Chapter 2

Indicators of Growth and Development

GSEB Class 12 Economics — Complete Board Exam Notes

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INTRODUCTION

After the Second World War (1939–1945), the most important goal of every country became attaining economic development. Development became the central focus of all economic thinking. The terms 'Economic Growth' and 'Economic Development' became popular after the IInd World War because developing countries faced serious problems like unemployment, poverty, hunger deaths, and inequalities of income and wealth.

Developing countries started trying to reduce the gap in per capita income with developed countries. It should be remembered that the need for economic development is not only for developing countries but also for developed countries — but for different reasons.

- **Developing countries** aim to improve the standard of living by reducing poverty and unemployment.
- **Developed countries** aim to maintain their already high standards of living.

■ Prof. (Mrs.) Ursula Hicks stated: 'The solution for the economic problems of developing countries is economic development, and for developed countries, it is economic growth.'

In the past, the words 'growth' and 'development' were used interchangeably. But economists have now recognised them as distinctly different concepts. The solution for developing economies is economic development, while developed economies need to focus on maintaining economic growth.

2.1 MEANING OF ECONOMIC GROWTH

Economic growth relates to the long-run increase in the total output of an economy. In economic growth, there is a continuous increase in the real national income and the real per capita income. Such growth is possible due to the increase in the supply of factors of production (land, capital, labour, entrepreneurship) and increase in their productivity.

Economic growth is a **quantitative change**. It shows the increase in output and gross national output through which a country's economic status is depicted. It also helps in a comparative evaluation of economies of two countries.

■ Key Idea: Economic growth = ONLY NUMBERS (how much output/income increased). Nothing about quality of life.

2.1.1 DEFINITIONS OF ECONOMIC GROWTH

"Economic Growth refers to growth rate of national income or rise in total quantum of goods and services."

— Prof. Hansen

"A long term increase in capacity of a country to supply diverse economic goods to its people is known as economic growth."

— Simon Kuznets

2.1.2 LIMITATIONS OF THE CONCEPT OF ECONOMIC GROWTH

(1) Only Quantitative Change is Considered:

Economic growth only accounts for how much production or income has increased in numbers. It does not look at quality of life, equality, social progress, or human welfare. A country can show high economic growth on paper but still have poor living conditions for the majority of people.

(2) Institutional and Psychological Factors Are Ignored:

In economic growth, there is a rise in national income and per capita income, but institutional factors (laws, government institutions, social systems) and psychological factors (attitudes, motivations, behaviour of people) remain unchanged. Economic growth does not bring change in the social structure or thinking of the people.

(3) Concept Is Narrow:

The concept of economic growth is very narrow. It only depicts the rise in the rate and extent of output/production. It does not tell us about the distribution of that output, who is benefiting, or whether people's lives are actually improving.

(4) Does Not Help Understand Welfare of the People:

Economic growth does not tell us about the welfare of the general public. Even if national income increases, it may be concentrated in the hands of a few rich people. Thus, economic growth is not of much use in understanding the real welfare of the people.

2.2 MEANING OF ECONOMIC DEVELOPMENT

Economic Development is a much broader concept than economic growth. It is a **continuous process** aimed at achieving economic well-being. The term economic development has a very wide meaning which includes economic growth, economic welfare and economic progress.

Even in Economic Development there is an increase in real national income and real per capita income, but economic development is **not just about quantitative changes but also about qualitative changes**. During the process of development, the economic and social structure of the economy changes.

- Contribution of agriculture as percentage of national income decreases.
- Contribution of industry and service sector increases.
- Disguised unemployed in agriculture get employment in other sectors.
- Modern technology is being implemented — time and money are saved.
- Poverty, unemployment and inequalities fall due to systematic changes.

2.2.1 DEFINITIONS OF ECONOMIC DEVELOPMENT

"Economic Development is a multidimensional process."

— Michael Todaro

"Economic Development is such a process in which there is no increase in the population living below the poverty line, the distribution of income does not further increase the inequalities and there is a continuous rise in the real per capita income of the country for a long period of time."

— G.M. Meier

> ***"Economic Development is a process which increases the factors of production and creates change in the technique of production due to which per capita income continuously increases and the standard of living continuously rises irrespective of whether population remains constant or increases."***
>
> **— Machlup**

2.2.2 CHARACTERISTICS OF ECONOMIC DEVELOPMENT

(1) Economic Development is a Continuous Process:

Economic Development is a slow but strong process in a predetermined order and direction. It is easy to start but difficult to maintain. The process is usually fast initially but slows down over a period of time. It never completely stops — it continues step by step.

(2) Quantitative and Qualitative Changes Both Take Place:

In Economic Development, output increases (quantitative) and due to research, the quality of the product also improves (qualitative). But there is MORE qualitative improvement than quantitative. This distinguishes development from growth which is ONLY quantitative.

(3) Change in Demand:

When development happens, incomes rise, changing tastes. In initial stages, demand for basic/primary goods rises. Subsequently, demand for comforts and luxury goods rises.

(4) Labour Becomes More Dynamic:

Development leads to increase in education of labour, making workers more skilled, efficient, and dynamic. A more educated labour force contributes more to further development.

(5) Increases Capital Formation:

Development leads to increase in demand for different commodities. New enterprises come forward, increasing the rate of investment and capital formation enormously.

(6) Change in Technology:

There is a shift in dependence from fire and water-based technology to coal and iron-based technology, which results in faster development.

(7) After a Particular Stage, Development Becomes Self-Motivating:

After a certain stage, development creates its own momentum — income rises → demand rises → investment rises → more employment → more income. The cycle sustains itself automatically.

2.2.3 LIMITATIONS OF THE CONCEPT OF ECONOMIC DEVELOPMENT

(1) Shows Economic Scenario but Not Human Development:

Economic development indicates economic progress but in real sense, it cannot discuss human development. It cannot become the index of human progress.

(2) Very Difficult to Measure:

Economic development includes those changes that have happened in the society, both quantitative and qualitative. It is very difficult to derive a measurement for this.

(3) Does Not Guarantee Improvement in Standard of Living:

Though economic development is taking place in India today, there is not much improvement in the standard of living of the people. Therefore, we cannot say economic development automatically means improvement in standard of living.

2.3 DIFFERENCE BETWEEN GROWTH AND DEVELOPMENT

■ **Gerald Meier stated: "Development is Growth Plus Change."**

Point	Economic Development	Economic Growth
1. Nature	Economic Development is a process (ongoing, continuous).	Economic growth is an occurrence (an event, a result).
2. Change	Both quantitative AND qualitative changes take place.	Only quantitative change occurs.
3. Focus	Utilisation of untilised resources arises.	Emphasis on distribution of available resources.
4. Related to	Related to developing countries.	Related to developed countries.
5. Measurement	Difficult to measure.	Easy to measure (GDP, NI data).
6. Breadth	Broad concept — covers social, human, structural aspects.	Narrow concept — only income and output.
7. Distribution	Related to distribution along with per capita income.	Only related to increase in per capita income.
8. Speed	Slow process.	Rapid process.
9. Dependence	Not possible without economic growth.	Possible without economic development.

Table: Difference Between Economic Growth and Economic Development

2.4 INDICATORS OF DEVELOPMENT

To know how much economic development has taken place in a country and how fast, we need certain measuring tools — called **Indicators of Economic Development**. Just as a thermometer measures temperature, development indicators measure a country's development. They can be presented in numerical and statistical terms and allow comparison of two countries or two time periods.

FOUR MAIN INDICATORS: (1) Growth Rate of National Income | (2) Growth Rate of Per Capita Income | (3) Physical Quality of Life Index (PQLI) | (4) Human Development Index (HDI)

2.4.1 GROWTH RATE OF NATIONAL INCOME

A country is said to have attained economic development if there is a **continuous increase in the real national income** for a long period of time.

- High growth rate of national income → high development
- Low growth rate → low development
- No rise in national income → stagnancy
- Fall in national income → underdevelopment or negative development

■ **IMPORTANT: This indicator uses REAL income (at constant prices), NOT money income (at current prices), because money income can rise due to inflation without real growth.**

2.4.1.1 Tabular Expression — Table 2.1

Some countries have a faster rate of growth of national income and hence are said to have a higher rate of economic development.

Country	Annual Growth Rate of National Income (in %)
Norway	2.2
America	2.4
Sri Lanka	4.5

Country	Annual Growth Rate of National Income (in %)
China	7.3
India	7.3
Pakistan	4.7

Table 2.1 — Source: World Bank and Economic Survey, 2015-16

Interpretation: India's growth rate (7.3%) is the same as China's and higher than Norway (2.2%) and America (2.4%). Hence, India is considered one of the fastest developing countries. BUT Norway and America already have very high national income levels — even at 2-3% growth, they maintain very high standards of living.

2.4.1.2 Limitations of Growth Rate of National Income

(1) Difficulty in Calculating the True National Income:

Double counting, self-consumption products, depreciation difficulties, illegal income, tax avoidance, tax evasion, barter transactions, illiteracy, and employment in multiple occupations make it very difficult to estimate the true national income correctly.

(2) Population:

National income alone cannot show the rate of development — population must also be considered. If population growth rate > national income growth rate → negative development. If national income growth rate > population growth rate → positive development.

(3) Different Methods of Calculating National Income:

Production Method, Income Method, Expenditure Method — when different countries use different methods, international comparisons become difficult and unreliable.

2.4.2 GROWTH RATE OF PER CAPITA INCOME

Per capita income is the **average income per head of the population**. When the per capita income of a country increases continuously for a long period, economic development has taken place. Experts of UNO have recommended per capita income as an indicator of economic development.

Per Capita Income = Gross National Income (GNI) ÷ Population of the Country

- Per capita income rises at faster rate → development is fast
- Per capita income grows at slow rate → development is slow
- Per capita income constant → stagnation
- Per capita income falls → negative development

Per capita income takes into account the population of the country and hence is **superior to national income** as an indicator. Rise in per capita income improves physical welfare of individuals and hence it is the real indicator of economic development.

2.4.2.1 Tabular Expression — Table 2.2

Country	Per Capita NI — PPP, 2014 (US$)	Growth Rate (%)
Norway	64,992	1.1
America	52,947	1.6
Sri Lanka	9,779	3.5
China	12,547	6.7

Country	Per Capita NI — PPP, 2014 (US$)	Growth Rate (%)
India	5,497	6.0
Pakistan	4,866	2.6

Table 2.2 — Source: World Bank and Economic Survey, 2015-16

Interpretation: India's per capita income (PPP, 2014) = 5,497 US$. Norway's = 64,992 US$ — about 11-12 times higher than India. Norway's CURRENT level of development is much higher. BUT India's RATE of growth of per capita income (6.0%) is higher than Norway (1.1%). So India's **rate of development is faster**, though current level is lower.

2.4.2.2 Limitations of Per Capita Income as an Indicator

(1) Only Estimates:

Population census in India is taken only once in 10 years. For all other years, only approximations (estimates) are used for calculating per capita income. So the data is not perfectly accurate.

(2) Difficulty in Calculation:

The same difficulties that exist in calculating national income also apply here. Additionally, whether to use current prices or constant prices creates further confusion in calculations.

(3) Per Capita Income Shows Only an Average:

Per capita income is just an average. If income distribution is equitable → per capita income rising means development has taken place. If income distribution is inequitable (rich getting richer) → per capita income may rise but real development has NOT taken place. Hence, this indicator is considered deficient.

(4) Difficulty in Comparison:

Per capita incomes of different countries are in different currencies. They must be converted to US dollars for comparison. But different exchange rate controls and real exchange rate uncertainty make true comparison across countries not always possible.

(5) Deceptive Indicator:

Per capita income is NOT the actual income that a citizen earns — it is just a statistical average. Per capita income hides more than it reveals. Hence it is not a fully correct indicator.

2.4.3 IMPROVEMENT IN QUALITY OF LIFE AND PQLI

2.4.3.1 What is Physical Quality of Life?

The quality of life in human beings depends on the different types of goods and services that a person consumes. Standards of consumption refer to: (1) consumption of food, fuel and other non-durable goods; (2) consumption of durable and semi-durable goods; (3) consumption of services during a period of time.

This consumption standard or living standard determines the physical quality of life. If the living standard of the people goes up → physical quality of life has gone up.

2.4.3.2 Aspects Included in the Physical Quality of Life

The following **10 aspects** are included as determinants of physical quality of life:

- Food — Calories, proteins-fats proportion (nutrition level)
- Health and medical services — ratio of doctors to population
- Housing and clothing — number of houses, average persons per house
- Education and entertainment — % of population getting primary and secondary education, TV, theatre etc.
- Transport, communication and information services — roads, railways, telephones per capita
- Energy — per capita energy consumption

- Population having access to pure drinking water
- Average life expectancy
- Infant mortality rate
- Drainage facility

■ **If there is improvement in all 10 aspects → physical quality of human life has improved. Every indicator can be relatively expressed. The indicator with the highest value is given 100 pts.**

2.4.3.3 Physical Quality of Life Index (PQLI)

Morris Davis Morris presented the Physical Quality of Life Index (PQLI). PQLI was created because increasing incomes concentrated in the hands of a few is NOT development. Development should ensure that the living standards of the poor also rise and the basic requirements of all citizens are fulfilled.

In PQLI, betterment of physical quality of life of human beings is considered as economic development. There are **three standards** used to measure physical quality.

2.4.3.4 Three Determinants of PQLI (Diagram)

PQLI

▼

Extent of Education (Literacy)	Life Expectancy	Infant Mortality Rate
Literacy level of the country determines the situation of education. The percentage of population educated out of total population determines the extent of education.	Number of years a child is expected to live at the time of birth is known as life expectancy. It shows the average life. If life expectancy rises, it shows medical services of the country are good.	During a year, number of infants who die before one year out of 1000 births is known as infant mortality rate. If IMR falls, it can be said that health care services of the country are good.

PQLI = Literacy Level Index + Life Expectancy Index + Infant Mortality Index

PQLI = (Literacy Level Index + Life Expectancy Index + Infant Mortality Index) ÷ 3

2.4.3.5 Reasons for Only Three Determinants

(1)
Dependable data for all these three factors can be acquired for all countries worldwide.

(2)
All three factors depict the RESULTS and not EFFORTS. They show the outcome of development.

(3)
All three factors are PRODUCT-BASED (outcome-based) and hence fulfil the justifiable standards for performance comparison between countries.

Literacy: Increase in literacy and education shows rise in the welfare of an individual. Human efficiency is a necessary aspect of national development.

Life Expectancy: Increase in life expectancy is a mirror of social environment and well-being. It is a reflection of nutrition, medical care and environmental situation.

Infant Mortality Rate: A reflection of social status and welfare. It reflects availability of pure drinking water, environment of house, status of women and role of a mother.

2.4.3.6 Formulation of PQLI — Step by Step

- Every indicator (literacy, life expectancy, infant mortality rate) is given 100 weights (weightage).
- On the basis of performance of that determinant in that country, it is graded between 0 to 100.

- A total of these grades of 3 factors are summed up.
- This total is divided by 3 to derive an average.
- This data so derived is identified as PQLI.

2.4.3.7 Important Aspects of PQLI

- PQLI closer to 100 → Better is the performance of all 3 indices of the country.
- PQLI closer to 0 → Bad is the performance of all 3 indices of the country.
- PQLI is always between 0 to 100.
- PQLI can be used to compare two states within the same country OR two different countries.
- Higher the PQLI → More is the economic development.
- Lower the PQLI → Lesser is the economic development.

2.4.3.8 Positive Aspects of PQLI (Merits/Advantages)

- PQLI includes factors like literacy and life expectancy (health) which directly touch the standard of human life.
- PQLI is a better index when compared to the per capita income index.
- PQLI as an indicator has lesser drawbacks as against national income and per capita income indicators.
- With PQLI, comparisons can be made between different countries, different groups of countries, or different states of the same country.
- We can create PQLI for urban and rural areas, females and males separately — and comparisons can be done.

2.4.3.9 Limitations of PQLI (Criticisms/Demerits)

(1) Only Three Aspects Are Included:

On the basis of only three aspects, it cannot be categorically stated whether a country has actually developed or not. Other factors also need to be included for a correct picture.

(2) Only Averages Are Depicted:

PQLI is an average of three aspects. An average does not show the prominence or backwardness of each individual indicator. Decisions cannot be made on the basis of averages — the average hides disparity within each indicator.

(3) Cannot Be Generalised:

If a country's present PQLI is high, it cannot be generalised that its economic development is high as compared to all other countries.

(4) Equal Weightage Is Not Justified:

It is not right to give equal weightage (100 each) to all indicators. All three aspects do not have the same importance in human life. In some situations, one factor may be far more important than another.

(5) Growth of Income Is Ignored:

Growth of income has high importance in physical quality of life index and ignoring that is not possible — because without income, life quality cannot improve. Yet PQLI does not include income.

(6) Slow Rise for Rich Countries:

The PQLI of rich countries rises at a slower rate because average life cannot increase beyond a particular biological limit. So PQLI of developed countries tends to plateau.

2.4.3.10 Present Scenario

After **2003**, instead of three aspects, three more additional aspects were included and the **Quality of Life Index (QLI)** is now prepared in the world. QLI is broader than PQLI.

2.4.4 HUMAN DEVELOPMENT INDEX (HDI)

The Human Development Index is the most recent and most comprehensive indicator of development accepted globally. The **United Nations Development Programme (UNDP)** presented the **Human Development Report (HDR) in 1990**. In that report, HDI was presented as a measurement of development. Along with economic aspects, HDI emphasised non-economic aspects (like health and education) too.

Indian economists also contributed in evolving the HDI. **Improvements were introduced in 2010** in the minimum and maximum values used to measure HDI (since 1990).

2.4.4.1 Three Determinants of Human Development Index

Life Expectancy	Knowledge (Literacy / Education)	Good Standard of Living (Income)
What is the expected number of years a person will live at the time of birth of the population of a country determines the value. If life expectancy is less than 50 years, that country is deficient in health. Higher the life expectancy → better the HDI.	To know the quantum of knowledge, adult literacy in percent is calculated. People in the age group 15 years and above are included. Two aspects: (A) Number of years of schooling (B) Expected number of years of schooling. The gap between expected and actual is used to derive values.	Standard of living refers to availability of pure drinking water, medical services, good sanitation, infant mortality rate, percentage of undernourished and malnourished children, per capita calorie availability per day, etc. Income index uses per capita GNI measured on Purchasing Power Parity (PPP) basis.

HDI = Average of (Life Expectancy Index + Education/Knowledge Index + Standard of Living Index)

Note: Instead of absolute values, the AVERAGE of all three values is prepared. HDI ranges from 0 to 1.

2.4.4.2 Important Aspects of HDI

- The MAXIMUM value of HDI is 1, based on three standards.
- The value of HDI ranges from 0 to 1.
- Country whose HDI is CLOSER TO 1 → More developed → Gets HIGHER ranking.
- Country whose HDI is FARTHER FROM 1 (closer to 0) → Less developed → Gets LOWER ranking.
- In 2014, NORWAY ranked number 1 with HDI of 0.944 — highest human development.
- In 2014, INDIA with HDI of 0.609 ranked 130th out of 188 countries.

2.4.4.3 Human Development Indicators — HDR 2015 (Table 2.3)

The Human Development Report (HDR) of 2014, published in 2015, shows the extent of human development of some countries:

Country	HDI Value (2014)	HDI Rank	Per Capita GNI (US$)	Avg Life Expectancy at Birth	Expected Yrs Schooling	Avg Yrs in School
Norway	0.944	1	64,992	81.6	17.5	12.6
America	0.915	8	52,947	79.1	16.5	12.9
China	0.727	90	12,547	75.8	13.1	7.5
India	0.609	130	5,497	68.0	11.7	5.4
Pakistan	0.538	147	4,866	66.2	7.8	4.7
Niger	0.348	188	908	61.4	5.4	1.5

Table 2.3 — Source: HDR, 2015 and Economic Survey, 2015-16. (GNI = Gross National Income; ALE = Average Life Expectancy at Birth)

Classification of 188 Countries based on HDI (2015):

Group	Countries (Rank)	Average HDI Value
1. Highest Human Development	1st to 49th	0.890
2. High Human Development	50th to 105th	0.735
3. Moderate Human Development	106th to 143rd	0.614
4. Low Human Development	144th to 188th	0.493

India (0.609, rank 130) falls in the MODERATE HUMAN DEVELOPMENT category.

2.4.4.4 Derived Conclusions from Table 2.3

- In 2014, NORWAY is number 1 with 0.944 in human development — highest in the world.
- India with 0.609 is at 130th rank in the list of 188 countries — moderate human development.
- India comes in the category of MODERATE HUMAN DEVELOPMENT countries in the classification of HDI.
- NIGER (Africa) with 0.348 comes LAST (188th rank) in the order of HDI of 2014 — lowest human development.

2.4.4.5 Importance of Human Development Index

(1) Complete Indicator:

HDI takes not only economic factors but also includes social welfare by giving importance to education and health. It is a more holistic measure.

(2) Corrects the Wrong Notion About Development:

HDI indicates to policy makers that economic development (GDP growth) is only a TOOL — the ultimate objective is human welfare.

(3) Shows the True Meaning of Progress:

True Progress = Economic Progress + Social Progress

(4) HDI is Functional:

A rise in the HDI ranking of a country directly indicates that health and education have improved in the country.

(5) Helps Developing Countries Find Direction:

Developing countries can look at HDI to understand where there is scope for development and in which direction the government should work.

(6) Progressive in Approach:

HDI is progressive — it goes beyond income and addresses health, education, and standard of living — the fundamental dimensions of human life.

2.4.4.6 Limitations of Human Development Index

(1) Only Three Social Indicators:

Only three social indicators are included in HDI. Other important indicators like political freedom, environmental sustainability, gender equality, social security, etc. should also have been included.

(2) Equal Weightage Issue:

All three indicators are given equal weightage. But in different situations and different countries, different indicators become more important. Equal weightage is an oversimplification.

(3) Only Relative, Not Absolute Progress:

HDI is not an absolute expression. It only shows RELATIVE progress — it compares one country with another. It does not give an absolute measure of development level.

■ Other Indices Beyond HDI: (1) GDI = Gender Development Index (2) TAI = Technological Achievement Index (3) HPI = Human Poverty Index (4) HCI = Human Consumer Index

EXERCISE — QUESTIONS AND ANSWERS

Section 1 — Choose the Correct Option (MCQs)

(1) Development is a multi-dimensional process. Who has given this statement?

Options: (a) Todaro (b) Kindleberger (c) Marshall (d) Machlup

✓ **Answer: (a) Todaro**

(2) Which concept is qualitative?

Options: (a) National Income growth rate (b) Per capita Income growth rate (c) Economic growth (d) Economic development

✓ **Answer: (d) Economic development**

(3) What was India's ranking in the world according to HDI in 2014?

Options: (a) 127 (b) 128 (c) 129 (d) 130

✓ **Answer: (d) 130**

(4) What was the per capita income of India in US$ according to HDR of 2014?

Options: (a) 7110 (b) 7068 (c) 480 (d) 5497

✓ **Answer: (d) 5497**

(5) When economic development takes place in a country:

Options: (a) Contribution of agriculture decreases (b) Increases (c) Industrial sector decreases (d) Service sector decreases

✓ **Answer: (a) Contribution of agricultural sector decreases.**

(6) What is the maximum value of Physical Quality of Life Index (PQLI)?

Options: (a) less than 100 (b) more than 100 (c) 100 (d) zero

✓ **Answer: (c) 100**

(7) What is the value of Human Development Index?

Options: (a) 0 (b) 1 (c) between 0 & 1 (d) 100

✓ **Answer: (c) between 0 & 1**

(8) Generally which countries are related with the concept of economic growth?

Options: (a) Developed (b) Developing (c) Backward countries (d) Third world countries

✓ **Answer: (a) Developed**

(9) .... was first in Human Development Index according to 2014 report.

Options: (a) Japan (b) Norway (c) America (d) India

✓ **Answer: (b) Norway**

Section 2 — Answer in One Line

(1) What is Economic growth?

Economic growth refers to the long-term increase in real national income and real per capita income of a country due to increase in factors of production and their productivity. It is a quantitative change.

(2) Give the meaning of Economic development?

Economic development is a multidimensional process involving both quantitative and qualitative changes, with improvement in real per capita income, reduction in poverty, and improvement in the overall standard of living.

(3) What is per capita income?

Per capita income is the average income per head of the population, calculated by dividing the Gross National Income by the total population.

(4) Why is per capita income more effective than national income as an indicator?

Per capita income is more effective because it takes into account the population of the country, showing average income per person — whereas national income is just the total and does not reflect individual welfare.

(5) Which economist presented the Physical Quality of Life Index?

Morris Davis Morris presented the Physical Quality of Life Index (PQLI).

(6) How many countries were included in the HDI of 2014?

188 countries were included in the HDI of 2014 (Human Development Report 2015).

(7) Which factors are included in the Human Development Index?

Three factors: (1) Life Expectancy (health), (2) Knowledge/Education (literacy and years of schooling), (3) Good Standard of Living (per capita GNI at PPP).

(8) What is Infant mortality rate?

Infant mortality rate is the number of infants who die before completing one year of age in a given year for every 1000 live births.

(9) State the maximum value in Human Development Index.

The maximum value of HDI is 1.

(10) What does high per capita income indicate?

High per capita income indicates that the average income per person is high, meaning the standard of living is good and economic development has taken place.

(11) Sanitation facility indicates which aspect of improvement?

Sanitation facility indicates improvement in the Standard of Living — which is one of the determinants of HDI.

Section 3 — Answer in Brief

(1) State the limitations of National Income as an indicator.

- Difficulty in calculating true national income (double counting, tax evasion, barter, etc.)
- Population is not considered
- Different countries use different methods — comparison is difficult

(2) State the limitations of Per Capita Income as an indicator.

- Only estimates for population; not accurate
- Shows only an average — hides income inequality
- Difficulty in comparison across countries due to different currencies
- Deceptive indicator — not the actual income of citizens

(3) Where do quantitative and qualitative changes occur?

Both quantitative and qualitative changes occur in Economic Development. Only quantitative changes occur in economic growth.

(4) What type of change is rise in production?

Rise in production is a quantitative change.

(5) What are the various indicators of Economic Development?

(1) Growth Rate of National Income (2) Growth Rate of Per Capita Income (3) PQLI (4) HDI

(6) State the limitations of Economic growth.

- Only quantitative change is considered
- Institutional and psychological factors remain unchanged

- Concept is narrow
- Not useful for understanding welfare of people

(7) State the limitations of development.

- Shows economic scenario but cannot discuss human development
- Very difficult to measure
- Does not guarantee improvement in standard of living

(8) What is life expectancy at birth?

Life expectancy at birth is the expected number of years a person will live on average at the time of their birth. It is used as an indicator of the health status of the population.

(9) Between growth and development, which one is difficult to measure? Why?

Economic development is difficult to measure because it involves both quantitative and qualitative changes. Qualitative changes in society and institutions are very hard to express in numbers. Economic growth is easy to measure using national income or GDP data.

Section 5 — Detailed Questions

(1) Explain with the help of examples, the difference between economic growth and economic development.

- Economic growth is the increase in quantitative output — when national income and per capita income rise in numbers. It is an occurrence, not a process. Example: India's national income growth rate of 7.3% is economic growth.
- Economic development is much broader — it includes growth PLUS changes in social structure, institutions, and human welfare. Gerald Meier said: 'Development is Growth Plus Change.'
- Key differences: (a) Growth is quantitative only; development is both quantitative and qualitative. (b) Growth is narrow; development is broad. (c) Growth is related to developed countries; development to developing countries. (d) Growth is easy to measure; development is difficult.
- Example: USA has low growth rate (2.4%) but very high standard of living = high development. India has high growth rate (7.3%) but moderate HDI (0.609). So growth does not automatically mean development. Norway topped HDI because it grew FOR DECADES with development.

(4) Compare PQLI and HDI and show which indicator is superior. Why?

- PQLI: Created by Morris Davis Morris. Range 0-100. Uses: Literacy, Life Expectancy, Infant Mortality Rate. Does NOT include income.
- HDI: Created by UNDP (1990). Range 0-1. Uses: Life Expectancy, Education (Knowledge), Standard of Living (per capita GNI at PPP). INCLUDES income.
- Comparison: PQLI range 0-100; HDI range 0-1. PQLI ignores income; HDI includes it. PQLI less globally accepted; HDI widely accepted. PQLI older; HDI more recent and updated regularly.
- HDI is SUPERIOR because: (a) It includes income (standard of living) which PQLI ignores. (b) It is more globally accepted and regularly updated by UNDP. (c) It covers both economic and social dimensions. (d) It classifies countries into four groups for better analysis. (e) It is the official tool used by UN for global comparisons.

GLOSSARY (From Textbook)

Economic Progress	Increase in per capita income is economic progress.

Economic Growth	It depicts growth rate of national income or quantum increase in the production of products and services.
Economic Development	Economic development is a multidimensional process.
Physical Quality of Life Index	Consumption standards and standard of living is known as Physical Quality of Life Index.
Quantitative Changes	Increase in total output in the various sectors of the economy is known as quantitative change.
Qualitative Changes	Innovations take place, new methods of production come into use, change in the efficiency of labour, change in sectoral composition are all qualitative changes.
Adult Education Rate	Extent of education amongst the age group 15 and above is known as adult education rate.
Life Expectancy at Birth	Expectation of number of years a person will live on an average at the time of his birth is known as life expectancy at birth.
Infant Mortality Rate	Number of infants who die before completing one year of age in a given year for every 1000 live births.
Standard of Living	Availability of facilities which includes water, electricity, drainage, housing, transportation, communication, health facilities, protein and fats, required calories for citizens comprise standard of living.
Expected No. of Years of Schooling	Number of years prescribed in the country to be studied by an individual in the school.
Average No. of Years in School	Average number of years actually spent in school in a given country.
Purchasing Power Parity (PPP)	Exchange rates between currencies are in equilibrium when their purchasing power is the same in each of the two countries.

■ BOARD EXAM QUICK REVISION POINTS

1. Economic growth = QUANTITATIVE change only (rise in national income and per capita income at constant prices).

2. Economic development = QUANTITATIVE + QUALITATIVE change (multidimensional process).

3. Gerald Meier: 'Development is Growth Plus Change.'

4. Ursula Hicks: Solution for developing countries = economic development; for developed countries = economic growth.

5. Definition — Hansen: 'Economic Growth refers to growth rate of national income or rise in total quantum of goods and services.'

6. Definition — Todaro: 'Economic Development is a multidimensional process.'

7. FOUR Indicators of Economic Development: (1) National Income Growth Rate (2) Per Capita Income Growth Rate (3) PQLI (4) HDI.

8. PQLI created by MORRIS DAVIS MORRIS. Formula: (Literacy + Life Expectancy + Infant Mortality Index) ÷ 3. Range: 0 to 100.

9. Three determinants of PQLI: Literacy (Education), Life Expectancy, Infant Mortality Rate.

10. HDI created by UNDP in 1990. Range: 0 to 1. Three determinants: Life Expectancy + Education + Standard of Living (Income at PPP).

11. HDI 2014: Norway = 0.944 (Rank 1) | India = 0.609 (Rank 130 out of 188) | Niger = 0.348 (Rank 188 — last).

12. India falls under MODERATE HUMAN DEVELOPMENT category (HDI 0.609, Rank 130).

13. India's Per Capita Income (2014) = 5,497 US$ (PPP) | India's National Income Growth Rate = 7.3%.

14. Per Capita Income = GNI ÷ Population — recommended by UNO as indicator of development.

15. HDI is SUPERIOR to PQLI — includes income, globally accepted, more comprehensive, updated regularly by UNDP.

16. Other indices: GDI (Gender Development) | TAI (Technological Achievement) | HPI (Human Poverty) | HCI (Human Consumer).

17. PQLI range: 0–100 | HDI range: 0–1 (remember this difference!).

18. After 2003, PQLI expanded to Quality of Life Index (QLI) with more than 3 factors.

MCQ ANSWER KEY — MEMORISE THESE

Multidimensional process → Todaro | PQLI creator → Morris Davis Morris | PQLI range → 0 to 100 | HDI range → 0 to 1

India HDI rank (2014) → 130 | India per capita (2014) → 5,497 US$ | Norway rank → 1 (0.944) | Niger rank → 188 (0.348)

Economic development related to → Developing countries | Economic growth related to → Developed countries | HDI started in → 1990

Notes prepared from GSEB Class 12 Economics Textbook, Chapter 2 — Complete Board Exam Coverage | All content is textbook-accurate, line-by-line.