guide

Alianza para los Suelos de las Ciudades y Municipalidades Europeas

Alleanza per il suolo

delle città e dei comuni europei



Soil & Land Alliance of European Cities and Towns

Guide to the Soil & Land Alliance of European Cities and Towns

Manifesto · Benefits · Organisation Declaration of support

Background information to a European network of municipalities for the sustainable management of soil and land.

Bolzano, 2001

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Preface

Soils are living space and life support systems for people, animals and plants. But soils are permanently endangered due to stress, over-usage, and overbuilding, and also through natural phenomena, such as flooding, drought and erosion. Acknowledging this, the South Tyrol State Parliament decided on 29 June 1999 to support the Tutzing Proposal for a Soil Protection Convention. It also put the South Tyrol State Government in charge of taking the necessary steps for awareness raising within the population and working out adequate programmes.

As a result, on the occasion of the Tenth Anniversary of the European Climate Alliance in May 2000, the State Agency for Environment Protection and Industrial Safety of the Province of Bolzano-South Tyrol made a proposal to establish a Soil & Land Alliance. On the model of the Climate Alliance, it is open to all European municipalities which are invited to join. The main reason for the enormous interest in the idea of a European Soil & Land Alliance is that it especially concerns local authorities. Cities and other municipalities have a major responsibility within their territory for land usage and the preservation of their soils, landscapes and settlement space - in other words, their natural and cultural heritage.

The special role of the Soil & Land Alliance is that (based on its Manifesto), it offers a programme for municipalities which not only includes its general aims and declarations of intent but also shows ways of using land sustainably, suggesting how the diversity, characteristics, intrinsic value, and functions of soils can be preserved. Accordingly, the Council of the City of Munich decided on 30 November 2000 to actively participate in the preparatory work of the Soil & Land Alliance.

The Soil & Land Alliance offers a platform for European cities and municipalities and for all soil activists to link up, to discuss soil protection, land usage, landscape maintenance and settlement development and to work on partnership projects.

We hope that soon many communities and soil activists will actively support the Soil & Land Alliance and contribute to a sustainable improvement of soils for the preservation of our livelihoods.

Dr. Luis Durnwalder Governor of South Tyrol, Bolzano (I) Joachim Lorenz, City Council of Munich (G), Deputy Chairman of European Climate Alliance



"A nation that destroys its soils destroys itself." (Franklin D. Roosevelt, 1937)

Fig. 1: Soil profile, Istria, Slowenia

introduction



Background
Diversity and functions of soil
Land consumption and soil degradation
From the Soil Convention to the Soil & Land Alliance
A network for cities and municipalities in Europe

Background

The aim of the Soil & Land Alliance is the realisation of global responsibility at the local level and solidarity and support for partners in especially endangered regions.



Fig. 2: City and landscape of Bolzano, South Tyrol, Italy

The Soil & Land Alliance of European Cities and Towns was founded on 23-24 October 2000 in Bolzano. It adopted an extensive Soil and Land Manifesto, which contains the fundamental objectives and methods of the Soil & Land Alliance. The document is patterned on the Tutzing proposal for a Convention on Sustainable Use of Soils (Soil Convention) and on the UN Convention to Combat Desertification.

The Alliance supports the objectives of the European Spatial Development Perspective (ESDP) and promotes partnerships all over the world, paying special attention to ILO Convention 169 for the rights of indigenous populations.

According to the Manifesto, the overriding objective is "the sustainable use of all types of soils for the conservation and improvement of all soil functions as well as the land resources and the natural and cultural heritage for the present and future generations and the socially just and fair use of soils and land." Apart from spelling out basic principles and forms of action the Manifesto also outlines the benefits municipalities can gain from the Soil & Land Alliance and from a sustainable use of soils. Municipalities can benefit from the advantages of cooperation, and sharing information and experience with other cities and municipalities.

There is special emphasis on the close relationship with the Climate Alliance. "Soil & Land Alliance and Climate Alliance see themselves as complementary initiatives under the overriding objective of sustainable development". One of the obligations of the members is to "make every effort to reverse the trend towards the still growing land consumption and soil degradation and to contribute to an improvement of the soil and land situation". It is high time to regain ground.

This brochure is a guide to the Soil & Land Alliance. Its aim is to appeal to all municipalities in Europe and to invite them to join. All cities and municipalities are called upon to actively contribute to a sustainable use of land and to engage in co-operation over national borders in Europe.

The central idea is to see soils in their substance and depth, in their spatial extension and appearance as a unity and to harmonise their quantitative and qualitative preservation both in planning and in usage.

Next to the Manifesto explanatory brief outlines are to be found. The explanation expressly points out the voluntary status of the Soil & Land Alliance, which all the more seeks to encourage a sense of responsibility in the municipalities (self-regulation).

Diversity and functions of soil

Europe is a diverse continent, not only with regard to countries, peoples and cultures, but also in terms of the diversity and variety of soils. The different lowland, middleland and highland regions in Northern, Southern, Eastern, Western and Central Europe are particularly characterised by the topography, the condition of the soil, the climate and by the human history of soil use.

Consequently, the soils and the climate have decisively influenced the lifestyle and culture of whole peoples. Forming landscapes and cultural areas, soils are therefore a medium and resource of the regional and local natural and cultural heritage.

Although there are a lot of differences in structure and conditions, vegetation and use, soils have a lot in common. They are the result of centuries and thousands of years of formation, decomposition and alteration processes and they form very slowly. Soils are one of the most complex ecosystems. They can be used in a lot of ways, but they are also vulnerable. They fulfill different natural functions such as carrying the vegetation cover, and serving as water and nutrient reservoirs, or filters. Soil is a buffer and medium for material conversion processes, a foundation and resource for all life in the countryside. Besides providing for these regulatory aspects and living space, soils are available to human beings for use and cultural purposes.

The most important soil functions, or forms of soil use, are to be found in agriculture, forestry and horticulture. With their pore structure occupied by soil organisms, and their ability to store humus, nutrient and water, they provide an indispensable natural base. The history of these uses can still be seen from many soils and makes them archives for natural and cultural history (see Fig. 3-6, Fachhochschule Osnabrück 2000).

If, however, all kinds of buildings are constructed for settlements, transport, industrial and commercial production, recreational purposes, supply and disposal, soils as natural bodies are damaged or even removed. The same happens when quarrying building materials such as gravel, sand, loam and clay, or coal seams in open-cast mining.

The diversity and features of soils can be defined by soil profiles. The structure of many original natural soils has changed in the course of cultivation, sometimes to a great extent.

Widely original natural soils::

Fig. 3 left: Brown podzolic soil: — Natural surface forest soil in a tall-tree pine grove with some birch trees. Glaciofluviatile, slightly gravelly sands from very oligotrophic and non-calcareous meltwater sediments provide the basic material, with small storage for water available for plants.

Fig. 4 right: Gley soil: – Deep natural soil used for arable farming. Fluviatile sands and gravels composed by meltwater sands and fluvial sediments provide the basic material for the soil formation. The wet fertile topsoil is also due to a capillary rise of nutrient-rich material from the groundwater.



Strongly anthropogenic soils:

Fig. 5 left: **Sod soil**: – The sod cultivation goes back to the 13th and 14th centuries. Meadow sod and forest sod were used. They were first used as litter for stables, then spread in relatively oligotrophic locations. In the course of time, the distribution of sod soil on sandy and poor soils has thus created eutrophic soil horizons.

Fig. 6 rights: **Treposol soil**: – Mixed sand cultivation served to cultivate boggy soils by mixing in sand and mineral soil components. Here the sand was initially ploughed into the peat bog in diagonal layers. Regular ploughing brought about a mix of the peat and sand in the top 30 cm of soil.



These are not classic soil functions, as often claimed, but forms of land use. This also meets fundamental human needs, but it has to be clearly distinguished from a genuine use of soils as a natural entity, e.g. for food production, which is just as fundamental (Haber 2001).

The multifunctionality of the soil is very important especially for cities and municipalities. The particular features of urban areas have to be considered accordingly. Soil diversity also includes typical local and urban soils essential for the specific character of neighbourhoods. Unsealed open areas are crucial for the development of a large volume of green space with its many advantages (noise protection, filtration of dust, oxygen production, carbon pick-up, visibility protection, climatic effect, recreational effect, soil ventilating and thus the transformation of organic compounds (Burghardt 2000).

Knowing about the diversity and sensitiveness of soils, we need to use them carefully. Dry Mediterranean soils, permeable karst soils, boggy soils with a high peat share, soils in mountainous regions endangered by erosions, alluvial zones on shores and in coastal areas, show different combinations of features and functions.

This also applies to forest and deep arable soils. So local authorities should take account of this diversity of soil and land within their area. It should also be realised that all these soils are complex ecosystems with a multitude and diversity of living things. The soil quality in combination with the existing climatic conditions enables the creation of a specific natural symbiosis.

The aim of the Soil & Land Alliance is therefore the sustainable use of all types of soils for the preservation and promotion of all soil functions and land resources. We want to safeguard our natural and cultural heritage for present and future generations and ensure the socially just use of soils and land.

The soil diversity is also reflected by various forms of landscapes characterising continental Europe.

Fig. 7: Mountain pasture in the Alpine region, Graubuenden, Switzerland: - Besides the Pyrenees, the Carpathian Mountains, the northern Balkans and the Caucasus, the Alps are the most important mountainous regions in Europe. Owing to their complex climatic and geomorphological situation, they are a source of biodiversity in the ecological respect for the whole of continental Europe.



Fig. 8: Hilly countryside in the hinterland of Istria, Slovenia: - Plateaus and hilly countrysides often form the foothills between the flat lowlands and the mountainous region. Distinct ground formations can also be found in the hinterland of the northern Mediterranean region. Large parts are often wooded or farmed. They have mostly small-scale rural settlement structures.



Fig. 9: Coastal zone in the southern Scandinavian region, Finland/Sweden: - Coastal zones are very important for Northern, Western and Southern European countries. The mainland bordering directly on the sea, the dynamics of lagoons and mud-flats due to the tides, plus the innumerable islands and fjords, make great specific demands on the use of coastal soils with regard to coastal protection.



Fig. 10: Arid area in the Mediterranean region, Cyprus: - The northern Mediterranean region is a complex mosaic of different landscapes. A large part of the region is characterised by seasonal drought periods and a highly fluctuating amount of precipitation. The lack of water is the main problem. The waste and the pollution of water resources have serious consequences for the soils.



Land consumption and soil degradation

The available soil area cannot be increased. The building of settlements and transport routes leads to high loss of natural soil areas every year - often also of those soils with a high agricultural productivity or a significant ecological regulatory function.

However, in Belgium alone, nearly 18% of land is built up. That is a settlement area per inhabitant of almost 500 squ. m. (Eurostat 1999). More and more soils are sealed. In Germany e.g. the settlement and transport areas increase by approx. 129 hectares per day (BBR 2000), about half of them being sealed. This increase is higher than comparable figures in some Western European countries (Apel et al. 2001). It is expressed by a large fragmentation of landscapes in Germany (Krynitz 2000).

In the European comparison, the growth of settlement areas has been the highest in the Mediterranean coastal zone (EEA 2000). In the Eastern European countries, the "industrial desertification" of soils is especially problematic. The growth of settlement areas (cf. SAI 2001) and the soil degradation have thus for a long time been a problem of European dimensions (EEA 2000). The Soil & Land Alliance wishes to contribute to limiting land consumption and to maintaining as many greenfields as possible for the future through sensible use. The conversion of greenfields into built-up areas should be completely compensated in the long term by simultaneous redevelopment (unsealing, renaturing, etc.).

Far away from the settlement centres as well, in rural areas, soils are endangered by degradation. Erosion caused by the land clearance, faulty farming methods, and the exploitation of mineral resources results in a massive and permanent soil degradation. Besides, the soils are increasingly endangered by pollutants. Such harmful substances impair not only the fertility of soils, but also the health of plants, animals and human beings. Heavily contaminated soils can hardly be regenerated by natural processes. These irreversibly affected soils and derelict areas therefore have to be remediated or preserved to avoid health risks in the long term. In many places there is still an urgent need for action in identifying and redeveloping contaminated sites. The Soil & Land Alliance's objective is to get the municipalities to deal with the problem of contaminated sites and to enable the best possible solution.

The problems of urban sprawl, transport area consumption, soil sealing and degradation of raw materials.

Fig. 11: Urban sprawl: — The urban sprawl problem is characterised by an advancing covering of soils by the trend to expansive settlement development. In most European countries the built-up areas have more than doubled since 1950. Small towns and villages are affected by it too, not just large cities.



Fig. 12: **Transport areas**: – The transport area problem is a consequence of a nearly unlimited mobility and development. The increasing concentration of transport networks as well as the successive widening and sealing of the transport areas have considerable effects on the environment, the soil balance and the eco- and landscape system. This calls for remedial efforts.



Fig. 13: Soil sealing: — Soil sealing stops the infiltration capacity of soils and other important natural soil functions. The building activities, the removal and addition of soil material often harms the soil layers below. The sealing of large areas should therefore be avoided, and unnecessary ones should be unsealed.



Fig. 14: Exploitation of raw materials: – The exploitation and degradation of mineral resources has irreversible consequences for the soil balance, mineral resources, the topsoil structure and the landscape. Renaturing or recultivating are necessary, but they are only limited measures to partly redevelop soil functions.



The problems of brownfields, erosion, soil compaction and contaminated sites.

Fig. 15: Brownfields: – The fallow land problem is the consequence of the natural succession of abandoned areas which are not used anymore. Peripheral regions and out-migration zones are especially affected. Abandonment has very varying effects on the soil balance and the ecosystem. Yet reactivating brownfields may be very costly.



Fig. 16: **Erosions**: – Erosions are a natural phenomenon. Wind and water erode the top layer away. As the vegetation cover is removed and impaired, the open soils are increasingly exposed to the elements so that large areas of humus topsoil are quickly eroded. Terraces and retaining walls protect from erosion in slopes.



Fig. 17: Soil compaction: — Soil compaction means that the cavities in the top soil layers are compressed or filled up with small particles. Soil compaction, which is often caused by an improper soil cultivation, has impacts on the natural soil processes and thus on the infiltration capacity and yields of soils.



Fig. 18: Contaminated sites: — Contaminated sites are soils containing unhealthy substances harmful to the environment. Harmful substances pollute the soil balance and the soil functions and impair the soil fertility. A remediation of contaminated soils is normally costly and problematic so that the introduction of toxic substances should be avoided.



From the Soil Convention to the Soil & Land Alliance

The soil problem has repeatedly been dealt within important documents and international declarations such as the World Soil Charter of the FAO of 1981, the European Soil Charter of the Council of Europe of 1989, etc. In contrast to climate and biodiversity, the Rio Convention in 1992 did not succeed in adopting or launching an internationally binding framework convention on soils.

After all, a first important step was to decide upon negotiations for a convention to combat desertification. In the meantime, first experiences with the implementation of the UN Convention to Combat Desertification indicate an increasing understanding for the more overriding, comprehensive character of the soil problem (UNCCD 1999).

Following international recommendations (World Congress preparatory volume of the International Soil Conservation Organisation - ISCO, Hurni 1996) and reports of the German Advisory Council on Global Change - WBGU (1994), the first proposal for a soil convention worldwide was presented in 1997 by the Tutzing proposal for a Convention on Sustainable Use of Soils (see p. 26), which has caused intensive discussions among international experts. A corresponding resolution has also been adopted by the International Union for the Conservation of Nature - IUCN (2000). Then there was the idea to urgently establish an Intergovernmental Panel on Land and Soils (IPLS) similar to the Intergovernmental Panel on Climate change - IPCC (WBGU 2001). Furthermore, not only a view of the global dimension and consequences of the soil problem was considered to be decisive for a sustainable use of soils, but also local action.

In June 1999, the Southern Tyrol Parliament officially decided to support the proposal of the Soil Convention, to publicise it among the higher bodies of Italy and the EU and to implement its objectives in Southern Tyrol itself. During the 10th annual conference of the European Climate Alliance in Bolzano in May 2000, the idea of a soil and land alliance like the Climate Alliance was presented, which met with great interest among the conference participants and which led to the elaboration of the draft statutes and the Soil Manifesto. By adopting the Soil Manifesto the foundation workshop on 23-24 October 2000 in Bolzano laid the foundation stone of the Soil & Land Alliance of European Cities and Towns.

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The Soil & Land Alliance initiative has since been integrated and accepted in the Soil Declaration of Osnabrück aiming to support "Local solutions for a global soil problem".

Extract from the Soil Declaration of Osnabrück (OBE)*

Local solutions for a global soil problem

"[...] With respect to future generations, there is an urgent need to reduce the burdens on the soil and to meet the different land and functional requirements in such a way that the diversity and value of soils are maintained. A precondition for this is to use soils coherently and to pay attention to the various, indispensable soil functions.

It is especially important to publicise the already practised, positive examples of a sustainable use of soils in agriculture and forestry and in settlement and mobility development. Another urgent matter is raising general awareness for the various soil functions in order to support the spread of soil-conserving uses.

A sustainable soil management means to use soils in a locally appropriate manner and support soil functions. In the face of the growing sealing of settlements and transport areas, new trends have to be urgently established and a consistent land management policy realised. [...] Local soils are very different and their ways of being threatened can vary greatly at the local and regional level. Therefore the special motto for measures to be taken is "Go for local solutions for a global problem [...]"

The Declaration, which was presented during the conference "New ways towards a sustainable use of soils" on 14-17 September 2000 in Osnabrück in the context of EXPO 2000 in Hanover, also supports the Soil & Land Alliance of European Cities and Municipalities initiative. The Soils Network initiative, adopted at the ICLEI (The International Council for Local Environment Initiatives) World Congress at the end of June 2000 in Dessau, as well as the SOS soil campaign "Save our Soils" are also very much appreciated.

Cities and municipalities are asked to act according to the motto "Think globally, act locally" within these initiatives for a sustainable use of soils.

*The Declaration was adopted in Osnabrück on 16 September 2000.

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A network for cities and municipalities in Europe

The Soil & Land Alliance sees itself as a network of cities and municipalities aiming jointly at a sustainable use of soils. The Soil Manifesto serves as a basis to agree upon common objectives in local action. As the Soil & Land Alliance supports the objectives of the European Spatial Development Perspective (ESDP) on sustainable spatial development and soil protection, it can also agree with the Community initiative INTERREG III (see p. 32).

The latter among other things underlines the intention, to foster the establishment of strategic alliances and networks among local authorities as well as the development of long-term sustainable spatial development perspectives.

Networks of cities and municipalities in different countries and regions shall help to meet specific common problems and concerns of the local partner authorities. In this regard, the Soil & Land Alliance follows both a horizontal and a vertical strategy. Horizontal means that cooperation at the local level is in the foreground (intermunicipal networking). Further cooperation will follow between the disciplines involved (interdisciplinary networking). There are vertical connections to higher regional, national and international authorities (bottom-up approach), and also to the population and to groups of actors (stakeholder approach).

Being a cross-national co-operation network, the Soil & Land Alliance provides the basis for a corporate identity of cities and municipalities in Europe cooperating on the basis of the Soil Manifesto and willing to position themselves accordingly.

In order to establish structures for a functioning network at the transnational level, to promote urban partnerships and cooperation with important partner institutions and disciplines, in order to develop and implement pathbreaking, future-oriented projects and to define the transformation and shaping of political ideas for different target groups, the Soil & Land Alliance aims to settle the question of how the Community initiative might be supported and assisted by appropriate programmes and cooperations in the framework of INTERREG III and REGIONALP.

Soil & Land Alliance as a transnational cooperation platform

Soil & Land Alliance

An alliance of European cities and municipalities for a sustainable use of soils at the local and regional level

Framework and function

Joint declaration (Manifesto)

To promote transnational, intermunicipal cooperation in the field of soil protection and spatial development

Objectives and measures

To conserve and improve all soil functions and land resources, and to safeguard our natural and cultural heritage for the present and future generations

To initiate a reversal of the trend in and to continue the improvement of the situation of soils and land by limiting land consumption and reducing soil degradation

To enhance the quality of soils within and outside settlements

Network of local authorities

To establish urban partnerships to promote the exchange of information and experiences as well as intermunicipal cooperation

To elaborate common strategies and action plans to implement the measures proposed in the Manifesto

To transform and shape political ideas in local authorities Soil campaign for target groups and the public

To involve all stakeholders

To position the soil topic at the national and transnational level

m a n i f e s t o



Plea for a cultivated, respectful attitude to soil and land
The exemplary role of the communities
International conventions as guidelines
Identity of local authorities
Natural and cultural heritage of local authorities
The European Spatial Development Perspective
Strategies and instruments for good soil stewardship
Sharing experiences and co-operation
Partnership with indigenous populations the North-South Alliance
The Climate Alliance of European Cities and Towns
Commitment and participation

Manifesto for the Soil & Land Alliance of European Cities and Towns

Plea for a cultivated, respectful attitude to soil and land

Land is a basic necessity for human life. In Malaysia indigenous tribes referred to themselves as "sons of the Earth", the native population of Bolivia and Peru called the land "pachamama" ("Mother Earth"). In Hebrew adama means arable soil and Adam refers to a human being (Eve to life). Homo in Latin derives from the same root as humus. In English, soil and Earth have a close connection, just as in German, where the word "Erde" refers to the whole globe and to arable soil at the same time. In Romance languages the same applies to terra, terre, tierra. Culture (colere = cultivate) derives from agricultura (to cultivate the land) and from horticultura (Hurni 1996, Haber et al. 1999). In Slavic languages and religions there is a close relationship between man (peasant) and soil. They worshipped Mat syra zemlja, or "Mother of moist Earth", which highlights the fertility of the earth.



Fig. 19: Old Egyptian tomb painting (from about 2300 BC), Dakhla Oases, Egypt

As a result of industrialisation, more and more people became "landless" (Kümmerer et al. 1997). They live virtually detached from the land, which does not play a role as it did with their ancestors (for most of us only a few generations back), either in everyday life or in their livelihoods. Of course we cannot return to pre-industrial times. But we can attain a feeling for the importance of soil again and thereby acknowledge the importance of sustainable development.

Manifesto for the Soil & Land Alliance of European Cities and Towns

Preamble

Soils, together with air and water, are the central basis of life on earth. The characteristics and functions of soils are very different regarding their site and composition. Increase of buildings and sealing by settlement and transport areas as well as by the continuing exploitation of the soil and land resources and the overuse, soils are regionally endangered and highly endangered globally, too, by the sum, the extent and the spreading of all damages. The far-reaching consequences of land consumption and the degradation as well as the fact of irretrievability and very slow process of soil formation correspond to the impacts of global climate change and the loss of biodiversity. In addition, there is a close linkage of soil change to climate change.

There is an urgent need of action seen at the global level. All countries have to contribute to a sustainable improvement of soils and land on a national, regional and local level. In this context the cities and municipalities (local authorities) are especially important as they are directly related to the local land and nearest to its owners. It is their task to improve soil awareness, to protect the natural soil functions as well as to follow social justice. They have instruments of spatial planning and planning control law, which serve to foster and realise a sustainable use of soils and land in municipalities.

We, the local authorities, are conscious of these questions and issues and at the same time of the chances of a sustainable use of soils and land. Together we will take the initiative to work on the solutions of the problems.

We, as local authorities, take the opportunity to realise this in a uniting Europe through the European Soil & Land Alliance.

Sustainable use of soil and land is cultivated, respectful land usage. Municipalities can contribute to this locally, on the land which belongs to them.

The exemplary role of local authorities

Setting a good example increases credibility in any longterm development. Towns and communities which stand up for the improvement of environmental conditions and thus contribute to a better quality of life generally find support within their populations.

In the management of land and soil there are many areas where exemplary behaviour can be encouraged by local authorities.

There are good examples in precautionary soil protection, land usage and in awareness raising.

For the sake of soil protection, the use of pesticides can be avoided; surfaces can be unsealed; the land can become a green area or be covered with permeable surfaces, it can be cultivated considerately, according to the conditions of the location; gardens and arable land can be repeatedly covered with vegetation again in order to avoid erosion.



Fig. 20: Cultivated arable land in the Dragonja valley, Slovenia

Surface usage can be limited by better utilisation of existing buildings and facilities, and by space-saving construction methods. Skilful planning and design will also considerably increase the quality of settlements.

The direct and active involvement of the population in land and soil matters is the best way of raising awareness.



Fig. 21: Urban development, high quality housing scheme, Germany

1. The responsibility of the cities and towns

We, the local authorities, assume responsibility for a sustainable soil policy in our areas. This includes the ecological side by improving the natural soil functions as well as an economically and socially just soil and land use.

For that we want to

- exploit our scope of action for a sustainable development,
- set a good example as local authorities,
- integrate all stakeholders according to Agenda 21 into the planning and management of urban and other local areas and constitute a participation process in the solution of the specific urban and rural soil and land problems,
- contribute to public awareness for a sustainable use of soils and land.

We acknowledge that the problems of soil and land not only have local and regional significance, but that we furthermore - in the prospect of global responsibility - cause global effects on soils in other parts of the world by our life style.

The necessary support will be mediated through the Foundation PUSCH (Stiftung Praktischer Umweltschutz Schweiz / Swiss Practical Environment Protection), among others. The foundation supports public and private environment protection initiatives. Together with BGS (Bodenkundliche Gesellschaft Schweiz / Swiss Union of Soil Sciences) they have worked out user friendly instructional pamphlets for different communal initiatives.

For further information please see: www.umweltschutz.ch.

Local Agenda 21 for a sustainable development

Agenda 21, which was accepted by the Earth Commit in Rio de Janeiro in 1992, refers in Chapter 28 to the necessity of local problem solving initiatives for global problems and the necessity of a "stakeholder approach", the integration of stakeholders on all levels. The local authorities are invited to work out and practise local solutions with the involvement of the population. The Soil & Land Alliance, in accordance with Local Agenda 21, intends to play an exemplary role in the realisation of a sustainable approach to land and soil problems at the local level.

International conventions as guidelines

Tutzing proposal for a "Convention on Sustainable Use of Soils" (Soil Convention)

The proposal for an international soil convention was elaborated in 1997 in the framework of the Tutzing "Time Ecology" project. The Soil & Land Alliance accepts it as a decisive and comprehensive basis for international strategies for a sustainable use of soils. The Convention may also provide an orientation to the Soil & Land Alliance which, in its Manifesto, affirms the aims of the proposal for a Soil Convention as its overarching objective (in: The Tutzing Project "Time Ecology", Schriftenreihe zur politischen Ökologie 5 1998, S.25):

Article 2 Objectives: - "The objective of this Convention is the sustainable use of all kinds of soils by all States of the Earth in order to preserve all soil functions. For this purpose the different forms of soil degradation, depending on climate, forms of land cultivation, type and age of soils etc., must be reduced to achieve a balance with the processes of soil formation. The forms of land cultivation shall preserve and promote soil fertility in a locally appropriate manner..."

In terms of structure and formulations the Tutzing proposal is oriented towards the existing conventions of the United Nations (UN Framework Convention on Climate Change 1992, Convention on Biological Diversity 1992, UN Convention to Combat Desertification 1994).



Fig. 22: Field cultivation on the Nile near Umm-Durman/Khartum, Sudan



Fig. 23: Terrace cultivation near Kathmandu Valley, Nepal

2. Objectives of the Soil & Land Alliance

Our overriding objective is the sustainable use of all types of soils for the conservation and improvement of all soil functions as well as the land resources and the natural and cultural heritage for the present and future generations and the socially just and fair use of soils and land.

The Soil & Land Alliance of European Cities and Towns is in agreement with the objectives of the Tutzing proposal for a Convention on Sustainable Use of Soils (Soil Convention) and the UN Convention to Combat Desertification.

UN Convention to Combat Desertification

The Soil & Land Alliance is based on the UN Convention to Combat Desertification, which came into force in 1996 and which is presently the only legally binding United Nations convention dealing with global soil problems and containing essential objectives of the Soil & Land Alliance (reduction of land degradation and sustainable land management).

The central contents include measures to combat desertification through an integrated, sustainable soil and water management, diversification of agriculture and of the economic environment, - all with the aim of fighting poverty. The Convention calls for decentralised decision-making structures as an important precondition for a sustainable resource management (UNCCD 1999). It is the first UN convention to attache importance to the involvement of all stakeholders.



Fig. 24: Milpas, slope cultivation, Guatemala



Fig. 25: Logo of UNCCD

Identity of local authorities

Being natural entities as regards condition and structure, being landscapes and settlement areas as regards their area and topographical character, soils are a characterising feature for all local authorities. They influence the population's attachment to the place where they live and work.

Consequently, the identity of local authorities is inter alia directly based on the special character, the qualities and features of the local soils and on the functions they offer as a habitat for the population.

Cities and municipalities have their own character which is influenced by natural and human factors. It is therefore important how the soils are used, preserved and managed. Whether related to large or small territories, whether diverse or monocultural, whether intensive or extensive, the use of soils always has effects on the look of a place and on the quality of life.

However, the degradation, levelling and sealing of large soil areas, badly developed with standardised, identical buildings, not to mention the straightening of fields, transport routes and waterways, make for monotonous structures. The se can lead to a reduction or even a loss of the community's identity.



Fig. 26: View of a place with rural village character, Switzerland



Fig. 27: View of a place with urban provincial character, Germany

Therefore identity is related to how people perceive soils, their relationship and attachment to land. The awareness and sensitiveness to identify, preserve, revalorise, use and care for local features is decisive here.

3. Guidelines and strategies

Our overriding objective will be especially realised by the following guidelines and strategies.

3.1. We foster our independence and identity by a responsible local soil and land policy.

For that

- we raise awareness for the chances but also the problems of a sustainable use of soils,
- · we register land consumption and re-usable fallow land,
- we make every effort to reverse the trend towards land consumption and soil degradation,
- we define priority objectives for sustainable development and pursue actively an economical use of soil and land resources,
- we support educational measures concerning soils and land use,
- we inform the public about the above-mentioned objectives and strategies to be taken and promote public awareness.

The Soil & Land Alliance intends to contribute to local authorities dealing more intensively with the situation of local soils, becoming aware of the existing chances and problems and integrating them into local and regional soil policies.

European Landscape Convention

On 19 July 2000 the Council of Europe adopted a landscape convention in order to promote the understanding and the use of "ordinary" and "outstanding" landscapes in the "countryside" and in "urban" areas in Europe and to involve the population actively in the perception and change of the landscape. The Convention inter alia seeks to describe the landscape as a basic component of the identity of people and as an essential factor of their quality of life. The prime aims are "to promote landscape protection, management and planning, and to organise European cooperation on landscape issues". (Council of Europe 2000)

Natural and cultural heritage of local authorities

The variety of climatic and topographical features, cultures and traditions worldwide and in European countries has led to an enormously rich natural and cultural heritage with typical regional and local character. They show the history of development of each local authority. The natural and cultural heritage is therefore a basis for the identity of the population and is an indispensable asset for its quality of life and the local and regional self-image. The traditional assets are a resource for future ecological and cultural development, and also have a societal and economic dimension.



Fig. 28: Doubs river landscape as natural heritage, France



Fig. 29: Storehouses as cultural heritage, Galicia, Spain

The Soil & Land Alliance intends to contribute to raising awareness for the importance of the natural and cultural heritage in cities and municipalities since soils, with their great variety and diversity, bear the natural and cultural wealth of this world.

The UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage of 1972 includes the most valuable "treasures of the soil". In 1992 the Convention was extended in order to include cultural landscapes on the World Heritage List. In doing so, the most valuable soils can be internationally listed as well (UNESCO 1995).

Agriculture is declining above all in northern Europe, in the high and low mountain ranges, in arid Mediterranean regions, but also in large areas of Eastern Europe.

3.2. We promote qualitative growth or stabilisation in responsibility for environment, society and culture.

For that

- we restrict soil and land consumption, direct the settlements development inwards and promote the quality of the settlement management,
- we register and redevelop dangerous old waste deposits and prepare the land for an appropriate reuse,
- we take questions of social justice and gender fairness into consideration when using soils and land,
- we employ intensified efforts to conserve and improve soil fertility and soil formation processes, whereby special importance is attached to soil care and the unsealing of areas,
- we take measures for soil conservation, soil improvement and soil regeneration, safeguarding especially valuable soils, protect soils from erosion and compaction and reduce pollution,
- we maintain the function of soil as carbon (and nitrogen) storage taking into account of the major natural material cycles,
- we take measures for the improvement of the microclimate and water resources, thus contributing to the enhancement of the quality of life in the settlement area.
- we guarantee an environment-friendly use of agricultural farmland and take care of a natural landscape,
- we promote the marketing of regionally grown products,
- we take care of the natural and cultural heritage,
- we promote the ecological networks of the biosphere.

Large protected areas, in part preserving historically utilised landscapes, provide an ecological and social counterbalance to urban settlement areas and purely productive landscapes. (Haber 1997).

UNESCO's Seville Strategy for Biosphere Reserves (1996) forms a comprehensive approach. It combines the protection of the biological diversity with the preservation of cultural assets and aims to achieve sustainable economic and social development by involving local actors.

The European Spatial Development Perspective – ESDP

The fundamental objective of the European Spatial Development Perspective (ESDP) is a balanced and sustainable development of the European territory involving the following preconditions:

- economic and social co-operation;
- conservation and management of natural resources and our cultural heritage;
- more balanced competitiveness on European territory.

The ESDP is a policy framework for all spatial planning levels. It serves as an instrument to co-ordinate the tasks with spatial impact among the Member States, regions and cities in Europe.

Extract from the European Spatial Development Perspective

Policy aims and options for the territory of the European Union (EU)

The Ministers responsible for Spatial Planning of the EU consider soil degradation to be a "serious environmental problem": "Through the type, extent and intensity of human use, a large amount of soil is threatened with irreparable loss of structure and function as the elementary basis for life. Significant risk factors are soil erosion caused by land use; floods; forest damage; ground water contamination; concentration of pollutants; and also the intensity of agricultural use and the allocation of open space for settlement purposes. Efficient land protection, to preserve natural resources and soil functions is therefore necessary.

Soil protection must also ensure that compaction resulting from use, erosion and soil destruction is reduced, just as much as combating potential pollutants or excessive use of open space for settlement purposes."

Therefore they demand the "protection of the soil...", the "continued development of European ecological networks...", "...integrated spatial development strategies...", "greater use of economic instruments..." and the "development of strategies [...] for risk management in disaster-prone areas."

3.3. We trust in the innovative empowerment of co-operation in a spirit of partnership.

For that

- we co-ordinate soil-improving and spatially relevant projects with regard to an optimal expediency and sustainability,
- we support the realisation of the objectives of the European Spatial Development Perspective (ESDP) on sustainable spatial development and soil protection,
- we include the concerns of neighbouring municipalities and regions,
- we improve the relation between urban and rural areas through mutual coordination.
- we work together as partners across borders.

The following important requirements of future spatial development are mentioned:

- Regional, cultural and geographical diversity one of the largest development potentials in the EU has to be maintained.
- In implementing Community policy, greater attention must be paid to spatial and regional factors at an early stage.
- It is therefore important gradually to aim at a spatial balance designed to provide a more even geographical distribution of growth.
- Spatial development issues in the EU can, in future, only be resolved through increased co-operation between different governmental and administrative levels.

Something of interest to cities and municipalities is the application of the ESDP under the Community Initiative INTERREG III, promoting transnational urban co-operations as well as co-operations among rural and urban regions, e.g. in order to "form strategic alliances and networks between small and medium-sized cities" (Regionalp 2000).

The Soil & Land Alliance supports the implementation of the objectives of the European Spatial Development Perspective ESDP aimed at a sustainable use of soils in Europe. Its task will be to foster alliances of cities and municipalities within the above-mentioned possibilities, raising and representing the interests, the protection, use and functions of soils according to the Soil Manifesto.

Strategies and instruments for good soil stewardship

Good soil stewardship is a precondition for a sustainable use of soils. The focus here is on prevention and qualitative enhancement. Amendment and remediation are necessary to repair damage and to correct mistakes.

The strategy of local soil protection and of spatial development is thus based on prospective planning as well as proactive implementation. This aims to

- limit the increase of built-up settlement areas and of soil sealing,
- re-use brownfields, empty buildings and deserted areas,
- use land and settlement areas optimally,
- conserve and interlink ecologically balancing and climate-effective open areas,
- take climatic and soil-specific features into account,
- protect soils that are specially fertile as well as valuable in ecological and historico-cultural terms,
- avoid new and redevelop existing waste deposits.

The strategies for the use of soils also have to consider the concerns of social planning control law, of the use and property situation and of gender justice, especially with regard to settlements and to the division of public areas. Spatial planning and planning control law are "means to an end" or instruments for action. It is necessary to fully use these instruments.

The national legislations enable, or even oblige, the local authorities to take easures for a gentle use of soil within the scope of their powers.

Soil protection concept of Munich

(City of Munich/Department for Health and Environment 2000)

"The City of Munich is presently working on a comprehensive soil protection concept in order to implement the interests of soils via administrative and planning activities. It elaborates planning supports and indicators on preventive soil protection. A soil database shall collate, edit and provide the existing soil-relevant data for third persons. Public relations work shall help to strengthen awareness of the importance of soils and encourage people to value them".

3.4. We support the sustainable use of soils by means of spatial planning and planning control law instruments.

For that

- we keep and enhance the specific character and quality of the soils and land when used or intruded and upgrade their value,
- we use soils through effective assignment for diverse uses as well as
 differentiated rules for their use, so that soils, nature and landscape
 can develop optimally,
- we include the requests of the population and the interests of the land users and land owners and take them into consideration when realising measures,
- we contribute to the specification and implementation of additional instruments according to the market economy as rules for a sustainable use of soils and land.

Appropriate executive instruments already exist in some cases; they are either imposed centrally, or are policies for land use and soil protection developed at the regional or local level. In other cases they have still to be elaborated or adapted.

Accordingly, tasks and strategic fields of action for large cities, city-hinterland municipalities, municipalities in rural areas, valley and mountain municipalities, etc. have to be differentiated owing to different conditions.

Their common assignment is, however, to take the local and regional situations into account as well as to have a global view of the use of soils.



Fig. 30: Soil use map, surface structures, Munich, Germany

Sharing experiences and co-operation

The local authorities have specific local conditions with regard to the structure of the landscape, settlements, economy and population. Differences among local authorities in different regions and countries are often due to different traditions and values, but also to different development perspectives and experiences.

To promote positive experiences in using soils and to share them with other local authorities is one of the main tasks of the Soil & Land Alliance. This concerns not only know-how transfer, but also promoting the co-operation of local partnerships to use synergies and to find a common future orientation towards sustainable development.

An interesting example of this is "Cities of the Future", a joint project of local authorities. In Germany the cities of Münster, Heidelberg, Güstrow and Dessau have joined in calling themselves model cities in order to define joint strategies and fields of action for sustainable development.

The project is monitored by the Federal Office for Building and Regional Planning in Bonn.

Further information: www.staedte-der-zukunft.de



Fig. 31: Model city of Dessau, Germany

Town twinnings are the best way of dealing with soils as a common topic. The Soil & Land Alliance aims at fostering appropriate local partnerships. The advantages of partnership cooperation are the strengthening of local administration networks and the pooling of forces for joint procedures, e.g. devising and implementing action plans.

4. Benefits of a Soil & Land Alliance

The benefit of a Soil & Land Alliance for Cities and Towns is first of all todeclare the cities' and municipalities's support for having a share of the responsibility for a sustainable use of soils and land on a local level.

The sustainable use of soils and land improves soil fertility, microclimate, and water balance, may lead to enormous cost savings, especially with regard to the extension and maintenance of infrastructure, saves resources for future development and future generations, improves the full use of existing areas and the stabilisation of the settlement density, revives public spaces and, on the whole, contributes to an improvement of the quality of life and the image of the municipality.

The member cities and municipalities of the Soil & Land Alliance profit from the advantages of the cooperation and the exchange of experiences with other cities and towns.

A similar initiative on the international level is the Soils Network organised by ICLEI.

ICLEI Soils Network

Apart from the Soil & Land Alliance of European Cities and Municipalities, ICLEI (International Council of Local Environmental Initiatives) is also orking on the establishment of a soils network. During a strategy workshop on 7-8 April 2000 in Tutzing, near Munich, carried out in co-operation with the Tutzing Protestant Academy local representatives discussed an international soil campaign for cities. It turned out that cities have a great need for co-ordinated activities in this field, whether in the form of a network, a programme or an international soil campaign (ICLEI 2000).

The ICLEI Soils Network was adopted during the ICLEI World Congress in Dessau at the end of June 2000. The Soil & Land Alliance supports coperation with ICLEI.

Further information: ICLEI European Secretariat (address: see p. 64)

Partnership with indigenous populations – the North-South Alliance

In many countries of the world the majority of the population live in rural areas. Those people who live off the land have a much closer relationship to the soil than those living in industrialised societies. This applies especially to indigenous peoples. For these people it is clear even nowadays, that the land supplies their daily needs. Land is not only an economic factor for them, but also the basis of their cultural and social identity.

ILO Convention 169 dealing with the protection of indigenous peoples engages in detail with land rights and resource usage.

According to Article 14: - "The rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall be recognised. In addition, measures shall be taken in appropriate cases to safeguard the right of the peoples concerned to the use lands not exclusively occupied by them, but to which they have traditionally had access for their subsistence and traditional activities.."

According to Article 15: - "The rights of the peoples concerned to the natural resources pertaining to their lands shall be specially safeguarded. These rights include the right of these peoples to participate in the use, management and conservation of these resources..."

The Convention also claims that "regardless of their legal status indigenous peoples should partly or fully keep their social, economic, cultural, and political institutions."

For the Land & Soil Alliance this means acknowledging and respecting the special and deep-rooted relationship of indigenous peoples to their traditional land, environment, territories and resources. These populations should be supported in the protection and restoration of their entire environment, of their land and of their settlements, in the form of town partnerships and awareness raising programmes. Osnabrück, for instance, was the first city in Germany to prepare a concept for communal development collaboration, on the basis of which the local Agenda 21 Process was later developed. (Osnabrück, 1994)

5. Global responsibility and partnership

Soil problems are specific for local conditions and sites and have to be solved primarily at the local level. At the same time they also have an international dimension, that comprises the ecological as well as the social, economical and legal aspects.

In many countries the question of the availability of soils, the rights for land use, and the rights of indigenous nations on their traditional territories is prone to conflicts. Especially in the arid and rainforest regions of the south serious problems arose through soil and land degradation.

We contribute to these problems by our way of economy and way of life, as we clearly claim more land than is available and in use in our countries. We see partnerships with indigenous nations and other local communities in all parts of the world, e.g. local authorities and organisations, as a very important objective of the Soil & Land Alliance. We want to take into consideration the soil problems in our partnerships and try to use our potentials to contribute to problem solving, especially in areas which are strongly affected by soil and land degradation.

The international work of the Soil & Land Alliance is specially based on Convention 169 of the International Labour Organisation (ILO). It grants the indigenous tribes and people rights to their land and their resources, their own way of life, culture and language.

Parallel to the Climate Alliance, which has formed an alliance with indigenous populations living in tropical forests, the Soil & Land Alliance - in the spirit of global responsibility - intends to form partnerships especially with peoples of highly endangered arid areas which are included in the UN Desertification Convention.

At the founding meeting of the Soil & Land Alliance on 24 October 2000 in Bolzano, it was emphasised that next to the North-South Alliance, West-East partnerships should also be developed. The conditions of the Soil & Land Alliance which apply to Western countries apply equally to the countries of Central and Eastern Europe, to partnerships with similar organisations there.

The Climate Alliance of European Cities and Towns

Meeting in Frankfurt in 1990 representatives of European communities and Native American organisations accepted the Manifesto of European cities on the alliance with indigenous peoples of rain forests. With this document an alliance was founded, which overcame many differences and set a common aim: the protection of the world's climate.

The manifesto lays down the methodological basics of the alliance. The emphasis is on communal solutions to contemporary global environmental problems. The ambitious aims of the Climate Alliance have to be realised locally and pragmatically. These are: effective climate protection; the preservation of tropical forests and their biological diversity; supporting indigenous peoples in the attainment of their right to self determination and recognition of their own traditional territories.

The Bolzano Declaration, which was adopted on the 10th anniversary of the Climate Alliance in May 2000, laid down the future fields of action. It listed practical approaches to the following problems:

- The reduction of greenhouse gas emissions in the following areas: energy, mobility, city development, communal supply, waste industry, drainage, agriculture and forestry.
- The involvement and participation of private actors.
- Integrating the different fields of action into the Local Agenda processes, with special emphasis on the partnerships with indigenous peoples and on preserving the tropical forests and their biological diversity.

Taking into consideration the special features of all member communities, the Climate Alliance intends to work out and gradually improve common strategies or the development of communal climate protection and for the communal North-South co-operation. To fulfil these aims the Alliance also wants to increase its influence on political institutions of Europe and European states and on the international community.

For the address of Climate Alliance/Alianza del Clima see page 64.

6. The relation between Soil & Land Alliance and Climate Alliance

There is a close and direct relationship between the world-wide soil and land degradation and the global climate change. The soil bears all resources and stores materials that influence the climate. Climate changes have a far-reaching effect on the condition of soils. Soil & Land Alliance and Climate Alliance see themselves as complementary initiatives under the overriding objective of a sustainable development. They focus jointly on responsible local action in cities and municipalities and the inclusion of the North-South dimension in municipal action.

The role that soil plays in global climate (Grassl H. in: Haber et al. 1999) is well known, especially as a carbon sink: "Almost every change in land usage increases the carbon emission due to land degradation...,while it has the potential for higher carbon storage as a result of better agricultural management."

The Soil & Land Alliance has close contacts with the Climate Alliance. They consider themselves as complementary initiatives with the higher aim of sustainable development.

The Climate and the Soil & Land Alliance cover a wide range of environmental questions. The climate problems include all emissions from energy, traffic, waste and land usage; the land and soil problems include questions of water balance, town development, agriculture and the protection of nature. Furthermore, questions regarding climate and soil are at the centre of a policy focused on sustainability.



Fig. 32: Area of Guri, Venezuela



Fig. 33: Logo of the Climate Alliance

Commitment and participation

The commitment of the municipalities is a central concern of the Soil & Land Alliance. Municipalities are expected to be aware of their responsibility regarding land usage. Their tasks include the preservation of healthy soils, and also the planning of settlement and housing developments, and of land usage.

Municipalities are encouraged to work out, promote and realise local projects of exemplary of soil and land protection. In any future decision making on the necessity, manner and volume of land usage the soil should play at least an equally important role as other factors. An important condition here is the acknowledgement of the necessity of long-term, sustainable solutions (see p. 48).

Another key issue is the active involvement of the population. Their concerns should be appropriately considered and they should be part of the process. It is also worthwhile developing cooperations with associations, public institutions and private partners to find locally adapted, viable solutions leading to a reversal of the trend towards ever-increasing land consumption and soil degradation - and a continuing improvement of soil and land conditions.

The international network of the Soil & Land Alliance enables its partners to share experiences and generate synergy. It is also very important that a regulatory framework be created by higher authorities. leading to a global improvement of soils and lands.



Fig. 34:Involving the population

7. Commitment of the members of the Soil & Land Alliance

As member cities and towns we commit ourselves, fully using our responsibility and competence, to establish the objectives of the Soil & Land Alliance and to decide and realise the appropriate measures according to its guidelines.

We are determined to initiate a reversal of the trend in the still growing land consumption and soil degradation and to be active in continuing the improvement of the situation of soils and land. For the solution of these tasks we include all stakeholders according to the Agenda 21.

We commit ourselves to regular reporting, fixing appropriate targets, and controlling the success of our soil policy.

In addition we foster an open exchange of information and experiences with the member local authorities within our country and internationally, and develop joint projects and standards.

We ask the higher political levels to support a sustainable use of land and soils and to set the needed framework for the realisation of the objectives of the manifesto.

We regard all associations, public institutions and business actors, which support these guidelines, obligations and measures of the Soil & Land Alliance, as our allies.

Bolzano, 24 October 2000

The Soil and Land Manifesto is the core of the Soil & Land Alliance. It supplies the municipalities with a platform for co-operation between towns, communities, institutions and organisations in a Europe where people are rowing closer together. It has the aim to limit land consumption and global soil degradation with the help of local action and wise solutions contributing to a sustainable use of soil and land.



Cities and municipalities in Europe are called upon to declare a piece of the soil in their community to be typical, to save it and exhibit it as a symbol of their identification with their soils, as places of nature and culture, of history and tradition.

Fig. 35: Soil profile in Adventure Park, Schölerberg, Osnabrück, Germany



Fig. 36: Planted, natural location in a residential area



Fig. 37: Road covered with permeable surface in a residential area

benefits



The benefits to the municipalities
Transformation and raising awareness
Co-operation with organisations and initiatives

The benefits to the municipalities

At a workshop on 5-6 March 2001 in Munich, experts and numerous representatives of municipalities from different countries thoroughly discussed the way in which the Soil & Land Alliance can provide the municipalities with information on the sustainable usage, recovery and precautionary protection of land in its diversity. The local authorities acknowledge the advantages and potential effects of a Europe-wide network based on the manifesto. They have multifarious expectations of the ways the Alliance can benefit them:

- Increasing the attractiveness of municipalities (improving soil functions, which positively influence the living conditions and micro climate).
- Improving economic conditions and cutting costs (unsealing remediation of existing contamination, green areas, etc.).
- Upgrading settlements and neighbourhoods (considering many aspects: urban planning, use of space, sociological and ecological factors).
- Healthy food from the region (encouraging the production and commercialisation of food produced by environmentally sound agriculture).
- Approaching issues on the principle of sustainability (planning and developing on the basis of good models and criteria).
- Local Agenda for sustainable development (acknowledging ecological and social matters in communal and regional land policy).
- Procedural methods and recommendations (basic principles and instruments for land quality assessment, planning and practical realisation of quality assurance).
- Communal marketing for the town, municipality or region (pointing out specific cases and possible solutions).
- Experience and information exchange (forums, internet access for communities and scientists in many countries).
- Financial support for sustainable projects (support for grant applications).

The Soil & Land Alliance is able and willing to contribute to the development of communal cooperation over national borders in order to extend the radius of action for the limitation of land usage, soil degradation and the promotion of sustainable soil management. The following list illustrates possible action which can be taken in accordance with local conditions.

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Action for sustainable land and soil usage

Preserving or reproducing natural land and soil functions

- Safeguarding and enhancing free surfaces
- Spotting and preserving natural surfaces and soils typical of the location
- · Avoiding and restricting sealing
- Exploiting unsealing potentials by redevelopment and surface enhancement
- Promoting rich, uncontaminated, permeable surfaces
- Loosening compacted soil by location-specific cultivation
- Avoiding erosion by erosion-hindering cultivation and landscaping
- Preserving and promoting soil fertility by locally appropriate cultivation

Restriction of soil and land consumption, reduction of surface usage

- Exploiting the possibilities of internal development and surface recycling before using further outer-lying land
- Developing and implementing a soil management strategy on a municipal and regional level
- Recompression, following ecological, location-specific considerations, up to a socially acceptable utilisation density
- Promoting space-saving settlements and types of development

Avoiding soil contamination

- · Reducing soil contamination
- Minimising emissions from traffic, industry, trade and heating
- · Limiting the usage of herbicides and fertilisers
- · More cautious usage of soil-harming materials
- · Waste reduction

Reduction of existing contamination

- Avoiding contaminating soil changes deriving from current land usage
- · Detecting and registering and dangerous former waste deposits
- Clearing securing contaminated sites

Protection of valuable and sensitive soils

- Registering, valuation and protection of soils valuable in a historical and cultural respect
- Registration, valuation and protection of valuable soils especially fertile and/or especially sensitive

This list is based on the guidelines of the Department for Health and Environment of the City of Munich (2000).

Transformation and raising awareness

Transformation is the active application of knowledge, insight and experience in practice. An important condition for this is raising awareness within the population and within the target groups, who are encouraged to participate in communication and cooperation. This consequently means continuing education on the causes and effects of land usage and soil degradation and spreading information about the global context and local effects. Current land usage also has to be thought over, and sensitivity developed for the problem along with a readiness to take responsible action. Increased influence should also be applied on communal. regional and centralised policies for environmental, land, and spatial development.

Communities have a number of educational channels, both curricular and extracurricular, to inform the population locally. There are also teaching aids designed for different levels. The aim is not only theoretical education on the basics of geography and geology but also raising awareness among younger generations as they practically experience, investigate and discover land. Another educational initiative is the creation of educational tracks. These can be landscape. historical and cultural, geological, geographical, space-planning, architectural, agricultural and horticultural. They are designed to make people aware of the variety and location-dependence of soils in the given regions and localities.

In terms of publicity not only local participation is necessary, but also the awareness of the global connection.. There are many forms of action such as exhibitions, information events, excursions, workshops, etc which concretely address local problems and practical matters and which, supported by the media, become inter-active and worthwhile activities having the function of contributing to an increased understanding and awareness.



Fig. 38: Fascination Soil, Street Theatre in Osnabrück, Germany

Local educational activity must convey one of the most vital messages of science, namely: that land usage and soil degradation extend the scope of local problems. This contributes to the global ruining of one of the basic elements of life, the importance of which is parallel to other ecological issues, such as water, biodiversity and climate. A point to be emphasised is how little time it takes for soils to become degraded and ruined by human intervention and how long soil-building actually takes.

Community educational activities convey the message that soil is something valuable, endangered, and in need of protection. The activities point to measures which have to be taken in different fields: how soil fertility can be preserved, how soil exhaustion can be limited and how surfaces can be used in an economical way. The administration, authorities, associations, schools, and other target groups should be financially and technically supported and motivated to learn more about soil problems and to apply their knowledge in practical terms. This requires an increase in specific training and education facilities, as well as meetings and practical counselling.

Competence and Communication Centre, Osnabrück

November 2001 saw the opening of a permanent exhibition entitled "Experiencing Soil" in the Schölerberg National Science Museum in Osnabrück, supported by the German Federal Environment Fund. The exhibition offers a unique insight into the secrets and functions of soil. Walking around the neighbouring "Soil Experience Park" of Osnabrück District enables visitors to get acquainted with numerous types of soil and methods of its use.

The region offers special programmes for experts, schools and families. Based on this, the organisers intend to establish an effective, interregional Competence and Communication Centre. In cooperation with many institutions, organisations and authorities, an information network on soil is to be offered. The whole initiative is based on the project "Fascination Soil" which was mounted on the occasion of EXPO 2000 in Hanover in the OBE Region (including the districts of Osnabrück, County Bentheim, Emsland, Vechta, Cloppenburg and the City of Osnabrück).

Co-operation with organisations and initiatives

To further the cause, the Soil & Land Alliance is interested in co-operating with all those other organisations and initiatives whose aim is the sustainable use of soils. These are, in addition to the Climate Alliance, other international, national, regional and local initiatives of governmental and non-governmental organisations. They include activities to implement the Convention to Combat Desertification (UNCCD) as well as initiatives within the framework of The Soil Campaign, Local Agenda 21 processes and the soil measures of ICLEI, IUCN, OBE, IG Boden.

IUCN – Sustainable Soils Working Group

The International Union for the Conservation of Nature (IUCN) comprises ore than eighty nations and all large non-governmental organisations (e.g. WWF, Friends of the Earth, etc.) worldwide.

At the world congress of the IUCN in Amman (Jordan) in October 2000, a resolution was adopted in which, for the first time in its history, the IUCN declared the sustainable use of soils to be one of its fundamental subjects and mandates. The Commission on Environmental Law, one of the six globally active commissions of the IUCN. was strongly supported in dealing with this issue in the Sustainable Soils Working Group and in working out suggestions for an international framework, as well as for national legislation on the sustainable use of soils.

In close cooperation e.g. with the International Soil Campaign, Paris, with the European Soil Bureau, Ispra and other actors, the working group is intensively working on the legal and institutional framework for the sustainable use of soils. In doing this, the working group is supported by the Environmental Law Centre (ELC) in Bonn.

The work of the IUCN Commission is especially interesting for local authorities with respect to legal conditions and institutional arrangements and also because it can give support to the sustainable use of soils.

For contact address see p. 64.

The Soil & Land Alliance is concerned to pool resources in the interests of cooperation and the supply and exchange of knowledge when lobbying governments and applying legislation at the local level. Priority objectives are the networking and interaction between the communities, between the different scientific disciplines, between urban and rural requirements, and between qualitative soil protection and spatial surface usage.

The International Union of Soil Science in Vienna (A) is important for the scientific transformation at the international level and the European Soil Bureau in Ispra (I) for the political implementation.

The International Union of Soil Science (IUSS), Vienna (A)

The International Union of Soil Science (IUSS) is the parent organisation of 147 national soil science associations with approximately 50,000 members. The aims of the IUSS are to support the methods of all branches of soil science, as well as to support the theoretical and practical work of soil scientists in many fields.

For contact address see p. 64.

The European Soil Bureau of the European Commission, Ispra (I)

The European Soil Bureau examines questions on sustainable spatial development and soil protection within the European Union. As the connecting link between science and politics, the responsibility of the European Soil Bureau is to prepare the fundamental principles and to mediate soil and land matters in the European context.

For contact address see p. 64.

It has to be emphasised once more that the Soil & Land Alliance wishes to gain the co-operation of (and with) all bodies and local authorities interested in the sustainable use of soils all over Europe and welcomes partnerships with organisations and institutions in specially endangered areas of the world. The Soil & Land Alliance intends to work towards a solution to the global soil and land problems with the strength of unity, especially by supporting and reinforcing local action.

With regard to this, the Soil & Land Alliance sees its major role in the mutual support of the communities and in the facilitating of partnerships between organisations and initiatives advocating the aims of the manifesto. One example for such an initiative is the global Soil Campaign of the Charles Léopold Mayer Foundation in Paris (F).

Soil Campaign of the Charles Léopold Mayer Foundation, Paris (F)

The Soil Campaign of the Charles Léopold Mayer Foundation is based on a platform for a responsible world. In 1995 the first concept was worked out with the following aims:

- To promote new perception and awareness of soil and land.
- To persuade the decision makers responsible and the international community to treat soil and land appropriately as a resource and to develop a responsible attitude towards soils.
- To build up an international front against the destruction and deterioration of soils.

The Soil Campaign has been active in advocating these aims since 1996 in order to bring scientists together with soil activists and decision makers. In 2001 a suggestion entitled "SOS - Save Our Soils to Sustain Our Societies" was worked out for the next phase of the campaign. This suggestion develops concrete measures for mobilising activities concerning the sustainable use of soils, leading up to launching a worldwide soil day and building up a World Soil Fund (WSF).

For contact address see p. 64.

organisation



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Organising the Soil & Land Alliance

The Soil & Land Alliance is a European alliance of those cities and municipalities which have set the common aim of sustainable soil use. The alliance define itself as a community which sets up common actions for soil protection and spatial development, works out and realises common projects and standards and builds up a useful information and experience exchange at inter-communal levels. It also helps the local authorities by mediating their ecological interests at higher political levels.

The fundamental document on which the work of the Soil & Land Alliance is based is the Manifesto for the Soil & Land Alliance of European Cities and Towns, which was adopted on 24 October 2000 in Bolzano. The Manifesto, with its major objectives, methods and measures, comprises a complete Explanation of Principles as well as a specific Action Plan for communal soil policy, enabling and promoting a strong, trusting cooperation.

The website of the Soil & Land Alliance

The website of the Soil & Land Alliance enables a fast, confidential exchange of information. It makes international access possible for all. Members and all those interested in the Soil & Land Alliance can gather up-to date information on the latest work and activities.

The following services are available under www.bodenbuendnis.org:

- Organisation (portrait of the Alliance, Manifesto, Supporting Declaration)
- Index (addresses, special institutes, literature)
- Forum (topics, introduction to communities, exchange of experiences)
- News (latest news, events)
- Mail-Box (contact agencies, correspondence)

Mails on the Soil & Land Alliance can be sent to: mail@bodenbuendnis.org As a result of the strong emphasis put on the close relation between the Soil & Land Alliance and the Climate Alliance, where the Soil & Land Alliance identifies itself as a complementary initiative to the Climate Alliance, a form of organisation was chosen by the initiators of the Soil & Land Alliance which strengthens the convergence of both initiatives. Consequently it is hoped that member communities of the Climate Alliance will also sign the Soil Manifesto and support the Soil & Land Alliance.

During its initial stages, the European Central Office of the Soil & Land Alliance will be based in Bolzano, in the National Agency for Environment Protection and Industrial Safety. This will be supported by the European Coordination Centre of the Soil & Land Alliance in the City of Osnabrück, and by national contact points that are still to be established. Municipalities and actors can contact these centres with any questions related to the Soil & Land Alliance.

The centres organise events on the theme of soil and land and coordinate information and exchange of experiences. The Soil & Land Alliance is primarily an alliance of municipalities. But it is also supported by institutions, organisations, and private persons who agree on and who promote the aims of the Alliance. They work together on constructing, strengthening and developing th Soil & Land Alliance and they participate in planning and realising common action for the sustainable use of soils. One of the Non-Governmental Organisations (NGO) which has been actively supporting the Soil & Land Alliance from its very beginnings is the Swiss Soil Association (IG Boden). Other, above mentioned associations, like the IUSS or the Soil Campaign of the Charles Léopold Mayer Foundation also actively support the Soil & Land Alliance. Other NGOs promoting topic are also called upon to co-operate.

The Swiss Soil Association (IG Boden)

The Swiss Soil Association, which was the outcome of the "Urban-Rural Initiative against land speculations" was founded in 1989. Its aims are comprehensive soil and land protection, socially accountable land rights, sustainable spatial development, and longterm soil policy in Switzerland.

The association committed itself to the Tutzing Soil and Land Convention in 1997 and later also took part in the construction of the Soil & Land Alliance. Their publication, entitled "Bodenblatt" (Soil Paper), is published quarterly and focuses on up-to-date soil and land problems in Switzerland and in Europe.

For contact address see p. 64.

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Assignments and perspectives

The most important assignments of the Soil & Land Alliance are the following:

Structure and organisation Soil & Land Alliance

- establish a European office for the Soil & Land Alliance
- constitute a European network of cities and municipalities
- · set up contacts and alliances in different countries
- provide a public access by internet to the Soil & Land Alliance
- distribute the Soil Manifesto as well as the concerns of the Soil & Land Alliance in all European states at the local and regional level
- elaborate procedures, benchmarks for comparison, standards and action plans to implement the measures listed in the Soil Manifesto

Support of local authorities and actors

- advise on general and specific soil issues
- transform knowledge, research and information concerning soil issues and spatial development in cities and municipalities
- create awareness among population, schools, media and institutions
- · arrange and implement soil campaigns
- organise forums for conferences, seminars, exchange of information and experiences
- · award a prize to path-breaking, future-oriented projects
- promote the regional, national and transnational co-operation among local authorities (town twinnings, North-South partnerships)

Co-operation with other organisations and institutions to

- co-operate with the Climate Alliance, ICLEI, UNCCD, etc.
- participate in interregional and transnational projects (INTERREG III)
- influence and support programmes for a sustainable use of soils at higher levels (Agenda 21, ESDP, IUCN, etc.)

The future perspectives of the Soil & Land Alliance include the consideration and responsibility of the local authorities to use soils sustainable and in solidarity. The participation of many cities, municipalities, institutions and organisations and of all actors of the Soil & Land Alliance will be decisive for the development and forming of an alliance of use to soils and local authorities.

The Soil & Land Alliance will have a similar network structure as the Climate Alliance with a comparably structured organisation (see page 40). It will be managed by a coordinating office keeping contacts and finding consensus with international organisations, parliaments, etc., and monitoring the network including the local authorities. We consider the consensus with the Climate Alliance to be especially important as possibly the same local authorities and organisations will support the Soil & Land Alliance as will be members of the Climate Alliance or participate in Local Agenda 21 processes. However, we would like to emphasise that all local authorities not being member of the Climate Alliance are invited as well to support the Soil Alliance and to participate actively. The same goes for organisations and individuals supporting a sustainable use of soils. The parties involved shall, however, not be confronted with a new organisation including new statutes and structures.

The objective is therefore to bring the Soil & Land Alliance and the Climate Alliance as independent parts together. Steps in this direction have been introduced on the occasion of the workshop on 5-6 March 2001 in Munich:

- By signing a declaration of support (see page 59) all European cities and municipalities as well as interested institutions, organisations and individual persons may participate in the Soil & Land Alliance.
- The coordinating office of the Soil & Land Alliance will in the establishing phase be managed by Landesagentur für Umwelt und Arbeitsschutz, Bozen. It is intended to integrate the office into the European Climate Alliance office in the medium term.
- The city of Osnabrück, Germany, will organise the first annual meeting of the Soil & Land Alliance on 12-13 November 2001. It has already developed several soil activities in the framework of the EXPO 2000 and plans to set up a competence and communications centre for soils.
- Active local authorities and organisations are invited to establish national and regional networks and contact points.
- The Soil & Land Alliance is applying together with interested cities and municipalities, regions and institutions from different countries to the European Union for an active participation in the transnational INTERREG III programme promoting transnational town twinnings, establishing a stable and dynamic network and developing sustainable long-term soil protection and spatial development perspectives.

Appeal to support the Soil & Land Alliance

The Soil & Land Alliance is based on the engagement of its members. It considers itself to be an alliance of cities, municipalities and soil and land activists who promote the sustainable use of soils and contribute to a co-operation with other towns and municipals above national borders. The most important precondition of co-operation is the acknowledgement of global responsibility for sustainable soil use in local land treatment. Municipalities which have joined the Climate Alliance are aware of their responsibility and contribute to the protection of the Earth's Atmosphere locally. The same applies to soil protection within the framework of the Soil & Land Alliance. Those who sign the document are obliged: "to make every effort in reverse the ever increasing trend towards land consumption and soil degradation and to take measures for the improvement of the soil and land situation".

There is special emphasis on raising awareness within the population and on the integration of all actors who promote soil protection and municipal development. Supporting our partners form especially endangered regions of the world is part of our global activity.

The Soil & Land Alliance intends to provide all European municipalities with the possibility of co-operation and exchange of experiences in important soil problems. The Manifesto is an appropriate platform for this.

Cities, municipalities, institutions and other soil activists are hereby called upon to support the Soil & Land Alliance and to contribute to the construction of an international network and to the further development of a great common project for the sustainable use of soils.

Joining the Soil & Land Alliance is completed by signing a support declaration, which also involves the acknowledgement of the Manifesto and the obligation to actively promote its aims for sustainable communal use of soils and land.

Extract from the Declaration of Support for the Soil & Land Alliance of European Cities and Towns

In signing this document we undertake to

- acknowledge the Manifesto for the Soil & Land Alliance of European Cities and Towns, which was signed on 24 October 2000 in Bolzano,
- commit ourselves to exploit our scope of action for soil protection and sustainable spatial development in our community,
- contribute to public awareness for the sustainable us of soil and land, to include all groups and individuals who are interested in advancing the joint development of the community,
- participate actively in the co-operation, the exchange of information and experiences with the members of the Soil & Land Alliance.

We support the Soil & Land Alliance with a contribution of EUR, which derives from the annual contribution the Climate Alliance.*

Name of the local authority:

Date of council decision:

Stamp and signature of the authorised communal representative:

^{*} The annual fee for membership of the Soil & Land Alliance is 0.006 euro per inhabitant with a minimum of 180 euro, and a maximum of 15.000 euro. Communities which are members of the Climate Alliance-Alianza del clima e.V. pay 50% of this amount as a contribution for the Soil & Land Alliance...

In a resolution which was adopted during the annual meeting on 17 May 2000 in Hamburg, the Climate Alliance assured the Soil & Land Alliance of its absolute support.

Extract from the Resolution of the Climate Alliance supporting the Soil & Land Alliance of European Cities and Towns

"The annual meeting and general assembly of the European Climate Alliance on 17 May 2001 in Hamburg adopted the following resolution on supporting the Soil & Land Alliance of European Cities and Towns:

- 1. The annual meeting welcomes the initiative taken by members of the Climate Alliance for a Soil & Land Alliance of European Cities and Towns as an extension of the global scope of action for sustainable development on the communal and regional level.
- 2. The Climate Alliance announces the founding of the Soil & Land Alliance to its member municipalities in many countries and calls on them to promote its aims and contribute to its further development by signing their support declaration.
- 3. The Climate Alliance welcomes the possibility to participate as co-organiser in the First Annual Meeting of the Soil & Land Alliance on 12-13 November 2001 in Osnabriick.
- 4. The Climate Alliance supports the co-operation in the hope of a long term collaboration and promotes the creation of an appropriate co-ordinated framework.
- 5. The Climate Alliance supports a cooperation between the Soil & Land Alliance of European Cities and Towns and the Soil Network of ICLEI Europe.

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Jenny, Peider C.: Fig. 19, 22.

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Presse- und Informationsamt der Bundesregierung BPS, Germany: Fig. 21, 27, 30, 34.

UN Convention to Combat Desertification (UNCCD): Fig. 25.

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Guide to the Soil & Land Alliance of European Cities and Towns

The Soil & Land Alliance of European Cities and Towns was founded on 24 October 2000 in Bolzano. It is a coalition of European cities and municipalities which share a common aim: to actively participate in the sustainable use of soil and land. On the basis of the Manifesto the co-operating municipalities have committed themselves to express their global awareness of responsibility on the local level: they actively promote the sustainable use of local soil and land.

This brochure contains practical *guidelines* for local authorities, institutions and soil activists who would like to become acquainted with the Soil & Land Alliance. It contains the full text of the Manifesto, a Support Declaration and further detailes on the Soil and Land Alliance.