

PROPOSAL FOR CONCEPT OF URBAN SOIL MANAGEMENT

Urban SMS
Soil Management Strategy



EUROPEAN UNION
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Why is urban soil management needed

Soil is offering a lot of functions relevant to society, such as food and fiber production, provision of living space for humans and other organisms, water filtering and storage as well as provision of raw material. According to the type and quality of soil these functions can be provided to a certain degree. These potentials are required by several land uses such as agriculture, forestry, industry, trade, infrastructure or buildings for settlement. In particular in urban areas there exists a high demand to use these potentials which creates competition among the current and potential land users often resulting in soil consumption for building purposes. As soil is a limited resource not all the needs can be met, especially in urban areas with high population density.

In order to steer the use of soils in a sustainable way a proper soil management is needed.

Structure of Soil management concept

Needs

Legal
Scientific
Stakeholder

Legal instruments

Environment protection
Land planning
SEA/EIA








Spatial planning systems
and procedures

What is urban soil management

Commonly soil is owned by someone who is managing it according to his needs and given legislation. In urban spatial planning procedures the use of soil within the urban borders is dedicated to certain types of land use.

An intended change of land use has to be approved by an urban planning authority. In this decision soil should be considered in terms of quantity and quality.

Required actions in urban soil management:

-  Decisions based on careful evaluation of the potential consequences of land use changes
-  Decision in line with spatial development concept at local and regional level and relevant legislation
-  Spatial development concept considers also environmental aspects, not only socio-economic aspects
-  Application of evaluation tools to assess current situation and environmental effects
-  Development and implementation of management tools to foster sustainable use of soils
-  Monitoring of implementation of tools for effectiveness evaluation
-  Activities for awareness raising concerning soil management

Strategies

Improving consideration of soil in spatial & urban planning on all levels

Improving legislation / proposing an unified legislation approach

Awareness raising to soil as a natural resource

Establishing regional co-operation in soil management

Applying sustainable soil management to soil consumption processes

Involving stakeholders/ decision makers at an early stage of management strategy

Improving management for degraded urban areas

Introducing compensation of soil as market instrument

Increasing inner urban development

Evaluation tools

Ecosystem Soil Quality

Agricultural Soil Quality

Soil Contamination

Loss of Soil Resource

Sealing Rate

Water Drainage

Connectivity

Proximity

Management tools

Delineation and preservation of high quality soils

Rehabilitation and redevelopment of brownfields

Protection of open and green spaces in urban areas

Development of soil databases and soil maps

Guidance for assessment of soil in SEA and EIA

Soil compensation measures guidance

Awareness raising package

Monitoring

Procedures for monitoring

Identification of success indicators

Definition of indicator classes

Definition of acceptability thresholds

Proposals for reporting

Proposals for monitoring implementation

Goals

Sustainable use of soil in urban areas considering soil quantity as well as soil quality in terms of providing different soil functions

Reduced quantity of soil consumption rate

Sustainable use of soil considering soil quality (provision of soil functions)

Increased areas of unsealed soil in urban environment

Adjacent areas included to urban soil conservation

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