

Contaminated Urban Soils

[DOWNLOAD HERE](#)

1;Foreword;8 2;Acknowledgement;12 3;Contents;14 4;Abbreviations;18 5;Chapter 1: Introduction;22 5.1;References;23 6;Chapter 2:Geographical Basics;25 6.1;2.1 Definitions;25 6.2;2.2 Historical Development of Urbanization;26 6.3;2.3 Present Urbanization Process;31 6.4;2.4 City Structures and Their Impacts on Contamination;37 6.5;References;46 7;Chapter 3: Causes of Soil Contamination in the Urban Environment;48 7.1;3.1 Overview;48 7.2;3.2 Extensive Contamination;50 7.2.1;3.2.1 Bedrock and Parent Material Concentration;50 7.2.2;3.2.2 Dust Deposition;52 7.3;3.3 Linear Contamination;65 7.3.1;3.3.1 Traffic Routes;65 7.3.1.1;3.3.1.1 Roadland;65 7.3.1.2;3.3.1.2 Railway Embankment;70 7.3.2;3.3.2 Utility Networks Pipes;72 7.3.3;3.3.3 Floods in Alluvial Floodplains;73 7.4;3.4 Horticultural and Agricultural Influence;83 7.4.1;3.4.1 Fertilizing;83 7.4.2;3.4.2 Application of Sewage Sludge and Wastewater;86 7.4.3;3.4.3 Pesticide Application;91 7.5;3.5 Urban Influence;92 7.5.1;3.5.1 Derelict Land;92 7.5.2;3.5.2 Accident Sites;102 7.5.3;3.5.3 Deposits and Fills;104 7.6;3.6 Identification of Soil Contamination;108 7.7;References;110 8;Chapter 4: Man-Made Substrates;114 8.1;4.1 Origin;114 8.1.1;4.1.1 Construction Debris and Construction and Demolition Waste;114 8.1.2;4.1.2 Slag and Ashes;116 8.1.3;4.1.3 Mining Waste;117 8.1.4;4.1.4 Municipal Solid Waste;118 8.1.5;4.1.5 Sludges;119 8.1.6;4.1.6 Cleaned-up Substrates;119 8.2;4.2 Characteristics;120 8.2.1;4.2.1 Recognition During Field Work;120 8.2.2;4.2.2 Chemical Properties;120 8.2.3;4.2.3 Physical Properties;124 8.2.4;4.2.4 Biological Properties;124 8.3;4.3 Contamination Potential;125 8.3.1;4.3.1 Texture Influence;125 8.3.2;4.3.2 Substrate Differences;127 8.4;4.4 Distribution;134 8.5;References;137 9;Chapter 5: Anthropogenic Soils;139 9.1;5.1 Definitions;139 9.2;5.2 Artificial Soils;141 9.3;5.3 Cultivated Soils (Anthrosols);144 9.3.1;5.3.1 Plaggen Soils;144 9.3.2;5.3.2 Garden Soils;146 9.3.3;5.3.3 Cemetery Soils;152 9.4;5.4 Deposited Soils (Technosols);156 9.4.1;5.4.1 Soils of Urban Built-up Areas;156 9.4.2;5.4.2 Landfill Soils;163 9.4.3;5.4.3 Soils of Industrial Deposits;177 9.4.4;5.4.4 Mining Soils;183 9.4.4.1;5.4.4.1 Coal Mining;183 9.4.4.2;5.4.4.2 Ore Mining;192 9.4.5;5.4.5 Sludge Fields;198 9.4.5.1;5.4.5.1 Sewage Sludge Treatment Fields;198 9.4.5.2;5.4.5.2 Resource Extraction Tailing Ponds;199 9.4.5.3;5.4.5.3 Dredged Harbour Sediment Fields;203 9.4.5.4;5.4.5.4 Industrial Sludge Fields;205 9.5;References;209 10;Chapter

6: Contamination Influencing Soil Properties;212 10.1;6.1 Physical Properties;212 10.1.1;6.1.1 Sealing;212 10.1.2;6.1.2 Erosion and Deflation;217 10.1.3;6.1.3 Compaction;219 10.1.4;6.1.4 Skeleton Enrichment;223 10.1.5;6.1.5 Altered Groundwater Table;225 10.1.6;6.1.6 Subsidence;225 10.2;6.2 Chemical Properties;228 10.2.1;6.2.1 Total Concentration: Methodological Aspects;228 10.2.2;6.2.2 pH Value;235 10.2.3;6.2.3 Carbon Content and Biological Activity;238 10.2.4;6.2.4 Texture and Binding Compounds;241 10.2.5;6.2.5 Nutrients;243 10.3;6.3 Pedogenesis;249 10.3.1;6.3.1 Humus Formation and Pedoturbation;251 10.3.2;6.3.2 Physical Weathering;252 10.3.3;6.3.3 Chemical Weathering;254 10.3.4;6.3.4 Aggregation;256 10.3.5;6.3.5 Reductomorphose;256 10.4;References;257 11;Chapter 7: Assessment of Urban Soils;260 11.1;7.1 Classification;260 11.2;7.2 Functional Assessment;263 11.2.1;7.2.1 Habitat Function;264 11.2.2;7.2.2 Function as Component of Ecological Cycles;265 11.2.3;7.2.3 Filter, Buffer and Transformation Function for Contaminants;270 11.2.4;7.2.4 Archival Functions;272 11.2.5;7.2.5 Use Functions;273 11.3;7.3 Pathway-Oriented Soil Assessment;273 11.3.1;7.3.1 Risk Assessment Scheme;273 11.3.2;7.3.2 Calculation of the Risk Assessment;277 11.3.3;7.3.3 Main Pathways;280 11.3.3.1;7.3.3.1 Direct Contact;280 11.3.3.2;7.3.3.2 Food Chain Pathway;281 11.3.3.3;7.3.3.3 Groundwater Pathway;287 11 EAN/ISBN : 9789048193288 Publisher(s): Springer Netherlands, Springer Science & Business Media Discussed keywords: Altlasten Format: ePub/PDF Author(s): Meuser, Helmut

[DOWNLOAD HERE](#)

Similar manuals:

[Contaminated Urban Soils](#)

[Altlasten Und Deren Sanierung: Rechtliche Grundlagen, Sanierungskosten Und Finanzierung Von Altlasten - Silke Wissing](#)