

# **Planting Trees, Cultivating Connection: Mini forests as connectors to nature, community, social cohesion and local environmental care**

Kylie Clark, MCRP | Co-supervisors: Dr. Holly Caggiano & Dr. Melissa McHale

August 2024

## **Policy Brief**

**Urban green space provides crucial environmental and social benefits, such as improved air and water quality, reduced flooding, enhanced biodiversity, and increased well-being. However, these benefits are often inequitably distributed, with marginalized neighbourhoods having less access to green space. The Miyawaki method, an innovative urban greening approach, involves planting dense, multi-layered native forests in very small areas. Although mini forests are valued for their ecological benefits, they also encourage significant community engagement, fostering social cohesion, local environmental care, and civic stewardship, making them a worthwhile investment.**

## **Messages for Planners**

- **Emphasize the Process:** The process of planning and planting mini forests may yield more immediate community benefits compared to the less predictable long-term ecological outcomes, highlighting the importance of the process itself.
- **Leverage Volunteer Appeal:** Mini forest planting events attract large numbers of volunteers, offering an opportunity for significant community engagement, procedural representation, new neighbourly connections, and broader social cohesion.
- **Consider Modes of Community Engagement:** Involving the community in the design, siting, and planting process fosters a sense of ownership. This can be an environmental benefit as individual participation can increase local environmental care and potentially catalyze climate-positive behavioural change.
- **Adapt to Local Context:** Tailor mini forest projects to address specific local needs, considering differences in the Global North and South. For instance, in developing countries, integrating economic benefits to boost local incomes or edible plants to increase food security can enhance long-term community stewardship.
- **Equitable Planning Matters:** Identify neighbourhoods lacking green space and consciously site mini forests to create new green space in those priority areas. Incorporate pathways, seating, or gathering spaces to increase access and improve community experience.

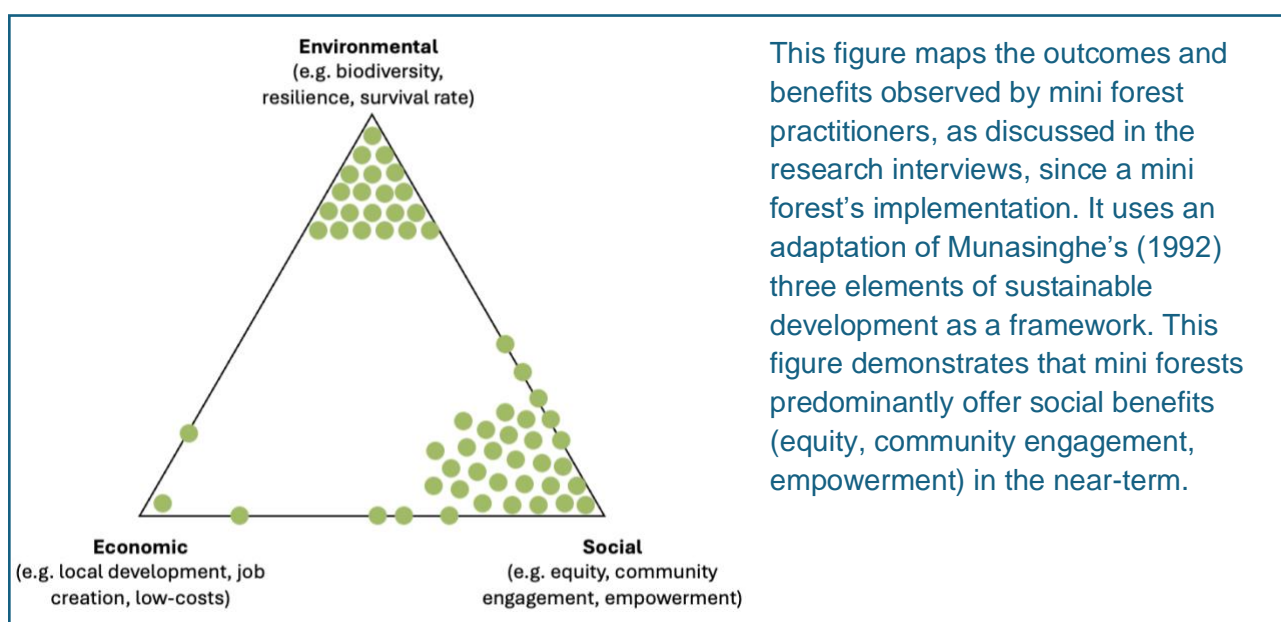
## **The Problem**

Climate change increasingly threatens urban infrastructure, health, and livelihoods, linked to severe impacts such as deteriorating air quality, more frequent flooding, and intensified heat islands. Meanwhile, many cities face social challenges, including disconnection, polarization, and inequity. Rapid urbanization and densification are associated with the loss of urban green spaces, which are crucial for mitigating climate impacts, supporting community well-being, and fostering social cohesion. Disparities in green space distribution further entrench social inequity, with marginalized communities often having less access to green space and heightened vulnerability to climate impacts. While innovative small-scale urban greening approaches, such

as Miyawaki method mini forests, may address these issues by increasing urban green space and community engagement, research on their long-term environmental benefits is sparse.

## The Findings

Mini forests offer a connection to nature, by addressing green space inequities, while fostering a connection to community, by encouraging wide participation. Globally, over 75% of mini forests in urban areas contribute new green spaces by planting unconventional sites like school grounds, city squares, and cultural institutions. In Canada, mini forests that create new green space are mainly sited in priority neighbourhoods and incorporate features like pathways and benches to facilitate access and enjoyment. This research found that mini forests not only increase green space access in underserved areas, addressing distributional equity, but also strengthen community ties by involving local residents in their creation, design, implementation and stewardship, thus addressing procedural equity. Significant community engagement and volunteer involvement fosters local environmental care, sense of ownership, social cohesion and may in turn promote other climate-positive behavioural changes. In developing contexts, adapting mini forest projects to local needs – such as incorporating economic benefits to boost local incomes or including edible plants for food security – can promote long-term community stewardship. This research demonstrates that mini forests offer immediate community benefits when planned, planted, and stewarded in a context-appropriate and mindful manner.



## The Study

This research employed a mixed-methods approach across two countries from 2023 to 2024, including a global review of 340 mini forest cases, which involved collecting data on project location, size, design, stakeholder involvement, funding, and motivations. Interviews with ten mini forest practitioners provided in-depth insights into their experiences, project costs, and benefits. A social equity analysis of Canadian urban and suburban mini forests assessed the consideration of equity within the mini forest planning, siting, and planting process. Additionally,

first-hand participation in mini forest planting events and ethnographic fieldwork offered a deeper understanding of the sensory and emotional experience of a mini forest. The research integrates these methods to explore the benefits, equity considerations, and individual experience of mini forests, emphasizing their role in fostering an individual's connection to nature and community.