3 NATURAL COMMON GOODS

We are committed to fully assuming our responsibility to protect, to preserve, and to ensure equitable access to natural common goods.

The planet's natural common goods such as air, water, soil, biodiversity and energy are rapidly being exhausted as a result of population growth, economic development and growing pollution. As natural resources represent the very base on which all human and natural life depends, the challenge lies in finding sustainable ways to guarantee adequate living standards and reconcile this goal with the protection, preservation and equitable access to natural resources.

We will therefore work, throughout our community, to:

1. reduce primary energy consumption, and increase the share of renewable energies.

Today, half of Europe's energy consumption derives from imported fossil fuels (CE, 2005). However, this situation causes a multitude of problems. First of all, fossil fuels are a non-renewable energy resource. As energy consumptions continue to rise world-wide, current rates of fossil fuel extraction exceed the Earth's regeneration capacity. Hence, we are gradually moving towards a resource depletion. Secondly, the burning of fossil fuels for energy production is the main cause of climate change. Nevertheless, energy supply is a necessity which improves standards of living and eradicates poverty. Integrating renewable energy and energy efficiency is therefore the key towards sustainable energy systems.

Energy consumption itself, is linked to the energy intensity and structure of economic activities, and as such, is high in the advanced economies of the EU. Energy efficiency could help keep the increasing energy demand and costs much lower. Unfortunately, all sectors (production, buildings, transport, irrigation, households) have an energy saving potential, which too often remains untapped. Again, renewable energy resources (wind, solar, biomass, hydropower, geothermal) can help mitigate climate change, diversify and secure energy supplies and provide new ways to reduce the demand for energy import, create local jobs and income. Still, traditional energy sources remain more competitive.

In fact, market penetration of renewable energy resources is slow. This is due to the initially higher costs compared to traditional energy sources, which do not have to respond to the environmental costs they carry. The same market problem is true for energy efficient technologies, often perceived as a low-interest product. There is a strong need to promote energy efficiency and increase the share of renewable energy.

Local authorities can work effectively on two important levels: they can use regulatory and financial means, such as public procurement and spatial planning (European Municipal Building Climate Campaign, DEEP Project). Additionally they have the means to involve local key actors, consumers, suppliers, regulators and expertise from outside for developing a common sustainability vision for the community (Save energy, climate, money). Local authorities can even set targets to achieve a significant share of renewable energy supply and/or decrease in energy demand (Planning renewables, Montmelian, a solar energy policy). Targets are useful for implementing the necessary policies and guiding investments towards a market for renewable energy and efficiency technologies. Awareness-raising campaigns are essential for orientating consumers.

Aalborg Commitment 1 and 2 are helpful for developing a new energy vision throughout the community. Aalborg Commitment 10 addresses all the issues related to climate change, while Aalborg Commitment 4 deals with consumption behaviour, Aalborg Commitment 5 and 6 can help influence the transport and planning sector to integrate energy efficiency and renewable energy concerns.

2. improve water quality, save water, and use water more efficiently.

Water is a vital resource for man and other living organisms: clean fresh water is essential to life. Not only do we use water for drinking. Water also functions as a major waste deposit, represents an important mean of transport, a source of food, energy and leisure. Certain past and present human activities though, pose serious threats to water as a resource: overexploitation can result in water scarcity issues, while pollution leads to a significant reduction in water quality. Climate change, too, is starting to threat water supplies, as the average global temperature rises. Concerns over water availability in general are growing.

Population growth, urbanisation and higher living standards all contribute to lower both water quality and supply. Water abstraction for the energy, industry and agricultural sector can lead to water scarcity (especially in the Mediterranean area). Urbanisation and urban sprawl cause land sealing and water can no longer filter through the soil. Less water is available to recharge groundwater tables. Not only. Domestic use of water is increasing. As urban areas grow, more households are being connected to water supply systems. Society is also changing towards a more water-consuming lifestyle (more washing machines, baths, swimming pools etc.). Tourism, too, strongly increases water demand for recreational purposes. Additionally, untreated or poorly treated sewage from urban areas, agricultural runoff (pesticides, fertilisers etc.) and industrial effluents and airborne pollution, all contribute to the contamination, eutrophication, toxic pollution and acidification of water bodies.

Thus, integrated water resource management is critical for protecting increasingly stressed water resources and local authorities must start engaging in these practices. Of course, water availability and water quality problems are most prominent in densely populated areas, i.e. urban areas, concentrated industrial and/or intensive agricultural areas. Unfortunately, decision-making in this field is a very complex task, as it involves a mix of private, public, local, regional and national actions.

A first step for local authorities is to ensure full public awareness and understanding of the economic, and social and environmental benefits of more efficient use of water (Ideas for water awareness campaign). Increased water use efficiency, due to water-saving technologies and behavioural changes, reduces the volume of water used by consumers, and of wastewater going to treatment facilities (Sustainable water management and Local Agenda 21, Toolkit for water quality monitoring). System audits and leakage control programs and retrofit programs for commercial, industrial, institutional and residential facilities are essential to improve performance of networks (reduction of leakages and main pressures) (Guidelines for Best Practice Water Management, Improving water management in Belgorod).

Aalborg Commitment 4 deals with lifestyle choices. Introducing water efficiency practices in public buildings could be an important step. As for airborne water pollution, Aalborg Commitment 5, 6, and 10 can offer solutions. Aalborg Commitment 8 might find useful answers for preserving and protecting surface waters and natural habitats for the tourism and outdoor recreation industry.

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3. promote and increase biodiversity, and extend and care for designated nature areas and green spaces.

Biodiversity is an important natural resource to humankind and covers manifold functions. It is the base for the stability and functioning of natural systems, it represents an enormous and unexplored field for scientific research, medicine and economic growth, as well as enriches quality of life in general (EEA, 1995). Today, there is strong evidence that the removal of ecosystem components and loss of biodiversity can have adverse impacts on man. However, past and present development models continue to reduce Europe's biodiversity, as well as destroy or degrade important terrestrial and aquatic ecosystems.

A major cause for biodiversity loss are modern land use methods. Intensive agriculture and forestry practises, as well as extensive urbanisation and transport networks, industrialisation and mass tourism, have all lead to an increased fragmentation of remaining natural habitats. Growing air, water and soil pollution also contribute significantly to the degradation of ecosystems.

Unfortunately, biodiversity tends to be perceived as a scientific conservation issue, rather than as a positive economic and social resource. Local authorities must change this attitude. Reaching a balance between protecting green spaces and meeting the needs of growing communities is possible. However, loss of biodiversity is closely linked to economic, social, political and cultural factors: high living standards lead to an increase in consumption and production at the expenses of biodiversity and ecological functions.

Hence, keeping sustainable levels of biodiversity requires an integrated policy approach, effective public awareness-raising measures, as well as sustainable land-use planning and decision-making. In urban areas, local authorities can engage in the regeneration and naturalisation of heavily overused land (London Biodiversity Best Practice Guidance, Integrating Biodiversity into local Development Frameworks). Ecological corridors and buffer zones also need to be guaranteed near urban areas. The preservation of natural green spaces and the creation of greenbelts around cities and suburbs is vital to the long-term health of humans and the environment (Greenkeys Project, BUGS - Benefits of Urban Green Space). Reducing urban sprawl counteracts the loss of natural habitats and biodiversity. The extension of green spaces and nature areas promotes urban biodiversity. Some possible targets could be the proportional increase of urban green space per inhabitant and the percentage of people living within 300 metres from a public green space.

Aalborg Commitment 4 and 8 deal with changing lifestyles and economic productivity towards more sustainable choices, while Aalborg Commitment 5 is extremely important for guaranteeing sustainable land-use planning in urban areas, while Aalborg Commitments 6 and 10 contain measures to curb pollution. Aalborg Commitment 1 and 2 ensure that environmental concerns and participation of society are at the centre of decision making.

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4. improve soil quality, preserve ecologically productive land and promote sustainable agriculture and forestry.

Soil is an important natural resource, performing essential ecological functions. It has the unique capacity of recycling biodegradable waste, filtering groundwater for drinking, absorbing contaminants, contributing to habitat creation and biodiversity, providing indirectly food, fibre and timber for human survival. Depending on how soil is managed, it contributes to greenhouse gas emission (intensive agriculture, landfills, deforestation) or acts as a mitigating carbon sink (lock-up carbon in biomass, forests). However, current human activities are leading to an overexploitation of this important natural resource. Nevertheless, soil can be considered a non-renewable resource, taking thousands of years to form: soil degradation thus lowers current and/or future capacity of soil to support human life.

Urbanisation, population growth, industry, infrastructures, waste dumping, raw materials mining and intensive agriculture are all factors which contribute to the growing biological, physical and chemical degradation of soil. Of these environmental pressures, some are closely linked to people's lifestyles and consumption behaviour: waste, energy, transport. Other regard meeting the needs of growing communities: urban sprawl usually wins over rational land use and results in soil sealing problems due to housing and infrastructure development.

Although soil performs a multitude of key environmental, economic and social functions, there is little public awareness of the importance of soil protection – even within local authorities. We must learn to relate land use to soil capacity, as well as achieve a more rational use. Policies on urban planning, transport, waste, energy, tourism, air and water protection have a significant impact on soil. It is therefore important to develop synergies between these policy areas and integrate soil concerns.

In urban areas, the rehabilitation and reuse of brownfield sites to limit soil sealing and save space, as well as the use of construction techniques allowing soil function maintenance, are the way forward (Les Eco-maires, Enviplans, Urban Matrix - Knowledge exchange on urban sustainability).

Good agricultural practices and sustainable forestry help revitalise soil: organic farming, crop rotation, afforestation, contour ploughing. Local authorities can control and limit urban sprawl, plan well tourism, leisure and recreation activities and avoid contamination through pollution abatement programmes (Urban woods for people, Malta Environment and Planning Authority, Guidelines for the integration of sustainable agriculture). Local authorities need to engage in public awareness raising activities through education, training, information and dissemination.

Aalborg Commitment 7 may help address the link between soil and human health, Aalborg Commitment 4 and 8 can support the greening of product policies and consumer behaviour, reducing soil contamination. Aalborg Commitment 5, 6, 10 deal with rational land use, a reduction of airborne soil pollution and climatic impacts on soil.

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5. improve air quality.

Air represents a vital natural resource – life on the planet depends on it. Consequently, good air quality is a prerequisite for health and well-being of humans and ecosystems. However, many human activities, such as industrial production, transport, heating and other combustion processes, emit elevated concentrations of pollutants into the air. This is an especially significant phenomenon in urbanised areas, were a large number of activities are concentrated together. Air pollution and low air quality are not sustainable in the long run.

First of all, it must be considered that Europe, today, is a highly urbanised continent with more than 70 per cent of Europeans living in urban areas. Urban and local air pollution have several consequences. For instance, the inhalation of gases and particles has adverse effects on human health. Accelerated deterioration of building materials, damage to historical monuments and buildings, and damage to vegetation within and near the cities, too, are growing threats caused to the natural and man-made environment by air pollution. Additionally, greenhouse gas emissions in the atmosphere are causing global warming. Deposition of pollutants from the air lead to acidification problems in soils and freshwaters, as well as eutrophication in fresh and marine waters. Although many air pollution problems can be reduced through technological possibilities and the EU has worked much in the past on environmental directives on emission standards and controls, this is not enough. In order to be effective in the long run, policy approaches and abatement programmes must address the problem of orientating people towards less polluting transport modes, production systems and consumption behaviour.

Measures that can be taken at local level are numerous. Local authorities should regularly monitor air quality and ensure control and compliance. Furthermore, air pollution abatement programmes need to involve the transport sector and must aim at reducing the volume, frequency and distance travelled by vehicles. Traffic calming, traffic bans, traffic routing, lower speed limits, road pricing and controls are all measures that can help improve air quality in sensitive urban areas, such as residential or shopping areas (Reclaiming city streets for people). Public transport, cycling and walking emit none or less air pollution per person than private cars, and local authorities must encourage, persuade and push commuters towards their use (Cycling: the way ahead for towns and cities, NICHES project). Air pollution abatement programmes at local level also include urban planning measures (Integaire Project, Eurocities). However, all these measures aim at changing human behaviour, and thus, need to be accompanied by information, education and public awareness campaigns (European Mobility Week).

Aalborg Commitment 7 and 9 can help link air pollution to human health and social condition, in order to redefine priorities and unlock resources. Aalborg Commitment 5, 6 and 10 are essential for providing integrated policy approaches, which take into account the contribution of the energy, transport and construction sector in air pollution abatement programmes. Aalborg Commitment 1 and 2 guarantee participation of all stakeholders.

To find further Resources relating to Aalborg Commitment 3, click here:
http://www.localresources21.org/theme_matrix.php?t=3