Role of Urban Agriculture in Achieving Food Security and other Social Missions – A Global Study

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Abstract— *There is an increasing importance of addressing food scarcity and food safety issues as the population is increasing at a very fast rate. With the urban population increasing even more rapidly, there is a need for a radical change in the perception of food production and agriculture. Urban Agriculture has become significant in recent times as it provides a way for urban people to practice farming and easing the pressure on food production, in a way that can satisfy other important goals in a society. This paper analyses the different ways in which urban agriculture can benefit society through qualitative research. The paper finds that urban agriculture is practiced with the primary intent of food security and with other socio-economic goals in mind, through a review of various forms of qualitative data. The paper concludes by advocating for policy implications that will focus on bringing urban agriculture from the purview of the informal and unorganized sector and promoting it to urban dwellers as a viable economic and social activity.*

Keywords— Food Security, Local Economies, Social Missions, Urban Agriculture, Urbanization.

I. INTRODUCTION

Urban Agriculture has been defined as "the growing of plants and the raising of animals for food and other uses within and around cities and towns, and related activities such as the production and delivery of inputs, processing, and marketing of products"(FAO, 2007). In simple words, urban agriculture encompasses the agricultural activities conducted in urban areas. Urban agriculture and peri-urban agriculture almost go hand in hand, peri-urban agriculture being practiced in peri-urban areas. This form of agriculture comprises a variety of tasks such as horticulture, animal husbandry, and aquaculture. Urban agriculture can take up many forms depending on the economic and social status of the person(s) practicing it; it can be a person having a garden, a community coming together to cultivate plants in a vacant area of the city, or a company taking up an urban farming project. The goal behind practicing urban agriculture may also vary, such as for income, food security, recreation, better climate, community building, etc.

As urbanization is taking place rapidly, estimates show that the urban population would increase by more than 10% by 2050 (United Nations, 2018). With such rapid growth, there is immense pressure on rural farmers for the production of food, and given the increasing conversion of vacant lands into commercial buildings and other constructions, the issue of food production and food security is indeed quite alarming. Urban poor spend around 60 to 85 % of their income just on food (Mougeot, 2005) (Redwood 2008). This makes them extremely susceptible to an increase in food prices. As the urban population increases, the number of urban poor increases, leading to issues of food security and food safety. The issues of food insufficiency and food insecurity must be addressed at the earliest, sustainably. One way in which this problem can be dealt with is with urban agriculture complementing rural agriculture. Through urban farming, food security can be reached as locally produced food is more accessible to urban dwellers. In fact, people growing food in their houses can have immediate access to nutritious food. Apart from food security, urban farming can also help achieve several socio-economic goals (income, employment, community, social inclusion) of a society.

With increasing concerns of food shortages and lack of accessibility to nutritious food, especially in the aftermath of the COVID-19 pandemic, it is time that urban dwellers too start contributing to the production of food and not just rely on rural farmers and put them under an excessive burden. Urban agriculture is gaining more importance and attention by the day as it

provides a flexible mechanism for even regular urban dwellers with no prior knowledge of agriculture to cultivate food and contribute to food supply and food security, along with contributing to a better climate, biodiversity, a close-knit community, and a better local economy. Urban farmers throughout the world and urban farming projects are testimony to the fact that urban agriculture can really benefit people in a society in numerous ways.

While this form of agriculture can be crucial for dealing with a society's food security issues, it must be noted that effective quantitative data and quantitative analysis of urban agricultural activities is extremely low. It may be due to the fact that various benefits of urban farming can't be quantified, but even for the quantitative aspects of urban agriculture such as the yield from urban farming, income derived from urban farming, etc., there is no record for urban agriculture data. Hence many papers about urban agriculture usually carry out a qualitative analysis rather than a quantitative one.

This paper too, through qualitative analysis, seeks to analyze and find out the urban farming activities throughout the world, major interventions made through this practice, and the impact it has on the urban communities. The paper seeks to emphasize the increasing relevance of urban farming and why urban dwellers should definitely involve themselves in urban farming.

1.1 Objectives

- To analyze the role of urban agriculture in ensuring food security for the urban poor in the wake of rapid urbanization
- To find out the different social missions undertaken by various urban farming projects worldwide and study the ways in which urban agriculture has helped achieve these missions.

1.2 Importance

Urban dwellers, especially youngsters lead a very busy life with little connection with nature and farming. However, one can never isolate themselves from the matters concerning food as one needs food to survive. It is extremely crucial that an individual participates in the process of making one's food as the quality and even the mere existence of food is a matter of deep concern. This study is significant in the sense that it provides an enhanced insight into the capabilities of urban dwellers in being involved in the process of food production and ensuring food security without having to live in rural areas, and emphasizes the goals that urban dwellers can achieve through their participation in urban farming, regardless of its scale.

1.3 Methodology

The methodology adopted is of a qualitative nature. Qualitative data in both textual and visual forms such as case studies, documentaries, interviews, theses, articles, reports, etc. have been studied and analyzed. Literature about urban and peri-urban across various countries has been reviewed for a broad understanding. The first objective, food security has been analyzed concerning two parameters: i) food production with minimal use of pesticides and chemicals (to retain nutrients in food) and ii) accessibility to nutritious food. The second objective of achievement of social missions is studied through social, economic and environmental factors.

1.4 Limitations

- The scope of this paper is limited to urban agriculture and its implications for urban dwellers, mostly the urban poor. Thus, this paper does not shed light on the rural farmers and rural poor who form an equally important segment.
- As pointed by many studies about urban agriculture, there is an absence of a reliable database for urban agriculture. Thus, the impact of urban agriculture has not been statistically proven in this paper.

II. REVIEW OF LITERATURE

(Lintelo, D.T.H., et. al, 2001) assesses the nature, extent and significance of Urban and Peri-urban Agriculture in the context of Delhi, the rapidly growing city in India. The research was based in Delhi and Varanasi. Land use patterns were obtained through digitized satellite imagery from the National Remote Sensing Agency in Hyderabad. Six villages (peri-urban areas) were taken as the case study and all the households were categorized into different landholding and non-landholding groups. The data indicated that agriculture was a major land use in and around Delhi, and the research showed that Urban and Peri-urban agriculture was not only a dominant and dynamic land use but also an important livelihood strategy for poor people in

India, providing families with employment, income, and food. The paper emphasizes policy implications of spreading awareness about its significance and creating effective linkages with research and policy measures.

(Thornton, 2008) presents results from case studies exploring the nature and geographical extent of Urban and Peri-urban Agriculture in one of South Africa's poorest provinces, the Eastern Cape. The study collects baseline socio-economic data using household questionnaire surveys and to identify formal and informal sources of income and expenditure of households engaged in urban and peri-urban agriculture activity. 251 people from parts of Eastern Cape formed the sample size. Results showed that youngsters had a general stigma around urban agriculture as most of them had migrated from rural to urban areas and looked at subsistence food production negatively. Due to the lack of promotion of the idea that urban and peri-urban agriculture creates some social welfare, its impact among these people is low, and there is little incentive for the urban poor, particularly young unemployed people, to strive for subsistence or commercial benefits from urban agriculture and to supplement household incomes.

(Zezza, A., et. al, 2010) investigates the potential of urban agriculture in playing a substantial role in urban poverty and food insecurity. The paper looks into the household data of 15 developing countries from different continents (Africa, Asia, Eastern Europe and Latin America). The analysis is based on the Rural Income Generating Activities (RIGA) database, which is constructed from a pool of several Living Standards Measurement Study (LSMS) and other multi-purpose household surveys prepared by the World Bank and other national and international institutions. The paper studies the relationship between various variables such as the impact of participation in urban agriculture in each of these 15 countries on their share of income from agriculture and on their calorie consumption. The results (derived from simple data analysis) pertaining to income show that urban agriculture doesn't play a huge role in the alleviation of poverty as the income derived is very minimal. Pertaining to calorie consumption, regression analysis shows that there is a statistically significant relationship between engagement in urban agriculture and nutritional intake. While it recommends the reader not to overemphasize its role since its overall contribution to income and output is limited, it also advises not to underestimate its role as it does play a significant role in the livelihoods of people in developing countries as it promotes an increase in calorie consumption and nutrition intake.

(Badami, M., et. al, 2015) reviews various perspectives about the contribution of Urban Agriculture to food security and poverty alleviation, and assess its potential to contribute to urban food security in different regions based on the magnitude of urban land required to grow the daily vegetable intake for the urban poor. The target population of the study is the urban poor from various countries; the food items included in the analysis are vegetables, and the intake is considered to be 400g, as per recommendations from WHO and FAO. The population is taken from the United Nations 'World Urbanization Prospects' database. Urban poverty data is drawn from or calculated based on data from OECD and World Bank. An expression is derived to measure the percentage of the total urban area needed to grow 300 g of vegetables per capita per day to feed the urban poor in each of the selected countries. Calculations through this expression show that urban agriculture may be beneficial for high-income countries in terms of urban land availability, but low potential and feasibility in lower-income countries in terms of land availability in urban areas.

(Dimitri, C., et.al, 2016) examines the increasing concerns regarding the implementation of social goals during the process of farming with the increasing importance of urban agriculture in recent years, and analyzes the various social missions to be undertaken during farming. The paper examines various social goals of urban farmers in the USA. The paper makes use of primary data obtained from a national survey of urban farmers and questions farmers on various matters such as their production strategies and practices, farm size, location, and farm characteristics. The data so obtained was analyzed by a multinomial logistic model. The results showed that urban farms were relatively small, and urban farmers primarily concentrated on the production of food as an essential mission in their agricultural practice. These farms, especially those located with lower median income were more likely to have social goals such as increasing food security, education, and building community.

(Nicholls, E., et. al, 2020) reviews the potential of urban and peri-urban agriculture to contribute to sustainable food production using the 17 sustainable development goals set by the United Nations General Assembly as an agenda for evaluation, SDG2 (towards more productive, sustainable food production systems and resilient agricultural practices) being particularly relevant to the study. 185 allotment holders and home growers were recruited to participate in the study, wherein they self-reported yields and agrochemical use. They were also made to record any pests or diseases encountered in their

plots and the control method they used and were asked to weigh each crop in their allotment. The results showed that there was a significant yield (an average of 1kg, with some ranging even to 9kgs) with minimal use of pesticides (adherence to SDG15), there was also considerable savings for the home growers (£550 per year). The case study showed that urban farming not only contributes to food security in the city (SDG2), but that it may also be more beneficial to environmental (SDG15) and human (SDG3) health as compared to current industrial practices.

III. ANALYSIS

3.1 Urban Agriculture and Food Security

Over half of the world's population lives in urban areas, and this proportion is expected to increase to 60% by 2050 (United Nations, 2018). With the rapid increase in population by the day and urbanization too taking place at a very fast rate, estimates show that the amount of land required to feed the people in cities would be half of South America (Despommier, 2015). With such a huge burden on both land and food production, there arises a need to rethink the existing agricultural system and reimagine the concept of food production. There is a need to pave the means for newer ways of practicing agriculture, giving emphasis on food security and nutrition-sensitive agriculture rather than the cultivation of commodity and cash crops.

As defined by (FAO, 2000), 'Food Security' means that 'all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life'. Urban agriculture, comprising of agriculture in both urban and peri-urban areas is significant in the sense that the primary goals of urban farmers and people involved in urban farming projects across various countries like the USA (Chicago, Dallas, Philadelphia, California), India (Bengaluru, Chennai), Singapore, Kenya (Nairobi), Malawi (Lilongwe) and many more is food security and ensuring adequate nutrition intake for the community, especially the socio-economically deprived ones. Urban agriculture produces 15 to 20% of the world's food supply and could play a major role in achieving global food security, since urban poor are more vulnerable to food insecurity because they rely on external sources for their food needs and are thus exposed to greater supply risks (Corbould, C., 2013). Studies on urban agriculture and its impact on nutrition focus on dietary diversity and kilocalorie consumption as two main aspects which influence the outcome of improved nutrition (Alberto Zezza et. al, 2010). Also, urban agriculture seems to have a positive influence on maternal care, as mothers engaged in urban agriculture are able to positively impact child nutrition rather than mothers who are not (Maxwell DG, 1998). It is notable to mention that role of women in urban agriculture is quite significant and a woman's involvement in urban farming can also bring down food insecurity among women, which tends to be on the higher side.

TABLE 1
FOOD INSECURITY LEVELS BY REGION AND GENDER (2019)

Countries	Severe food insecurity (%)		Moderate food insecurity (%)	
	Men	Women	Men	Women
Africa	26.2	27.6	28.6	29.4
Asia	8.6	9.5	13.6	13.6
Latin America	8.6	11.2	17.2	21.4
Northern America and Europe	3	3	8.1	9.2
Oceania	3.4	3.3	7.4	9.8
World	10	11	15	15.7

Source: FAO, IFAD, UNICEF, WFP and WHO, (2020)

Note: *The Food Insecurity Experience Scale (FIES) data collected by FAO in more than 140 countries at the individual level provide a unique opportunity to produce gender-disaggregated estimates for the prevalence of food insecurity.*

As mentioned by an entrepreneur conducting urban farming projects (Sriram Gopal), urban farming has the potential to grow things at smaller places with higher intensity and technologies that help produce more from less. Many urban areas are characterized by tall buildings and high-story constructions. The rooftops of these buildings can be used to practice urban farming. The entrepreneur has confirmed that buildings with rooftop farms have claimed to be cooler 20% against regular

buildings. Urban farming can bring together 2 different worlds, minimum area and maximum food production. This is especially an advantage for countries like Singapore which have scarce amounts of land and are importing 90% of their food (Chandran, R., 2020).

Case Study: Future Farms

Future Farms is a start-up based in Chennai using hydroponics technology to grow vegetables and other plants. Founder and CEO Sriram Gopal wanted people to gain access to healthy food free from pesticides and also without excessive use of water. Initially on his own, he was later joined by like-minded people who shared the same goals as him. The company gets clients for various medicinal and other plants and is growing at 300% per year. Sriram is pinning hopes to an urban farming revolution where there would be perfect harmony between agriculture and technology in a way that can sustain food production and with minimum inputs.

While food production and nutrition-sensitive agriculture is important, the way in which it is produced also plays a major role in food security. The use of pesticides is over 4.1 million tons worldwide (FAO, 2020). With the increasing use of pesticides to tackle the increase in population, the toxicity level of food increases which results in health issues. A report from 1FCA showed that the highest toxicity and poison levels were found in mint and coriander. If food produced from excessive chemicals is consumed, it may not satisfy the minimum amount of nutritional intake which must be consumed and also may create health hazards. These pesticides also deplete the amount of water in the groundwater table. Water is the most important input in agriculture and scarcity in water will be an alarming issue. A recent intervention in light of both of these issues is a technology called Hydroponics. Hydroponics is a technology wherein plants don't require soil to grow; they grow from a solution of water and nutrients. Since there is no need for soil and improving the fertility of the soil in the first place, hydroponics does not need pesticides, and no issue of groundwater table deterioration arises as well. Hydroponics is estimated to use almost 10 times less water than conventional farming practices (National Park Service, 2018). Hydroponics thus aids vertical farming, a type of farming where plants are grown vertically (Used in the production of micro greens and herbs, and other plants). Newer practices such as rooftop farming, hydroponics, and vertical farming are key features of urban farming which are practiced in various parts of the world, including Singapore and India. A study in the UK has also shown the significant yield obtained from urban agriculture with minimal use of pesticides and with the use of organic pesticides (Nicholls, E., et. al, 2020).

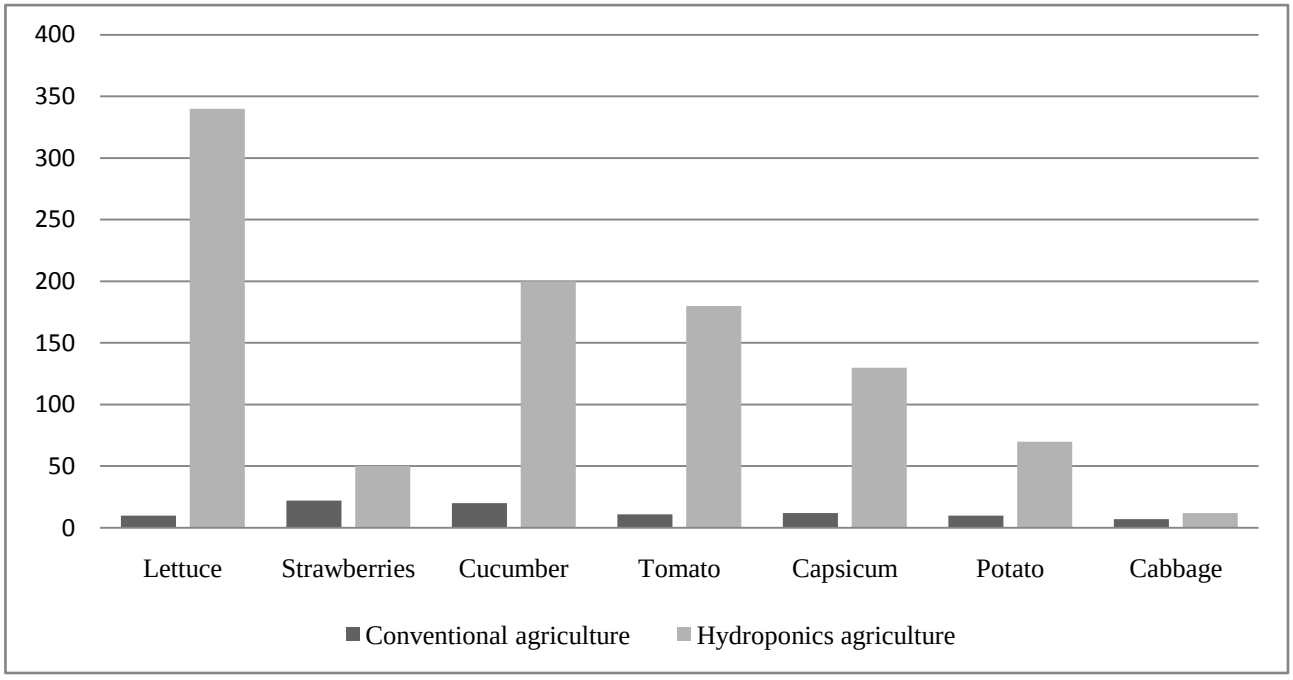

FIGURE 1: Output per Acre (in tons)

Source: DataM Intelligence Analysis (2021)

Note: *In spite of the output using hydroponics is high, lack of knowledge and awareness among farmers, initial investment and maintenance costs and more is still a barrier towards the implementation of hydroponics*

Another key aspect in the matter of food security is its accessibility for all, most importantly the socio-economically backward communities. People from peri-urban areas and outskirts of cities have claimed to face the issue of the lack of a supermarket in their vicinity or the lack of availability of required food items. The recent COVID-19 pandemic has seen immense food shortages, caused due to panic buying and an overall blow to production activities. Urban farmers themselves admit the lack of availability of food in markets during the outbreak of the virus. Urban farming is a solution for many such people as it makes food readily available locally for self-subsistence and for the community. Many people have taken up urban farming even in the most basic levels such as rooftop gardens, etc. during the pandemic to ease the access to nutritious food. Urban farming projects such as Urban Creators were formed in order to make nutritious food accessible to the local community since there was only one supermarket in their area which was too far away. Entrepreneur Sriram Gopal has initiated a project targeted at anemic women and kids suffering from iron deficiency, by setting up urban rooftop farms on commercial buildings which will grow only spinach and employ women to cultivate the plants. Several other projects like these have targeted to achieve accessibility of food across all communities and trying their best to ensure all get adequate nutritious food.

Case Study: Urban Creators

Urban Creators is a collective based in Philadelphia formed to take up the responsibility of feeding the people of the community and to create a space where people learn to grow their own food. According to co-CEO and co-founder Jeanine Kayembe, everyone should be provided fresh food, and the fact that such food is inaccessible to so many communities is a problem, a problem she among many is trying to solve. Young people are educated and employed to be urban farmers, and are also taught basic carpentry. In addition, it intends to provide a space for young people, giving artistic and cultural experiences. The collective has provided job opportunities to more than 136 local youths since 2012 and has hosted several events and engaged a large number of new people in the practices of urban farming.

3.2 Urban Agriculture and Social Missions

Social missions refer to the end goals that benefit a community, a society or an economy. Urban Agriculture is usually practiced by people as a way of giving back to the world. Hence, many urban farmers have strong social missions which they wish to accomplish through urban farming. Looking at the goals of many urban farmers and urban farming communities worldwide, food security seems to be the first and foremost goal, but it is coupled with other goals such as community development, strengthening local economies, providing jobs to socio-economically backward people, a feeling of social inclusion and bonding, environment and biodiversity conservation, effective use of vacant land and so on. Apart from health-related goals such as food security and food safety, there are economic goals, environmental goals, and social goals which urban farmers try to achieve through urban farming projects.

A case study of an urban farming project has been undertaken to deal with climate change is given below. Urban areas are way more polluted and prone to climate change conditions because of excessive vehicles, etc. Urban farming is a way of promoting greenery and improve climate, other than increasing biodiversity and beautifying the place. There is also a wide vegetative (fruits, vegetables, herbs, medicinal and ornamental plants) and insect diversity (various species of bees and spiders) achieved through urban agriculture (Brenda B. L., et al., 2015). Thus, biodiversity is also a significant aspect of urban farming.

Case Study: Asia's largest Rooftop Farm

Bangkok's Thammasat University is home to Asia's largest urban rooftop farm. Built to achieve urban food security and very importantly to tackle climate change, the founder Kotchakorn decided to implement this project as a climate resilient green space, since Thailand is subject to intense flooding and monsoons and World Bank estimates show that nearly 40% of the Thai Capital may be flooded by 2030. (Chandran, R., 2019). Kotchakorn considers urban rooftop farms to be an easy and effective climate solution, and with increasing climate risks, rooftop farms may become a viable and effective solution.

Community building, educational and cultural activities become significant in urban community gardens as well. Many a time, participants of a community garden follow a joint agenda based on solidarity and horizontal decision-making (Mudu & Marini, 2016). It is also a space to meet like-minded people with a common mission. A study has also proven that urban

farmers tend to have social goals such as education and community building apart from the primary goal of food security (Dimitri, C., et.al, 2016).

Patrick, an employee at Bonton Farms, has admitted that urban farming has changed his life and given it a new perspective. Having admitted to the usage of narcotics for seeking pleasure and passion previously and seeking help, Patrick has turned over a new leaf through his involvement in the urban farming practices, which he confesses gave him peace of mind, new meaning, and purpose. The Executive Director of Bonton Farms, Daron Babcock, emphasizes how the community can normalize in a span of 20 years through urban farming and how better it is instead of having a prison or a homeless shelter in the same place.

Case Study: Bonton Farms

Bonton Farms, situated in Dallas, is one of the largest urban farms in America. The Bonton community based in Dallas suffered from poverty and various diseases. Half of the men in the community have been to prison too. This prompted Daron Babcock to do something for this downtrodden community. He wanted to provide these people with some opportunity, and so he set up a garden (now what is called Bonton Farms) for providing the community with jobs and also produce their own food. To sell the produce, a market and a café have been set up. Employees are given accommodation and transportation facilities. Today, they have over42 acres of land under cultivation, and getting more than 18,000 people who visit their market, café and coffee house.

Other than providing scope for environmental and social benefits, urban farming is also able to generate employment and income for the urban poor. On an individual level, it gives scope for entrepreneurship through selling organic food and produce from the urban garden, and on a community level, urban poor are provided employment working on these farms. Urban farming thus helps urban people (especially the poor) earn some income and sustain their livelihood and has important implications on economic goals.

Case Study: City Farms

City Farms is yet another urban farming project founded by Ken Dunn based in Chicago. City Farms have taken up the project of composting vacant land area in Chicago (almost 12,000 acres) and providing employment to the local neighborhood that farm the land and cultivate produce. Compost is prepared from food waste produced by nearby restaurants and grocery stores (around 2 tons a day). Ken Dunn, the founder of City Farms emphasizes on the cultivation of food crops rather than commodity crops as health of the local community comes first.

There are many more case studies and reports of urban farmers trying to overcome issues surrounding climate change, unemployment, building community, and so on who have caused a difference and brought each of their communities a step closer to a better lifestyle through the accomplishment of their social, economic and environmental goals.

IV. FINDINGS

The following findings have been derived from the above analysis:

- Urban agriculture has a positive impact on food production as it offers scope for the production of food with minimal inputs. Urban farming techniques such as vertical farming, rooftop farming and hydroponics use minimal land, water and chemical inputs compared to conventional farming.
- Urban agriculture increases the access to food for the urban poor. Communities involved in urban farming are able to secure nutritious food, and individuals with urban gardens or farms get immediate access to healthy food.
- Urban agriculture tries to achieve various social missions. It tries to improve social (social inclusion, community building and development), economic (employment and income generation) and environmental (dealing with climate change and enhancing biodiversity) factors of urban people, especially the poor communities.
- Urban farmers undertaking projects across the world give serious importance to several of these perspectives (health, environmental, economic and social). Food security is given utmost importance and the achievement of social missions too is a crucial aim.

V. SUGGESTIONS

Urban agriculture is mostly practiced by private individuals and communities. It is important that the government step up and invest in urban agricultural activities in a way that people undertake it as a viable activity. There should be incentives provided to those who practice urban farming at all levels and any resources or assistance needed should be readily available. Databases should be made available for people to understand the trends and viability of urban agriculture. Young people too need to participate in agriculture in the urban areas they live in.

VI. CONCLUSION

This paper looks into the impact of urban agriculture on food security and the extent of achievement of various social missions through the practice of urban farming. FAO (Food and Agriculture Organization of the UN) defines Urban Agriculture as "the growing of plants and the raising of animals for food and other uses within and around cities and towns, and related activities such as the production and delivery of inputs, processing, and marketing of products". The relevance of urban agriculture has increased as estimates show that there will be a huge increase in the urban population which would achieve adequate food supply and food security of the urban poor difficult (United Nations, 2018). This is coupled with the decrease in the amount of land available for agriculture as land is increasingly used for commercial and industrial purposes. Such issues call the need for a slightly different way of practicing agriculture, with minimum inputs and maximum output whilst promoting social missions; and urban agriculture is a way of farming that can handle several of these issues.

The paper analyses qualitative data regarding urban agriculture based on two aspects: urban agriculture's influence on food security and its role in achieving social missions. Food security has been analyzed based on the parameters of food production and food accessibility. Achievement of social missions is analyzed through the positive contribution of urban farming to various social, economic, and environmental factors in urban areas.

There is an increasing need for agriculture to be food and nutrition-sensitive. The focus of agriculture should be on the production of nutritious food rather than commodity crops or cash crops. Moreover, what is as important as the scale of food production is the production of food without excessive use of pesticides and chemical fertilizers. Excessive use of chemicals in the production of food can negatively impact the nutrient content in food. Urban agriculture offers scope for various interventions that can be made in order to reduce the amount of inputs and harmful chemicals used in food. One of the interventions is hydroponics which refers to growing plants with only water and no soil at all. Plants grown in this method use 10 times less water than plants grown in the conventional way. In this way, food production can be greatly improved in urban areas due to lesser requirement of water and no requirement of soil or pesticides. For countries with scarce amount of land, vertical farming and rooftop farming can be a great alternative because these techniques take up extremely less space. Moreover, analysis of literature and projects undertaken with respect to urban agriculture show that food security is a primary goal of all urban farmers. Urban farming projects are carried out in localities where there is limited accessibility to a supermarket or a grocery store. Urban gardens provide immediate access to nutritious food for communities.

With respect to the contribution of urban farming to the fulfillment of social missions, case studies of urban farming projects have been analyzed to find out the goals behind them and their importance in the project. Urban farming has been conducted to achieve various goals. Urban agriculture is conducted in urban and peri-urban areas; hence it encourages the growth of a variety of crops, plants, and trees in these urban areas, and thus reduces the amount of toxic gases and pollution in the atmosphere and helps deal with climate change. It also promotes biodiversity as urban gardens are home to a variety of species of plants and insects. Urban agriculture also offers economic benefits as urban farming employs the local communities and helps them generate an income. Individuals with urban farms can either use the produce of their urban farms or gardens for self-consumption which may reduce the income spent on its purchase, or sell the produce and obtain income from it. Apart from economic and environmental benefits, urban farming provides an opportunity for various purposes like social inclusion and community development where people can address various issues together and deal with them in the best way possible.

Studies regarding urban agriculture usually highlight the fact that support must be provided from authorities for urban agriculture to tackle various issues (Anderson, M., 2014) (Thornton, 2008) and policies should establish urban farming as a legitimate and viable economic activity in many cities (Nugent, R., 2000). Indeed promotion and implementation of urban agriculture should be encouraged by governments throughout the world so that more people involve themselves in urban agriculture and reap the benefits.

Today, there are several issues in the context of agriculture. Need for modification of agricultural policies, farming seen as one of the least viable and desirable professions especially among young people, less access to land, credit, water, inputs, etc., impact of climate change on agriculture and agricultural produce and so on are just a few of the many issues surrounding agriculture. These issues face each and everyone in the world and it is not directed only at a few communities, because at the end of the day everyone needs food to survive. These issues should be fought radically, and urban agriculture gives the opportunity to do so. It helps bring people together, regardless of several differences and paves the way to address these problems whilst addressing several other non-agricultural issues as well. Whether practiced at an individual level, a community level or a company level, urban farmers at all levels confirm that urban farming is extremely capable of solving many problems and giving way to a better future.

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