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GENERATION Z SHAPING URBAN AGRICULTURE DEVELOPMENT IN EMERGING MARKETS – INSIGHT FROM BOSNIA AND HERZEGOVINA

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Introduction

10 TOP ECOLOGICAL PROBLEMS

- All of these global problems are interconnected and should be approached in the that way!



AIR
POLLUTION



WATER
POLLUTION



POACHING



GLOBAL
WARMING



WASTE



DEFORESTATION



GMO



EXHAUSTION OF
LAND RESOURCES



VIRUSES



HUMAN
POPULATION

Introduction

KEY

The width of each ribbon represents the amount of food, per person worldwide, consumed or lost annually.

Kilograms
of food
per capita



Industrialized
nations Developing
nations



Food
worldwide
68% EATEN

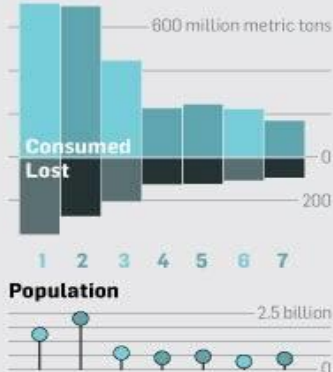


32%
LOST

BIGGEST LOSERS

In total, developing regions waste as much food as industrialized ones. Asia—home to half the world's population—loses the most overall.

1. China, Japan, and South Korea
2. Southeast Asia
3. Europe and Russia
4. Sub-Saharan Africa
5. Latin America
6. Canada, the U.S., New Zealand, and Australia
7. North Africa, Middle East, and Western Asia



WHY IS THIS IMPORTANT?

THE GLOBAL CONTEXT

Cities today occupy approximately **only 2%** of the total land, however:

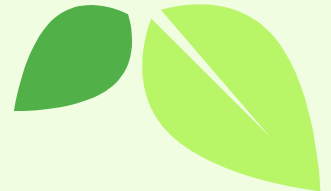
70%
Economy
(GDP)

Over 60%
Global Energy
Consumption

70%
Greenhouse
Gas Emissions

70%
Global Waste

Infographic reference: <https://habitat3.org/the-new-urban-agenda/>



Introduction

Big Food Deficits Lead to Insecurity

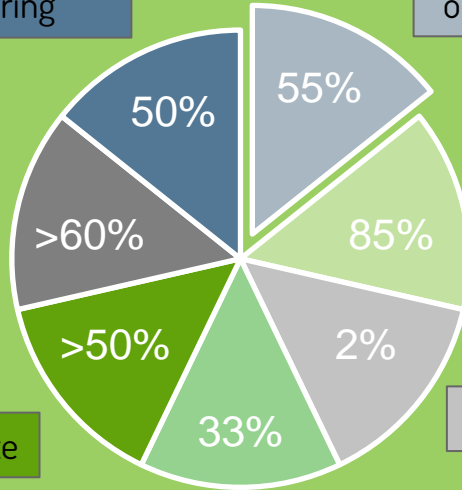


Key facts on urban growth and its impacts on food systems as related to urban areas

agroindustry accounts for more than 50% of value addition manufacturing

in low-income countries, food expenditure in cities may be as high as $\frac{2}{3}$ of total household expenditure

food and green waste



of the world's population live in urban areas

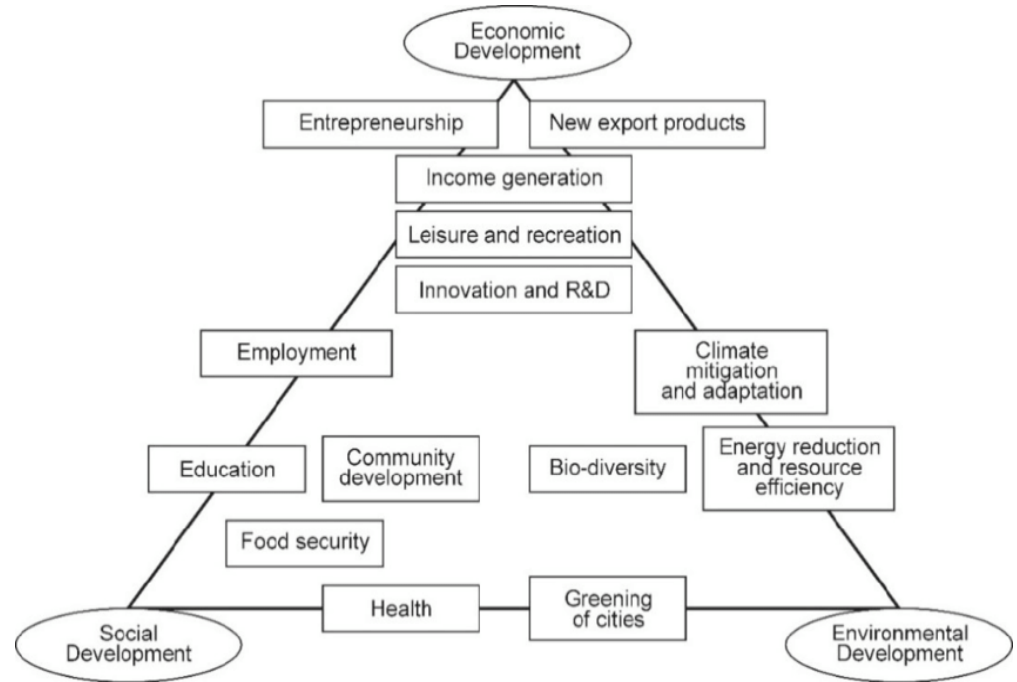
of the world's population live in or within 3 hours of an urban center

of the Earth's surface is occupied with cities

of all food produced for human consumption is lost

How can urban agriculture help overcome these challenges?

Scheme: Urban agriculture and the potential for sustainable city development

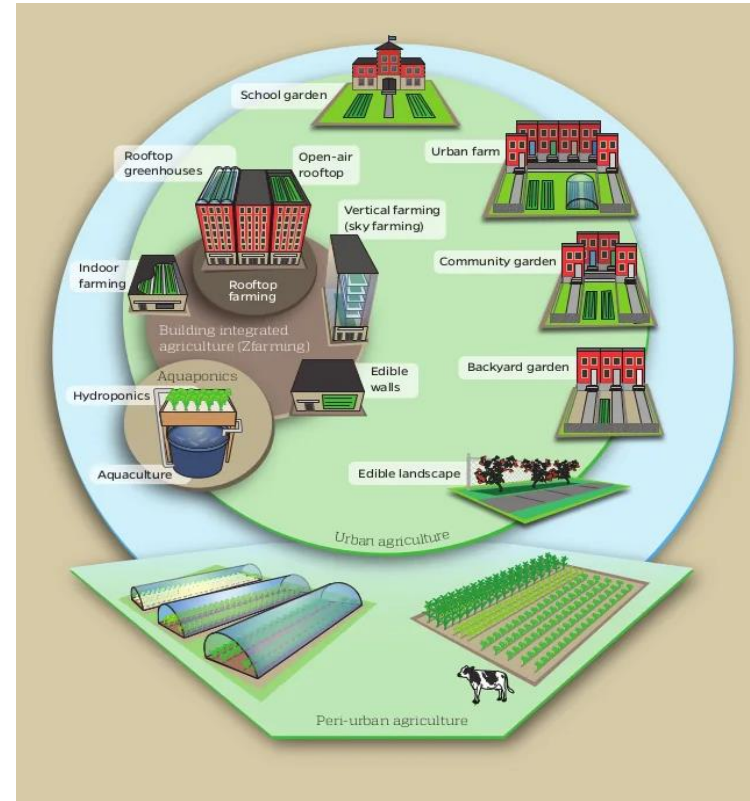


Reference: Tuijl, E.; Hospers, G. & van den Berg, L. (2018): Opportunities and Challenges of Urban Agriculture for Sustainable City Development. European Spatial Research and Policy. Volume 25, pp 5-22. DOI: <http://dx.doi.org/10.18778/1231-1952.25.2.01>

Scope of urban agriculture

Scheme: types of production in UA

- Urban agriculture can take many different forms, many of which include very innovative types of production.





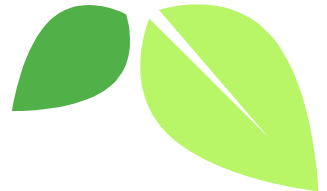
Business models in urban agriculture

- A business model is a framework for how a company will create **VALUE**.
- Based on, firstly, characteristic city-adjusted farm activities and, secondly, the business model method, some scholars have recently started to develop classifications of urban farming's business models (Pölling, B. et al. 2017), as shown in table 1:

Table 1: Business models in UA

Van der Schans (2010)	Hedin (2015)	Liu (2015)	Van der Schans (2015)	Pölling et al. (2015)	Van der Schans et al.(2016)
- Specialisation	- Small production	- Primary food production	- Low cost	- Cost reduction	- Low cost
- Differentiation	- Large production	- Value differentiation	- Differentiation	- Differentiation	- Differentiation
- Diversification	- Secondary purpose	- Diversification	- Diversification	- Diversification	- Diversification
		- Service provision	- Reclaiming the commons	- Shared economy	- The commons
		- Innovative operations	- Experience	- Experience	- Experience
				- Experimental	

Reference: Pölling, B. et al. (2017): Business models in urban farming: A comparative analysis of case studies from Spain, Italy and Germany. Moravian Geographical Reports. Volume 25. pp 166-180. DOI: 10.1515/mgr-2017-0015.



The role of youth in urban agriculture

- In the next decade, millions of new “green” jobs will be created in new-wave industries, like solar energy, and established fields, like architecture, fashion and farming.
- For young people, these jobs will represent an opportunity to earn a steady living while helping to tackle some of the planet’s biggest challenges, from climate change to pollution to species loss.
- Therefore, the involvement of young people in urban agriculture is not a surprise.

Reference: <https://www.unep.org/interactive/geo-for-youth>

Required skills for these jobs include:



SYSTEMS THINKING SKILLS



SCIENCE SKILLS



URBAN PLANNING AND
ARCHITECTURAL SKILLS



GREEN ENGINEERING & TECH SKILLS



AGRICULTURAL SKILLS



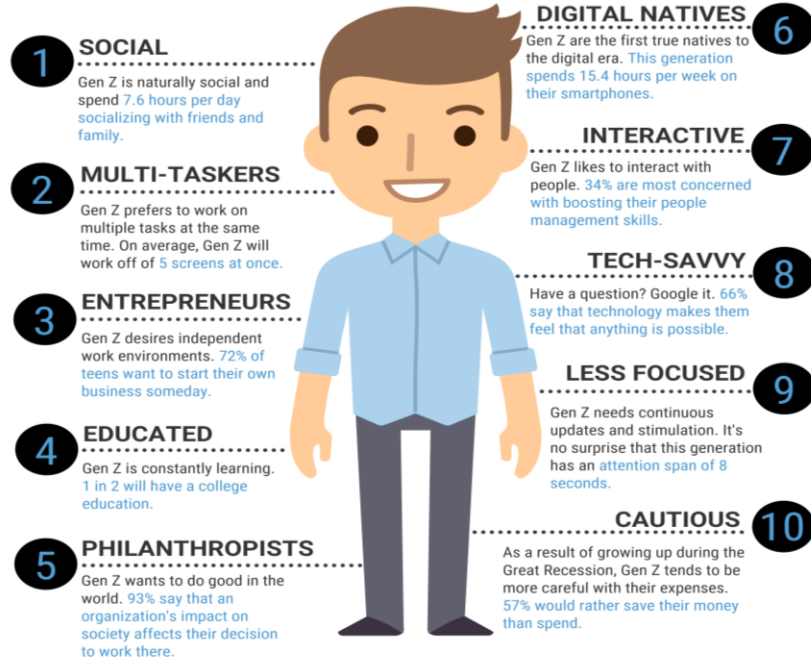
CREATIVE SKILLS

Characteristics of Z generation

GENERATION Z

The Next Generation

These characteristics of Z generation combined with growing trends in the agro-technical, food and biotechnology sectors represent increasing opportunities for the younger generation to remain heavily involved in agriculture without high risk, hard work and opportunity costs of living on a home farm, which is a good indicator of continued development of urban agriculture.



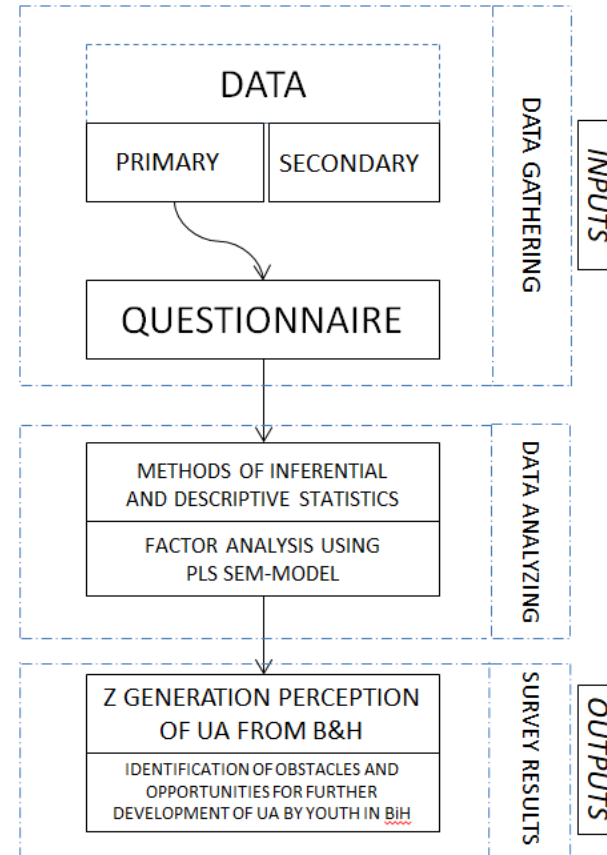
A decorative graphic on the left side of the slide. It features a large, bright green leaf at the top left, a medium green leaf below it, and a small dark green leaf at the bottom left. There are also four light gray circles of varying sizes: one at the top center, one at the bottom left, one at the bottom center, and one at the bottom right.

Aim of the study

- As urban agriculture is recognized as one of the innovative ways to improve the quality of life in urban areas, the aim of the study is to examine the beliefs/attitudes, behavior and intentions of young people (members of Z generation) in the context of further development of urban agriculture in Bosnia and Herzegovina (*ongoing research*).

Scope of research

- Target population: members of Z generation from Bosnia and Herzegovina/aged between 15-25 years
- Questionnaire: 21 questions, 3 sections
- Number of respondents: 179
- Data gathering period: April – October 2021



Results and discussion

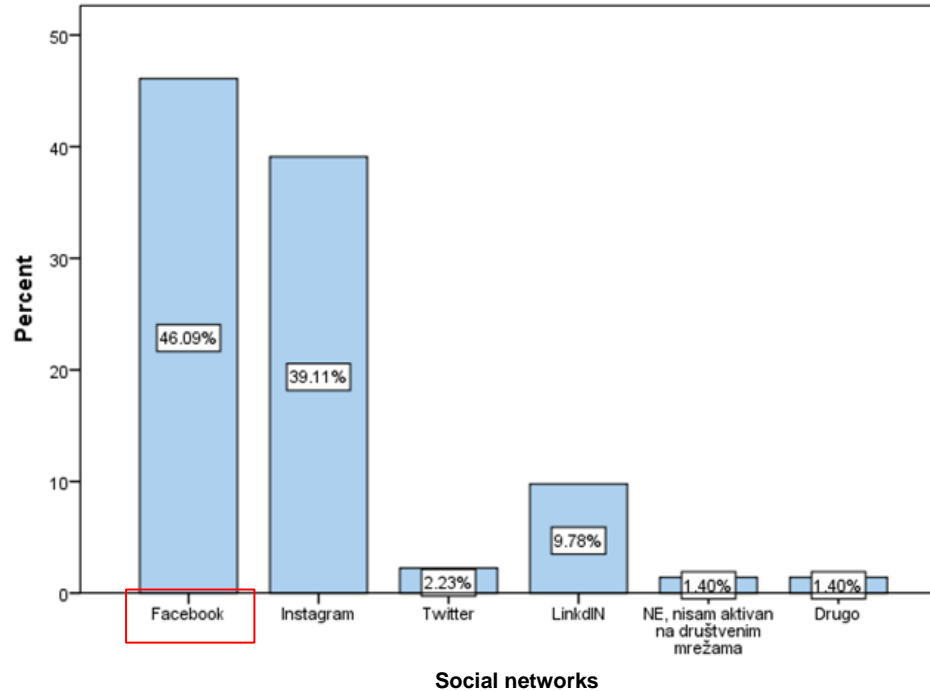
Table 2: Socio-demographic profile of respondents

QUESTION	PERCENT				
SEX	FEMALE 65,7			MALE 34,3	
LEVEL OF EDUCATION	PRIMARY SCHOOL 0,6	HIGH SCHOOL 35,4	FACULTY/BACHELOR 46,1	FACULTY/MASTER 16,3	OTHER 1,7
ARE YOU A MEMBER OF ANY ASSOCIATIONS?	YES 33,7			NO 66,3	
DO YOU PRODUCE FOOD?	YES 44,4			NO 55,6	
HAVE YOU HEARD ABOUT THE TERM URBAN AGRICULTURE?	YES, but not in detail 48,3		YES, I know what is UA 41,6	NO, I don't know what is UA 10,1	
DO YOU KNOW ANYONE INVOLVED IN URBAN AGRICULTURE?	YES 30,1			NO 69,1	

Author's calculations

Results and discussion

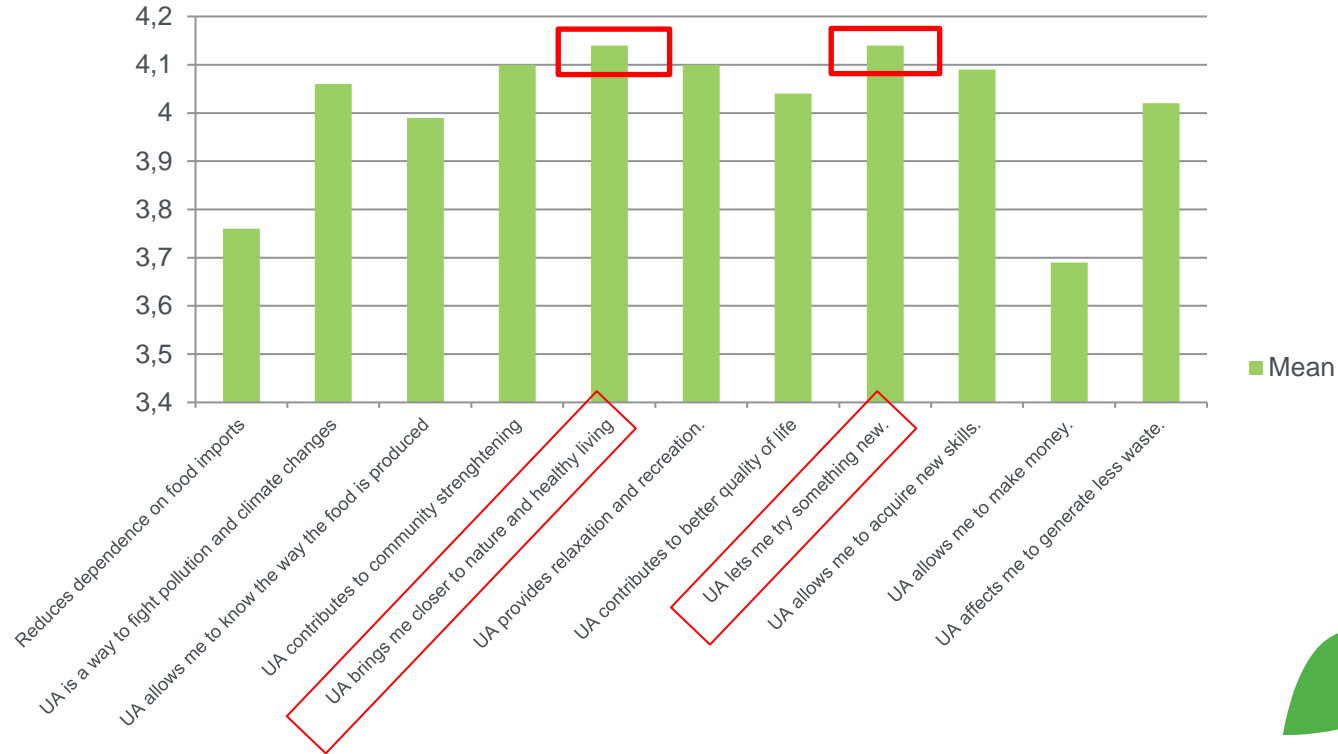
Graph 1:
Most commonly used social networks amongst respondents



Author's calculations

Results and discussion

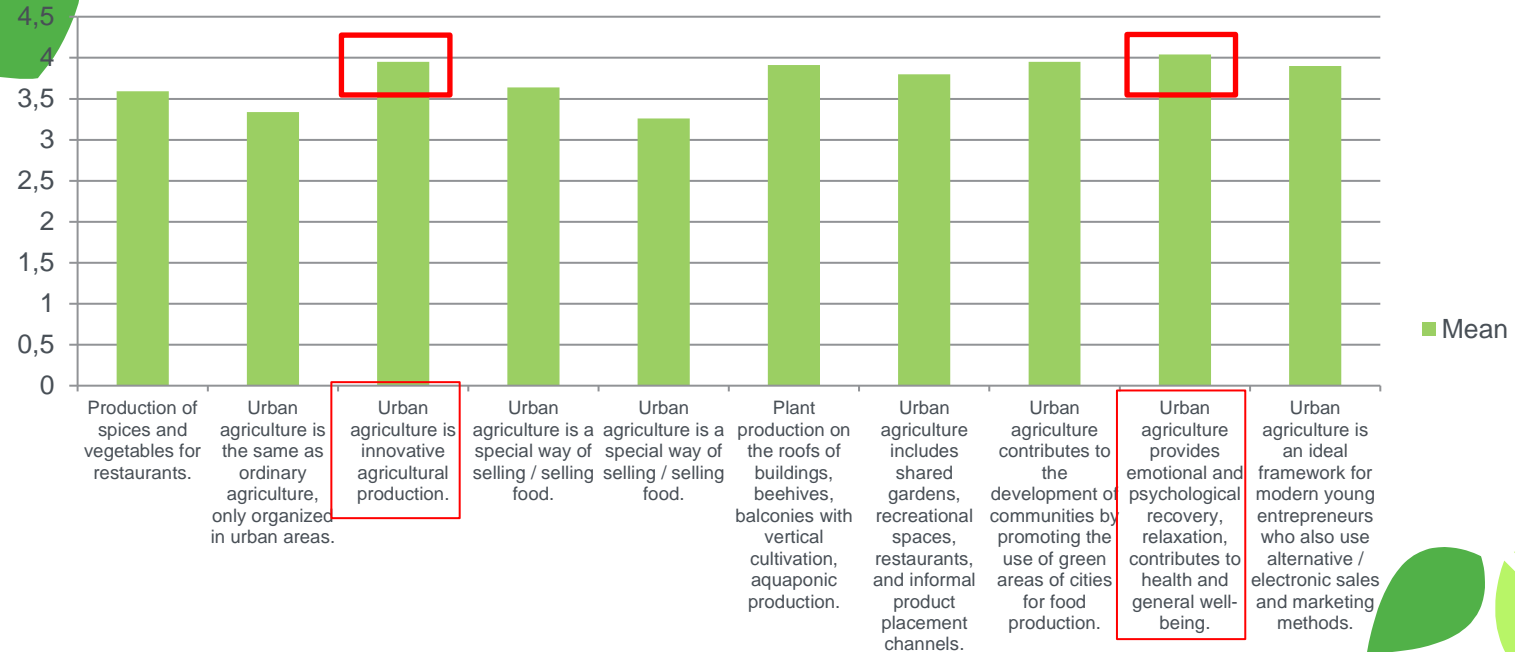
Graph 2: Attitudes towards urban agriculture



Author's calculations

Results and discussion

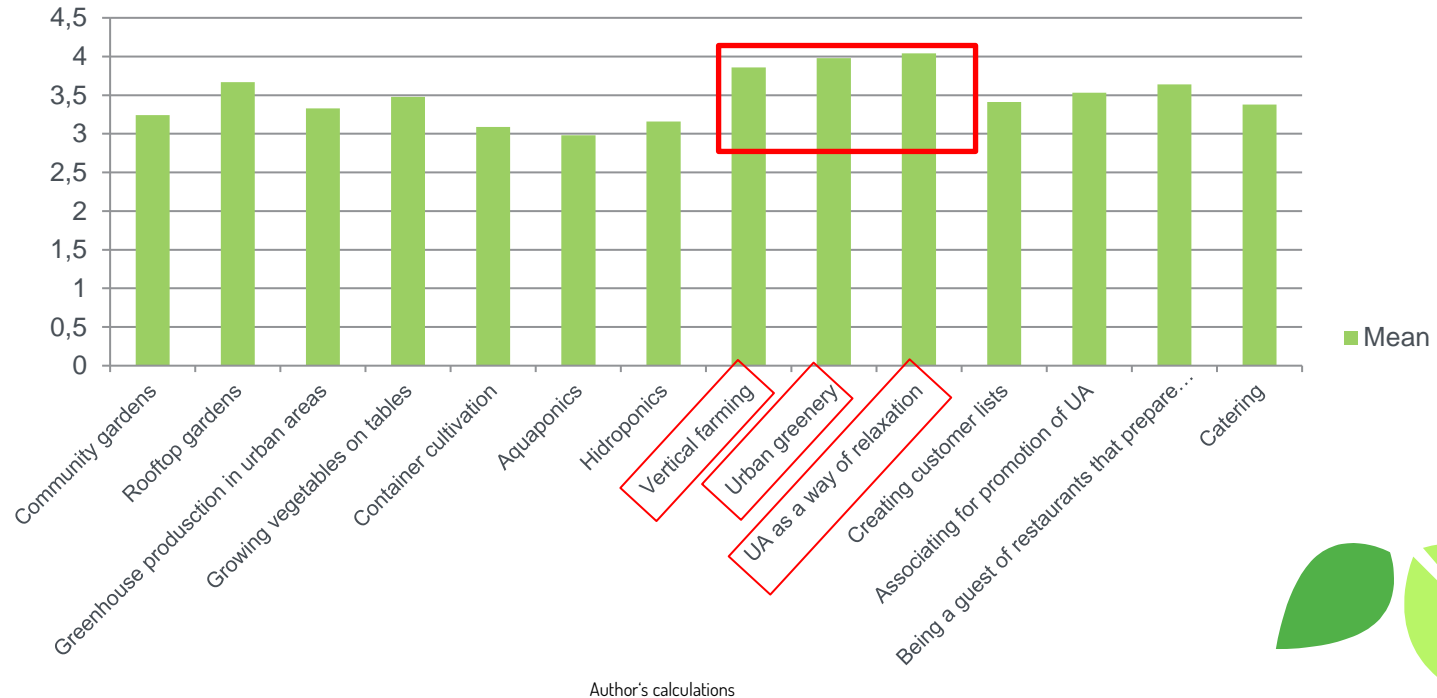
Graph 3: Youth population definition of urban agriculture



Author's calculations

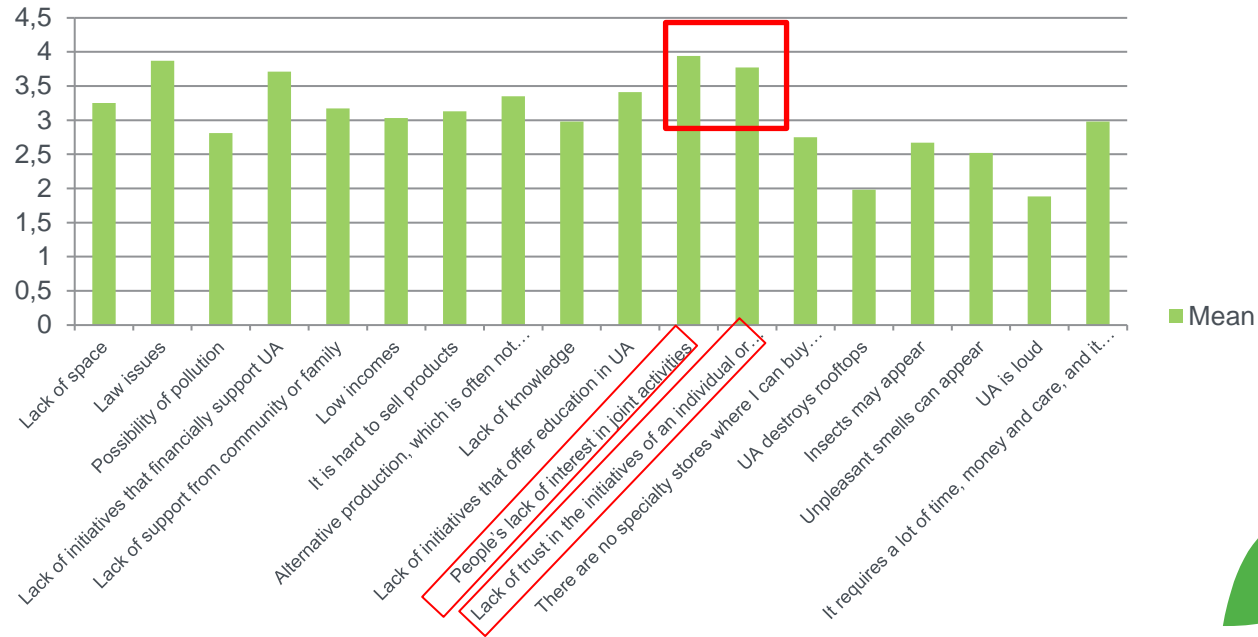
Results and discussion

Graph 4: Willingness to participate in UA activities



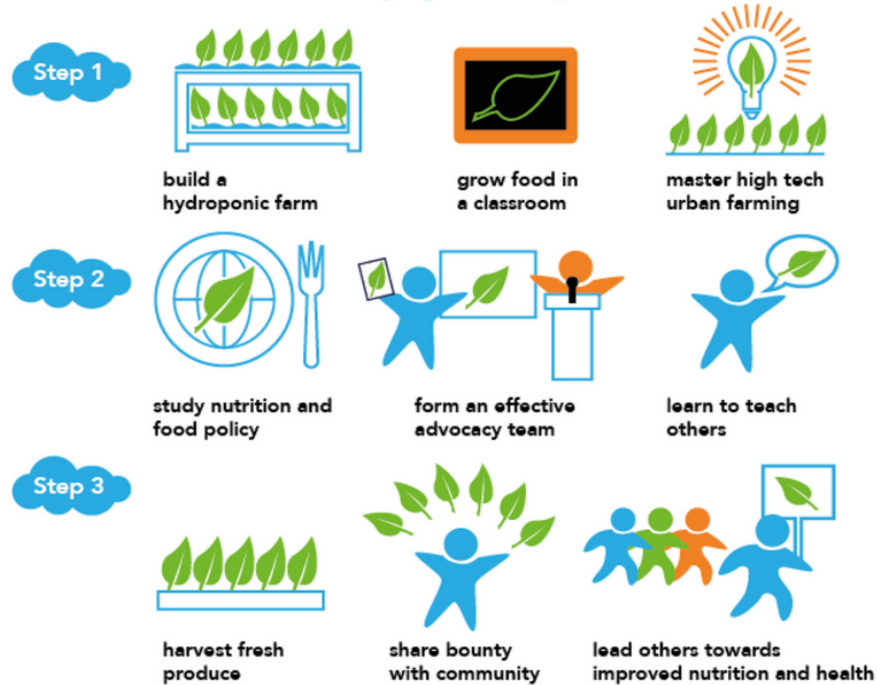
Results and discussion

Graph 5: Factors that limit development of UA in B&H



Instead of conclusion...

Teens for Food Justice helps youth **empower** their communities



Thank you for your attention!

LOOKING FORWARD TO YOUR QUESTIONS

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