

# A Review of How Community Gardens Interact with the United Nations' Sustainable Development Goals 1, 2, 3, and 11, and Promote Sustainable Development in North American Cities

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## Abstract Highlights

- Community gardens have existed in North American history since the 19<sup>th</sup> century, and their objectives and impacts have continued to adapt to the cultural context of the time.
- By conducting a systematic literature review, this paper seeks to understand how community gardens interact with the United Nations' Sustainable Development Goals 1, 2, 3, and 11 and their associated targets.
- The results of the literature review found that there is a diverse range of research covering community gardens and these SDGs, and as a result, there are many differing conclusions on each target.
- Overall themes that were seen throughout the literature includes the need for collaboration and education, integrated thinking, and consideration of context and variation when integrating community gardens into urban planning.
- Additionally, there is also a need for more rigorous data collection on the influence of community gardens to determine their full impact.

## Research Questions

Q1. How do community gardens interact with SDGs 1, 2, 3, and 11?

Q2. How can community gardens be implemented in cities to promote urban sustainable development?

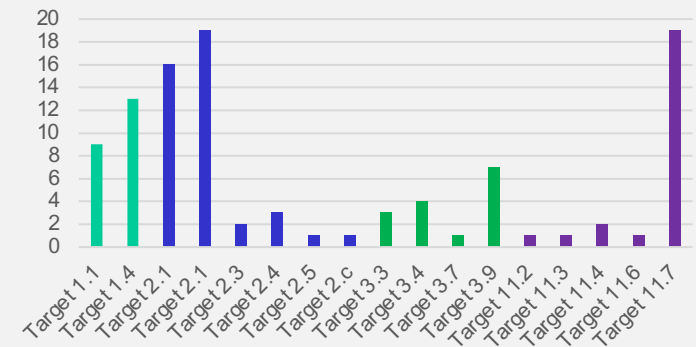
## Methods

- A qualitative, systematic literature review was conducted to identify the impacts of community gardens that are related to the selected SDGs
- Papers were selected by conducting searches on Web of Science with a publishing date between the years 2000 and 2021 and a geographical focus in North America (the United States and Canada)
- Each SDG and its respective targets were reviewed to determine relevant keyword searches for each target
- Article abstracts were read to identify any papers that were out of the geographic range or discussed types of community gardens that are not accessible by the general public (eg. school or hospital gardens)
- The content of each paper was then analyzed by reading through and identifying how each paper addressed the target

## Key Findings

- SDG 2 and 11 were the most reported on SDGs
- Conclusions from each study tended to vary greatly, which demonstrated the complex nature of understanding community garden impacts

Graph Showing Number of Results Found for Each Target



## SDGs INCLUDED



## References

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**Collaboration** – Numerous studies found that to reap the full benefits of community gardens, collaboration between various stakeholders is required<sup>1,2</sup>. Especially in disadvantaged communities, external resources, education, or policies are needed for successful gardens

**Integrated Thinking** – Multiple studies discussed more than one SDG which emphasizes the integrative nature of the SDGs. Additionally, effective community gardens' can be dependent on or beneficial to other urban planning initiatives (eg. Availability of transportation<sup>3</sup>, municipal waste plans<sup>4</sup>)

**Context and Variation** – The literature review findings showed that the impacts of community gardens vary immensely based on the context of many factors including their location, objectives, and structure. An in-depth understanding of all these influences is needed in order to create effective community gardens

**More Rigorous Data** – Many studies on community gardens use qualitative data which can be difficult to verify or compare, which makes measuring the impacts of gardens accurately more complex

