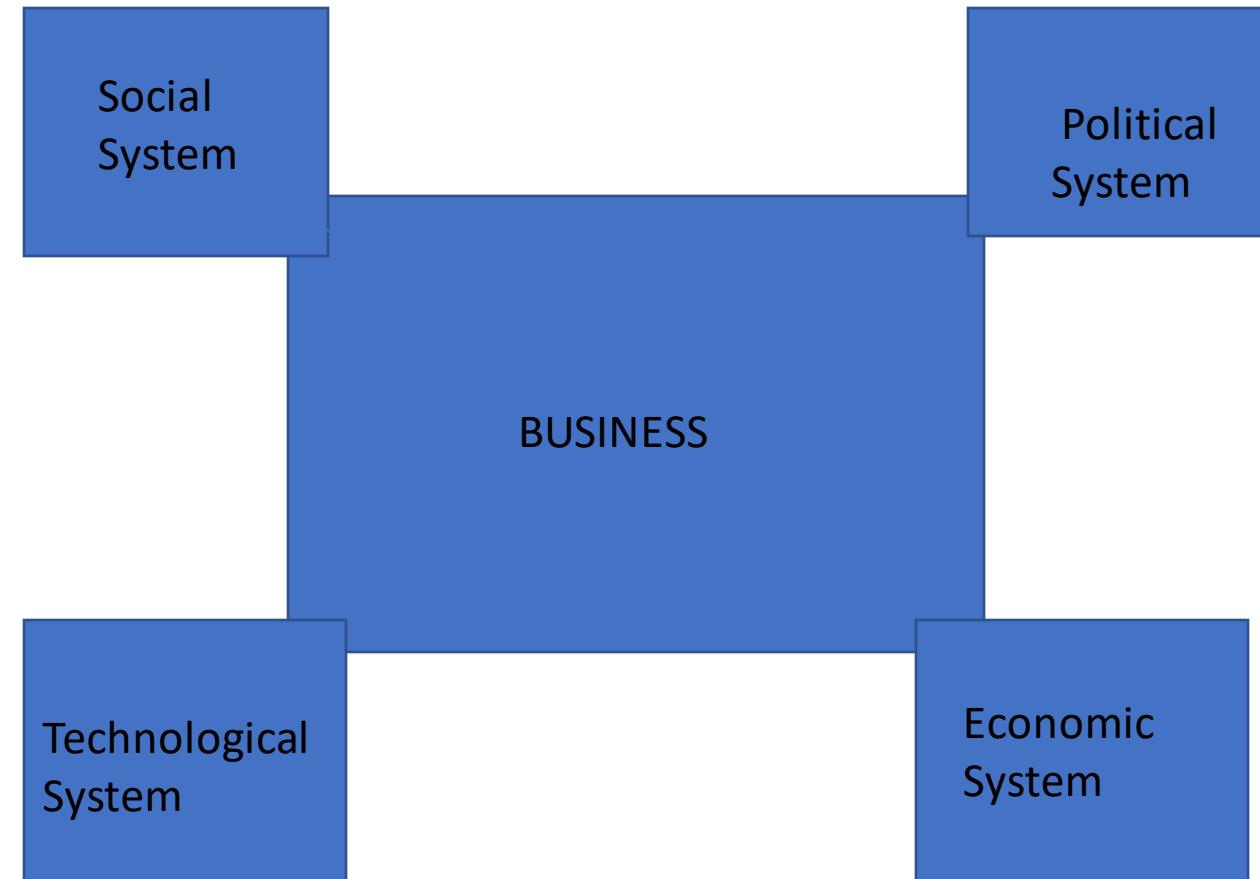
Business and Social Responsibility

Business plays a significant role in

- economic,
- social,
- political and
- technological affairs.

So business owes responsibility to all segments of society.

The wealth of a country is to a great extent controlled by business. This gives business and its executives “**enormous power**” to affect the lives of employees, consumers, shareholders, etc.



CORPORATE SOCIAL RESPONSIBILITY THEORIES AND MODELS

- The Stakeholder Theory
- The Archie Carroll Model
- Ackerman's Model

The Stakeholder Theory

Stakeholders are “any group or individual who can affect or is affected by the achievement of a corporation’s purpose”.

2 TYPES:

1. **Primary or Participant Stakeholder**: is one without whose continuing participation the corporation cannot survive as a going concern.
2. **Secondary or Non Participant Stakeholder**: are defined as those who influence or affect, or are influenced or affected by the corporation, but they are not engaged in transactions with the corporation and are not essential for its survival.

Stakeholders

These include:

- Shareholders
- Employees
- Customers
- The local community

A single person may have different stakes in the organization, e.g. they may be a customer, a prospective employee or an investor.

Stakeholders Groups

Three Main Groups:

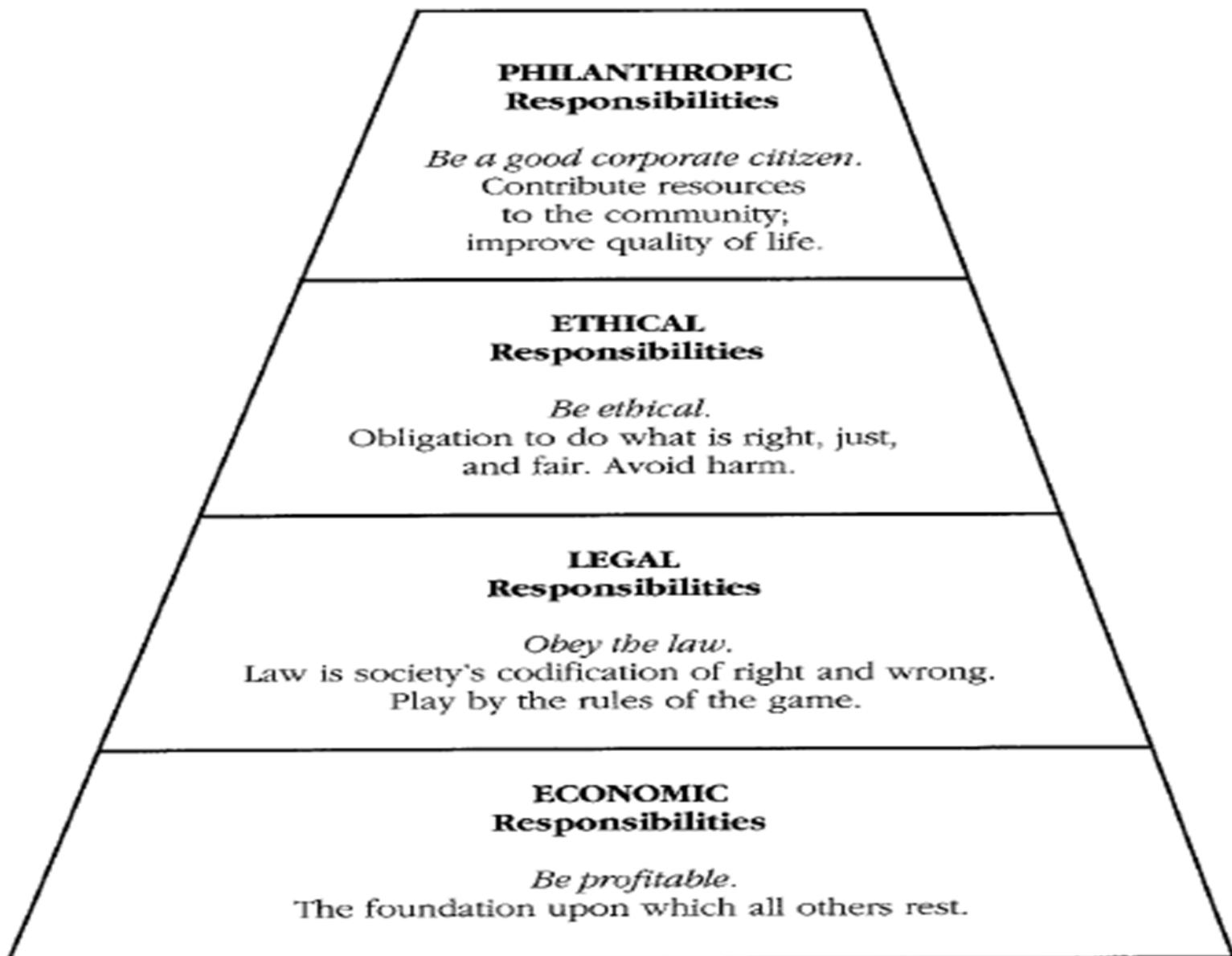
1. **Organizational stakeholder:** are the stockholders and the managers.
2. **Economic stakeholder:** customers are the most vital stakeholders. Bankers, creditors and suppliers are also included here. These parties serve as the important interface between the company and the larger societal environment.
3. **Societal stakeholder:** These determine the business environment under which the companies operate. The most common players here are-
 - various governmental agencies
 - non govt. organizations
 - regulators
 - communities

The Archie Carroll Model

According to this model, four kinds of social responsibilities constitute total Corporate Social Responsibility:

- economic
- legal
- ethical
- philanthropic

The Pyramid of Corporate Social Responsibility



Ackerman's Model

Micro-level theorist Robert Ackerman was among the earliest people to suggest that responsiveness should be the goal of corporate social endeavor.

Ackerman described three phases through which companies commonly tend to pass in developing a response to social issues.



Social Responsibility Models

Ackerman's model - three phases

- **First phase** - Top management recognizes social problem
- **Second phase** – The company appoints staff specialists to look into the issue and find measures to tackle it
- **Third phase** - Implementation of the strategy derived by the specialists

Corporate Social Responsibility Towards Various Stakeholders

Responsibility towards Government

- Obey rules & regulations.
- Regular payment of taxes.
- Cooperating with the Govt to promote social values.
- Not to take advantage of loopholes in business laws.
- Cooperating with the Govt for economic growth & development.



Responsibility towards Society

- Carrying on business with moral& ethical standards.
- Prevention of environmental pollution.
- Minimizing ecological imbalance.
- Contributing towards the development of social health, education
- Making use of appropriate technology.
- Overall development of locality.



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