

Institute of Natural and Life Sciences

Biological Sciences, / Agronomic Sciences / Semester 3 / Section A

Chapter IV: Sustainable development concept

1.1. Concept of sustainable development

Sustainable development can be defined as development that:

- (a) meets the needs of current societies without compromising the ability of future generations to meet their own needs;
- (b) requires the prudent management of available resources and environmental capacities and the rehabilitation of the environment degraded by overexploitation;
- (c) adopts the following critical objectives relating to development and development policy-making:
 - * reviving growth and improving its qualities;
 - * the need to address poverty issues and meet human needs;
 - * addressing population growth and natural resource conservation issues;
 - * reorienting technology to be more adaptable to local conditions
 - * risk management;
 - * merging environmental and economic concerns in sustainable development "decision-making".

At the heart of the concept of sustainable development is the "important condition" that current practices in environmental management should not in any way diminish the possibilities of maintaining or improving the standard of living of future generations. In other words: economic systems should be managed in such a way as to maintain or improve the natural resource base so that future generations can live as well as or better than present generations.

In developing countries, traditional production systems have enabled the sustainable satisfaction of the needs of a low-density population for millennia.

The accelerated population growth during this century has put excessive pressure on limited agricultural resources (soil, water, forests, pastures), as well as on other socio-economic, cultural and political factors, which is compromising this sustainability by causing the overexploitation of these resources, leading to soil and water depletion and pollution, degradation of forests and rangelands and desertification in arid, semi-arid and dry sub-humid areas.

1.2. Areas of sustainable development

-Economic: producers and consumers are actors.

-Social: taking into account the satisfaction of present generations without compromising future generations.

1.3. Environmental: all natural resources must be protected.

1.4. The principles of SD and their origins: precaution, prevention, participation and the right to information, responsibility, solidarity, equity, polluter pays

The concept of sustainable development is based on a number of principles that have been expressed at all the summits and international conferences mentioned above.

These principles are as follows:

1.4.1. Precautionary principle

Definition:

The precautionary principle is primarily the responsibility of public authorities and applies in specific situations to address significant risks.

It concerns situations that present a potential risk of serious or irreversible damage, often in the absence of proven scientific knowledge on the subject.

1.4.2 Prevention principle

Definition

The prevention principle applies to any situation with known risk and foreseeable damage.

Prevention is one of the preferred means of intervention of public action, particularly in the areas of the environment, health, road safety or social action. For example, one

of the public policies known to the Ministry in charge of the environment concerns the prevention of natural and technological risks.

The principle of prevention also concerns each of us on a daily basis, in particular when we act prudently to avoid a domestic accident or for health reasons.

In addition, prohibitions (e.g. prohibition on discharging waste and polluting substances into nature) and incentives concerning citizens (incentive for selective waste collection, incentive to purchase less polluting vehicles, etc.) have been introduced into the regulations in order to prevent various types of pollution.

1.4.3 Principle of participation and the right to information

Sustainable development requires the participation of all social, political and economic partners in projects. Citizens, as well as project managers and governments, must be involved to ensure the success of sustainable projects.

Councils must be created to convince and raise awareness among citizens about the importance of such projects for society and the future

1.4.4 Principle of solidarity

Solidarity and sharing of the Earth's resources is a fundamental principle of sustainable development. Countries must share raw materials fairly among themselves, leaving some for future generations. Solidarity must exist between States, particularly between industrialized countries and developing countries, as well as between generations. The economy of raw materials is therefore a necessity to respect this principle.

1.4.5 Principle of responsibility

Definition

Responsibility, in the common sense, is the fact that each person is required to answer legally or morally for his or her actions and decisions and to assume the consequences.

Responsibility can also mean for a nation a moral duty in the face of a historical situation that requires reparation, for a business leader obligations related to his or her functions.

1.4.6 Principle of ethics

Definition

The principle of equity is one of the principles defining the concept of sustainable development.

It was introduced at the Rio de Janeiro Conference, preceded by the Brundtland Commission, which in its report proposed the very famous definition of sustainable development: "development capable of satisfying the needs of present generations without compromising the ability of future generations to satisfy their own needs."

The principle of equity is implicit in this definition and is expressed in two ways relative to time and space:

- intergenerational equity looking to the future, which encompasses the rights and duties that each generation has towards future generations, in particular the moral right to preserve the planet's natural and cultural resources.
- Inter-generational equity in its spatial dimension concerns the satisfaction of the needs of current generations, which presupposes solidarity between the richest and the poorest and the preservation by man of other species and the environment.

1.4.7. Polluter-pays principle

Definition

This principle is, at its source, an economic concept. It aims to make economic actors take into account the "external" costs for society, of the damage generated by their activities.

This principle concerns public or private activities, businesses, households and each of us.

This principle aims at:

- Efficiency: so that prices reflect the entirety and reality of production costs and economically favor, in the long term, the least polluting activities,
- fairness: in fact, in the absence of fairness, the taxpayer, who is not necessarily the user or consumer of the services or goods produced, ends up paying the bill in terms of taxes.
- Responsibility: the identification of the polluter and the price to be paid must encourage him to minimize the pollution produced.