atmosphere

Supplementary Materials

The supplementary materials contains the remaining heat maps, which were not included in the main text due to the limit of space. The tables in the back provide the numbers for temperature, daily temperature range (DTR) and radiation, which were used for the calculation of the climate scenario heat maps.

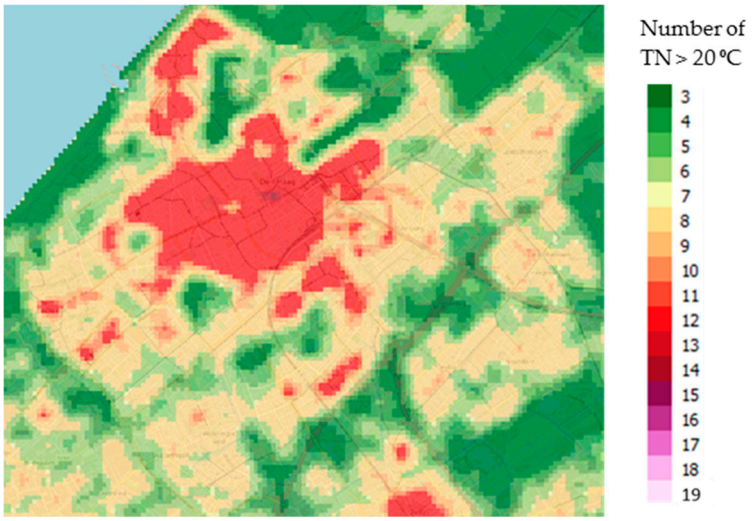

Figure S1. Modelled number of tropical nights per year for the year 2006.

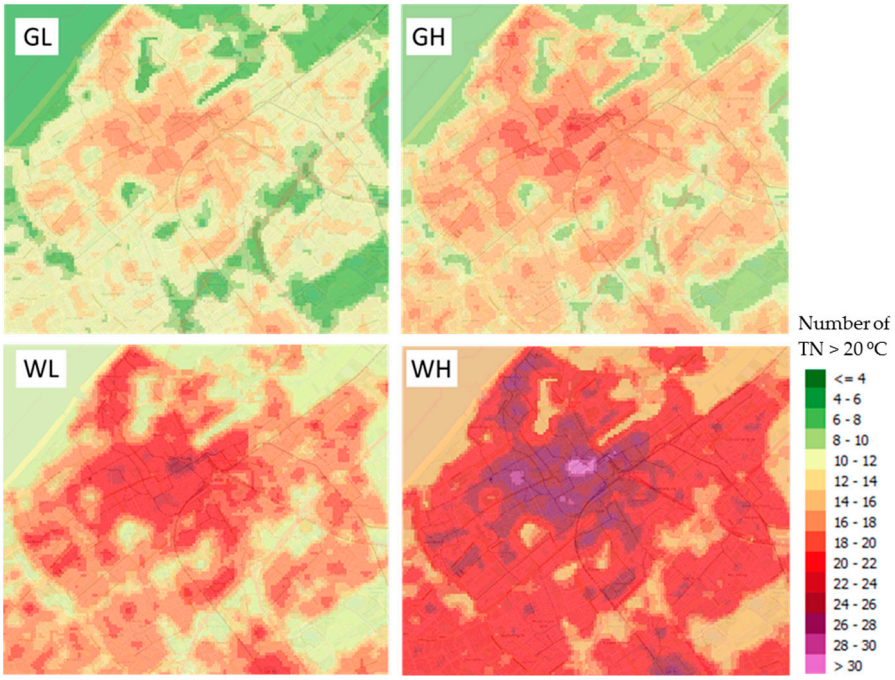

Figure S2. Modelled number of tropical nights per year for the year 2006 transformed to the four KNMI'14 scenarios.

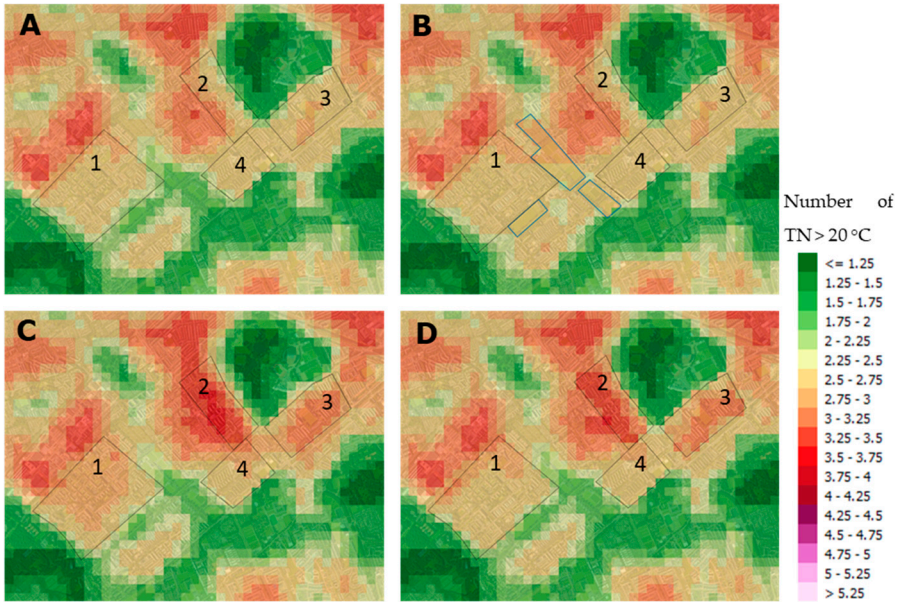

Figure S3. Modelled average number of nights per year above 20 °C for The Hague Southwest for the **current climate** for: (**A**) current housing, (**B**) building the green corridors around the neighbourhoods with low- and high-rise buildings, (**C**) constructing low- and mid-rise buildings on green spaces, within the urban neighbourhoods and, (**D**) constructing high-rise buildings, within the urban neighbourhoods to preserve existing green spaces.

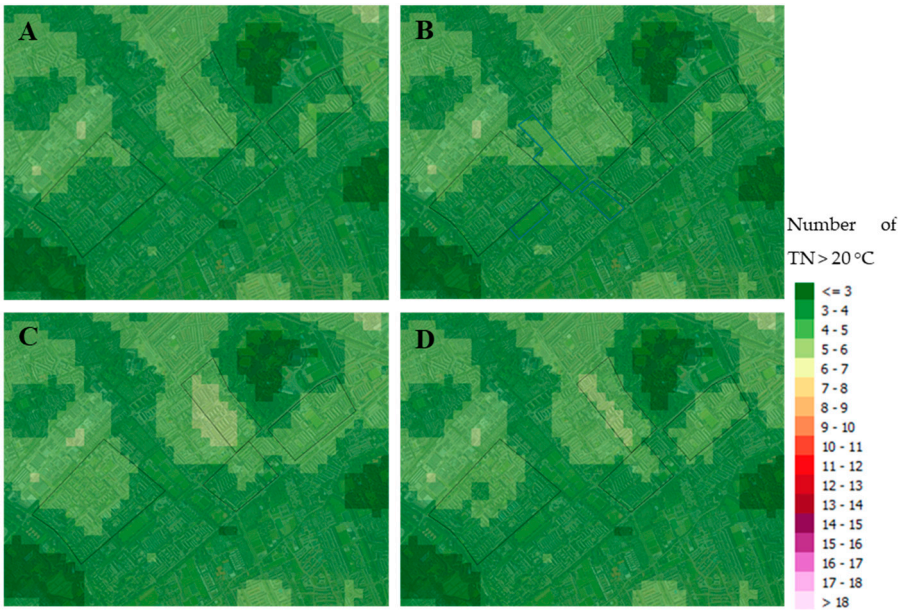

Figure S4. Modelled average number of nights per year above 20 °C for The Hague Southwest for the **GL climate scenario** in 2050 for: (**A**) current housing, (**B**) building the green corridors around the neighbourhoods with low- and high-rise buildings, (**C**) constructing low- and mid-rise buildings on green spaces, within the urban neighbourhoods, and (**D**) constructing high-rise buildings, within the urban neighbourhoods to preserve existing green spaces.

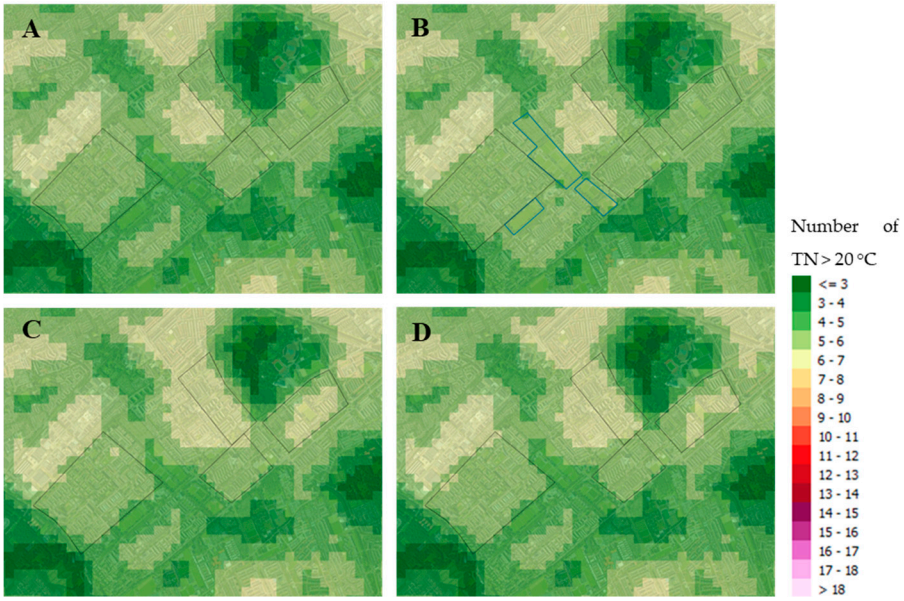

Figure S5. Modelled average number of nights per year above 20 °C for The Hague Southwest for the **GH climate scenario** in 2050 for: (**A**) current housing, (**B**) building the green corridors around the neighbourhoods with low- and high-rise buildings, (**C**) constructing low- and mid-rise buildings on green spaces, within the urban neighbourhoods, and (**D**) constructing high-rise buildings, within the urban neighbourhoods to preserve existing green spaces.

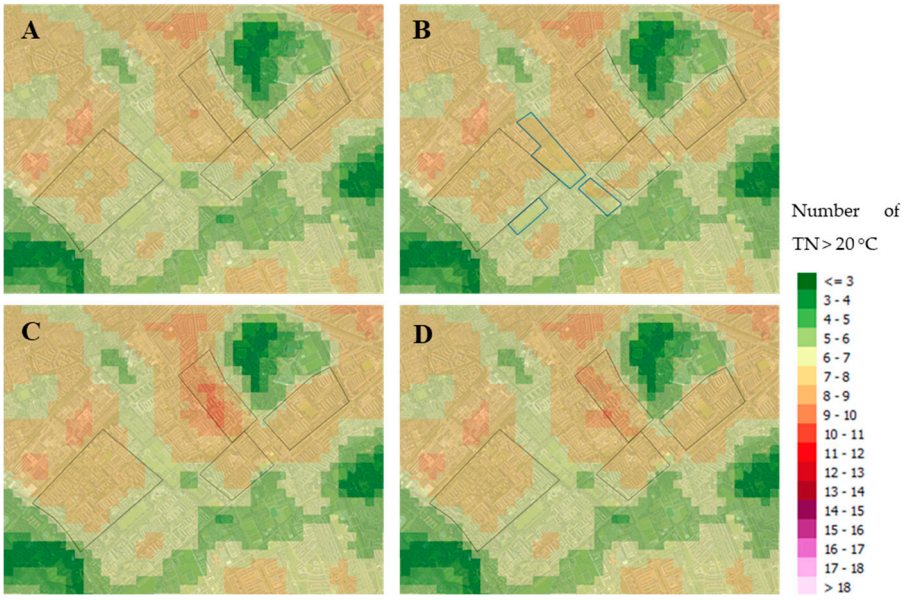

Figure S6. Modelled average number of nights per year above 20 °C for The Hague Southwest for the **WL climate scenario** in 2050 for: (**A**) current housing, (**B**) building the green corridors around the neighbourhoods with low- and high-rise buildings, (**C**) constructing low- and mid-rise buildings on green spaces, within the urban neighbourhoods, and (**D**) constructing high-rise buildings, within the urban neighbourhoods to preserve existing green spaces.

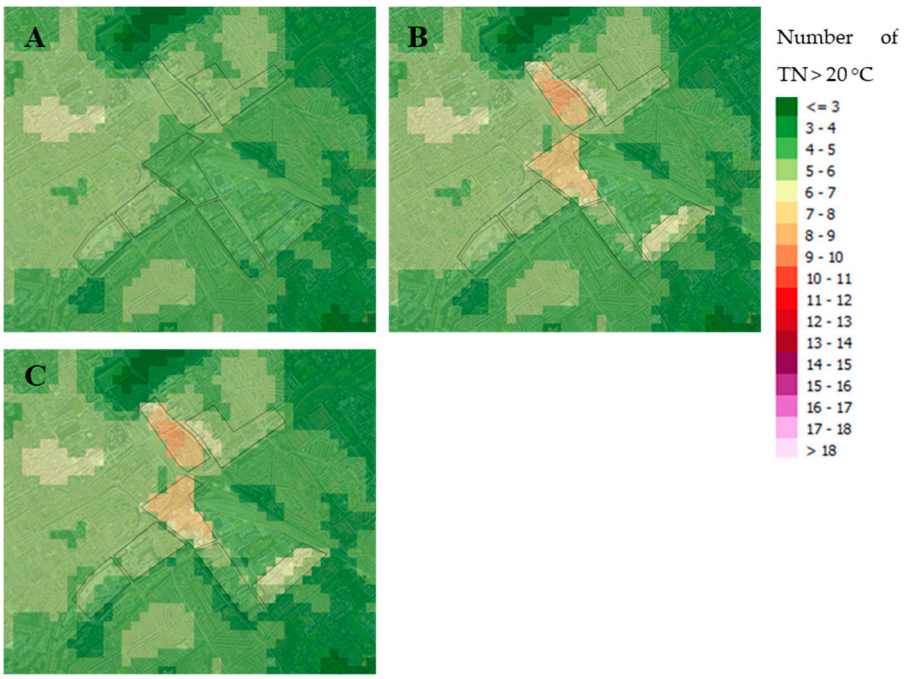

Figure S7. Modelled number of nights above 20 °C per year for the CID for the **GL climate scenario** for: (**A**) current housing, (**B**) constructing high-rise buildings whereby green spaces are preserved as much as possible, and (**C**) constructing high-rise buildings whereby the vegetation fraction is increased.

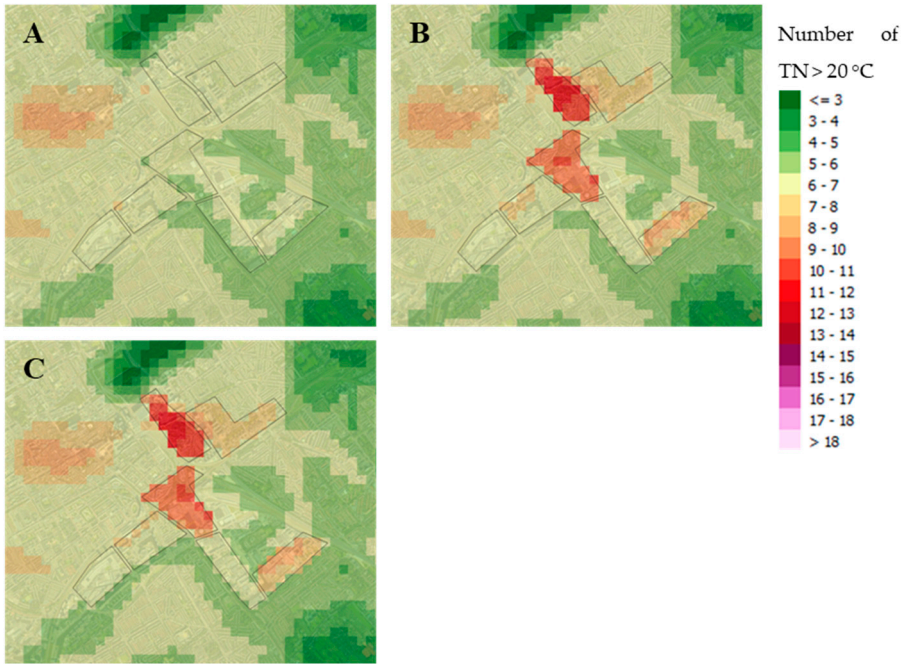

Figure S8. Modelled number of nights above 20 °C per year for the CID for the **GH climate scenario** for: (**A**) current housing, (**B**) constructing high-rise buildings whereby green spaces are preserved as much as possible, and (**C**) constructing high-rise buildings whereby the vegetation fraction is increased.

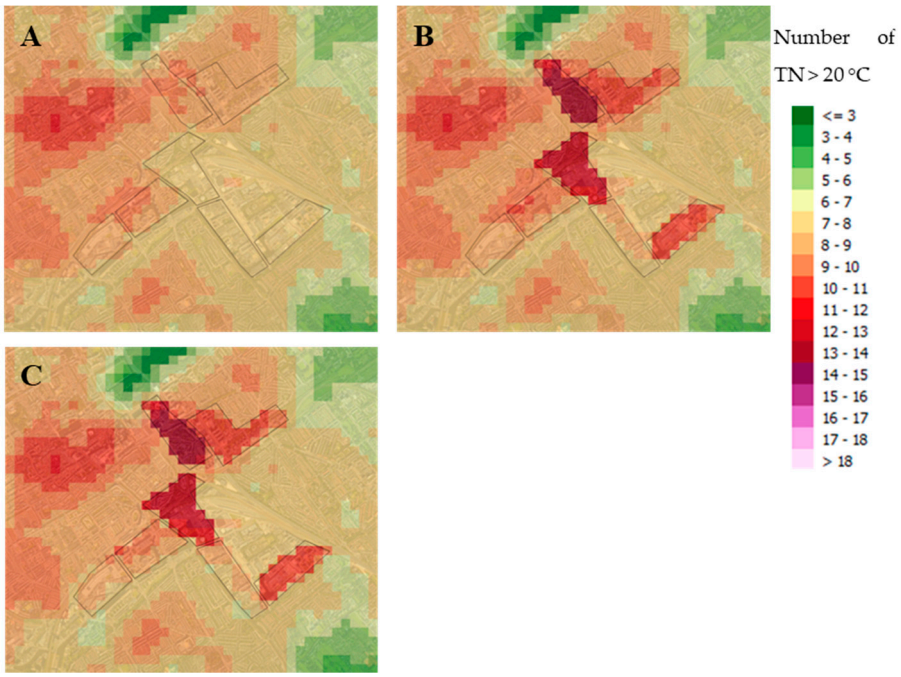

Figure S9. Modelled number of nights above 20 °C per year for the CID for the **W_H climate scenario** for: (**A**) current housing, (**B**) constructing high-rise buildings whereby green spaces are preserved as much as possible, and (**C**) constructing high-rise buildings whereby the vegetation fraction is increased.

Table S1. Transformation table G_L climate scenario from current climate to future climate in 2050 [38].

	Temperature (°C) Percentiles					**(°C)**	**%**
	1	5	50	95	99	DTR	Global Radiation
April	1.8	1.3	0.7	1	1.2	−0.22	−1.4
May	1.2	1	0.7	1.1	1.2	−0.24	0
June	0.9	0.9	0.9	1.3	1.4	−0.22	1.6
July	0.9	0.9	1	1.3	1.4	−0.24	2
August	1.1	1.1	1	1.2	1.4	−0.15	2.2
September	1.6	1.3	1	1.1	1.1	−0.15	1.9

Table S2. Transformation table G_H climate scenario from current climate to future climate in 2050 [38].

	Temperature (°C) Percentiles					**(°C)**	**%**
	1	5	50	95	99	DTR	Global Radiation
April	1.9	1.5	0.9	0.8	0.8	−0.25	−1.4
May	1.4	1.2	0.8	1	1.1	−0.25	0.4
June	1.1	1.1	1.1	1.7	1.8	−0.08	3.4
July	1.1	1.1	1.4	1.9	2	0	5
August	1.2	1.2	1.4	1.9	2	0.08	5.4
September	1.5	1.5	1.2	1.5	1.6	−0.02	2.6

Table S3. Transformation table W_L climate scenario from current climate to future climate in 2050 [38].

	Temperature (°C) Percentiles					**(°C)**	**%**
	1	5	50	95	99	DTR	Global Radiation
April	3.3	2.4	1.6	2	2.2	−0.46	−2.8
May	2.2	1.8	1.4	1.7	2	−0.6	−2.7

June	1.7	1.6	1.4	1.7	2	−0.5	−1.6
July	1.6	1.6	1.7	1.9	2.2	−0.33	1.2
August	1.8	1.9	1.9	2.3	2.6	−0.21	3.5
September	2.1	2.2	2.1	2.3	2.5	−0.17	3

Table S4. Transformation table WH-scenario from current climate to future climate in 2050 [38].

	Temperature (°C) Percentiles					**(°C)**	**%**
	1	5	50	95	99	DTR	Global Radiation
April	3.2	2.5	2	1.7	1.9	−0.44	−2.8
May	2.3	2.1	1.7	1.8	2	−0.48	−0.6
June	2	1.9	2	2.5	2.7	−0.09	4
July	1.9	2	2.2	3	3.3	0.13	6.6
August	2.2	2.1	2.3	3.1	3.5	0.21	7.1
September	2.6	2.3	2.1	2.6	2.9	−0.03	3.1