

LitusGo Manual Module 1

European legal framework





LitusGo is funded with the support from the European Commission through the Leonardo da Vinci Programme - Multilateral Project for the Development of Innovation, 2009.

This educational manual reflects the views only of the author, and the Commission cannot be held responsible for any use which may

ISBN set 978-9963-720-00-2 ISBN 978-9963-720-02-6

be made of the information contained therein.

Preface to the LitusGo Education Manual

The LitusGo Manual is part of the LitusGo educational package which is included in the LitusGo portal: www.litusgo.eu. LitusGo aims at the training and capacity building of Local Authorities and local stakeholders in Integrated Coastal Zone Management issues and the reaction to the impacts of climate change.

This Manual consists of 20 autonomous, self-contained and interrelated modules. The modules are available in four languages, Greek, English, Maltese and Turkish and in three different forms: the dedicated wiki application in the LitusGo portal, the dvd and the hard copy version. This hard copy version of the LitusGo Manual consists of 20 self-contained booklets, one for each module, kept in a hard collective case.

List of modules of the LitusGo Educational Manual

Module 1:	European legal framework
Module 2:	Stakeholder involvement/Public participation
Module 3:	Sustainable tourism-carrying capacity
Module 4:	Water resources management
Module 5:	Fisheries/fish farming
Module 6:	Coastal water quality
Module 7:	Ecosystems management (land and coastal
	ecosystems)
Module 8:	Waste management/recycling/compost
Module 9:	Air pollution
Module 10:	Land uses/urban planning/coastal over-development
Module 11:	Landscape and marine-scape management
Module 12:	Coastal erosion control
Module 13:	Community annoyance issues 1: noise pollution
Module 14:	Community annoyance issues 2: light and thermal
	pollution, odours
Module 15:	Archaeological areas/historic sites/cultural heritage
Module 16:	Extreme conditions management: flood risks, coastal
	flooding and storm surge
Module 17:	Droughts
Module 18:	Desertification
Module 19:	Energy use, consumption and management

Module 20: Green buildings

The LitusGo Education Manual has been developed by the LitusGo Educational Manual Working group:

Modules 1, 2, 6, 7, 8, 9, 12, 13, 14, 16, 17, 18, 19 have been prepared by the scientific team of the beneficiary/coordinators ISOTECH Ltd. Major authors: Michael I. Loizides, Chemical/Environmental Engineer and Xenia I. Loizidou, Civil/Coastal Engineer. Constantinos Georgiades (MSc in ICZM) is responsible for the overall editing. The hard copy of the educational Manual is designed by Anastasia Georgiou.

Modules 3, 4, 5, 10, 11, 15, 20 have been prepared by the scientific team of the Sustainable Aegean Programme of ELLINIKI ETAIRIA - Society for the Environment and Cultural Heritage. Major authors: Georgia Kikou, Geographer, MSc Environment (Manager of the Sustainable Aegean Programme), Alexandros Moutaftsis, Economist, MSc Environment, Leonidas Economakis, Political Sciences, MA International Development.

Dr Alan Pickaver on behalf of partner The Coastal & Marine Union (EUCC) was responsible for the quality control of the educational material.

LitusGo partnership:

Coordinator/Beneficiary:

ISOTECH Ltd Environmental Research and Consultancy www.isotech.com.cy

Cyprus:

Municipality of Pafos www.pafos.org.cy **AKTI Project and Research Centre,** www.akti.org.cy

Greece:

ELLINIKI ETAIRIA - Society for the Environment and Cultural Heritage www.ellet.gr / **Sustainable Aegean Programme**, www.egaio.gr

ONISIS web development www.onisis.gr

Malta:

Municipality of Kirkop www.kirkop.gov.mt

The Netherlands:

EUCC - The Coastal & Marine Union www.eucc.net

Module 1

European legal framework

This module has a different structure from the other 19 modules: it is the synopsis, the summary of the legal framework which covers the most important aspects of the issues that are tackled by the other 19 LitusGo modules. The European legal framework is rich and covers all the important issues of sustainable development. However, what is even more important is the implementation: it is essential to implement the laws, the recommendations, the Conventions for the sustainable development of coastal areas. This is why the LitusGo team considers the knowledge of the legal framework as an important aspect to be included in the education package and in the training/capacity building process. This module gives a brief outline of useful links to legal EU instruments, without attempting to cover the entire relevant legal EU framework.

The extent of description of the legal framework and the details provided for each module is somehow uneven. The reason for this, is that the authors of this module boosted with additional information some of the issues that are considered as more "unknown" to the target groups (as per the results of the "LitusGo Gap Analysis survey", 2010, run in Cyprus, Malta and Greece among the stakeholders concerning their needs for training. Check the portal: LitusGo products/reports).

Module 2: Stakeholder involvement/Public Participation

The right of public participation in decision-making in environmental matters was officially recognized and secured with the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters which was adopted on 25th June 1998 in the Danish city of Aarhus at the Fourth Ministerial Conference in the 'Environment for Europe' process. The Aarhus Convention is the first international agreement that links citizen's environmental rights and human rights. The Convention stresses the need for active participation of the citizens and for access to information held by public authorities. It recognises that sustainable development can be achieved only with the involvement of all the stakeholders and it raises the issues of Government accountability, transparency and responsiveness. Since then, the European Union has adopted two Directives and a Regulation concerning the three "pillars" of the Aarhus Convention that were to be implemented in the national law of the EU Member States.

Relevant links:

 CONVENTION ON ACCESS TO INFORMATION, PUBLIC PARTICIPATION IN DECISION-MAKING AND ACCESS TO JUSTICE IN ENVIRONMENTAL MATTERS, Aarhus, Denmark, on 25 June 1998, available at:

http://ec.europa.eu/environment/aarhus/

Module 3: Sustainable tourism-carrying capacity

According to the original EC treaty, tourism does not fall within the EU's competence or policy area. However, a range of measures have been promoted at the European Union level to encourage sustainable tourism, and which largely relate to wider environmental and coastal zone management regulation, funding instruments and guidance. For example:

- The Commission Communication "A renewed EU Tourism Policy: Towards a stronger partnership for European Tourism", which suggests mainstreaming measures affecting tourism, including better regulation, policy co-ordination, improved use of financial instruments and other funding programmes, supporting the promotion of European destinations using the <u>European destination of Excellence awards (EDEN)</u> etc.
- The Commission's Agenda for a More Sustainable and Competitive European Tourism, that suggests the involvement of all stakeholders, to facilitate the competitiveness of Europe as the most attractive tourism destination.

Relevant links:

- Council Directive 95/57/EC of 23 November 1995 on the collection of statistical information in the field of tourism at: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31995L0057:en:HTML.
- STATE OF THE ENVIRONMENT AND DEVELOPMENT IN THE MEDITERRANEAN 2009 http://www.planbleu.org/publications/SoED2009 EN.pdf.
- UNEP/MAP. 2009a. Sustainable Coastal Tourism. UNEP/MAP 2009.
- A renewed EU Tourism Policy Towards a stronger partnership for European Tourism.

 2006 History

 2006 History

 2006 History

 2006 History

 2006 History

 2006 History

 2007 Histor
 - http://ec.europa.eu/enterprise/services/tourism/communications 2006.htm
- Action for More Sustainable European Tourism available at:

http://ec.europa.eu/enterprise/services/tourism/tourism sustainability group.ht m

Agenda for a More Sustainable and Competitive European Tourism.
 http://ec.europa.eu/enterprise/services/tourism/communications 2007.htm

Module 4: Water resources management

One of the most important legislations in this area is the Water Framework Directive 2000/60/EC for Community action in the field of water policy. The European Legal Framework on Water is huge and covers aspects such as water resources management, quality, pricing, the consequences of climate change related to water resources (EEA, Climate Impacts on Water Resources), the role of users and consumers etc. The main objective of the European Water Policy is to promote the sustainable use of water resources. It is important to note that EU policy defines water not as a commercial product like any other, but as a heritage, which must be protected, defended and treated as such. Internationally and in the Community it has become clear that water will be a critical factor for the development of many countries. Lack of water is responsible for the increasing problem of desertification of many areas. The need for action to avoid long-term deterioration of freshwater quality and quantity is recognized and requires actions for the sustainable management and protection of freshwater resources.

Relevant Links:

DIRECTIVE 2000/60/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 23 October 2000 establishing a framework for Community action in the field
of water policy at:

http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:327:0001:0072:EN:PDF.

- Climate impacts on water resources at: http://www.eea.europa.eu/themes/water/water-resources/climate-impacts-on-water-resources.
- A summary of EU legislation on water protection and management at: http://europa.eu/legislation_summaries/environment/water_protection_management/index en.htm
- http://www.eea.europa.eu/themes/water/water-resources/climate-impacts-onwater-resources
- IPCC Fourth Assessment Report: Climate Change, 2007.
- Blue Plan Notes, Environment and development in the Mediterranean, No 16, July 2010.
- Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee - Pricing policies for enhancing the sustainability of water resources

http://eur-

 $lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber\&lg=en\&type_doc=COMfinal\&an_doc=2000\&nu_doc=477$

Module 5: Fisheries/fish farming

The EU has a very rich legal framework on fisheries, aquaculture and fish farming. A major instrument, however, is the Marine Strategy Directive (European Parliament and European Council of 17 June 2008). According to Article 5 of the Marine Strategy Framework each Member State shall, in respect of each marine region or sub-region concerned, develop a marine strategy for its marine waters

The common fisheries policy (CFP) aims to guarantee the sustainability of living aquatic resources and environmental

protection. To ensure sustainable fishing, the European Union has drawn up multi-annual plans to replenish and manage the stocks, as well as specific measures (total allowable catches, limitation of the fishing effort, the prohibition of certain fishing gear, minimum landing sizes, etc.). Finally, it has adopted regulations to protect species not targeted by fisheries (marine mammals, birds and turtles), juveniles and vulnerable fish stocks and sensitive habitats. According to these regulations "fishing protected area" means a geographically-defined sea area in which all or certain fishing activities are temporarily or permanently banned or restricted in order to improve the exploitation and conservation of living aquatic resources or the protection of marine ecosystems.

Relevant Links:

- Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for Community action in the field of marine environmental policy (Marine Strategy Framework Directive), available at: http://eur
 - lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:164:0019:0040:EN:PD F
- COUNCIL REGULATION (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94
 - http://eur-
 - lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:409:0011:0085:EN:PD F
- A summary of EU legislation on Management of fisheries resources and the environment at:
 - http://europa.eu/legislation_summaries/maritime_affairs_and_fisheries/fisheries_resources_and_environment/index_en.htm
- COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE

EUROPEAN PARLIAMENT (A policy to reduce unwanted by-catches and eliminate discards in European fisheries (Brussels, 28.3.2007 COM (2007) 136 final), available at:

http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0136:FIN:EN:PDF

- Communication from the Commission to the Council and European Parliament of 19 September 2002. A strategy for the sustainable development of European aquaculture (COM(2002) 511), available at:
 - http://europa.eu/legislation_summaries/maritime_affairs_and_fisheries/fisheries_resources_and_environment/l66015_en.htm
- Commission Communication of 22 May 2006 "Halting the loss of biodiversity by 2010 - and beyond - Sustaining ecosystem services for human well-being" (COM(2006) 216), available at:

http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0216:FIN:EN:PDF

Module 6: Coastal water quality

In the European Union, the quality of coastal waters is defined and protected since 1976 with the Bathing Water Directive 76/160/EEC which has set the limits for physical, chemical and microbiological parameters through regular monitoring throughout the bathing season. The 1976 EU Directive subsequently led to the 2006 Bathing Water Directive 2006/7/EC. This new directive moves from simple monitoring of the water quality to water quality management and it incorporates cyanobacteria monitoring and management. Apart from the Directives, good coastal water quality is encouraged through awards such as the Blue Flag, the QualityCoast and others.

Relevant Links:

 DIRECTIVE 2006/7/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 February 2006 concerning the management of bathing water quality and

- repealing Directive 76/160/EEC available at: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PD
- A summary of EU legislation on water protection and management available at: http://europa.eu/legislation summaries/environment/water protection management/index en.htm
- Blue Flag, http://www.blueflag.org/
- QualityCoast, http://www.qualitycoast.info/

Module 7:

Ecosystems management (land and coastal ecosystems)

Increased urbanisation and the spread of human infrastructures, over-exploitation of natural resources, pollution in all its forms, the introduction of exotic species into our ecosystems - these factors are all highly damaging for biodiversity. As a result, 42% of mammals, 15% of birds and 52% of freshwater fish across Europe are under threat. Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, Conventions on Biological Diversity, on migratory species, on the protection of *Posedonia Oceanica* (Barcelona Convention) and several other Directives and Conventions coupled with a vast network of protected sites (the Natura 2000 network), form the "protection" network of legal instruments and tools against the degradation of European ecosystems. The protection of biodiversity is one of the key objectives of EU development policies.

Relevant Links:

 Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, available at: http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:html

- Council Decision 82/72/EEC of 3 December 1981 concerning the conclusion of the Convention on the conservation of European wildlife and natural habitats (Bern Convention), available at: http://europa.eu/legislation_summaries/environment/nature_and_biodiversity/lean.htm
- 93/626/EEC: Council Decision of 25 October 1993 concerning the conclusion of the Convention on Biological Diversity, available at: http://europa.eu/legislation summaries/environment/nature and biodiversity/l 28102 en.htm
- 82/461/EEC: Council Decision of 24 June 1982 on the conclusion of the Convention on the conservation of migratory species of wild animals, available at:
 - http://europa.eu/legislation_summaries/environment/nature_and_biodiversity/l_28051_en.htm
- Barcelona Convention, http://www.unep.ch/regionalseas/regions/med/t_barcel.htm

Module 8: Waste management/recycling/compost

Every year, some 2 billion tonnes of waste - including particularly hazardous waste - are produced in the Member States, and this figure is rising steadily. Directive 2008/98/EC on waste, the Strategy on the prevention and recycling of waste (2005), which sets out guidelines for European Union (EU) action and describes the ways in which waste management can be improved, the management of bio-waste in EU, incineration and shipment of waste and of course the management of hazardous waste with Directive 91/689/EEC on hazardous waste and the Basel Convention and many others, establish a legal framework for the treatment of waste within the Community. The aim is to protect the environment and human health through the prevention of the harmful effects of waste generation.

Relevant Links:

- Directive 2008/98/EC of 19 November 2008 on waste and repealing certain Directives.
 - http://eur-
 - lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:312:0003:0030:EN:PD
 F
- A summary of EU legislation on waste and repealing certain Directives available at:
 - http://europa.eu/legislation_summaries/environment/waste_management/inde_x_en.htm

Module 9: Air pollution

Directive 2008/50/EC of 21 May 2008 on ambient air quality and cleaner air for Europe, is one of the major legal tools of EU for the management of air quality. As a supplement to the Directive, on 2005 the Commission launched the Thematic Strategy for Air Pollution which sets specific long-term objectives (for 2020):

- 47% reduction in loss of life expectancy as a result of exposure to particulate matter;
- 10% reduction in acute mortalities from exposure to ozone;
- reduction in excess acid deposition of 74% and 39% in forest areas and surface freshwater areas respectively;
- 43% reduction in areas or ecosystems exposed to eutrophication.

To achieve these objectives, SO_2 emissions will need to decrease by 82%, NOx emissions by 60%, volatile organic compounds (VOCs) by 51%, ammonia by 27%, and primary PM2.5 (particles emitted directly into the air) by 59% compared with the year 2000.

European Legislation on Air Pollution also includes: national emission ceilings for certain atmospheric pollutants, Convention on

Long-Range Transboundary Air Pollution, Protocol on heavy metals, the Stockholm Convention on persistent organic pollutants (POPs), ceilings for land motor vehicles, industry and others form the legal European network for the improvement and protection of air quality.

Relevant Links:

- Directive 2008/50/EC of 21 May 2008 on ambient air quality and cleaner air for Europe
 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:152:0001:0044:EN:PD
- A summary of EU legislation on ambient air quality and cleaner air for Europe available

 http://europa.eu/legislation summaries/environment/air pollution/index en.ht
 m

Module 10:

Land uses/ urban planning/ coastal over-development

The protocol on Integrated Coastal Zone Management in the Mediterranean (2008) is an important tool for promoting sustainable management of land uses among the signatory countries, which is otherwise controlled through national regulations. The protocol urges the signatories to formulate and develop coastal strategies, but also land-use strategies, plans and programmes covering urban development and socio-economic activities, as well as other relevant sectoral policies. The protocol promotes "... the sustainable development of coastal zones, taking into account specificities of coastal ecosystems, in order to preserve coastal natural habitats, natural resources and ecosystems, landscapes". There are several policies and regulations/ suggestions/recommendations on urban

planning and the problems from coastal over-development. However, urban planning per se is a national responsibility.

Relevant Links:

- ICZM Protocol was signed on 20-21 January 2008 in Madrid, http://www.pap-thecoastcentre.org/razno/PROTOCOL%20ENG%20IN%20FINAL%20FORMAT.pdf
- **UNEP/MAP. 2009a.** Sustainable Coastal Tourism. UNEP/MAP 2009.
- **UNEP/MAP, 2009b.** Plan Bleu: State of the Environment and Development in the Mediterranean,

Module 11: Landscape and marine-scape management

According to the European Landscape Convention (Council of Europe, 2000), Article 1: "Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors...Landscape management means action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonize changes which are brought about by social, economic and environmental processes"

European Landscape Convention (Council of Europe, 2000) applies to the entire territory of the Parties and covers natural, rural, urban and suburban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes.

Relevant Links:

 European Landscape Convention (Council of Europe, 2000) available at: http://conventions.coe.int/Treaty/en/Treaties/html/176.htm

Module 12:

Morphological management of the coastline (erosion control)

Coastal Erosion Control is a national responsibility, such as urban planning. However, since it is a very serious problem of the entire coastline around Europe, European Union implemented several actions, recommendations, and effort towards an effective and sustainable erosion control scheme.

- The EU Recommendation on Integrated Coastal Zone Management (2002/413/EC) after stressing that "(L148/24) The 1999 assessment report of the European Environment agency indicates a continuing degradation of conditions in the coastal zones of Europe as regards both the coasts themselves and the quality of coastal water", accepts that "Community coastal zones are further threatened by the effects of climate change, in particular rising sea levels, changes in storm frequency and strength and increased coastal erosion and flooding". It was expected that all member states would have their national strategies completed by 2006. Some did, some did not. The ICZM Recommendation can still be used as a good practice reference to promote sustainable erosion control/management.
- OURCOAST is a recent EU project on ICZM. The portal http://ec.europa.eu/ourcoast/ is the EU portal for ICZM, the extensive ICZM Data Base included in the portal includes several cases where the principles and tools of ICZM have been applied. Several case studies refer to erosion control and each case includes the legal framework involved in each country.

 Eurosion is the major European project that deals with coastal erosion control and management in Europe, including suggestions and policy issues www.eurosion.eu

Relevant Links:

- RECOMMENDATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2002 concerning the implementation of Integrated Coastal Zone Management in Europe (2002/413/EC) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:148:0024:0027:EN:PD
- Ourcoast portal http://ec.europa.eu/ourcoast/
- Eurosion www.eurosion.eu

Modules 13 and 14: Community annoyance issues

As part of the effort to tackle noise pollution, the European Union has laid down a common approach to avoiding, preventing or reducing, on a prioritised basis, the harmful effects of exposure to environmental noise. This approach is based on using common methods to map noise, on providing information to the public and on implementing action plans at local level. The major EU legal instrument for noise pollution is the Directive 2002/49/EC for the assessment and management of environmental noise. This Directive is aimed at controlling noise perceived by people in built-up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals and other noise-sensitive buildings and areas.

Concerning the other parameters of community annoyance (module 14) the European Union has a scattered legal framework, and each country develops its own sets of controls.

Relevant Links:

- A summary of EU legislation on noise pollution at: http://europa.eu/legislation summaries/environment/noise pollution/index en. http://europa.eu/legislation summaries/environment/noise pollution/index en.
- A summary of EU legislation on community annoyance issues: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:042:0038:0044:EN:PD

Module 15:

Archaeological areas/historic sites/cultural heritage

According to the "Strategy for the development of Euro-Mediterranean cultural heritage: priorities from Mediterranean countries (2007–2013)" strategic orientation must include, among others:

Cultural heritage awareness raising and education. The value of cultural heritage has to remain closely related to the interests of the local population and dependent on the active implication of the civil society and local communities. They must perceive their interest as deriving from the enhancement of 'their' cultural heritage. This means that support should be provided to schools, universities and vocational education. Support to raise the awareness of local and central administrators is also needed in order to integrate cultural heritage in the education system. This effort also has to be directed at young people and the public in general.

Cultural heritage as means of local development. As a factor of human development, cultural heritage provides a motor to generate new opportunities for creative activities, sites management, tourism, etc. and for synergies between those activities.

Good governance in the field of cultural heritage. As cultural heritage is a 'public wealth', its management and its appropriation by the people require a legal, administrative, rigorous and professional framework harmonised at the regional level so that intercultural dialogue is also supported.

Relevant Links:

 Strategy for the development of Euro-Mediterranean cultural heritage: priorities from Mediterranean countries (2007–2013) http://www.euromedheritage.net/euroshared/doc/Culture%20strategy%202007 %20-%202013.pdf

Module 16: Flood Risk - Storm surge - flooding, extreme conditions management

European Directive 2007/60/EC (23 October 2007) on the assessment and management of Flood risks, is the major tool of EU: "The Directive aims to establish a common framework for assessing and reducing the risk that floods within the European Union pose to human health, the environment, property and economic activity. The Directive covers all types of floods, both along rivers and in coastal areas. There are also other risks, such as urban floods and sewer floods, which must also be taken into account".

According to the Directive 'flood means the temporary covering by water of land not normally covered by water. This shall include floods from rivers, mountain torrents, Mediterranean ephemeral water courses, and floods from the sea in coastal areas, and may exclude floods from sewerage systems".

"flood risk means the combination of the probability of a flood event and of the potential adverse consequences for human health, the environment, cultural heritage and economic activity associated with a flood event".

The Directive is very specific on the obligations of the Member States and the relevant deadlines for the preparation for example of Coastal Risk Maps, or an assessment of the potential adverse consequences of future floods for human health, the environment, cultural heritage and economic activity etc.

Relevant Links:

- Directive 2007/60/EC of 23 Oct 2007 on the assessment and management of flood risks available at: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:288:0027:0034:EN:PD
- A summary of EU legislation on the assessment and management of flood risks available at:
 - $\label{lem:http://europa.eu/legislation_summaries/environment/civil_protection/l28174_e n.htm$

Module 17: Droughts

As stated in the relevant link of EU portal on droughts (relevant links, 2): The Commission provides guidelines for addressing sporadic drought and medium- or long-term water scarcity. The guidelines deal with water pricing, water allocation, drought prevention and rapid response in the event of a drought, as well as high-quality information and technological solutions tackling water scarcity and droughts.

Specific quidelines are laid down for improving drought risk management. The Commission recommends in particular that the Member States develop drought risk management plans, indicated in the Water Framework Directive, by 2009, based on the exchange of good practices between countries and on methodologies developed at EU level. The Commission also intends to set up an observatory and an early warning system on droughts, whose prototypes and implementing procedures ought to be adopted by 2012. It furthermore recommends optimising the use of the EU Solidarity Fund and European Mechanism for Civil Protection, so that Member States that are hard hit by drought can receive the appropriate aid without delay.

Information, education and training are priority areas for action.

Relevant Links:

- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL, addressing the challenge of water scarcity and droughts in the European Union available at: http://eur
 - lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0414:FIN:EN:PDF
- A summary of EU legislation on the assessment and management of flood risks available at:
 - http://europa.eu/legislation_summaries/environment/water_protection_manage ment/l28196 en.htm
- http://water.europa.eu/
- http://www.eea.europa.eu/themes/water/dc

Module 18: Desertification

The EU framework for this module is included within the legal framework of EU on climatic change. Desertification affects mainly the southern regions of the EU. Several EU legal instruments (Directives, Communications etc) can be used to combat

desertification e.g. Communication COM(2008)645 "Addressing the challenges of deforestation and forest degradation to tackle climate change and biodiversity loss".

Relevant links:

 A synopsis of EU legislation to "Tackle climate changes": http://europa.eu/legislation_summaries/environment/tackling_climate_change/index en.htm

Module 19: Energy use, consumption and management.

The Treaty of Lisbon places energy at the heart of European activity. It effectively gives it a new legal basis which it lacked in the previous treaties (Article 194 of the Treaty on the Functioning of the European Union (TFEU)).

The aims of the policy are supported by market-based tools (mainly taxes, subsidies and the CO_2 emissions trading scheme), by developing energy technologies (especially technologies for energy efficiency and renewable or low-carbon energy) and by Community financial instruments. Furthermore, in December 2008 the EU adopted a series of measures with the objective of reducing the EU's contribution to global warming and guaranteeing energy supply.

Determined to fight against climate change, the EU is committed to reducing its own emissions by at least 20% by 2020. It also calls for the conclusion of an international agreement which will oblige developed countries to reduce their greenhouse gas emissions by 30% by 2020. In the framework of this agreement, the EU would set itself a new objective of reducing its own emissions by 30%

compared with 1990 levels. These objectives are at the heart of the EU's strategy for limiting climate change.

Reducing its energy consumption by 20% by 2020 is the objective the EU has set the Member States in its Action Plan for Energy Efficiency (2007-2012).

To increase the use of renewable energy sources, in its Renewable Energies Roadmap the EU has set, as a target, the objective of increasing the proportion of renewable energies in its energy mix by 20% by 2020.

The European Commission (through the Strategic Energy Technology (SET) Plan, COM(2009)519) proposes to develop clean energy technologies and to act in the fields of renewable energy sources.

Relevant Links:

- Directive 2003/87/EC of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC available at: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:275:0032:0046:EN:PD F
- A summary of EU legislation establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC available at: http://europa.eu/legislation_summaries/energy/european_energy_policy/l2801 2_en.htm

Module 20: Green Buildings

In accordance with Directive 2002/91/EC on the energy performance of buildings, Member States shall take the necessary measures to ensure that new buildings meet the minimum energy performance requirements referred to in Article 4.

For new buildings with a total useful floor area over 1000 m^2 , Member States shall ensure that the technical, environmental and economic feasibility of alternative systems is considered and is taken into account before construction starts. Alternative systems may refer to:

- Decentralized energy supply systems based on renewable energy,
- Combined heat and power (CHP)
- District or block heating or cooling, if available
- Heat pumps, under certain conditions

The Directive also contains provisions for existing buildings. Furthermore, energy efficiency Certificates are also available. According to article 3, Member States shall apply a methodology, at national or regional level, of calculation of the energy performance of buildings on the basis of the general framework. This methodology shall be set at national or regional level. The energy performance of a building shall be expressed in a transparent manner and may include a CO₂ emission indicator.

Relevant Links:

- Directive 2002/91/EC of 16 December 2002 on the energy performance of buildings available at:
 - http://eur-
 - $\label{lex:curopa.eu/LexUriServ.do?uri=OJ:L:2003:001:0065:0065:EN:PDF} \end{substitute} \begin{substitute}{0.5\textwidth} $\mathsf{EN:PD}$ & \mathsf
- A summary of EU legislation on the energy performance of buildings available at: http://europa.eu/legislation summaries/other/I27042 en.htm
- Leaflet of EU directive on energy performance of buildings published by European Commission, Directorate-General for Energy and Transport, available at:
 - http://ec.europa.eu/energy/demand/legislation/doc/leaflet_better_buildings_en.pdf



2012

ISBN set 978-9963-720-00-2 ISBN 978-9963-720-02-6