



Co-funded by the
Erasmus+ Programme
of the European Union



Environment & Sustainable Development



Sustainability in Coastal Construction

Dr. Trần Đức Phú

OBJECTIVES

Environment – Sustainable Development



Understand the relationship between the environment and sustainable development

Environmental situation



Know the current situation of resource degradation, environmental pollution and the impact of environmental pollution in Vietnam today

Solving the problem of natural resources and environment



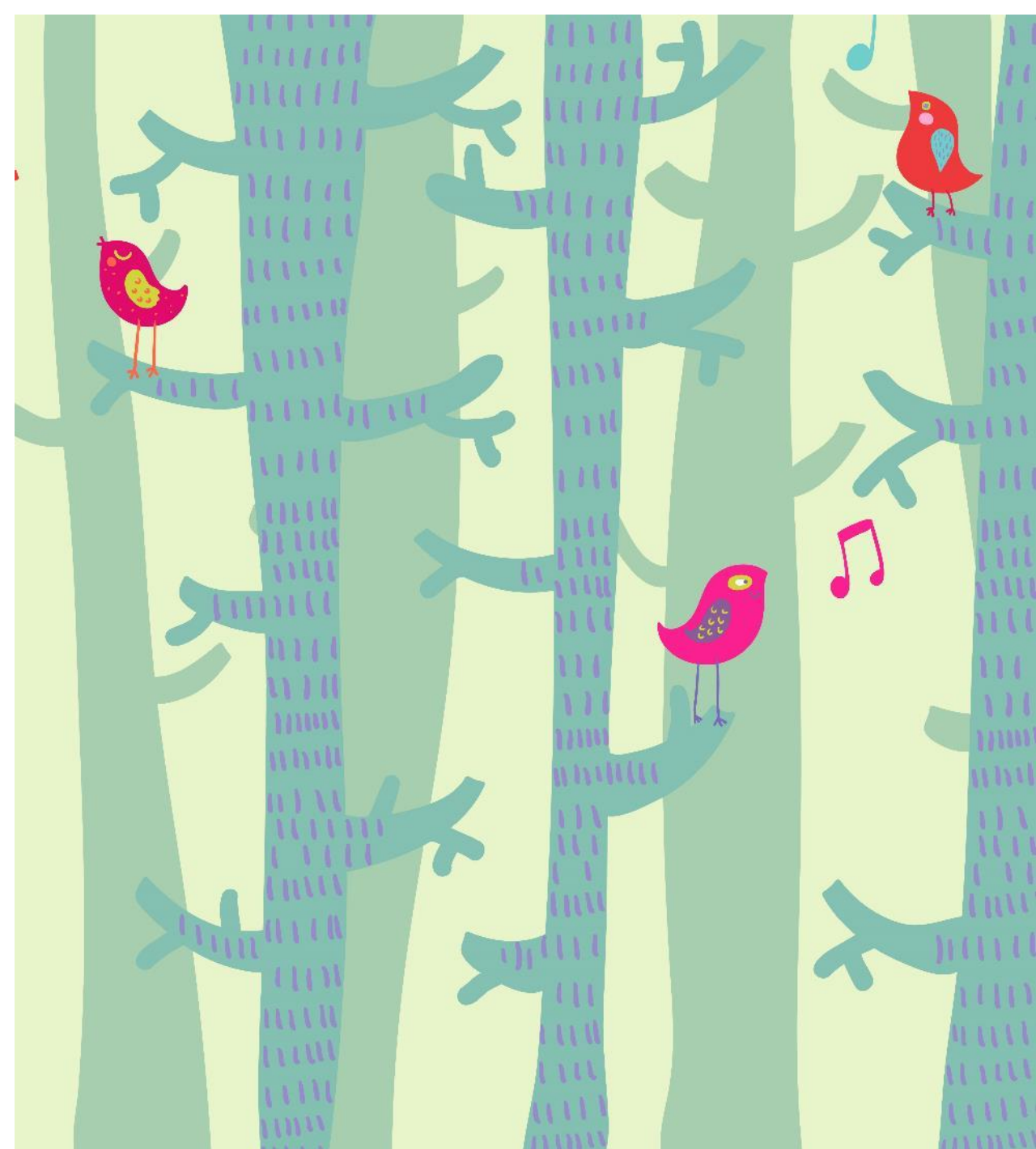
Aware of the Government's efforts in solving natural resources and environment issues, implementing relevant national programs for sustainable socio-economic development

Question

Development

What is development?



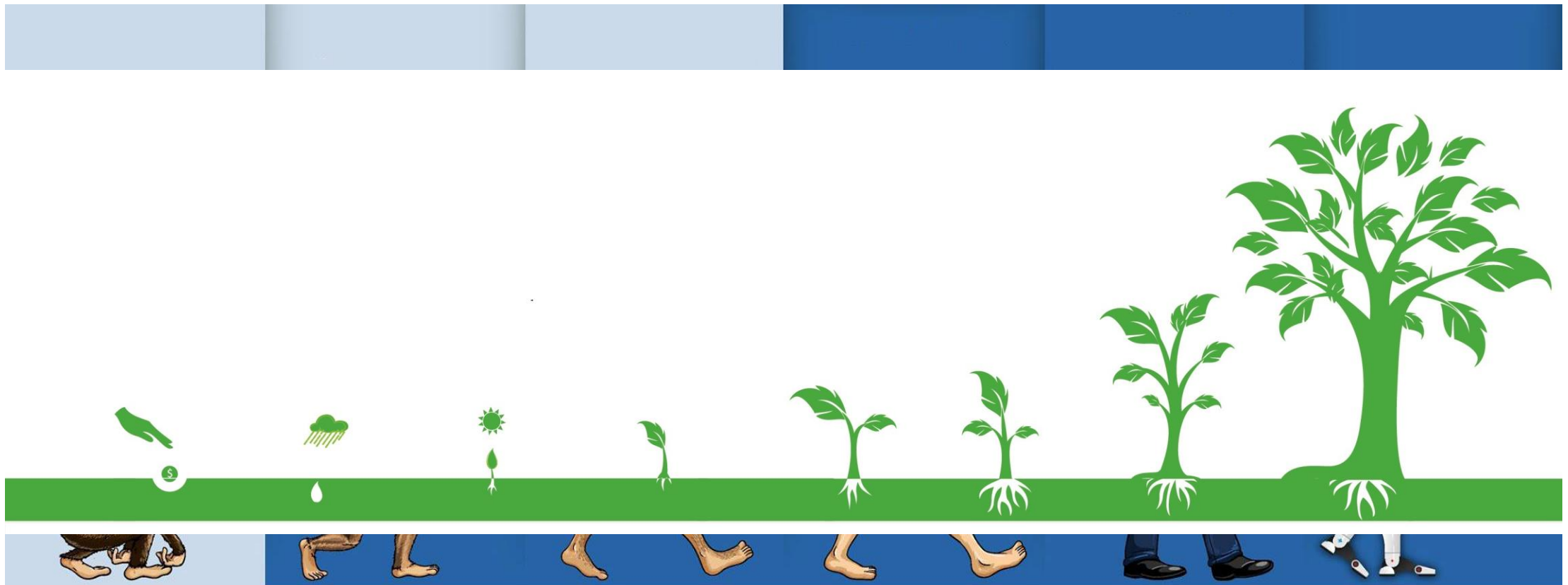


What is development?



Development

- In the materialist dialectic, the concept of development refers to the process of moving in the upward direction of things: from a lower level to a higher level.



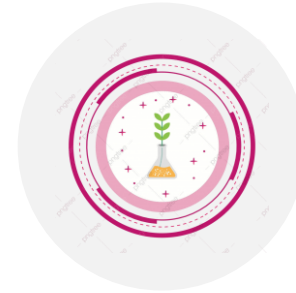
Câu hỏi

Development



What is development?

Growth vs Development



What is the difference between growth and development?

Sustainable & Unsustainable Development



What do you think is called sustainable development?

What is the difference between growth and development?

The process of changing in the direction of a mere increase in the quantity of things

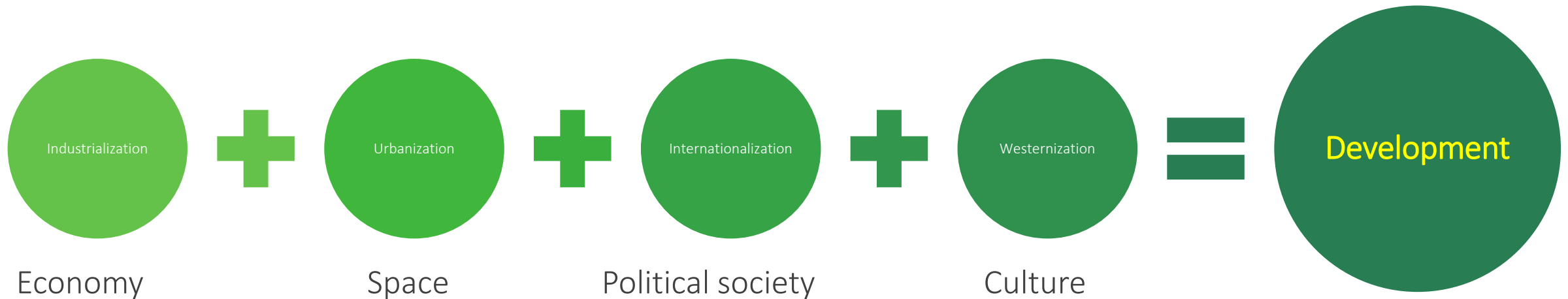
Growth

Development

The process of changing in the direction of increasing quantity and improving quality of things

Development

- In most regions of the world, it has increasingly been shown that development is the simultaneous progress of evolution on four levels:
 - Economy
 - Space
 - Political society
 - Culture



Development

- Development is a common law of all times and countries
- Development is the central goal of governments
- Development is the political responsibility of countries





Unsustainable Development

Development that only increases GDP every year and builds a consumer society, separating the economic system from the humanistic and nurturing social system will not solve poverty as well as a variety of problems of poverty. environmental degradation arose

Unsustainable development model

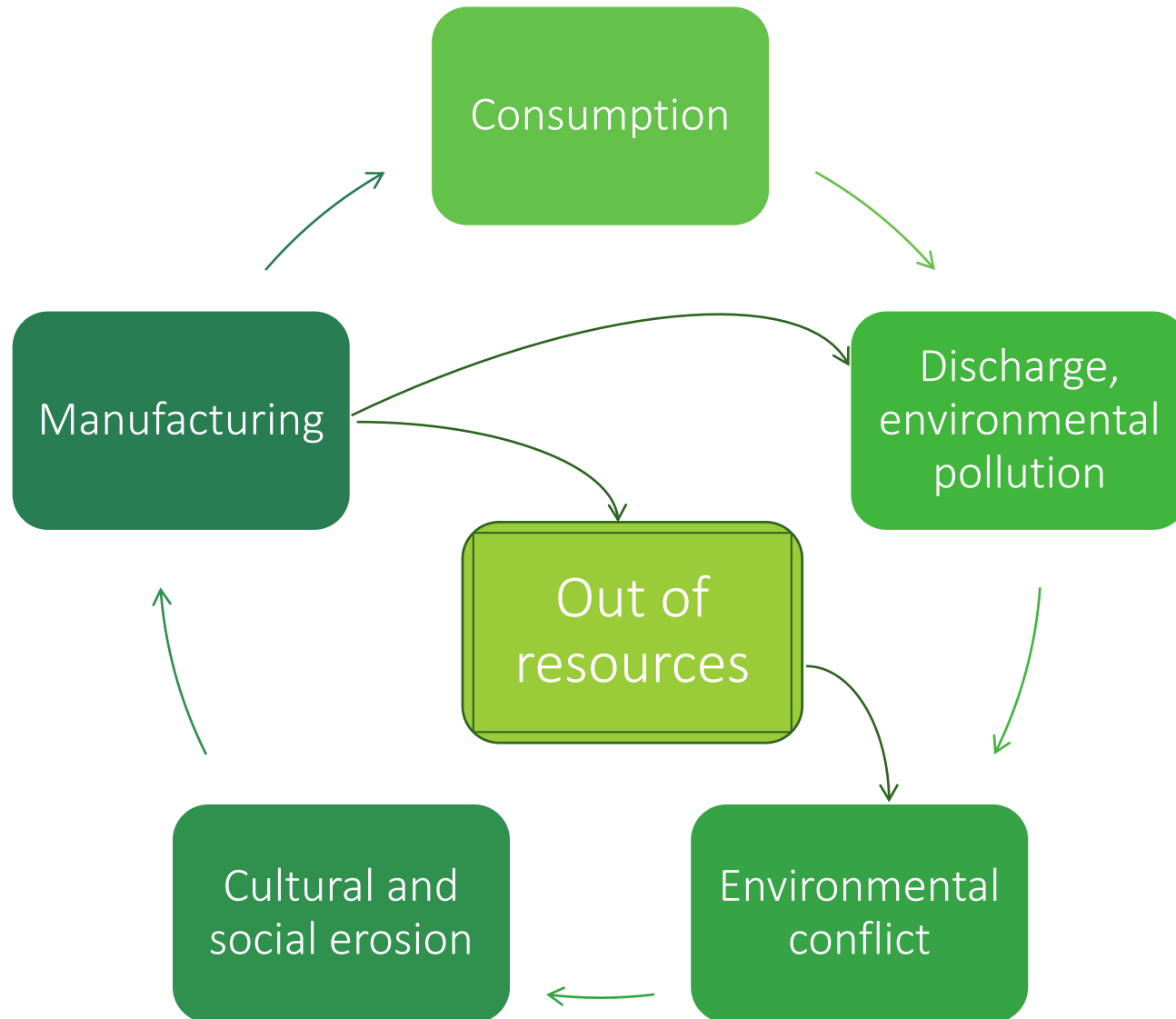
- The essence of the unsustainable development model is development that doesn't care about the environment, stimulates over-consumption and over-exploitation of resources.
 - The core of the unsustainable development model is the production and consumption axis
 - The indifference of both producers and consumers to the environment has increased degradation, environmental pollution and resource depletion.
- Environmental conflicts between interest groups and erosion of social and cultural values

Unsustainable development model

resource depletion, famine, disease, environmental pollution and incidents, wars and environmental conflicts...



Unsustainable development model



The vicious circle - unsustainable development model

Câu hỏi

Sustainable development

What do you think is sustainable development?



Impact of the environment → Sustainable Development

In your opinion, how does the environment affect the sustainable development in Vietnam today?



Sustainable development strategy

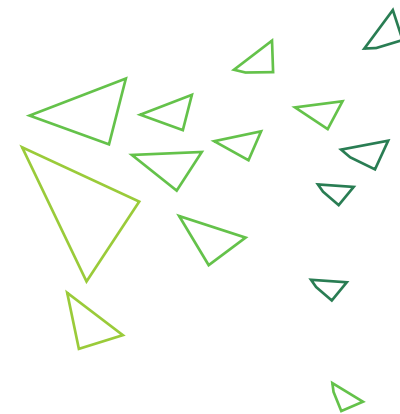
Have you ever heard of Vietnam's Sustainable Development Strategy?





BASIC CONTENT

1. Concept, content, principles of sustainable development
Vietnam's strategic orientation for sustainable development (Vietnam's Agenda 21)



Environment and sustainable development

The relationship between environment and sustainable development in Vietnam



What is sustainable development?

The concept of sustainable development first appeared clearly in the "World Conservation Strategy" of the International Union for Conservation of Nature (IUCN) in 1980.

Sustainable Development

- The term Sustainable Development was first used in the "World Conservation Strategy" proposed by IUCN (1980). The overall objective of the strategy is to “achieve sustainable development by protecting biological resources”.
- In 1987, in the report "Our Common Future", the International Commission on Environment and Development (WCED) for the first time gave a relatively complete definition of sustainable development as " development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

Sustainable Development

- The content of sustainable development was reaffirmed at the Rio Conference - 92 and supplemented and completed at the Johannesburg Conference - 2002: “Sustainable development is a development process with a close, reasonable and harmonious combination of three aspects. of development, that is: economic development, social justice and environmental protection”.

Sustainable development model



Sustainable development is a harmonious development in all three aspects:

- Economy
- Society
- Environment

Sustainable development model

To achieve sustainable development, three goals must be achieved simultaneously:



Economy

Economically efficient development



Society

Harmoniously develop social aspects, raise living standards and living standards of all classes of the population



Environment

Improve the environment, ensure long-term solid development for today and future generations

Principles of sustainable development

- At the 1992 World Summit in Rio de Janeiro, economic, social and environmental activists together with politicians agreed on the view of sustainable development; consider it a common responsibility of nations, of all mankind; unanimously adopted the Rio Declaration of 27 fundamental principles of Sustainable Development and Agenda 21 on defining actions for sustainable development worldwide in the 21st century.

Principles of sustainable development

- The United Nations Environment Program (UNEP) in the book Save the Earth - a strategy for a sustainable life in 1991 outlined 9 principles of a sustainable society:

1. Respect and care for community life
2. Improve people's quality of life
3. Protect the vitality and diversity of the earth
4. Minimize the depletion of non-renewable resources
5. Stay within the endurance of the earth
6. Changing personal customs and habits
7. Letting communities manage their own environment
8. Create a unified national template, favorable for development and protection
9. Building global alliances

difficult to apply
in practice

Principles of sustainable development

- Luc Hens (1995) selected among the principles of the Rio de Janeiro Declaration on Environment and Development to develop a new system of principles of sustainable development:
 - The principle of entrustment of the people: the public has the right to demand that the government, as its representative organization, take timely action to respond to environmental incidents.
 - Precautionary principle: where serious and irreversible environmental events are likely to occur, the pretext of lack of certainty should not be precluded from delaying measures to prevent MT degradation.
 - Principle of intergenerational equity: a core principle of sustainable development, which explicitly requires that the satisfaction of the needs of the present generation does not preclude future generations from meeting their own needs.
 - The principle of equity in the same generation: People in the same generation now have the right to benefit equally in the exploitation of resources and equally in the sharing of a clean environment.
 - The principle of fairness of the right to existence of humans and earth creatures: natural organisms have the right to exist in earth's space, no matter how directly it is of value to mankind
 - Principle of decentralization and delegation: Decisions need to be made by affected communities themselves or by organizations acting on their behalf and closest to them. resources, about obligations to the environment and about local solutions to environmental problems
 - The principle that polluters pay, users of the environment must pay: The polluter must bear all costs of pollution prevention and control to the environment.

Indicators of sustainable development

Sustainability of development is often assessed through the sustainability of 3 areas of economy, human society and environment.



Economically sustainable

An economically sustainable country must ensure high GDP growth and GDP per capita

HDI < 0,500 is growth retardation
HDI from 0.501 - 0.799 medium growth
HDI > 0, 800 highly developed



Social sustainability

Human Development Index (HDI)

$$HDI = f (T_1.HV_2. KT_3)$$

life expectancy at birth (T1), average education level of people (HV2), economic measure expressed through purchasing power parity (Purchase Parity Power - PPP/person, denoted KT3)



Environmentally sustainable

Environmentally sustainable: sustainability of living space for people population < capacity of space

Sustainability of natural resources: use must be less than or equal to renewable recovery

Strategic orientations for sustainable development of Vietnam (National Strategy 21 of Vietnam)

- On August 17, 2004, the Prime Minister issued Decision No. 153/2004/TTg on "Strategic orientation for sustainable development in Vietnam (Vietnam's Agenda 21)". The content of this Decision includes long-term goals, principles, priority areas, policy orientations and measures to organize the implementation of sustainable development in Vietnam.
- The National Council for Sustainable Development was also established under the Prime Minister's Decision No. 1032/QD-TTg dated September 27, 2005 and then its functions, tasks and organizational structure were adjusted. According to Decision No. 248/QD-TTg dated 24/2/2009

Strategic orientations for sustainable development of Vietnam (National Strategy 21 of Vietnam)

Objectives, viewpoints and principles in Vietnam's sustainable development

- The development perspective in the 2001-2010 Socio-Economic Development Strategy affirmed by the Ninth Congress of the Communist Party of Vietnam is: “Fast, effective and sustainable development, economic growth goes hand in hand with implementation. progress, social justice and environmental protection”; "Socio-economic development is closely linked with the protection and improvement of the environment, ensuring the harmony between the artificial environment and the natural environment, preserving biodiversity"
- The 11th Congress of the Communist Party of Vietnam (2011) approved the Platform for building the country in the transitional period to socialism and the 2011-2020 Socio-Economic Development Strategy, which identifies defining the point of view that “sustainable development is a cross-cutting requirement of the Strategy”, “fast development associated with sustainable development”
- On April 12, 2012, the Prime Minister issued Decision No. 432/QD-TTg approving the Vietnam Sustainable Development Strategy for the period 2011-2020. In which, a system of 32 monitoring and sustainable development assessment

Eight key principles for Vietnam's sustainable development

1. People are at the heart of sustainable development
2. Economic development is the central task of the coming development phase
3. Protecting and improving the quality of the environment must be considered an integral element of the development process
4. The development process must ensure equitably meet the needs of the present generation and do not interfere with the lives of future generations.
5. Science and technology are the foundation and driving force for industrialization, promoting rapid and sustainable development of the country
6. Sustainable development is the cause of the entire Party, all levels of government, ministries and localities, agencies, businesses, social organizations, communities and all people.
7. Associating the building of an independent and self-reliant economy with proactive international economic integration for sustainable development of the country.
8. Closely combine economic development, social development and environmental protection with ensuring national defense, social order and security.

Strategic orientations for sustainable development of Vietnam (National Strategy 21 of Vietnam)

Priority areas

- 5 priority areas in economic development
- 5 priority areas in social development
- 9 priority areas in resource use & environmental protection

5 priority areas in economic development

- Maintaining fast and stable economic growth on the basis of constantly improving the efficiency, science - technology content and economical use of natural resources and improving the environment
- Changing production models and technologies, consumption patterns towards cleaner and environmentally friendly, based on economical use of non-renewable resources, minimizing hazardous waste and non-biodegradable, maintaining individual and social lifestyles in harmony and closeness to nature
- Implement the process of "clean industrialization", that is, from the very beginning, industrial development must be planned with the structure of industries, technologies and equipment ensuring the principles of being environmentally friendly, actively preventing and industrial pollution treatment, building a "green industry"
- Sustainable agricultural and rural development. While developing production according to market requirements, ensuring food hygiene and safety, while conserving and developing natural resources such as: land, water, air, forest and biodiversity
- Sustainable regional development and building sustainable local communities

5 priority areas in social development

- Concentrate efforts to eliminate hunger, reduce poverty, create more jobs, create equal opportunities for everyone to participate in social, cultural, political, economic development and environmental protection activities.
- Continue to lower the population growth rate, reduce the pressure of population growth on the fields of job creation, health and people's health care, education and vocational training, and environmental protection.
- Orienting the process of urbanization and migration for sustainable development of urban areas, rationally distributing population and labor force by region, ensuring sustainable economic and social development and environmental protection in localities.
- Improve the quality of education to raise the people's intellectual and professional qualifications suitable to the requirements of the country's development.
- To develop in quantity and improve the quality of health services and people's health care, to improve working conditions and living environment sanitation.

9 priority areas in resource use & environmental protection

- Anti-degradation, efficient and sustainable use of land resources
- Water conservation and sustainable use of water resources
- Reasonable exploitation and economical and sustainable use of mineral resources
- Marine, coastal and island environmental protection and development of marine resources
- Forest protection and development
- Reducing air pollution in urban areas and industrial zones
- Effective management of solid and hazardous waste
- Conservation of biodiversity
- Mitigating climate change and limiting harmful effects of climate change contribute to disaster prevention and control

Discussion

- *Group 1. Discuss the situation and causes of environmental pollution; on that basis, find solutions to reduce environmental pollution in our country today?*
- *Group 2. Discuss the harmful effects of environmental pollution on human health? Practically relate the harmful effects of environmental pollution on public health in the locality where you live and offer solutions to overcome?*
- *Group 3. Discuss the impacts of environmental pollution on the sustainable development of the country? Practically relate the impact of environmental pollution on sustainable development in the locality where you live? And find solutions to ensure sustainable development for the locality?*


Assignment


- *What priority solutions should be applied to reduce environmental pollution caused by construction activities in Vietnam today? Contact your field of work and suggest sustainable development solutions for the company/enterprise where you work.*

Thank You



TS. Trần Đức Phú 

+84 96 5589 068 

Phutd.ctt.vimaru.edu.vn 

<https://www.linkedin.com/in/phu-tran-vmu/> 