

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

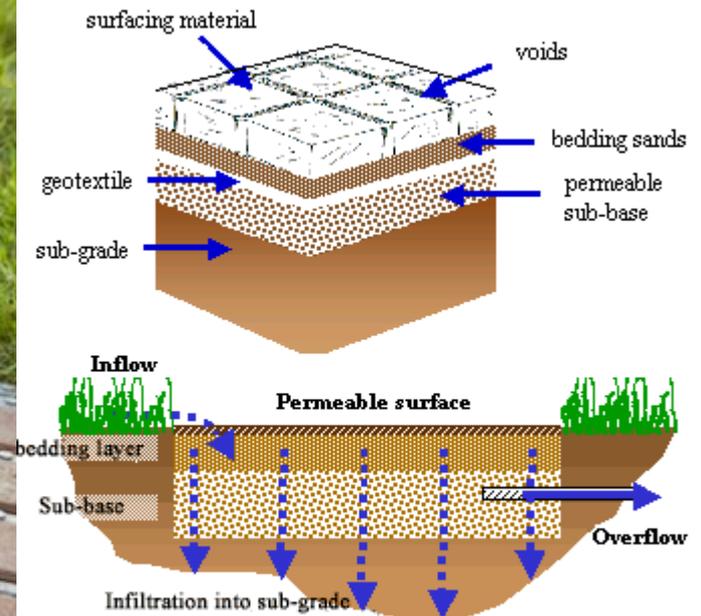


Figure 29: Permeable pavements

Permeability of surfaces

Permeable surfaces:

Wood

Flintstone

Gravel

Sand

Cobblestone

Soil

Limestone

Artificial lawn

Non-permeable surfaces:

Asphalt

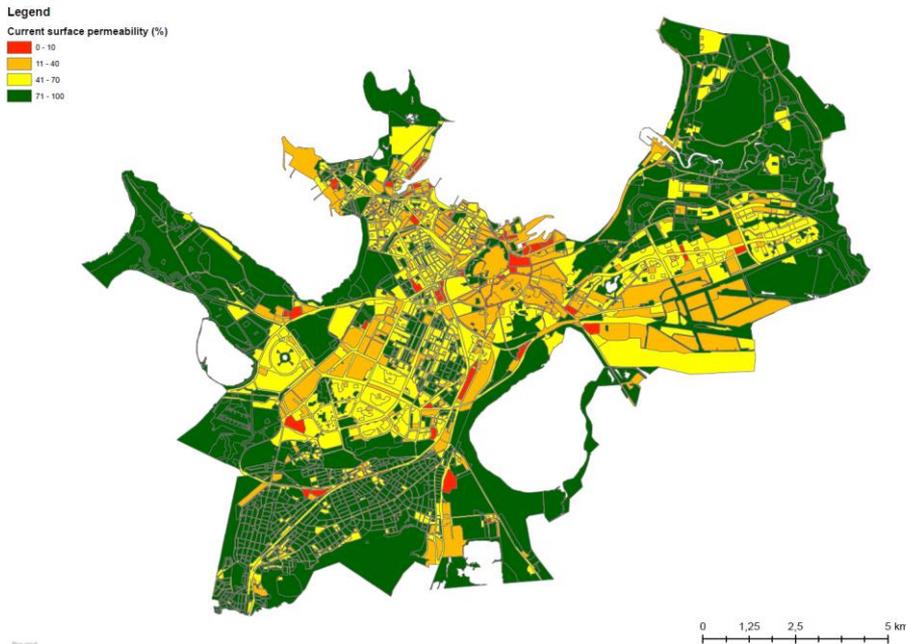
Concrete

Rubber

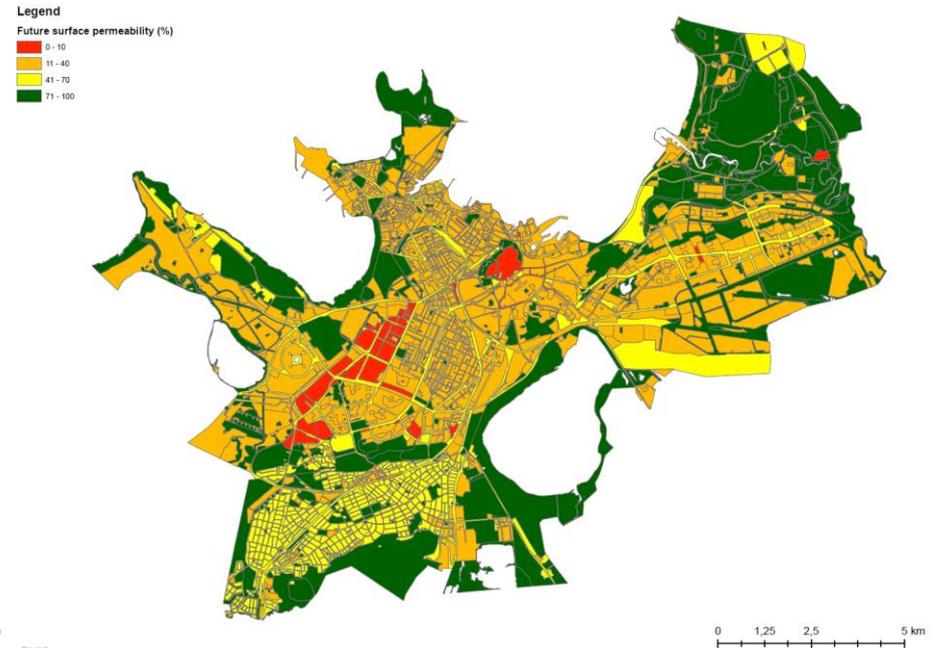
Tar paper

Surface permeability is decreasing

Surface permeability, today



Surface permeability, future



Canopy overlap



Kadriorg park, internet

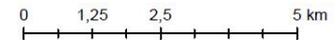
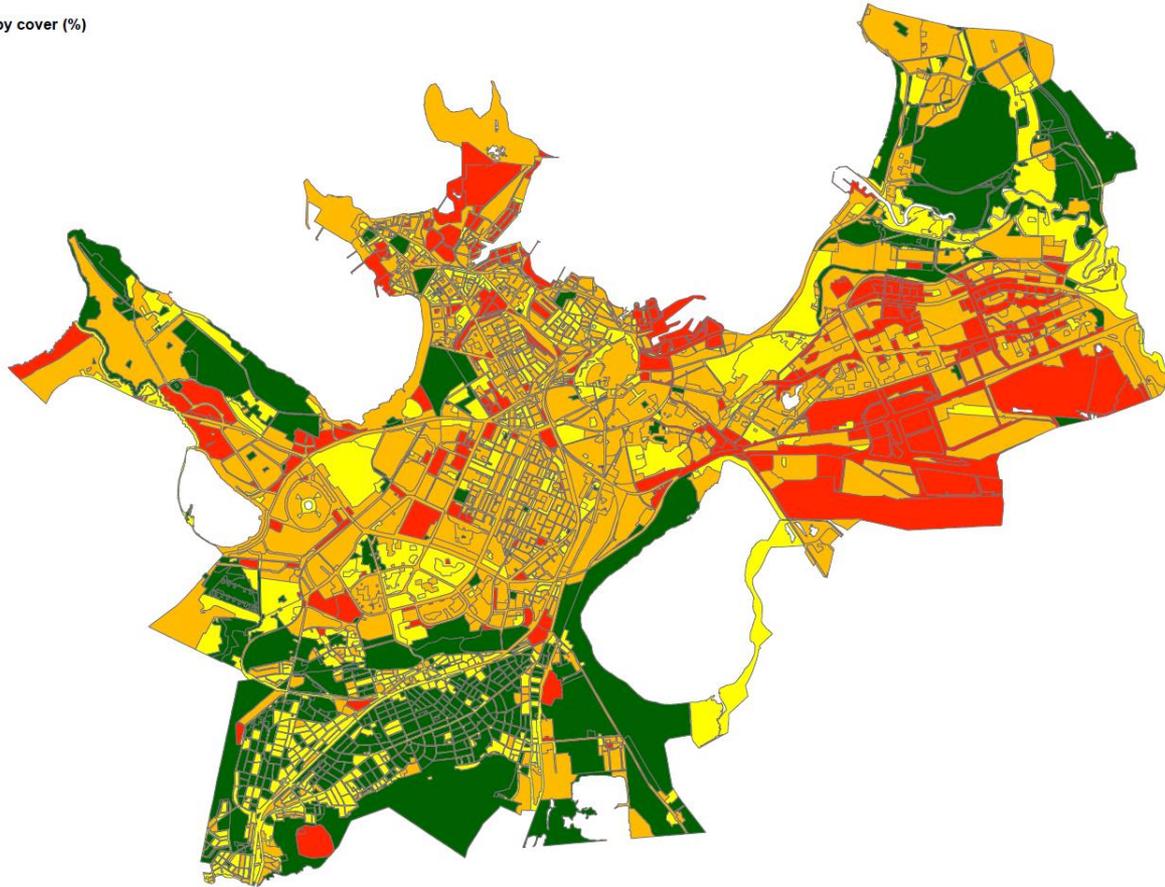
Canopy overlap



Canopy overlap

Legend

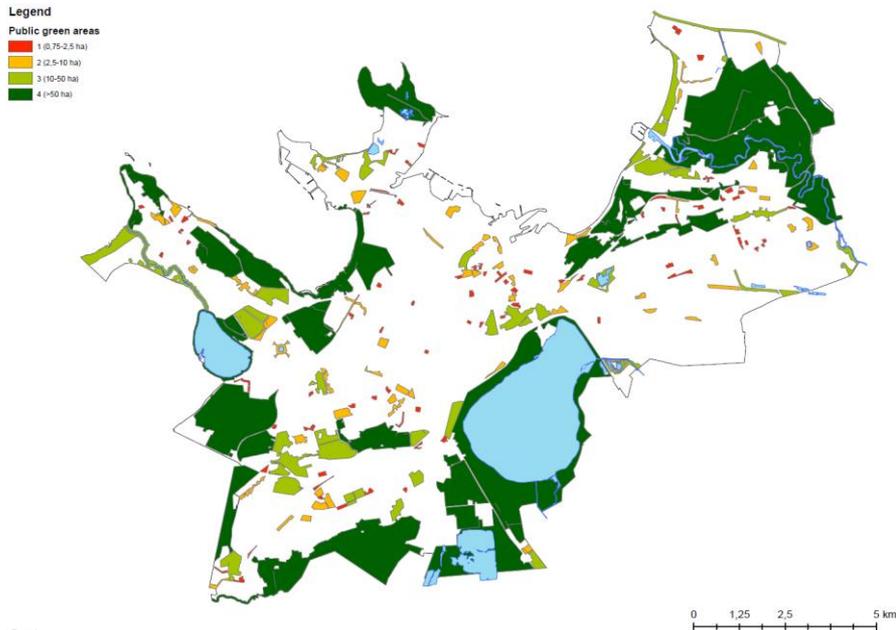
Current canopy cover (%)



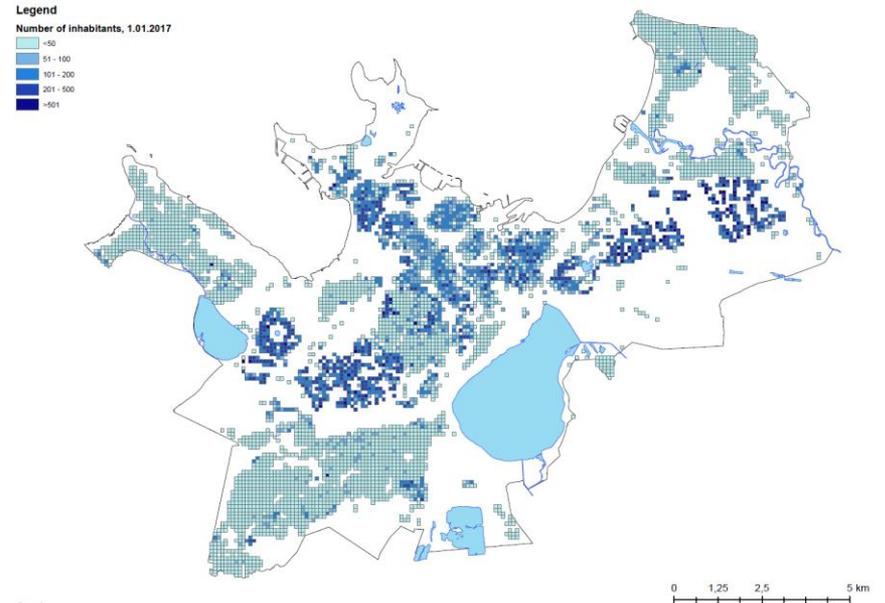
Mapa aerea

Access to public green areas

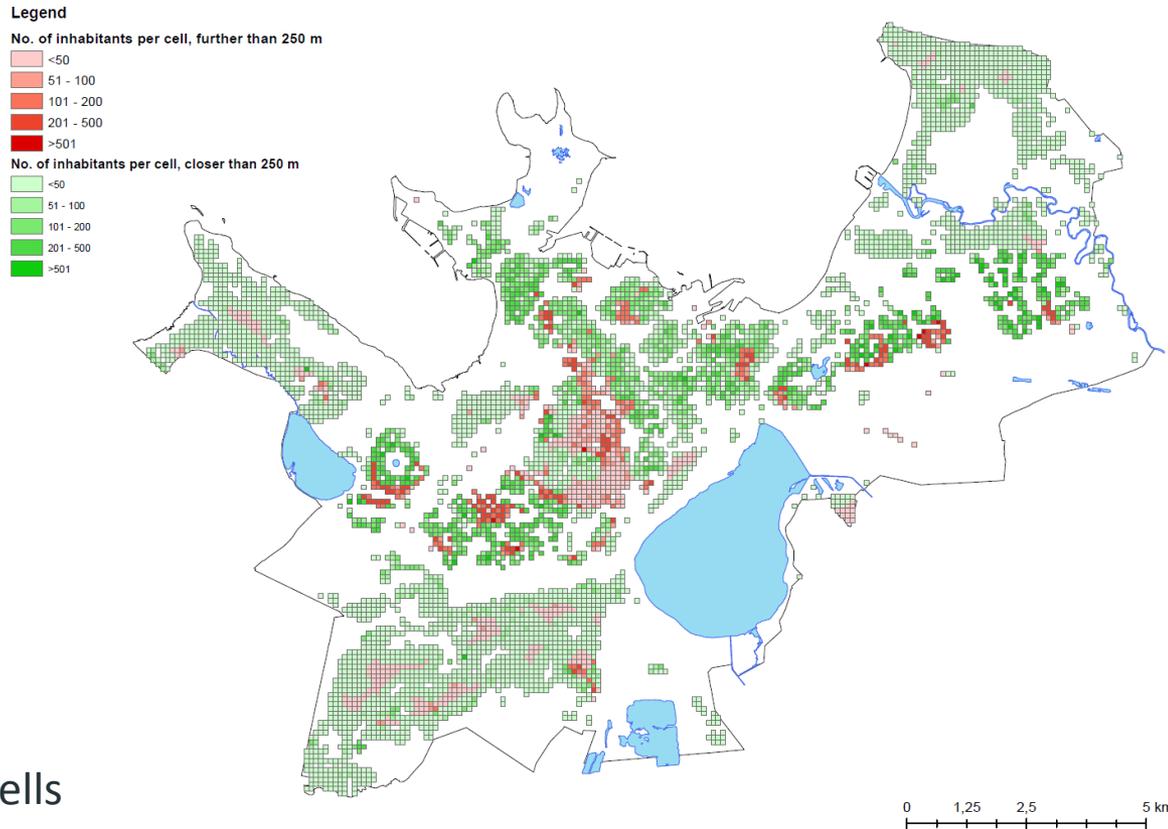
Public green areas, size classes



Population classes



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



100x100m cells

Thank you for your attention!

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