

Increasing resilience of urban ecosystems to climate change, case Tallinn

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Increasing urban climate resilience

Three-fold objectives:

- * Surface permeability – buffering precipitation and storm water
- * Canopy overlap – reducing heat, providing shade and buffering precipitation
- * Access to public green areas in 250 m radius

Accidental storm water



Texas , Flood, August 2017, internet

Heat wave



Permeable surfaces

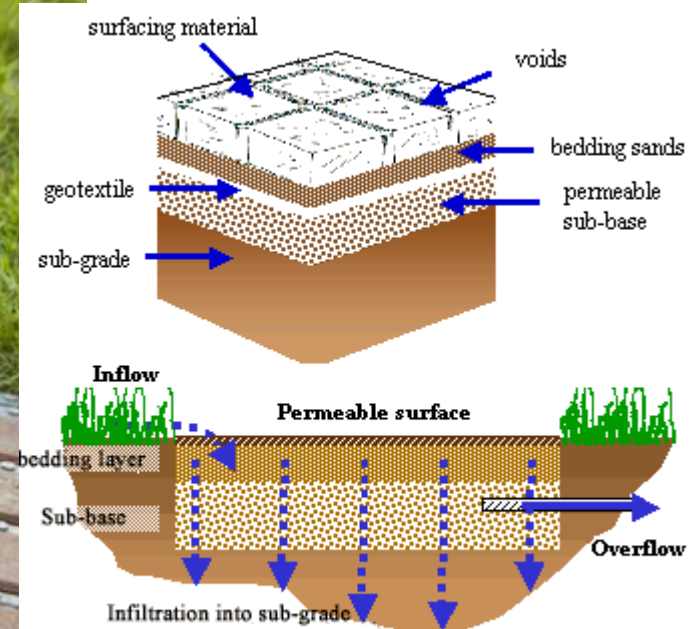


Figure 29: Permeable pavements

Permeability of surfaces

Permeable surfaces:

Wood

Flintstone

Gravel

Sand

Cobblestone

Soil

Limestone

Artificial lawn

Non-permeable surfaces:

Asphalt

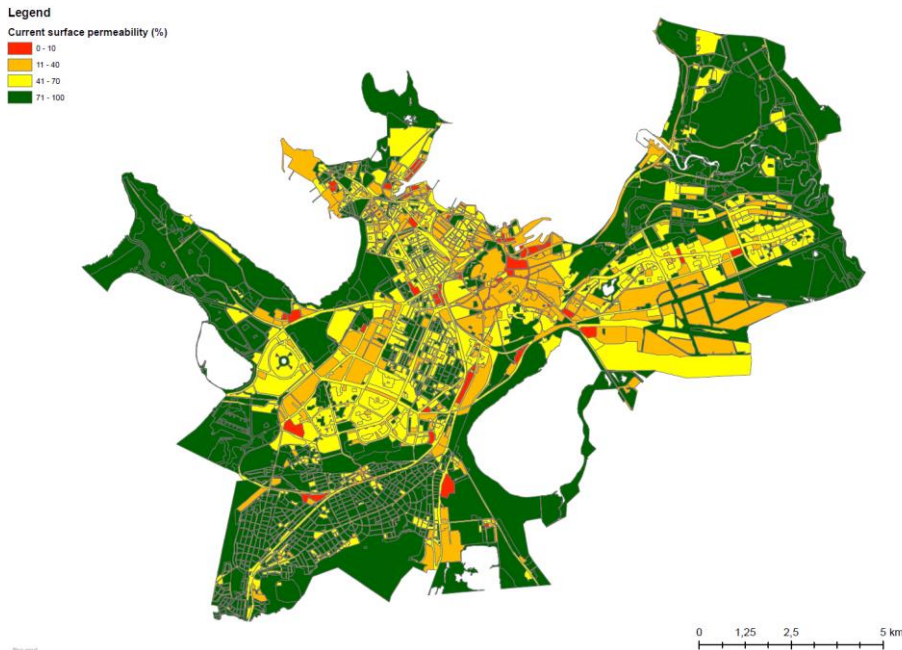
Concrete

Rubber

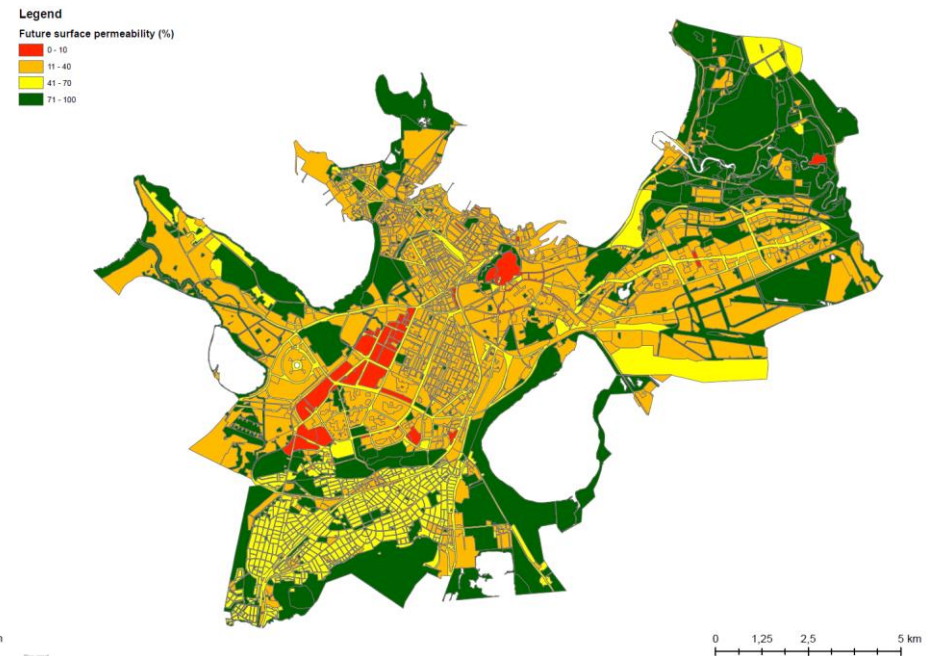
Tar paper

Surface permeability is decreasing

Surface permeability, today



Surface permeability, future



Canopy overlap



Kadriorg park, internet

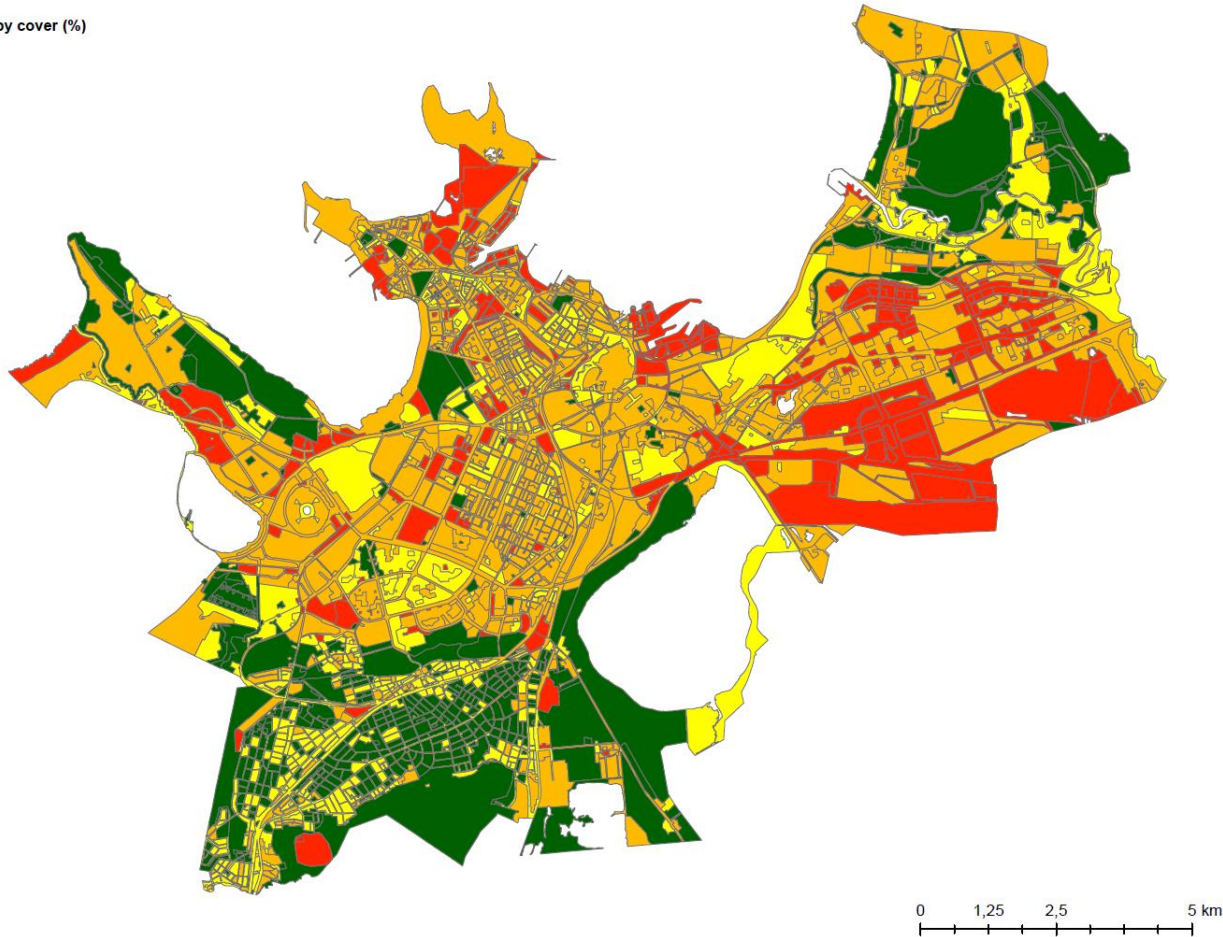
Canopy overlap



Canopy overlap

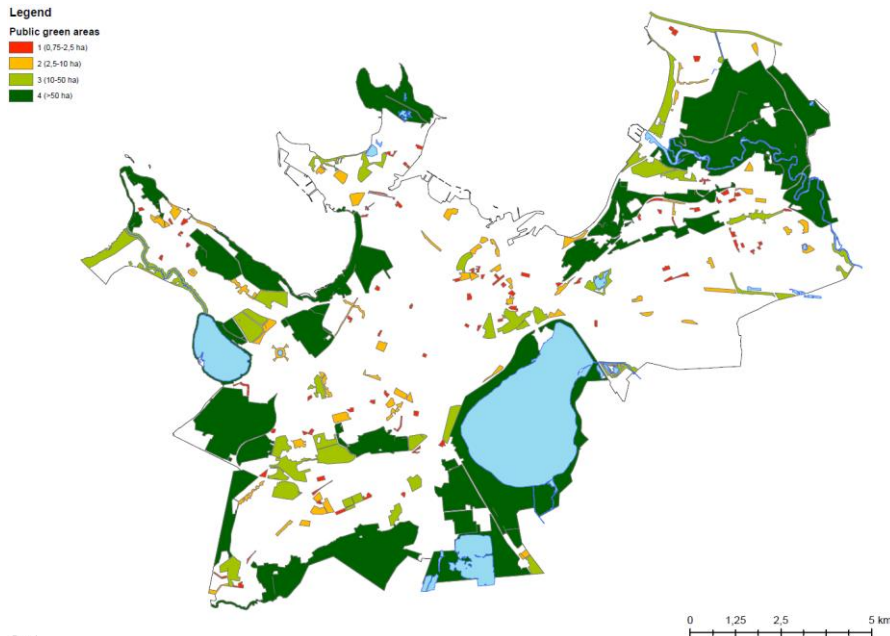
Legend

Current canopy cover (%)

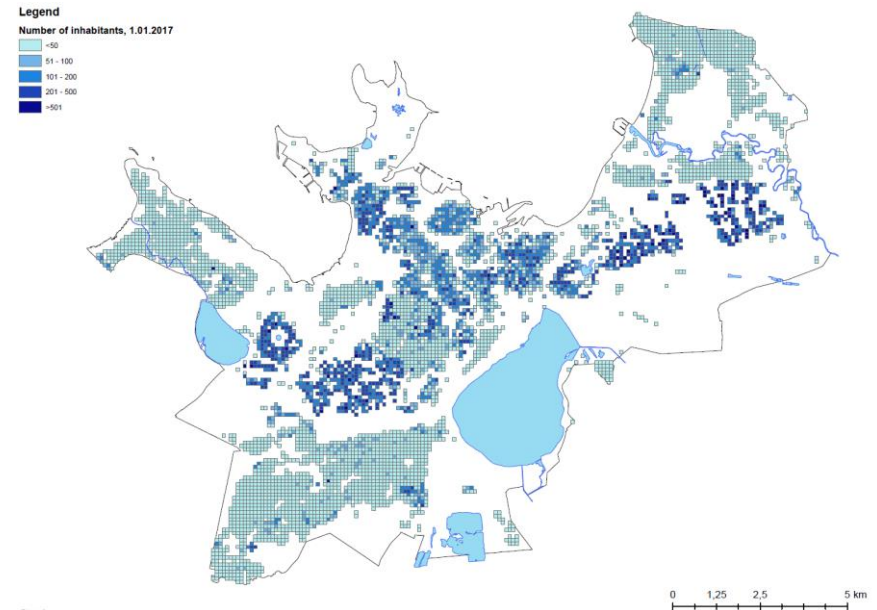


Access to public green areas

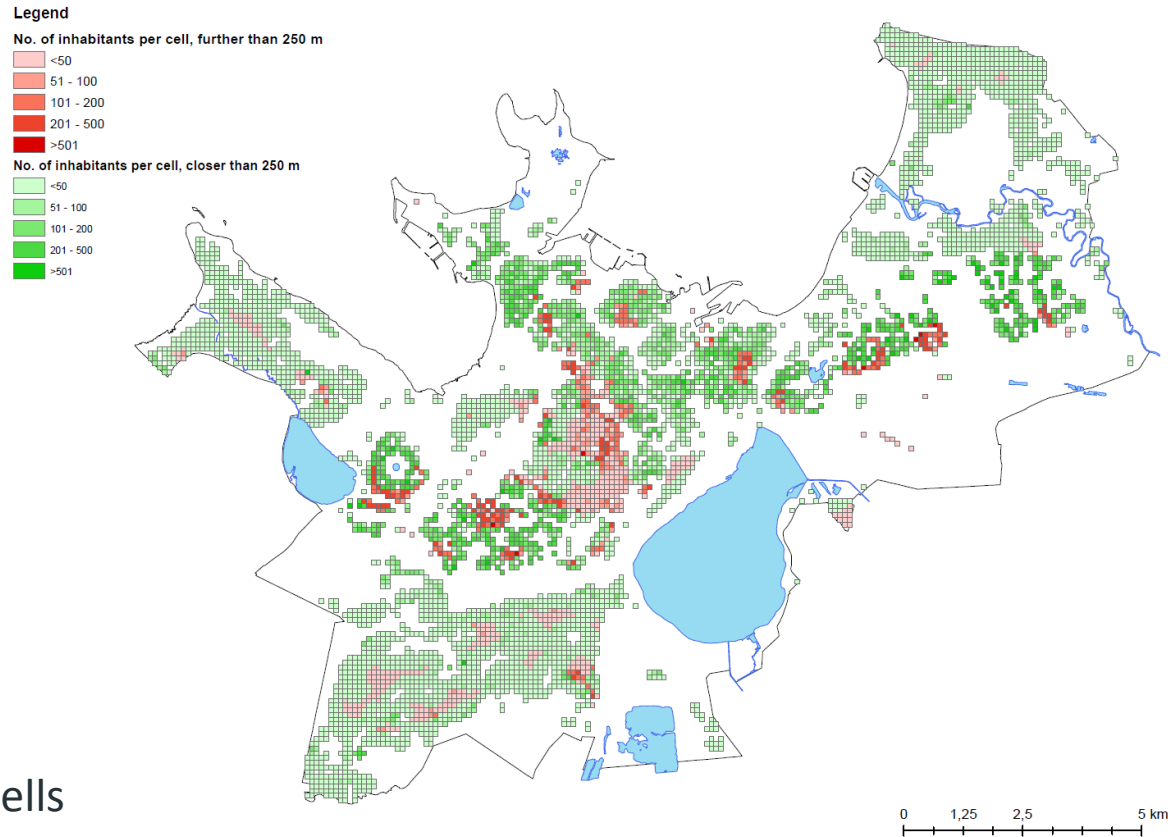
Public green areas, size classes



Population classes



Access to public green areas in 250m radius for urban population



Thank you for your attention!

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