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## ABSTRACT

Rising global temperatures attributed to climate change is having a negative effect on crop yields and drastically altering the balance of nature, even though the global food system has evolved to supplying food efficiently, food quality is often compromised with largely unaccounted environmental and social impacts.

## INTRODUCTION

By 2050, the United Nations has predicted that 68% of the world's population would live in urban areas, sadly based on the current food production rates the amount of food growing today can only feed half of the world's population by 2050.



Fig 1: Sustainable Development Goal 2

## METHODOLOGY

This paper proposes urban farming as a solution to achieving the United Nations Sustainable Development Goal 2 (Zero Hunger) by solving global food security challenges like intensive farming, promoting resilient agricultural practice while building sustainable food production systems.



Fig 2: Dimensions of Urban Farming

Millions of hectares of unused/underutilized urban spaces worldwide like rooftops, parks, highway demarcation/dividers can provide enough fresh produce to feed hundreds of millions of people using less heating energy, less water and soil nutrients with reduced energy demands on the building or surrounding infrastructure.

ITEM	OUTDOOR	GREENHOUSE	VERTICAL FARM
Growth Cycle	70days	40 to 50days	20days
Water Consumption per Crop	35L	15L	1.5L
Number of Crops per Square Meter	18	25	250-30
Crop Cycles	Seasonal	Seasonal	All year
Pesticides/Herbicides	Often	Less Often	None
Location	Open Field	Open Field	Anywhere
Post Harvest Handling	High	Medium	Low

Tab 1: Comparison of Farming Methods

## RESULTS

Urban farming greatly reduces environmental impact costs arising from using vast amounts of packaging materials, energy from transportation and refrigeration and it remarkably improves food quality (taste and freshness) due to the proximity of customers/consumers.

Urban farming greatly reduces municipalities infrastructural spends on maintenance or expansion. This is because urban farming reduces stress on city infrastructure like wastewater disposal system and waste disposal system – rainwater will be utilized for planting instead of just running off while biodegradable components of municipal solid waste will be composted for manure.

## CONCLUSION

In conclusion, urban farming is the solution to fixing our current ineffective food production methodology of intensive farming and an innovative strategy to help humanity achieve physical, social or economic access to nutritious food.

## REFERENCES

- <https://urbancropsolutions.com/> Table comparing different plant growing methods
- Dimensions Of Urban Farming <https://environmentalevidencejournal.biomedcentral.com/articles/10.1186/2047-2382-2-7>