



**THIRD WORLD SYMPOSIUM ON
SUSTAINABILITY
SCIENCE AND RESEARCH**

Sustainability Futures: Challenges and
Opportunities Towards a More
Sustainable World

April 8

Sustainability indicators related to organic waste for educational institutions: A systematic review

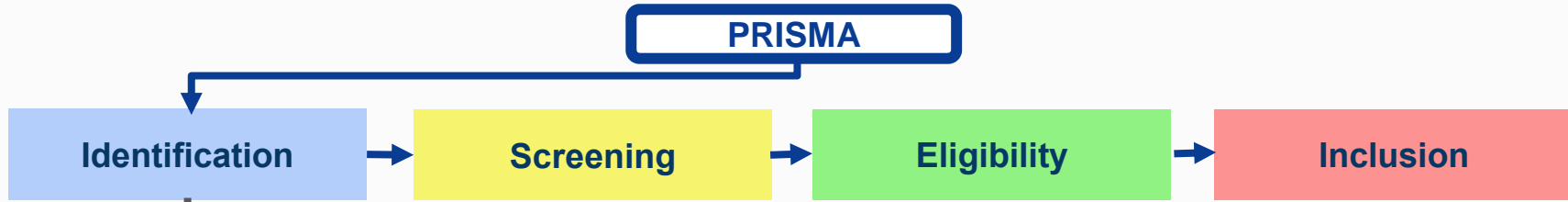
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and Fernanda Aparecida Veronez**

OBJECTIVES OF THE PAPER

Identify the sustainability indicators related to organic residues applicable to educational institutions.

APPROACH USED

- Preferred Reporting Items for Systematic reviews and Meta-Analyzes (PRISMA) method:

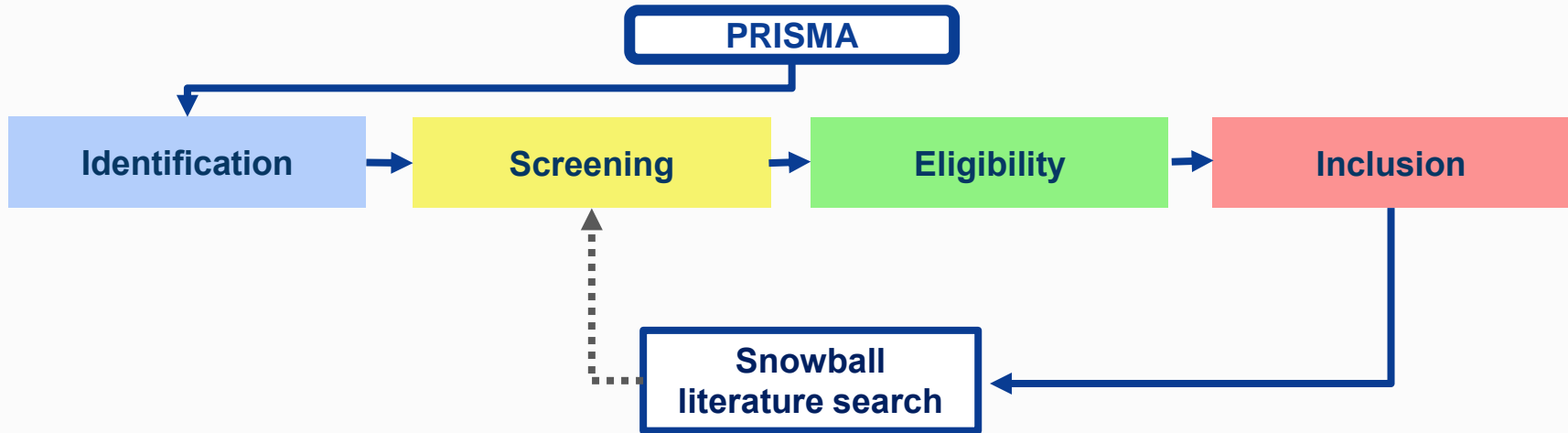


Search string (Scopus):

(TITLE (sustainab* OR sustentabilidade OR "solid waste management" OR "gerenciamento de resíduo sólido")) OR AUTHKEY (sustainab* OR sustentabilidade) AND (TITLE (index OR indicator* OR indicador* OR índice OR kpi OR measure* OR evaluat* OR performance OR medição OR medida OR avaliação OR desempenho) OR AUTHKEY (index OR indicator* OR indicador* OR índice OR kpi OR measure* OR evaluat* OR performance OR medição OR medida OR avaliação OR desempenho)) AND (TITLE-ABS-KEY (education OR institution* OR instituiç* OR ensino OR universit* OR school*) AND TITLE-ABS-KEY ("organic waste" OR orgânico OR composting OR "resíduo orgânico" OR orgânico OR compostagem) OR AUTHKEY ("environmental management" OR "gestão ambiental" OR "service operations" OR "serviços operacionais"))

APPROACH USED

- Preferred Reporting Items for Systematic reviews and Meta-Analyzes (PRISMA) method:



KEY RESULTS

- Scopus: 73 publications → 8 publications selected

Sustainability indicators	Source
Composting	Fadzil et al (2012); Suwartha & Sari (2013); Gómez et al (2015); Sousa et al (2017); Kasam et al (2018); Moreira et al (2018); Drahein et al (2019); Salguero-Puerta et al (2019).
Programs for preventing food waste in cafeterias	Moreira et al (2018)
Energy recovery of organic waste (biogas)	Salguero-Puerta et al (2019)
Reduction in the volume of organic waste destined for landfill	Drahein et al (2019)
Employee training who provide service in the restaurant in relation to selective collect	Drahein et al (2019)
Proper disposal of organic waste	Drahein et al (2019)
Selective collect of organic waste	Drahein et al (2019)
Waste minimization and diversion	Fadzil et al (2012)

- Environmental education programs and trainings that encourage selective collection and composting practices collaborate with the sustainable management of organic waste in educational institutions

MAIN CONCLUSIONS

- **8 publications** that addressed the subject.
- **8 sustainability indicators** related to theme were identified.
- **Composting was the most frequent indicator**, appearing in all selected publications.
- **Environmental education programs** in institutions was highlighted for the **efficiency** of selective collect and composting.
- Research **gap** related to organic waste and sustainability indicators, given the small number of studies that address the theme.

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