

# THEMATIC BROCHURE

Let's Take Care of the Planet

Points for consideration for debating sustainable development issues

PROJECT 2013-2015

Biodiversity and  
natural resources

Solidarity and citizenship

Energy and renewable  
energy

Climate and the  
greenhouse effect

Well-being and health

Production and  
consumption



# INTRODUCTION

This thematic brochure has been produced by the Monde Pluriel association. It is aimed at teachers and facilitators working with young people on Education for Sustainable Development (ESD) projects in the context of the “Let’s Take Care of the Planet” project. It will serve as a framework and points for consideration for the investigations carried out by the young people and for the debates during the local and regional conferences.

We have chosen to develop six main themes in this document:

- **Biodiversity and natural resources**
- **Energy and renewable energy**
- **Production and consumption**
- **Climate and the greenhouse effect**
- **Solidarity and citizenship**
- **Well-being and health**

While being fairly broad, we believe that these themes encompass the major issues of our present-day societies. The ESD projects conducted in the educational institutions can moreover be linked to one of these issues.

The purpose of the sheets that you will find below is more to open up points for consideration on socially pressing issues and on current debates linked to these themes, rather than to provide exhaustive scientific content. We also wish to place an emphasis on the interdependence of human societies and on globalisation. Indeed, these points raise issues that are both local and global.

It is also important to note the interdependence of the themes because it is sometimes difficult to dissociate them. For example, it is difficult to talk about energy without mentioning natural resources, the climate or production and consumption ...

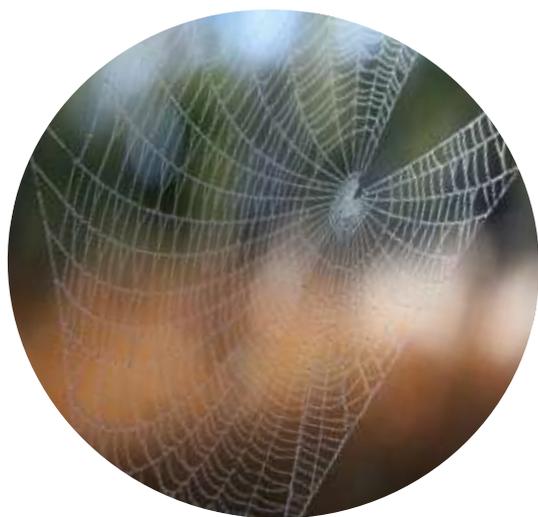
Finally, for the English translation of this brochure, please note that the sources and references are mainly in French.

# ● BIODIVERSITY AND NATURAL RESOURCES

## DEFINITION

Biodiversity refers to the diversity of living things. It is made up of all of the living species present on Earth, whether they are of organic, vegetable, animal or even human origin. The term biodiversity, formed from the Greek word “bios”, which means life and the word “diversity”, which means variety, but also divergence or difference, has gained a higher profile in the press, the media and scientific literature since the Rio Earth Summit in 1992, and has gradually replaced the term nature.

Biodiversity, as defined by scientists, is traditionally presented on three levels: genetic diversity within a species, the diversity of species, and the diversity of the ecosystems on Earth. In addition to the emblematic species under threat of extinction, there are a multitude of groups of living organisms and biodiversity concerns this diversity but also the interdependencies and interrelationships that form and exist within and between these ecosystems. For the International Year of Biodiversity, in 2010, an objective was set: to stop



or at least slow the erosion of the number of species on Earth. During the **Nagoya Conference**, the international community had to acknowledge that this objective had not been achieved. In 2011, scientists estimated the number of species populating the planet at 8.7 million, the majority of which are still unknown. From forests to the human intestine, there are a multitude of groups of living organisms existing in an **interdependent** and **interrelated** manner that form what are known as **ecosystems**. Thus all living organisms are part of a constantly evolving equilibrium. The human species has, since the start of its history, also played a role in the existence and the equilibrium of biodiversity. It draws from biodiversity the resources necessary for its

development and survival.

Natural resources “include everything that is derivable for the use of man from any part of the universe”<sup>1</sup> (fauna, flora, minerals, solar energy, etc.) and are classified into two categories: renewable and non-renewable resources.

<sup>1</sup> A definition given by E. Barton Worthington during a UNESCO conference on “the organization of research and training in Africa in relation to the study, conservation and utilization of natural resources”.

For several centuries, humans have had an increasing influence on the evolution of ecosystems. While species have always appeared and disappeared, we see today that these disappearances are happening much **more quickly** than before and that **the causes are of anthropogenic origin**: over-exploitation of living resources (over-fishing, poaching, etc.), destruction of habitats (deforestation, etc.), climate change, pollution and diseases. The disappearance of a single species leads to the breakdown of ecosystems and chain reactions due to the interdependence of living organisms. At the end of this chain, human societies are also under threat.

Natural resources, whether renewable or non-renewable, are also being depleted globally. Human needs are increasing owing to demographic growth: water is becoming scarce in certain regions of the world, fossil energy and minerals are dwindling, dozens of species of fish are under threat of extinction, etc. Numbering over seven million people today, the human race should reach eight to 10 billion individuals by 2050, and consume approximately three times more raw materials ...

### POINTS FOR CONSIDERATION

Biodiversity and natural resources, which are commoditised and sources of conflict and inequality, are today at the heart of social and economic issues. The scarcity of some resources endanger the organisation of current human societies, or even the survival of human beings.

- Should we move towards a more modest way of life, by limiting the exploitation of nature?
- To what extent can we trust human ingenuity and science?
- Can nature alone recreate a new equilibrium?
- What modes of development should be considered in the countries of the South or emerging countries?
- What should be done to tackle biopiracy - appropriation of biological resources and ancestral knowledge by commercial companies from the North - ?

# ● ENERGY AND RENEWABLE ENERGIES

## DEFINITION

---

Energy refers in the first place to natural resources: **mechanical/muscular energy** (human strength, animal traction), **renewable energy** (sun, water, wind, geothermal energy, biomass, etc.), **fossil energy** (coal, oil, gas) and **atomic energy** (primarily derived from uranium). When we talk about energy, we also think about how we use it: to produce, warm ourselves, to travel, to feed ourselves, etc. Over the course of time, human beings have used various sources of energy to live. They first exploited the strength of their own muscles and that of oxen or horses, then the wind, water, the sun and also wood. It was in the industrial era that human beings began to massively exploit so-called non-renewable resources and that revolutionised the transformation and use of energy.

## ANALYSIS

---

Our current model of economic development is predominantly based on the use of fossil energy. This is **over-exploited** today and has for a few decades shown the first signs of **depletion** (oil crises, price increases) and its limitations in terms of impacts on the environment and the health of individuals. Other energy sources, such as nuclear or hydraulic energy, raise questions in view of the **major risks** that they can give rise to (radioactive waste storage, disruption of ecosystems, etc.). Renewable energy is gradually growing but despite this still remains marginal in global production and consumption. We also note that energy is a source of inequality that is both quantitative (unequal distribution of and access to resources) and qualitative, both globally and within a single country.



## POINTS FOR CONSIDERATION

At a time when energy needs are growing in industrialised and emerging countries, the debates on energy transition and new energy sources are intensifying. Thus, our energy choices, but also the ways in which we use the energy produced, represent societal choices. We can therefore ask ourselves the following questions:

- With greenhouse gas-emitting fossil energy on the one hand and so-called “clean” energy such as nuclear, shale gas or agrofuels on the other, do “environmentally-friendly” energy sources exist?
- Travelling or feeding ourselves: do we have to choose?
- How can we live without “rare earth” (set of 17 metals enabling the manufacture of mobile telephones, computers, flat screens, but also wind turbines, electric cars and energy-saving light bulbs) the extraction of which is highly polluting and limited?
- What are the solutions to fuel poverty (“precariousness of people who do not have normal and regular access in their housing or living space to the energy sources needed to meet their basic needs)?
- How can the problems relating to the production and consumption of energy be solved? A debate on this question will make it possible to identify what these problems are and to explore the advantages and limitations of the “solutions” envisaged today.

# • PRODUCTION AND CONSUMPTION

## DEFINITION

---

Consuming is the act of acquiring goods or services in order to **satisfy needs or desires**. After the Second World War, western governments needed to revive the economy. **Mass production** was gradually established, thus creating a **society based on consumption**. To enable such a system, needs among consumers were created by playing with the effects of fashion, advertising and marketing. But, above all, the lifecycle of products was deliberately reduced in order to guarantee continuous consumption through the replacement of “obsolete” products, which is known as **planned obsolescence**.



## ANALYSIS

---

This phenomenon grew to such an extent that today we also talk about **over-consumption**. Indeed, our current production and consumption patterns do not allow the planet to regenerate the required natural resources and to absorb the pollution that they create throughout the product cycle (extraction, production, distribution, use, processing). The western consumer societies also raise **social issues**: exploitation of raw materials and of workers in the countries of the South, competitiveness and increased competition between individuals, increasing inequality, etc. This system is not viable and must be challenged. There are numerous alternatives as regards **responsible consumption**: fair trade, short supply chains, organic agriculture and ecolabels, recycling and reuse of products, or quite simply consuming less ... But these alternatives have not yet won over the majority of consumers or are not yet accessible to all.



## POINTS FOR CONSIDERATION

- In a modern and globalised society, how can growth be slowed while safeguarding production and employment?
- The international economic system is based on wealth indicators that have been called into question (GDP/GNP calculation, growth, etc.): How should negative and positive externalities be taken into account in wealth indicators?
- Can we feed the world with local and organic production?
- Can trade be fair?

## SOURCE

Video: "The Story of Stuff" by Annie Leonard (subtitles in several languages available on YouTube)

<http://storyofstuff.org/movies/story-of-stuff/>

# ● GREENHOUSE EFFECTS AND CLIMATE CHANGE

## DEFINITION

---

Climate is defined as a description of the meteorological averages and extremes in a limited area. It is naturally variable seasonally and annually, and this variability is normal. In addition, our climate has extremes (heavy rainfall, drought, hail, tornados or hurricanes for example), which can have considerable impacts throughout different regions of the world.

The definition of climate encompasses the greenhouse effect, a natural phenomenon that is essential to life on Earth and which ensures an average temperature of approximately +15°C. It consists of a group of gases (greenhouse gases (GHGs): primarily water vapour, methane, carbon dioxide and nitrous oxide) that contribute to partly trapping the solar energy reflected by the Earth, thus increasing the average temperature of the planet. Without the greenhouse effect, it would be -18°C. We therefore understand that the GHG concentrations on Earth have enabled the emergence of the forms of life that we know and that these are very sensitive to temperature.

## ANALYSIS

---

For several decades, indicators and studies have shown a variation that is in no way natural in the strict sense of the word: the climate is warming on a global level... and this phenomenon has accelerated in just one century.

The Intergovernmental Panel on Climate Change (IPCC) has been definitive for ten years: climate change manifests itself every day through destabilising variations that reflect the global disturbance of bioclimatic systems, owing to the impact of human activities on influencing factors. How can the unpredictable be predicted? This is the question that a significant majority of scientists and climate experts are asking themselves. Various climate models try to provide an answer but they compete with each other and are eventually set aside in the face of the surprising increase in natural disasters and new meteorological events throughout the world: drought in the Sahel, the increase in forest fires, the thawing of permafrost in northern areas that releases methane (a GHG twenty times more powerful than carbon dioxide), the reduction of the ice cap and sea level rise, increasingly frequent and violent hurricanes in tropical regions, etc.

The climate issue is connected to our everyday way of life and affects various aspects of human activities: the transport sector, agriculture, the residential sector (heating,



hot water production, air conditioning), the manufacturing industries and the treatment of waste (which is primarily made up of methane, originating from landfill sites). For example, for France, the transport sector is the primary source of greenhouse gas emissions.

## THE NEGOTIATIONS AT THE GLOBAL LEVEL

The International Energy Agency (IEA) recently set out the issues for discussion: if we do not change our development trajectories, global average temperatures will rise by 3.6°C to 5.3°C by 2100. Officially, the objective of the international community is to stabilise warming at 2°C by the end of the century.

## TOWARDS A NEW AGREEMENT IN 2015

A new agreement should enter into force in 2020 as a follow up to the Kyoto Protocol. In 2015, a text must be signed by the 194 countries that ratified the UN Convention on Climate Change (UNFCCC), during the Bourget climate summit (COP 21, in Paris). We are therefore a few months from the deadline.

In December 2012, the previous COP (Conference of the Parties) took place in Doha. According to the words of Connie Hedegaard, European Commissioner for climate action, “the EU wanted Doha to mark the transition away from the old climate regime where only developed countries have the legal obligation to reduce emissions, to the new system where all countries, developed and developing alike, will for the first time make legal commitments under the new global agreement.”



### POINTS FOR CONSIDERATION

The link between greenhouse effects and climate change is acknowledged today. Scientific studies are increasingly alarmist with regard to global warming and its consequences.

- Is it possible to establish international regulations to limit climate change and its consequences?
- What solidarity should be created globally between countries that are high emitter and countries that are low emitters, but which also suffer the consequences of climate change?
- What role should be given to new actors - in particular towns and cities - in international processes and negotiations?

## DEFINITION

---

Human solidarity is the feeling of responsibility and mutual dependence that prompts humans to feel responsible for each other. From this perspective, the problems encountered by one or more of the members of a community concern everyone. This solidarity exists on several levels (close to home, in your country, in Europe or worldwide) and can take several forms. Likewise, citizenship is exercised today on various levels: national, European and, increasingly, international, with this emerging concept of “global citizenship”.

## ANALYSIS

---



Solidarity and citizenship take very varied forms both at the local and international levels. Our economies and our societies have become so interdependent that the actions implemented can have a significant impact at different levels.

The AMAPs – Associations for the Preservation of Small-Scale Farming – that are growing in France are for example the expression of local solidarity towards small-scale farming. In terms of international solidarity, the actions can take different forms: from an awareness-raising campaign (denouncing an appalling situation relating to human rights or economic and social rights), to an action to support a specific project in a distant country, via a lobbying campaign to

influence a political decision, etc.

All of these initiatives (which are also one of the aspects of globalisation) have in common the objective of restoring meaning to the word “community”: local community but also global community.

### GLOBALISATION AND NEW FACETS OF LAW AND SOLIDARITY

Climate change raises the question of solidarity in new terms, going beyond national borders: its consequences will require us to come up with new solutions that may only be relevant in management of the planet in solidarity and in concert (climate has no borders). The concepts of “**climate refugees**” and “**environmental refugees**” thus raise the question of solidarity from a new perspective. These refugees suffer the consequences of global phenomena, which have so far been due to the way of life of industrialised countries.

Solidarity between countries must therefore emerge in order to jointly manage humanity's common assets (water, biodiversity, access to scarce resources etc.) but also the negative aspects (release of chemical products and toxic waste for example)

In the absence of a global parliamentary assembly or a government that is the guardian of planetary interests, it is necessary, according to the words of Mireille Delmas-Marty - a legal expert specialising in the internationalisation of law – *“integrating humanity's common interests into national interests, which implies the acknowledgement of common values, whether we call them “human rights” or “global public assets” that encompass, for example, humanity's security, its health and the quality of its environment”* (interview for the Libération newspaper).



### POINTS FOR CONSIDERATION

The issues merit consideration of the different types of solidarity that exist: solidarity over time, with future generations; solidarity in respect of social inequality; international and “inter-territorial” solidarity, etc.

- What are the most relevant solidarity actions?
- What international governance should there be of humanity's common assets?
- Interdependencies, globalisation, the transnational activity of large companies, etc. challenge borders; is it therefore necessary to rethink the concept of “national sovereignty”?

## DEFINITION

---

The phrase “environmental health” appeared at the end of the 20th century. It refers to the common ground between hypotheses, knowledge and theories concerning the possible relationships between:

- on the one hand, environmental variables (biogeographical factors, pollution and environmental impacts, etc.) but also factors concerning the quality of food, of the indoor environment (air, noise, electromagnetic field, radioactivity, etc.) and of the working environment (exposure to toxins, abnormal fatigue or to specific stress factors);
- and health on the other.

## ANALYSIS

---

We often hear it said that health is the most precious asset. But our health is also dependent on our environment, whether it be immediate or distant... It is also our way of life that is in question: the quality of what we eat, the waves to which we may be exposed, the air that we breathe (outside but also inside our homes).

Recent health and environmental crises prompt us to question ourselves. As regards food, a series of food-related crises - mad cow disease, foot-and-mouth disease, presence of dioxin in chicken, etc. - has recently led buyers to actively turn to more responsible practices, with approved labels (organic, free-range rearing, guaranteed GMO-free, etc.). These new practices challenge certain production methods, such as intensive agriculture, which make it possible to, achieve maximum output with minimum labour, with disastrous consequences: waste, environmental degradation, pesticide pollution, destruction of the food sovereignty of the countries of the South, poor quality fruit and vegetables, etc.

As regards food, so as not to take just one example, the recent studies on GMOs have cast doubt on the harmlessness of these organisms. The very lively debate shows that there is no stabilised knowledge of the issue. Likewise, poor air quality in towns and cities worryingly affects the health of the global population, whether it be in developed or developing countries. This pollution has caused a considerable increase in the number of people suffering from asthma and allergies in towns and cities Our health is also dependent on the air that we breathe inside our homes: the synthetic chemicals



products emitted by construction material, furniture, cleaning products, contribute greatly to the pollution of the air inside our homes. The WHO – World Health Organization – has identified numerous indoor pollutants: tobacco smoke, volatile organic compounds, allergens, airborne particulates, etc.

Both local and global responses need to be provided to these issues. In this context, information and the traceability of the products that we consume constitute huge issues ...



## POINTS FOR CONSIDERATION

In a society where technology and synthetic products are present everywhere, the citizen is faced with a real headache when they have to make consumption choices.

- How can scientific studies and reliable monitoring methods be established to control new technologies (particularly on GMOs)?
- How can both young people and adults remain vigilant without being drawn into a climate that causes anxiety?
- What pressure (citizens and from consumers) can be exerted to require product traceability and labelling?
- How can science be moved forward while respecting the precautionary principle?

## SOURCES

Women in Europe for a Common Future  
<http://www.wecf.eu/>

Wikipedia  
[http://en.wikipedia.org/wiki/Environmental\\_health](http://en.wikipedia.org/wiki/Environmental_health)

World Health Organization (WHO)  
<http://www.who.int/en/>

L'appel de la jeunesse  
<http://www.appeldelajeunesse.org/>



ASSOCIATION MONDE PLURIEL

European coordination team for the "Let's Take Care of the Planet" project

15 rue Georges Jacquet  
38000 Grenoble  
France  
Tél : + 33 (0) 4 38 21 05 15  
[contact@mondepluriel.org](mailto:contact@mondepluriel.org)  
[www.mondepluriel.org](http://www.mondepluriel.org)

Internet site of the European "Let's Take Care of the Planet" project  
[www.careplanet-europe.org](http://www.careplanet-europe.org)

Under the high patronage of:



With the support of:

