



UNIVERSITY OF MARYLAND  
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# **Challenges and Opportunities of Urban Agriculture: A Case of Small and Minority Immigrant Producers in Maryland**

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# Background

- Aim of urban gardening (UG) is to increase production & consumption of fresh produce.
- These UG farmers are daunted with ever-increasing challenges.
- Less attention from academia, extension, & policy framework.

# **Aim of the Study**

- **To examine the scope, challenges, and opportunities of Urban Gardening farmers.**

# **Study Approach**

- **14 UG Urban Gardening Asian American farmers recruited from Greater Baltimore Area in 2021.**
- **Number increased to 22 during the project period.**

# Who were the Participating Farmers?

- **64% male farmers**
- **50% over the age of 45**
- **64% Asian origin**
- **86% Seasonal**
- **86% of them produced in backyard kitchen garden**
- **Nearly 80% farmed for both – family consumption and outdoor physical activities**

# Field Activities



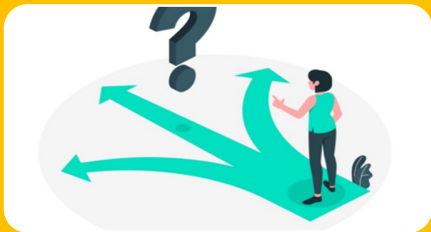
## A. Data Driven Planning

- Needs assessment: A semi-structured survey administered.
- Consisted of several Likert-scale items to assess needs, problems/challenges and opportunities



## B. Need-based Interventions

- i. Educational/capacity enhancing interventions
- ii. Risk mitigating activities



## C. Evaluation of Project Outcomes

- A post-project evaluation survey
- Perceived impacts of the interventions

# Challenges – Based on Needs Assessment

## Major problems

A lack of:

- Production or capital resources
- Access to land
- Access to market
- Knowledge and skills

# Need-based Educational Interventions



In-house Training



Farmers-Expert  
Interactions



Peer-to-Peer Interactions

## Lowering Cost of Production



**Rainwater Harvesting**



**Compost Making**

## Use of Scarce Resources



**Container Gardening**



**Vertical/Two-Tier Production**



# Risk Mitigating Practices

## Crop Diversification



Mixed Cropping



Farmers reported 50 different specialty & ethnic crops grown in their fields (Range 10-50).

# Market Connection



Farmers  
Connected to  
Street Festival  
- Selling of  
Surplus  
Produce



# Immediate Impacts of Farmers' Participation

- Training enhanced **KNOWLEDGE** and **SKILLS** about agricultural production
- Useful for planning and budgeting
- Making use of limited & scarce resources
- To increase consumption of fresh produce
- To sell produce in the local market
- To mitigate production, marketing, and financial risks
- To bring positive changes in reducing cost of production
- For farm revenue maximization
- Increased household income
- Reported direct sales vegetables - a total of **\$14,476** vegetables during the summer and fall

# Summary & Conclusion

- Urban gardening farmers face various challenges such as:
  - a lack of resources including the access to land and inputs
  - a lack of knowledge and skills in gardening and risk mitigation
  - a lack of capacity building support
  - a lack of market access
- There are ways to change challenges into opportunities.

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Thank  
you!

