

# THE POTENTIAL OF URBAN GREEN SPACES TO FACE CONTEMPORARY SOCIOENVIRONMENTAL CHALLENGES



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## I. INTRODUCTION

Cities and urban spaces are, in our days, places of the most diversified dynamics. Since the beginning of the XX century, urbanization, demographic explosion (Kondo et al., 2018; UN, 2014) and consumer behaviour have affected environment and, consequently, human health. The connection between environment and human health is undeniable and as well as the impacts of environmental pollution, namely air pollution, on the population's health (Raaschou-Nielsen et al., 2016; Pope et al., 2002). Towards this evidence, it is an urgent need that cities adopt strategies in order to face these contemporary social and environmental problems. Several studies had focused on the potentials of Urban Green Spaces (UGS), aiming to prove their capability to mitigate air pollution, rejuvenate urban areas, control stress and mental health, minimize ischemic diseases and empower social participation (Seymour, 2016; James et al., 2015; Haluza et al., 2014; Bowler, et al., 2010).

## II. OBJETIVES

- A. Identify and evaluate UGS' characteristics related to their availability, accessibility, aesthetics and equipment's';
- B. Study UGS' uses and social functionalities;
- C. Associate self-perception of health with the use of UGS';
- D. Analyse UGS' capability to mitigate air pollution and climate change impacts;
- E. To know the importance level of the environmental dimension of individuals.

## III. MATERIAL AND METHODS

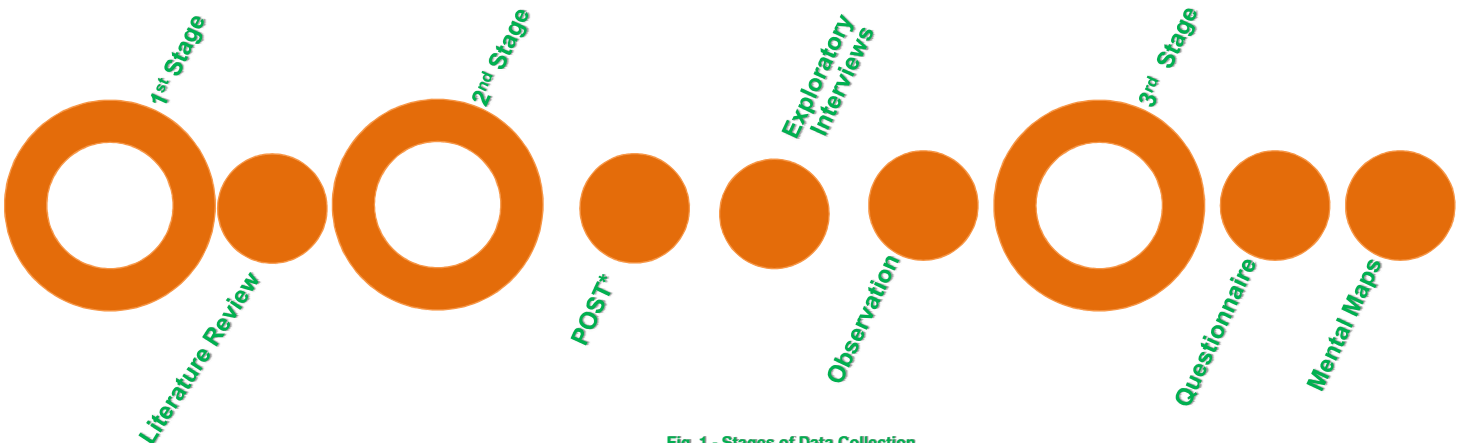


Fig. 1 - Stages of Data Collection

\*Public Open Space Tool

## IV. URBAN GREEN SPACES BENEFITS: A BRIEF REVIEW OF LITERATURE

The studies carried out show a plurality of UGS benefits. An appropriate species choice to plant could improve the phytoremediation of air pollutants, minimizing their impacts on human health (Kuo, 2015; Sturm & Cohen, 2014; Lee & Maheswaran, 2011). This is particularly important in cities because traffic emissions is a very serious problem (Anenberg, et al., 2017). Alongside, the frequency of UGS improve human health, namely acting as a protection factor in birth outcomes (Frumkin et al., 2017; Davdand et al., 2012), lung cancer (Porcherie, et al., 2017), cardiovascular diseases (Tamosiunas et al., 2014), mental health, metabolic diseases, mortality, physical activity and respiratory diseases. The benefits of UGS goes further, and some studies have also found significant results related with the improvement of social and mental health (Schipperijn et al, 2010). UGS have also an important role in Climate Change (WHO, 2017; Kabisch et al., 2016; Mathey & Röbler, 2011). due to the fact that trees could regulate urban heat waves (Gunawardena et al., 2017).

## VI. MAIN CLUES TO THE STUDY DEVELOPMENT

The main clues found at literature review allow to attest the need of a more in deep research about the UGS benefits in urban areas. Although these studies, there is still a gap in the establishment of a relationship between social phenomena, like the increase of a social relations based on technology and a consumer society, and urban environment transformations, related with human pressure and habits. UGS should be implemented at the cities as a space of socialization, communication and leisure, which contributes to the improvement of human health in all dimensions. But are they prepared?

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