

# 11

## NATIONAL INCOME

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### What we have learnt

- Factors of production like land, labour and capital are owned by Households.
- An economy is divided into three sectors - Agricultural sector, Industrial sector and Service sector.
- Gross National Product and Net National Product help us to understand economic progress.

You have studied the circular flow of economic activity which shows the relationship between production and consumption in an economy. Continuous increase in production can be considered as an index of progress that an economy has achieved. This increase in production will naturally promote the growth of National Income. Now examine the total income of a nation or national income, methods of calculating it and the difficulties involved in it.

### What is National Income?

Hope you know the factors of production exchanged by house holds and the resulting reward. Fill up the following table.

<i>Factors of production</i>	<i>Reward</i>
• Land	• Rent
•	•
•	•

Annual income of a family is the sum total of income it receives from various sources during a year. It is on this basis that the economic position of a family is determined. Therefore, when we calculate the annual income of a nation, naturally we have to take into account the income from various sectors. What are the productive sectors?

- Agricultural sector
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These sectors produce innumerable items of goods and services ranging from ball pins to space shuttles during a year. The sum total of these goods and services is the gross

production of the country. When we express the value of these goods and services in terms of money, we get national income. Now, can you give a definition to national income?

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J.M.Keynes, a famous economist defined national income as follows.

**"National Income is the money value of all goods and services produced in a country during a year"**

While family income reflects the economic position of households, national income shows the economic position of a nation. The basic objective of an economy is to achieve economic progress. This is achieved by co-ordinating natural resources, human resources, capital, technology etc. National income will help to assess and compare the progress achieved by a country over a period of time. Let us see why the study of national income is given so much importance.

- To estimate economic development.
- To know how far development objectives were achieved.
- To know the contribution of various sectors to national income.

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Try to find out more points.

### Methods of calculating National Income

National Income calculation is not an easy task. For this, we have to collect more facts and figures. We have already seen that income

is generated through production process. Normally we use this income for purchasing goods and services. When demand for commodities goes up, we have to produce more. Thus income leads to expenditure which again leads to increased production. See the following figure.

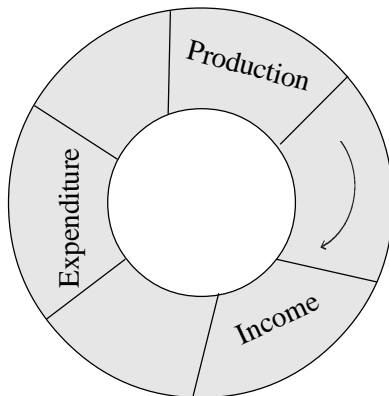


figure 11.1

The figure 11.1 given above shows how production, income and expenditure are mutually related. Economic activity is directly related to these three stages. Based on this, three methods are used for calculating national income. They are:

- Production method
- Income method
- Expenditure method

You can calculate national income by following any one of these methods. Considering the nature and requirements of the economy one or more methods are used for calculating national income. Let us examine these methods separately.

### Production Method

This method is based on the total production of a country during a year. First of all production units are classified into primary, secondary and tertiary sectors (Table 11.1). Then we identify the various units that come under these sectors.

We estimate the goods and services produced in each of these sectors. The sum total of products produced in these three sectors is the total output of the nation. The next step is to find out the value of these products in terms of money.

The money sent by Indian citizens working abroad is also added to this. Now we get the gross national income.

**GNI = Money value of total goods and services + Income from abroad.**

### Productive Sectors

<i>Primary</i>	<i>Secondary</i>	<i>Tertiary</i>
● Agriculture and allied activities	● Registered industries	● Communications
● Forest	● Non registered industries	● Banking/Insurance
● Fishing	● Electricity	● Public Administration
● Mining	● trade	● Health
	● Manufacturing	● Education
		● Other services

Table 11.1

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This method helps us to find out contributions of various sectors to national income.

### **Income Method**

Factors of production together produce output and income. The income received by the factors of production during a year can be obtained by adding rent to land, wages to labour, interest to capital and profit to organisations. This will be equal to the income of the nation. In other words, total income is equal to the reward given to various factors of production. By adding the money sent by the Indian citizens from abroad to the income of the various factors of production, we get the gross national income.

$$\text{GNI} = \text{Rent} + \text{Wage} + \text{Interest} + \text{Profit} + \text{Income from abroad.}$$

This method will help us to know the contributions made by different agents like landlords, labourers, capitalists and organisers to national income.

### **Expenditure Method**

National income can also be calculated by adding up the expenditure incurred for goods and services. Government as well as private individuals spend money for consumption and production purposes. The sum total of expenditure incurred in a country during a year will be equal to national income.

$$\text{GNI} = \text{Individual Expenditure} + \text{Government Expenditure.}$$

This method will help us to identify the expenditure incurred by different agents.

Any one of the above methods can be used for calculating national income.

$$\text{Production method} = \text{Income method} = \text{Expenditure method.}$$

### **Difficulties/Limitations in calculating National Income**

We have already seen that calculation of national income is a difficult process. Let us examine these difficulties.

- Non availability of reliable statistics.
- The service of housewives is not included in the national income because this service is not sold in the market.
- Individuals do not keep correct account of their consumption.
- Illiteracy and ignorance.
- Lack of proper criteria for measuring the value of services.

Try to find out more difficulties in calculating national income and prepare a note on "Difficulties and limitations in calculating national income".

As the economy develops, these difficulties get minimised. Organise a discussion to find out how these difficulties are reduced when an economy develops.

### **National Income calculation in India**

The first attempt to calculate national income of India was made by Dada Bai Naoroji in 1867-68. This was followed by several other attempts.

The first scientific attempt was made by Prof. V.K.R.V.Rao in 1931-32. But it was not a satisfactory attempt. The first official attempt

was made by Prof.P.C.Mahalanobis in 1948-49. The final report was submitted in 1954. Today national income is calculated and published by the Central Statistical Organisation. All the three methods are used for calculating national income in India.

The following table shows the gross national product and the net national product of India for the last ten years.

Year	GNP Rs. Crores	NNP Rs. Crores
1992 - 93	618969	546023
93 - 94	769265	685912
94 - 95	901111	803090
95 - 96	1053736	936548
96 - 97	1224208	1089563
97 - 98	1376943	1224946
98 - 99	1583110	1415044
99-2000	1740207	1557781
2000 -01	1900310	1702454
2001-2002	2801350	1864292

Table 11.2

Using the following indicators, analyse the table 11.2 and prepare a report.

Countries	GNP (Billion dollars)			
	1997	1998	1999	2000
Japan	4812.1	4089.9	4054.5	4519.1
America	7783.1	7921.3	8879.5	9601.5
Indonesia	221.5	138.5	125.0	119.9
Pakistan	64.6	63.2	62.9	61.0
China	1055.4	928.9	979.9	1062.9
India	357.4	421.3	441.8	454.8

Source : World Development Report - 2001

Table 11.3

- Years in which there was an increase/decrease in national income.
- The changes in annual growth rate.

From the analysis it is seen that the national income of India is growing slowly. What could be the reasons?

- Slow growth of agricultural sector
- Defect in planning
- Rapid growth of population.
- Under-utilisation of the productive capacity of machines
- Poverty

Growth in national income is considered as an index of development. Try to identify various measures whereby India can increase its national income.

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Table 11.3 shows the gross national products (in dollar) of some selected countries. Compare it with India's national income and prepare a report. Write down your conclusions.

Prepare line graph, bar diagram, pie diagram, histogram etc. by using the information given in the table and after giving suitable colours exhibit them in your class room.

### **Gross National Product and National Income (GNP & NI)**

We have seen that gross national product is the sum total of goods and services produced in a country during a year. There are several stages in arriving at national income from gross national product.

#### **Net National Product**

Assume that you have bought a bicycle worth Rs.2,500/- Will you get the same amount for the bicycle, if you sell it after two years? What are the reasons for this?

- It has become old.
- Depreciation due to use.

$$PCI = \frac{\text{National Income}}{\text{Population}}$$

Now the current price of the cycle is calculated by deducting depreciation charges from the original price. Similarly, in the production process a country may use machines and equipments. When there is depreciation, we have to repair or replace machines and equipments. The expenses incurred for this is called the depreciation expenditure. Net National Product is calculated by deducting depreciation expense from gross national product.

$$NNP = GNP - \text{Depreciation}$$

#### **National Income**

Let us see how national income is arrived from NNP.

You might have heard about indirect taxes and subsidies. Sales tax is an example for indirect tax. This is collected by adding tax to the price of commodities. Then if you want to know the original price, you have to deduct sales tax from the selling price of the commodity.

You might have noticed that Handloom and Khadar products were given rebate during festival seasons like Onam, Christmas and Bakrid. Say 20% rebate is given for handloom products. What do you mean by this?

- Goods worth Rs.100/- is given to the consumer for Rs.80/-
- The balance of Rs.20/- is given by the Government as subsidy.

If you want to know the original price of handloom products sold during the festival seasons, naturally you have to add the subsidy given to the sale price of the product.

This process is followed in the calculation of National Income also. National Income is calculated by deducting indirect taxes from Net National Product and adding subsidies.

$$NI = NNP - \text{Indirect Taxes} + \text{Subsidies}$$

Let us see two other concepts related to national income.

#### **Per Capita Income (PCI)**

This is the average annual income of the people of a country. It is obtained by dividing national income by the population.

### Personal Income (PI)

The sum total of income that a person receives from different sources is his personal income (Eg: wages, rent, interest, profit etc)

$$\text{PI} = \text{Wages} + \text{Rent} + \text{Interest} + \text{Profit} + \text{Others}$$

Now you have seen the important concepts of national income. Prepare a note on national income incorporating all the details.



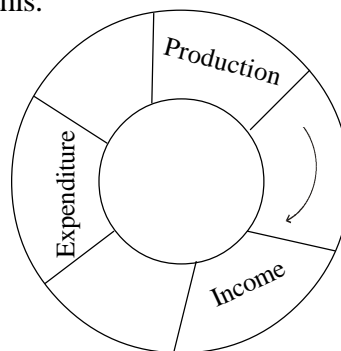
### SUMMARY

- National Income is the money value of the total goods and services produced in a country during a year.
- National Income helps us to know the economic progress achieved and to make comparative study.
- Product method, Income method and Expenditure method are the three methods used for national income calculation.
- In India national income is calculated and published by the Central Statistical Organisation (CSO).
- Net National Product, Per Capita Income etc., are some of the important concepts related to National Income.



### QUESTIONS

1. National Income helps us to know how far we have achieved developmental goals. Like this find out the other significance of the national income calculation?
2. The figure given below is related to production process. Give an explanatory note on this.



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3. Which method is used to find out the contributions made by various sectors to national income? How is national income calculated by this method?
  4. Which method is used to find out the contribution of factors of production to national income? Explain.
  5. National Income calculation is a difficult task. Substantiate.
  6. Population growth adversely affects the growth of national income. What are the other factors?
  7. Suggest some measures for increasing national income.
  8. How are Net National Product and National Income are calculated from Gross National Product?
  9. Write short notes on
    - National Income
    - National income calculation in India
    - Personal Income
  10. When production method is followed, we take goods and services produced in various sectors. Categorise the following among the three productive sectors.
    - Health
    - Hotel
    - Public Administration
    - Forest
    - Trade
    - Manufacturing
    - Mining
    - Electricity
    - Transport
    - Agriculture

