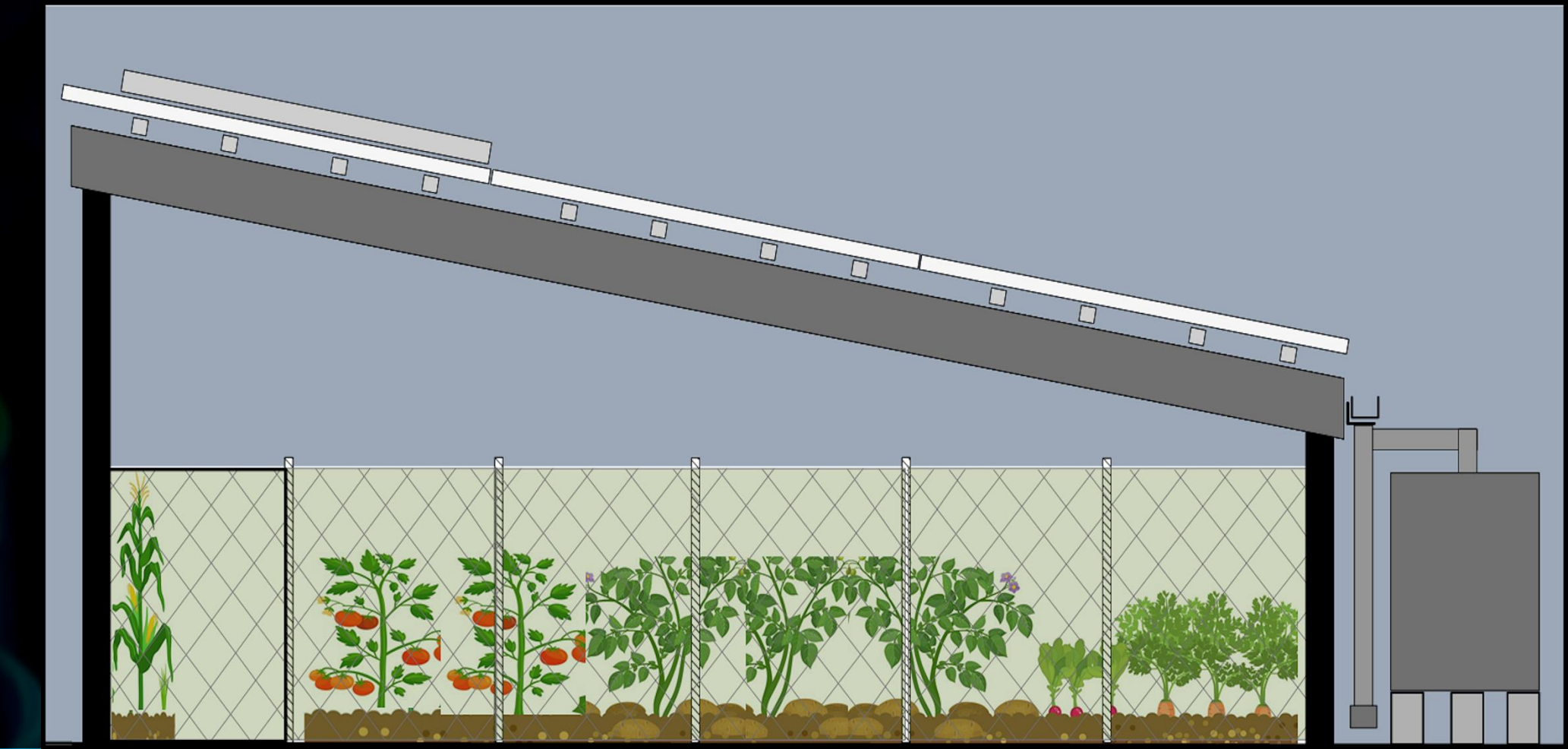


Assessing the Value of an AgriSolar Shelter in a Community Setting



Lorena Cortes | Dr. Tatenda Mambo | University of Calgary

Abstract

- Examines the effectiveness of STAR Energy Solutions AgriSolar Shelters to address climate change impacts, food security, and community resilience in Calgary's Land of Dreams.
- Community surveys reveal strong interest in utilizing AgriSolar Shelters for food production, mainly due to weather mitigation and extended growing season.
- Research highlights alignment with regenerative agriculture and food sovereignty principles, promoting sustainable food production and community empowerment.
- AgriSolar Shelters offer a promising approach to enhance food security, climate change adaptation, and strengthening community resilience in urban environments, warranting further exploration and adoption.

Research Question

How effective are AgriSolar Shelters, developed by STAR Energy Solutions, in addressing the effects of climate change on crop production, improving food security, and strengthening community resilience in the Urban Setting of Land of Dreams, Calgary?

Introduction

The Challenge:

- The escalating food insecurity crisis in Canadian Households, exacerbated by climate change, necessitates innovative solutions.
- The Agricultural Sector's reliance on fossil fuels contributes to GHG emissions, further impacting climate change.

AgriSolar Shelters:

- Present a promising approach combining renewable energy and sustainable agriculture.

Project Goals:

- Enhance community resilience and food sovereignty through year-round cultivation.

STAR Energy Solutions AgriSolar Shelters Initiative

- Contribute to climate change mitigation and adaptation efforts.
- Solar Panels provide clean energy for the community.
- Roof harvest rainwater for irrigation, nourishing the food gardens below.
- Protects crops from harsh weather & extends growing season.
- Fosters community engagement and food sovereignty.
- Progress towards GSD: Climate action, Zero Hunger, Good Health and well-being.

Regenerative Agriculture

- Goes beyond sustainability and actively restores ecosystems while producing food.
- Improves soil health, biodiversity, and ecosystem services.
- Helps mitigate climate change and enhances resilience.

Synergies with AgriSolar Shelters

- A controlled environment facilitates RA practices (reduced tillage, organic matter, crop diversification).
- Promotes knowledge exchange and community empowerment.
- Contributes to a sustainable and equitable food system.

Land of Dreams Community Description

- 30-acre Urban Farming Project in Calgary AB.
- Support for settlement, integration, and wellbeing.
- Fosters social connection through shared agricultural heritage.
- Promotes cultural exchange between Indigenous Peoples and newcomers.

Methodology

Literature Review

- AgriSolar Systems, Land of Dreams, The Food Sovereignty Concept, Regenerative Agriculture

Surveys with Land of Dreams Community Members

- Field Visit and Observation

Data Analysis

- Quantitative and Qualitative

Data / Observations

Survey Findings:

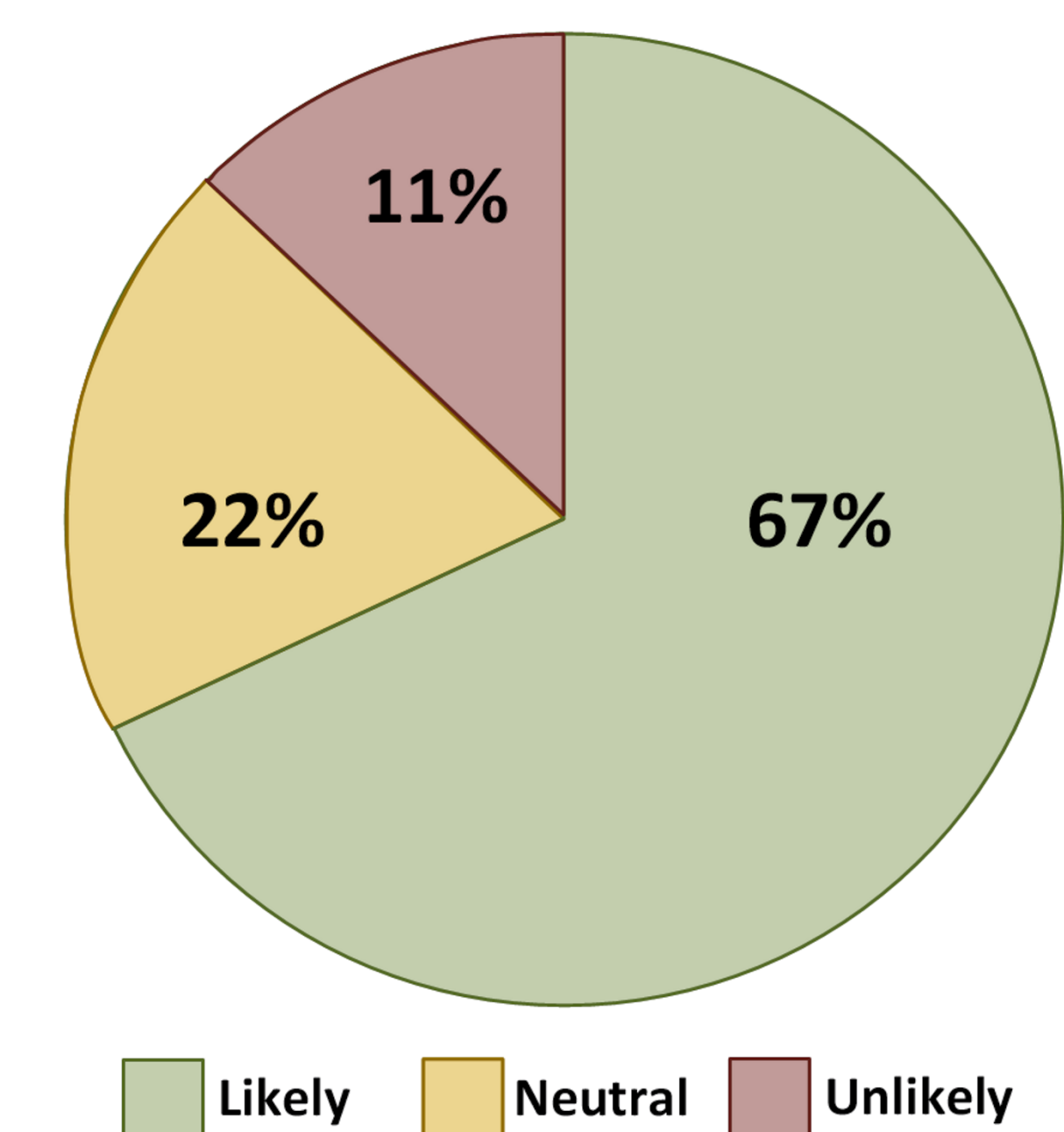
- High Community Interest in Utilizing AgriSolar Shelters for food production.
- Perceived benefits include increased food security, extended growing season, and climate change adaptation.
- Potential challenges include affordability.

Literature Review Insights:

- AgriSolar Shelters align with principles of regenerative agriculture and food sovereignty.
- Potential for positive impacts on soil health, biodiversity, and community resilience.
- Need for further research and long-term monitoring to validate effectiveness.

Results

Interest in Utilizing Structure for Food Production and Agricultural Activities



- AgriSolar Shelters have the potential to mitigate the adverse impacts of climate change on crop production in urban settings.
- They can enhance food security by enabling year-round cultivation and increasing local food production.
- They can foster community resilience by promoting self-sufficiency, social cohesion and knowledge exchange.
- Success depends on addressing potential challenges related to affordability, space management, gaining community support, developing a fare-revenue sharing model.

Conclusion

- Research findings supports the hypothesis that AgriSolar Shelters can effectively mitigate climate change impacts, enhance food security, and foster community resilience in an urban setting.
- The AgriSolar Initiative success hinges on continued collaboration, community engagement and knowledge sharing.
- AgriSolar Shelters offer a promising pathway towards a more sustainable and equitable food future for Urban Communities.

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