



Working with the vision, the guidelines and the objectives is equally as complex a task as preparing them. So for easy reference we decided to publish our working paper as a manual.

Open the flap to see a diagram which will enable you to understand at a glance the connection between our vision, the sustainability values and the guidelines.

To find our more about the background and methods behind our work please turn to pages 1 – 5.

Karin Büchl-Krammerstätter

Sustainability Values

Clarification

1	naturalness/reliability	Cities are systems which in principle require support from outside. The more superficial man's interference in natural systems the less support and attention these require from outside. Such attention is awarded within the meaning of coexistence and by taking into account natural systems.
2		
3		
4	simplicity/dematerialisation	Material flows must be reduced not only as a consequence of higher efficiency but because consumer behaviour is viewed with a critical eye. The overall life cycle of products is used as a basis for this. Resources carefully managed by the City of Vienna include ground, air, water and raw materials, as well as space, landscape, darkness or peace and quiet.
5	diversity/coexistenc	As a large city Vienna has to meet the demands of a vast diversity of users within a very small space. The quality of a city increases whenever a number of different activities can take place simultaneously and where different players assume joint responsibilities. Users' demands depend on how human beings, animals and plants coexist.
6		
7	versatility/development	Cities are subject to a vast number of different influences. To cope with these, environmental policies need to be developed consciously. Research and openness to new solutions and technologies are called for if environmental issues are to be dealt with quickly and flexibly.
8	participation/creativity	Citizens' participation and cooperation are a sign of joint responsibility for a healthy environment. It means that our actions are guided by respect for animate and inanimate nature and for our environment. Respect and responsibility for the environment also require that we understand environmental processes and mechanisms. Communication, cooperation and coordination among all relevant players are imperative if joint responsibility is to become a reality.

Sustainability Values

Clarification

1

2

3

nearness/decentrality/subsidiarity

4

Protection of the environment is not to come about by chance nor is it to be applied as a corrective measure and remedy. Cities are organised so that environmental problems are avoided locally and regionally and when they do occur can be remedied quickly and as closely as possible to their source. For environmental protection to be safely embedded, each and every subsystem has to play a role with ecological, economic and social aspects being treated on an equal footing. This set of values is necessary to ensure the high quality of life inhabitants enjoy, but also to reduce consumption of natural resources and promote environmentally friendly consumer behaviour.

5

cohesion/solidarity

6

7

8

Showing high respect for the environment also means treating our fellow-citizens' needs with respect. It means tolerating those who are different or display different patterns of behaviour, as well as admitting developments as long as they do not infringe upon fundamental values. This also raises the question of how much we want to tax future generations or live at their cost. We are invariably reminded of the concept of fairness and solidarity with fellow citizens, other peoples and generations and we come to realise that we are ethically responsible not only for what we do but also for what we neglect to do. We must act, not react, and we must set measures to prevent. Thus, the precautionary principle and/or the principle of sustainable development is shaped by the realisation that how we act not only affects the here and the now but to a large extent the future too.

Preface

The future
is the
presence
of looking
ahead.

Peter Altenberg

Vienna has been pursuing effective environmental policies for some time now and both at the national and the international level has assumed a pioneering role in many respects already. Expertise and environmental technologies from Vienna are particularly widespread in the CENTROPE region.

Environmental objectives have been defined for several plans and programmes developed by the City of Vienna, such as the Strategy Plan for Vienna, the Urban Development Plan for 2005 and the Vienna Climate Protection Plan.

At Municipal Department 22 – Environmental Protection, we also prepared strategic objectives as part of our organisational development several years ago, all of which have since been integrated in our day-to-day business. Cooperation and discussions with colleagues from other departments, as well as with scientists, politicians and citizens, have proved time and again how important it is to have a vision for the environment. For it is common ground which provides the basis for targeted and effective actions. With this in mind and with the support of members of staff from other departments and scientists we began to collect and further develop the many existing environmental objectives, adding to the foundation of a vision prepared by our environmental department. “Environment in Vienna: Vision, Guidelines and Objectives”, the current working paper for Vienna’s Department for Environmental Protection, is the result of our efforts.

The City of Vienna is striving ceaselessly to offer its citizens an environment worth living in so it is not surprising that some of the objectives put forward in this paper have already been achieved. However, this does not mean they have become obsolete. They still hold their place and value in the wider framework of our vision.

We would be happy to see our brochure used as a guiding piece of work outside our Department for Environmental Protection as well. We also take this opportunity to thank everyone in our “think-tank” for their time, their patience, their many ideas and their untiring energy in making this come true!

**Ing. Dr. Karin Büchl-Krammerstätter,
Head of the Vienna Department for
Environmental Protection**

Background

In Vienna the quality of the environment is good, in many cases even excellent – we want it to stay this way! Dialogue with **other departments and organisations outside the City Administration** has shown that streamlining knowledge relevant to the environment is in the interest of many. Our vision for the environment, our guidelines and objectives are to help other key actors to make environmental aspects part of their own activities too.

The **Strategy Plan for Vienna in an Enlarged Europe** defines sustainable development as a balanced mix of social, economic and ecological development. It also refers to the vision for the environment as instrumental in specifying and communicating the environmental aspect of sustainable urban development. Decisions adopted by the “Landesumweltreferentenkonferenz” – the meeting of all provincial environmental councillors – on 28 May 1999 and 6 October 2000: each federal province is to prepare and apply **environmental quality objectives** for the purpose of assessing the state of the environment, steering environmentally relevant measures, making assessments part of official procedures and complying with the obligations resulting from the transport protocol of the Alpine Convention.

Decision adopted by the “Landesumweltreferentenkonferenz” of May 1999 (“Joint Declaration for the Further Development of Environmental Policies in Austria”): provincial councillors for the environment commit themselves to appointing adequate bodies for coordinating environmental policies geared towards sustainable development within each provincial administration as well as within the Federal Ministry for the Environment, Youth and Family and to ensuring all the organisational requirements for this purpose. The coordinator for sustainable development for the province of Vienna is located with MD 22.

The EU, in its **“Thematic Strategy for the Urban Environment”**, recommends that large cities develop their own environmental strategies. These are thought to be a continuation of the concept of sustainable urban development.

The working paper “Environment in Vienna: Vision, Guidelines and Objectives” is our attempt to

- prepare a working document for the **coordinator for sustainable development**,
- promote implementation of **sustainable urban development** in Vienna, and especially to support further integration of environmental aspects in other policy areas,
- contribute towards securing **Vienna’s pioneering role** as a model environmental city,
- optimise **networking** of the most diverse environmentally relevant activities with the City (Administration) and
- raise the **effectiveness** of environmental protection activities by cooperating and utilising synergy effects to a greater extent.

Method

In preparing the current paper we drew on the Sixth Environmental Action Programme of the EU to define the following six main topics:

- Environment and Health,
- Environment and Biodiversity,
- Environment and Climate Protection,
- Environment and Use of Natural Resources,
- Environment and Waste Management,
- Environment and Spatial Planning.

Guidance on our journey into the future is called for especially in times of rapid changes. This is best achieved by means of visions, guidelines and objectives none of which are without sets of values. We are well aware that sets of values are always subjective and complex and can never be seen independent of social change. Thus, we decided to apply so-called “sustainability values”. The sustainability values for Vienna¹ were developed on the basis of “ecological live rails”², reflecting responsibilities embedded in society as a whole:

- naturalness/reliability,
- simplicity/dematerialisation,
- diversity/coexistence,
- participation /creativity,
- flexibility /development,
- nearness/decentrality/subsidiarity,
- cohesion/solidarity.

We took the six main themes and seven sustainability values to form a matrix. We started out by examining existing objectives laid down in statutory regulations, strategies, programmes, activities and strategic projects at municipal, national and EU level, placed them in the matrix and thus identified the missing links. Based on the matrix we then defined our vision for the environment.

¹ Ömer (2003): Zukunftsfähiges Wien, Richtungs-sicherheit durch Wertorientierung (sustainable Vienna, giving direction through values).

Commissioned by the Ökosoziales Forum Wien, Vienna.

² Ecological live rails” weigh out people’s scope of action, using principles of function to point out natural systems and their stress limits.

Equipped with the vision for the environment we organised workshops to prepare new guidelines and objectives for each of the six main themes. We methodically applied our comprehensive vision which enabled us to create guidelines and environmental objectives that would make our city compatible with future needs, fit for tackling the social, economic and ecological challenges of tomorrow.

Clarification	Bearing in mind that abstract concepts are easily defined and perceived in different ways we would like to clarify what we mean by them in the context of this project:
Vision	describes the desired course of development and/or the desired state of the environment in Vienna in the indefinite future
Guidelines	they define the desired courses of development for the six main topics selected for Vienna based on the above vision
Objectives	give a clear idea of the state desired for each topic

The following chapter explains how the vision affects the six main environmental themes and how activities in these main thematic areas can contribute towards implementing the vision. We have highlighted parts of the vision’s wording to show what Vienna can do to make the vision become reality. The chapter was prepared in cooperation with external experts and other municipal departments during a series of workshops organised for the purpose. Working documents drawn up for each of the six themes served as a basis for the chapter. While the vision was prepared for the long term the guidelines and objectives set out in this chapter are of a medium-term nature. They can be updated periodically to reflect current developments and new findings in each of the six areas.

Environment and Health

Environment and Health

Starting point for the preparation of this thematic area was the term “health” as defined by the WHO in 1948, as the state of complete, physical, mental and social wellbeing. In other words, health is more than the mere absence of sickness, it is a central aspect of the quality of life. It has long become a fact that human health is affected by environmental problems, such as air and water pollution, hazardous chemicals and noise. Yet, “Environment and Health” is also perceived as a two-way system:

- How does “the environment” affect “our health”?
- What can “health”, or more specifically the health sector, do for the “environment”?

Vienna boasts of good environmental quality and a first-class health system. Intensifying cooperation between the two “tried and tested” systems would seem the most obvious step ahead.

Guideline

The City of Vienna wants to create solutions across all administrative groups to meet both the requirements of health and of environmental protection.

Objectives

Achieving a healthy lifestyle in the long term is not possible without a "healthy environment". Yet there are many instances where environment is not compatible with health. "Natural" does not necessarily mean "healthy" (allergens, germs, natural toxins). Today's medicine owes much of its success to high-tech employment of materials and often takes little notice of the scarcity of resources or the need for protecting the environment. Highly insulated windows which are considered energy saving measures in housing construction may seriously deteriorate air quality indoors and become a health hazard if applied improperly, utilisation of former industrial buildings for housing or office purposes may also bear a risk to people's health.

Health and environment departments join forces to find out more about environmental impacts and how they are connected with our health. Joint projects are developed along with this exchange of information. These connections are rarely as well known as with general air pollution. Even where theoretical knowledge exists there is a lack of practical remedial measures. Where remedial measures are known they often lack implementation for various reasons. Long-term strategic air quality planning is ensured by an air quality management system the aim of which is to avoid the negative effects of more than critical air quality values on human health and on the eco-systems where possible. The project ÖkoKauf Wien (Eco-procurement in Vienna) is extended with special emphasis on health aspects. The City and the health sector as financially strong purchasers have a major role to play in promoting ecologically motivated procurement (taking into account recyclables, environmental compatibility, health hazards, amongst others)

Guideline

The City of Vienna is making considerable efforts to include environmental medical aspects in its urban and object planning.

Objectives

Urban areas in particular offer plenty of footholds not only for limiting the risks to our environment and health, but also for saving resources, increasing the quality of life and housing, reducing stress, keeping accidents at bay and raising our health. Reducing traffic, attracting passengers to public transport, or locating schools and kindergartens away from streets with heavy traffic and granting them access to green and open space are only some examples of what can be done in this context. Departments for health and environmental protection, but urban and traffic planning too, are called upon to act.

*According to assessments of PM10 in Vienna a high share of air pollutants at measuring points in Vienna on days with high pollution comes from far-away areas in the south east.

The City assumes a pioneering role in air pollution control/prevention of air pollution. This is true above all for measures undertaken in Vienna and surroundings but also for supplying expertise and technical support (long-distance transportation of pollutants*) to communities in eastern Europe (especially in the CENTROPE region).

Standards are set for noise reduction. These include technical measures (reduction at the source), as well as matters of spatial structure and management. Psycho-social aspects such as those defined in the project "Cooperative Noise Reduction at District Level" (follow-up project of the EU project SYLVIE) are also addressed.

Noise protection is there to relieve strongly affected districts but also to protect still existing havens of silence. By havens of silence we intend both areas reserved for recreation and periods of rest.

Green and open spaces are supplied in sufficient quantities to address different groups and needs (play, leisure time, recreation, experiencing nature, social life).

In the field of building and housing regulations and subsidies are introduced to promote the use of and the knowledge about building material compatible with health and the environment and to reduce negative impacts of building material felt indoors.

Insufficiently researched, potentially hazardous environmental impacts, such as electromagnetic radiation (especially microwaves), are taken into account in accordance with the precautionary principle for spatial planning.

Guideline

1

The City of Vienna wants to internalise the negative effects on the environment and our health.

3

Objectives

Environmentally sound behaviour already pays off, even with today's economic conditions. The economic benefit of thinking ahead becomes ever more evident where follow-up costs for the environment and our health are systematically included in price formation.

In procurement, efforts are made not only to make visible strictly administrative costs and environmental costs, but beyond that also to consider health costs.

Joint efforts are made to establish strategic environmental impact assessment of plans and programmes which, based on the Vienna model "SUP at the round table",⁴ takes into account ecological, social and economic aspects.

*The Vienna model „SUP at the round table“ was developed during the two strategic environmental impact assessments carried out in Vienna – SUP Vienna waste management plan and SUPerNOW (strategic environmental impact assessment for the north-eastern part of Vienna). The model included the following criteria:

- involving relevant players in decision-making processes from the very start,
- taking into account ecological, as well as social and economic aspects and
- SUP as an integral part of individual planning processes.

Guideline

1

The City of Vienna is committed to continuous adaptation of industrial processes to state-of-the-art technology.

3

Objectives

By exploiting all legal options and cooperating with other regional authorities emission and immission reduction measures become effective for “old facilities” too.

The City’s business promotion programmes and cooperation agreements with the business community, in combination with awareness-raising measures, act in support of this adjustment process.

Guideline

In Vienna we bank on learning from and living with nature.

Objectives

Treating nature responsibly is a major step towards better understanding spheres of action and towards strengthening our awareness for joint responsibilities.

Health experts are called in to help find ways of making the health aspect part of environmental education. Learning and maturing with nature becomes a teaching principle.

Multi-theme projects which combine didactic aspects with health and environment issues are given strong priority. Special emphasis is placed on including schools in the projects.

Awareness-raising projects and processes, such as Local Agenda 21, are employed to support learning processes on a broad social basis.

Guideline

The City of Vienna is committed to fulfilling the precautionary principle.

Objectives

Research in “environment and health” is promoted, especially with a view to gaining knowledge on the effects and risks of electromagnetic fields, endocrine-active substances, genetically modified foodstuffs, etc.

Vienna prefers to be on the safe side where there is uncertainty as to the nature and extent of possible damage, applying the precautionary principle to avoid what detrimental effects it can.

Guideline

The City of Vienna is making every effort so that lifestyles which are easy on resources and good for our health can thrive.

5

Objectives

Vienna is a city of short distances with a good mix of land use.

It offers a wide range of incentives for healthy behaviour and lifestyles compatible with the environment. (e.g. public transport, cycle paths, car-free residential areas, ways to give up smoking, sports and leisure-time activities, vegetarian-organic diets in hospitals and staff restaurants)

The use of regional products and second-hand goods is supported (e.g. via food markets, health-food stores, pick-your-own projects, repair workshops, social projects).

Great care is taken to consider the needs and opportunities of different members of society (children, the elderly, people with disabilities, etc.) in all of the City's plans, programmes and actions.

Cultural diversity is supported not least with a view to alternative medical therapies.

Complementary medicine can help, where indicated, to meet the needs of patients and raise their quality of life without the resources or side effects otherwise incurred.

Environment and Biodiversity

Environment and Biodiversity

The “Convention on Biological Diversity” defines the latter as “variability among living organisms from all sources [...] and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems”.

Biological diversity, or biodiversity, therefore intends the diversity of life in general and constitutes a function of space and time. All of life is nature and all variations of life, including human beings, are embedded in natural systems and are dependent upon them.

Guideline

The City of Vienna strives to give scope to nature in all spheres of life.

It makes every effort to grant high priority to the preservation and further development of “nature in the city” whenever different interests are at stake.

Objectives

Biodiversity is given scope to develop throughout the city. Here indulgence is called for instead of moderation. Plants are grown in every nook and cranny. Green courtyards and roofs, climbers on facades, trees along streets, etc., are an improvement to the urban climate for body and mind. Nature is unleashed wherever possible, at the bottom and at the top of walls, around trees, on empty lots and flat roofs, in cracks in the walls and in courtyards.

Green areas offer a harmonious link between cultured gardens and rank growth. This rank growth, which is nature's way of expressing itself spontaneously, is granted the same space as groomed lawns and decorative plants. Old trees and dead wood are preserved as bio-diverse habitats where space allows it. Spatial management takes into account the preservation of nature. Waste building sites are made available to nature as “ecological space for development”, if only temporarily.

Nature is only a stone's throw away. Public transport provides easy access to near-natural recreation areas. Thus, everyone has a chance to experience nature and its seasonal changes each and every day.

Vienna's green belt, conservation areas according to Vienna's nature protection act, as well as nature protection by contract are continuously expanded.

Funding systems increasingly include organic farming to enhance biodiversity.

Regional foodstuffs, species-appropriate husbandry and organic production are given priority. Public procurement is setting a good example in this.

All of Vienna's agricultural production does without genetic modification.

Light sources are used with caution to avoid damaging other species, especially insects. Bearing in mind other requirements, such as safety, lighting is reduced to a necessary minimum and light sources compatible with nature will be used*.

*Darkness at night promotes physical recovery just like peace and quiet (lowering the stimulus threshold).

Guideline

The City of Vienna is pulling its weight so that diversity of life is granted space as a valuable natural resource and an eminent factor for the quality of life of human beings.

4

Objectives

When zoning building land and space dedicated as public thoroughfares attention is paid to resources, sealing in particular is kept to a minimum.

To preserve and promote biodiversity it is imperative to treat ground and unused space carefully and sparingly. Every crack in the paving, every section of a tree provides a habitat for animals and plants.

The need for sealing is assessed for every single case (pavements, pavement sections at the bottom of buildings and walls, car parks ...) so that sealing itself can be kept to a minimum.

Waters are given special attention, they are protected and revitalised where necessary. They are made accessible and turned into havens of relaxation so that the city's inhabitants can enjoy a sense of well-being along their banks.

The species and habitat protection programme is enhanced further.

Guideline

The City of Vienna wants to raise its quality of life by allowing space to be used for a variety of different purposes.

5

Objectives

Rank growth is admitted in many areas originally intended for other tasks, e.g. space dedicated as public thoroughfares, sports and playgrounds, parks and gardens, school yards, etc.

This creates new biotopes and a natural coexistence of human beings, plants and animals to the benefit of all involved.

Functional biodiversity becomes a reality. In agriculture so-called "wild herb strips" create diversity for the benefit of all useful creatures and plants, "wilderness corners" achieve the same for parks and private gardens.

Greening of courtyards and rooftops increasingly takes into account near-natural design.

Open space design and urban planning provide for spaces which can be used for a variety of different purposes and cater to the most diverse and ever-changing needs, including those of nature. Cultural diversity is given a chance to develop and thrive (e.g. barbecue areas).

Nature conservation, forestry, agriculture and urban planning cooperate within the meaning of functional diversity.

Emphasis is placed on networks and facilities which are easy on resources and good for a sense of community (green cycle and pedestrian paths, green axes).

Diversity in nature is much appreciated: neobiota (plants and animals which are not indigenous) are considered a welcome addition to the city's biodiversity – which does not mean that they can't be removed from places where they are not desired or where they are considered harmful.

Guideline

The City of Vienna believes in innovative research and openness for new ideas in nature conservation based on solid fundamental research.

6

7

Objectives

New ideas and initiatives are given a chance to prove their worth (test runs). Substantial attention is also awarded to researching into urban fauna and flora as a basis for sustainable nature conservation. Innovative ways of nature conservation are pursued, such as in nature conservation by contract or the species and habitat protection programme, amongst others.

Guideline

The City of Vienna strives to make nature in its diversity accessible to everyone in the same way while asking citizens to recognize their own responsibility for nature.

The City of Vienna wants to bring nature to the hearts and minds of people and to help children in particular to experience and understand nature.

Objectives

Information and awareness-raising activities on “nature in the city” are stepped up so that people in Vienna learn to appreciate the importance of nature and make it their very own concern, so that they learn to guide all their actions with nature in mind. Continued support is given to dialogue between various nature conservation organisations and their key players.

Opportunities for hands-on experience of nature are to spark enthusiasm for nature from an early age and to create a better understanding of how everything relates in nature. Ongoing activities in this context are developed further and complemented.

Diversity of nature is celebrated during numerous events and creativity competitions.

Nature preservation instruments are developed in partnership and are employed with the sense of responsibility already formed. Detail on-site knowledge is made available through processes of participation. Damages to nature are remedied by those who cause them.

Guideline

The City of Vienna wants to see that everything it plans, does or refrains from doing is done so with full knowledge of the consequences for the City and beyond, for now and for future generations.

Objectives

Global responsibility increasingly means establishing environment partnerships. The City itself is a hub for such partnerships and also a nature conservation model for other cities.

The City Administration gives priority to Fair Trade products and in doing so sets an example for others. Global "FairTrade" activities (e.g. Clean Cloth) promote sustainable management and the preservation of small-scale structures and the cultural and scenic diversities they generate.

Whenever the City makes a purchasing decision it systematically takes into account the products' effects on biodiversity.

Vienna and Lower Austria step up cooperation for the conservation of nature.

Environment and Climate Protection

Environment and Climate Protection

There is growing scientific evidence that climate change has anthropogenic causes and is largely due to high greenhouse emissions (especially carbon dioxide, methane and nitrous oxide). Greenhouse gases are generated primarily during combustion of fossil fuels in cars, aeroplanes, power stations and heating plants. Changes in zoning, e.g. deforestation, are also known to increase carbon dioxide.

Scientists take it as a given that temperature increases will have serious consequences for our climate's stability and equilibrium. If active countermeasures are not undertaken climate change is likely to happen at a speed at which animals and plants cannot possibly develop adjustment strategies any longer.

The objectives and guidelines for "climate protection" at the political level are set out in the City of Vienna's Climate Protection Programme (KliP) adopted by the Vienna City Council in November 1999. Implementation of the 36 KliP sets of measures for the areas "district heating and energy generation", "housing", "businesses", "city administration" and "mobility" by 2010 is to reduce annual CO₂ emissions in Vienna by 14% compared to figures for 1990.

The chapter was written in cooperation with DDr. Christine Fohler-Norek, the City's climate protection coordinator. Our special thanks go to her.

Guideline

The City of Vienna strives to reduce the use of fossil energy sources.

4

Objectives

Large volumes of fossil energy sources are combusted during power and heat generation in caloric power plants, by heating buildings and producing hot water, in generating process heat in trade and industry and in driving motor vehicles. These are the areas with the highest saving and substitution potential.

Power plants in Vienna continuously optimise their fuel utilisation.

Power and district heat generation increasingly employs renewable and non-depletable energy sources. To mention but a few examples: a biomass power plant and a biogas plant will go into operation in 2006 and 2007 respectively; hydro-power station Nusssdorf; numerous wind power and photo voltaic plants, drinking water power stations, projects for the utilisation of terrestrial heat from tunnel constructions.

Thermal-energetic revitalisation of residential buildings helps to reduce heating energy requirements in building stock.

New buildings are becoming increasingly energy-efficient because of ever more stringent legal requirements (the building code in particular) and provisions for public funding of housing construction. The aim is to achieve low-energy and passive-house standards. The energy switch in heat and hot water generation is pressed ahead with in combination with various kinds of funding. (Of special significance in this context is the extension of the district heating network, but renewable energy sources, such as solar energy, are also gaining ground.)

Measures to increase energy efficiency in businesses are initiated by the ÖkoBusinessPlan for Vienna.

Rising emissions in private car traffic are curbed by extending and making ecomobility (public transport, bicycle and pedestrian traffic) more attractive.

Guideline

The City of Vienna is pulling its weight to reduce energy requirements with end users.

4

Objectives

None of the successful KliP measures can brush aside the fact that energy consumption in Vienna is still on the rise.

Protection of the environment and climate would require a complete turn-about. To this end the City of Vienna has prepared the "urban energy efficiency programme" (SEP).

Households, businesses, service providers, industry, public institutions, agriculture and traffic and transport are assessed as to their potential for saving energy, framework conditions and measures are defined accordingly.

These objectives are further pursued by the KliP programme where they are monitored and additional initiatives are identified.

In spatial management energy efficiency is made compulsory for all planning decisions.

Attempts are made to raise public awareness and counteract those trends in consumer behaviour which are not sustainable.

Guideline

The City of Vienna, in facing up to climate change, is pursuing strategies of abatement and adaptation at the same time.

3

Objectives

Implementation of even the widest range of Kyoto targets is no longer going to stop climate changes. This is why apart from investing in the reduction of CO₂ emissions we must develop strategies of how to best handle climate changes when they happen (e.g. a greater likelihood of flooding or greater cooling requirements in the summer).

The need for adaptation is identified.

The necessary adaptation strategies are developed.

Guideline

The City of Vienna intends to continue engaging in new incentives and activities to cut greenhouse gas emissions, in line with tried and tested KliP projects.

Objectives

Combined heat-power technology, which is already effectively being used for fuel exploitation in Vienna's power stations, is continuously improved and expanded.

In addition to this the district heating network which also utilises waste heat from waste incineration plants is going to be expanded.

The highly developed public transport network is also continuously extended and made more attractive for passengers.

Technology development relevant to climate protection is promoted.

Guideline

The City of Vienna sees to it that the many positive effects of KliP measures on health and the environment continue to be a driving force for climate protection in Vienna even if such effects generally only become visible over longer periods of time and are often difficult to measure.

Objectives

The Vienna Climate Protection Programme has been devised to be effective in the long term with positive effects which extend far beyond the usual programme periods or the city boundaries. Even the smallest reduction in greenhouse gas emissions means avoiding damaging effects on the environment. As a side effect most of the relevant measures (saving energy, switching to alternative energy sources, avoiding motor-vehicle traffic, etc.) also help to avoid other pollutants, such as particulates or nitrogen oxides, and in some cases even cut back traffic noise.

In 2006, a comprehensive process to evaluate and further develop the City's Climate Protection Programme is to be launched. Its aim is to prepare a draft climate protection programme for the period 2010 to 2020, to be submitted to the Vienna City Council for adoption.

Vienna participates in international activities on climate protection.

Environment and Sustainable Use of Natural Resources

Environment and Sustainable Use of Natural Resources

Each and every social process, such as the way we produce, distribute and consume our goods, requires natural resources. Materials and energy are drawn from the environment, are transformed and made use of through all kinds of activities before they are finally returned to the environment (air, water and soil) as waste and emissions. In addition to this we interfere in and assume control of ecosystems, changing important parameters to increase the benefits for society. In agriculture, for example, we change the water and nutrient availability in soil to produce higher yields. These interactions between human beings and nature are also the cause for many well-known environmental problems. So, essentially it is the way we use natural resources for our own interests which is sometimes in stark contradiction to our desire to preserve the ecosystems. The European Commission (EU, 2003), in its draft for a “Thematic Strategy on the Sustainable Use of Natural Resources” identifies the following natural resources:

- renewable and non-renewable raw materials, such as minerals (including metal ores and fossil energy sources) and biomass,
- environmental media, such as air, water and soil,
- moving resources, such as wind, geothermal, tidal and solar energy, and
- space.

Vienna, because of its political history, boasts of a number of advantages which other urban agglomerations do not have, including excellent water supply for the city, large air vistas which produce good aeration and subsequently a good urban climate too, a high percentage of green areas not only in the outskirts but along many public streets and squares in central districts, as well as a highly-developed public transport infrastructure, to mention but a few.

Guideline

1

The City of Vienna wants to employ resource management which is capable of utilising the flow of resources to create integrated and comprehensive environmental strategies for Vienna.

Objectives

Material flow analyses are employed systematically to better understand the flow of resources in and through the city.

Potential future consequences of decisions relevant to the utilisation of resources are considered in today's actions.

Minimum standards are identified for the quality of environmental media, where possible, limit values are defined, adherence to which is supervised.

Existing funding programmes and regulations are assessed as to their effect on the consumption of resources and redefined to achieve reductions as needed.

Resource management and policies are made part of the work of municipal departments, school training and further training for members of staff at the City Administration.

Guideline

The City of Vienna aims to apply the precautionary principle to the main resource utilisation systems in procurement, construction and housing, traffic and transport, and nutrition, as well as the utilisation of energy these entail.

Objectives

In construction and housing regulations and funding are geared towards environmentally friendly construction methods and conservation of resources.

In traffic and transport emphasis is placed on e-mobility (public transport, cyclists, pedestrians).

Low-emission vehicles are given continued support.

Technologies to save energy and water are developed further.

Continued attention is awarded to reducing waste and emissions. This is to be achieved with environmentally friendly production processes, through identification and avoidance of diffuse emissions of pollutants, implementation of measures to prevent air pollutants in excess of limit values, avoidance of soil contamination, revitalisation and expedient subsequent utilisation of areas with contaminated soil.

Organic farming in the city is promoted.

Guideline

The City of Vienna wants to create framework conditions, such as regulatory policies, planning instruments, funding and investment policies, as well as information policies to help reduce consumption of resources in the City.

4

Objectives

Services are given priority over products wherever possible and where both are essentially of equal benefit (e.g. car sharing or taxi instead of car purchase).

Existing infrastructure and housing stock are used intensively. Revitalisation, follow-up densification and adapted utilisation are given priority over new constructions.

Passive-house construction methods and thermal-energetic renovation of old housing stock are supported with funding.

Every new sealing is compensated for by desealing other areas and upgrading their ecological value.

In the food sector regional products with short transport distances are given priority.

Emphasis is placed on raising public awareness about the health and ecological consequence of excessive meat consumption.

A higher share of vegetable foods at the cost of today's high meat consumption would achieve substantial saving effects on farming land and materials.

The City's water consumption is reduced by optimising consumption systems.

The use of rain water is stepped up.

The City as a public consumer and its procurement system are geared towards saving resources to reduce overall consumption and becoming recognized as a good example both nationally and internationally.

Voluntary agreements with businesses are becoming more widespread.

Businesses in Vienna are supported in their environmentally responsible behaviour through consulting and funding.

Guideline

The City of Vienna is pressing ahead with cooperation based on multi-departmental considerations, innovative and integrated solutions.

6

7

Objectives

Research and innovations to save and substitute resources are promoted, urban resource management is established at the City Administration and the consumption of natural resources is monitored closely. A "knowledge initiative" and subsequently "information campaigns" are being launched.

Guideline

The City of Vienna is making every effort to award everyone the same right to the earth's natural resources.

It actively strives to counteract the shift of environmental and resources problem to third countries in exchange for importing goods.

Objectives

Awareness of the ecological footprint and its significance is to be sharpened with individuals and organisations alike.

Organically grown regional products and Fair Trade products are made more accessible.

Ecological procurement with the Vienna City Administration and enterprises owned by the City of Vienna is to facilitate market introduction and diffusion of environmentally friendly products well beyond the city boundaries and the responsibilities of the City Administration.

Purchasing decisions of consumers in the city are shaped by production and working conditions in the products' countries of origin. Exploitation of children and grown-ups in the manufacture of goods is downright rejected. Vienna assumes a model role in this context.

The City of Vienna, in its procurement, aims to create price truth for the formation of product prices, in particular by including real transport costs and other externalised costs for environmental burdens.

The City of Vienna will make available its expertise in resource conservation and environmental technologies to partners beyond the city's and the country's boundaries, especially in the CENTROPE region.

Environment and Waste Management

Environment and Waste Management

Protection of the environment in Vienna extends to include waste management and as in other areas has become a precept for all activities. This is made evident by various existing and projected institutions, as well as by a series of legal standards (waste management act, Vienna waste management act, etc.). “Strategic Environmental Impact Assessment for the Vienna Waste Management Plan” provides a basis for sensible and sustainable waste management in the future. Numerous projects initiated by the City of Vienna offer motivation and information on waste avoidance and conservation of resources. Emphasis is placed on citizens’ own responsibility, as well as on stepping up producers’ responsibility by integrating environmentally relevant aspects during production and utilisation stages of goods. Ongoing international exchange of ideas and experience, as well as suitable platforms for action will provide useful instruments in this endeavour.

Guideline

The City of Vienna wants to decouple economic growth from waste generation.

4

Objectives

Traditionally there is a strong link between development of the economy and waste generation. These two elements are now to be decoupled so that the economy can grow and waste is reduced at the same time.

Waste volumes and their pollutant content are kept to a minimum (qualitative and quantitative waste avoidance).

Material consumption is easy on resources wherever possible (dematerialisation approach).

Consumption of services is given priority over consumption of products (immaterialisation; e.g. repairing instead of purchasing new).

Product life is extended through reuse and repair.

Unavoidable waste is recycled if ecological and feasible.

Multi-use systems and quality management in waste separation and recycling are installed so that primary raw materials can be replaced by recycled materials, such as paper, glass, metals and plastics. Organic waste is turned into quality compost to make mineral fertilisation obsolete. The energy content of non-recyclable waste with a calorific value is used to generate heat. The aim is to use the energy content of waste as widely as possible and to extend the district heat network at the same time. Continued support is awarded to waste avoidance and reduction measures through various programmes and projects, such as "Initiative Waste Avoidance", "ÖkoBusinessPlan Vienna", "Ökokauf Vienna", "Programme Environmental Management at the City Administration (PUMA)", a second-hand exchange, a recycling exchange, recycling networks, rewarding waste commissioners, etc.

Guideline

The City of Vienna aims at treating waste in a sustainable way in plants equipped with state-of-the-art technology.

Objectives

Waste management is still considered environmentally relevant and a cornerstone of efficient services of general interest provided by the municipality. To meet the ecological and social requirements of sustainable waste management, such as guaranteed supply, accessibility, continuity, social compatibility, health, etc., the City of Vienna will continue to abide by the non-profit-making principle of services of general interest.

The City wants to become self-sufficient in waste management so as to ensure disposal services at all times.

Priority is given to high environmental standards in waste treatment plants so as not to impair the quality of life in Vienna today and in the future.

Landfills are provided in sufficient numbers and volumes with emphasis on landfills which do not require after-care.

Waste transport logistics and locational advantages are optimised.

Increased emphasis is placed on high-quality compost to improve agricultural and other soil.

Guideline

The City of Vienna relies on research, exchange of experience and further development to utilise and multiply existing knowledge.

Objectives

Research in waste management is supported along with relevant knowledge management.

Existing knowledge is employed to create appropriate framework conditions at federal and EU level.

The expertise acquired in decades of municipal administration is maintained and developed further to ensure long-term quality in waste management in Vienna.

Waste management projections are considered essential elements of Vienna's environmental policies.

The City continues to participate in international networks and congresses and to organise international congresses.

Voluntary agreements are set up for businesses willing to contribute to waste reduction.

Guideline

The City of Vienna wants to address citizens as key players in waste management.

Objectives

Citizens are increasingly motivated to participate in environmental protection.

Their achievements in waste separation are shown up and made transparent. Their actions are awarded significant social recognition.

Waste commissioners in companies and waste consultants are also awarded praise and recognition.

Examples which demonstrate the practical value of separate waste collection (recycling products, energy saving and conservation of resources through utilisation of secondary fuels) are made public.

Citizens are supported in assuming responsibility for their own living space. This is to be achieved through awareness-raising measures (e.g. information on the consequences of misconduct), Local Agenda 21 processes and by consciously applying psychological and sociological findings.

Information is spread on the environmental relevance of products and services.

Eco-balances and material flow analyses are prepared as a basis for all relevant information.

Environmentally-friendly products, improved services, a wider range of organic and regional products and more frequent use of plastics made from renewable raw materials are only some of the measures introduced to help citizens adhere to the patterns of behaviour recommended.

Guideline

The City of Vienna wants to sharpen people's sense of responsibility and to establish an understanding that waste management issues affect our community as a whole.

Objectives

Littered streets can be avoided by increasing people's sense of responsibility for public space.

Waste collection sites are made more attractive and are advertised more aggressively.

"Secondary markets" are awarded greater attention.

They are important not only from the social point of view. Continued use of products increases their life-span and reduces waste. Obviously there is potential for optimising the food sector too, as large quantities of unused foodstuffs still end up in domestic waste.

Emissions of climate-relevant greenhouse gases from waste treatment plants are reduced. Citizens are told how they can contribute to reducing greenhouse gases through waste avoidance and separation.

Environment and Spatial Planning

Environment and Spatial Planning

Spatiality and Temporality are basic structures of human life. Thus, spatial planning always means planning the environment as well. The way a city manages its space markedly influences its quality of life and the environment. Where recent years primarily saw the economy and social aspects as driving forces in urban development, sustainable urban space management calls for a balanced consideration of economic, social and ecological aspects. Vienna's pioneering work in this context has already been recognized internationally.

Guideline

1

The City of Vienna wants to preserve and shape natural spaces within its boundaries.

2

Objectives

Nature in the city is protected by the species and habitat protection programme, as well as by soil protection measures and active reduction of sealing, amongst others.

Planning processes pay heed to the objectives for protection areas and objects in accordance with the Vienna nature protection act.

Vienna's green belt is preserved and "green networks" are spun as unbuilt areas are connected. Citizens are invited to participate in designing and taking care of green space to make recreation and recovery zones (parks, waste grounds, sports grounds, etc.) more attractive.

Indigenous vegetation is considered when planning public thoroughfares.

Guideline

The City of Vienna promotes urban planning which recognizes the importance of quality in the environment and which counts cooperation and partnership between municipal departments among its basic principles.

Objectives

Environmental experts consider planning aspects and planning experts consider environmental aspects. Cooperation is based on mutual understanding and respect for the interests of the other.

Relevant municipal departments cooperate to define environmental quality objectives to be used as criteria for planning and decision-making processes (especially with urban planning and architecture competitions), as well as for normative purposes.

Strategic environmental impact assessment for plans and programmes is established in accordance with legal requirements and relevant experience. It is extended to cover non-binding plans as well.

Guideline

The City of Vienna aims to decouple economic growth from environmentally stressful traffic growth without neglecting mobility needs.

4

Objectives

Vienna is a “city of short distances”.

“City of short distances” means a balanced mix of basic functions of life (utilisation mix compatible with space), guaranteed in-detail local supply, sufficient infrastructure in the “right” place, as well as networking and clustering of businesses.

Guidance in mobility issues is supported.

Public space is designed to boost non-motorised private transport. Special emphasis is placed on areas of rest.

Guideline

The City of Vienna wants to establish resource and energy efficiency as framework conditions for development and settlement structures.

4

Objectives

Energy-efficient solutions are devised by taking into account existing spatial givens, such as the availability of sun and wind, natural gradients, infrastructure, etc.

Emphasis is placed on installing physical infrastructure (roads, sewage system, public transport, district heat) simultaneously with development according to the Urban Development Plan (exhausting infrastructure capacities and moderate spatial densification).

Regional material cycles are encouraged for building processes and in utilisation of space.

Guideline

The City of Vienna strives to give scope to a diversity of needs and to make public space a key facility for exchange, cooperation and integration in an environment of tolerance and openness.

5

Objectives

Public spaces are designed for a diversity of different uses, taking into account functional, biological and ethnic diversity.

User-friendly areas are created, especially for children, immigrants and the elderly. Emphasis is placed on local supply and, local recreation and urban furnishing.

Peaceful cooperation of cultures, generations and genders is stimulated by spatial design.

Additional green areas are created on man-made structures (e.g. roof and façade greening).

Guideline

The City of Vienna wants to achieve high environmental standards and maximum quality of life for its citizens.

6

Objectives

Tried and tested water supply, energy supply, technical, traffic and transport infrastructures, social and cultural infrastructures, waste removal and recycling systems are maintained at their high level and are further developed.

The aim is to achieve compatibility of different uses and create the desired small-scale utilisation mix.

Cycle paths and public transport (underground, trams, buses, taxis) are extended to reflect different uses.

There is no development beyond the settlement boundaries defined in the Urban Development Plan.

Green areas in all sizes are preserved and extended and new ones are created. The biosphere park Vienna Woods is pressed ahead with, small green areas in the city centre are preserved and new ones created. Accompanying green and rank growth are left to spread as a sign of versatility, farming structures are maintained and further developed. Natural spaces are granted their specific and established appearance.

Brooks and rivers are upgraded as habitats for animals, plants and human beings, retention basins are built to improve passive flood protection. Precipitation water is managed along specific guidelines.

Guideline

The City of Vienna fosters transparent planning processes and participation of the people concerned.

7

Objectives

Information and participation are employed to convey contents and are used as instruments for space-related presentations (mediation).

Planning is not just for the “average Viennese”, but addresses everyone irrespective of their age, gender, social status, ethnic origin or state of health. Special emphasis is placed on “empowering” those who because of their age, language barriers, or lack of confidence do not have a say in processes of participation.

Epilogue

This paper was produced with the efforts of many, both at the Vienna City Administration and outside. For lack of space we were unable to include everything we addressed, discussed and explained in the project group, during discussion events, workshops, in studies, reports, etc. However, with the input of all those who participated we believe to have come up with a well-balanced product. Our thanks go to all people who shared their knowledge, ideas, considerations, expertise and opinions with us.

Project Group Vision for the Environment at the Municipal Department for Environmental Protection – MA22

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November 2005

Imprint

Media owner and publisher:

Vienna City Administration
Municipal Department for Environmental
Protection – MA 22
Dresdner Straße 45 A-1200 Vienna

Editor Jan Dictus

Translation Verena Tomasik

Graphics and design Schreiner, Kastler

Print AV-Astoria, Vienna

Printed on environmentally friendly
printing paper from the "ÖkoKauf"
sample portfolio

2008