BUSINESS ECONOMICS

Chapter-3

Measurement of National Product

National income of a country can be defined as the total market value of all final goods and services produced in the economy during a given year.

Simon Kuznets has defined national income as "the net output of commodities and services flowing during the year from the country's productive system in the hands of the ultimate consumers. "

Methods of measuring National Income

Total value of goods produced in the economy

Total Income received in the economy

Total expenditure incurred in the economy

TRIPLE IDENTITY

NATIONAL INCOME= NATIONAL PRODUCT (+) NATIONAL EXPENDITURE

Gross Domestic Product (GDP)

Gross Domestic Product is the money value of final goods and services produced within the domestic territory of the country during a given period of time, a quarter or a year. GDP is the output produced within the domestic territory regardless of whether it is produced by the country's factors or not.

Closed Economy

A country which has no economic relations with other countries is defined as a Closed economy. Such a country is isolated &from the "Rest of the World". The concept of Closed economy rules out international trade and hence there is no increase in the total production, consumption and capital formation which otherwise would take place due to international trade. GDP = C+ I+ G

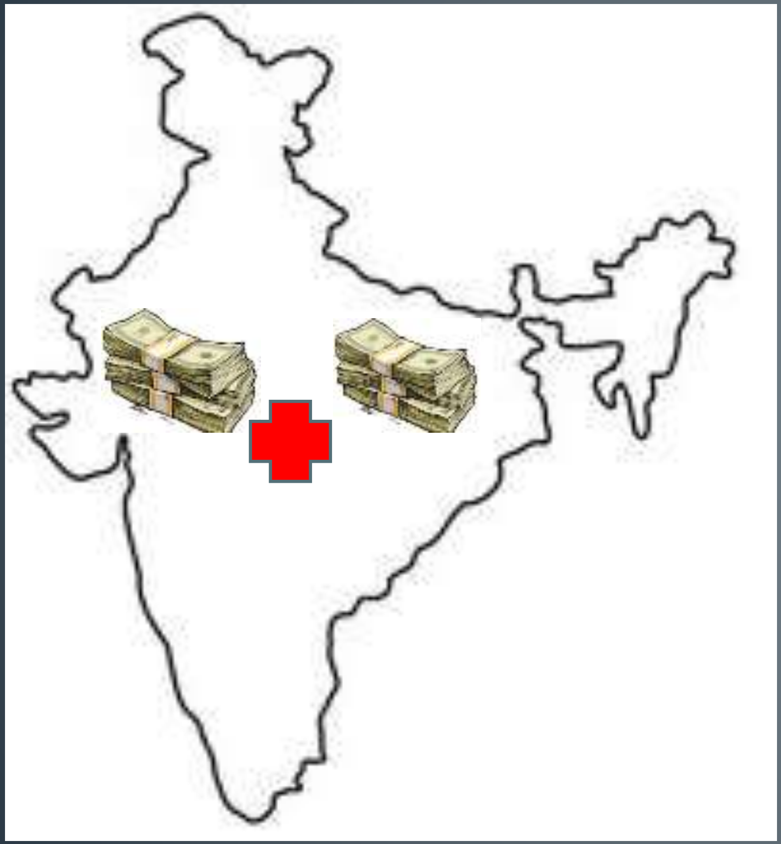
Open Economy

In open economy has economic relations with other countries as well as international trade. GDP = C+I+G+(X – M)

(2) Gross National Income (GNI) [Gross National Product (GNP)

GNI is the money value of final goods and services produced by the country's factors of production wherever they are located during a given period of time, a quarter or a year. In other words, when the net factor incomes from abroad are added to GDP we et GNI. GNI is equivalent to Gross National Product (GNP). GNI = GNP

GNI



Factor income from abroad : Some of the country's national output may be produced by the factors owned by the foreigners or by the foreign ‘owned firms. Similarly, some of the domestic factors or-domestically owned firms may be producing output in a foreign country. When we make a provision for the above factors, we can get a measure of domestic output produced within the country or we can get a measure of the output produced by the economy's factors of production wherever they are located.

Net Factor Income from abroad = R (-) P

R = Income received by domestic factors for their contribution to production abroad

P = Payments made to the foreign factors for their contribution to production in the domestic economy

GNI	GDP
1. It is total money value of Goods & Services produced by the **nationals** during a given year.	1. It is total money value of Goods & Services produced **in the domestic territory** of a country during given period of time
2. The income earned by Nationals **whether Inside or Outside the country** included in GNI.	2. It **does not include** the income earned by the **nationals outside the country**.
3. The part of income produced in the **country but earned by foreigners is excluded** from GNI.	3. All the income produced in the country by **nationals or foreigners working in the country are** included in GDP. GDP will be larger than GNI if much of the income from a country's production flows out of the country, i.e., $R < P$.
4. GNI will be larger than GDP if the people or firms of a country hold large amounts of the stocks and bonds of firms or governments of other countries and derive income from them, i.e., $R > P$.	4. GDP will be larger than GNI if much of the income from a country's production flows out of a country. i.e. $R<P$ (Receipts <Payments)
(5) $GNI = C + 1 + G + (X - M) + (R - P)$	5. $GDP = C+I+G+(X-M)$

Net National Product (NNP) and Net Domestic Product (NDP)

The NNI and NDP are calculated by subtracting depreciation from GNI and GDP respectively. Depreciation is an allowance for the amount of capital that has been used up for the production of national output.

Capital depreciation : In the process of production some capital such as equipment's, machines, etc. are worn out which is called depreciation or capital consumption. Thus, in the calculation of national income some allowance should be made to replace the equipment's worn out during the process of production (i.e. depreciation). The investment made for the replacement of worn output capital does not lead to an increase in the productive capacity in the economy. When no allowance is made for depreciation the resulting total is referred to as gross output, income or expenditure and when an allowance is made for depreciation we arrive at net amount.

GNI	NNI
(1) It is **the sum of money** value of final goods and services produced by the country's factors during a given year.	It is **the net money** value of final goods and services produced by the country's factors during a given period.
(2) GNI = GDP + net factor income from abroad.	NNI is calculated by subtracting depreciation from GNI. Thus, NNI = GNI - Depreciation.
(3) It does not give the correct picture of the wealth of a nation.	It gives the correct picture of the wealth of a nation.

Green National Income measured as Green Gross Domestic Product or GGDP is an index of economic growth that measures the environmental effects on the growth of conventional GDP.

It takes into account The Environmental Impact on country's economic growth.

E.g. It measures, in terms of money the loss of bio-diversity, the cost of climate change and pollution in the process of production of goods and service

Bio diversity

Pollution

Global Warming

It is measure how much a country is prepared for sustainable economic development.

In China first Green GDP accounting report for 2004, was published in September, 2006

It showed Financial Loss caused by pollution

Many Governments made policies for Green GDP includes USA, Norway, India

India began its Green GDP in 2009

Need of Green GDP

GDP & GNI suffer from many limitations it cannot save the loss of natural wealth & assets of nation

A nation's natural wealth & assets are used up in production of goods & services, resulting in changes in the country's future potential to produce.

Natural Capital are not adequately considered as economic assets in traditional GDP measurement but it be can be given money value

Green GDP measurement can be used to bring in accountability towards the interest of future generations.

For the state of social well being of people.

Calculation of Green GDP

It involves Natural Capital Accounting.

It is a process of calculating the total stock & flow of natural resources and services in given eco system.

Process of Calculation of Green GDP

Physical Accounting- State, type & Extent of resources over space & time. Both qualitative & Quantitative Accounting involved.

Monetary Valuation of Natural capital

- **We do not trade in many components, so difficult to measure.**
- **Eg. Forest Value. Mangroves of Mumbai.**
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The net change in natural capital in monetary terms is deducted to calculate GGDP.

Formula ------ GGDP = GDP – Cost of net Natural Capital Consumption.

Drawbacks of GGDP

Difficult to assign monetary values

Not able to capture the economic and social welfare aspects of GDP.

Criticism – It accounts only for the depletion of natural resources and cannot indicate the sustainability of the growth rate.

National Income & Economic Welfare

Economic Welfare is the level of prosperity and standard of living of either an Individual or a group of people.

Relationship Between National Income and Welfare

1. Change in size of National Income

2. Change in Price Level

3. Per Capital Income

4. Expenditure Pattern

5. Production Pattern

6. Changes in Income Distribution

7. Growth and Employment

THANK YOU