

## - Fundamentals of Agriculture Economics -

### 1) Economics -

Defn:- Economics studies human behaviour as a relationship between ends of scarce means which have alternative uses.

- Lionel Robbins

Defn:- "An Enquiry into the Nature of causes of the wealth of nations"

- Adam Smith

Application of principle of general economics to agriculture is called as agricultural economics.

Meaning:- Agriculture science is applied social science that deals with the production, distribution and consumption of agricultural or farming goods and services.

### Scope of Economics -



- 1) subject matter of economics -
- 2) Economics as social science -
- 3) Economics is a science or an art -
- 4) Economics is positive or normative science.
- 5)

Explain in brief -

1) Subject matter of economics:-

a) Primitive view :- Wants, effort and satisfaction is never ending cycle.

b) Traditional view :- means →

(i) Consumption - destruction of utility

(ii) Production - creation of utility

(iii) Exchange - Transfer of goods from 1 person to other

(iv) Distribution - determines rewards from factors of production.

c) Modern view:

(i) Microeconomics :- studies the economics behavior of the individual unit

(ii) Macroeconomics :- studies economics system as whole

2) Economics as social science:-

- Economics study of a man who depends on society & society depends on him.

- A man who is living in organized society is exchanging his goods for those of others.

- Economics studies this type of man not the isolated individuals.

3) Economics is a science or an art:-

(i) Science :- Is a systemic body of knowledge

\* Science consist with → laws,

Principles, statement of theories which are universally accepted.

(ii) Art is skill + arts lays formulae to guide the people who wants to achieve ascertain aim.

for example : financial problem can be solved by the economics.

4] Economics is positive or normative science :-

(i) Positive economics :- is completely objective & explains causes of efforts.

(ii) Normative science :- Says whether it is right things to happens.

Thus, economics is positive as well as normative science.



2]

## Agricultural Economics



**DEFN:** Application of principle of economics for solving agricultural problems to maximize agricultural production.

### Scope of Agricultural Economics -

- Relationship of contacts between the different enterprises.
- study of input-output relationship agriculture.
- Determination of the relation size of the farm unit to land condition, cropping pattern capital investment & labour employment
- commercial relation with people to whole farm sell their product or their requirement
- Economics deals with the principles of farmers problems.

### 3] A] Law of Diminishing Marginal Utility



Laws of marginal utility analysis -

- 1) Law of diminishing marginal utility
- 2) Law of equi-marginal utility.

Meaning & Definition :-

Dr. Marshall - States - the law:-

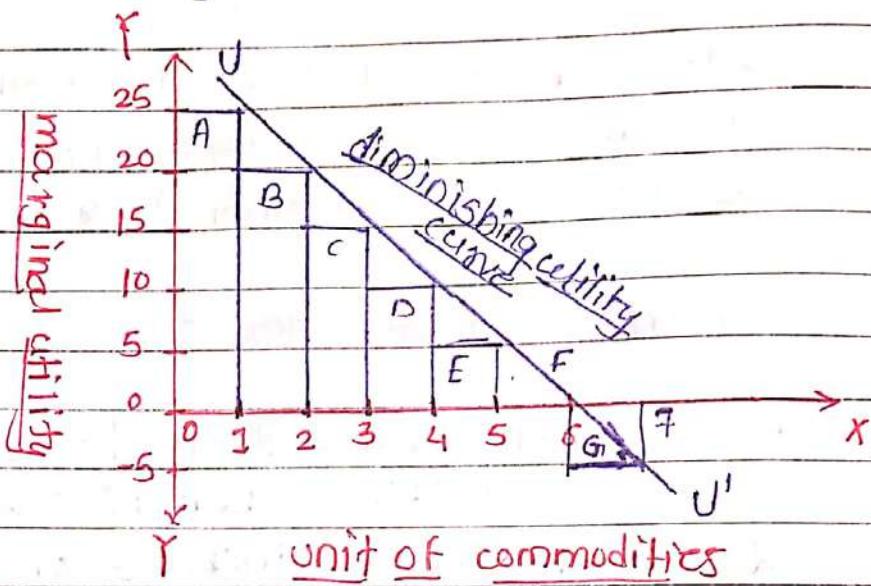
The additional benefits which a person derives from gives increase of his stock of anything diminishes with the "growth of the stock that he has."

Example:-

No. of Rasgulla	Marginal utility	Total utility
1	25	25
2	20	45
3	15	60
4	10	70
5	5	75
6	0	75
7	-5	70

- As consumer goes on eating rasgulla, the additional or marginal utility goes on decreasing.
- The 6th rasgulla provides no additional satisfaction.
- The 7th is negative utility. their consumption causes dissatisfaction.
- One will notice that up-to 5th unit although the total utility increase

Increase only at a diminishing rate.



- ox and oy are the two bases.
- Along ox are units of commodity and oy is measured marginal utility.
- $U, U'$ , is the diminishing utility curve.
- In the graph A; B, C, D, E denotes marginal utility derived from the 1, 2, 3, 4, 5 units result respectively.
- Marginal utility diminishes that's why successive quadrilaterals becomes smaller & smaller.
- At 6th marginal utility is zero & then it becomes negative.

Exemptions to the law of diminishing marginal utility -

1. Dissimilar units
2. Very small units.
3. Too long of interval.
4. Lane collection,
5. change in income, habits & tastes

## B] Law of Equi-marginal utility -



Definition -

**Prof. Marshall** - 'If person has a thing which can be put to several uses, person will distribute it among these uses in such a way that has the same marginal utility in all.'  
or

The principle state that resources should be used where they bring not the greatest average return but the greatest marginal returns.

Assumption:-

1. The consumer rational so he wants to get maximum satisfaction.
2. The utility of each commodity is measurable.
3. The marginal utility of money remains constant.
4. The income of consumers is given.
- 5) Price — n- commodities — n
- 6) The law based on the law of diminishing marginal utility.

Table form :-

units	marginal utility of orange	marginal utility of Apple
1	15	12
2	12	9
3	9	6
4	6	3
5	3	0
6	0	-3
7	-3	-6
8	-6	-9

- Suppose apples and oranges are two commodities to be purchased and we have got only seven rupees to spend.
- One unit is for one rupee.
- If we spend 4 rupees on apples and 3 rupees on oranges, the total utility will be 69.

$$\text{Apple} = 12 + 9 + 6 + 3 = 30 \text{ and}$$

$$\text{orange} = 15 + 12 + 9 + 3 = 42$$

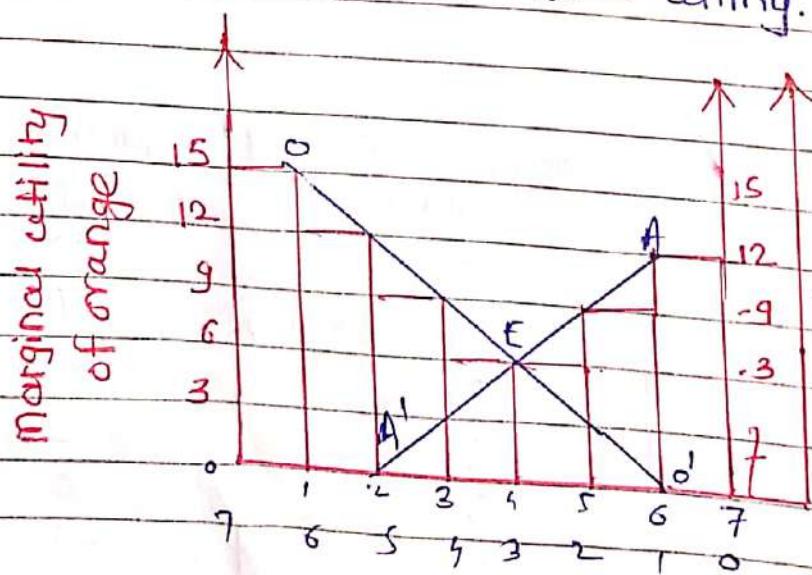
69 Total utility,

- Instead of spending 4 rupees on <sup>orange</sup> apples if we spend 3 rupees on apples and 4 rupees on orange the total utility will be 69.

$$\text{orange} = 15 + 12 + 9 + 6 = 42 \text{ and}$$

$$\text{Apple} = 12 + 9 + 6 = 27$$

69 Total utility.



Conclusion: maximum utility by substituting some units of the more useful for less useful commodities

Date: 11  
Page 9

## Limitations of Law of equi-marginal utility -

1. Ignorance
2. Insufficient organization.
3. Unlimited resources
4. Hold of custom & fashion
5. Frequent changes in prices.

\*:

## Importance of law of equi-marginal utility -

1) - Consumption

2) - Production

3) - Exchange

4) - Distribution

5) - Public finances

6) - Influences prices

7) - Expenditure of time

8) - Distribution of earning between saving & consumption



4]

## Utility



### DEFN:-

wants satisfying quality in a good  
is called utility.

### Meaning:-

The power of a commodity (or)  
service to satisfy a human want.

### Forms of Utility :-

1. form utility -
2. Place utility
3. Time utility
4. Possession utility.



1) **form utility** - By changing the form of an article we can give it greater utility.

e.g. transformation of log of wood into piece of furniture is called form utility.

2) **Place utility** - Utility can be increased by transporting a good from one place to another.

3) **Time utility** - By storing a commodity & selling at a time of scarcity gives greater utility this is a time utility.

4) **Possession utility** - By buying & selling activity gives the possession utility.

## 5] National Income.

→ DEFN: National income is a measure of the value of the goods and services (output) produced by an economy over a period of time. (normally a year).

### Concept of national Income -

- 1) Gross national product (GNP)
- 2) Net-national product (NNP)
- 3) National-income at Factor cost. (NIFC)
- 4) Personal Income (PI)
- 5) Disposal Income. (DI)

#### 1) Gross National Income :-

- Total market value of final goods & services produced by a year.
- Market value of the annual output in price.
- GNP only including market value of final goods and ~~Eng~~ ignores transactions involving intermediate goods.

$$\text{GNP at market price} = \text{Personal expenditure} + \\ \text{gross domestic private expenditure} + \\ \text{Net foreign expenditure}$$

#### 2) Net-National Product :-

- In the production, we use some capital equipment and machinery.
- Fall in value of capital due to wear & tear called depreciation. Detracted from GNP, we get NNP.

NNP or National Income at market price =  
GNP - depreciation.

### 3] National Income at factor cost +

- It means sum of all incomes earned by the resources supplied for their contribution of land, labour, capital & enterprises.
- Produce net output

NFC = NNP - Indirect taxes + Sub-sides.

### 4] Personal Income +

- IS sum of all incomes actually received by all individuals or household during a given year.

PI | Personal Income = National income - contribution  
+ corporate income taxes +  
undistributed profit + transfer payment.

### 5] Disposable Income:-

- After paying the tax on Income to the Govt. - remains with the individuals is an Income available actual use or disposal.

Disposable Income = consumption + Saving.

## 6] Inflation.

Defn - considerable and persistent rise in the general level of price over a long period of time.

### Causes of Inflation - two categories

1.

- factors causing Increase In Demand.
- 2. factors causing Decrease In Supply.
- 3. other causes of Inflation,

#### 1) factors causing Increase In Demand -

- Increase in money supply
- → Disposal Income
- → communities aggregates spending on consumption and investment goods.
- → exports.
- → Salaries, wages
- → Population.

#### 2) factors causing Decrease In Supply -

- Deficiency of capital equipment.
- Scarcity of other complementary factor of production.
- Increase in exports.
- Decrease in imports.
- Hoarding by traders.
- Natural calamities.
- Prolonged Industrial unrest.

#### 3) other causes of Inflation -

- High monetary expansion
- Deficit financing
- foreign remittance
- consumption habits.
- Devaluation.

### Main causes of Inflation -

1.

- Demand - pull inflation

2.

- Cost - push Inflation

3.

- Wage - price spiral



## 7] Taxes

**Defn:- "Compulsory contribution of the wealth of a person or a body of persons for services of the public powers!"**

### Canons of Taxation or Principles -

- 1) **cannon of equality** = same rate but diff' amount Pay.
- 2) **certainty** = exact time paid tax.
- 3) **convenience** = tax paid to cheque/cash
- 4) **Economy** = It not wise tax.
- 5) **productivity** = few good or little yield.
- 6) **Elasticity** = bring + more revenue
- 7) **simplicity** = clean fair, easy understand.
- 8) **Variety** = direct & indirect taxes.
- 9) **flexibility** = not be rigidity in tax.
- 10) Achievement of social & economic objectives
- 11) **cannon of naturality** - inequalities of diff' region

**Direct Tax** = One whose impact & incidence are on the same person is called Direct tax.

**Indirect tax** = One whose impact & incidence are different person is called Indirect tax.

B] Consumer Surplus -

Statement :- consumer surplus is the difference between "what the consumer is willing to pay" and "what he actually pays".

Formula :-

$$\text{Consumer Surplus} = \text{total utility} - \text{total amount spent}$$

Example :-

Unit of mangoes	Marginal Utility (Price willing to pay)	Market Price (Rs.)	Consumer's Surplus
1	20	5	15
2	15	5	10
3	10	5	05
4	05	5	00
Unit = 4	Total Utility = 50	Total money spent = 20	Consumer Surplus = 30

- In the above table price of mango is 5 per unit
- Marginal utility derived from the 1st unit's of mangoes is 20 and hence consumer surplus is 15 and so on.
- Consumer will purchase as many as 4 mangoes where marginal utility equal to price.
- Thus purchases 4 mangoes and gets consumer surplus = 50 - 20 = 30

## Importance - of - consumer surplus. —

- 1) In public finances :- Useful their finance minister in imposing taxes & fixing their rates.
- 2) To businessmen and monopolist :- He can raise prices of those articles in which there is a large consumer surplus.
- 3) comparing advantages of different places :- People will enjoy large consumer surplus in a place where there are greater amenities available at cheaper rates.
- 4) Distinction between value in use and value in exchange :- Necessary and cheap things yield large consumer surplus. They have great value in use but less value in exchange.
- 5) measuring benefits from international trade :- With the availability of imported goods which are cheaper, the consumer get surplus satisfaction.

## 9) Elasticity of demand



**Defn :-** The attribute of demand by virtue of which it stretches or contracts under the pressure of change in price.

**Types :-**

- i. Price elasticity
- ii. Income →
- iii. Cross →
- iv. Substitute →



**factors -**

**Ex. -**

1. for necessities - matchbox, salt
2. for luxuries - Gold, Luxury, cars
3. proportion of total expenditure - Newspaper
4. Existence of substitutes - Tea, coffee, groundnut oil.
5. Alternative use (several use) - Transport, lighting
6. Possibility postponement - T.V, cars, ornaments.
7. Ring of prices - salt, matches - low price of demand
8. Joint demand
9. Market imperfections
10. Technological factors
11. Time period

## 10) Law of Demand.

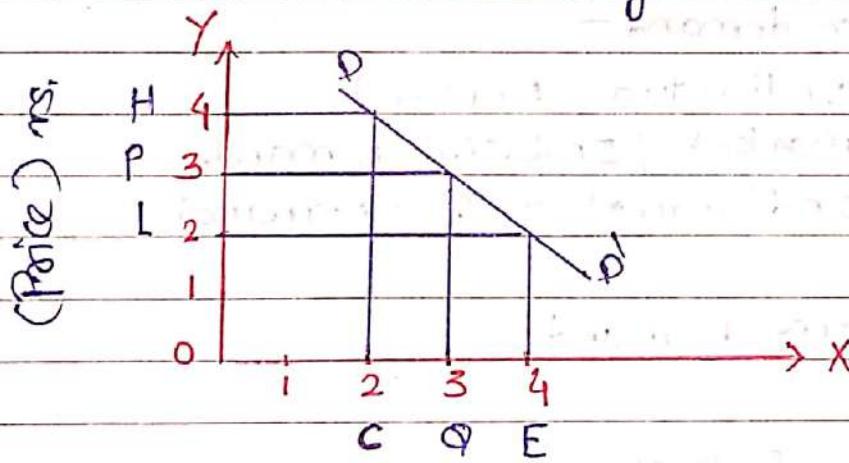
Statement: — At Any Given Time, the Demand for commodity OR Services at the Prevailing Price is Greater than it would be at Higher Price & less than it would be at Lower price.

Example—

Demand schedule —

Price per unit	Units of quantity demanded.
4 OH	2 OC
3 OP	3 OQ
2 OL	4 OE

units of commodity —



(units of commodity)

Explanation —

In the above dig., prevelling price is 'OP' whereas quantity demanded is "OQ"; when price 'OH' it means higher the price quantity demand would be 'OC' which is less the OQ. It shows contraction in demand when price is 'OL' at lower price the quantity demand — decreases will be 'OE'. Hence prevailing quantity OQ is less than OE • It shows in extension in demand.

## Determinants of demand -

- 1) Change in Habits, Tastes of Custom.
- 2) Change in Real Income.
- 3) Discovery of cheap substitute.
- 4) Change in Number of Consumers.
- 5) Expectation of future Price changes.
- 6) Change in Wealth Distribution.
- 7) Change in Weather.
- 8) State of Business.
- 9) Consumer Innovativeness / Technical progress.
- 10) Advertisement.
- 11) Utility.

## Kinds of Demand. -

### 1) Price demand -

- Individual Demand.
- Market / Industry Demand.
- Individual sellers Demand.

### 2) Income Demand -

### 3) cross Demand -

for example = A change in price of tea will affect demand for coffee.

## 11) SUPPLY | ELASTICITY OF SUPPLY

Supply - Defn - Supply of a commodity refers to the various quantity of the commodity which a seller is willing & able to sell at different prices in a given market at a point of time.

Elasticity of supply = Defn - It refers to the sensitivity ELASTIS (err) responsiveness of supply to the change in price.

The elasticity of supply is the percentage change in the equality supplied divided by the percentage change in the price.

Elasticity of supply =  $\frac{\% \text{ change in equality supplied}}{\% \text{ change in price}}$

### CAUSES OF CHANGES OF SUPPLY -

1. The price of commodity
2. The price of substitutes
3. Change in technology
4. Goal of firm
5. Expected change in price
6. Natural factors
7. Means of transportation & communication
8. Taxation policy
9. Agreement among the producer



## Elasticity of Supply -

Thus the supply of commodity may increase or decrease consequent upon the change in its price.

### formula =

The elasticity of supply is the % change in the quantity supplied divided by % change in the price.

### Types -

- 1) Elastic Supply :- If small change in price (rise or fall) leads to a big change in supply. (extension or contraction) the supply is elastic.
- 2) Inelastic Supply :- In considerable change in price (rise or fall) leads to only a small change in supply (extension or contraction) is in-elastic or less elastic.

### Importance -

- I) factor pricing :- A factor generally generates profit when it becomes inelastic.
- II) Price determination :- It plays a dominant role when considered over a long period when it becomes elastic.

## 12) Public Finance and Private finance →

Public Finance :- Defn:- Public Finance deals with how government gets money and where it spend money.

Private Finance - Defn:- It is the study of individual finance concerning with the individual benefit.

### Difference Between - Public & Private Finance

Sr. no.	PUBLIC FINANCE	Sr. no.	PRIVATE FINANCE
1.	It is a study of Government finance or State.	1.	It is a study of individual finance
2.	State proposed expenditure determines its income	2.	An individual income determine his expenditure.
3.	Big & Deliberate changes either in income or in expenditure are easier	3.	Big & Deliberate changes either in income or in expenditure are not so easy
4.	public authority usually does not discount the future at a high.	4.	An individual can easily discount the future for present utilities.
5.	Surplus budgeting need not be virtue for the government.	5.	Surplus budgeting is a virtue for the government.
6.	Unit of the time for the budget is 1 year.	6.	There is No fixed time period.
7.	State finance made public	7.	the Individual finance is kept secret,
8.	State can issue currency in order to meet expenditure	8.	The individual cannot issue currency in order to meet expenditure

9.	No equimarginalizing of utility for state	9.	A individual tries to minimize satisfaction for his income by equimarginalizing of utilities.
10.	The government have coercive authority	10.	The private individual lacks the coercive authority.
11.	Govt. can borrow both at internal & external loan	11.	Govt. can borrow at external loan only.
12.	Objective of Govt. expenditure is to maximize social benefits	12.	Individual benefits.

### Role or functions of finance —

1. Allocative function:— Govt. is divided betw private & social goods by which the mix of social goods is chosen.  
— This done by budgetary policy.
2. Distributive function:— Distribution of income in the community.  
reducing economic inequalities.
3. Stabilization function:— maintains a high level of employment stability in the balance of payments.

Sources:- major:- Tax, Price, loan, fees & assessments.  
of Public minor:- fines & penalties, reparation (Bond),  
finances tributes, gifts.