

# Research topic: Revealing Influential Factors in the Usage of Municipal Solid Waste Compost as a Fertilizer in Urban Agriculture. A survey study of potential limitations and opportunities.

Research line: Nutrient recovery, green infrastructures, solid waste management, circular cities

Research group: Sostenipra

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Traditional food production is driven by non-renewable and high impact resources such as mineral fertilizers. Urban agriculture (UA) is growing as an alternative from which cities can benefit from recirculating local resources while mitigating environmental impacts. Municipal solid waste (MSW) compost can supply the nutrients required by crops in UA and provide benefits in terms of soil quality. However, the application of MSW compost as an alternative fertilizer in UA depends on environmental and socio-economic factors that may influence the decision making of farmers upon using MSW compost over mineral fertilizers. Therefore, this study aims to identify the potential barriers and opportunities in the adoption of MSW compost as an alternative fertilizer by farmers in UA through an analysis of a survey study.

**Main aim: Identify the potential limitations and opportunities of farmers in the usage of MSW compost as an alternative fertilizer in UA and analyze them from an environmental and socio-economic perspective.**

## MAIN TASKS:

- Characterize the MSW compost production in the Metropolitan Area of Barcelona (AMB) and its potential as an alternative fertilizer for UA.
- Design a questionnaire survey for UA farmers in the AMB and define the participant selection based on a methodological approach.
- Distribute the survey and analyze the resulting data from an environmental and socio-economic perspective.
- Discuss about future implications and ways of addressing the identified limitations and opportunities.