



Department of  
**Community Sustainability**

MICHIGAN STATE UNIVERSITY | College of Agriculture  
and Natural Resources

# LANSING URBAN AGRICULTURE SCENARIO PLANNING: Visions for 2042

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## INTRODUCTION

On April 29th, 2022, a group of 17 urban agriculture stakeholders in Lansing gathered at Foster Community Center for a scenario planning workshop (see more info on page 3). Michigan State University (MSU) facilitators hosted a conversation during which community members co-created actionable pathways toward a desirable future for urban agriculture in 20 years – i.e., 2042. This report presents the key findings from this activity. The conversation led to three different scenarios that outline pathways toward a more resilient urban agriculture system:

- (1) *Urban Farming In the 21st Century: A South Lansing Vision* (page 4)
- (2) *Shared Processing Facility* (page 7)
- (3) *Urban Gardens Are a Source of Income and Community Resilience* (page 10)

The following pages contain summaries from these conversations including quotes from participants at each table.

The scenario planning workshop built on previous scholarship and workshops over the last three years that focused on: resilience characteristics of the current urban agriculture system (Piso et al. 2019; Kirby et al. 2020), the experience of minority participants in the Lansing urban agriculture system (Goralnik et al., 2022), previous shocks to and visions for the Lansing urban agriculture system (Hodbod et al. 2019), and Lansing urban agriculture responses to the COVID-19 pandemic (Swartz et al. 2021). See page 3 for links to these resources. Facilitators used this previous work to develop a Big Vision statement (below), which reflects the shared values and priorities for a desirable future for urban agriculture in Lansing. The scenarios they created are guided by this Big Vision Statement.

## Big Vision Statement

In 2042, urban agriculture in Lansing is recognized as a legitimate practice and use of space by the local government, with extensive support from the local population. A municipal committee for urban agriculture becomes a key space for interactions between local actors and policymakers, enabling the creation and modification of policies that are tailored to address local needs. The “Lansing Grown” label is recognized for producing healthy and nutritious food in an environmental-friendly way. An expanded customer base contributes to the flourishing of opportunities for urban agriculture to be a source of income and professional opportunities. Fruitful partnerships are established between stakeholders, MSU, and local schools so that urban gardens and farms become sites for youth engagement, knowledge generation and capacity building. Urban gardens and farms become places that foster and support relationships between community members while providing a space for reconnecting with the land. Equity is centered as one of the key values for urban agriculture: a diverse set of people, including the often marginalized, participate in and lead urban agriculture organizations and initiatives. Cooperatives and resource hubs are strengthened, enabling the sharing of resources, tools, and information across the network of actors. Urban agriculture becomes a key factor in the establishment of a local food system that is fair and just for all.

## VALUES

Building on previous research about community priorities (Piso et al. 2019; Kirby et al. 2020), we identified a list of values that define a desirable state for urban agriculture and drive action towards it. Each scenario is guided by values on this list.

Table 1 - Values for urban agriculture, adapted from Piso et a. (2019) and Kirby et al. (2020)

Value	Description: Urban agriculture should...
Beautification	improve the look and feel of neighborhoods
Community	support relationships between community members
Economic Growth	support community revitalization through diverse local business
Education	provide opportunities to learn about food and agriculture
Environmental stewardship	produce food in ways that support a healthy natural system
Food security	make fresh food available and affordable
Health	ensure that healthy and nutritious food is available
Job Training	provide employment and/or training to people looking to enter the workforce
Market Opportunity	empower stakeholders to participate in local business
Place attachment	support one's individual connection to the land and emotional well-being
Safety	minimize risk associated with food production
Social Justice	support a fair and just food system
Sovereignty	promote local control of food production and distribution

## WHAT IS A SCENARIO PLANNING WORKSHOP?

*A scenario planning workshop is where the community and researchers work together to co-create actionable scenarios for the future, based on previously defined values and a resulting vision. The scenario process we present in this workbook is informed by the literature on scenario planning but also addresses a gap, as there were no step-by-step guides to structure a scenario planning workshop. We addressed that gap by creating the process outlined in this workbook and then integrating findings from our prior workshops:*

Summary of the 2019 workshop (Hodbod et al. 2019):

<https://www.canr.msu.edu/resources/resilience-of-urban-agriculture-in-lansing>

Summary of the 2020 workshop (Swartz et al. 2021):

<https://www.canr.msu.edu/resources/resilience-of-urban-agriculture-in-lansing-to-covid-19>

# URBAN FARMING IN THE 21ST CENTURY: A SOUTH LANSING VISION

## SUMMARY

The focal point of this vision is an independent food council funded by local, federal, and state government budgets. It is not staffed or managed by city officials to avoid the negative consequences of being attached to political cycles and to ensure power is placed in the hands of urban agriculturalists. The budget would include line items such as building space, stipends for council members, and permanent salaries for staff. The purpose of this council would be to bring actors together to support collaboration within Lansing urban agriculture and promote food sovereignty, a fair and just food system, economic growth, and job training for the systematically marginalized. This council would prioritize psychological safety in all processes and create a welcoming and empowering environment for the diverse Lansing food system. The council will facilitate distribution of resources, connections, and power in an equitable way.

Previous work has identified common community priorities in relation to urban agriculture. These are the values chosen to guide this scenario.

## VALUES

- **Job training:** Council members will receive training throughout their term. Diverse job training will also be provided to community members ranging from entry-level urban agriculture education to marketing for established farmers.
- **Economic growth:** "local actors and policy makers might find it more worthwhile if they know what's going to come out of it."
- **Social justice:** "Without that, then none of these other things happen."
- **Sovereignty:** Local control and production is important because "a lot of urban ag is people within their own homes".
- **Psychological safety:** This council will be a safe space and provide "the ability to show up as "oneself without fear of negative consequences, self-image or status or resources".
- **Trust:** The council members are urban agriculture stakeholders, funded through local government but not government officials.

## LOCATION

The council will be based in South Lansing to focus on an area of the food system that could benefit from more resources, but the promotion of programs can extend into the city of Lansing.

**Short-term Actions: What actions should be integrated into this scenario in the next 0-10 years to help Lansing reach the big vision?**

- Decide on committee members
- Acquire funding
- Produce opportunities for growers, including year-round growing spaces, hoop houses, connections to land access, and job training
- Create cooperatives to help facilitate and support farmers in initiating their own growing operations and provide continued growing support and selling
- Provide language support including translators, translated materials and workshops Boundary spanning and resource facilitation: the committee will serve as a connector between agents in the urban agriculture system
- Equitable resource distribution

**Long-term Actions: What should be integrated into this scenario and be done in 11-20 years to help Lansing reach the big vision?**

- Agricultural school system: educational pathway for urban ag as a viable career including education from elementary school through a certified college degree program at Lansing Community College
- Reform, lobbying, acquiring buy-in from the city

## RESOURCES AND STAKEHOLDERS

**What resources are needed to complete these actions?**

- Garden equipment
- Labor and resources for growers, including those for subsistence growing and for-profit growing
- Seeds and relationships with seed companies
- Educational materials for marketing, selling, growing, and proper labor practice for growers with volunteers or employees

**Who should be involved? Which community partners and organizations are needed to do this work?**

The stakeholders are represented in three parts: a) those that will serve as the council members, b) the community the council seeks to serve, and c) additional stakeholders who have access to knowledge and resources but should not hold council seats.

- Council Members: A diverse group of residents would serve as council members, potentially including groups such as seniors, members of neighborhoods councils, stay at home mothers, immigrant and refugee gardeners, and others who are involved and doing the work in Lansing urban agriculture. The council members would not be government officials to avoid political instability.
- Community: anyone in the community who may benefit or be affected by the council such as growers, consumers, homeowners, business owners, markets, and schools
- Additional stakeholders: The Garden Project, The Land Bank, Michigan State University, Lansing Community College.

## PROS AND CONS

Within the urban agriculture system, what might be gained in the implementation of this scenario? Is this scenario privileging one outcome in the vision at the expense of others?

- Council governance: Using an independent council structure rather than a municipal council gains trust as it attempts to avoid stereotypical government shortfalls, however there is a “possibility of losing a little bit of power”.
- Focal point for resources: The council will attract many resources (e.g., donations or beneficial relationships) but this could lead to a case of gate keeping for organizations that do not interact with the council.
- Formalization: “Creating a formal thing can create barriers for people to get involved and affect relations, in a positive and negative way”.
- Cycling out council members: The council will need to focus on retaining members with institutional knowledge while making sure they are cycled out of council spots to create space for newer members.
- Making space: Possibility to separate growers into niches (e.g. growers for market and growers for subsistence) but “we don’t want to silo people or isolate people too much”.
- The need for the council may overwhelm the capacity of the council.
- Scalability: Authenticity is achievable at small scales but can be lost in the process of scaling up. Power should be reconsidered every time the council scales up to maintain authenticity.

## BROADER IMPACTS

The council will support urban growers across scales, from gardeners feeding their families to growers looking to scale up their production or sell to new markets.

### CONDUITS

- Value alignment
- Existing networks and relationships in the local food system
- There is demand for local food in Lansing
- Visibility of urban agriculture in Lansing: “You walk around, you see urban ag everywhere”

### BARRIERS

- A lack of cultural understanding when working with diverse groups
- Language barrier hinders communication
- Local government adding a level of bureaucracy
- Land access
- Funding
- Insurance

## EVALUATION

The following are indicators that can be used to evaluate the scenario:

- Number of community gardeners selling at market
- Replication of system in other communities
- Social impact such as health outcomes
- Number of students who want to go into urban agriculture as a career
- Diversity in gardens
- Number of garden projects
- Number of vacant lots or acreage being gardened in Lansing
- Increased demand for local food
- Empowerment of black and brown people in gardens and businesses

# SHARED PROCESSING FACILITY

## SUMMARY

A community food processing facility that would serve the Greater Lansing area in a building owned by community or supported by a Community Investment Trust will grow and protect urban agriculture through economic growth. This includes creation of job opportunities, value-added sales opportunities for producers, and greater accessibility of urban ag produce. A processing facility would support growers in making relationships with institutions and individual buyers at another scale and allow locally grown food to increase in supply and demand in Lansing.

Previous work has identified common community priorities in relation to urban agriculture. These are the values chosen to guide this scenario.

## VALUES

- **Job training:** Staff would be fully trained and well-paid to maintain the facility. Growers could have the chance to learn processing skills as well.
- **Economic growth and market opportunities:** Processing allows growers to sell value-added products to markets they could not have before with possibility for increased income.
- **Social justice:** The facility could provide job training for diverse groups in the Lansing food system, empower people of color to become business owners, and work with the Lansing food bank to process food that would otherwise be wasted.

## LOCATION

Focus on Greater Lansing, but potentially will also serve Ingham County and Tri-Country area

### **Long-term Actions: What should be integrated into this scenario in 11-20 years to help Lansing reach the big vision?**

Ensure economic sustainability of the facility through one of many paths:

- A developer buys the building, and the Community Investment Trust pays rent
  - Follow the Marshall Street Armory Project model, which is a building that was renovated by a developer and that now houses several NGOs
- A Community Investment Trust purchases the building
- Housing units or spaces for stores could be placed within the facility to be rented and generate a profit
- Selling produce that generates a lot of income could also be beneficial (e.g., supplements, alcohol)
- Charge enough for services to be economically sustainable



## **Short-term Actions: What actions should be integrated into this scenario in the next 0-10 years to help Lansing reach the big vision?**

- Retrofit warehouse space, other existing infrastructure (e.g. decommissioned school that has commercial kitchen), or brownfield land to build a new building
- Engage with growers to identify processing needs
- Apply for Grant from United States Department of Agriculture, Michigan Department of Agriculture & Rural Development, or community foundation to kickstart funds. This processing facility could be used to process value added foods from excess from the food bank and then process grower products in the off hours
- Acquire conveyor system that clean, slice, dice, fill containers, vacuum seal, and label
- Find staff in the passionate urban ag community to work at the facility, they will be compensated and carry institutional knowledge over time Create unified brand of the products from the processing plant (possibly Lansing Grown)
- Find buyers such as restaurants, schools and markets (e.g., Capital City Market) for products and gather their product prices and desired formats
- Potentially train users on how to run the machinery and processing plant
- Conduct financial analysis in early years to investigate whether enough money is being made to cover costs
- Sustain the facility through community investment and/or nominal fees charged for use to cover costs

## **RESOURCES AND STAKEHOLDERS**

### **What resources are needed to complete these actions?**

- Grant funding
- Equipment
- Physical space
- Management team

### **Who should be involved? Which community partners and organizations are needed to do this work?**

- Allen Neighborhood center could initiate project
- Lansing Urban Farm Project (LUFP) could manage project
- Meijer's Lansing Grown Capital City Market (and Meijer overall) could be a beneficial institutional relationship for buying local products
- TCOA - Tri-Country Office on Aging
- Lansing school district
- Michigan Department of Agriculture & Rural Development (MDARD)
- Garden Fresh Gourmet brand
- Michigan Poor People's Campaign
- BWL (enabled hookup of water hydrants for community gardens)
- City of Lansing Sustainability Manager
- Keep Growing Detroit
- Michigan State University (MSU)
- Greater Lansing Food Bank
- East Lansing Food Coop
- Michigan Food & Farming Systems (MIFFS): could contribute with knowledge, networks and organizational skills by acting as a bridge for state and federal resources
- Lansing Roots Incubator Farm
- Red Haven Farm to Table restaurant
- The Village Lansing



## PROS AND CONS

Within the urban agriculture system, what might be gained in the implementation of this scenario? Is this scenario privileging one outcome in the vision at the expense of others?

From the funder's prospective, there is financial risk. However, if the facility is successful, the reward would be financially and socially beneficial as it is providing flexible job opportunities, reducing competition between small farms, and supporting profit making opportunities that make UA more sustainable. Any collective approach requires more management effort to run efficiently.

## BROADER IMPACTS

A broader impact of this facility would be a decentralization of the food system, by providing a processing facility for the regional food system. It could also foster social cohesion between urban and rural agriculture: the inclusion of both of these stakeholder groups to access the processing facility can foster a “mutually supporting environment”. This lends to collaboration rather than competition between small farms. Further, if the facility works, it could be replicated throughout the world leading to more systemic change.

## CONDUITS

- A good team: Hiring a team that can be well-trained and trusted will allow the community and funders to invest in this work. The team should be paid a good wage, including healthcare, with flexible employment options (part-time and full-time).
- Strong bylaws to run the collective.
- Partnership: Those involved in urban agriculture already have a history of working together.
  - Strong partnership with Meijer would benefit this scenario.

## EVALUATION

The following are indicators that can be used to evaluate the scenario:

- Pounds of product created
- Income earned
- Investment through the bank
- Number of farmers collaborating
- Financial self-sustainability
- Balance of what the facility is producing compared to market needs (evaluation could be conducted with MSU).

## BARRIERS

- Costs: The processing equipment itself is expensive (\$500,000-1,000,000 for a commercial kitchen). Plus, renovating old buildings is expensive and carries more liability.

# URBAN GARDENS ARE A SOURCE OF INCOME AND COMMUNITY RESILIENCE

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## SUMMARY

Urban agriculture becomes a source of income and community resilience through collaboration between multiple stakeholders. Collaborations emerge through events that occur monthly in rotating locations (e.g., community centers and gardens), organized by the Department of Neighborhood and Citizen Engagement. At these events, community groups can interact and create innovative solutions to complex problems in the Lansing food system. These collaborations are incentivized through access to a specific pool of funding for collaborative work, from city and federal grants and foundations. Funding is prioritized at an annual meeting that gathers justice-centered community input to set goals for funding of the next year. Each year projects build economic viability for urban agriculture and community resilience through urban agriculture. For example, a shared washing and packaging station could be developed through this grant.

Previous work has identified common community priorities in relation to urban agriculture. These are the values chosen to guide this scenario.

## VALUES

- **Economic growth:** “this is not business as usual”, it is “cooperative economic growth that is people-centered”
- **Sovereignty:** Putting ownership in the hands of the Lansing residents
- **Job training and Education:** Youth need viable pathways to learn about urban agriculture and make a competitive wage
- **Community:** Gathering folks from different backgrounds and careers into one room to solve our common problems can unite the Lansing community beyond the gardens

## LOCATION

Metropolitan Greater Lansing (Lansing, East Lansing, Haslett, Okemos, Grand Ledge, Holt, and Mason)

**Short-term Actions: These actions should be integrated into this scenario and be done in the next 0-10 years to help Lansing reach the big vision?**

- Foster new collaborations and partnerships and/or restructure current ones
- Deliberative cooperation between organizations that are pro grants
- Creation of municipal grants specifically targeted at collaborative work
- Form a committee, focus group or community agreement that connects different stakeholders and foster communication and collaboration
- Leverage and expand the use of existing resources and initiatives
- Extend the reach of ongoing programs
- Coordinate and expand the use of current infrastructure to support urban gardens, farms, and food-related programs

**Long-term Actions: What should be integrated into this scenario and be done in 11-20 years to help Lansing reach the big vision?**

- Change regulation regarding outdoor refrigerators and livestock within city limits
- Creation of agreements with real estate developers to fund and foster urban green spaces, farms and gardens
- Alter property tax for urban farms
- Acquire commitments from organizations, such as Michigan State University, Sparrow Health System, and school districts to purchase local produce

## RESOURCES AND STAKEHOLDERS

### What resources are needed to complete these actions?

- Grants: Neighborhood grants by the Department of Neighborhoods, Arts, and Citizen Engagement, Farmers Market and Local Food Promotion Program, EPA Environmental Education program, Clif Family Foundation, Native American Agriculture Fund

### Who should be involved? Which community partners and organizations are needed to do this work?

In order for collaboration to be fostered, the scenario identified key stakeholders in the Lansing area that could partner with urban gardens and farms to foster collaboration.

- Allen Neighborhood Center
- South Lansing Community Development
- The Greater Lansing Food Bank
- The Land Bank
- Municipal government: Department of Economic Development and Planning, Department of Parks and Recreation
- School Districts: Administrators and Teachers
- Lansing Community College
- Western Michigan University Cooley Law School
- Davenport University
- Farmers
- Neighborhood associations
- Faith-based communities
- Resident Gardeners
- Land
- Eaters

## NEXT STEPS

This group carried out useful discussion about the scenario as described above, however they did not complete the scenario protocol to discuss [Pros and Cons](#), [Broader Impacts](#), [Conduits and Barriers](#), or [Evaluation](#) as seen in the other two scenarios. Next steps for this scenario should include discussing these sections of the workbook to round out the scenario for development.

# RESILIENCE AND SUSTAINABILITY ASSESSMENT

We analyzed the summaries of each scenario using a modification of Berbes-Blázquez's (2020) resilience and sustainability assessment. The goal of this analysis is to identify opportunities and potential challenges to sustainability and resilience outcomes as stakeholders implement the scenarios. The results are not a critique of the findings. Both resilience and sustainability are goals, not an endpoint, therefore all scenarios have room for growth. Rather, we aim to highlight how the scenarios can work in synergy to create a thriving system.

## RESILIENCE ASSESSMENT

Resilience is the capacity of a system to respond to change through adaptation or transformation while maintaining structure, function, and identity and support positive and proactive development (Biggs et al. 2015). In a previous workshop (Swartz et al. 2020), participants identified that COVID posed a challenge to growing and managing the gardens, but also brought opportunities for growers to expand their customer base and for consumers to engage more with urban agriculture. The overall system was resilient to the shock of COVID, and urban agriculture maintained its identity and structure through the pandemic. To analyze the resilience of each scenario developed in this current workshop, we adapted Biggs et al.'s (2015) seven resilience principles (Table 1).

Table 2 – The seven principles that build resilience (Source: Biggs et al. 2015; Swartz et al. 2020)

Maintain diversity and redundancy	Systems that are more diverse are generally able to cope better with disturbance or uncertainty (e.g., a flood, a pandemic) than less diverse systems. This is because diversity provides for redundancy and improves the likelihood that system components can compensate if other system components fail
Manage connectivity	Systems that are well-connected facilitate access to new ideas, information, and resources that help to adapt to or mitigate surprises
Encourage Learning	Social-ecological systems maintain their function by being dynamic and building capacity to adapt. A system that encourages learning is constantly incorporating new knowledge and experiences and is therefore more prepared to adapt to disturbance than one that does not
Broaden participation	The more actors hold a shared understanding of, feel a part of, and benefit from the system, the more they will work together to maintain it
Manage slowly changing variables or feedbacks	Some slowly changing variables in a system, like racism or soil structure, can maintain or limit the resilience of a system but are often forgotten in management plans. If such variables are not understood or managed, conditions may cause the system to cross a threshold that results in an undesirable system reorganization
Foster complex adaptive systems thinking	To manage for resilience, decision-makers must understand that systems are complex and unpredictable and that one-size-fits-all solutions do not exist. When working in cities, it is important to recognize that different people experience ecological and social environments differently and manage accordingly
Promote polycentric governance	As for participation, encouraging management by multiple decision-making bodies can enhance coordination and collective action in times of surprise and uncertainty

## RESILIENCE ASSESSMENT

We analyzed how often each discussion focused on each of the seven principles, to identify recurrent themes and potential gaps across the scenarios.

Overall, we observed that the scenarios focused strongly on connectivity, highlighting the necessity of building collaborations and connections between stakeholders in the urban agriculture system. This also reflects the principles of diversity, participation, learning, and polycentric governance, which weren't often mentioned directly but would all be aided by increased connectivity.

The theme of complex systems lens was prevalent to a lesser degree, but there were mentions of slow variables, which is part of complex systems thinking. This does not mean participants do not have a holistic view of system function, only that complexity was not a focus of the discussion.

Moving forward into implementation, actors should be aware of all of the seven principles to work toward balance, so one principle is not sacrificed in the promotion of another one. The goal is to work across these areas, rather than pick and choose particular areas to focus on.

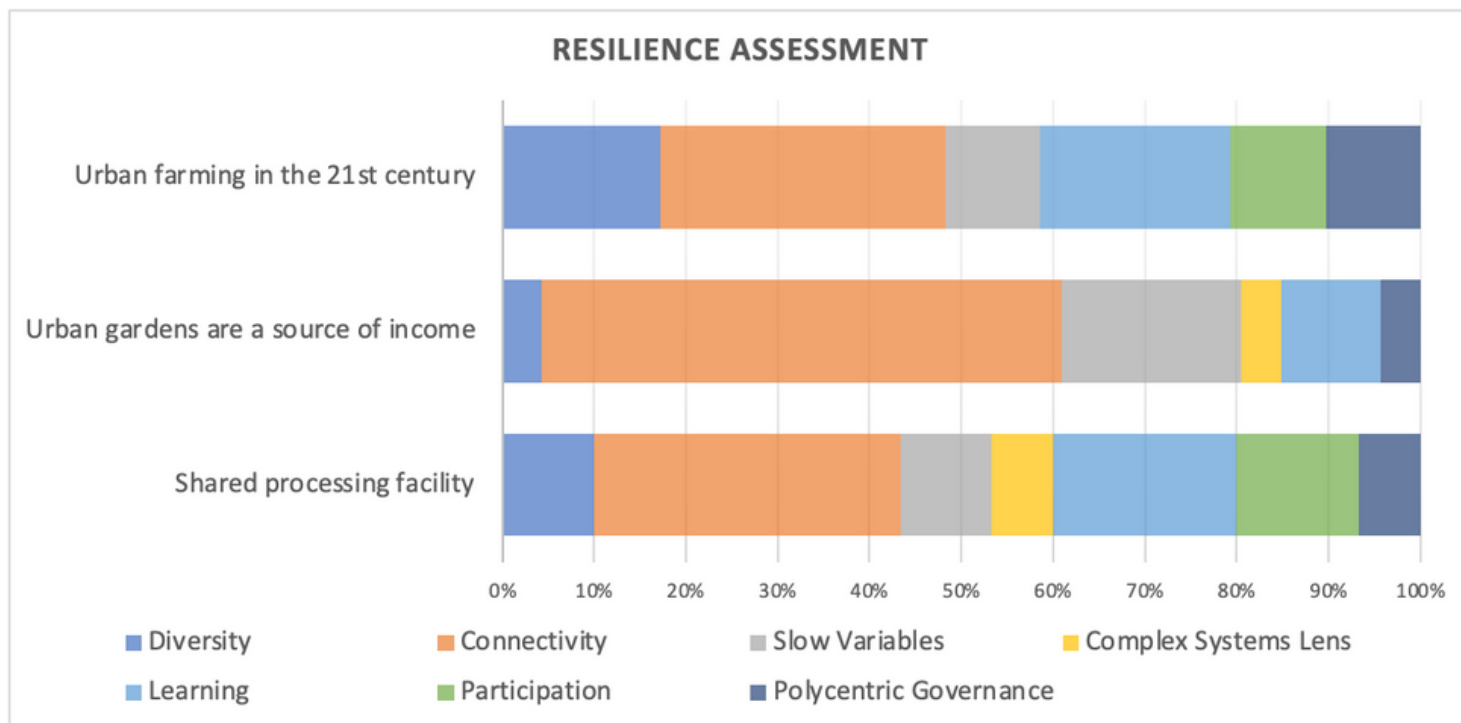


Figure 1 – Assessment of the principles that build resilience across each scenario, using the relative percentage of how often each theme was identified in the transcripts of the workshop to represent the focus of discussion during the workshop.

## SUSTAINABILITY ASSESSMENT

A sustainable urban agriculture system will provide the functions that humans desire as a co-benefit to the necessary ecosystem functions that will ensure the long-term survival and sustainability of the landscape (Hodbod et al. 2016). We frame food system sustainability as grounded across ecological, economic, and social pillars (also defined as triple-bottom sustainability) (Ackerman et al. 2014). In this context, ecological sustainability refers to how urban agriculture fosters and contributes to the conservation of biodiversity. Economic sustainability refers to urban agriculture as a driver of income, jobs, and opportunities for economic development. Social sustainability focuses on equity and describes the ways urban agriculture fosters community, social connections, cultural identity, community empowerment, and opportunities for urban residents to learn, teach, and participate in food production.

We analyzed each discussion using the three pillars of sustainability. The scenario “Urban farming in the 21st century: a south Lansing vision” had a strong focus on social sustainability. The two other scenarios emphasized economic sustainability. Ecological sustainability was less prevalent across all three scenarios. This does not mean that urban gardeners and farmers are not concerned with biodiversity. Rather, biodiversity and ecological health were not central to the discussions in the workshop. It is likely that ecological practices are already embedded as an underlying assumption across the actions of those involved in urban agriculture, but all scenarios should integrate environmental sustainability considerations during implementation.

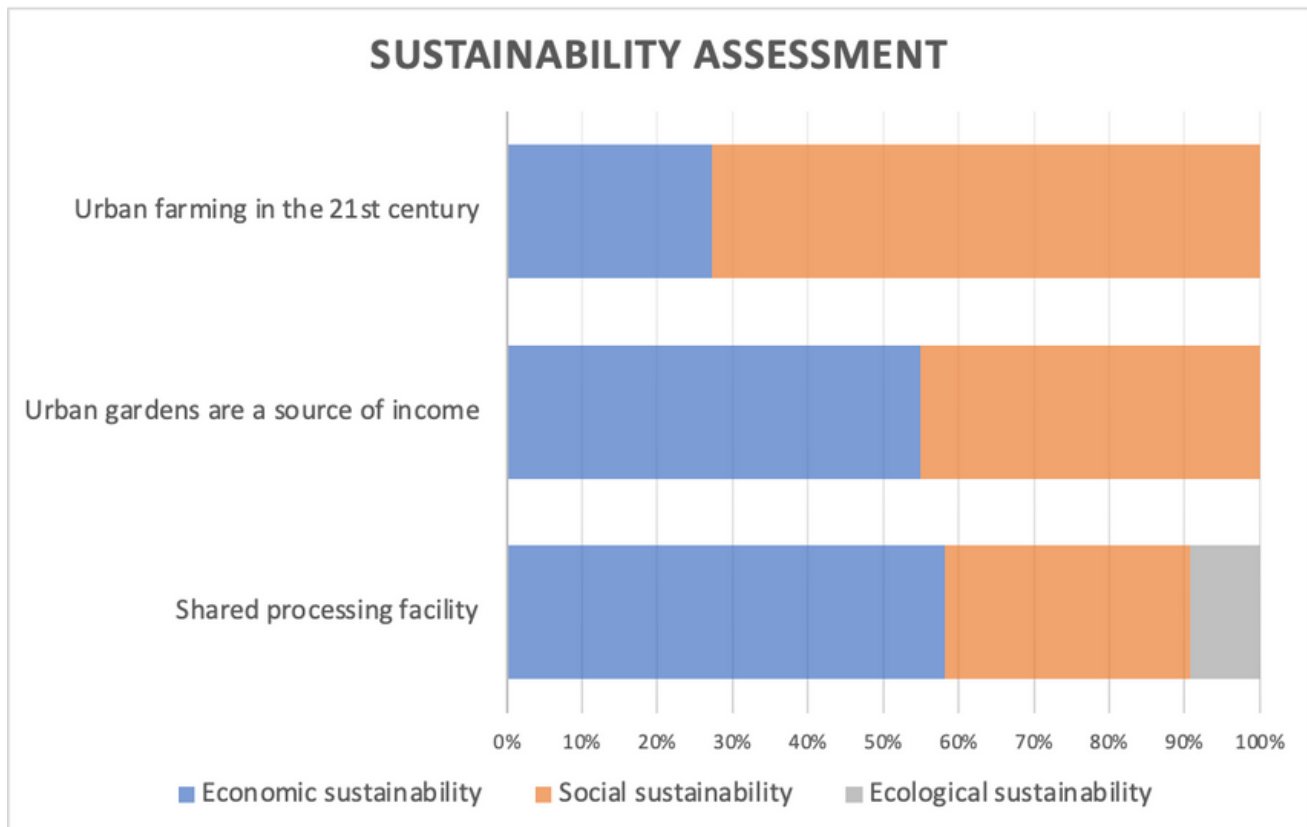


Figure 2- Assessment of the three sustainability pillars across the three different scenarios, using the relative percentage of how often each theme was identified in the transcripts of the workshop to represent the focus of discussion during the workshop.

## CONCLUSION

The scenarios co-created by workshop participants represent actionable pathways toward a desirable vision for the urban agriculture system in the Greater Lansing area. The discussions were inspiring and creative, showing how willing stakeholders are to engage and build resilience and sustainability in urban agriculture. Each of the three scenarios are unique, identifying different strategies and actions toward a common end, described by the Big Vision. Collectively, they reflect a robust and aspirational goal for a resilient urban agriculture system into the future, and they are not exclusive. Integrating the scenarios or implementing all three over time will harness community capacity for collective action toward a desirable future by 2042.

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