

REMINDER OF THE CONTEXT

Today, **56%** of the global population **lives in cities**, and this rate is projected to **rise to 70%** by 2050.

This increase in urban population is likely to exacerbate certain existing climatic phenomena and impact the health of residents.

One of the climatic effects observed in these densely populated and urbanized areas is the significant average temperature difference compared to the surrounding countryside.

This temperature difference has been regularly observed since the 19th century, notably by the British meteorologist Luke Howard, who was the first to document, in 1833, a 3.7°C difference between central London and its countryside.

This phenomenon is known as the urban heat island (UHI).

An urban heat island is characterized by an elevation in air and surface temperatures within a city, neighborhood, or even a single street, compared to the surrounding rural areas.

This strategic note addresses the issue of urban heat islands and provides an overview of the solutions, sometimes innovative, that are already available to city planners and developers. These solutions help combat, mitigate, and consider the impact of urban heat islands on public spaces.

Urban heat in key figures

Thirty days of extreme heat: That's what **3.8 billion people**, nearly **half of the world's population**, experienced from **June to August 2023**.

Source – ONG Climate Central, 2023

Heatwaves will double in France by 2050.

These heatwaves will have a greater impact in densely populated and urbanized cities.

Source – Météo France, 2019

+1.5°C globally by 2050.

Source – GIEC, 2023

A 24°C difference between the temperature in **New Delhi** (India)

and that of the **surrounding rural fields** was recorded on May 5, 2022, at midnight — the highest temperature difference ever observed within an urban heat island.

Source – NASA, 2022