



2nd EUGLOH
PLANT SCIENCE
MEETING

6th MEETING IN FUNCTIONAL BIOLOGY
AND BIOTECHNOLOGY OF PLANTS

 **2/3 November 2022**

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23 ABSTRACT SUBMISSION
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Nature-based solutions for urban agriculture in buildings: challenges and opportunities

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Abstract

Insight is given to food security being an actual issue of concern due to rapid growth of global population, availability of arable land and consequently increase demand of food. Some problems associated with climate change such as extreme weather and soil degradation will also affect the quality and quantity of crops. On the other hand, urban area with high population relies on rural area to supply food ingredients. The linear food system creates environmental problems such as carbon footprint for transportation and increase packaging materials waste. Current Covid-19 pandemic situation adds on pressure on developed cities with mere local agriculture such as Macao. Macao depends on mainland China for fresh fruits and vegetables supply since local production is not the main trend. Due to the above reasons, this study intends to provide a new insight on food production in urban context towards a more sustainable and healthier environment using nature-based solutions. Assessment of indoor farming feasibility in city will be carried out by literature review and business entities interviews. A survey will be developed about the public acceptance to produce food in buildings with nature-based solutions. The methodology will proceed with a state-of-the-art assessment followed by a systematic review focused on selected NBS. Statical analysis will be carried out for data assessment. Acknowledgments: This research is supported by national funds through FCT - Foundation for Science and Technology within the scope of UIDB/04423/2020, UIDP/04423/2020, and UIDB/50016/2020 projects.