

**NATIONAL INCOME**  
**CONCEPT NOTE**

---



EduTap

EduTap

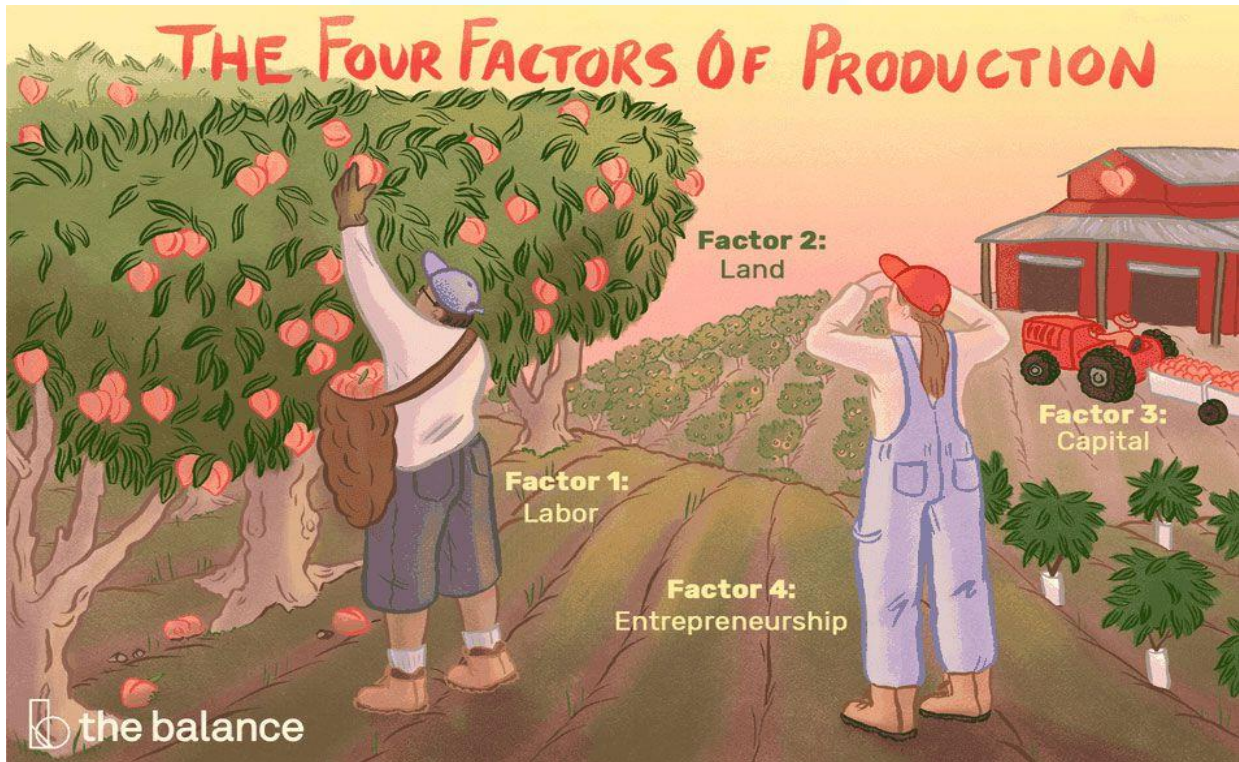
## Contents

1	Part I: Factors of Production .....	2
1.1	Four Factors of Production .....	2
1.1.1	Land.....	2
1.1.2	Labour .....	2
1.1.3	Capital .....	2
1.1.4	Entrepreneurship.....	3
1.2	Factor Payments .....	3
2	Part II: National Income and Related Aggregates .....	4
3	Part II: Measurement of National Income .....	7
3.1	Product or Value-added Method .....	8
3.2	Income Method.....	10
3.3	Expenditure Method .....	11
3.4	Precautions taken while measuring national income of a country – .....	12
4	Part IV: Additional Concepts .....	12
4.1	Private Income .....	12
4.2	Personal Income.....	13
4.3	Personal Disposable Income .....	14
4.4	Summary .....	14
4.5	Relationship between Basic Price, Factor Cost and Market Price .....	15
4.6	Nominal GDP and Real GDP .....	16
4.7	GDP Deflator .....	18
4.8	Green GDP.....	18
4.9	Per capita Income .....	19

EduTap

## 1 Part I: Factors of Production

In this section we will be studying about four factors of production – Land, Labour, Capital, and Entrepreneurship. These are **four basic factors used to produce goods and services** in the economy-- **Land, Labour, Capital and Entrepreneurship**. These are also called resources or **scarce resources**.



Let's understand about Labour, capital, land, and entrepreneurship which are the four "factors" or items used in the "production" of goods and services.

### 1.1 Four Factors of Production

#### 1.1.1 Land

- Land is the **naturally occurring materials of the planet** that are used for the production of goods and services, including the **land** itself; the **minerals** and **nutrients** in the ground; the **water, wildlife**, and **vegetation** on the surface; and the **air** above.



#### 1.1.2 Labour

- Labour is the **mental and physical efforts of humans** (excluding entrepreneurial organization) used for the production of goods and services.
- Labour includes both the **physical effort of factory workers** and farmhands often associated with labor, as well as the **mental effort of executives and supervisors**.



#### 1.1.3 Capital

- Capital is the **manufactured, artificial, or synthetic goods used in the production of other goods**, including **machinery, equipment, tools, buildings, and vehicles**. Capital is the produced factor of production.



- In economics, capital typically refers to money. Capital as a factor of production, refers to the money that is used to purchase items that are used to produce goods and services. However, money is not a factor of production because it is not directly involved in producing a good or service. Instead, it facilitates the processes used in production by enabling entrepreneurs and company owners to purchase capital goods or land or to pay wages.



CAPITAL INVESTMENT

- This factor must be **produced using other factors of production**, which means that society is often faced with the choice between producing consumption goods that satisfy wants and needs and capital goods that are used for future production.

### 1.1.4 Entrepreneurship

- Entrepreneurship is the **special sort of human effort** that takes on the risk of **bringing labor, capital, and land together to produce goods**.
- Entrepreneurship is the factor that organizes the other three. Without someone to organize production, the other three factors do not produce.
- A **key component of entrepreneurship is risk**. This resource takes the risk of organizing production before anything is produced and with no guarantee that production will be successful.

## Entrepreneur

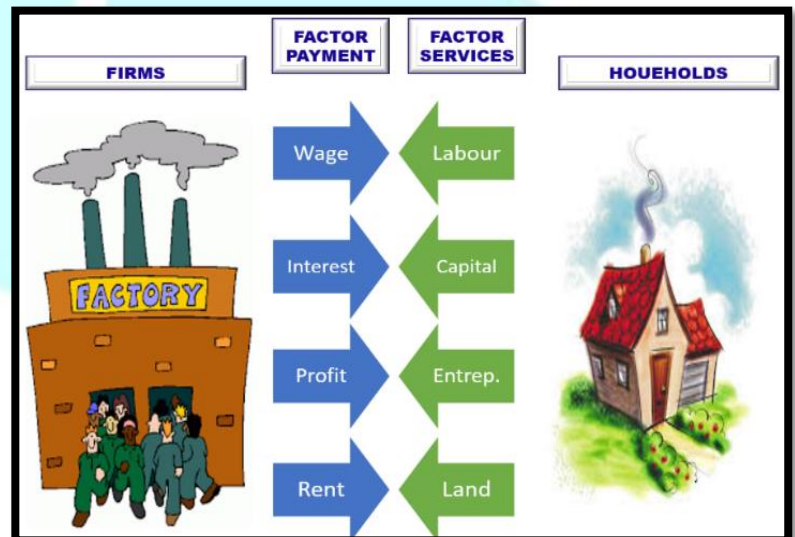


Are these factors of production free? Will you work for free? Will you give your land for free? Will you lend money charging zero interest? If you own a business, won't you want to make some profit? In the next section, let us understand how factors of production are remunerated!

### 1.2 Factor Payments

Corresponding to each factor of production, there is a factor payment. In this section, we will be looking at four factor payments – wage, interest, rent and profit.

- Factor payments are frequently categorized according to the services of the productive resource.
  - **Wages** are paid for the services of **labour**.
  - **Interest** is the payment for the services of **capital**
  - **Rent** is the payment for the services of **land**.
  - **Profit** is the factor payment to **entrepreneurship**.



- Households are the ones in the economy that majorly provides the factors of production.
- Households do **two fundamental things** vital to the economy.
  - 1) **Demand goods and services** from product markets
  - 2) **Supply labour, capital, land, and entrepreneurial ability** to resource markets.
- Households undertake **consumption expenditure**.
- **Consumer spending (or consumption expenditure)** is the **total money spent on final goods and services by individuals and households for personal use and enjoyment** in an economy.

Contemporary measures of consumer spending include all private purchases of durable goods, nondurable goods, and services.

So far, we have understood the meaning of factors of production and factor payments. We have talked about basic building blocks of production of goods and services. Let's understand the Concepts of National Income to understand the calculation\measurement of production of goods and services in India.

## 2 Part II: National Income and Related Aggregates

The national income (NI) of a nation indicates its yearly economic growth. It is a measure of economic activities carried out by the normal residents of that country—both domestically and while residing in a foreign country. There are 8 measures to calculate the economic activities.



In macroeconomics, NI is correlated with various other crucial money value measures, as discussed below:

**Gross Domestic Product (GDP) at Market Price** - Total value of all final goods and services produced in a year in the domestic territory of a country by the residents and non-residents.

**With the definition of GDP at MP, we can see the definitions of related aggregates.**

**Gross Domestic Product (GDP) at Factor Cost** - Total value of all final goods and services produced in a year in the domestic territory of a country by the residents and non-residents deducting net indirect taxes.

$GDP\ at\ FC = GDP\ at\ MP - Net\ Indirect\ taxes$

### Difference between Market Price (MP) and Factor Cost (FC) is seen through Net Indirect taxes

The market price is the price that consumers will pay for the product when they purchase it from the sellers and includes the indirect taxes.

The factor cost refers to the cost of factors of production that is incurred by a firm when producing goods and services.



$Market\ Price = Factor\ Cost + Indirect\ taxes - Subsidies$   
 $Factor\ Cost = Market\ Price - Indirect\ taxes + Subsidies$   
 $Net\ Indirect\ Taxes = Indirect\ taxes - Subsidies$



### Concept Check

**Q.** If the Gross Domestic Product at FC is 2546 crore and the Gross Domestic Product at MP is 2864 crore, how much is Net Indirect Taxes?

- (A) 356
- (B) 318
- (C) 313
- (D) 321
- (E) 350

**Answer: B**

**Gross National Product (GNP) at MP** - Total value of all final goods and services produced in a year in the domestic territory of a country by the **normal residents** adding **net factor income from abroad**.

**Gross National Product (GNP) at FC** - Total value of all final goods and services produced in a year in the domestic territory of a country by **the normal residents** adding **net factor income from abroad** deducting **net indirect taxes**.

### **Difference between Domestic and National is seen through Net Factor Income from Abroad**

#### **Net Factor Income from Abroad**

It refers to the difference between factor income received from the rest of the world and factor income paid to the rest of the world.

**NFIA = Factor income earned from abroad – Factor income paid abroad**

**CSO defines it as “Income attributable to factor services rendered by the normal residents of the country to the rest of the world, less factor services rendered to them by the rest of the world.”**

‘Factor income from abroad’ is the income earned by the normal residents of a country from the rest of the world (ROW) in the form of wages and salaries, rent, interest, dividend and retained earnings.

‘Factor income to abroad’ is the factor income paid to the normal residents of other countries (i.e., non-residents) for their factor services within the economic territory.

***“Normal resident of a country refers to an individual or an institution who is residing in the country and whose center of economic interest also lies in that country.”***

#### **Components of net factor income from abroad:**

- (i) **Net compensation of employees** - It refers to the difference between income from work received by resident workers living or employed abroad for less than one year and similar payments made to non-resident workers staying or employed within the domestic territory of the country for less than one year. Income from work can be earned by working in the domestic territories of other countries earning thereby wages and salaries (or compensation of employees). **For Instance**, suppose Indian resident scientists, engineers, doctors, dancers, masons, carpenters employed temporarily abroad earned factor income of Rs 10,000 crore whereas similar payments made to non-resident workers temporarily employed in domestic territory of India was to the tune of Rs 8,000 crore. Net compensation of employees from abroad to India would be Rs 2,000(= 10,000-8,000) crore.
- (ii) **Net income from property and entrepreneurship (rent, interest, profit)** - It is the difference between income received in the form of rent, dividend, interest, etc., from property and entrepreneurship by the residents of a country and similar payments made to the non-residents of that country. **For instance**, suppose normal residents of India earned Rs 25,000 crore by way of rent, interest and profit from abroad and similar payments made to the rest of world were, say Rs 20,000 crore. Net income from property and entrepreneurship from abroad would be Rs 5,000 (= 25,000-20,000) crore.
- (iii) **Net retained earnings of resident companies abroad** - This is the third element of net factor income from abroad. Retained earnings of a company are in fact its undistributed profit. Retained earnings are that part of the profit which is kept aside as a reserve for the future after payment of corporate tax and dividends. Net Retained Earnings is the difference between the retained earnings of the resident companies, which are located abroad and the retained earnings of the non-resident companies, which are located within the domestic territory of the country. **For instance**, suppose Indian companies working abroad, after

paying profit tax and distributing dividend out of their total profits, retained the balance profit (known as Reserve or Undistributed profit) of Rs 50,000 crore and foreign companies in India retained similar profit of 65,000 crore. Net retained earnings of resident companies abroad would be Rs15, 000(= 50,000-65,000) crore.

From the above-mentioned data, India's net factor income from abroad in 2008-09 would be equal to Rs 8,000 [= 2,000 + 5,000 + (-15,000)] crore.

**Net factor income = Net compensation of employees + Net income from abroad from property and entrepreneurship + Net retained earnings of resident companies abroad.**

Net factor income from abroad is used to differentiate between National income and Domestic income.

**Domestic = National – NFIFA**

**National = Domestic + NFIFA**

NFIA is Positive when income earned from abroad is more than income paid to abroad.

NFIA is Negative when income earned from abroad is less than income paid to abroad.

NFIA is Zero when income earned from abroad is equal to income paid to abroad.

### Concept Check

**Q.** If the Gross Domestic Product is 2546 crore and the Gross National Product is 2864 crore, how much is Net factor income from abroad?

- (A) 356
- (B) 318
- (C) 313
- (D) 321
- (E) 350

**Answer: B**

**Net Domestic Product at MP** - Total value of all final goods and services produced in a year in the domestic territory of a country by the **residents and nonresidents** deducting the **consumption of fixed capital (depreciation)**.

**Net Domestic Product at FC** - Total value of all final goods and services produced in a year in the domestic territory of a country by the **residents and nonresidents** deducting the **consumption of fixed capital (depreciation)** and **Net Indirect Taxes**.

### Difference between Net and Gross is seen through Depreciation

**Depreciation** means loss in current value of fixed capital due to use, wear and tear, or obsolescence which means the decrease in the value, at current prices, of durable fixed assets.

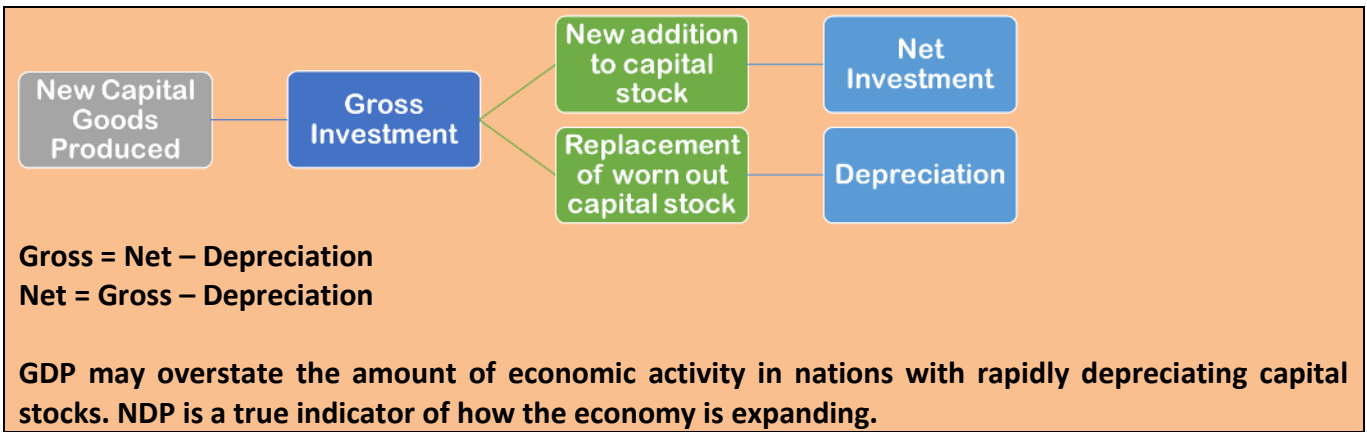
A **capital consumption allowance (CCA)** is a macroeconomic term for **depreciation of fixed assets** which measures the **present cost of replacing** current loss in the physical assets to **maintain the current economic production level**.



Capital Goods

Undergo wear and tear

Worn out machines need to be repaired or replaced with new machines



**Net National Product at Market Price** - Total value of all final goods and services produced in a year in the domestic territory of a country by the **normal residents** adding **net factor income from abroad** deducting depreciation.

Net National Product at Market Price = Gross Domestic Product at Market Price – Depreciation + Net Factor Income from Abroad

**Net National Product at Factor Cost** - Total value of all final goods and services produced in a year in the domestic territory of a country by the **normal residents** adding **net factor income from abroad**. It does not include net indirect taxes and depreciation in it.

NNP at FC = GDP at MP – Depreciation - Indirect taxes + Subsidies + Net Factor Income from Abroad

**Concept Check**

**Q.** If the Gross Domestic Product is 2546 crore and the Net Domestic Product is 2500 crore, how much is Depreciation?

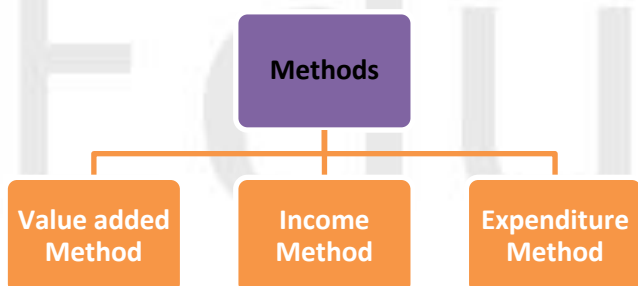
- (A) 40
- (B) 45
- (C) 46
- (D) 65
- (E) 546

**Answer: C**

After Understanding the National Income and Related Aggregates, let's move to understand the Measurement of National Income.

**3 Part II: Measurement of National Income**

Methods of calculating National Income are product method, expenditure method and income method.



There are 3 main activities in an economy leading to the 3 methods of calculating national income in the economy – Production, Expenditure for consumption and Income generation. National income will be equal from all the methods of calculating national income as national income can be only one value for the whole of the nation.



Thus, we have seen that there are multiple approaches that can be adopted for the estimation of National Income or Domestic Income.

First approach is referred to as the Product or Value-Added Method. In this approach we simply add the 'value added' by various agents in an economy. Let us understand the meaning of the term 'value added' and how it can help us in estimating the GDP and national income.

### 3.1 Product or Value-added Method

Value added refers to the addition of value to the intermediate goods by a firm, by virtue of its productive activities.

#### *Farmer-Baker Model*

- Let us suppose that there are only **three kinds of producers** in the economy. They are the wheat producers (or the **farmers**), flour mill and the bread makers (the **bakers**). The wheat producers grow wheat and they do not need any input other than human labour. They sell a part of the wheat to the flour mill that convert the wheat into flour and sell the flour to the baker. The bakers do not need any other raw materials besides wheat to produce bread.
- Let us suppose that in a year the **total value of wheat** that the farmers have produced is **Rs 6000** which they have sold completely for **Rs 6000 to the flour mill that have made flour from wheat. The flour is sold for Rs. 8000 to the baker.** The **bakers** have used this amount of wheat completely during the year and have produced **Rs 14000 worth of bread.** What is the **value of total production in the economy?** If we follow the simple way of aggregating the values of production of the sectors, we would add **Rs 14000 (value of production of the bakers) to Rs 8000 (value of production of flour mill) to Rs 6000 (value of production of farmers).** The result will be **Rs 28000.**
- A little reflection will tell us that the **value of aggregate production is not Rs 28000.** The farmers had produced Rs 6000 worth of wheat for which it did not need assistance of any inputs. Therefore, the entire **Rs 6000 is rightfully the contribution of the farmers.** But the same is not true for the flour mill and bakers. The flour mill had to buy Rs 6000 worth of wheat to produce flour. The Rs 8000 worth of flour that the mill has produced is not entirely their own contribution. To **calculate the net contribution of the mill, we need to subtract the value of the wheat that they have bought from the farmers.** If we do not do this, we shall commit the **mistake of 'double counting'.** This is because **Rs 6000 worth of wheat will be counted twice.**
- The **bakers had to buy Rs 8000 worth of flour to produce their bread.** The Rs 14000 worth of bread that they have produced is not entirely their own contribution. To **calculate the net contribution of the bakers, we need to subtract the value of the flour that they have bought from the farmers.** If we do not do this, we shall commit the **mistake of 'double counting'.** This is because **Rs 8000 worth of flour will be counted twice.** First it will be counted as part of the output produced by the farmers. Second time, it will be counted as the imputed value of flour in the bread produced by the bakers.
- Therefore, the **net contribution made by the 3 producers is shown by the Value addition -**



Product	Value of Output (in market)	Intermediate Cost \Consumption	Value Addition
Wheat by Farmer	Rs. 6000	Rs. 0	Rs. 6000
Flour by Mill	Rs. 8000	Rs. 6000	Rs. 2000
Bread by Baker	Rs. 14000	Rs. 8000	Rs. 6000
			Gross Value Addition =Rs.14000

- Hence, aggregate value of goods produced by this simple economy is Rs 6000 (net contribution by the farmers) + Rs 2000 (net contribution by the flour mill) + Rs 6000 (net contribution by the baker) = Rs 14000.
- The **term that is used to denote the net contribution made by a firm is called its value added**. We have seen that the raw materials that a firm buy from another firm which are completely used up in the process of production are called intermediate goods. Therefore, the **value added of a firm = value of production of the firm – value of intermediate goods used by the firm**.

#### KEY DEFINITION

**Value added:** Net contribution made by a firm in the process of production. It is defined as, Value of production – Value of intermediate goods used.

**Double Counting:** The act of including the value of intermediate goods more than once in the value of gross domestic product. Because the value, or price, of final goods includes the cost, or value, of all intermediate goods used, including market transactions for intermediate separately in the measurement of gross domestic product would lead to double counting.

- The **value added of a firm is distributed among its four factors of production, namely, labour, capital, entrepreneurship, and land (natural resources)**. Therefore wages, interest, profits and rents paid out by the firm must add up to the value added of the firm.

Formula for Value added method –

**Gross Value Added at MP = Value of Output – Intermediate Consumption**

#### 1. By Value Added/ Output Method (GDPmp is calculated)

**GVAmp / GDPmp = Value of output – Intermediate Consumption**

**(Value of Output = Sales + Change in Stock)**

**(Change in Stock = Closing Stock – Opening Stock)**

**NNP at FC (National Income) = GVA at MP – Depreciation – Indirect taxes + Subsidies + Net factor Income from Abroad**

VALUE ADDED AND DOMESTIC PRODUCT ARE SAME i.e., VA = DP

Value Added = Value of output - Purchases

DEPRECIATION = COST OF PRODUCER GOOD / NUMBER OF YEAR

INTERMEDIATE CONSUMPTION= INTERMEDIATE COST=INTERMEDIATE PURCHASE=RAW MATERIAL = SINGLE USER PRODUCER GOODS= PURCHASE OF RAW MATERIAL

INDIRECT TAX = TAX ON PRODUCTION + EXCISE DUTY + IMPORT DUTY + SALES TAX

SALES = DOMESTIC SALES + EXPORTS

CHANGE IN STOCK = UNSOLD OUTPUT DURING THE YEAR

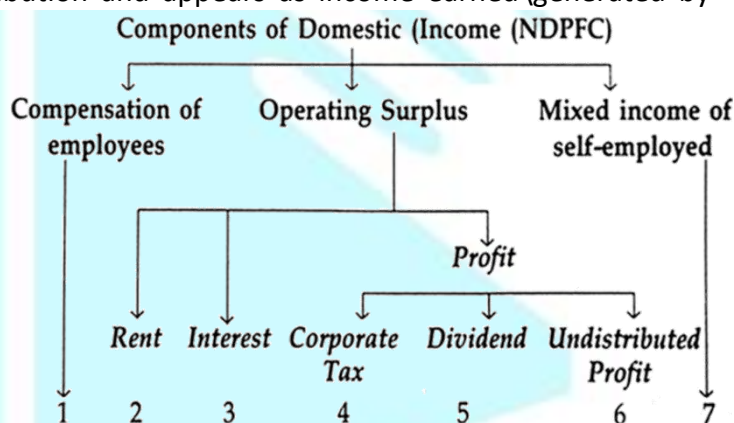
TAX ON PRODUCTION = INDIRECT TAX

Remember: While calculating Intermediate consumption, Imports of raw material are not to be added with purchase of raw material.

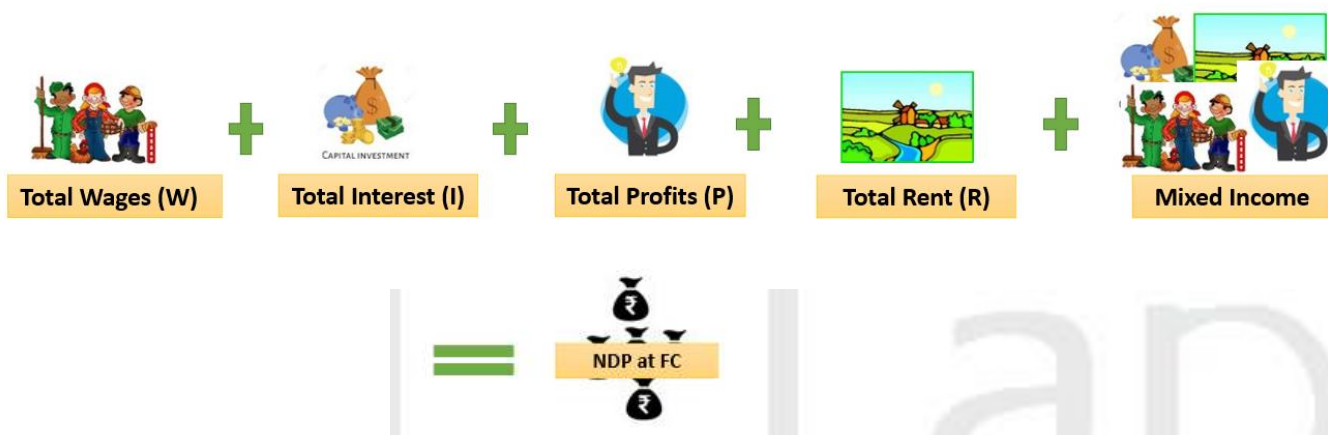
### 3.2 Income Method

This method approaches national income from the distribution side. In other words, this method measures national income at the phase of distribution and appears as income earned/generated by factors of production of the country.

This method assumes that there are four major factors of production in an economy and that all revenues must go to one of these four sources. That is, revenues earned by all the firms put together must be distributed among the factors of production as salaries, wages, profits, interest earnings and rents.



**NDP at FC = Compensation of Employees in Kind or Cash + Interest + Profits + Rent + Mixed Income of Self Employed.**



Payment in kind is non-cash remuneration received by an employee for work performed. This can include food, drink, fuel, clothing, footwear, free or subsidized housing or transport, electricity, car parking, nurseries or crèches, low or zero-interest loans or subsidized mortgages.

**NNP at FC (National Income) = NDP at FC + Net factor Income from Abroad**

### Concept Check

Q. Calculate NNP at FC using the following information:

Compensation of Employees = 2500

Profits = 700

Rent = 400

Interest = 350

Dividends = 200

Mixed Income of Self Employed = 7500

Net factor Income from Abroad = 50

Depreciation = 70

(A) 11100

(B) 11550

(C) 12350

(D) 16780

(E) 11500

**Answer: E**

### 3.3 Expenditure Method

The expenditure method arrives at domestic income by adding up all expenditures made on goods and services produced in the domestic territory during a year.

GDP at MP = Private Final Consumption Expenditure (C) + Government Final Consumption Expenditure (G) + Gross Domestic Capital Formation (I) + Net Exports (NX).

**GDP at MP = C + G + I + NX or GDP at MP = C + G + I + (X - M)**

### Concept Check

Q. In an open economy, the Gross Domestic Product (Y) of the economy is: (C, I, G, X, M stand for Consumption, Investment, Govt. Expenditure, total exports, and total imports respectively.)

(A)  $Y = C + I + G + X$

(B)  $Y = I + G - X + M$

(C)  $Y = C + I + G + (X - M)$

(D)  $Y = C - G + I + (X - M)$

(E) None of the above

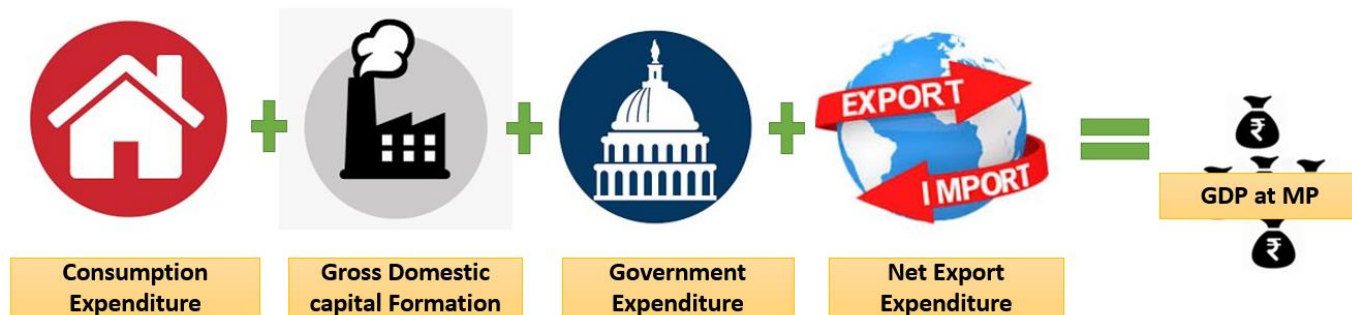
**Answer: C**

**Gross Domestic Capital Formation** = Gross Domestic Fixed Capital Formation + Change in Stock

Gross domestic capital formation includes all expenses made by households, business people, and Govt, adding new durable goods to the fixed capital stock of a country. These assets are in the form of infrastructures such as buildings, roads canals, bridges, means of transport, machinery, and other equipment.

Change in Stock = Closing Stock – Opening Stock

$NX = \text{Exports (X)} - \text{Imports (M)}$



From Domestic Income, GDP at MP we can derive National Income (NNP at FC)

**NNP at FC (National Income) = GDP at MP – Depreciation – Indirect taxes + Subsidies + Net factor Income from Abroad**

After understanding methods of , we can understand the Precautions taken while measuring national income of a country.

### 3.4 Precautions taken while measuring national income of a country –

- **Transfer Payments** are not included in estimating national income.
- **Imputed rent of self –occupied houses** are included in national income.
- **Illegal money** such as hawala money, money earned through smuggling etc. are not included.
- **Windfall gains** such as prizes, lotteries are also not included.
- **Corporate Profit tax** (tax on income of the companies) should not be separately included.
- **Death duties, gift tax, wealth tax, tax on lotteries** etc. are paid from past savings. That's they should not be treated as part of national income.
- **Receipts from sale of secondhand goods** should not be included.
- **Expenditure on Intermediate goods** should not be included.
- **Expenditure on purchase of shares** from business enterprises and bonds from other people should not be included while estimating National Income.
- **Value of production for self-consumption** are to be counted while measuring national income.
- **Value of services of housewives** are not included.

We can further subdivide the National Income into smaller categories. Let's see the additional concepts revolving around the National Income.

## 4 Part IV: Additional Concepts

### 4.1 Private Income

Private income refers to that income which accrues to private sector (firms and households) from all sources, both within the domestic territory as well as from rest of the world.

Thus, "Private income is the total of factor incomes and transfer incomes received from all sources by private sector (private enterprise and households) within and outside the country."

It also includes **net factor income from abroad**. Private Sector consists of private enterprises and households (factor owners). Private income consists of not only factor incomes earned within the domestic territory and abroad but also all current transfers from the government and rest of the world.

**Private Income = Income from domestic product accruing to private sector + Net factor income from abroad + All types of transfer incomes**

= National Income accruing to Private sector + Transfer incomes + Interest on National Debts

= National Income – Income from domestic product accruing to Government Sector + Transfer incomes

Three main forms of transfer income used in numerical are:

- (i) Interest on national debt
- (ii) current transfers from government administrative departments and
- (iii) net current transfers from rest of the world

Mind, interest on national debt which is paid by the government on loans taken from public is treated as transfer income because government loans are traditionally treated for consumption and not for production purposes. For the same reason, interest paid by consumers is also treated as transfer income and not included in national income.

When we say Private income, it might seem like private sector income, but both are quite different.

Private sector income includes only factor income earned by private sector within domestic territory whereas private income includes private sector income, NFIA and all current transfers from within and outside the country. Thus, private income is a national and broader concept whereas income from domestic product accruing to private sector is a domestic concept.

Symbolically:

**Private income = Private sector income + NFIA + All transfer incomes**

## 4.2 Personal Income

Personal income is the sum of all incomes actually received by individuals or households from all sources within and outside the country during a given year

Thus, "Personal income is the sum of earned income and transfer income received by persons (households) from all sources within and outside the country. The point to be noted here is that personal income includes not only factor incomes which are earned from productive services but also transfer incomes (or payments) which are received without rendering any productive service. Thus, personal income is the sum of earned incomes and current transfer incomes. In other words, it is a receipt concept as compared to national income which is an earning concept.

Again, personal income is different from private income because of **components of private income namely corporate tax and undistributed profit** of corporate enterprise are not included in personal income.

The reason is that corporate tax (part of the profit received by the firms) goes to the government and undistributed profit is retained by the company, i.e., these two items are not received by households.

**Put in the form of equations:**

**Personal income** = Private income – Corporate tax – Undistributed profit

= National income – Income of govt. (public) sector – Corporate tax – Undistributed profit + All types of transfer incomes

= National Income accruing to Private Sector – Undistributed Corporate Profits – Corporate Taxes – Social Security Contributions + Transfer incomes + Interest on National Debts

= Domestic income – Income from domestic product accruing to govt. sector – Corporate tax – Undistributed profit + NFIA + All types of transfer incomes

The concept of Personal Income is helpful in knowing the potential purchasing power of the households. It is used to measure consumers' welfare.

### 4.3 Personal Disposable Income

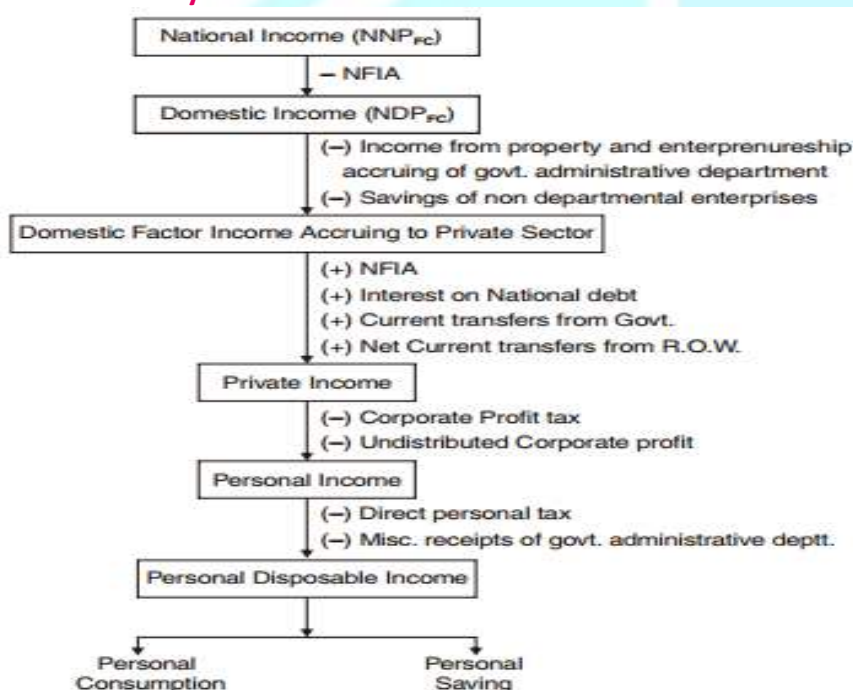
It is the sum of all incomes actually received by all individuals or households during a given year minus taxes. Disposable Income is the money that is available from an individual's salary after he/she pays local, state, and federal taxes. It is also known as disposable personal income or net pay.

**Personal Disposable Income = Personal income – Direct taxes – Miscellaneous Government Receipts**

**Personal Disposable Income = Household Final Consumption + Household Savings**



### 4.4 Summary



#### Concept Check

Q. Which of the following Statements is\are correct?

- (A) Private income = Personal Income + Corporate Tax + Undistributed Profits
- (B) GDP at FC = NNP at FC + Depreciation – Net Factor income from Abroad
- (C) Personal Disposable Income = Personal Income – Personal Income Taxes
- (D) Factor Cost = Market Price – Net Indirect Taxes
- (E) All of the above statements are correct

**Answer: E**

### Concept Check

Q. Which of the following is not an example of a transfer payment in the sense of the national income accounts?

- (A) Government family allowances
- (B) Public unemployment insurance benefits
- (C) Dividends paid by corporations to stockholders
- (D) Disability pensions paid from the social insurance system
- (E) All of the above

Answer: C

### 4.5 Relationship between Basic Price, Factor Cost and Market Price

**Basic Price = Factor Cost + Production Tax – Production Subsidies**

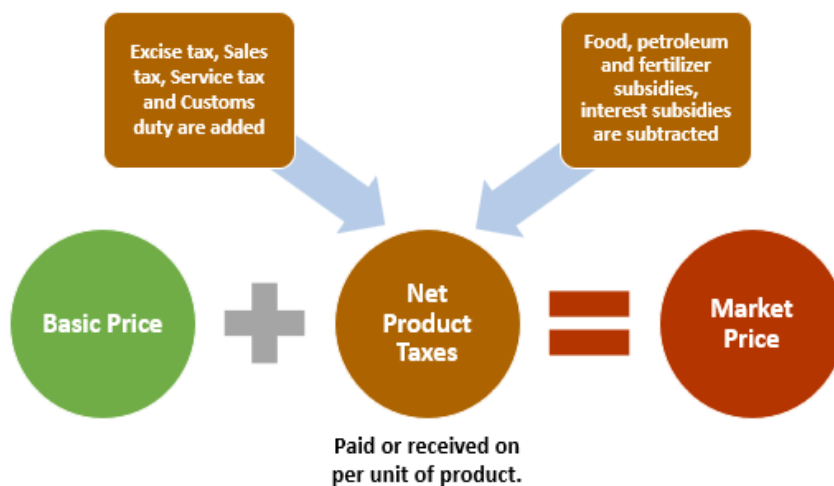
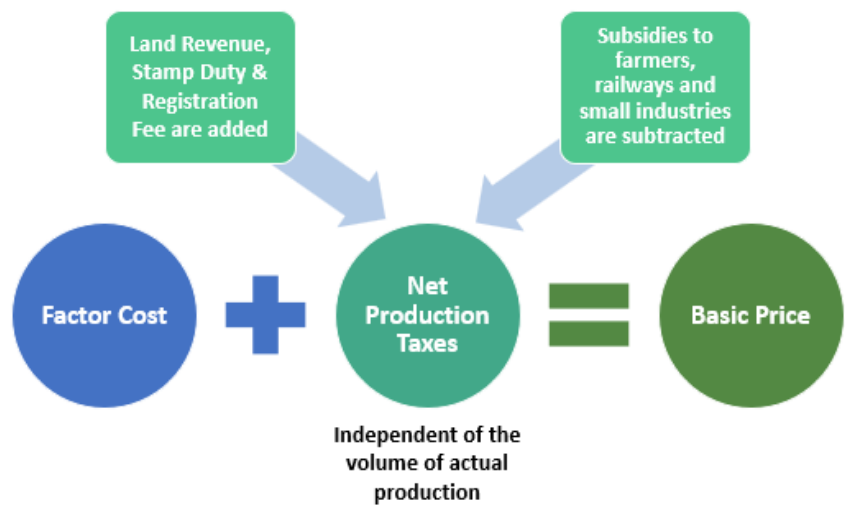
Net Production Taxes = Production tax – Production Subsidies

**Factor Cost = Basic Price - Production Tax + Production Subsidies**

**Market Price = Basic Price + Product tax – Product Subsidy**

**Net Product Taxes = Product tax – Product Subsidy**

**Basic Price = Market Price - Product tax + Product Subsidy**



### Additional Information

**Production taxes or production subsidies are paid or received with relation to production (for engaging in production) and are independent of the volume of actual production.**

Some examples of production taxes are stamps and registration fees and tax on profession. These (production taxes) are imposed even if the products are not produced, such as property.

Some production subsidies include subsidies to Railways, subsidies to village and small industries, administrative subsidies to corporations or cooperatives, assistance in the creation of a new firm etc.

**Product taxes or subsidies are paid or received on per unit of product.**



Some examples of product taxes are excise tax, sales tax, service tax and import and export duties. Product subsidies include food, petroleum and fertilizer subsidies etc.

#### 4.6 Nominal GDP and Real GDP

**Nominal GDP** is the money value of all final goods and services produced in a year. This money value is obtained using current year current prices of final goods and services produced.

Thus, **Nominal GDP is the Gross Domestic Product of a country of a given year, estimated on the basis of the price of the goods and services of the same year.**

However, Nominal GDP does not truly indicate the real performance or economic growth of a country over time, if prices are changing.

#### Real GDP

To solve this problem, economist evaluate the output of final goods and services produced in a year using the market prices that prevailed in a certain chosen year, called as base year.

**Real GDP is the Gross Domestic Product of a country of a given year, estimated on the basis of the price of the goods and services of a base year.**

So, to calculate the real GDP, Quantities produced in current year are multiplied with Market prices of base year.

The calculation of real GDP helps us to know whether the availability of real goods and services in the economy has increased over time.

*The Real GDP of a country can be more, equal, and less than its Nominal GDP.*

**Real GDP > Nominal GDP:** When the price level of goods and services in the base year is more than the price level of goods and services in the current year.

**Real GDP = Nominal GDP:** When the price level of goods and services in the base year is the same as the price level of goods and services in the current year.

**Real GDP < Nominal GDP:** When the price level of goods and services in the base year is less than the price level of goods and services in the current year.

EduTap

Year	Price of Guitars	Quantity of Guitars	Price of Drums	Quantity of Drums
2015	\$500	100	\$1,000	25
2016	\$520	110	\$1,050	30
2017	\$600	112	\$1,075	32

Base year = 2015

**Nominal GDP:** GDP measured in prices of the current year.

**Real GDP:** GDP measured in prices of the base year or constant dollars.

Year	Nominal GDP	Real GDP
2015	$(\$500 \times 100) + (\$1,000 \times 25) = \$75,000$	$(\$500 \times 100) + (\$1,000 \times 25) = \$75,000$
2016	$(\$520 \times 110) + (\$1,050 \times 30) = \$88,700$	$(\$500 \times 110) + (\$1,000 \times 30) = \$85,000$
2017	$(\$600 \times 112) + (\$1,075 \times 32) = \$101,600$	$(\$500 \times 112) + (\$1,000 \times 32) = \$88,000$

### Difference between Nominal GDP and Real GDP

Basis	Nominal GDP	Real GDP
Meaning	Nominal GDP is the monetary value of all goods and services produced within the domestic boundaries of a country based on the price of the goods and services of the same year.	Real GDP is the monetary value of all goods and services produced within the domestic boundaries of a country based on the price of the goods and services of the base year.
What is it?	Nominal GDP is the GDP without adjusting for inflation.	Real GDP is the inflation-adjusted GDP of a country.
Expressed	The Nominal GDP of a country is expressed in terms of current year prices of goods and services.	The Real GDP of a country is expressed in terms of base year prices or constant prices of goods and services.
Complexity	It is easy to calculate Nominal GDP.	It is quite difficult to calculate Real GDP.
Value of GDP	The value of Nominal GDP is much higher than the value of Real GDP because it takes current market changes into consideration.	The value of Real GDP is much lower than the value of Nominal GDP because it takes the market price of the base year into consideration.
Comparison with the previous GDPs	One can compare the Nominal GDP of different quarters of a country.	One can compare the Real GDP of different financial years of a country.
Economic Growth	One cannot easily analyze the economic growth of a country with its Nominal GDP.	One can easily analyze the economic growth of a country using its Real GDP, as it is a good indicator of economic growth.

#### 4.7 GDP Deflator

The **GDP deflator, also called implicit price deflator, is a measure of inflation.** It is the ratio of the value of goods and services an economy produces in a particular year at current prices to that of prices that prevailed during the base year.

This ratio helps show the extent to which the increase in gross domestic product has happened on account of higher prices rather than increase in output.

Since the deflator covers the entire range of goods and services produced in the economy — as against the limited commodity baskets for the wholesale or consumer price indices — it is seen as a more comprehensive measure of inflation.

The formula to find the GDP price deflator:

$$\text{GDP price deflator} = (\text{nominal GDP} \div \text{real GDP}) \times 100$$

#### 4.8 Green GDP

Green GDP is a term used generally for expressing GDP **after adjusting for environmental damage.** In other words, **Green GDP is a monetization of the loss of biodiversity** caused by climate change. It is calculated by subtracting resources depletion, environmental degradation from the traditional GDP figure. It is very helpful for managing economies as well as resources.



**Green GDP includes the services which are provided by the environment.** For instance, if any geographical region has a better quality of water than other regions, the people in this region are expected to live healthier and more productive lives.

**There is a tangible and measurable cost attached to the medical expenses associated with bad water or polluted air.** It is therefore possible to set a baseline for the quality of natural resources available in an environment and the benefits that they provide in terms of savings.

Most importantly Green GDP includes **a depletion analysis.** This is the document which explains the process of depletion of natural resources in an economy. It also explains whether the trend is sustainable or not. This information is valuable to investors who invest based on the natural resources of a country that can be utilized. Depletion of the natural resources would therefore scare investors away maintaining an ecological balance. It must however be noted that depletion analysis is an information only document. It has no legal backing, and the participants are still free to do as they see fit.

**The biggest challenge facing the Green GDP is that of realistic accounting.** Since we are essentially measuring the intangible, it is very difficult to estimate the monetary values associated with them. The Green GDP system is not perfect. However, it is developing. Many scholars and researchers are working towards a solution wherein Green GDP can become more pragmatic and realistic.

The idea is to ensure that the flaws of the GDP system are not replaced by another flawed system. The process might take time but seems to be on the right track.

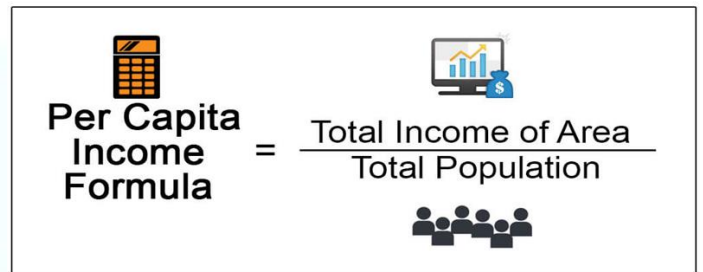
#### 4.9 Per capita Income

**Per capita income (PCI)** or average income measures the **average income earned per person in a given area (city, region, country, etc.) in a specified year.**

The per capita income of a geographical location determines the average income of a person in a country, a state, or a specific region. This helps us evaluate the standard of livelihood and the quality of life of people in the geographical location.

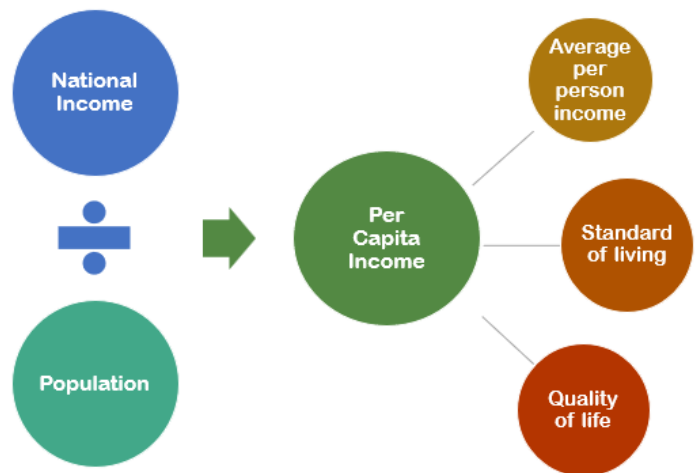
In Latin, the word "**Per Capita**" means "**by head.**"

PCI compares and assesses the economic situations of countries with varying population sizes. The measurement of a country's per capita income is done by dividing the total national income of a particular country or state by the population in that specific geographical region.



The diagram shows the formula for Per Capita Income. On the left, a calculator icon is above the text "Per Capita Income Formula". To the right of an equals sign is a fraction. The numerator is "Total Income of Area" with a bar chart icon above it. The denominator is "Total Population" with a group of people icon below it.

$$\text{Per Capita Income Formula} = \frac{\text{Total Income of Area}}{\text{Total Population}}$$



EduTap