

“Capacity Building and Strengthening Institutional Arrangement”

Workshop: “Sustainable Development”

**SUSTAINABLE DEVELOPMENT
FUNDAMENTALS**

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APAT

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1. Sustainable Development

The concept of Sustainable Development was elaborated for the need to find a balanced solution to economic, environmental and social global issues. They are considered as "interdependent and mutually reinforcing pillars" of the development.



The most commonly cited definition of Sustainable Development comes from the report "*Our Common Future*", also known as the Brundtland Report (1986), which states that:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

1. Sustainable Development

A most recent Document of the United Nations states that cultural diversity is as necessary for humankind as biodiversity is for nature, so that it becomes:

“one of the roots of development, understood not simply in terms of economic growth, but also as a means to achieve a more satisfactory intellectual, emotional, moral and spiritual existence”.

Culture can be thus considered as the fourth “pillar” of sustainable development.

United Nations also list a very broad areas that come within the field of Sustainable Development, from agriculture, to education and awareness, energy, health, international law, sanitation, trade an many others.

Different conceptions (as for example “weak” or “strong” sustainability) and visions (e.g. “ecocentrism” or “anthropocentrism”) reveal that the concept contains a large amount of debate as to its precise definition.

2. Environmental sustainability

Environmental degradation is the damage to the biosphere as a whole, namely due to human activity. Environmental degradation occurs when:

- nature's resources (such as trees, habitat, earth, water and air) are consumed faster than nature can replenish them;
- pollution results an irreparable damage done to the environment;
- human beings destroy or damage ecosystems in the process of development.



Some of the major causes of degradation include overpopulation, urban growth, industrial pollution, waste dumping, intensive farming, over fishing, industrialization, introduction of invasive species and a lack of environmental regulations.

2. Environmental sustainability

The goal of environmental sustainability is to minimize these negative impacts, and, ideally, reverse the processes they lead to.

Sustainability requires that human activity, at a minimum, only uses nature's resources at a rate at which they can be replenished naturally.

Consumption of renewable resources	State of environment	Sustainability
More than nature's ability to replenish	Environmental degradation	Not sustainable
Equal to nature's ability to replenish	Environmental equilibrium	Steady-state Sustainability
Less than nature's ability to replenish	Environmental renewal	Sustainable development

3. Principles of environmental sustainability

Human rights and Intergenerational equity are the general principles to which the Bruntland Report and the Rio Declaration are inspired (*).

Equity is intended as

- *infragenerational equity*, both at the local and international level. It refers to an equitable access to natural resources for each inhabitant of the earth.
- *transgenerational equity*. This refers to the fact that the present generations must not harm the wellness of the future generations with the environmental degradation caused by their economic activities.

(*). *“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”*
(Principle 1 – Rio Declaration)

3. Principles of environmental sustainability

Principles	Concepts
Human's cultural heritage	Environment is a indivisible whole, quite apart from temporal and territorial extension
Precaution	To look for and assure the most scientific precaution for risks
Information and notification	Duty of information towards the others about a state of the art of an inauspicious or dangerous event
Cooperation and assistance	States have to cooperate to prevent and fight the environmental deterioration
Objective responsibility	The activities' owner is responsible, apart from the event, for the compensation damages
Canalisation of responsibilities	The activities' owner has to compensate damages apart from the effective responsibilities
Responsibility definition on the damage amount	The responsible is responsible till the limited insured amount
Temporal responsibility definition	The right to damage extinguishes after the time established by rules
Assurance obligation	Obligation of the activities' owner to draw up an assurance contract
Polluter pays	The physical and or juridical person responsible for pollution has to pay the reclamation costs

4. International milestones

1972 the Club of Rome publishes the report “Limits to Growth”

1972 the United Nations organise in Stockholm the Conference on Human Environment

1974 is founded the U.N. Programme for Environment and Development, UNEP

1977 definition of the UNEP’s World Plan of Action on Ozone Layer

1980 publication of the report “Global 2000” to the U.S. President Carter: scenarios by 2000 regarding population, economy, technology, energy, water, forestry and resources supply.

1985 Vienna Convention for the Ozone Layer

1987 Adoption of the Montreal Protocol during the UNEP’s Conference on Substances that Deplete Ozone Layer

1987 Report “Our Common Future” of Gro Harlem Brundtland at the World Commission on Environment and Development, with the historical definition of “Sustainable Development”.

4. International milestones

1992 Framework Convention on Climate Change, come into force in 1994

1992 United Nations “Earth Summit” Conference of Rio de Janeiro on Environment and Development (UNCED). The following documents have been produced: the Rio Declaration on Environment and Development, The Agenda 21, the Convention on Climate Change (UNFCCC), The Convention on Biological Diversity (UNCDB), the Convention ‘Combating Desertification and Drought’ and the ‘Principles of forestry.’

1992 United Nations General Assembly establishing the Commission on Sustainable Development (UN CSD)

1994 was adopted the United Nation Convention to Combat Desertification, which come into force in 1996

1994 European Conference on Sustainable Cities and Towns organised by ICLEI and the European Commission, during which was subscribed the Aalborg Charter

1994 the Cairo “International Conference on Population and Development” organised by the United Nations

4. International milestones



AGENDA 21: highlights the need to consider the relationships between environment, economy and society to solve the problems of disparity among Nations, poverty and deterioration of the natural environment.

It also assigns to local Authorities a central role in carrying out a sustainable and shared land planning design to protect the environment, with a particular attention on climate change, use of water resources, land degradation, hazardous wastes, depletion of biological diversity.



4. International milestones

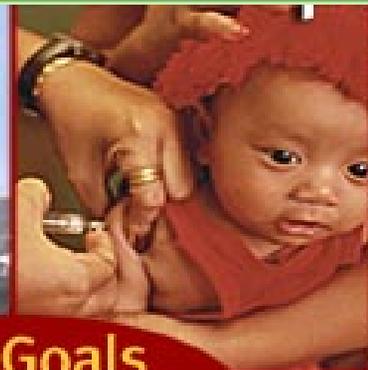
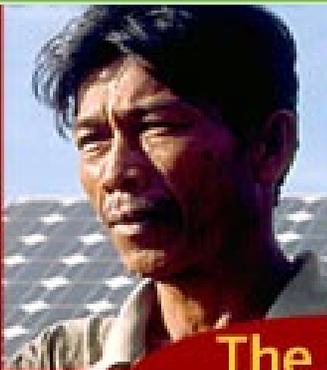
1996 the Lisbon Conference of Sustainable Cities and Towns, during which was approved the “Lisbon Charter”

1997 Special Session of the U.N. General Assembly (UNGASS), called ‘Rio + 5’, to evaluate the state of the art on Agenda 21

2000 on going of activities on global conventions celebrating conferences of Parties

2000 starting of activities on assessment on ten years review on Agenda 21 state of implementation

2002 the U.N. World Summit for sustainable development of Johannesburg. The World Summit of Johannesburg 2002 reaffirms all the principles on sustainable development and environmental protection, promoting new cooperation tools as the starting of a number of partnership initiatives in different areas of interventions in order to finalise all the previous efforts. During the Conference two important documents were produced: the ‘Millennium Declaration’ and the ‘Plan of Implementation’



The Goals

Implementation

The Johannesburg Agenda	The Johannesburg Output
Equity and social justice	The Millennium Declaration
Right to development with different patterns	The Plan of implementation
Well-being fairly diffused	The Partnership initiatives
Governance of the market	

5. European Strategies

1993 The Fifth European Community Environmental Action Plan “Towards Sustainability”, differently from previous programme, sets longer term objectives and focuses on a more global approach. It identifies the main relevant environmental issues and indicates the principal sectors that require risk management.

2001 The Sixth European Environmental Action Plan, “Environment 2010: our future, our choice”.

2001 European Union Strategy: “A sustainable Europe for a Better World”, approved by the Gothenburg Council, defining the greatest obstacle to sustainable development in the lack of integration among different policies.

2006 Renew of the EU Sustainable Development Strategy – This review takes account of the achievements obtained and sets out further concrete actions for the coming years focusing on some key issues.

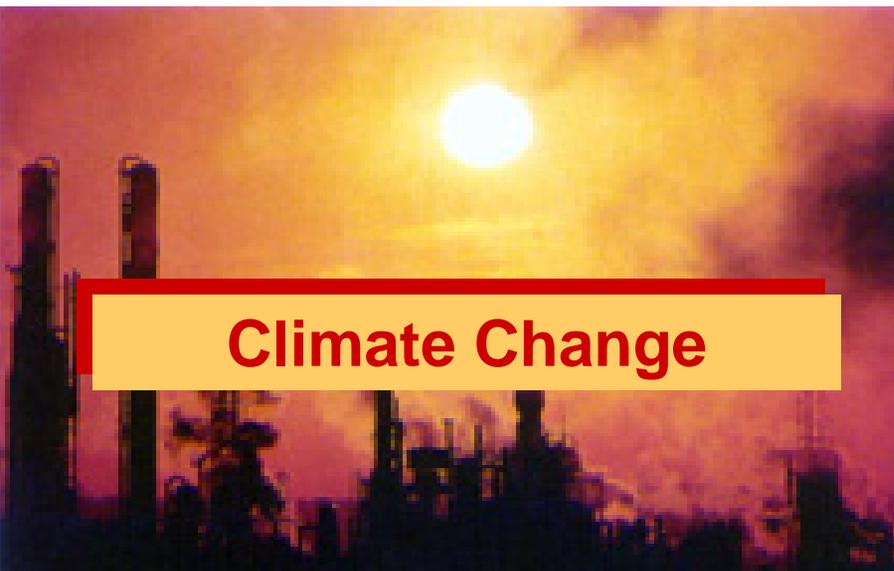
6. The Sixth European Environmental Action Plan

The Sixth European Environmental Action Plan, “Environment 2010: our future, our choice” starts with an assessment of environmental Community strategies and the results achieved, highlighting the ecological problem still existing.



Namely, four critical environmental areas have been identified:

6. The Sixth European Environmental Action Plan



Climate Change



Environment and Health



Nature and Biodiversity



Natural Resources and Waste

Environmental issue	General objectives of the VI Environmental Action Plan	General objectives of the Environmental Italian Strategy
<p style="text-align: center;">Climate Change</p>	<ul style="list-style-type: none"> ✓ To stabilise the atmospheric concentration of greenhouse gases at a level that will not cause unnatural variation of the earth's climate ✓ <u>Short term objective</u>: to achieve an 8% reduction in emission greenhouse gases by 2008-2012 compared to the 1990 levels ✓ <u>Long term objective</u>: to achieve a global reduction of 20-40% over 1990 by 2020 ✓ To achieve levels of air quality that do not give rise to unacceptable impacts on, and risks to, human health and the environment. 	<ul style="list-style-type: none"> ✓ <u>Short term objective</u>: to achieve an 6,5% reduction in emission greenhouse gases by 2008-2012 compared to 1990 levels ✓ <u>Long term objective</u>: to achieve a global emission reduction of 70% over 1990 levels ✓ To reduce air pollutants emission and to maintain pollutants concentration under the limits that not give rise to risks to human health, to environmental ecosystems, and to cultural heritage

Environmental issue	General objectives of the VI Environmental Action Plan	General objectives of the Environmental Italian Strategy
<p>Nature and Biodiversity</p>	<ul style="list-style-type: none"> ✓To conserve and where necessary to restore the structure and functioning of natural systems and halt the loss of biodiversity both in the European Union and on a global scale ✓To protect soil against erosion and pollution 	<ul style="list-style-type: none"> ✓To conserve biodiversity ✓To protect territory from hydrogeologic, seismic and volcanic risks and from coastal erosion phenomena ✓To reduce and to prevent the desertification phenomena ✓To reduce water and soil pollution ✓To reduce human pressure on ecosystem, on agricultural soil, on sea and on coasts

Environmental issue	General objectives of the VI Environmental Action Plan	General objectives of the Environmental Italian Strategy
<p>Environment and health</p>	<p>✓To achieve a quality of the environment where the levels of the man-made contaminants, including different types of radiation, do not give rise to significant impacts on, or risks to, human health</p>	<ul style="list-style-type: none"> ✓To achieve a territory and urban balance ✓To improve the quality of urban environment ✓To reduce acoustic pollution ✓To reduce exposition to electromagnetic fields ✓To implement Sustainable use of the genetically modified organisms ✓To implement safety and quality of food ✓ To reclaim polluted sites ✓To strengthen environmental law

Environmental issues	General objectives of the VI Environmental Action Plan	General objectives of the Environmental Italian Strategy
<p>The sustainable use of natural resources and management of waste</p>	<p>✓To ensure the consumption of renewable and non-renewable resources and the associated impacts do not exceed the carrying capacity of the environment and to achieve a decoupling of resources use from economic growth through significantly improved resource efficiency, dematerialisation of the economy, and waste prevention</p>	<p>✓To reduce depletion of natural resources without compromising the present quality of life</p> <p>✓To reduce waste generation and to recover material and energy from waste</p>

6. The Sixth European Environmental Action Plan

The VI European Environmental Action Plan also identifies five specific priority strategic approaches to achieve the environmental quality objectives, going beyond a strictly legislative approach:

- ✓ **improving implementation of existing legislation,**
- ✓ **integrating environmental concerns into other policies,**
- ✓ **encouraging the market to work for the environment,**
- ✓ **empowering citizens in changing behaviour,**
- ✓ **greening land-use planning and management decision.**



6. The Sixth European Environmental Action Plan

The Programme provides the environmental component of the European Strategy for Sustainable Development, linking the environmental policies to the European objectives for growth, competitiveness and employment.

In the summer 2006 European Commission has presented a Report on the Mid-term review of the Programme, to evaluate the progress made in its implementation.

In this context, some thematic priorities for the next years have been fixed:

- chemicals: the REACH Directive, recently approved, provides a strategy for the registration and authorisation for chemicals;
- climate change: identify responsibilities and commitments for transport, domestic usages and industry, in order to act on a mitigation of pollution due to human activities;
- application of existing legislation in the different thematic areas, namely by using the Environmental Impact Evaluation;
- improve the environmental communication, to raise awareness among citizenship.

7. The European Union Strategy: “A sustainable Europe for a Better World”

The Gothenburg Council has approved a European Strategy for Sustainable Development, defining the greatest obstacles to sustainable development that are part of many different political environments:

- ✓ global warming  **climate change**
- ✓ the appearance of viral pockets resistant to antibiotics, and the long-term effects of many chemicals used on a daily basis  **public health**
- ✓ poverty and social exclusion
- ✓ the population’s ageing and low birth rates
- ✓ the loss of biodiversity  **management of natural resources**
- ✓ road traffic  **transport system and regional management**
- ✓ regional disparities within the European Union

7. The European Union Strategy: “A sustainable Europe for a Better World”.

This strategy highlights that, in order to achieve these objectives, it is necessary at European and national level to promote:



- dissemination of information,
- investing in new technologies,
- opening up decision-making processes to businesses and citizens,
- taking into account the expansion of the European Union and the global dimension of the problems.

8. Instruments for the implementation of Sustainable Development' Strategies

The concept of Sustainable Development integrates environmental, economic, social and institutional aspects according to an interdisciplinary approach which local and national operators, citizens and firms, in order to face the main environmental problems in an integrated and transversal way.

Namely, the local level, since the Rio Summit, is considered as the most suitable for the promotion of concrete initiatives and instruments for sustainable development and environmental protection.

The **Local Agenda 21** is recognised as an essential strategic process to encourage and monitor sustainable development.

8. Instruments for the implementation of Sustainable Development' Strategies

LOCAL AGENDA 21

Local Agenda 21 is one of the voluntary instruments which enables the achievement of the objectives of Sustainable Development stated by the Rio and Johannesburg Summits.

The concept of Local Agenda 21 has been elaborated and promoted within the International Council for Local Environmental Initiatives (ICLEI), namely through the First European Conference on Sustainable Cities held in Aalborg in 1994, and is focused on the role of local authorities and cities in promoting participated processes of sustainable local planning and development, based on the main following steps and principles:

- involvement of all local stakeholders by means of establishing the Forum;
- drafting of a diagnostic environmental framework (Environmental Report);
- preparation, implementation and monitoring of the Local Action Plan.

8. Instruments for the implementation of Sustainable Development' Strategies

In this framework, International, European and National Strategies promote both **mandatory and voluntary instruments** for the achievement of environmental protection and economic and social development targets.

Mandatory instruments

VAS (Strategic environmental evaluation)
VIA (Environmental impact evaluation)

Non mandatory (or voluntary) instruments

EMAS (Ecomanagement and Audit System);
ECOLABEL (European Ecological LABEL);
EPD (Product Environmental Declaration);
LCA (Lifecycle Assessment);
GPP (Green Public Procurement);
IPPC (Integrated Pollution Prevention and Control)

9. Conclusions

This presentation has provided a general overview on the issues related to Sustainable Development.

They will be deepened during this Workshop, that will be namely focused on:

- Guidelines and Best Practices for Sustainable Development;
- Environmental Education for Sustainable Development;
- Environmental Instruments of Analysis for Sustainable Development
- Environmental Management Systems for Sustainable Development.

I hope you'll enjoy it!



10. References

<http://www.un.org/esa/sustdev/>

http://europa.eu/pol/env/index_en.htm