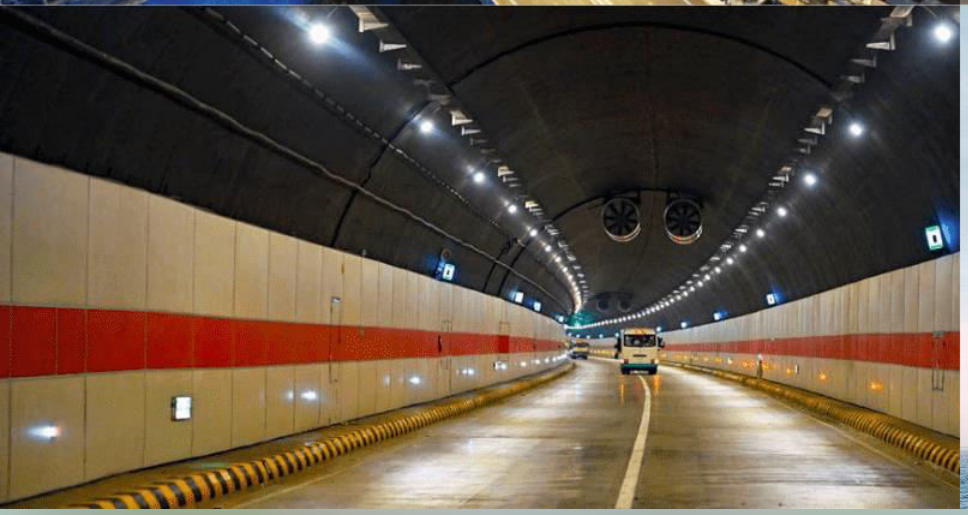
University of Global Village, Barisal

Course Content

Socio Economic Aspects of Development Projects (HUM 4101)



Prepared by

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Socio Economic Aspects of Development Projects (HUM 4101)

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Course Information

Course Name	Socio–Economic Aspects of Development Projects
Course Code	HUM 4101
Credit	03
Course Type	GEd
CIE	90
SEE	60
Exam Hour	03

Course Learning Outcome (CLO): After successful completion of the course students will be able to,

CLO 1	**Explain the key socio-economic factors influencing development projects in Bangladesh, including poverty alleviation, employment generation, and income distribution.**	**Remember** **Understand**
CLO 2	Assess the social and economic impacts of development projects on different stakeholders, including marginalized communities, and propose strategies for inclusive growth.	**Evaluate** **Analyze**
CLO 3	Demonstrate an understanding of national policies, regulatory frameworks, and international best practices affecting development projects in Bangladesh.	**Apply**
CLO 4	Design sustainable and community-centric development strategies that balance economic growth with social equity and environmental sustainability.	**Create**

Assessment Pattern

Continuous Internal Evaluation(CIE 90)

Blooms Category	Test (Out of 45)	Assignment (15)	Quiz (15)	Co-curricular Activities (15)
Remember	05		5	Attendance 15
Understand	05			
Apply	10			
Analysis	8	7	10	
Evaluate	7	8		
Create	10			

Semester End exam (SEE 60)

Blooms Category	Final
Remember	10
Understand	10
Apply	10
Analysis	10
Evaluate	10
Create	10

SL	Course Content	Hours	CLOs
1	Development definitions, indicators & types, Theories of Development	4	CLO1
2	MDG, SDG, PRSP	4	CLO2
3	Metro Rail, Padma Bridge	3	CLO3
4	Rooppur Nuclear power Plant, Rampal power plant, Blue Economy, Payra Sea port	6	CLO4

Course Plan Specific Content, CLOs, Teaching Learning and Assessment Strategy mapped with CLOs.

Week	Topics	Teaching Learning Strategy	Assessment Strategy	Corresponding CLOs
1	Introductory class: Brief discussion on the total syllabus, Basic facts of the course	Lecture, Oral Presentation		CLO1
2	Development • Definitions • Types	Lecture Present	Quiz, Written Exam	CLO1
3	Economic Development • Indicators of it • Positive & negative impacts	Previous Discussion, Lecture Present	Quiz, Assignment, Written Exam	CLO1
4	Theories of Economic development	Previous Discussion, Lecture Present	Written Exam	CLO1
5	**Theories of Economic development**	**Previous Discussion, Lecture Present**	**Written Exam**	**CLO2**

6	**MDG** • **Background History** • **Goals**	**Previous Discussion, Lecture Present**	**Quiz Written Exam**	**CLO2**
7	MDG • Achievement Status of Bangladesh • Challenges for Bangladesh	Previous Discussion, Lecture Present	Written Exam	CLO2
8	SDG • Background history • Goals	Previous Discussion, Lecture Present	Written Exam	CLO2
9	SDG • Achieving process in Bangladesh • Challenges	Previous Discussion, Lecture Present	Written Exam	CLO3
10	PRSP • A development agenda • Focused areas	Previous Discussion, Lecture Present	Written Exam	CLO3
11	**PRSP** • **Role of NGOs**	**Previous Discussion, Lecture Present**	**Quiz test**	**CLO3**

12	**Metro Rail** • **Advantages & Challenges**	**Previous Discussion, Lecture Present**	**Written Exam**	**CLO3**
13	Padma Multi Purpose Bridge • Advantages & Challenges	Previous Discussion, Lecture Present	Written Exam Assignment	CLO4
14	Rooppur Nuclear power plant • Advantages & Challenges	Previous Discussion, Lecture Present	Written Exam	CLO4
15	Blue Economy • Sectors • Possibilities • Challenges	Previous Discussion, Lecture Present	Written Exam	CLO4
16	Rampal power plant • Background • Challenges & Possibilities	Previous Discussion, Lecture Present	Written Exam	CLO4
17	**Payra Sea port** • **Background** • **A new era of marine trade**	**Previous Discussion, Lecture Present**	**Written Exam**	**CLO4**


Class Start
Metro Rail
Bangladesh

Concept of Development

Week: 1st 2nd & 3rd
Slide: 12-64

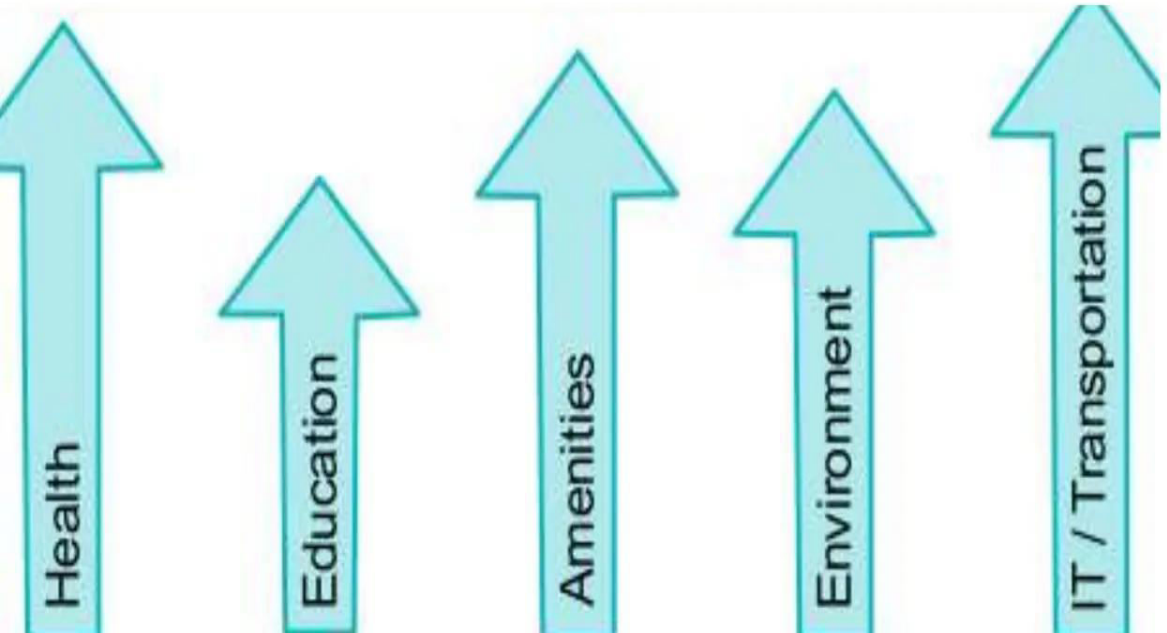
Development can be understood in various contexts, including economic, social, political, and psychological.

Types of Development

1. Economic Development
2. Social Development
3. Human Development
4. Political Development
5. Sustainable Development
6. Psychological Development

Economic Development

In an economic context, development typically refers to the sustained increase in the standard of living of a population, often measured by indicators such as GDP growth, income per capita, employment rates, and access to basic services like education, healthcare, and infrastructure.



Economic Development

Social Development

Social development focuses on the improvement of social indicators such as education, healthcare, gender equality, human rights, and overall quality of life. It encompasses efforts to enhance societal well-being, reduce inequality, and promote social justice.

Social Development

Human Development

This concept, popularized by the United Nations Development Programme (UNDP), emphasizes the expansion of people's choices and capabilities, including access to education, healthcare, income opportunities, political freedoms, and social services. The Human Development Index (HDI) is a widely used measure of human development, considering factors such as life expectancy, education, and

Human Development

Political Development

Political development refers to the advancement of political institutions, processes, and participation within a society. It involves strengthening democracy, governance structures, rule of law, civil liberties, and political rights.

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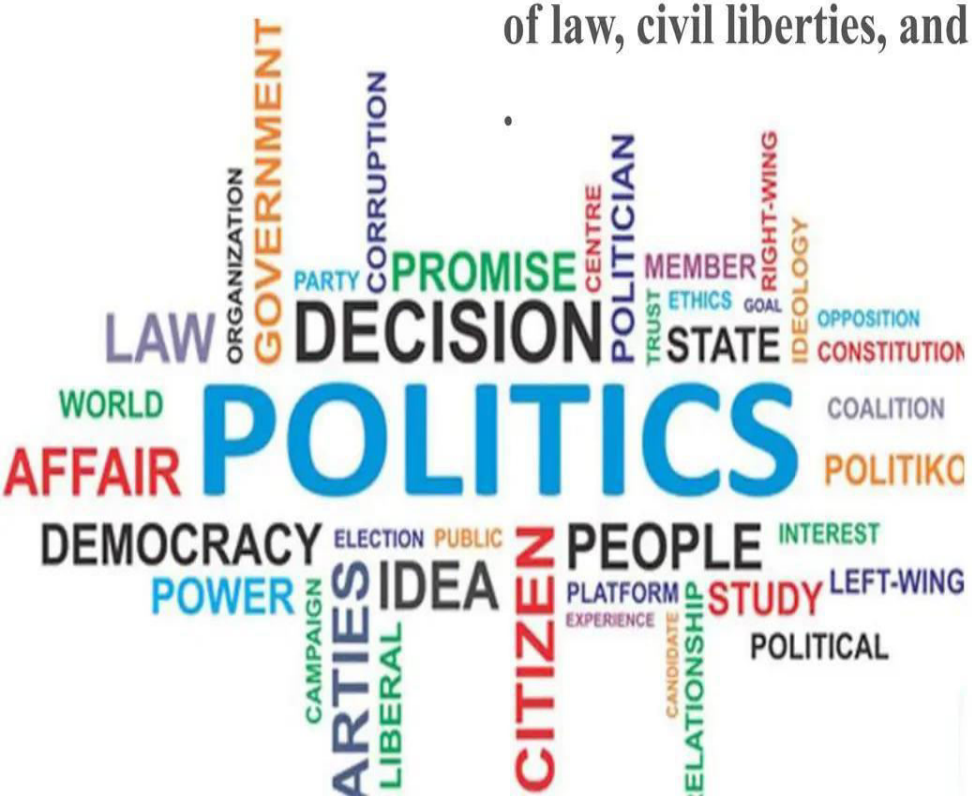
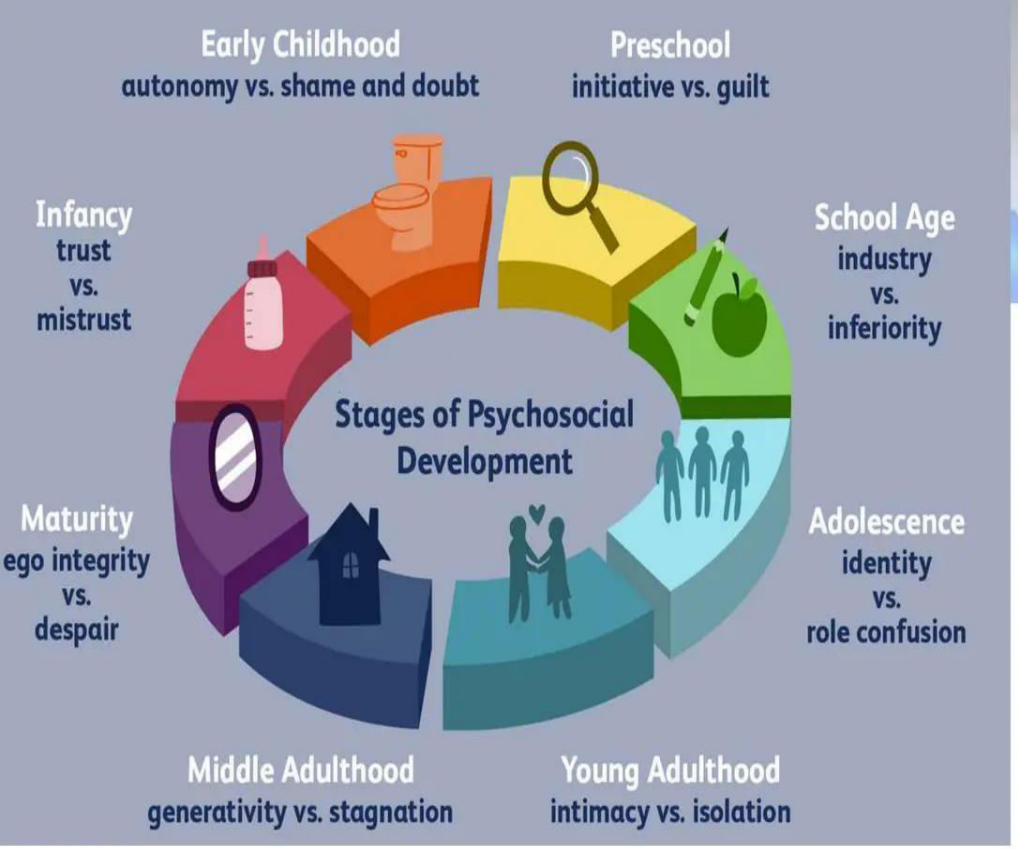


Sustainable Development

Sustainable development integrates economic, social, and environmental considerations to meet the needs of the present without compromising the ability of future generations to meet their own needs. It emphasizes long-term viability, environmental conservation, and social equity.

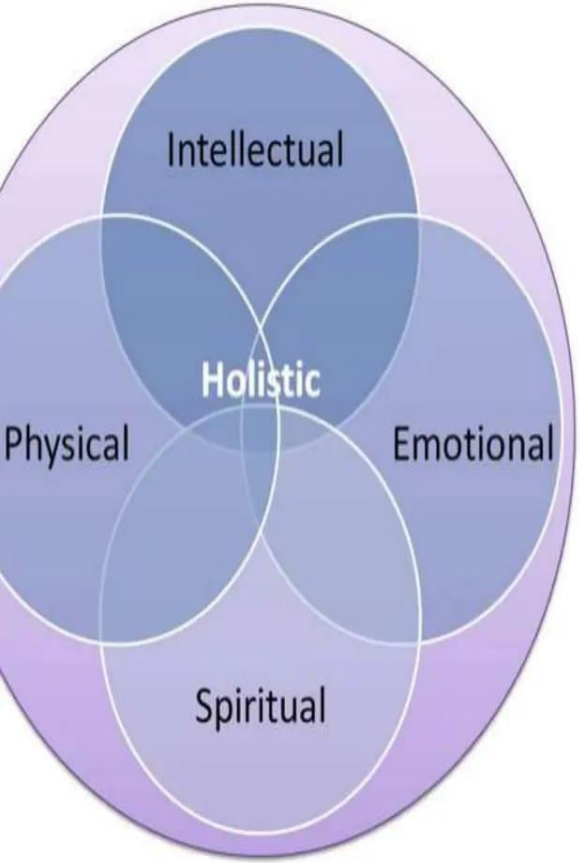
. Sustainable Development



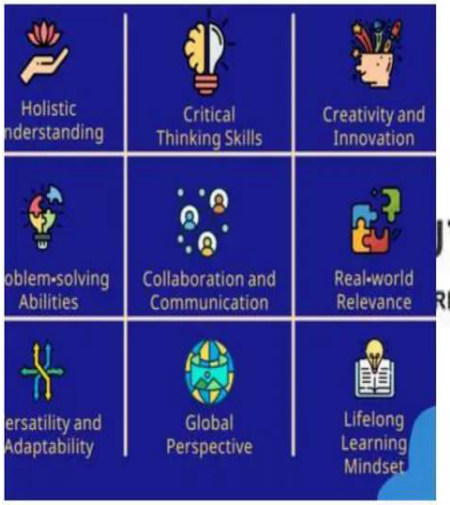
Psychological Development

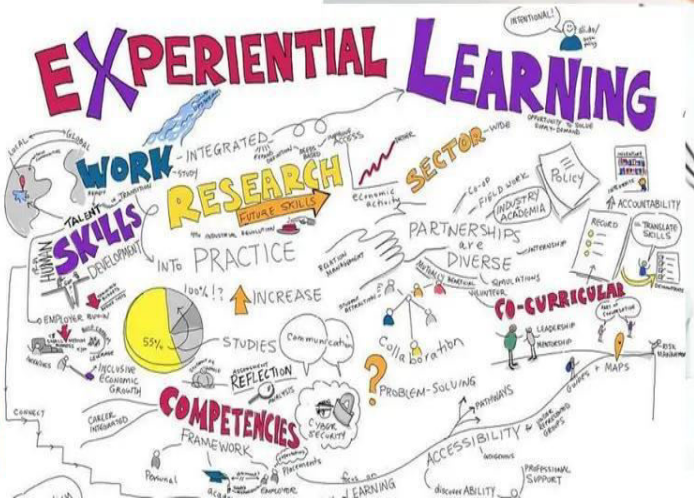
Psychological Development

In psychology, development refers to the lifelong process of growth and maturation in cognitive, emotional, social, and behavioral domains. This includes stages such as infancy, childhood, adolescence, adulthood, and old age, with each stage characterized by specific challenges and milestones.



Sustainable Development in Education

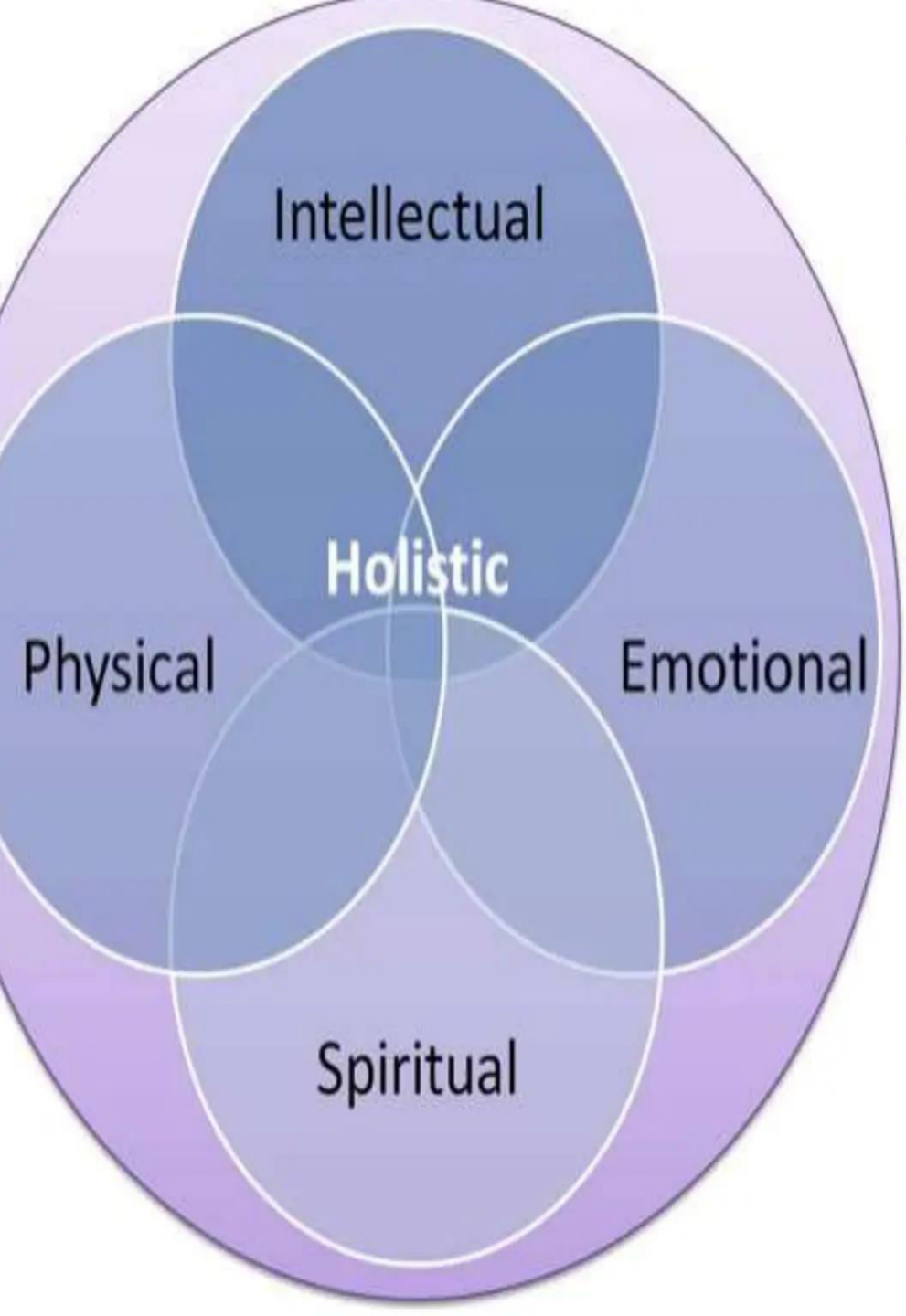




Sustainable Development in Education

Sustainable development in education refers to the integration of principles and practices that promote long-term environmental, social, and economic sustainability within educational systems and processes. It involves providing learners with the knowledge, skills, attitudes, and values necessary to understand and address the interconnected challenges facing society, such as climate change, biodiversity loss, poverty, inequality, and unsustainable consumption patterns.

Here are some key aspects of sustainable development in education:



Holistic Approach

Sustainable development education takes a holistic approach, considering the interconnections between environmental, social, and economic systems. It seeks to develop learners' understanding of the complex relationships between humans and their environment and the implications of their actions on the planet and future generations.

Interdisciplinary Learning:

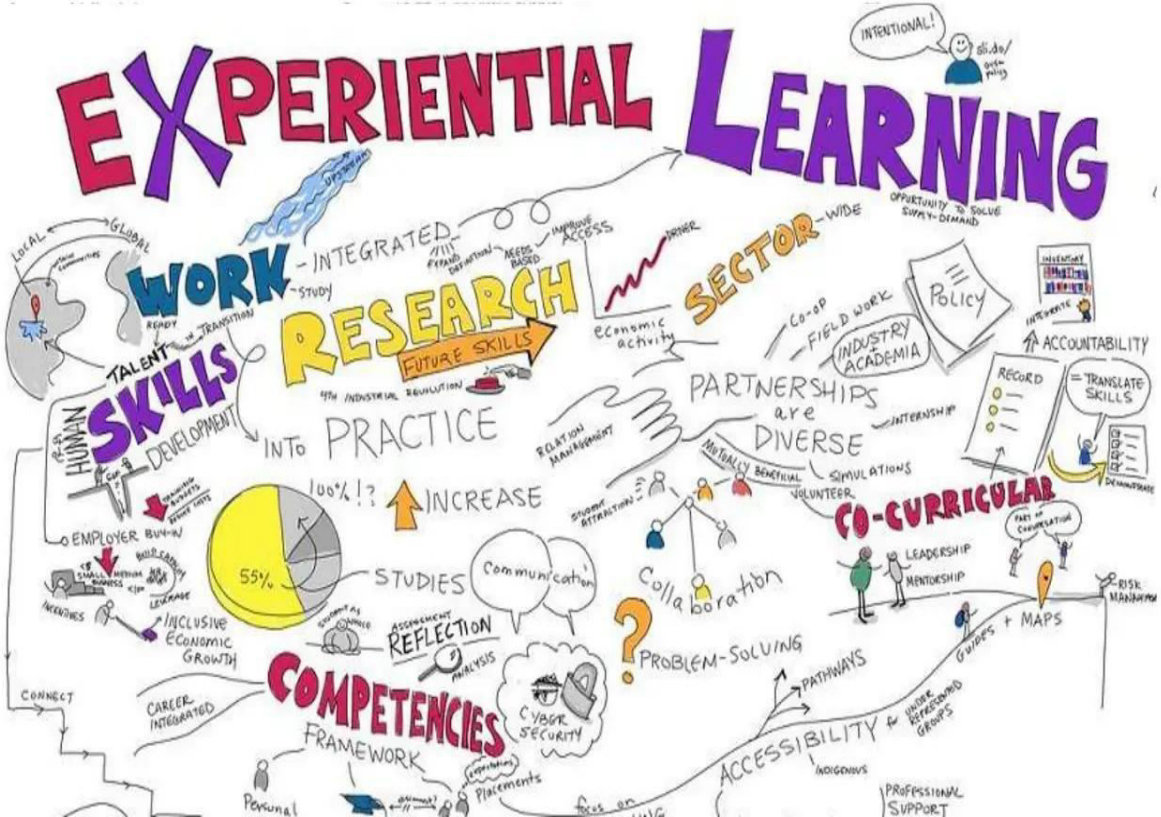
It encourages interdisciplinary learning, drawing on insights from various fields such as environmental science, social studies, economics, ethics, and cultural studies. This helps learners develop a comprehensive understanding of sustainability issues and fosters critical thinking and problem-solving skills

Systems Thinking

Sustainable development education promotes systems thinking, which involves understanding how different components of a system interact and influence each other. Learners are encouraged to analyze complex systems, identify feedback loops and leverage points, and develop strategies for promoting sustainability.

Experiential Learning

It emphasizes experiential learning approaches, such as project-based learning, field trips, simulations, and hands-on activities. This allows learners to engage directly with real-world sustainability challenges, apply their knowledge and skills in practical contexts, and develop a sense of agency and responsibility.



Values and Ethics

Sustainable development education cultivates values and ethics that are aligned with sustainability principles, such as environmental stewardship, social justice, equity, empathy, and respect for diversity. It encourages learners to reflect on their values and behaviors and consider the ethical implications of their choices and actions.

Partnerships and Collaboration

It involves partnerships and collaboration between educational institutions, government agencies, civil society organizations, businesses, and local communities. By working together, stakeholders can leverage their resources, expertise, and networks to promote sustainability initiatives within educational settings and beyond.

Theories of Sustainable Development

There are several theories and frameworks that have been proposed to understand and achieve sustainable development. Here are some of the key theories:

Weak vs. Strong Sustainability

Brundtland Report

Theories of Sustainable Development

- Ecological Modernization
- Limits to Growth
- Resilience Theory
- Doughnut Economics
- Social-Ecological Systems Framework
- Human Development Approach

Weak vs. Strong Sustainability

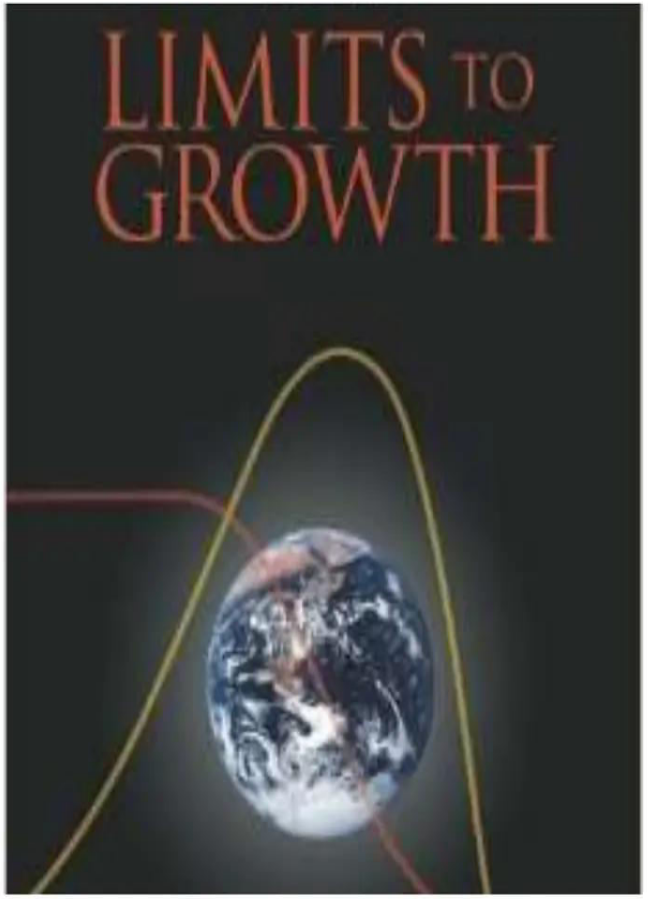
This theory distinguishes between weak sustainability, which allows for substitutability between different types of capital (natural, human, social, and manufactured), and strong sustainability, which argues that natural capital cannot be substituted and should be preserved.

Ecological Modernization

This theory proposes that environmental protection and economic development can be reconciled through technological innovation, improved resource efficiency, and the adoption of environmental policies and regulations

Limits to Growth

Popularized by the book "The Limits to Growth" by Meadows et al. (1972), this theory suggests that exponential growth in population and consumption will eventually lead to resource depletion and environmental degradation unless there are significant changes in human behavior and societal structures.

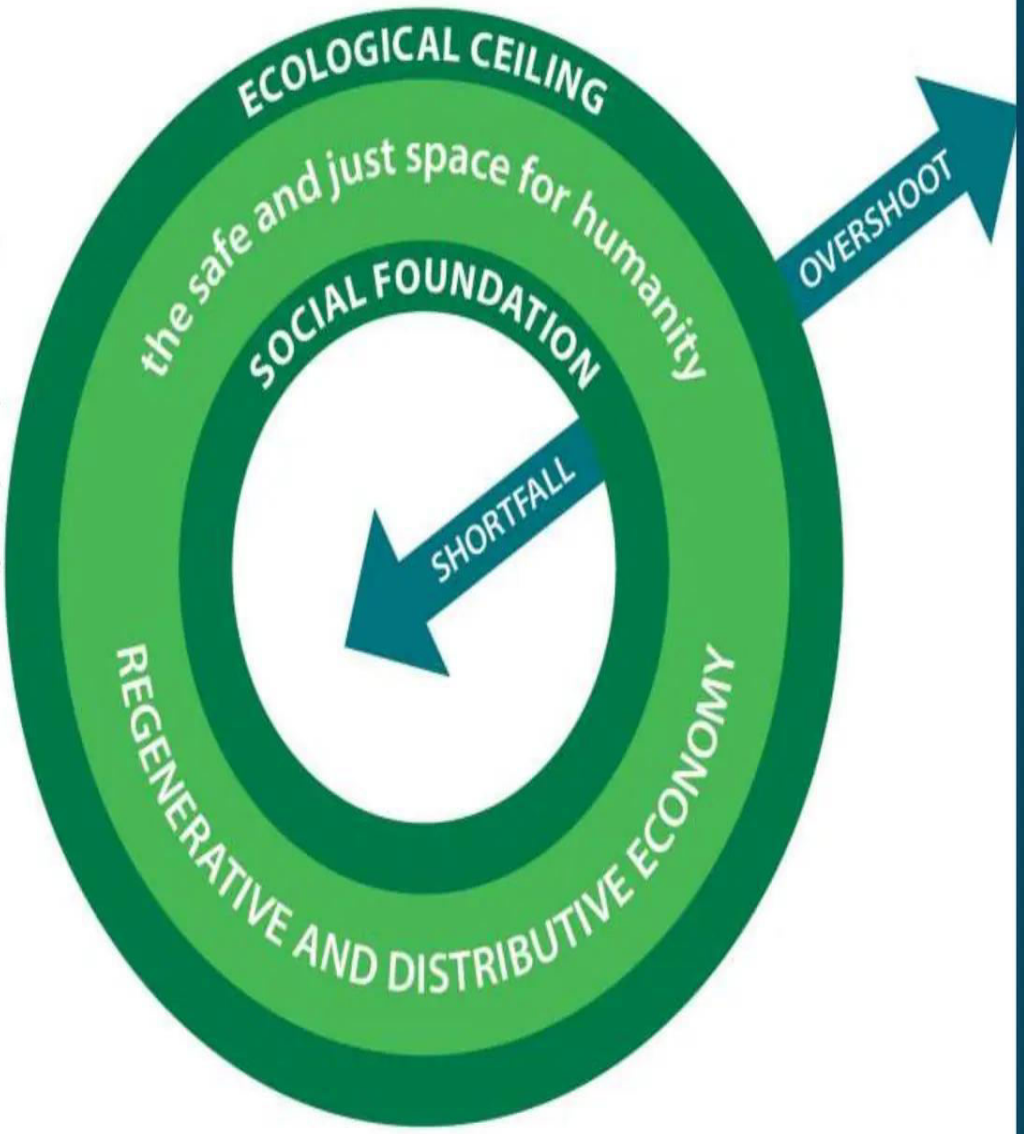


Resilience Theory

This theory focuses on building the resilience of socio-ecological systems to withstand and recover from disturbances, such as climate change, natural disasters, and economic shocks, while maintaining essential functions and services

Doughnut Economics

Proposed by economist Kate Raworth, the doughnut economics model envisions a safe and just space for humanity, where human needs are met without overshooting the ecological ceiling of the planet's resources.



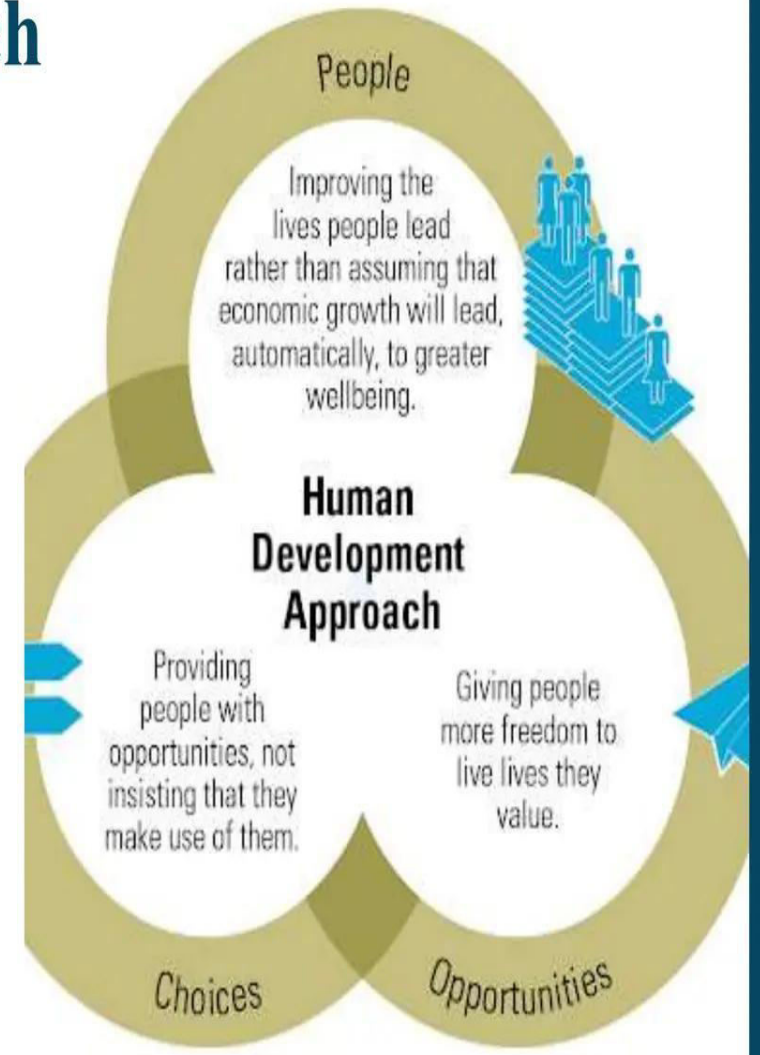
Social-Ecological Systems Framework

This framework emphasizes the interconnectedness of social and ecological systems and the need for adaptive governance structures that can manage complex interactions and feedbacks between human activities and the environment.

Human Development Approach

This approach, championed by the United Nations Development Programme (UNDP), focuses on expanding people's capabilities and freedoms to live long, healthy, and fulfilling lives, while also promoting sustainability and equity.

These theories and frameworks provide different perspectives on the challenges and opportunities associated with sustainable development, and they continue to inform research, policy-making, and practical initiatives aimed at achieving a more sustainable future.



INDICATORS OF DEVELOPMENT

Introduction

- How to indicate or measure economic development?
- It's difficult enough to define economic development, measuring it is an even more demanding task.
- Multidimensional process.
- Several indicators of ED have been used in recent years

Main Indicators of ED

- Two categories:
  1. Income based:
     - Which consists of mainly per capita income
  2. Quality based:
     - Which measure ED in terms of the quality of life, i.e. PQLI, Basic Needs Index and HDI
- Three Most Important Indicators:
  1. PCI Index
  2. PQLI
  3. HDI

Per Capita Income Index

- Traditional measure
- More accurately, the GNP/capita. It is defined as the ratio of GNP to population.
- PCI = GNP / Population
- Most generally used measure of the overall level of economic activity.
- Measure of country's economic size.
- What is important is not simply an increase in the economy's real NI but increase in income which is corrected for population change, i.e. PCI

Limitations of PCI Index

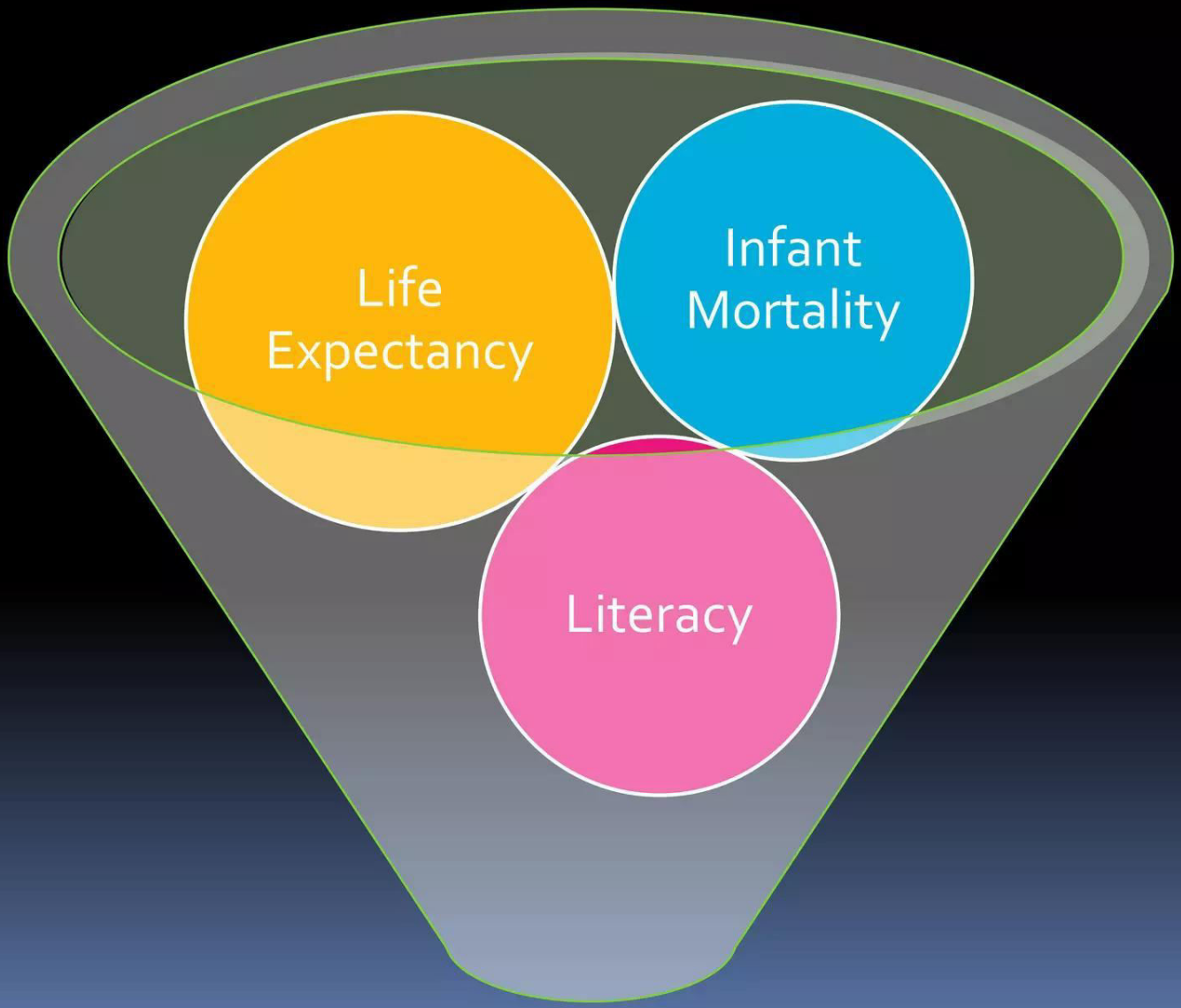
- Composition of output is not considered
- Ignored distribution of income
- Doesn't address the issue of poverty
- Ignores cost element
- Services of housewives, etc. are excluded
- Problems in international comparison
  - Exchange rate [common currency]
  - Differentiated NI concept
  - Difference in price level
- Ignores social, human and institutional aspects

Quality of Life Index

- It is dependent upon many things such as availability of basic necessities of life – food, clothing, shelter – equity in the distribution of income and wealth, literacy, health care, clean environment, political and civil rights, etc.
- Number of studies have emphasized the need of meeting "the basic needs" of the majority of population.
- Two studies of developing a composite indicator of development, (1) PQLI (2) HDI

PQLI

Morris D. Morris - end of 1970



Life Expectancy

- It refers to the number of years newborn children would live.
- We all want to live & enjoy longer life, so PQLI emphasize that country should have higher life expectancy.
- LE can be increased through better
  - Medical Facilities
  - Better Sanitation
  - Better Nutrition

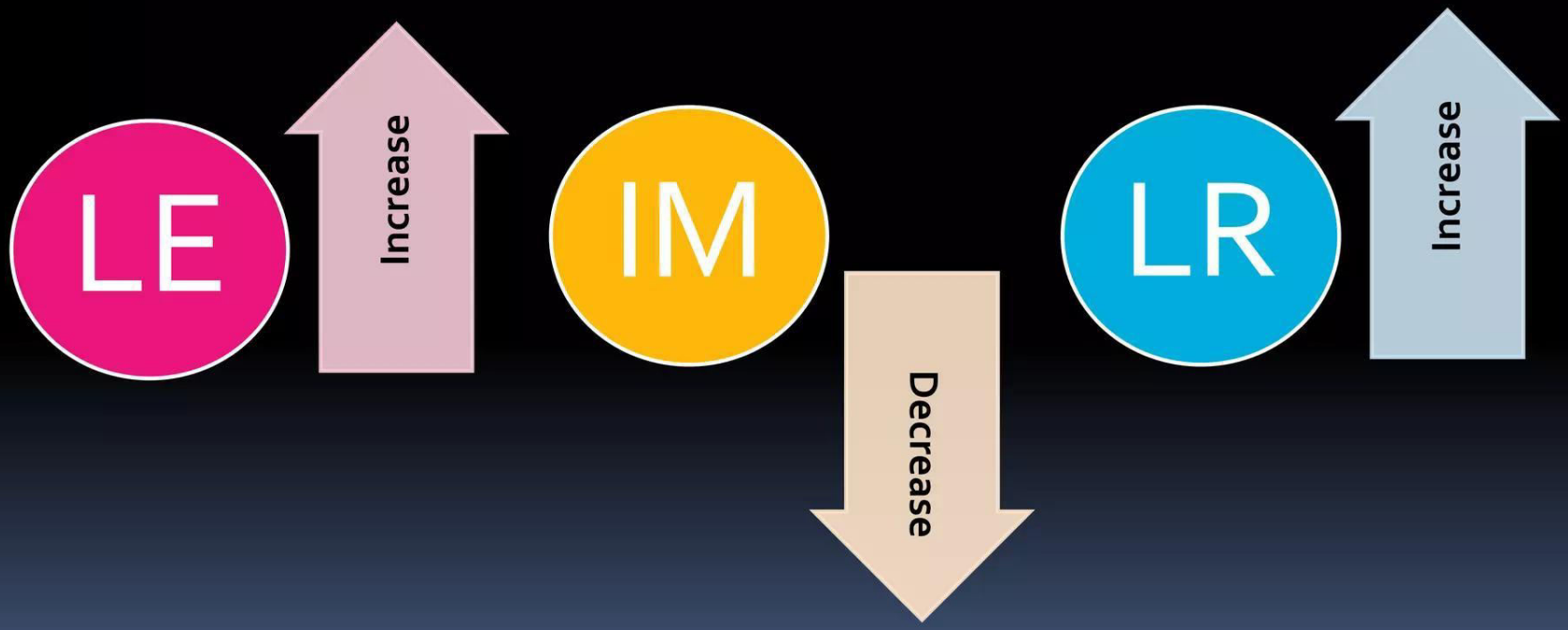
Infant Mortality

- It refers to death among children between birth and 1 year of age.
- Generally accepted that those who are born should live longer, they should not die as infants.
- PQLI emphasize that people want to lead a life with less illness and less deaths of infants.

Literacy

- It refers to the ability to read and write.
- The need for a higher level of literacy is universally accepted.
- People want to have more opportunities in life by increasing the level of literacy through education.
- Rate of Literacy: the percentage of the population aged 15 years and above who are able to read and write.

PQLI Emphasize



Construction of PQLI

- PQLI = (LEI+IMI+BLI) / 3
- Can we simply add these three to get PQLI?
- No. Why?
- All indicators are measured in terms of different variables
  - LEI – years
  - IMI – per thousands
  - BLI – percentage

Construction of PQLI

- So, actual values of all the three variables need to be converted into normalized values.

- $$LEI = \frac{\text{Actual LE of Age1} - \text{Minimum LE}}{\text{Maximum LE} - \text{Minimum LE}}$$

- If 78 years maximum LE & 38 years minimum LE and actual in particular country is 68 years,
- LEI = (68-38)/(78-38)=30/40 = 0.75
- Each of these three indicators is reduced to a scale between 0 and 1

PQLI at a glance

MERITS	SHORTCOMINGS
Simple to construct and comprehend	Uses two indicators of health
Concentrates on results rather than determinants of development	Gives equal weight to the indicators
Takes into consideration universally accepted determinants of quality of life	It's aggregate in nature
	Emphasizes on only two indicators of quality of life

Human Development Index (HDI)

- Latest and most ambitious index
- Devised by UNDP agency of UN.
- First prepared in 1990, then every year…
- A new approach to ED – one that put people at the centre.
- Along with NI, life expectancy, literacy, political freedom, human rights, gender equality etc. is given concern.

What is Human Development?

- "The process of widening people's choices as well as raising the level of well-being achieved" – Human Development Report 1997.
- Traditionally, ED concerns only with one choice – Income, while HDI covers not only income choices but also social, cultural and political choices.
- It is concerned with widening of choices covering all aspects of human choices.

To Sum up HDI

- People at the centre of development – means making progress equitable and broad-based, enabling people to be active participants in the change.
- HD is the end of all activities, while EG is only a means to this end.
- Purpose of ED is to widen all choices.
- HD isn't concerned only with income choices… HD embraces the entire society, not just the economy.
- HD is universal in nature. Applies equally to less developed and highly developed countries.

Construction of HDI

- The simple composite HDI is the measure of achievement of a country in three basic dimensions of HD:
  1. A long and a healthy life
  2. To acquire knowledge
  3. To have a comfortable standard of living

Variables to Construct HDI

- Life Expectancy at birth
- Knowledge
  - Adult Literacy Rate
  - Gross Enrolment Ratio (GER)
- Standard of Living

Three Basic Indices of HDI

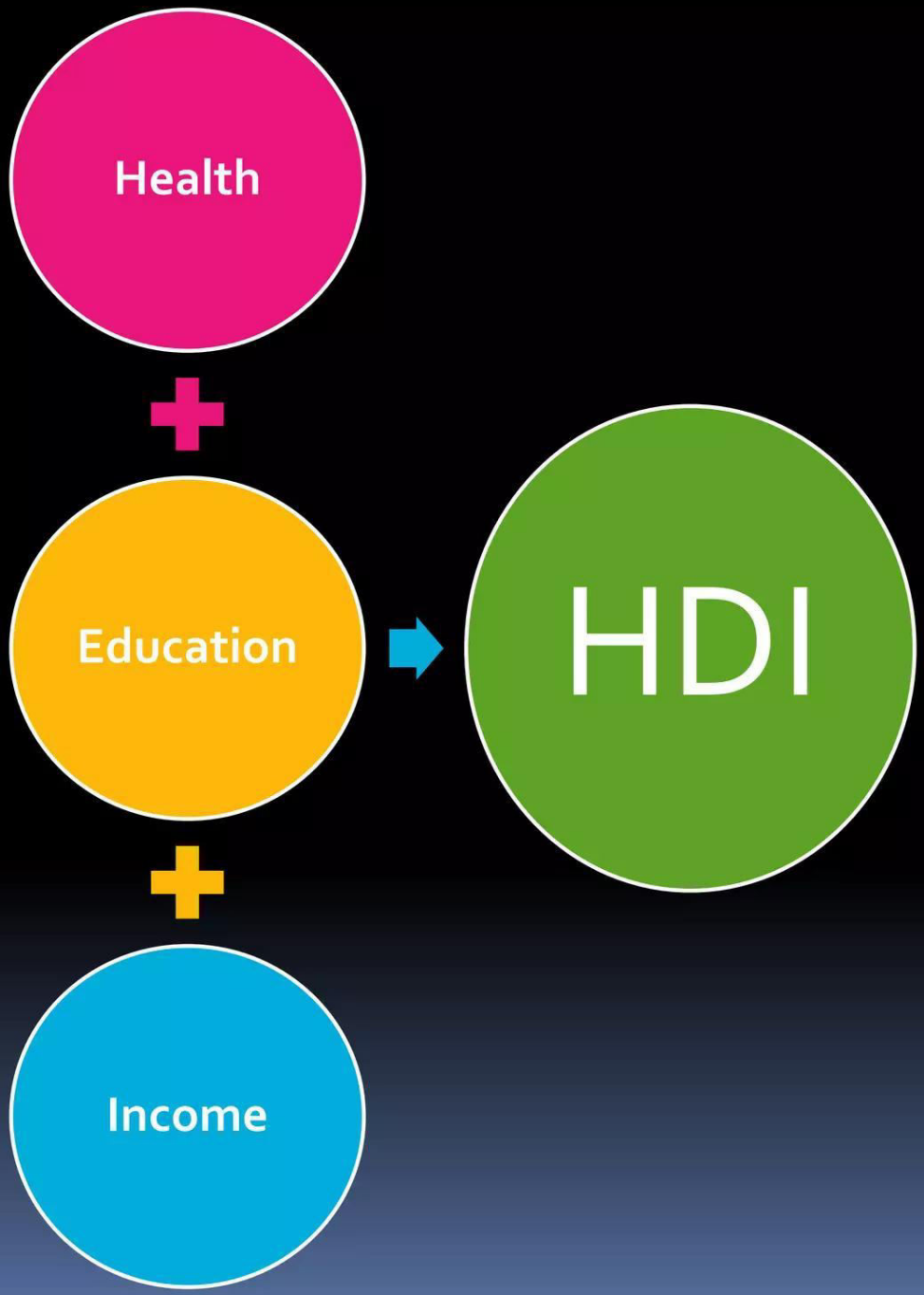
1. Life Expectancy Index (LEI)
2. Educational Attainment Index (EAI)
3. Adjusted GDP Per Capita Index (AGDPI)

HDI is a simple average of these three basic indices. Thus,

$$HDI = \frac{LEI + EAI + AGDPI}{3}$$

Construction of HDI

- Here also no common measure of the three dimensions of DH.
  1. LE is measured in years
  2. Adult Literacy & GER – in percentage
  3. Real Income in PPP-adjusted dollars
- So, tha actual progress in each indicator is measured as relative distance from a desirable goal (max. / min. or expected values for each indicator).
- Performance of a country in each of these indicators is expressed as a value between 0 and 1.


Health
Education
Income
HDI

Evaluation of HDI

- New approach
- A profound impact on economic thought and policy formulations.
- It is widely used these days, particularly by international agencies like UNDP, to show the average achievement of an economy in the economic and social sectors.

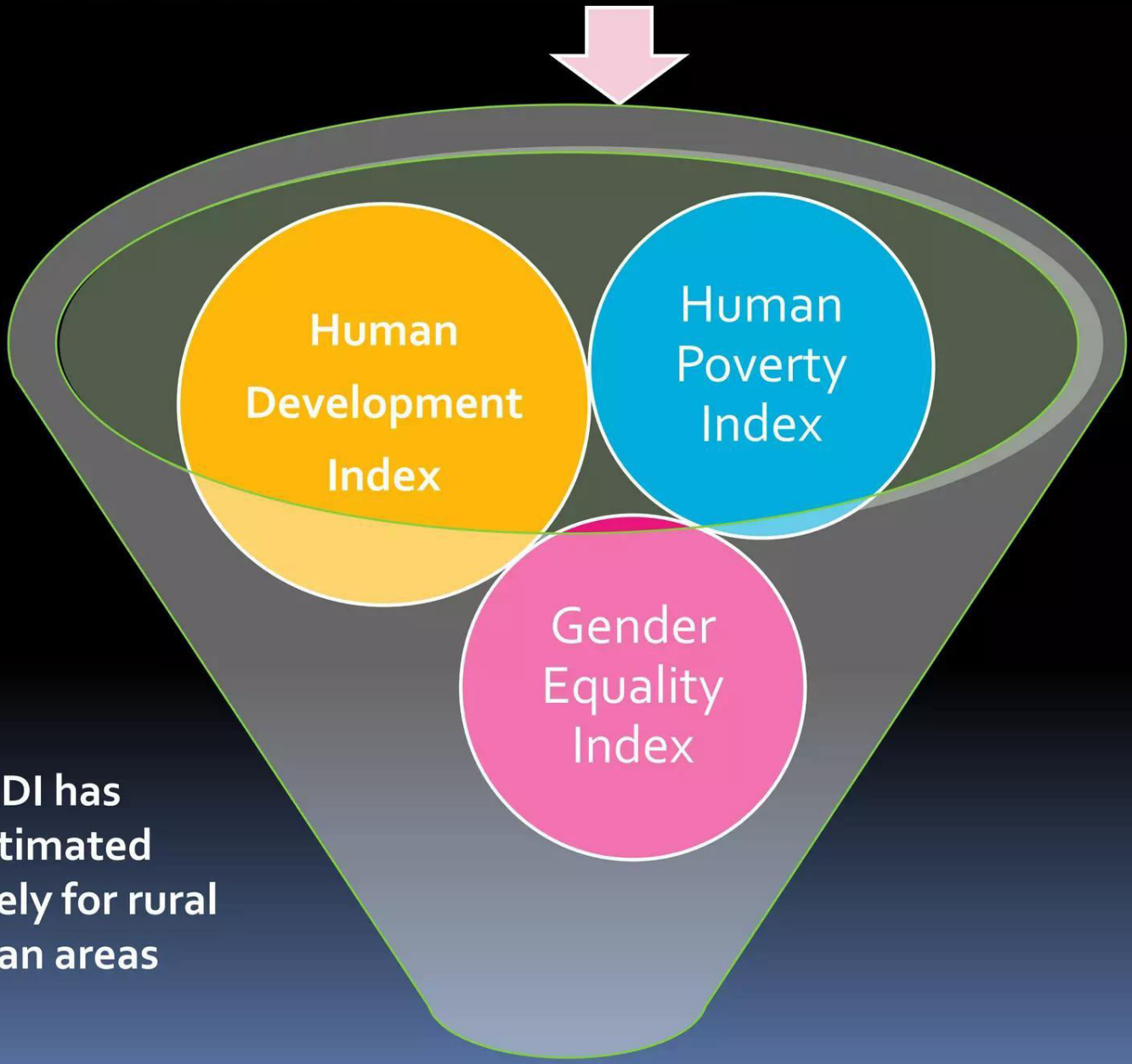
Main Merits of HDI

1. Combines economic and social indicators
2. Comprehensive measure of D
3. Increases the understanding of HD
4. Focuses on the ultimate objective of D

However…

- Only a few dimensions of HD has captured.
- Can't be treated as a comprehensive index because of only three variables.
- Moreover, constructed on the national HDI. It didn't draw a comprehensive disaggregated HDI by region, gender, race or ethnic group.
- But in recent years…

NHDR estimated three indices



Note: HDI has been estimated separately for rural and urban areas

Main Conclusions of the NHDR

1. HDI has improved from 0.302 in 1981 to 0.472 in 2001 and in 2010 it was 0.519.
2. HDI is higher in the urban areas, but rural-urban gap has come down over the years.
3. At the state level, there are wide disparities in the level of HD. K, D, P, HP, TN, M and H have better HDI. Kerala is highest with 0.638 in 2001. B, UP, R & O have lower HDI.
4. HDI is better for smaller states & UTs
5. In general, level of HD is positively correlated with level of economic performance at the level of states.
6. Inequalities in HD are lower than the income inequality.
7. The relative positions of states have not changed much since the early 1980s.

Theories of Economic Development

Week: 4th & 5th
Slide: 65-84

What`s classical development theory ?

- The basic theme of the classical model was the development of the **economy from a progressive state into a stationary state**.
- The classical growth theory argues that economic growth will decrease or end because of an increasing population and limited resources. Classical growth theory economists believed that temporary increases in real GDP per person would cause a population explosion that would consequently decrease real GDP.
- The classical theory is basically a synthesis of the doctrines put forward by Adam Smith, T. R. Malthus, David Ricardo, J. S Mill and others.

Adam Smith's model of growth

- Smith considered to be Father of Economics.
- His book: An Inquiry into Nature and Causes of the Wealth of Nations. (1776)
- He wanted to examine:
  - Why some countries are richer and some poorer?
  - What are the basic economic factors that can increase the wealth of an economy?
- Wealth of a country is not gold as assumed by Merchantalists. Or agriculture as assumed by Physiocrats.

According to Adam Smith:

- Wealth of an economy is the Value of its Total Output – includes industrial and agricultural output.
- Growth increases wealth by increasing total output, income and wealth, and standard of living.

- How can growth increase?
  - If inputs increase, output will also increase.
  - Three factors (inputs) – land, labour and capital – owned by landlords, workers and capitalists.

❖Specialisation of Labour

- Labour specialisation increases output, by increasing productivity of labour.
- This leads to increasing returns to scale. So Growth is self-reinforcing.
- Labour specialisation increases output because:
  - ❑Skill increases with repetition
  - ❑Time is saved,
  - ❑The worker can innovate and improve his performance.

- But increase in labour specialisation depends on demand (Market) for the product. So Adam Smith states: **"Division of labour must always be limited by the extent of the market."**

❖Capital Accumulation

- Capital accumulation is crucial for economic growth.
- As capital increases, capital per man (K/L) also increases, leading to increase in labour productivity, and growth.
- Investment →capital formation
- **Only capitalist class invests.**
  - Workers receive subsistence wages, cannot save,
  - Landlords only consume, not save

The Virtuous Cycle

- Capital accumulation increases K/L
- Higher productivity of labour with higher K/L
- Higher productivity leads to higher incomes,
- Higher income leads to increased demand and bigger markets,
- Leads to specialisation of labour, with more division of labour.
- But more division of labour leads on to higher productivity

Stationary State

Although there are increasing returns to labour specialisation, growth cannot go on forever.

This is because:

1. Competition for labour increases, as K accumulation increases
2. Employment increases, and total wage payment increases
3. Profits decrease, investment falls, and growth levels fall.
4. Ultimately, rate of growth becomes zero.
5. This is the Stationary State.

Ricardian theory of growth

Like Smith, David Ricardo also presented his views on economic development in an unsystematic manner in his book *The Principles of Political Economy and Taxation*. This book was published in 1917. It was its third edition of 1921 and Ricardo's correspondence with a number of economists that contain his ideas on which his model of development has been built.

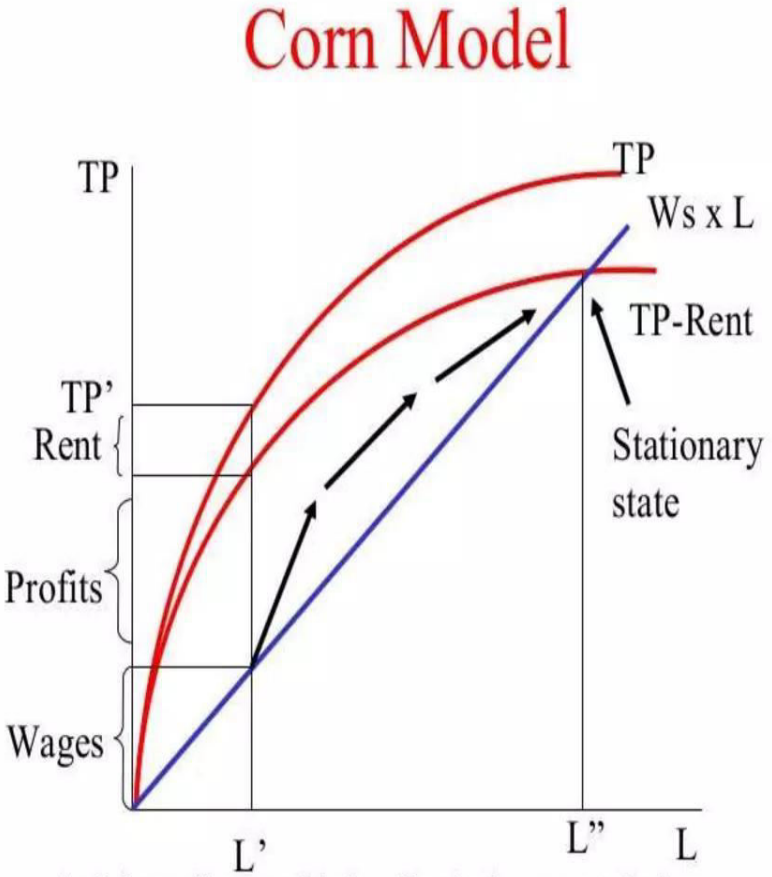
- In the Ricardian system whole economy is assumed to be a big farm fixed in supply used to produce one output corn and output is distributed between landlords, capitalist and workers in form of rent , wages and profit .
- First rent is given its shares and residual is distributed between profit and wages while interest is included in profits.
- Process of capital accumulation- capital accumulation is outcome of profits because profits lead to saving which leads to capital. So long as rate of profit is positive capital accumulation will continue. Capital accumulation depends on capacity to save or will to save . In reality profits depends on wages on price of corn and price on productivity of marginal land. If there is more corn prices will fall and so does the wage and profits will rise and more capital accumulates.

Model of Growth

- Economic growth takes place due to capital accumulation.
- Capital accumulation is by capitalists, through investment,
- Investment comes from profits,
- As growth takes place, demand for food increases, and intensive and extensive margins of land increases
- Total rents and wages increases.
- This squeezes out profits, which eventually falls to zero.
- This point is called the “Stationary State”.
- In Industrial sector also: – Rate of profit is same in industry and agriculture, – Corn is paid as wages. – With growth, labour input increases, total wages increase, – Profits fall, investment falls and also rate of capital accumulation.

stationary state

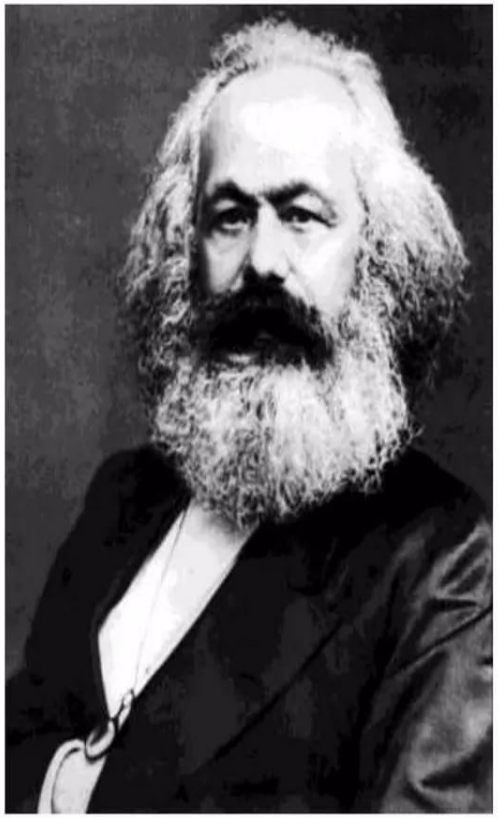
According to Ricardo, there is a natural tendency for the profit rate to fall in the economy so that the country ultimately reaches the stationary state. When capital accumulation rises with increase in profits, total output increases which raises the wages fund. With the increase in the wages fund, population increases which raises the demand for corn and its price. As population increases, inferior grade lands are cultivated to meet the increasing demand for corn. Rents on the superior grades of land rise and absorb a greater share of the output produced on these lands. This reduces the share of capitalists and labourers. Profits decline and wages tend to fall to the subsistence level. This process of rising rents and declining profits continues till output from the marginal land just covers the subsistence wage of the labour employed. Then profits are zero.



At L' profits are high. Capital accumulation occurs and the wage fund grows, raising wages above Ws. Population grows gradually pushing wages back toward Ws. But real cost of Ws rises due to diminishing returns and profits are squeezed out.

Marxian theory of economic development

- **Karl Marx (1818 – 1883)**



- A German philosopher, economist, historian, political theorist, sociologist, journalist and revolutionary socialist.
- Father of Scientific Socialism
- Epitomized as 'Marx the Prophet' and is ranked with Christ and Mohammed if we are to judge him by the number of his followers

Marxian Theory of Economic Development

Gravest and the most penetrating examination of the process of capitalist development

Major assumptions:

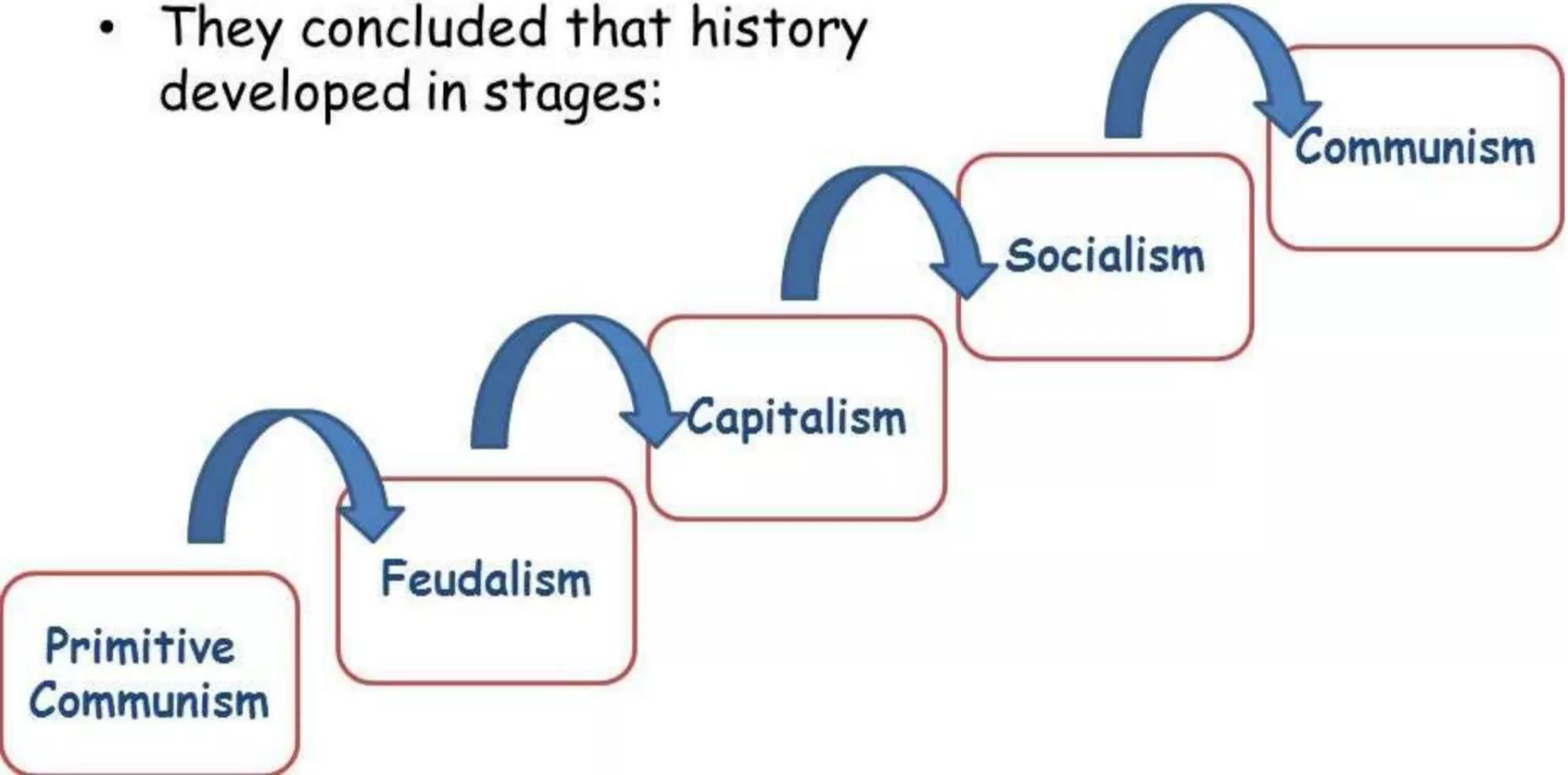
- 1. There are two principal classes in the society
  - a. Bourgeoisie
  - b. Proletariat
- 2. Wages of the workers are determined at subsistence level of living.
- 3. Labour is the main source of value generation.

- 4. Factors of production are owned by the capitalist.
- 5. Capitalist exploit the workers.
- 6. Labour is homogenous and perfectly mobile.
- 7. National Income is distributed in terms of wages and profit.

- **Marx contributed the theory in 3 respects:**
  - a. economic interpretation of history
  - b. motivating forces of capitalist development
  - c. alternative path of planned economic development

Development of history

- Marx and Engels studied the history of the world's economies and the civilizations of the past.
- They concluded that history developed in stages:



Surplus Value

- Economic basis of the class struggle under capitalism
- Class struggle is simply the outcome of accumulation of surplus value in the hands of few capitalists.
- Labour is the sole source of value in a commodity
- Capitalism is divided into two groups:
  - 1. the workers who sell their labour power;
  - 2. the capitalist who own the means of production
- **Marx calls the unpaid labour as surplus value**
- The net output of the economy is given as
  - The total value of product *(w)* = constant capital *(c)* + variable capital *(v)* + surplus value (*s*)
  - $W=(c + v) + s.$

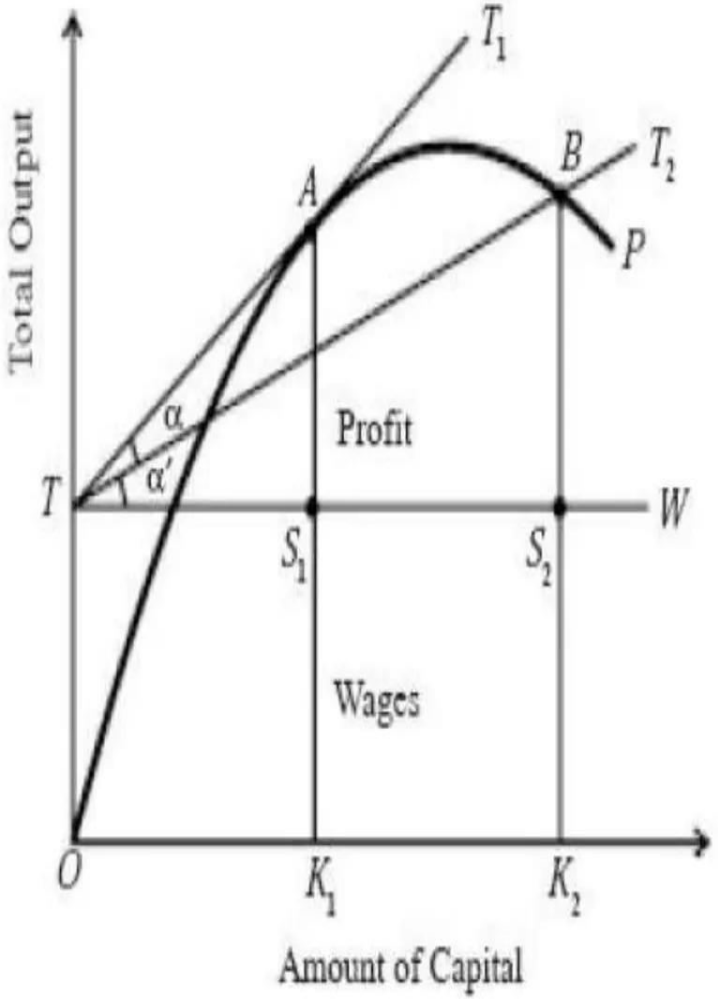
• Capital Accumulation

- Surplus value leads to capital accumulation
- The capitalist is always try to increase their profit in 3 ways
  - 1.By increasing working hours
  - 2.By diminishing no. of hours required to produce labour's subsistence
  - 3.Increasing the productivity of labour

- "Capital is dead labour, which , vampire like, lives only by sucking living labour and lives the more, the more labour it sucks"- Karl Marx

• Downfall of capitalism

- Replaces the workers by machines which leads to the reduction in surplus value
- Industrial reserved army is created
- Poverty and limited purchasing power
- Over production of commodities
- Dump their products in market which results in the fall of market price and leads to a ‘sharp decline of profit’
- Finally capitalism falls and socialism replace capitalism



The Decay of Capitalism

- Schumpeter believed that the innovation carried out by the entrepreneurs will not continue for long and will be turned into routing activity through highly trained managers. This would reduce the position of entrepreneur in a society and undermine their functions and turn them into “warrior knight”.
- Another factor responsible for the downfall of capitalism is the weakening of its institutional framework. The tendency towards concentration and increase in the size of the production unit destroy capitalistic institutions like private property and freedom of conflict.
- Finally, the destruction of the protecting political strata will give a big blow to capitalist system. With the rise of capitalism not only the institutional frame work will crumble but also the political strata who would have protected capitalism at it’s early stage gets destroyed. The very success of capitalism is destroyed by the royal power. With the progress of capitalism the industrial units and merchants becomes more powerful and pose big threat to political class and virtually dominate them.

Achievements of MDGs in Bangladesh

Week: 6th & 7th
Slide: 85-104c

Topic we're trying to cover...

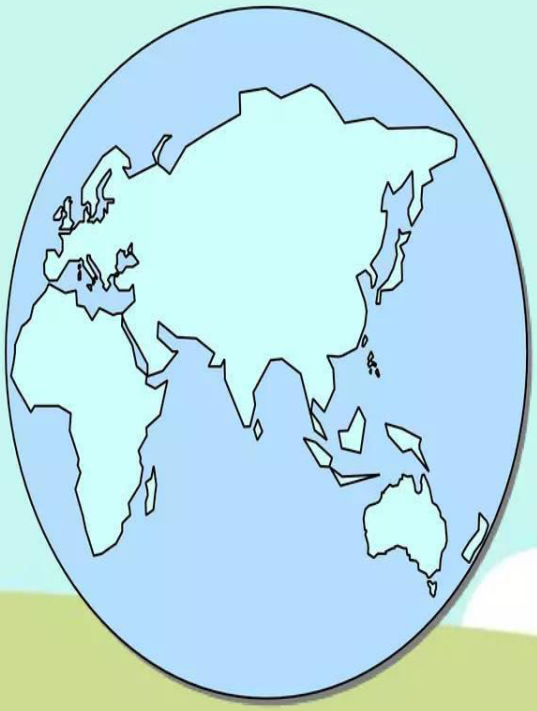
- What is MDG?
- What are the countries under MDGs?
- The Goals of MDGs!
- MDGs and Bangladesh!
- Achievements of MGDs in Bangladesh!
- Criticism of MDGs!
- Conclusion

What is MDG?

- The Millennium Development Goals (MDGs) are **eight goals** with measurable **targets** and clear **deadlines** for improving the lives of the world's poorest people.
- To meet these goals, leaders of 189 countries signed the historic **millennium declaration** at the **United Nations Millennium Summit** in **2000**.
- MDGs have **8 goals**, **18 targets** and **48 indicators** to measure progress towards the MDGs.
- From **January 2008**, **21 targets** and **60 indicators** have been re-set and used to monitor the MDGs.

What are the countries under MDGs?

- MDGs were adopted by 189 UN Member States in 2000.
- Total 147 heads of the UN member state were present there.
- Not only for the underdeveloped countries.
- All the UN member states who were agreed on the MDGs are under the targets.



The Goals!

- **Goal 1: Eradicate Extreme Poverty and Hunger**
  - Millions continue to live in hunger and poverty, lacking access to basic services
  - Despite remarkable progress, about 800 million people continue to live in absolute poverty and suffer from hunger. More than 160 million children below 5-years have inadequate height for their age because of insufficient food.

- **Goal 2: Achieve Universal Primary Education**
  - In 2015, 57 million children of primary school age do not attend school.
  - Compared to children in the richest households, those in the poorest households are four times more likely to be out of school. Under-five mortality rates are nearly twice as high for children in the poorest households compared to the wealthiest households.

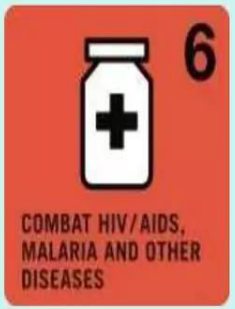
The Goals!

- **Goal 3: Promote Gender Equality and Empower Women**
  - Gender inequality persists. Women in many parts of the world continue to face discrimination in access to economic assets, work, and participation in public and private decision-making. They are also more likely to live in poverty compared to men.

- **Goal 4: Reduce Child Mortality**
  - Reducing child mortality is one of the most important goal set to achieve the MDGs. It is a key indicator to development and must be achieved.

The Goals!

- **Goal 5: Improve Maternal Health**
  - The maternal mortality ratio in developing nations is 14 times higher than in the developed nations.
  - Just 50 percent of pregnant women in developing countries can receive the recommended minimum of 4 antenatal care visits.
- **Goal 6: Combat HIV/AIDS, Malaria and Other Diseases**
  - An estimated 36 percent of the 31.5 million people living with HIV in developing nations were said to be receiving ART in 2013.



The Goals!

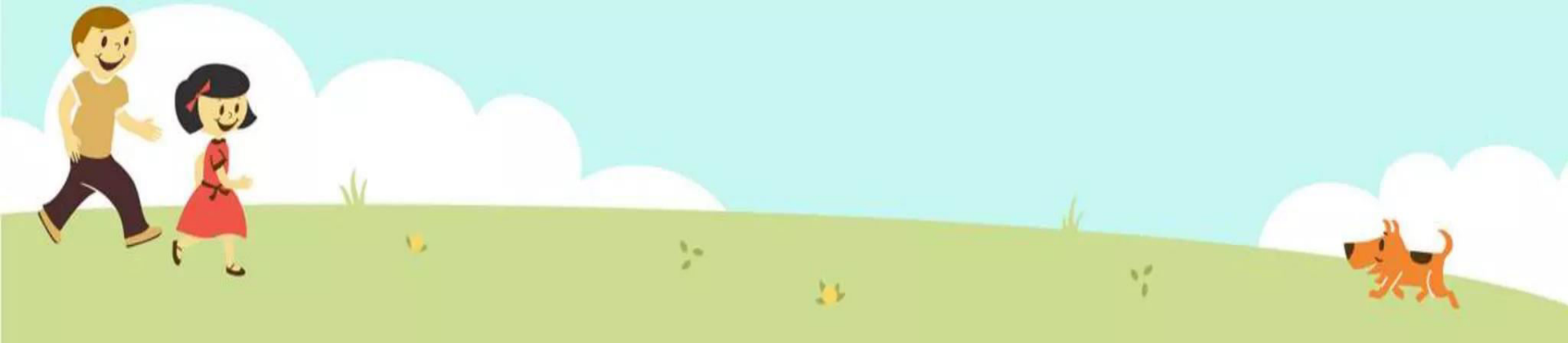
- **Goal 7: Ensure Environmental Sustainability**
  - Close to 5.2 million hectares of forest cover were lost in 2010.
  - Climate change and environmental degradation undercut progress achieved
  - Global emissions of carbon dioxide have increased by more than 50 percent since 1990.

- **Goal 8: Develop a Global Partnership for Development**
  - Conflict remains the greatest threat to human development.
  - By 2015, conflicts had forced nearly 60 million people to leave their homes – the highest number recorded since the Second World War.


Poverty and Hunger
Primary Education
Empower Women
Child Mortality
By 2015
191 Member States
Maternal Health
HIV/AIDS and other Diseases
Environmental Sustainability
Partnership for Development

MDGs and Bangladesh

- Bangladesh successful in 5 MDGs, behind in 3.
- Bangladesh has made considerable progress in achieving the Millennium Development Goals (MDGs), particularly in poverty alleviation. The goal was to reduce poverty to 29 percent by the year 2015. Two years ahead of time, in 2013, it has been possible to bring this down to 26.2 percent.
- Among the eight goals of MDG, it will be possible to fully meet the targets set for reducing infant mortality and improving maternal health. The goals which will not be fully met are eradicating extreme poverty and hunger, achieving universal primary education, achieving gender equality and empowerment of women. However, Bangladesh is considering the achievements made in these sectors to be successful.



Achievements of MDGs in Bangladesh!

- Achievement on Goal – 1: Eradicating Extreme Poverty and Hunger

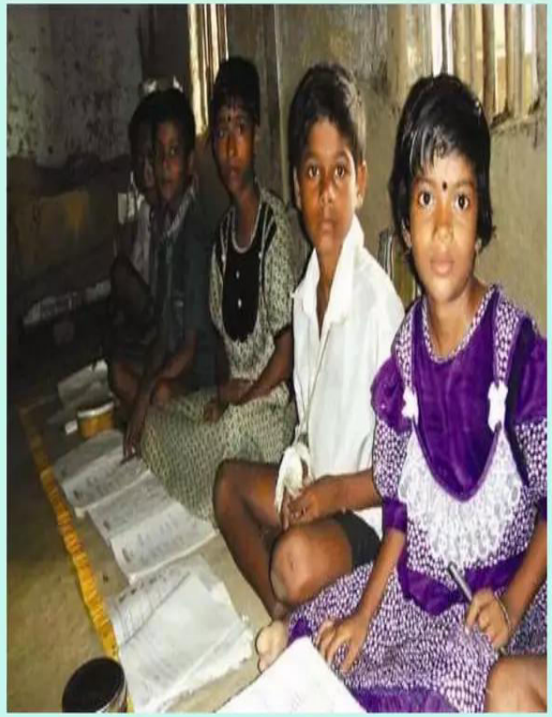
- The progress made in poverty reduction so far is not sufficient to achieve the objective of halving poverty by 2015.
- In 1990, poverty ratio in the country was 50%. The MDG target for Bangladesh is to bring it down to 25% in 2015.
- This requires poverty to decline at the annual rate of 1.41% from now up to 2015, whereas in the most recent five years poverty has fallen at the rate of just 1.06%.

Achievements of MDGs in Bangladesh!

- Achievement on Goal – 2: Achieving Universal Primary Education

Enrollment rates:

- Bangladesh has made good progress in schooling. The gross primary enrollment rate increased from 61 percent in 1980 to72 percent by 1990, and to 96 percent by 2000. The net primary enrollment is, however, much lower — in 2000, it was only, 65.4 percent. The MDG target is to raise the net enrolment rate to 100 percent by 2015.



Primary Completion:

- There are large variations in both net primary enrollment rate and primary completion rate across regions. For instance, net primary enrollment rates in the rural areas of some districts such as Faridpur, Tangail and Jamalpur are only 48 percent, whereas the rural areas of Khulna, Jessore and Kushtia have net primary enrolment rates of 74 percent.

Achievements of MDGs in Bangladesh!

- Achievement on Goal – 3: Promoting Gender Equality and Empowering Women

- Bangladesh has made tremendous progress in achieving the first target of removing gender disparity in schooling.
- The female-male ratio of students in primary schools has steadily increased from about 45:55 in 1990 to 50:50 in 2002.
- At the secondary level, more girls are now enrolled than boys, thanks to the female secondary stipend programme. Female-male ratio in secondary schools was 53:47 in 2000 (GOB, 2005).

Achievements of MDGs in Bangladesh!

- **Achievement on Goal – 4: Reduce Child Mortality**

- Bangladesh has achieved a tremendous improvement in reducing child mortality within these years.

- Bangladesh received the UN award for its remarkable achievements in attaining the Millennium Development Goals (MDGs) particularly in reducing child mortality.

Achievements of MDGs in Bangladesh!

- **Achievement on Goal – 5: Improve Maternal Health**

- Maternal mortality declined from 322 in 2001 to 194 in 2010, a 40% decline in nine years
- Average annual rate of decline from 1990 has been about 3.3%, while MDG requirement is 3%
- 43.5% of women age 15-49 years with a live birth in the last 2 years were attended by skilled health personnel in 2012-2013, which was 24.4% in 2009

Achievements of MDGs in Bangladesh!

- Achievement on Goal – 6: Combating HIV/AIDS, Malaria and Other Diseases

- Prevalence of HIV/AIDS in Bangladesh currently is less than 0.1% and thus is still below an epidemic level
- Prevalence of malaria per 100,000 population was 441.5 in 2005, which came down to 202 in 2013
- Children U-5 with fever who are treated with appropriate anti-malarial drugs was 80% in 2008, which was recorded at 89.50% in 2013 and the target is to achieve 90% in 2015 is almost achieved
- The death rate associated with TB was 61 per 100,000, populations in 1990. The status is 45 in 2012 on track

Achievements of MDGs in Bangladesh!

- **Achievement on Goal – 7: Ensuring Environmental Sustainability**

- Only 13.4% of land tree cover with density of 30% and above and the area having tree cover is much lower than the target set for 2015 (20%)
- Steady increase in CO_2 emission in Bangladesh because of increasing development interventions and activities. In 2012, the emission was 0.32 MT per capita
- 97.9% of the population of Bangladesh is using improved drinking water source
- 55.9% of population is using improved sanitation in 2012-2013

Achievements of MDGs in Bangladesh!

- **Achievement on Goal – 8: Developing a Global Partnership for Development**

- Disbursed ODA as a proportion of Bangladesh's GDP has declined from 5.59% in FY 90-91 to 1. 78% in 2013-14; annual average of 2.62%
- 80% people use mobile phone
- 'Digital inclusion'
- Challenge – making trade useful for development.

Criticism

- Critics of the MDGs complained of a lack of analysis and justification behind the chosen objectives, and the difficulty or lack of measurements for some goals and uneven progress, among others.
- Although developed countries' aid for achieving the MDGs rose during the challenge period, more than half went for debt relief and much of the remainder going towards natural disaster relief and military aid, rather than further development.

Conclusion

- Bangladesh has already met several targets of the MDGs like reducing poverty gap ratio, attaining gender parity at primary and secondary education, under-five mortality rate reduction, containing HIV infection with access to antiretroviral drugs.
- In addition, Bangladesh has made remarkable progress in the areas of poverty reduction, reducing the prevalence of underweight children, increasing enrolment at primary schools and many more.
- But still there are lots of fields where Bangladesh is in so far than the target. Using the extreme man power of Bangladesh, the government should move forward more aggressively to reach to the goal.

SDG

Sustainable Development Goals

Week: 8th & 9th
Slide: 105-129

GLOBAL GOALS FOR PEOPLE AND PLANET

The Sustainable Development Goals (SDGs), also known as the 'Global Goals', lay out a roadmap to end poverty, reduce inequality, and tackle climate change, among other ambitions. The 17 goals and 169 specific targets of this 2030 Agenda for Sustainable Development set the world's sights on addressing the most critical environmental, social and economic issues we face today.

THE SDGs ARE…

- A set of 17 goals for the world's future, through 2030
- Backed up by a set of 169 detailed Targets
- Negotiated over a two-year period at the United Nations
- Agreed by nearly all the world's nations, on 25 Sept 2015

What is new and different about the 17 SDGs?

- These Goals apply to every nation … and every sector. Cities, businesses, schools, organizations, all are challenged to act.

This is called **Universality**

Cont..

- It is recognized that the Goals are all inter-connected, in a system. We cannot aim to achieve just one Goal. We must achieve them all. This is called

Integration

Cont..

- It is widely recognized that achieving these Goals involves making very big, fundamental changes in how we live on Earth.

This is called **Transformation**

SUSTAINABLE DEVELOPMENT GOALS

1: End poverty in all its forms everywhere

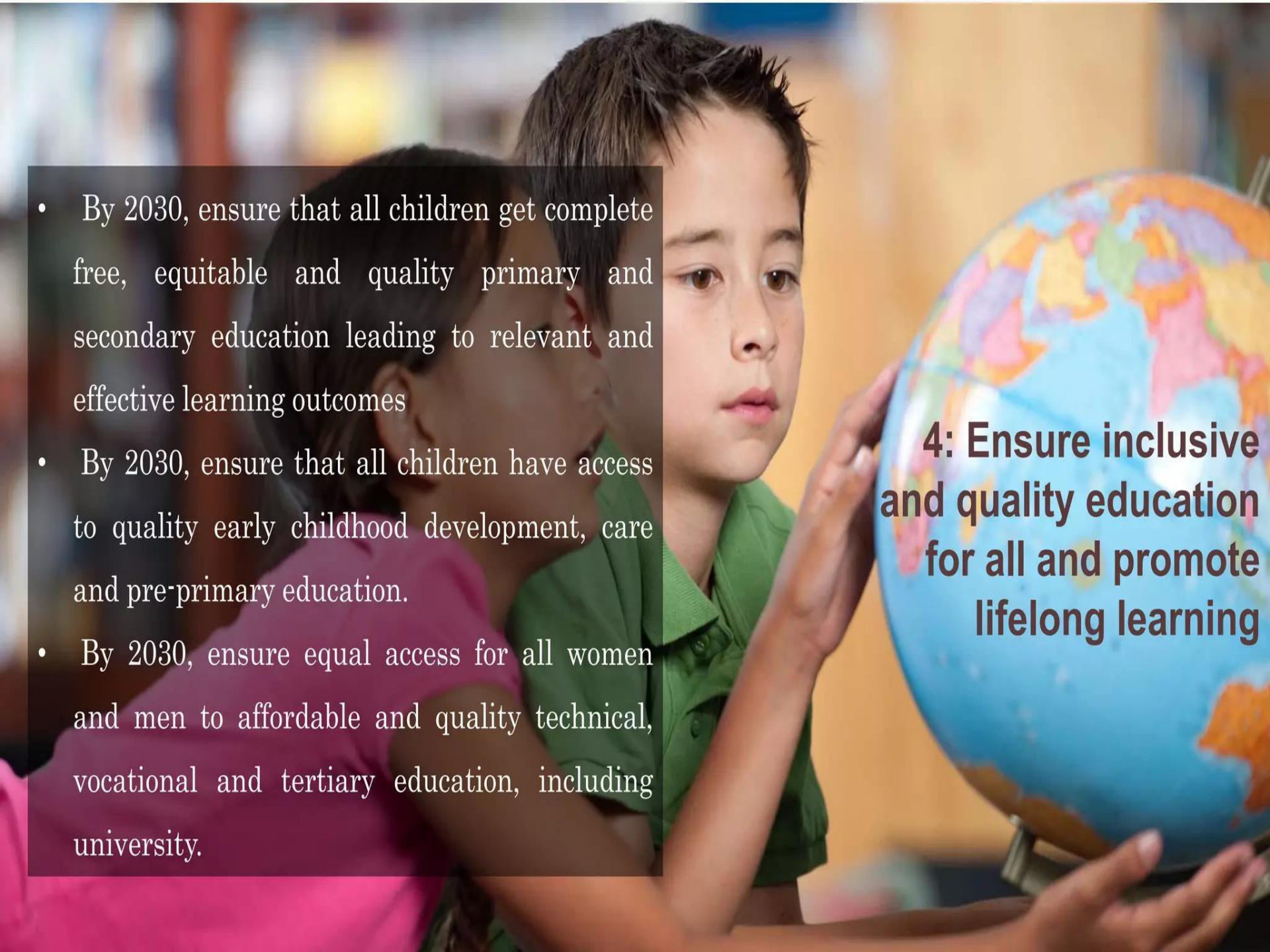
- By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day.
- Reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.
- Ensure that all men and women have equal rights to economic resources, access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services.

2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

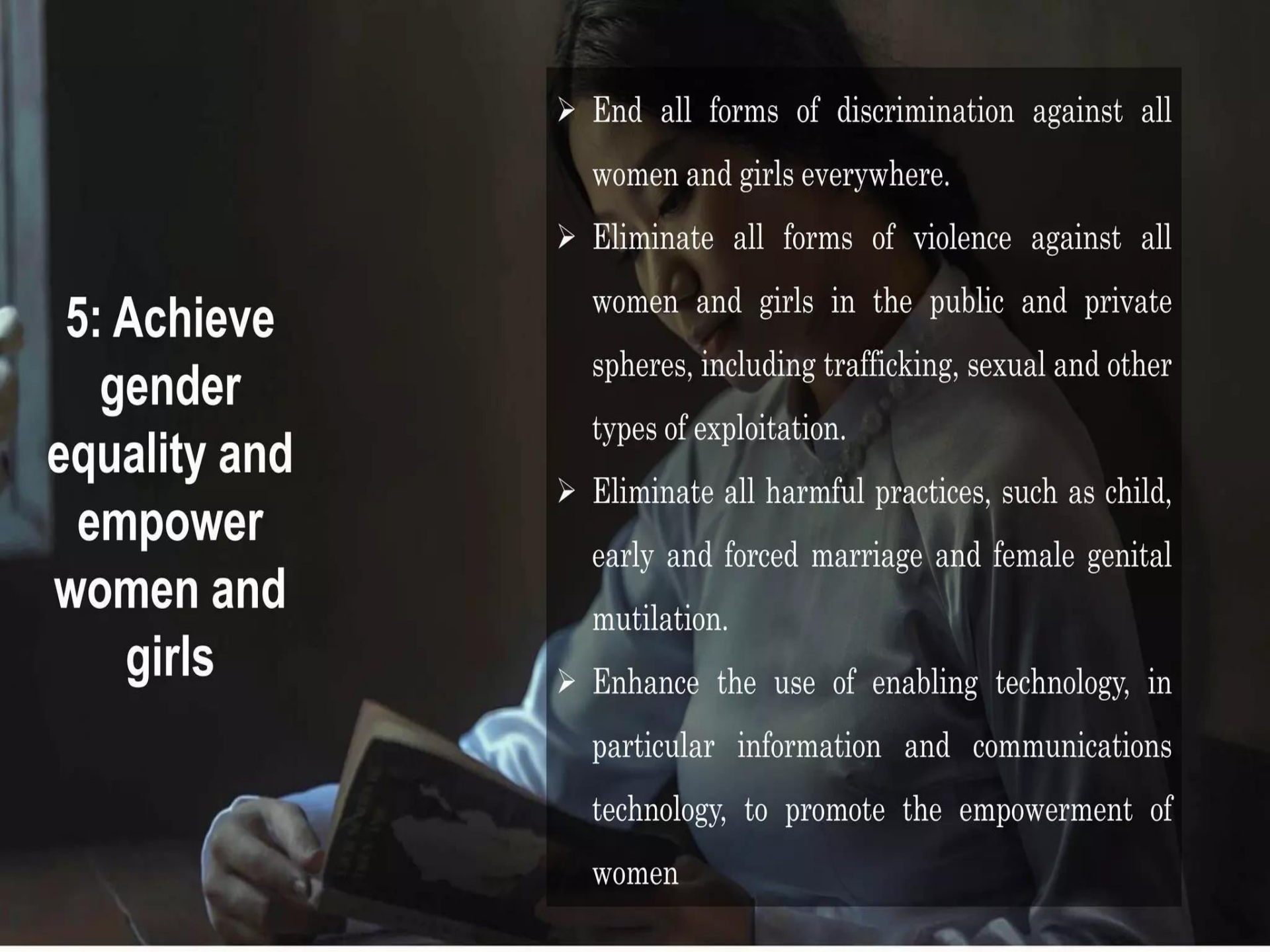
- By 2030, end hunger and ensure access by all people, including infants, to safe, nutritious and sufficient food all year round.
- By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers.

3: Ensure healthy lives and promote well-being for all at all ages

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.
- By 2030, end preventable deaths of newborns and children under 5 years of age, 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.
- By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases



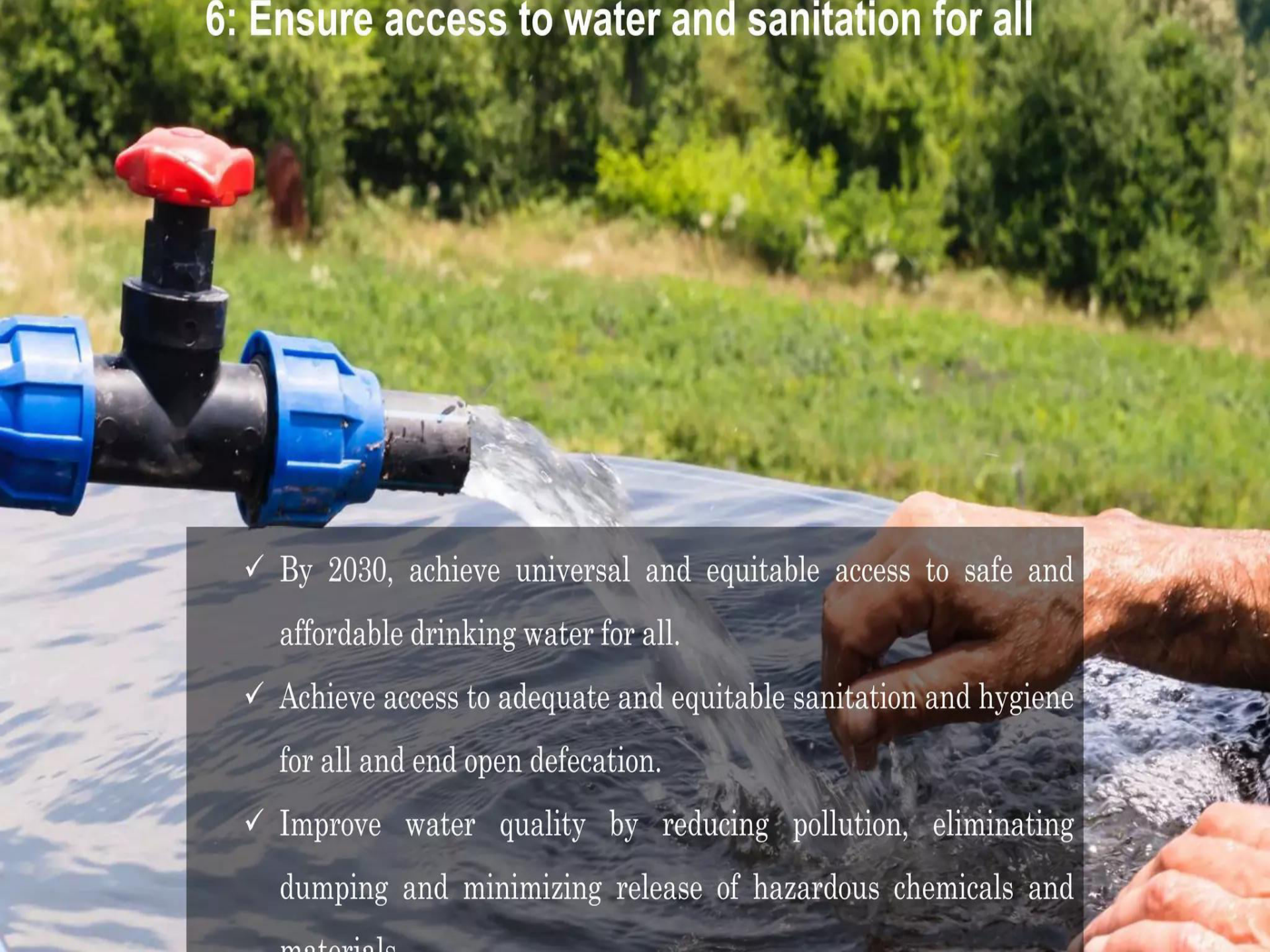
- By 2030, ensure that all children get complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
- By 2030, ensure that all children have access to quality early childhood development, care and pre-primary education.
- By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.



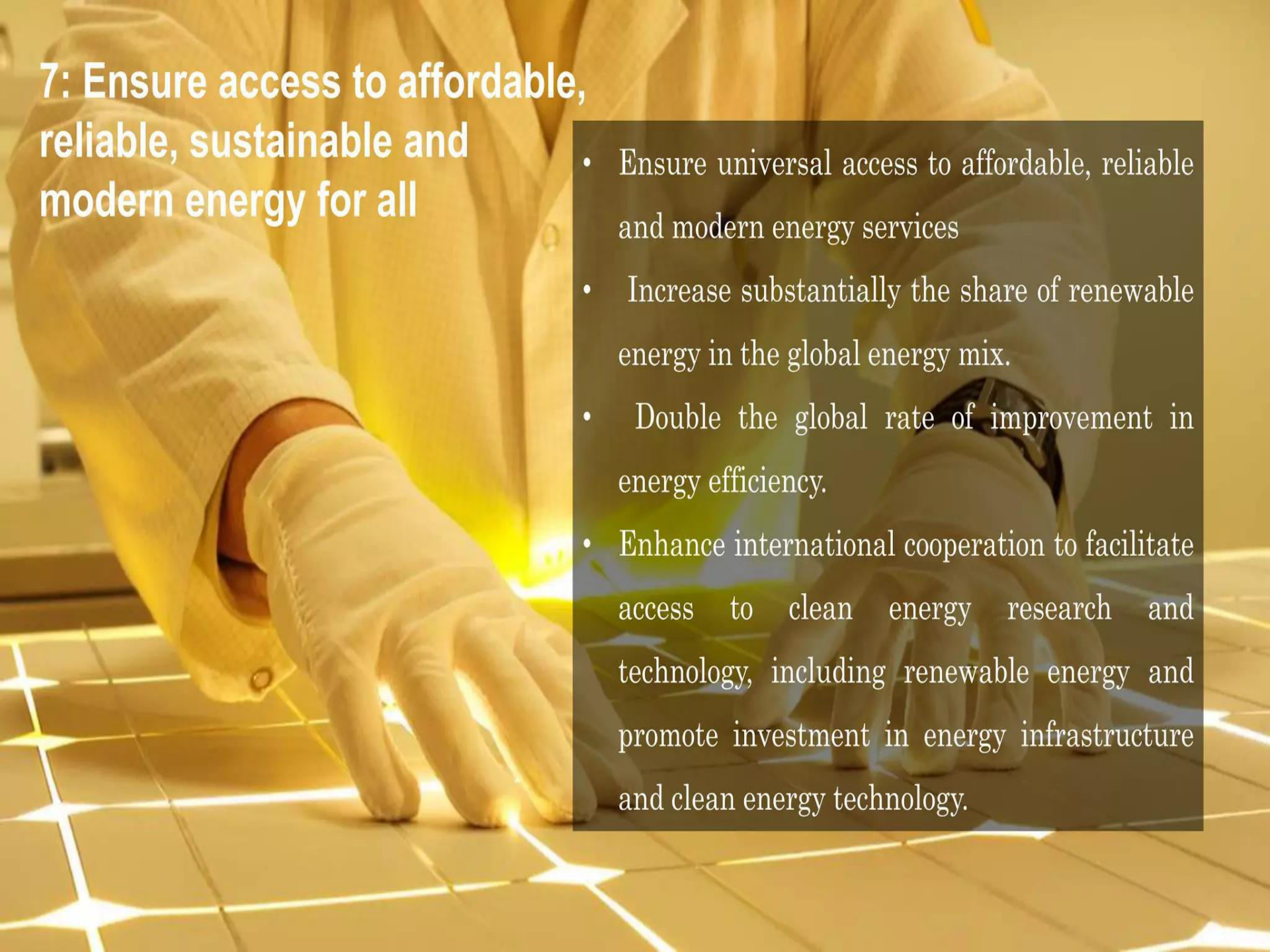
5: Achieve gender equality and empower women and girls

- End all forms of discrimination against all women and girls everywhere.
- Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking, sexual and other types of exploitation.
- Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.
- Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

6: Ensure access to water and sanitation for all

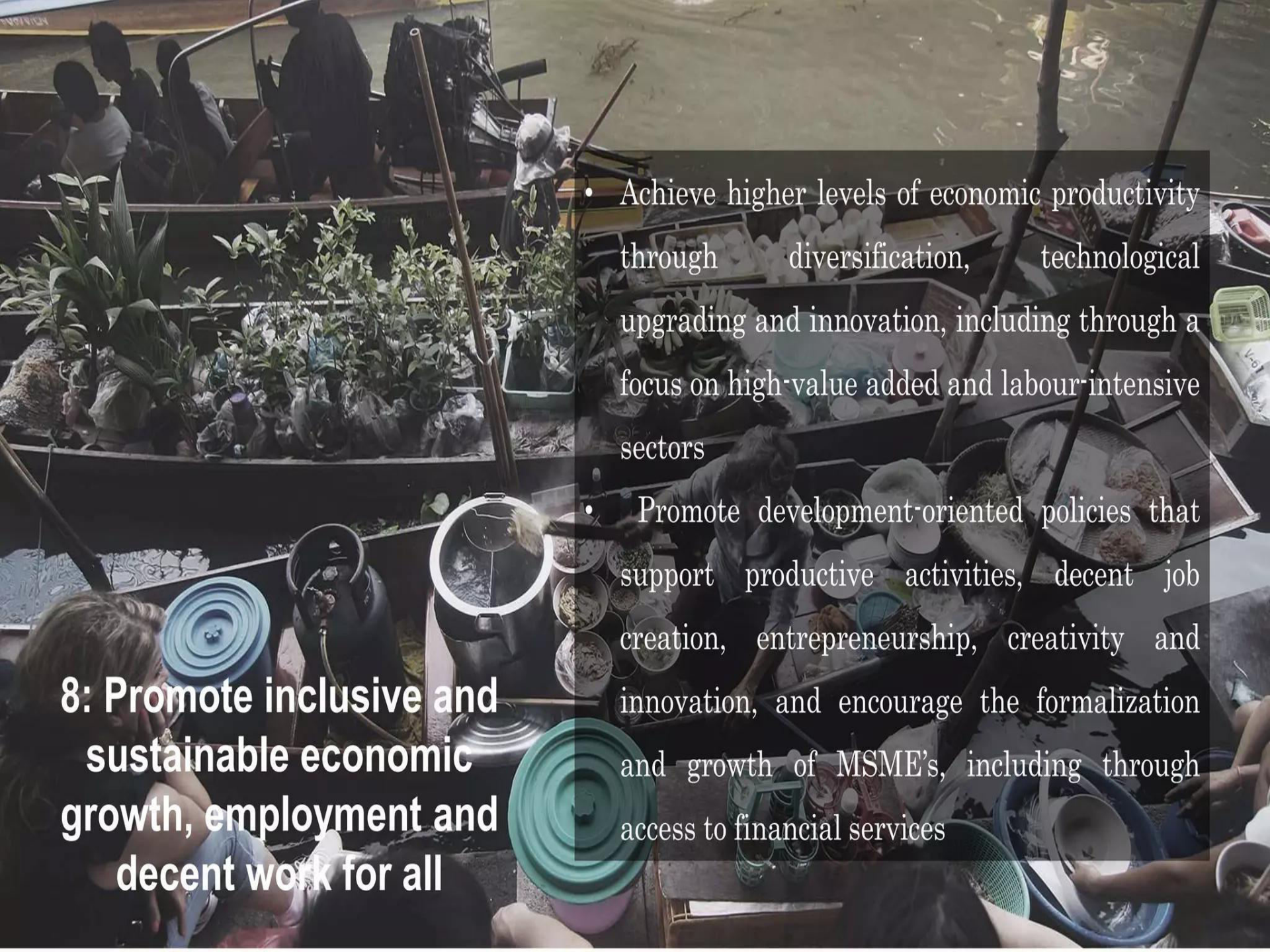


- ✓ By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
- ✓ Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation.
- ✓ Improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and



7: Ensure access to affordable, reliable, sustainable and modern energy for all

- Ensure universal access to affordable, reliable and modern energy services
- Increase substantially the share of renewable energy in the global energy mix.
- Double the global rate of improvement in energy efficiency.
- Enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy and promote investment in energy infrastructure and clean energy technology.



8: Promote inclusive and sustainable economic growth, employment and decent work for all

- Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
- Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of MSME's, including through access to financial services

9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

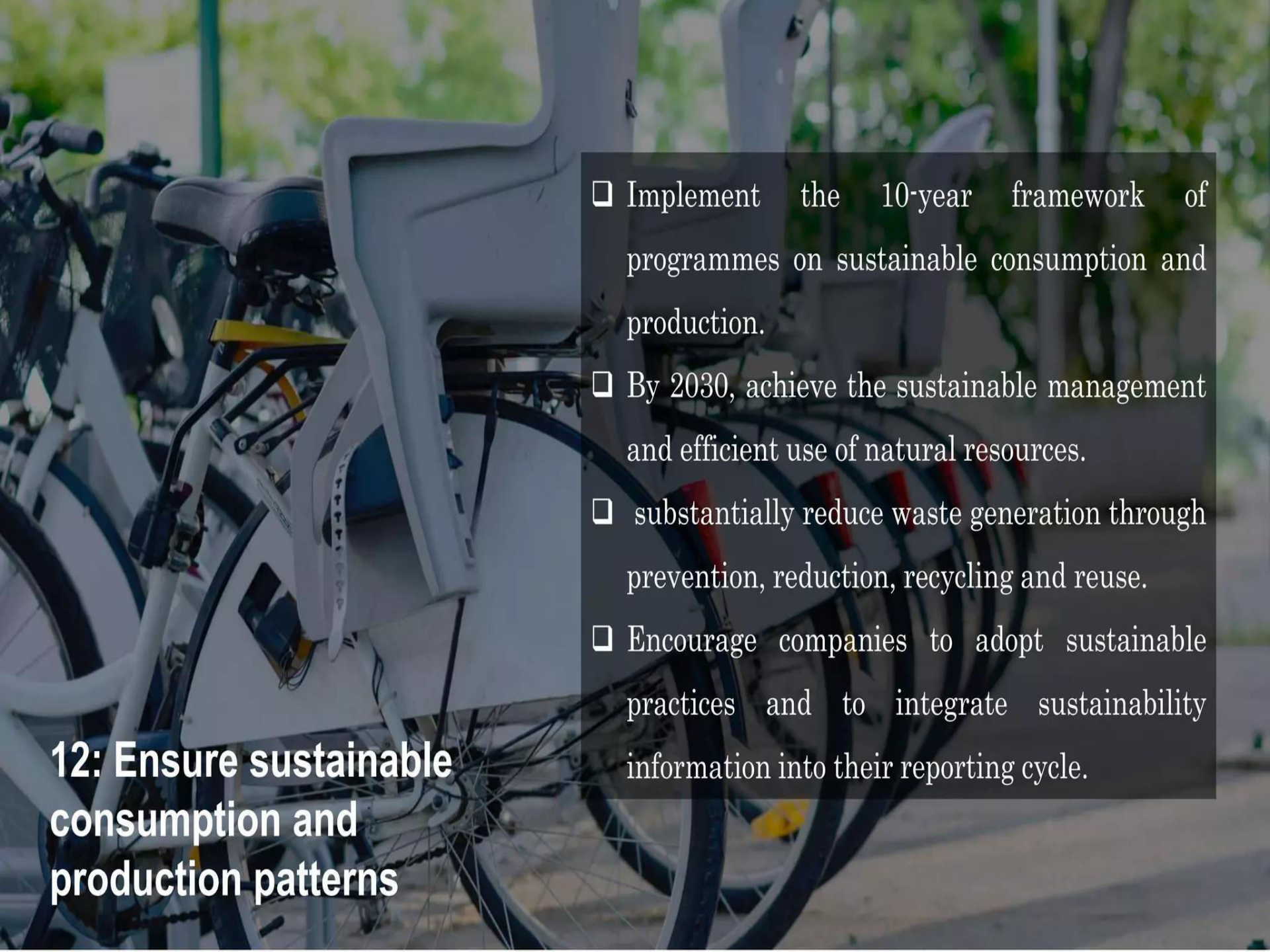
- Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
- Promote inclusive and sustainable industrialization.
- Increase the access of small-scale industrial and other enterprises, to financial services, including affordable credit, and their integration into value chains and markets

10: Reduce inequality within and among countries

- Empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
- Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.
- Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions.

11: Make cities inclusive, safe, resilient and sustainable

- Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
- Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.



12: Ensure sustainable consumption and production patterns

- Implement the 10-year framework of programmes on sustainable consumption and production.
- By 2030, achieve the sustainable management and efficient use of natural resources.
- substantially reduce waste generation through prevention, reduction, recycling and reuse.
- Encourage companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

13: Take urgent action to combat climate change and its impacts

- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- Integrate climate change measures into national policies, strategies and planning
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
- Promote mechanisms for raising capacity for effective climate change-related planning and management

14: Conserve and sustainably use the oceans, seas and marine resources

- By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including nutrient pollution.
- By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.
- By 2030, increase the economic benefits to Small Island States and least developed countries from the sustainable use of marine resources.

15: Life on land

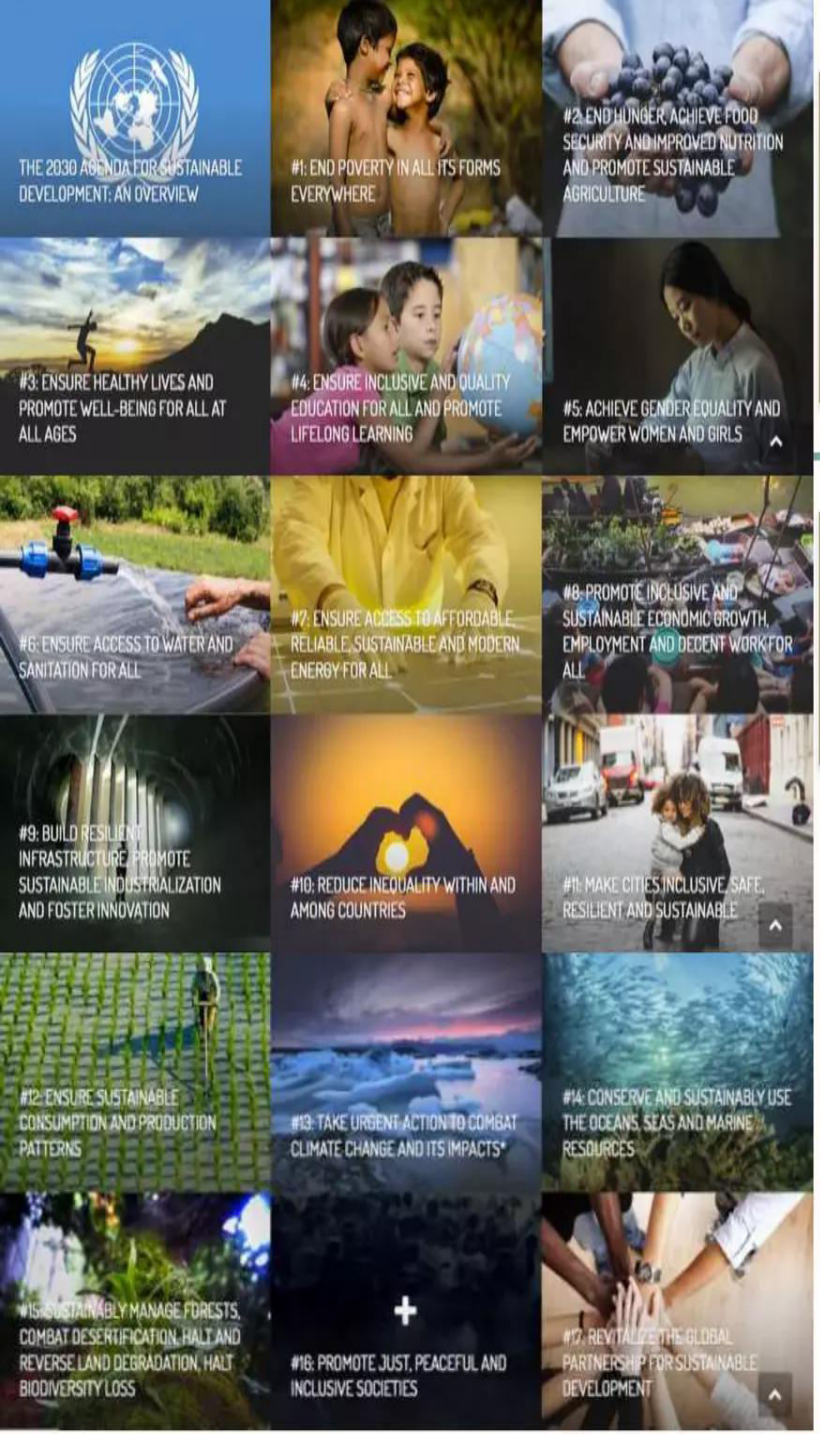
- By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands.
- By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
- Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

16: Promote just, peaceful and inclusive societies

- Significantly reduce all forms of violence and related death rates everywhere.
- End abuse, exploitation, trafficking and all forms of violence against and torture of children.
- Develop effective, accountable and transparent institutions at all levels.
- Ensure responsive, inclusive, participatory and representative decision-making at all

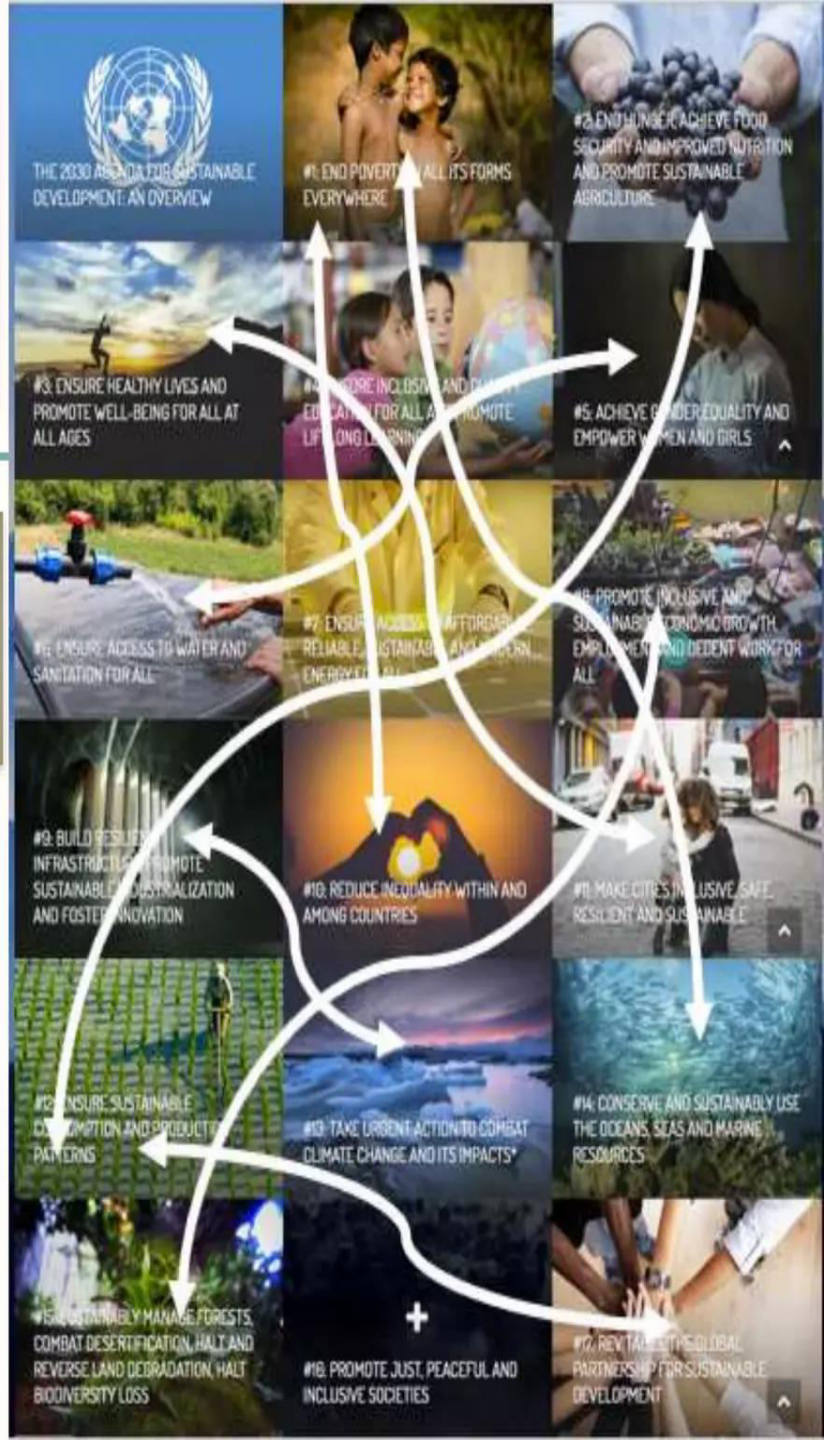
17: Revitalize the global partnership for sustainable development

- Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection.
- Mobilize additional financial resources for developing countries from multiple sources.
- Adopt and implement investment promotion regimes for least developed countries.



Each goal is important in itself

And they are all connected



Poverty Alleviation Approaches in Bangladesh

#PRSP

#MDG

#Targeted Approaches

#Conscientization

#RBA

#Safety net Program

Week: 10th & 11th
Slide: 130-143

Introduction:

Since 1996, Bangladesh started poverty reducing program. Since then Bangladesh government had been taken various progressive program and plan to alleviate poverty. Not only government ,but other institutions like NGO, World Institutions, WB, ADB, Foreign Country have been come to strengthen this program in Bangladesh. There are three types of approaches to poverty alleviation like Government approaches, NGO approaches, World's various institutions approaches.

Poverty Definition :

Poverty may be defined as a situation where the availability of the minimum amounts of the goods and services which are the basic necessities of life is not ensured.

World Bank Definition :

Poverty includes low incomes and the inability to acquire the basic goods and services necessary for survival with dignity. Poverty also encompasses low levels of health and education, poor access to clean water and sanitation, inadequate physical security, lack of voice, and insufficient capacity and opportunity to better one's life .

Poverty Alleviation programs in BD :

.

- Poverty Reduction Strategy Program(PRSP)
- Social safety Net programs in Bangladesh
- Cash transfers programs
- Special Poverty Alleviation Programs :
- Poverty Alleviation Program Under MDG:
- NGO'S Contribution to Reduce poverty in BD:
- Role Of World's other Organization to Poverty Alleviation Program in BD

Poverty Reduction Strategy Program(PRSP):

Under PRSP there are various social and economic program run in Bangladesh such as

- **Women's Advancement and Rights :**
- **Policy and legal framework:**
- **Productive employment:**
- **Enabling environment:**
- **Eliminating female health and education disparities:**
- **Priority to women in social protection programs:**
- **Addressing ethnic dimension of women:**

- **Addressing violence against women (VAW):**
- **Strengthening female participation in economic decision making**
- **Gender mainstreaming:**
- **Institutional strengthening:.**
- **Integrating gender issues in planning and budgetary processes:**

.

Major areas of intervention to PRSP:

- Rights of Indigenous Peoples
- Rights on land
- Empowering ethnic communities
- Human development programs
- Language and access to education
- Electrification and telecommunication
- Preferential access to social protection programs
- Rural development and non-farm economic activities
- Expansion of micro credit
- Development of tourism

The Government's Social Protection Programs under PRSP :

The Social Protection Programs address basic needs of the poor and vulnerable people, namely food, shelter, education and health. Among the primary government programs are:

- Food for Works (FFW),
- Vulnerable Group Development (VGD),
- Vulnerable Group Feeding (VGF),
- Open Market Sales (OMS),
- Cash for Work (CFW),
- Gratuitous Relief (GR)

Social safety Net programs in Bangladesh:

- Cash transfers programs
- Food transfers programs
- Special poverty alleviation programs
- Micro-credit programs for self employment

Cash transfers programs

- Old-Age Allowance programs
- Allowance for the Fully Retarded.
- Cash transfers programs for education.
- Primary Education stipend project (PESP); and
- Female Secondary School Assistance program.
- Rural Maintenance program(RMD)

Special Poverty Alleviation Programmes :

- Poverty Alleviation and Goat Development Project
- Providing incentives and financial assistance to poultry and livestock sector;
- Poverty Alleviation and Micro-credit Programmes undertaken by Department of Fisheries;
- Fund for Housing the Homeless;
- Programme for generating employment for the unemployed youth by the karmasangsthan Bank;
- Abashan (poverty Alleviation and Rehabilitation) Project.
- Fund for mitigating Risks due to Natural Disaster;
- Programme for mitigating Economic shocks; and
- Fund to meet sudden natural disaster.

Poverty Alleviation Program Under MDG:

- Bangladesh has set an ambitious goal to become a middle-income country by 2021. The Government of Bangladesh's Vision 2021 and the associated Perspective Plan 2010-2021 lay out a series of development targets.
- Among the core targets used to monitor the progress towards this objective is attaining a poverty head-count rate of 14 percent by 2021.
- This impressive trend in poverty reduction has helped Bangladesh achieve the Millennium Development Goal (MDG) on poverty two years ahead of schedule.
- The MDG stipulates that the proportion of people living in poverty that prevailed in 1990 (57 percent) must be reduced by at least one-half by the year 2015.

NGO'S Contribution to Reduce poverty in BD:

There are about 2553 registered NGO work in Bangladesh like Abalamban, BRAC ,Asha, Proshika, Jagoroni, Action Aid Bangladesh. They operate various program in Bangladesh especially into the remote site.

- **Education Program**:
- **Standard of living** :
- **Development of Agriculture:**
- **Socio-economic development :**
- **Uplifting Program :**
- **Development of Communication Facilities :**
- **Women Empowerment Projects**

Conclusion: The issue of poverty is closely related with overall growth and development of a country. Recently Bangladesh has been achieved an honorable status as middle income country. Our GDP growth is increasing every year. This is the result of various development program guided by Bangladesh Government and NGOs .

Metro Rail

A Dream Transport System

Week: 12th
Slide: 144-167

Introduction

Rapid transit or mass rapid transit (MRT), also known as heavy rail or metro, is a type of high-capacity public transport that is generally built in urban areas.

Dhaka Metro

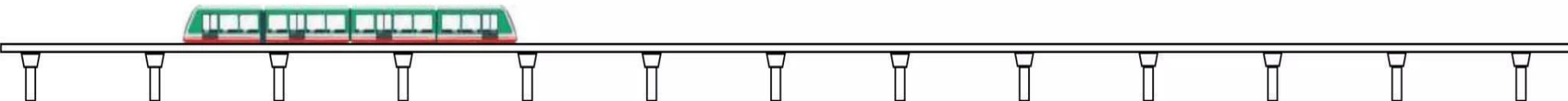
Native Name : Dhaka Metro Rail

Transit Type : Mass Rapid transit

Number of Station :17 (9 operational)

Opening date : 29 December 2022

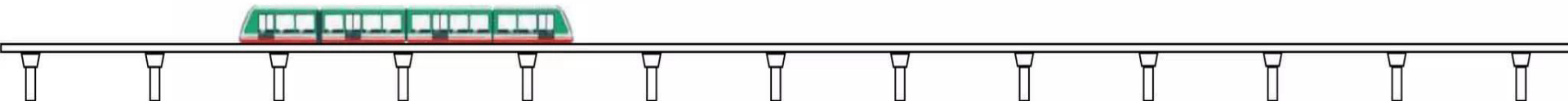
Number Of trains : 24



Project Cost

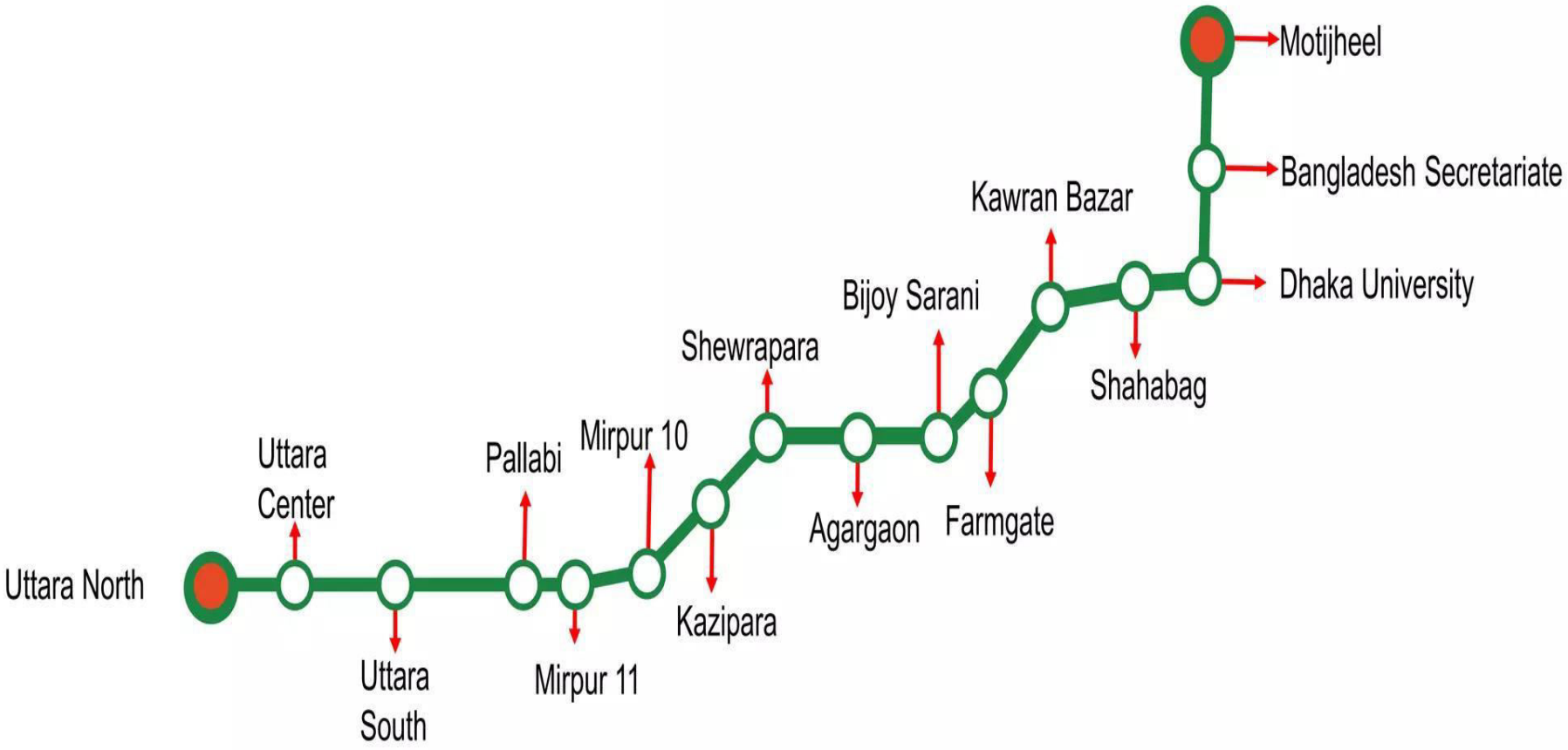
3,34,20,00,00,000

Total Project Cost



Metro Rail Route

MRT Line - 6



Why metro is Needed For Dhaka

- Minimum Road Requirement for a city is 25%,here Dhaka has only 7.5 % road on good condition.
- Large Number of trucks and buses.
- Thousands of outnumbers rickshaw.
- Insufficient Walkway.
- Not enough Space for build idle roads.
- Most common problem is increasing population.

Direct Economic Impact

1. Revenue from Ticket Sales

- Generate 6.2 crore revenue in first 3 month.
- Per KM fare 5 tk.
- Expected passenger 60000 per hour(when fully operational)

Direct Economic Impact

2. Job Creation and Economic Growth

- Create Jobs for 12000 engineers.
- Increasing GDP
- Create new business outside of the station.

Direct Economic Impact

3. Increased Transportation Efficiency

- Provide Faster Service
- Most Efficient mode of transport
- Improve accessibility
- Increase productivity

Indirect Economic Impact

1. Reduced Traffic Congestion

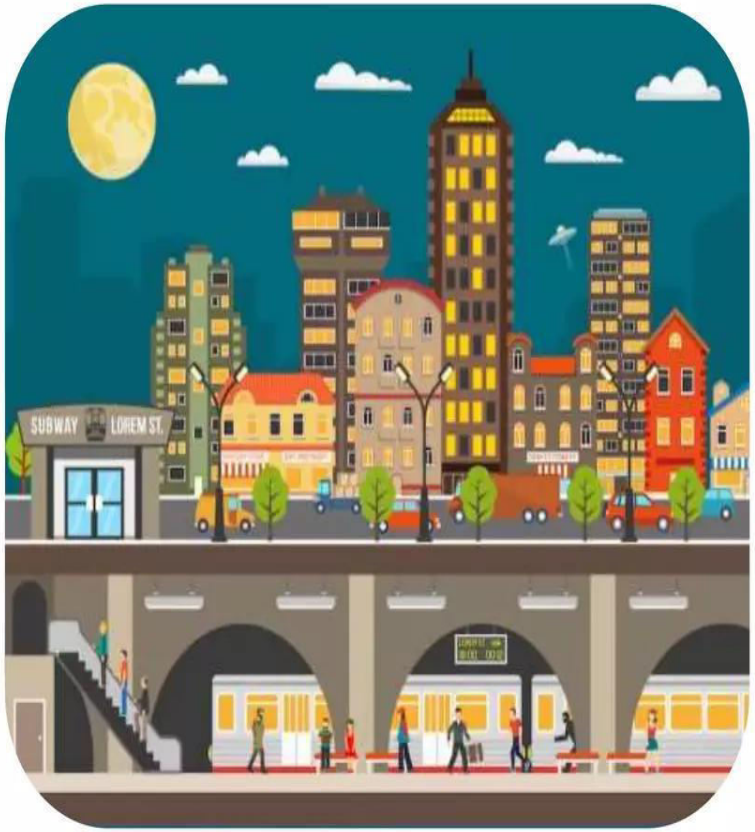
- Provide an alternative mode of transportation
- It has reduced the number of private vehicles on the road

Indirect Economic Impact

2. New housing hubs

- The MRT-6 centers Mirpur 11, 12, Pallabi, Diabari (Uttara 15, 16, 17 and 18 Sectors), Panchabati, Uttara West Avenue and Birulia.

- Various real estate and housing companies have started work on hundreds of new housing projects in these areas.



indirect Economic Impact

3. Tourism and Visitor Spending

- Metro rail systems can facilitate tourism by providing convenient transportation options for visitors.

- This can boost the local tourism industry and attract foreign tourist.

Indirect Economic Impact

4. Environmental Sustainability

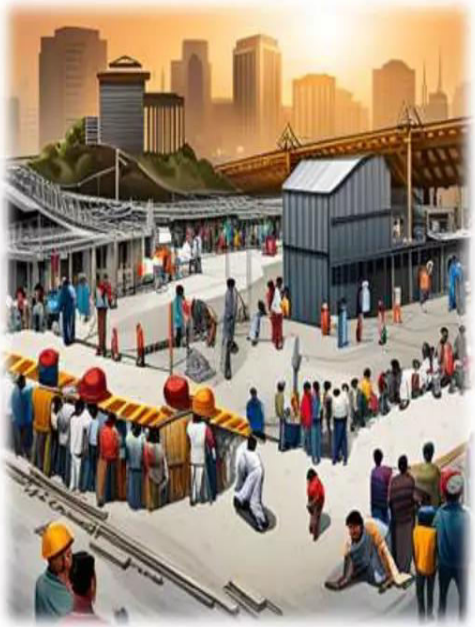
- Reduces greenhouse gas emissions compared to traditional vehicles.

- Eco Friendly Transport.

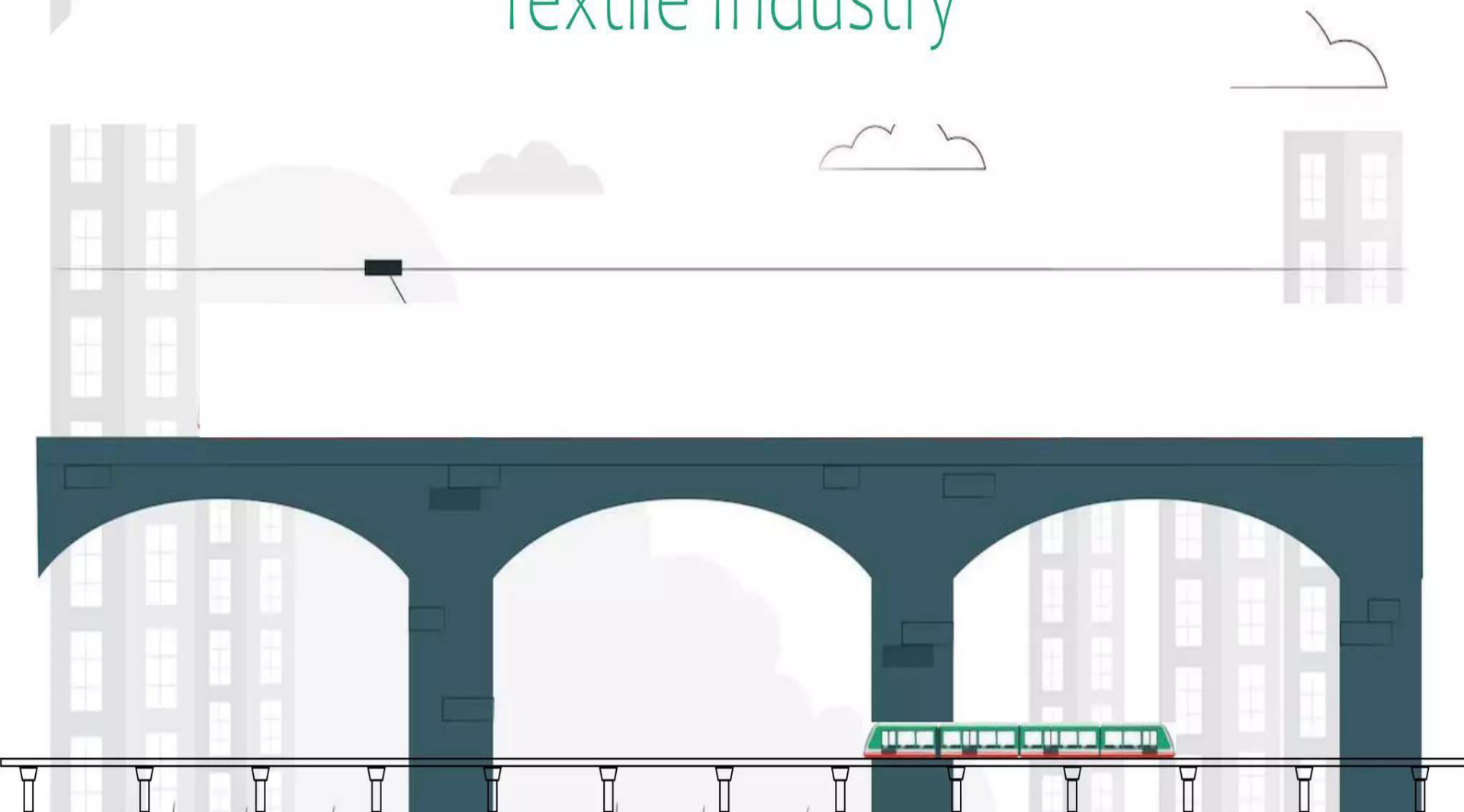
Challenges of the Textile Industry

Related to transportation

- Traffic jam
- Logistics and Supply Chain Management
- Global Trade and Customs Regulations
- Transportation Costs
- Infrastructure Limitations
- Sustainability and Environmental Concerns



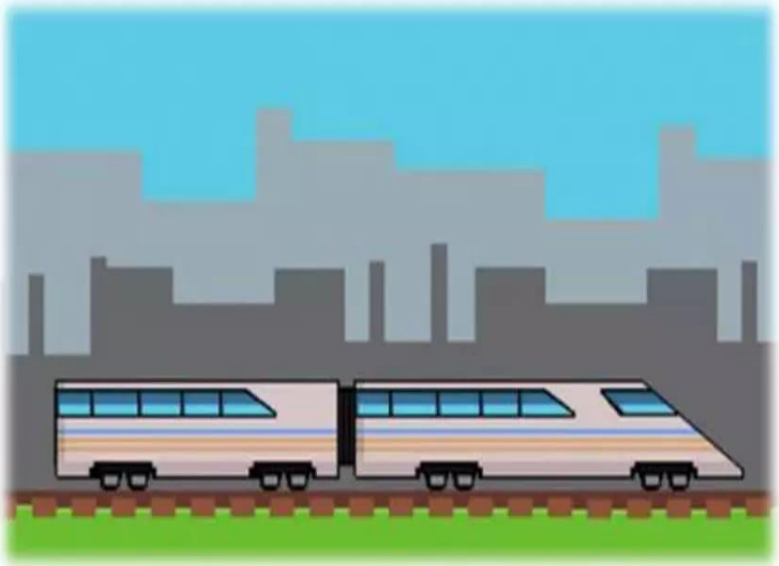
Advantages of Metro Rail In Textile Industry



Advantages of Metro Rail

1. **Efficient Transportation**

2. **Reduced Delivery Time**



Advantages of Metro Rail

3. Enhanced Connectivity

4. Increased Productivity

Advantages of Metro Rail

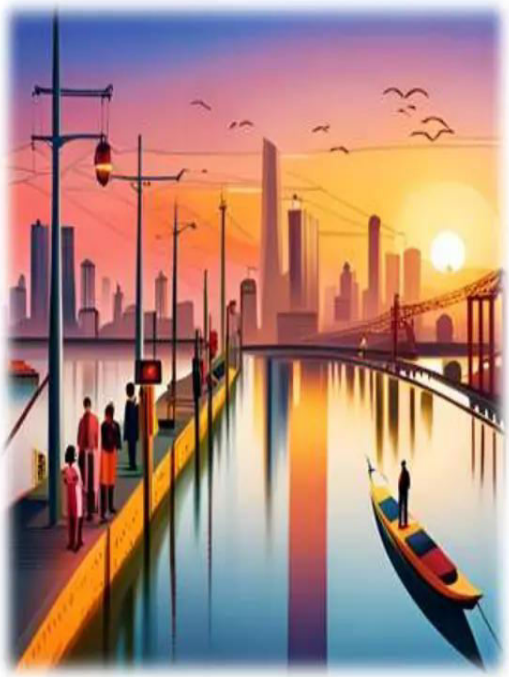
5. Skilled Workforce Accessibility

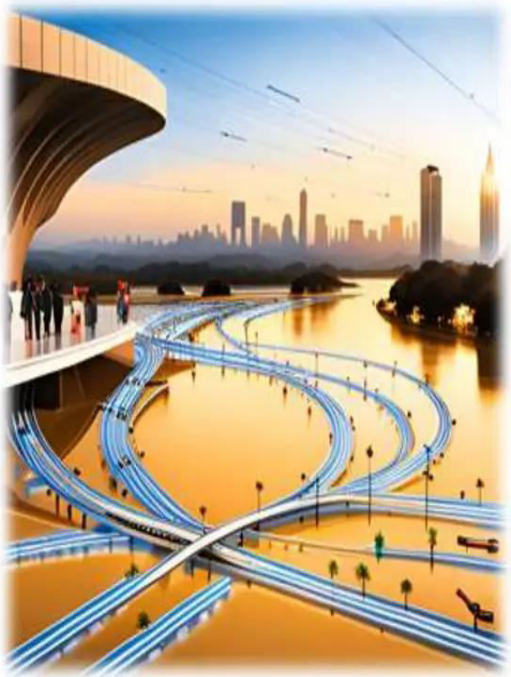
6. Cost Savings

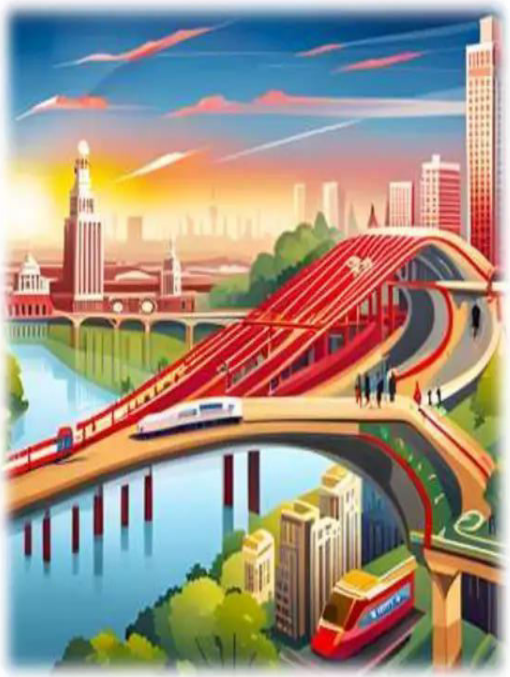
Advantages of Metro Rail

7. Reduced Traffic Congestion

8. Environmental Sustainability



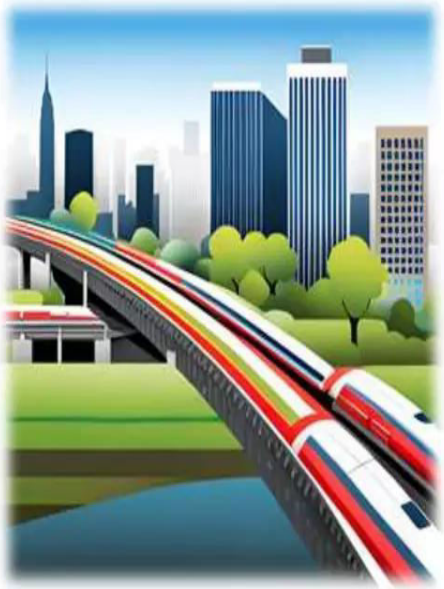




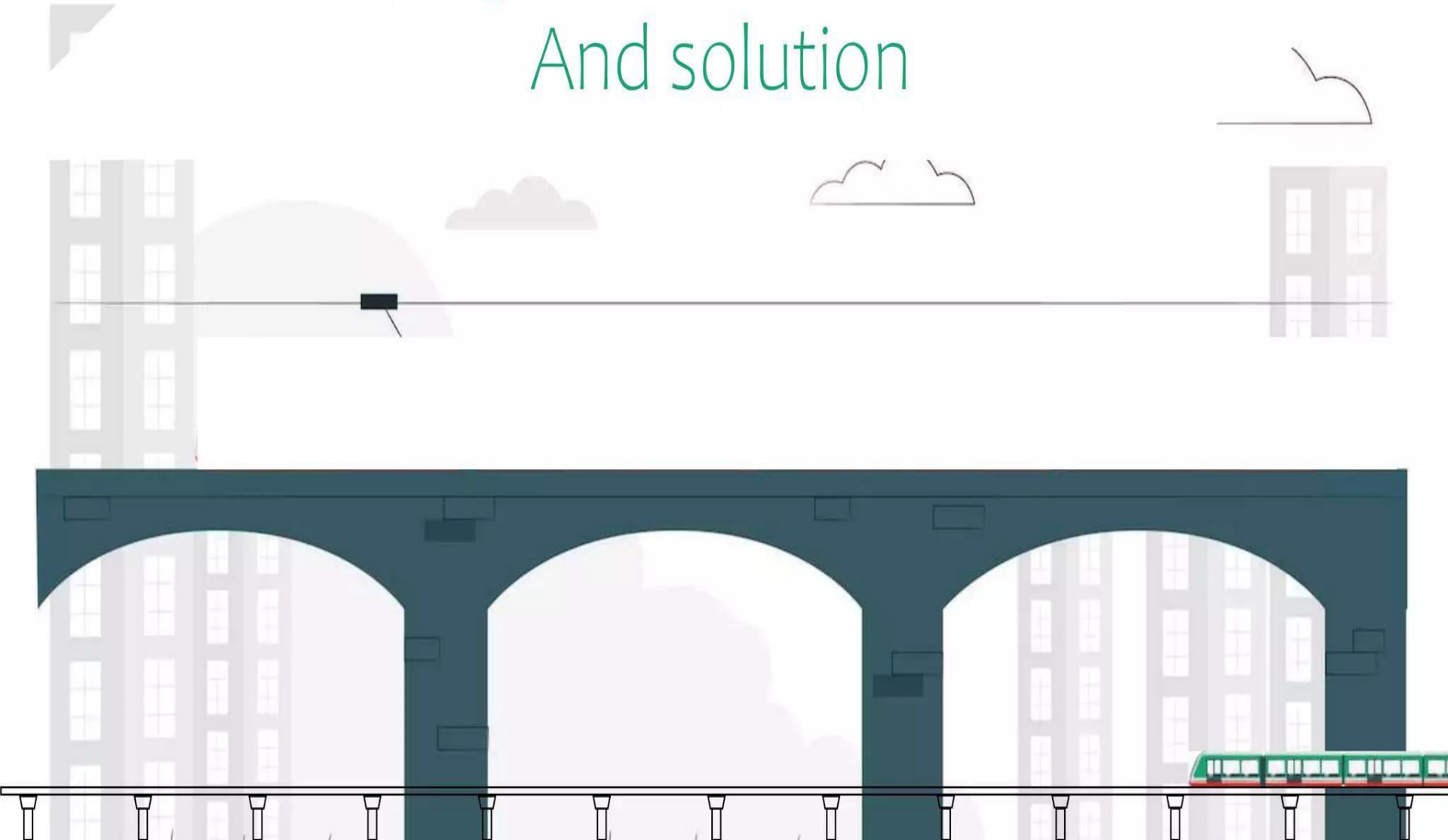
Advantages of Metro Rail

9. Infrastructure Development

10. Future-Proofing the Industry



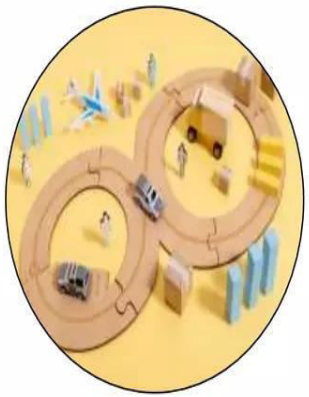
Challenges Faced by metro rail And solution



Challenges Faced by metro rail and solution

High Initial Investment Cost.

Construction disruptions and inconveniences



Integration with existing transport systems

Challenges Faced by metro rail and solution

Public awareness and acceptance

Technical expertise and capacity building

Operational efficiency and maintenance

Conclusion

Any Development of a country is not possible without the development of transport sector. Although it needs a huge amount of money ,Bangladesh govt has taken truly an impressive Stape.it ill increase the productivity level of the country and save the valuable time of the people.

PADMA BRIDGE PROJECT

Week: 13th

Slide: 168-182

Introduction

- Padma Bridge is one of the most challenging projects in the world. We are constructing the Bridge on the second largest river flow in the world. The installation of the first span of Padma Bridge is being celebrated in Mawa of Munshiganj, Shibchar of Madaripur and Janjira of Shariatpur.
- Construction of the bridge continues round the clock on the banks of the eponymous river near the 3 districts.
- Bangladesh army is supervising construction of the largest bridge in Bangladesh. According to the project schedule, the bridge is expected to be open to traffic by the end of 2018.
- People are always interested in more insight about the much hyped project.
- For the more curious, here is the Padma Multipurpose Bridge Project at glance

Padma Bridge and Corruption

- It is a sad state of affairs when an entire nation has to suffer for the actions of just a few. The World Bank has claimed to have found credible evidence of a high-level corruption conspiracy among selected government officials involved in the Padma Bridge project. The cancellation of the $1.2 billion credit for the Padma Bridge project will have an adverse effect on the Bangladesh economy for years to come. It will also make it difficult for the current government to begin what it thought would be one of its signature achievements. The government will look for alternative sources of funding for the Padma Bridge.

General Informatio

- Main Bridge (6.15 km long)
- River Training Works(14 km length)
- Janjira Approach Road & Selected Bridge End Facilities (10.5 km length)
- Mawa Approach Road & Selected Bridge End Facilities (1.5 km length)
- Land Acquisition: About 1408.54 hectre Padma River is approximately 100 Km long.
- Third largest river in the world (discharge 150,000m3 /s, average sediment freight: 1 Billon tons/year).
- Padma Bridge located 35km south- west of Dhaka.
- Padma River is approximately 100 Km long.

Financing

- Padma bridge project cost is estimated to be US$3.00 billion. The Padma Multipurpose Bridge (PMB) project was designed to be funded by donors such as the World Bank, Japan International Cooperation Agency (JICA), Asian Development Bank (ADB) and Islamic Development Bank(IDB). After a scandal of alleged corruption by some people associated with project preparation the World Bank withdrew its commitment and other donors followed. The project is now being funded from own resources of Government of Bangladesh

- After the decision of Bangladesh Govt. that we will construct the bridge by own fund.
- China proposed building the bridge on the build-own- transfer (BOT) basis by investing $2 billion or 70 percent of the project cost.
- Four companies - China Major Bridge Engineering Company, Daelim-L&T JV and Samsung C&T Corporation - purchased the tender papers. But only the Chinese company submitted their financial proposal on 24 April 2014.
- The state-owned company has constructed structures like the famous 36 km Hangzhou Bay Bridge, the longest sea- crossing bridge in the world.

Inauguration of Padma Bridge

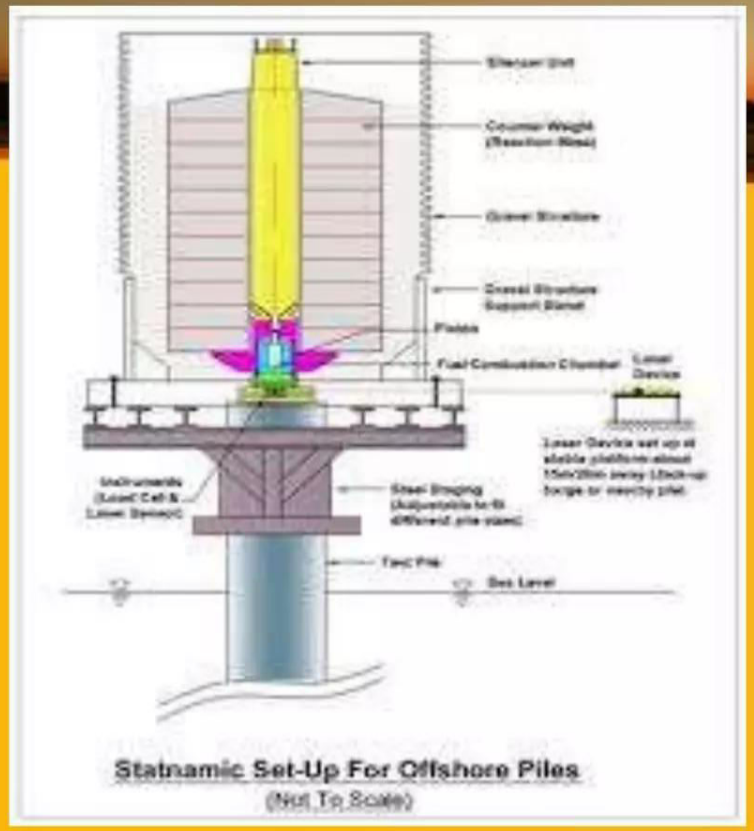
PM Sheikh Hasina inaugurated Padma bridge in 2016

Bridge structure:

At 6.15 km in length, Padma Bridge will be a landmark structure with multipurpose road-rail bridge. The things also include-

- 760mm dia gas transmission line.
- 150mm dia fiber optical and telephone duct.
- 7nos high voltage electric line

Bridge Details



Span

Total span of 41nos of land word and 40 center pier.

Total span will be 150m each with steel

Pile

Racked tabular driven of 6nos in each, with the diameter of 3m and length of 128m.total pile will be 240nos

Deck

Upper will be 22m wide concrete and the lower will be for the single track dual rail

Total height is 13.6m

Via duct

Mawa north bank = 1478.03m

Janijra south bank = 42 span, 1670.03m

total road 81span; total length = 3148.06

Rail-via duct

Mawa & Janjira end 14span with 532m

Cost of Padma Bridge

Padma bridge is the most challenging construction project in the history of Bangladesh.

The construction started in 7december 2014 and will be end in December 2020.

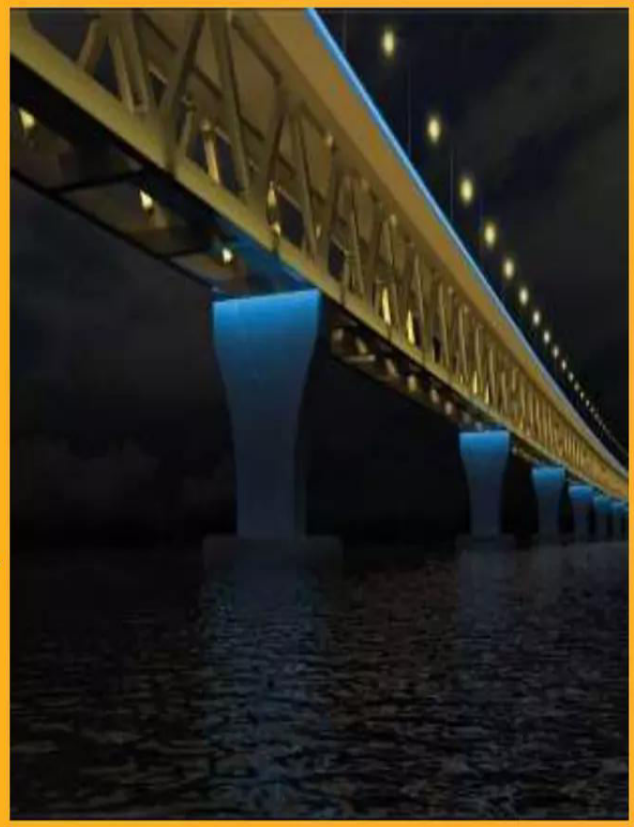
- The construction cost is 50973.39 cr.
- With TK 1,400cr latest increase, total cost will be TK 30,193cr.
- 2018 with a total estimated cost of around TK 288 billion.

Advantages of Padma Bridge

We are very glad to see the recent progress of the Padma bridge project.

We are very glad to see the recent progress of Padma Bridge project.

- It will be the best communication way.
- We will be the greatly benefited from reduced travel time.
- It will be the best way for export import business.
- The bridge will connect the two sea ports of the country.
- The bridge will reduce poverty and growth development.
- It reduces the unemployment problem also.
- Within short time we can reach Khulna-Dhaka/Dhaka-Khulna.
- It reduces the Traffic of Mawa Ghat.



Impacts of PMBDP

(Padma Multipurpose Bridge Development Project)

❖ Number of households affected

Types of Loss	Affected Households (AHs)
Agriculture land	6072
Structures (which include homestead, Commercial establishment and others)	1542
Total Affected Households (AHs)	**7614**
Indirect impacts (Wage earners and others belonging to the AHs losing structures)	1007
Community owned structures including PCRs	27
Bus Counters (of transport owners/associations)	10
Grand Total	**8658**

Source: ADB PPTA LARP 2006 & BIDS Census Survey Jul-Aug 2009 and Feb 2010

❖ Distribution of Affected Land by Components

Components of Main bridge	Munshiganj	Shariatpur	Madaripur	Total
Road and rail viaduct	5.46	9.12		14.58
Railway approach	6.44	20.18		26.62
Approach road	18.90	49.63	66.34	134.87
Service Area	27.03	146.76		173.79
Toll Plaza	17.50	4.78	6.60	28.88
Total	75.33	230.47	72.94	378.74

Source: BBA LA Plan 2006 and DDC, Additional LA Plan, 4 Feb 2010

ADP - Asian Development Bank
BBA – Bangladesh Bridge Authority
LA RP – Land Acquisition & Resettlement Plan
LA – Land Acquisition
PPTA – Project Preparatory Technical Assistance
BIDS - Bangladesh Institute of Development Studies

❖ Extent of Income Impacts from loss of Agricultural land

Level of impact on income (% of total income loss)	Number of Affected Households				
	Madaripur	Shariatpur	Munshiganj	Total	
	No.	No.	No.	No.	%
0-10	1532	1951	920	4403	73.0
10.01-20	296	390	52	738	12.0
20.01-30	106	152	16	274	5.0
30.01-40	35	63	9	107	2.0
40.01-50.0	33	33	3	69	1.0
More than 50	88	49	13	150	2.0
Data not available	50	252	29	331	5.0
Total (In Number)	**2140**	**2890**	**1042**	**6072**	**100.00**
(in %age)	**35.24**	**47.60**	**17.16**	**100.00**	-

Source: ADB PPTA of Padma Multipurpose Bridge Project, 2006

❖ District wise Project Impact on Wage Earners

S.No.	Category of wage earners	No. of wage earners affected by district			Total
		Munshiganj	Shariatpr	Madaripur	
1	Farm labor (unskilled)	105	307	64	476
2	Non-farm labor (unskilled)	46	53	220	319
3	Skilled non-farm labor	22	118	72	212
	Total	**173**	**478**	**356**	**1007**

Source BIDS Census Survey, July-Aug 2009 & Feb 2010

ADB - Asian Development Bank PPTA – Project Preparatory Technical Assistance

BIDS - Bangladesh Institute of Development Studies

District wise Impact on Structures

Name of District	Private Assets								Community-owned assets including PCR		Total	
	Residential Structures		Residential cum Commercial Enterprise		Commercial Enterprise (CE)		Others Structures (OS)					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Madaripur	225	17.83	9	15.25	16	7.84	4	14.81	6	22.22	260	16.47
Shariatpur	517	40.97	15	25.42	16	7.84	19	70.37	7	25.93	574	36.35
Munshiganj	520	41.20	35	59.32	172	84.31	4	14.81	14	51.85	745	47.18
Total	1262	100	59	100	204	100	27	100	27	100	1579	100
%	79.92		3.74		12.92		0.17		0.17		100	

Source: BIDS Census Survey, July-Aug 2009 & Feb 2010

Padma Bridge to push Economy Up

- GDP up by 1.2 per cent and create employment opportunities for 50 million people
- land prices in the surrounding areas, private entrepreneurs are planning to set up industrial units, especially export-based apparel industries
- on the saving VOC and TTC Total road user benefit is estimated to be about million 1,295,840 taka over the 31 year period.
- total project benefits per year is then 1.26 percent relative to the base national income
- **“Padma bridge cost to rise again”.**
- January 2016, total project cost was Tk 28,793 crore ➡ Tk 30,193 crore.(June 06, 2018)

Environmental Impact

Developing Area

- Trees loss
- Crops
- Traffic congestion
- Noise pollution
- Over crowed
- Natural cycles of animals and reduces their usable habitat.

River

- Loss of fish breeding area
- River Drift change
- Construction dust
- River bank
- River desolation

ROOPPUR NUCLEAR POWER PLANT

Week: 14th

Slide: 183-202

Outline

- Introduction
- Nuclear Power Plant
- History of Nuclear Power Plant
- Importance of Nuclear Power Plant in Bangladesh
- Rooppur Nuclear Power Plant At a Glance
- Safety Standard for RNPP
- Technical Features
- Safety Barries
- Radiation Safety
- Pros and Cons
- Recent Photograps
- Conclusion

Introduction

- The nuclear power plant (NPP) has been contributing a significant proportion to the world's electricity supply.
- Sixteen countries depend on nuclear power for at least a quarter of their electricity.
- November 2016, 30 countries worldwide are operating 450 nuclear power plant.
- Presently, 60 more reactors are under construction in 15 countries.
- According to the World Nuclear Association, over 45 countries around the globe are giving "serious consideration" to introducing a nuclear power capability.
- Bangladesh has given the utmost priority on nuclear power plant.

Nuclear Power Plant

- A **nuclear power plant** (nuclear power station) looks like a standard thermal power station with one exception.
- The heat source in the nuclear power plant is a nuclear reactor.
- As is typical in all conventional thermal power stations the heat is used to generate steam which drives a steam turbine connected to a generator which produces electricity.

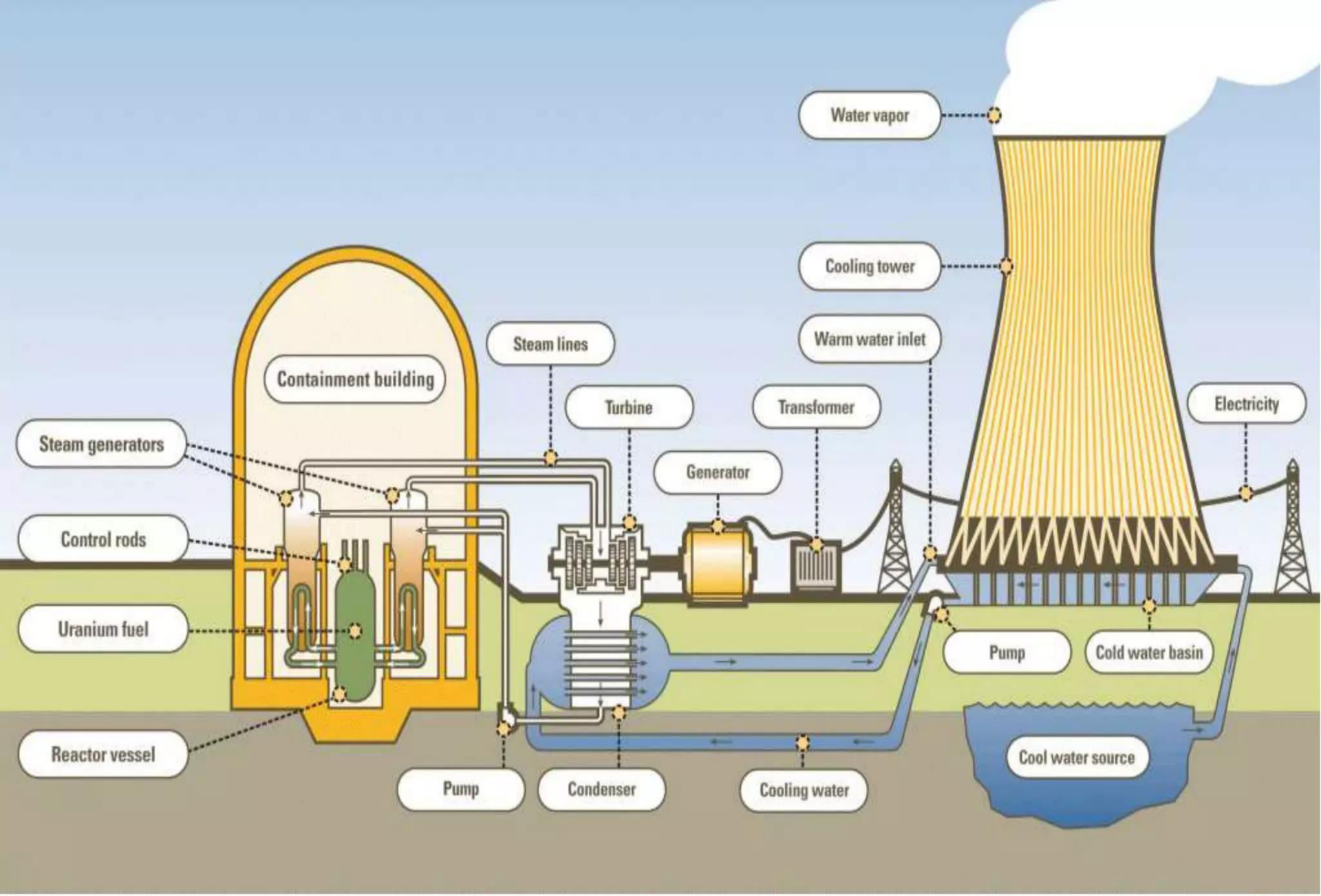


Fig 1: Main features of nuclear power plants with PWR-type (Pressurized Water Reactor) reactor.

History Of NPP

- First Electricity Production:20 December, 1951 in Arco, Idaho, USA.
- First Commercial Use: June 26, 1954 at Obninsk, Russia.
- Present Scenario:442 nuclear power plant units in 31 countries produce electricity about 384 GW.
- Under Construction:66 plants with a capacity of 65 GW are in 16 countries.

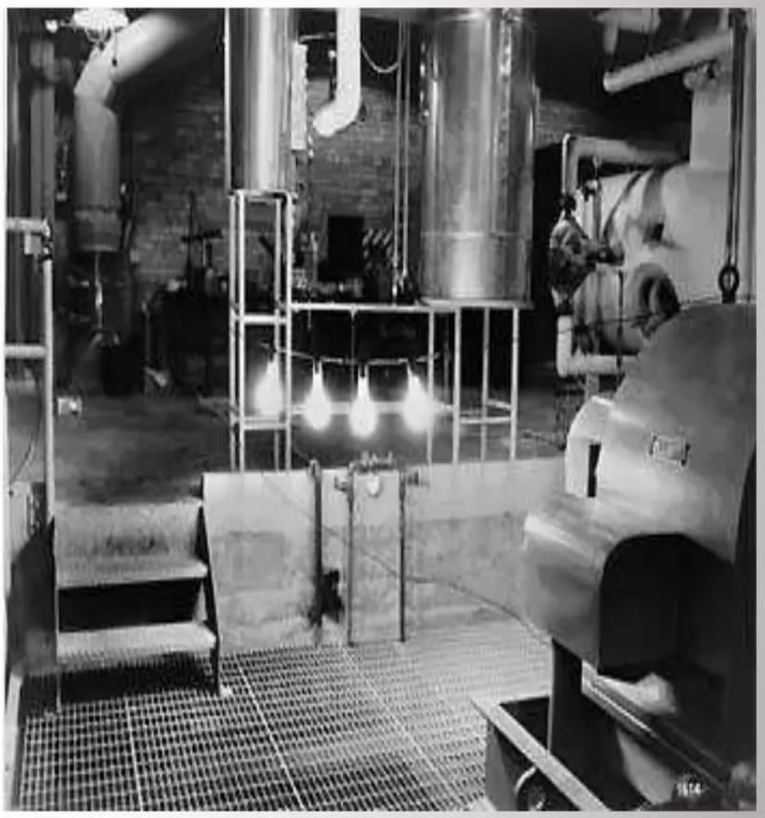


Fig 2: First Electricity production by Nuclear Energy.

Importance of Nuclear Power Plant in Bangladesh

- Rapidly increasing electricity demand
- Need huge amount of electrical energy
- Require alternative fuel

Fiscal Year	Peak Demand (MW)
2015	10,283
2016	11, 405
2017	12,644
2018	14,014
2019	15,527
2020	17,304
2021	18,338
2022	20, 443

Table 1: Power System Master Plan (PSMP) demand forecast

Rooppur Nuclear Power Plant

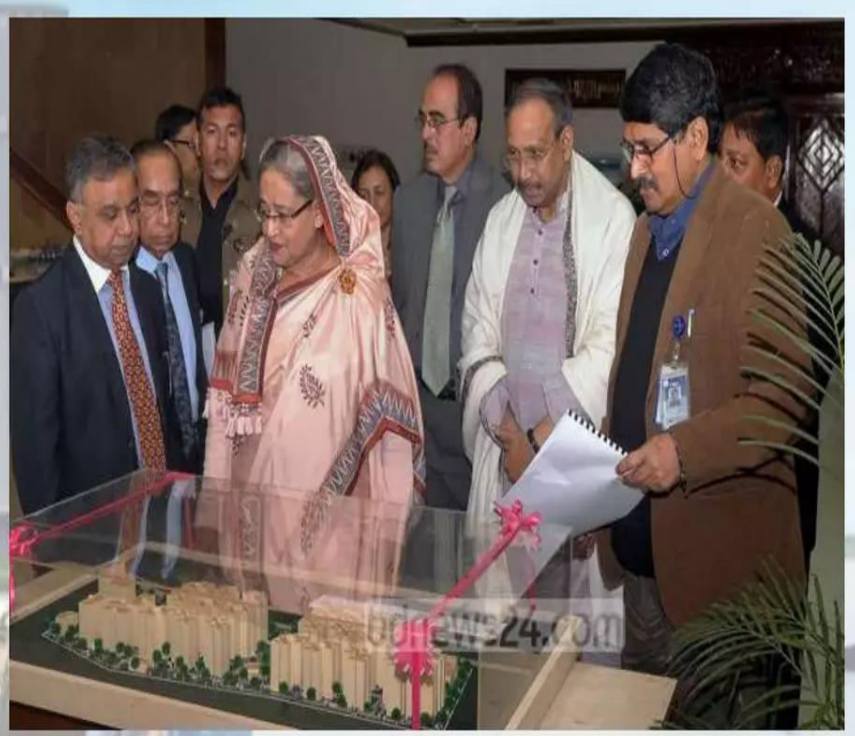
- In 1961, first proposed to build a nuclear power plant.
- Accordingly that year Govt. acquired 253.90 acre of land in Ruppur in Pabna district.
- In 1963, the plant was approved.

Cont.....

- After the independence in1974 Bangladesh Govt. started discussion with Russia, which was not successful.
- Finally, in February 2011,Bangladesh got an agreement with Russia to build RNPP.
- The inter-govt. agreement (IGA)was officially signed on 2November 2011.

Cont....

- Prime Minister of Bangladesh (Sheikh Hasina) laying the foundation stone of Bangladesh's first nuclear power plant on 2October 2013.
- Bangladesh commenced construction of its first nuclear power reactor, Rooppur 1, in November 2017.
- Roppur 1 is the first of two large Russian nuclear power reactors to be built at the site, and is scheduled to be commissioned in 2023.



RNPP At a Glance

- Location: Rooppur, Pakseyunion, Ishwardiupazila, Pabnadistrict.
- Capacity:2400 MW (2 units, 1200 MW each).
- Fuel: 235 Uranium Dioxide.
- Constructed by: State Atomic Energy Corporation, Rosatom, Russia.

Cont....

- Cost of the Project: $12.65 billion
  Russia: $11.385 (90%)
  BD : $1.265 (10%)
- Opening: Targeted Launch of 1st unit
  in year 2022 and 2nd in year 2023.
- Longevity: 60 years and extend to another 20 years.

Planned Nuclear Power Reactor:

Reactor	Model	Gross MWe	Construction start	Commercial operation
Rooppur 1	VVER-1200/V-523	1200 MWe	November 2017	2023 or 2024
Rooppur 2	VVER-1200/V-523	1200 MWe	2018	2024 or 2025

Technical Features

- The main feature of Rooppur NPP is its simple design.
- Each reactor unit comprises a reactor and four circulation loops, each of which includes circulation pipelines, reactor coolant pump and horizontal steam generator.
- One of the main advantages of Rooppur NPP is the increased service life of main equipment to 60 years without necessity of its replacement.
- The turbine plant major equipment also have a service life of 50 years.

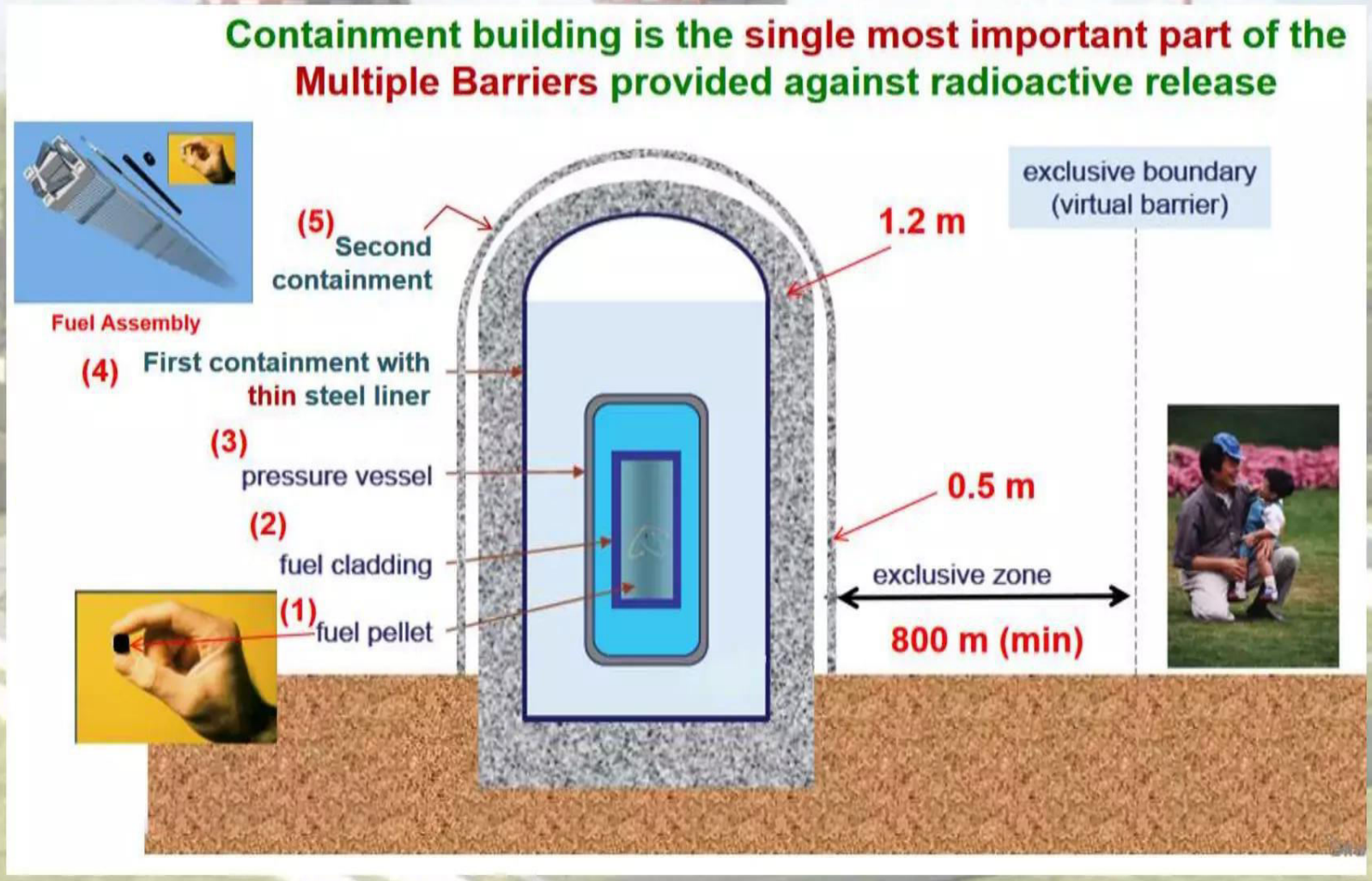
Cont....

Some of the key technical characteristics NPP are listed in Table:

Parameter	Value
Reactor nominal thermal power	3200 MW
Maximum Utilization Factor	Over 90%
Operation mode	Base load
Service life of irreplaceable equipment of Reactor Plant main equipment	At least 60 years
Maximum linear heat flux	420 W/cm
Time of fuel operation (cycle) in reactor	4 to 5 years
Period between refueling	12 months

Table 2: Technical Characteristics of Rooppur NPP reactor Unit 1 and Unit 2

Five Layers of Safety Barriers



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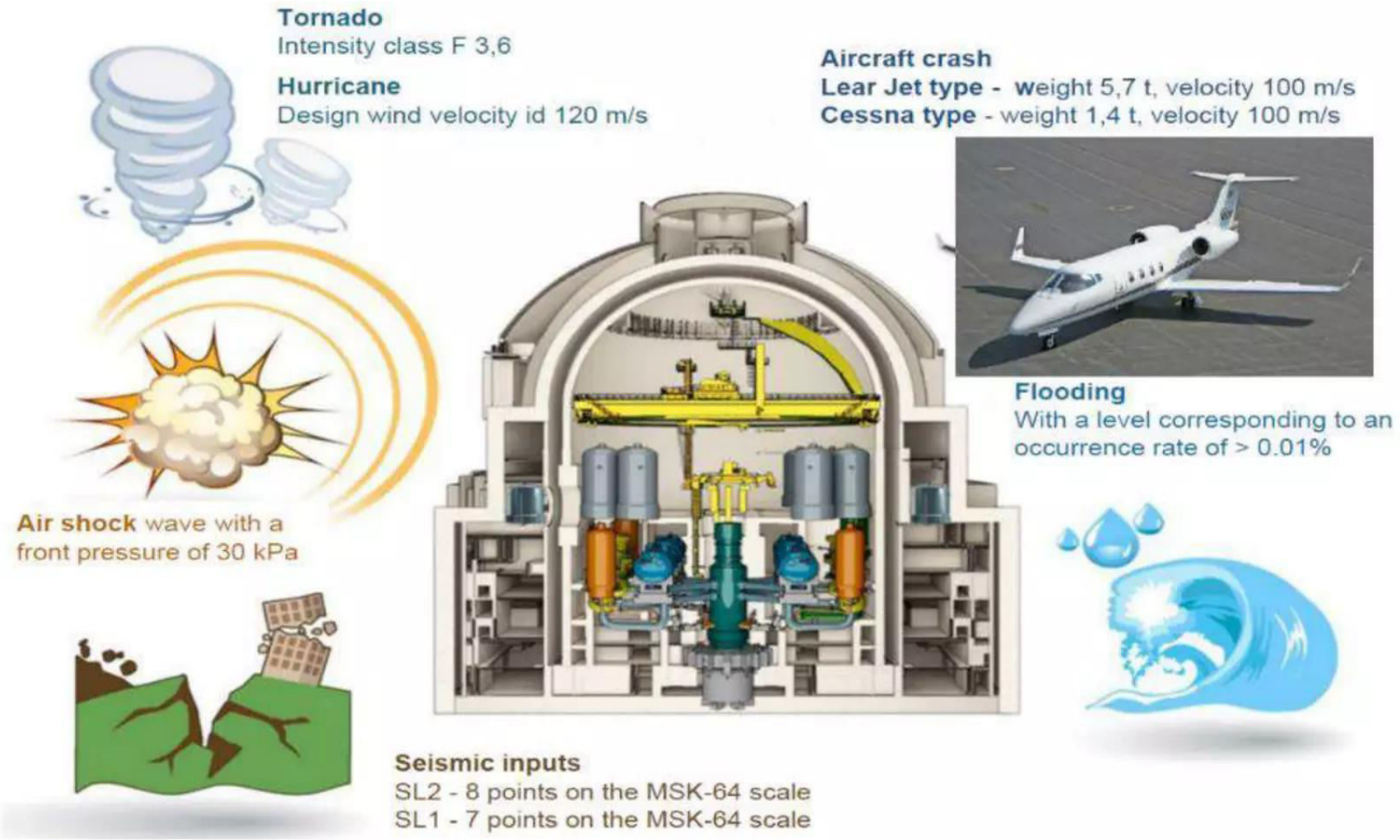
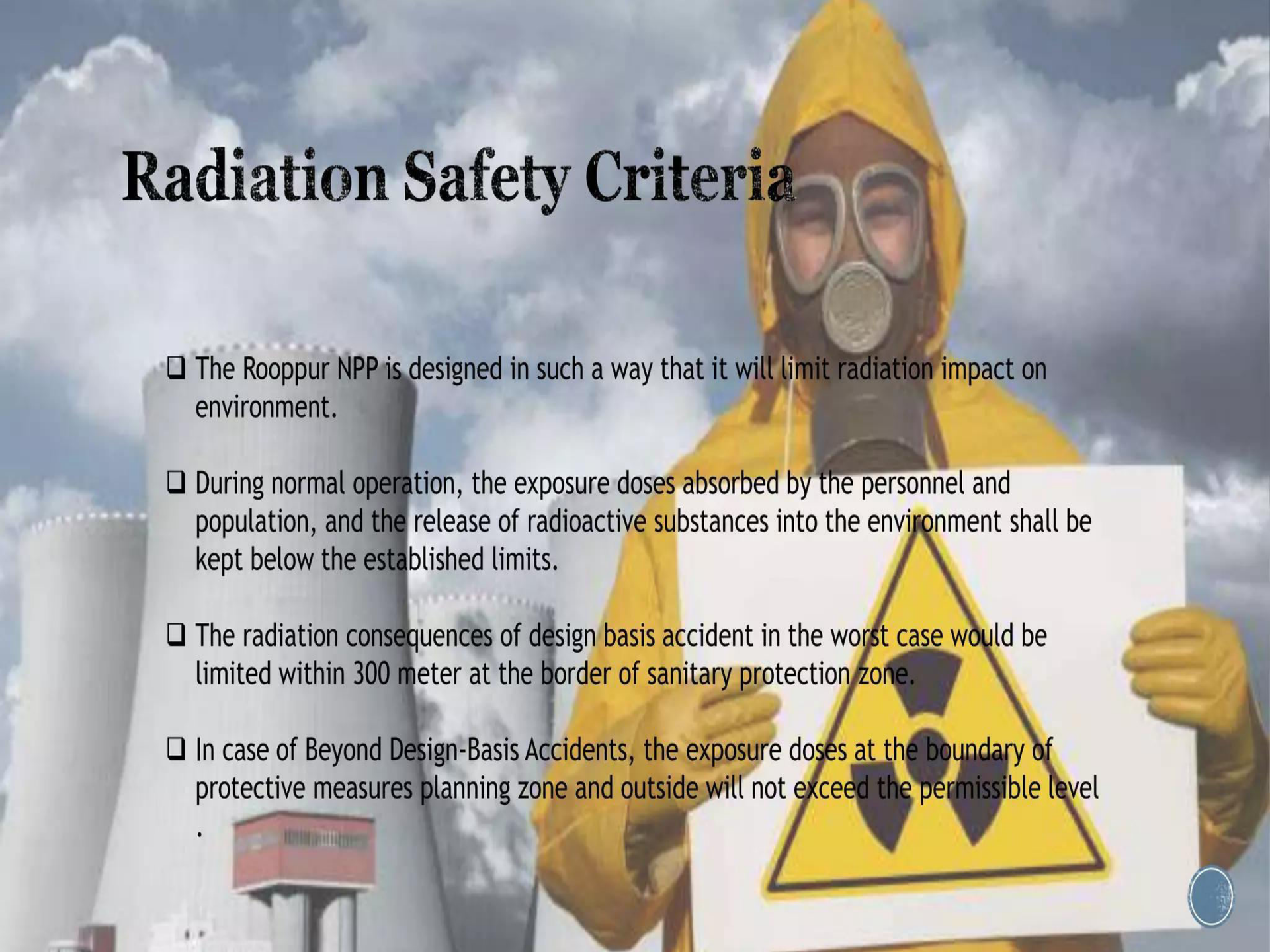


Fig 3: Site specific design parameters for natural and man-made impacts are shown

Techno Economic Features

Parameters	Value
Assigned service life: - power unit - reactor plant	50 years 60 years
Installed (nominal) capacity - Gross electrical power generation capacity at generator terminal	Not less than 1150 MWe
Electric power consumption for plant auxiliaries under the design conditions, % of the power unit nominal electrical capacity	Not more than 10%
Net electric power measured on the HV side of the 400 kV transformer output lines at nominal conditions	Not less than 1030 MW
Utilization factor	Minimum 92%
Number of industrial production personnel (specific), men/MW	0.82
Annual generation of electrical energy at full utilization	Over 16 billion unit
Levelized Cost of Electricity (LCOE)	56.73 (USD/MWh)

Radiation Safety Criteria

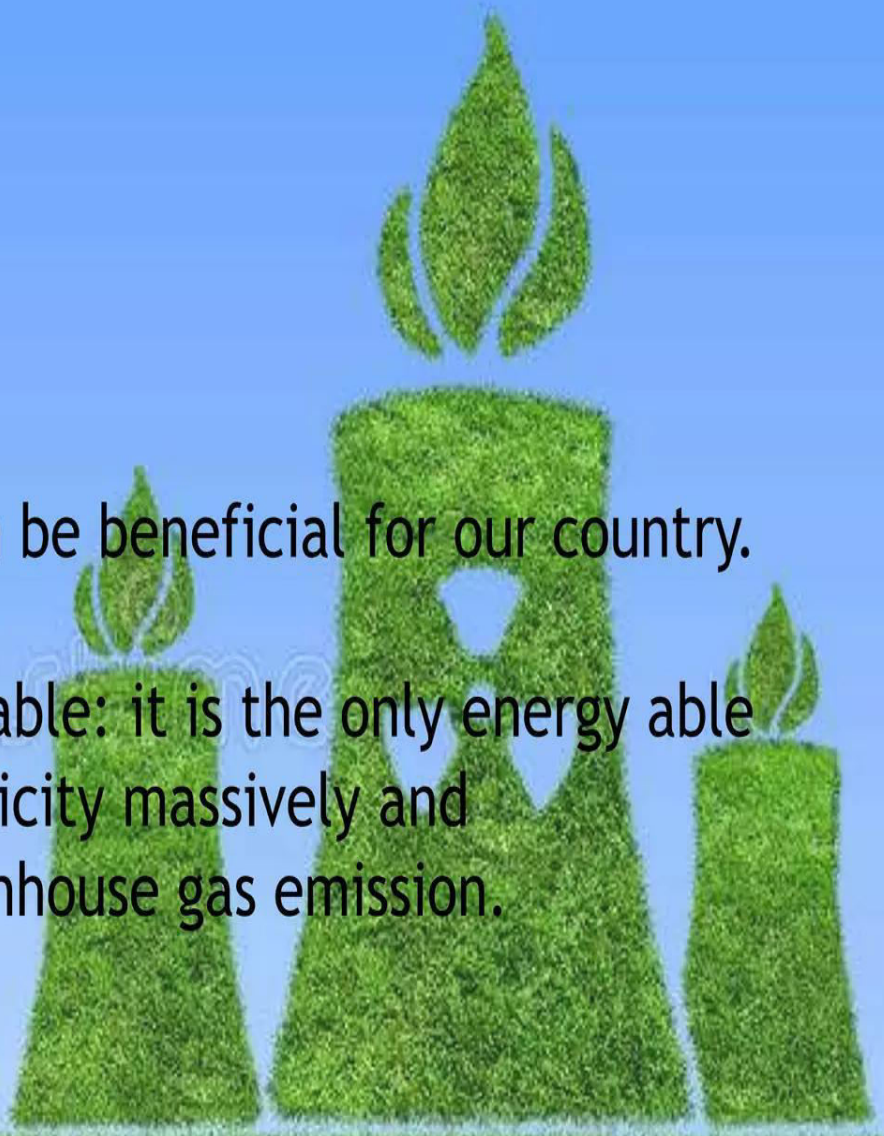


- The Rooppur NPP is designed in such a way that it will limit radiation impact on environment.
- During normal operation, the exposure doses absorbed by the personnel and population, and the release of radioactive substances into the environment shall be kept below the established limits.
- The radiation consequences of design basis accident in the worst case would be limited within 300 meter at the border of sanitary protection zone.
- In case of Beyond Design-Basis Accidents, the exposure doses at the boundary of protective measures planning zone and outside will not exceed the permissible level .

Pros and Cons

Pros	Cons
Fuel required is quite small	Fuel is expensive
Nuclear power plant requires less space	Capital cost is very high
Very economical for bulk electric power	Requires greater technical knowledge
Ensure continued supply of electrical energy	Radioactive fission products

Conclusion



- ✓ Overall, Nuclear energy can be beneficial for our country.
- ✓ Nuclear energy is indispensable: it is the only energy able to produce base load electricity massively and competitively without greenhouse gas emission.

Blue Economy

Blue Economy

Week: 15th

Slide: 203-212

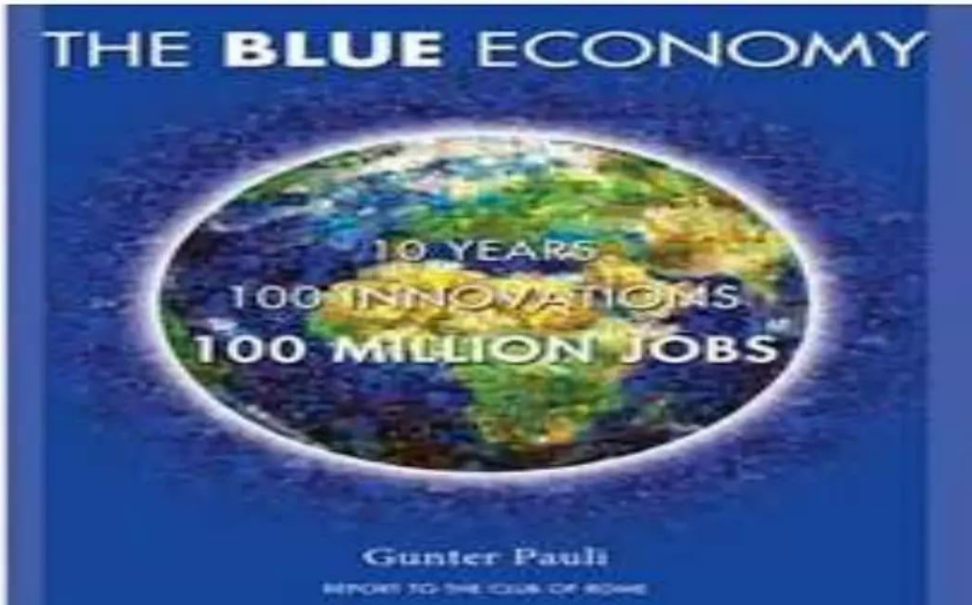
❑ Outline:

- What is Blue Economy?
- Key sectors of Blue Economy.
- Significance of Blue Economy.
- Disadvantage and challenges of Blue Economy.
- Conclusion

Blue Economy

The blue economy is sustainable use of ocean resources for economic growth, improved livelihoods and jobs and ocean ecosystem health.

The Blue Economy: 10 years – 100 innovations – 100 million jobs is a book by **Gunter Pauli**. The book expresses the ultimate aim that a Blue Economy business model will shift society from scarcity to abundance "with what is locally available.



❑ What is Blue Economy?

The blue economy is refers to the sustainable use of ocean resources for economic growth and livelihood improvement while preserving the marine environment. It encompasses sectors such as fisheries, aquaculture, shipbuilding, renewable energy, tourism, and research.

Why we need Blue Economy?

1. Sustainability
   a. clean water
   b. healthy fish stock
   c. offshore energy
2. Blue growth for optimal use marine resources
3. Organic mariculture technologies
4. Creating more jobs
5. Shift society from scarcity

Key sectors of Blue Economy :_

- **Fisheries and Aquaculture:** Fisheries and aquaculture which is vital for employment, food security, and the national economy. We promote sustainable fishing practices for long-term fish stock viability.

- **Maritime Transport and Trade:** Bangladesh's maritime sector facilitates international trade, connectivity, and economic growth. It creates jobs and fosters global partnerships.

- **Renewable Energy:** We focus on offshore wind, tidal, and wave energy to reduce greenhouse gas emissions and address climate change

- **Coastal Tourism:** Coastal tourism offers recreation and cultural exchange, attracting visitors and generating income. We prioritize sustainable practices to preserve the natural beauty of coastal areas.

Significance of Blue Economy in Bangladesh:

- **Economic Growth and Employment:** Blue economy drives economic growth, creates jobs, and fosters sustainable development in coastal regions.

- **Food Security and Livelihoods:** Blue economy ensures food security, supports livelihoods, and reduces poverty in coastal communities.

- **Climate Resilience and Adaptation:** Blue economy promotes climate resilience, embraces renewable energy, and addresses climate change challenges.

- **Environmental Conservation and Biodiversity:** Blue economy emphasizes marine ecosystem conservation, biodiversity preservation, and sustainable resource management.

Disadvantage and challenges of Blue Economy:

- **Overfishing and Resource Depletion:** Overfishing leads to the depletion of marine resources and ecosystem degradation. Effective management and community participation are necessary to address this challenge.

- **Environmental Degradation and Pollution:** Coastal ecosystems face threats from pollution, habitat destruction, and climate change impacts. Promoting sustainable practices is crucial for protecting marine biodiversity.

- **Socio economic Disparities and Vulnerability:** Socio-economic disparities among coastal communities hinder their participation in the blue economy. Inclusive policies and equal access to resources are essential for ensuring broad benefits.

- **Climate Change Impacts:** Climate change poses challenges such as rising sea levels and extreme weather events. Building resilience is vital to protect coastal areas.

❑ Conclusion:

- ❑ The blue economy in Bangladesh offers significant opportunities for economic growth, job creation, and environmental sustainability.
- ❑ Collaborative efforts and effective governance are crucial for maximizing the potential of the blue economy.
- ❑ We must prioritize sustainable practices, conservation, and responsible resource management for long-term benefits.

- By working together, we can ensure a prosperous and resilient future for coastal communities and ecosystems.

Rampal Power Plant

- **Built:** 29,January, 2012.PDB & NTPC signed on agreement to build.
- **Built for:** 1320 MW coal fired power plant.
- **The land** in Rampal was allocated on 27,December,2010
- **Acres of Land :** 1834 acres of agricultural land & Shrimp aquaculture pond.

Week: 16th

Slide: 213-225

- **Location:** Rampal, Bagerhat District, Bangladesh
- *Now we see this project →*

- The two governments of Bangladesh & India on 20,April,2013 signed the treaty to build the Rampal power plant.

Environmentalist opinion:

1) **Dr. Abdul Matin:** violate ecological environment.

- 2) **Dr. Inun Nishat:** Discussing with mass people.
- 3) **Anwar Hossain Manju:** Not harmful during carrying the coals.

Project time:

- ✓Land acquisition order for 1834 acres on August 2010.
- ✓Department of Environment land clearing. On may 2011.
- ✓Environment impact Assessment released. On January 2013.
- ✓Conclusion of bidder selection on January 2016.
- ✓Financial close due mid2016 to early 2017.

- **Project Partner:** It's a joint venture project by the Indian state owned "NTPC" & Bangladesh state owned "PDB".
- **Cost:** $1.5 billion on a 50:50 equity basis project the PDB & NTPC.
- **Cost arrange:** 70% cost will arranged through loans & 30% will equally be shared by "PDB" & "NTPC".

- 3 companies have submitted bids to construct this project.

i. Marubeni corporation from Japan.

ii. Harbin Electric from China.

iii. Bharat Heavy Electric limited from India.

Some Advantage:

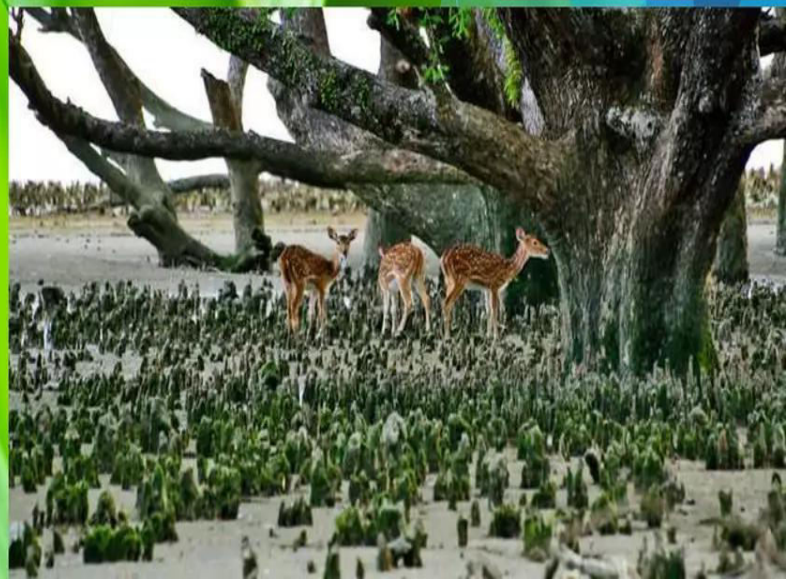
- Economic development.
- Build up quality and large power plant in our country.
- Employment Increases.
- The electricity at low cost and makes high economic profit.
- Rampal power plant should exchanged 3 extra facilities from India.

- High tax rat when it exported to India.
- Reduced our local electronic problems.
- Height 1320 MEGAWAT electronic power plant in Bangladesh if it found.
- Better livelihood opportunities for sunderban areas people.
- USD 1.5 billion per year income after 15 years it's founding.

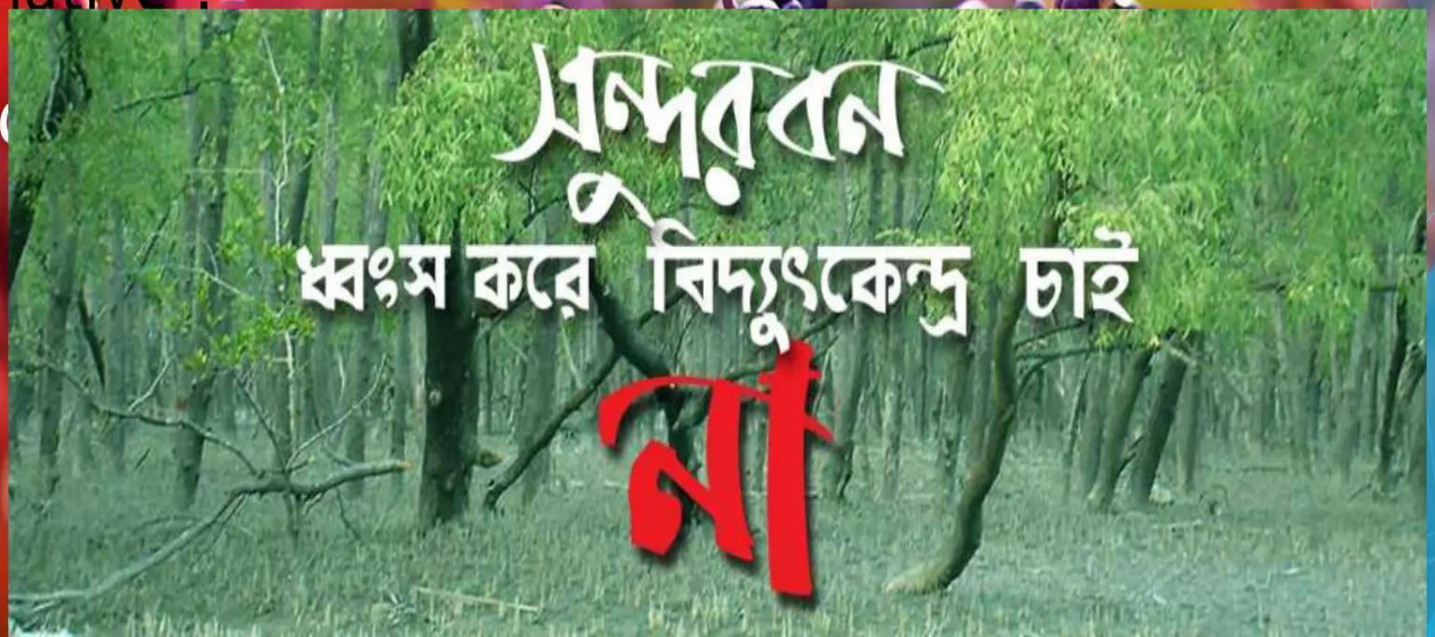
Some Disadvantage:

- Bad effect for our sundarbans Animals.
- It will be destroying our World Heritage site.
- We will be loos thousands kinds of animals including our national animal Royal Bengal Tiger.
- Destroying our environment across 13.5 km.
- Hampering our tourist spot on Sundarbans.

- Life time risk for loosing our natural products & environment.
- Water, Air, Sound should be polluted in Sundarban.
- Natural disgusted will be increases.
- Social economic environment changed for lifetime.
- Swamp & Wasteland will be loose.



- Rampal is going to be built within 14 km of the forest. For this plant will need 4.72 million tons of coal each year. This massive freight will need about 59 ships each having an 80,000 ton capacity that take to the port which is 40 km away from the plant & it's route cuts through the shundorbon "there are many alternatives to generate power, but Sundorbon has no alternative".








We will get light by killing and push away our pride Sudarban's Natural beauty and precious animals



Payra Sea Port

Week: 17th

Slide: 226-237

Payra Deep Sea Port Project

Introduction

- **Location:** Patuakhali district, Bangladesh
- **Purpose:** Enhance maritime trade, reduce congestion in existing ports, boost economic growth.

- **Draft depth:** 10.5 meters,(Depending o tidal height)
- **Land Area:** 6562 Acres (26 Sq KM)
- **Project Cost:** The project, which cost Tk 6,500 crore

- **Initiated By:** Government of Bangladesh
- **Managed By:** Payra Port Authority (PPA)

Payra Deep Sea Port Project

Strategic Importance

•**Geographical Advantage:**

- Close proximity to international sea routes
- Facilitates trade with South Asia, Southeast Asia, and outside of it

•**Economic Impact:**

- Expected to contribute significantly to Bangladesh's GDP
- Job creation and regional development

Payra Deep Sea Port Project

Project Phases

- **Phase 1: Initial Development**
  - Construction of basic infrastructure
  - Operationalization of essential port facilities

- **Phase 2: Expansion**
  - Addition of container and bulk terminals
  - Development of deep-water channels

- **Phase 3: Full Scale Operation**
  - Full capacity utilization
  - Integration with industrial zones and transport networks

Payra Deep Sea Port Project

Infrastructure and Facilities

- **Terminals:**
  - Container terminals with modern handling equipment
  - Bulk cargo terminals
- **Storage:**
  - Warehouses for dry and liquid bulk
  - Cold storage facilities

- **Navigation:**
  - Deep-water access channels
  - Advanced navigation systems
- **Support Facilities:**
  - Ship repair and maintenance yards
  - Administrative and customs offices

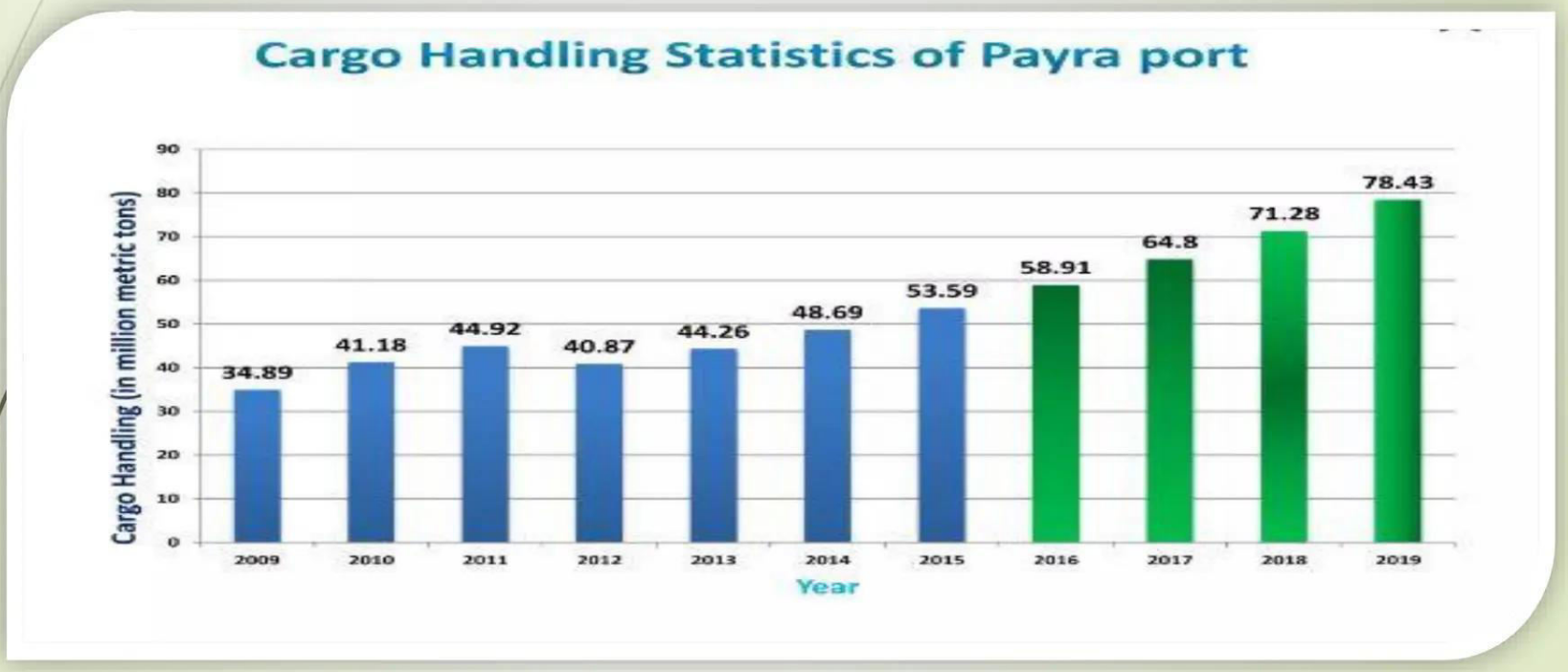
Technological Advancements

- **Automation:**
  - Automated cargo handling systems
  - Digital port management
- **Sustainability:**
  - Eco-friendly port operations
  - Renewable energy usage

Economic and Social Benefits

•Trade Facilitation:

- The Payra port is expected to invigorate the economy by increasing the GDP of Bangladesh by 2% and Reduced shipping times and costs
- Increased export and import efficiency



•Regional Development:

- Improved infrastructure and connectivity
- Industrial growth in surrounding areas

Environmental Considerations

•Sustainable Development:

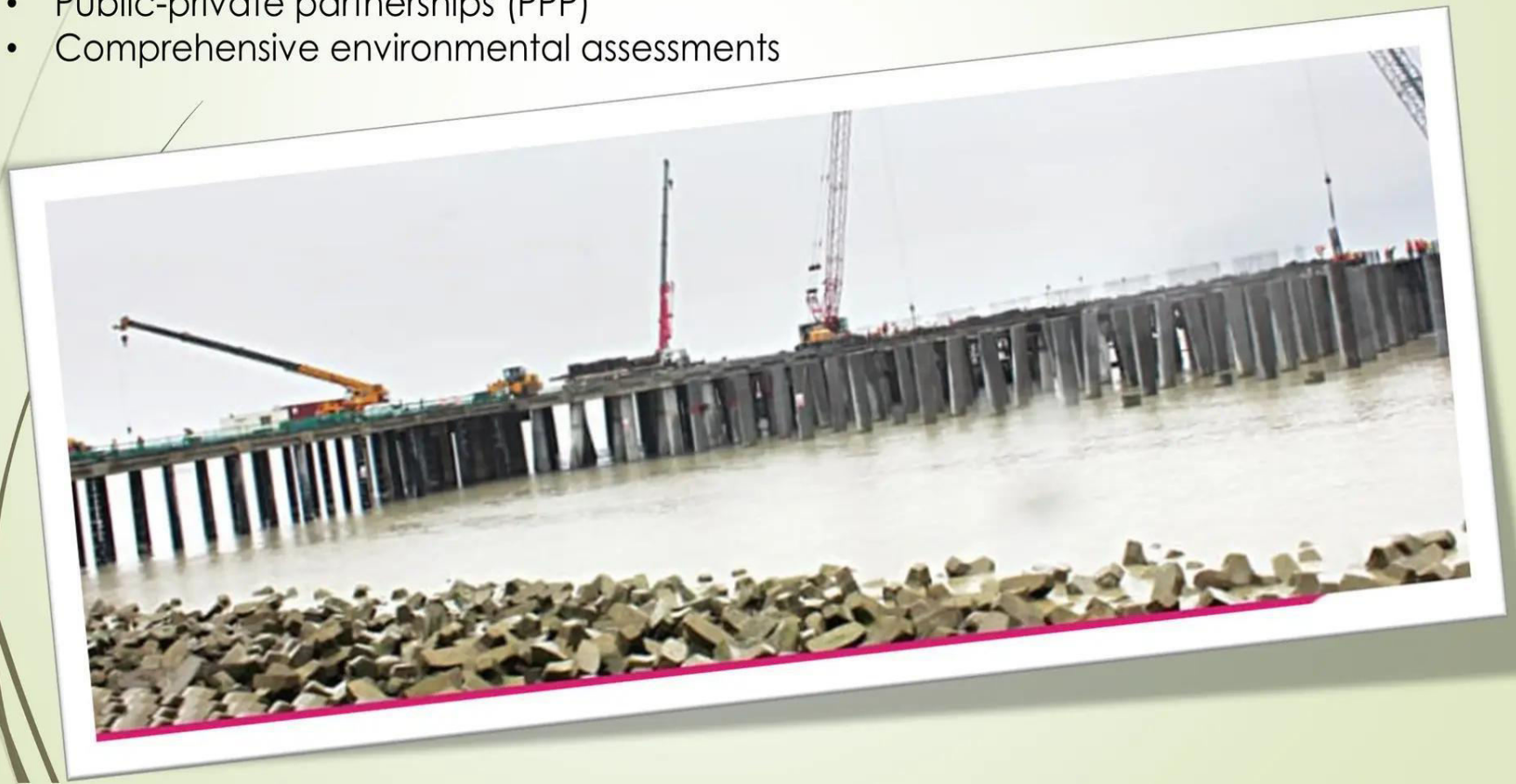
- Compliance with environmental regulations
- Initiatives to minimize ecological impact

•Waste Management:

- Modern waste management systems
- Pollution control measures

Challenges and Solutions

- **Challenges:**
  - Initial funding and investment
  - Environmental and social impact
- **Solutions:**
  - Public-private partnerships (PPP)
  - Comprehensive environmental assessments



Payra Deep Sea Port Project

Future Prospects

- **Expansion Plans:**
  - Additional terminals and facilities
  - Enhanced connectivity with hinterland
- **Long-term Vision:**
  - Becoming a regional maritime hub
  - Supporting national and regional economic growth

Conclusion

- **Summary:**
  - Payra Deep Sea Port as a game-changer for Bangladesh
  - Potential to transform regional trade dynamics
- **Call to Action:**
  - Continued support and investment
  - Collaboration among stakeholders for successful implementation


THANK
YOU