INSTALL SUSTAINABLE URBAN DRAINAGE SYSTEMS (SUDS)

OBJECTIVE

To reduce hardened and impervious surfaces and accurately design urban space drainage reducing the risk of flooding damages due to failure of drainage systems.

DESCRIPTION

Emulate natural drainage. SUDS often incorporate soil and vegetation in structures that are usually impermeable (e.g. green rooftops). Surface permeability in urban areas can be increased by using permeable paving where appropriate (e.g. footpaths, car-parking areas, access roads). Infiltration devices, such as “soakaways”, allow water to be drained directly into the ground; basins, ponds, and urban infrastructure such as children’s playgrounds can be designed to hold (excess) water when it rains. Measures for rainwater utilization for non-potable uses and design of urban public spaces can help meet water efficiency targets and improve environmental quality.

EXPECTED RESULTS

Improves water quality; reduces surface run-off and increases groundwater recharge; reduces the pressure on drinking water resources.

RESULT INDICATORS

Water availability for distribution [L]
Runoff quality [m^3/s]

INVOLVED ACTORS

Watershed administration and community.

EXPECTED TIMELINE FOR ACTION

- Medium term (5-10 years)
- Long term (> 10 years)

BEST PRACTICES

- London – UK
- Hamburg – Germany
- Madrid – Spain
- Växjö – Sweden
- Bremen – Germany
- Rouen – France
- Veneto Region – Italy
- Amsterdam – Netherlands
- Bratislava – Slovakia

- Lodz – Poland
- Berlin – Germany
- Malmö – Sweden
- Bilbao – Spain
- Madrid – Spain
- Marche Region – Italy
- Apulia Region – Italy

CRITICALITIES

Collaboration and different interests.

SCOPE OF THE ACTION

- Adaptation

TYPE OF PROPOSED ACTIONS

- Grey
- Green

SECTOR OF ACTION

- Urban settlement
- Water resource management
- Other

CLIMATE IMPACTS

- Extreme temperatures
- Floods
- Other

IMPLEMENTATION SCALE

- Municipality

SOURCE

https://climate-adapt.eea.europa.eu/metadata/adaptation-options/water-sensitive-urban-and-building-design