

Introduction to The Environment's Concept

1.Introduction

The term “*environment*” is a relatively recent concept that has gained popularity over the past few decades. Today, it has become part of everyday language, both in spoken and written communication. This notion has gradually found its place in the public policies of most countries around the world and has become an essential component of education programs, starting from primary school .

Current events constantly remind us that our environment is both a precious and fragile entity, easily damaged by uncontrolled human activities. Indeed, phenomena such as deforestation, climate change, the destruction of ecosystems and their biodiversity, as well as increasing pollution, highlight the urgency of collective awareness. These challenges have raised public consciousness about the necessity of protecting the environment and managing natural resources in a sustainable way .

1.1. General Definition

In a general sense, the environment can be defined as the set of factors that exert an influence on the living conditions of human beings. This definition places human kind at the center of civilization and its development.

In a broader perspective, however, the concept of the environment extends beyond human surroundings to encompass the protection of the natural world, land-use planning, and the preservation of both natural and historical sites .

Another definition of the human environment, published during the Stockholm Conference on the Human Environment in 1970, is as follows:

"All the relationships, sometimes conflicting, that human beings maintain with the environment in which they live require arbitration at the social level."

1.2. Legal Definition

According to ISO 14001, the environment is defined as the surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, human beings, and their interrelationships .

In Algeria, according to Law No. 01-19 of December 12, 2001, relating to the management, control, and elimination of waste, the environment encompasses natural resources such as air, atmosphere, water, soil and subsoil, fauna and flora — including genetic heritage — as well as the interactions among these resources, and also includes sites, landscapes, and natural monuments.

The first European directive of 1967 legally defined the environment as consisting of water, air, and soil, as well as the relationships between these elements on the one hand, and with all living organisms on the other.

The definition currently retained in legal texts considers the environment as “*the set of elements which, through the complexity of their interrelations, constitute the framework, the setting, and the living conditions of human beings, as they exist or as they are perceived.*”.

2. Historical Background

The aim of environmental history is to study the state of the environment at different periods of time and its interaction with human activities.

Before the 19th century, the notion of the environment implied respect for life and living beings. Concepts such as economy, nature, or urban environment did not yet seem to exist.

Since the 19th century, artistic communities such as the Romantic movement have emphasized the beauty of preserved natural landscapes and, consequently, the necessity of protecting these valuable assets.

The first protected natural site was established in 1864 in the United States by President Abraham Lincoln as a national park in the Yosemite Valley. Following this initiative, several national parks were created in various countries around the world.

In 1896, Svante Arrhenius studied the effects of increasing carbon dioxide concentrations in the atmosphere. For the first time, he identified water vapor and CO₂ as greenhouse gases.

By the end of the 20th century, the first major ecological disasters appeared as a result of industrialization, leading to a sharp increase in the consumption of natural resources.

■ The 20th Century and the Rise of Environmental Awareness

The 20th century witnessed the first visible ecological disasters, such as oil spills and industrial pollution. Scientists began to understand the phenomenon of pollution and to warn the international community about its impacts. Once these issues were recognized, several international conferences were held, and various environmental protocols were signed.

The first international conference took place in Stockholm in 1972, followed by the Rio de Janeiro Conference in 1990.

Algerian environmental legislation includes a number of laws that have continued to evolve over time in response to new developments. The first laws, dating back to 1978 and 1983, focused on the protection of natural sites and the establishment of national parks.

More recent laws — the latest being adopted in 2015 — address the creation of the **National Observatory for the Environment and Sustainable Development** and the **National Environmental Fund**, as well as other related laws and decrees concerning coastal protection and the development of clean energy .

3. Environmental Objectives and targets achievements

An environmental objective is the overall environmental goal that an organization establishes in order to improve its environmental performance, and for which responsibility is clearly assigned. These objectives are aligned with the organization's environmental policy and form part of its strategic planning process.

According to the ISO 14001 standard, environmental objectives should be **specific, measurable, achievable, relevant, and time-bound (SMART)**. They must also take into account significant environmental aspects, applicable legal and regulatory requirements, and the organization's technological, financial, and operational capacities.

Key CSR Issues	2024 results	2025 targets
Reducing CO2 emissions	CO2 emissions (Scope1,2) 15.2% reduction compared with FY2015 levels (Targets 12%)	CO2 emissions (Scope 1,2) 2025: 15% reduction compared with FY2015 levels 2030: 30% reduction compared with FY2015 levels 2050: 100% reduction compared with FY2015 levels
Reduce industrial waste	(1) Reduction of the volume of industrial waste generated • Head office : 38,174.5kg Target : Below the average of the past three years (26,014.5 kg) Results : target not achieved due to the impact of office waste • Mold & Tooling Technology Center : 18.6% increase Target : 2% reduction of waste plastic compared with 2023 (70,290 kg/mold or less (intensity)) - Results : target not achieved due to the impact of a decrease in the number of production molds and an increase in waste for mold verification purposes • China plant : 11.9% decrease Target : 2% decrease from 2023 Results : Achieved • Vietnam Plant : 20.5 % increase Target : 1% decrease from 2023 - Results : target not achieved due to the impact of increased production (2) Recycling of waste plastics • China plant : Recycling rate: 2.8% Target : Recycling rate: 3.8% - Results : target not achieved due to the impact of waste plastic from PC and PPS molding waste left over from increased production	Waste reduction to achieve site reduction target
Environmentally-friendly design	- Introduction of TAMRON eco-label : Introduced for seven models - Reduce bags used for owner's manuals: Reduction rate in new models 100% - Introduction of recycled plastic	(1) Introduction of Tamron eco label: All models (2) Reduce bags used

Key CSR Issues	2024 results	2025 targets
	materials : PC-G plastics containing 30% recycled material already introduced in mass production	for user manuals : Reduction rate for new models 100% (3) Introduction of recycled plastic materials: Introduction to multiple models
Reducing harmful chemical substances	Leaks of harmful chemical substances from business locations : 0 incidents	(1) Leaks of harmful chemical substances from business locations: 0 incidents (2) Number of environmental non-compliance cases: 0
Water management	(1) Grasping actual amount of clean water use • Head office : 4,113 m³ Target : Not to exceed FY2023 amount (4,177 m³/year or less) Results : Achieved • Hirosaki : 1,059 m³ Target : Not to exceed FY2023 amount (983 m³/year or less) Results : target not achieved due to the increased use of mist in clean rooms • Namioka : 76,997 m³ Target : Not to exceed FY2023 amount (54,370 m³/year or less) Results : target not achieved due to an increase in GM production and the introduction of pure water equipment (2) Reduction of clean water use • TAMRON Optical (Foshan), China : 2.9% reduction Target : 5% decrease compared with 2023 (406,320.7 m³/year or less) Results : target not achieved because of increased water use due to the modification of facilities for automation • TAMRON Optical (Vietnam) : 9,899 m³ increase Target : 1% decrease compared with 2023 + for newly built second plant (88,629 m³/year or less) Results : target not achieved because of increased water use due to increased operating days and personnel resulting from an	Control and reduction of water usage to achieve reduction targets at each site

4.The Components of the Environment :

The environment corresponds to the world around us. It includes both living and non-living things.

.1. Living Beings

All living beings are born, live for a certain time, and eventually die.

- All living beings draw **water** and **nutrients** from their environment to meet the needs of their organism and ensure their growth. However, it is not always easy to see that a living being feeds. Indeed, some living beings stop feeding during certain periods of their lives (such as the **marmot during hibernation** or **trees that lose their leaves in winter**), and plants feed in a way that is not very visible.
- The ability to move does not make it possible to distinguish between living and non-living things. **Air moves** in the form of wind, but wind cannot be considered a living thing.
- At first glance, one might think that **breathing** concerns all living beings. However, some microbes, such as the **tetanus bacterium**, live in an **anaerobic environment** (without oxygen) and therefore do not breathe.
- All living beings have the ability to **reproduce**, in order to ensure the continuation of their species. This capacity is enough to characterize them as living.

• 4.2. Non-Living Things

Non-living things **cannot reproduce**. They include **mineral components** (gaseous atmosphere, water, rocks), **elements derived from living organisms**, and **human-made products**.

• 4.2.1. Mineral Components

The gaseous atmosphere contains different gases: about four-fifths nitrogen, one-fifth oxygen, traces of carbon dioxide (formerly called carbonic gas) and rare gases, as well as water vapor in varying quantities.

Water may be fresh or salty, frozen, liquid, or gaseous. It covers about four-fifths of the Earth's surface and is a fundamental component of the environment.

The soil is the thin layer located between the atmosphere and the subsoil. It originates from the decomposition of living organisms after their death and the breakdown of rocks in the subsoil. The subsoil contains rocks that vary depending on the location and the conditions that have prevailed there.

4.2.2. Elements Derived from Living Beings and Human Productions

- A **bird feather**, a **piece of wood**, a **fallen leaf**, and all **animal carcasses** are no longer considered living because they can no longer reproduce.
- All **human-made products** are part of the non-living: a **painting**, a **computer**, a **building**, a **car**, etc.

5. Humans and the Environment :

Humans are the main agents responsible for the changes occurring in the environment through their activities and ever-evolving lifestyles. They have both harmful and beneficial effects on the environment.

5.1. Harmful Effects of Humans on the Environment

Among the destructive effects of human activity on the environment, the **increase in the world's population** leads to the construction of more and more housing and the **expansion of cities**. This expansion causes the **appearance of construction sites, land leveling**, and the **development of roads and connections between cities**, which significantly alters the landscape and transforms nature.

The ever-growing number of **means of transportation** causes **air pollution**. The enormous amounts of **household waste** resulting from the global population increase are **very difficult, if not impossible, to manage** at present, despite the various techniques that exist to destroy them while minimizing pollution.

The extraction of minerals and materials needed for construction, such as rock, sand, and gravel taken from quarries, also modifies the landscape and disrupts the surrounding natural environment.

Deforestation and the construction of dams also play a harmful role in destroying the balance of natural ecosystems and contribute to the disappearance of animal and plant species.

Industry produces **various types of waste** — solid, liquid, and gaseous — which have become a major **environmental problem** today.

The **chemical industry** causes the **pollution of river and stream water**, making it **unfit for fishing and consumption**.

As water quality deteriorates, **dozens of diseases** affect humans as well as aquatic fauna and flora.

Oil spills caused by the discharge of hydrocarbons into seas and oceans are **true ecological disasters**, leading to the **death of hundreds of fish and seabirds**.

Overfishing has led to the **disappearance of certain marine species** and a **decrease in global fish stocks**.

Finally, the **introduction of invasive species** leads to the **destruction of natural balance** and causes the **extinction of native species** in the affected environment.

5.2. Positive Effects of Humans on the Environment

Humans also have **favorable effects** on the environment. The **legislation in favor of ecology** in almost every country in the world proves this.

Current global trends to **reduce pollution** are beginning to show real results.

Some **industrial and household waste** is now **recycled**. Laws are increasingly regulating the **disposal of harmful waste**. This waste is **sorted, processed, and treated** in suitable facilities such as **incineration plants**, or even **converted into energy**.

Recycling also helps to **recover raw materials**, thereby **saving resources** and **preventing pollution** of nature.

Wastewater treatment plants (WWTPs) also make it possible to **recover residues** from the purification process and use them to produce **biogas**, which can then be transformed into **thermal and electrical energy**.

The **protection of forests** against **desertification** and **deforestation** is another positive human action for the environment.

Through these measures, **wildlife and plant life** are preserved, and the species that inhabit these

ecosystems are protected.

The **creation of national parks** and **protected reserves**, as well as the **regulation of hunting and fishing**, now help to **significantly reduce** the destructive effects of humans on nature.