

# Obstacles Faced by Women in Food Crop Cultivation in the Urbanized Areas of Kandy District, Sri Lanka

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## Abstract

Women contribute significantly to urban agriculture. Generally, they participate in pre-planting activities as well as post-harvest activities rather than the cultivation activities. However, it is noted that many women engage in gardening without the aid of men. Regardless of their roles, women, farmers face numerous challenges that prevent them from being as productive as they may be in urban environments. This study investigated the problems faced by women farmers in urban areas with a focus on Kandy, Sri Lanka. According to the matrix ranking, lack of sufficient land was cited as the critical issue that is 48.5% of the respondents, while 9 (13.6%) and 3 (4.5%) respondents placed it as the second and third biggest problem, respectively. Appropriate suggestions were also made, such as agricultural extension programs particularly for women farmers, and including women in agricultural decision-making.

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*Keywords: Women farmers, Urban agriculture, Participation*

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## Introduction

Women contribute significantly to the growth of the national economy. They make up more than half of a country's human capital and have a major impact on agricultural output. It is important to recognize their importance in overcoming the obstacles to agricultural development and productivity (Rahaman, 2008).

Farmers are typically seen as "males" by legislators, development planners, and providers of agricultural services, despite this tendency in most descriptions of agricultural development planning. There are continual allusions to the farmer, his labour, and his family. It is unusual to come across expressions like "farmer and her labour," "her family," or other expressions implying that women are not thought of as farmers but rather as farm workers. According to research, women make a substantial contribution to the agriculture sector.

Up to 90% of the labour for growing rice in Asia is carried out by women, (World Bank, 2003). Women-also contribute 27.63% of the labour in Sri Lanka, compared to roughly 54% in India, and between 60% and 80% in all sub-sectors of agriculture, including crops, livestock, fisheries, and agro-forestry (Employment in Agriculture, Female % of Female Employment) (Modeled ILO Estimate 2022) |

This is especially true in the production of food for subsistence. Men allegedly still dominate farm decision-making, according to (Enete & Amusa, 2010) even in regions where women are the main providers of farm labour. Sri Lanka was doing well with their farming industry until the commencement of rapid urbanization. Sri Lanka's farming industry is heavily based on human

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labour and land. The rapid urbanization in Sri Lanka caused to reduce the land utilization for agriculture. Kandy is similarly experiencing this phenomenon which the land is being converted into urban uses like residential uses. As a result, the land available for agriculture is being reduced which affects the food production.

The majority of food produced in poor nations is being carried out by women farmers, who are also the most vulnerable people. As a result of their economic empowerment, women farmers can produce more and participate in policymaking.

In developing nations, women farmers produce the majority of the food, but they are also among the most vulnerable groups (Karki, 2009) Economic empowerment of women farmers to increase production and take part in policymaking is essential for alleviating poverty and food insecurity. Studies have revealed that Sri Lankan women have significant roles in key activities in agricultural processes like planting, weeding, and harvesting, to the point that some regions label particular crops as "female" crops.

Despite having limited access to productive resources, (Anosike & Fasona, 2004) noted that women are responsible for providing food and welfare for their households. (Amali, 1989) also said that the biggest labour contribution is made by women in the production, processing, and selling of both raw and processed agricultural products.

Frequently, women farmers work side by side with men to plant food crops and commercial crops. Despite all of these efforts, Sri Lankan women farmers still face significant obstacles that limit their ability to produce more, both in rural and urban areas.

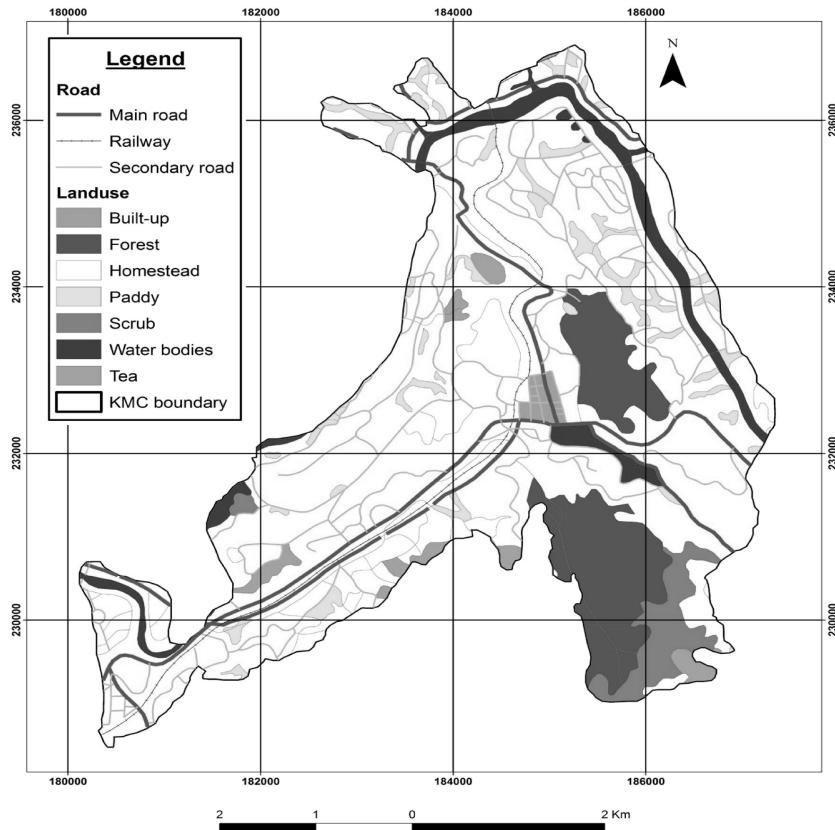
## **The Study Area**

Kandy city, which is a major city in Central Province, is a significant administrative as well as a religious city. It is ranked 4<sup>th</sup> most populated city in Sri Lanka with an average of 677 people per square kilometre (Brief Analysis of Population and Housing Characteristics Population and Housing Censuses in Sri Lanka Introduction, 2022). Kandy was once famous for its excellent agricultural system, known as Kandyan forest gardens (Perera & Rajapakse, 1991). But in the recent years, Kandyan forests gardens are disappearing with a rise of urban home gardening.

## **Research Problem**

While some of these limitations are inherent, others are economic. For instance, (Hartemink, 2016) found that tropical countries' capacity for enhanced crop production is reduced by soil erosion, and soil fertility decline is caused by improper land usage. Another concern is population growth. According to the National Population Census 2020, Sri Lanka has 21.92 million people as of 2020, with a 0.5% growth rate compared to a -2.1% decrease in food output (Department of Census and Statistics, 2022.; Sri Lanka - Agriculture, Value Added (Annual % Growth) - 2022 Data 2023 Forecast 1961-2021 Historical, n2022.). As a result, food production is unable to keep up with population growth. Another issue in movement between rural and urban areas is the lack of people, particularly women, who are left in rural areas to produce food using substandard tools.

**Figure 01: Map of Kandy, the study area**



## Objective of the Study

To address the issues stated above, this study evaluates the difficulties faced by women in food production in the metropolitan region of Kandy., Sri Lanka.

## Literature Review

All across the world, women prepare meals for their families and work on various stages and steps of the food production process. Women are typically in charge of providing meals for their families in various cultures and nations. Women have a significant stake in protecting the environment and halting environmental deterioration because they are the ones who provide their families with essential foods, fuel, and water. Crop cultivation (planting, weeding, applying fertilizers and pesticides, harvesting and threshing the crops), food processing and marketing activities, and animal husbandry of small livestock are among the jobs undertaken by women in agriculture (Karl Marilee, 2009)

43% of agriculture in Asia is carried out by women, with little assistance from men, where subsistence agriculture is common (Maciej Serda, 2013). In terms of time spent on agricultural activities, women have a variety of responsibilities depending on the crop, region, management style, age, and ethnic group. When the time spent on agricultural operations is combined with the amount of time spent on food processing and preparation in the home, it is implied that women's labor share may likely reach 73.3 per cent in many Asian nations (Women in Asia: High Contribution, Little Rewards, 2017).

## Figure 02: Women Successfully Taking Care of Household Activities and Gardening



Source: Kulathunga (2022)

Except for pre-planting activities like ploughing, which are frequently regarded as quite strenuous for women in most communities, women are primarily involved in a large number of cultivation activities (planting, fertilizer application, weeding, harvesting), as well as post-harvest activities (storage, processing, and marketing) (SOFA Team and Cheryl Doss, 2011). Women contribute significantly to the agricultural labour force and agricultural activities, although these contributions are frequently undervalued. Although it is challenging to accurately measure their efforts because of a lack of consistent data that tracks their agricultural activities, they make a very significant impact.

### Challenges Facing by Women in Urban Farming

Although women in households in general play important roles in food production, processing, and feeding families, it must be noted that they carry out these functions while facing numerous obstacles and as a result are hardly ever able to reach their full potential concerning the significant efforts they put into the agricultural sector.

Women contribute significantly to their households every day by working as wage earners, starting their own businesses, and taking care of their families and elderly relatives. When compared to their male counterparts, female farmers have lower success rates; this issue is frequently brought on by a variety of obstacles, including unequal access to technology, credit, extension services, and seeds. Sadly, only 20% of landowners worldwide are women, which means that they are also less likely to own land. In addition, if they expect to inherit family property, the law can deny women equal portion or social mores and customs might simply favour their male relatives (UN Women, 2016)

The absence of infrastructure has been highlighted as the main issue preventing agricultural growth in the majority of rural areas of Asia; if this issue is not resolved, all efforts to expand agriculture will be ineffective. Due to their general situation of the subsistence farmers, they have little or no access to contemporary, better technology, making it impossible for them to make fair investments in labour, inputs, and capital (Baba et al., 2015)

For Asian women to participate in agriculture and reap the greatest rewards from their contributions to the industry, several constraints work against them. The socio-cultural and economic issues they encounter at home and in society are only a few of the variables limiting their efforts. The majority of these challenges are so ingrained in society's conventions that they are nearly impossible for these women to overcome. Although women make significant contributions to agricultural output overall, they have historically had little access to agricultural

incentives and innovation because of economic sexism, social norms, and cultural practices that undermine constitutional protections for gender equality. The reason why there is a dearth of female participation in agricultural projects and programs is gender prejudice, not ignorance (Ogunlela Yemisi I & Aisha A. Mukhtar, 2009).

### **Access to Land and Land Tenure System**

In stating that land is an important resource for women's sustenance and that these women are empowered to address the pressing issues of food insecurity when they control their property, (Drafor Amenyah & Pupilampu, 2013) cite several authors. However, access to land is difficult for Asian women farmers, and even when they do, they must contend with rigid land tenure laws that are frequently affected by discriminatory customary norms and customs. These traditional land claims are frequently founded on social injustice and division. Therefore, it seems to sense that these dominant land tenure arrangements would harm agricultural output, increase poverty, and exclude these rural women.

Female farmers' access to other important resources like loans, technology, and extension services is impacted by their access to land and the stability of their land tenure. As is the case in many Asian nations, women farmers who lack secure land tenure would most certainly have less access to credit and productive inputs, which will, regrettably, result in inefficient land use and a consequent drop in agricultural yields. Additionally, because women lack complete ownership over their land, most female farmers are frequently excluded from contemporary contract-farming agreements (DraforAmenyah & Pupilampu, 2013). This condition is necessary to ensure the supply of a consistent flow of produce.

### **Access to Finance and Agricultural Inputs**

Another significant obstacle for women in agriculture is a lack of access to financing. Because farming activities are sometimes seasonal in nature and there is a significant lag between the time farmers incur costs and the time they may make money from their goods, credit is a very helpful resource for farmers. The lack of collateral requirements, high transaction costs, limited education and mobility, sociocultural barriers, irregular employment, and the nature of women's businesses are some of the most pertinent reasons why women farmers still have difficulty obtaining credit, according to several researchers.

The bad financial circumstances these women are in frequently have a direct impact on their ability to get essential agricultural inputs like better seedlings, fertilizers, pesticides, machinery, etc. Women farmers have stated that the high cost of upgraded inputs on the open market prevents them from using them (Sahel Capital Partners & Advisory Limited, 2014) When considered collectively, these limitations limit access to information about the input and output markets and reduce women's productivity.

### **Access to Agricultural Information and Agricultural Extension Services**

Another significant barrier for women in agricultural production is the difficulty in getting training and knowledge. Due to a lack of information, societal restrictions, and poor transportation options, women frequently participate in farmer training at a low rate. For agricultural productivity to succeed, education is essential. It increases capability, encourages involvement, and improves the chances of disadvantaged populations in the decision-making process. Women are deprived of the vital knowledge and technologies they need to manage and increase their capacity for production due to a lack of education and illiteracy. Additional barriers to education for rural women include social, political, religious, and economic ones that frequently stem from prejudice against women (Omeire, 2016)

There is still a knowledge gap between female and male farmers in agriculture, frequently due to inadequate contact with extension workers or a lack of extension services. The agricultural extension aims to enhance farmers' attitudes, knowledge, and skills through education and communication. As a result, the purpose of agricultural extension is to disseminate information, increase farmers' ability to use a range of communication techniques, and support farmers in making well-informed decisions (Koyenikan, 2008) The FAO reports that just 15% of extension workers are women, therefore historically, men have provided the majority of these services. These extension agents typically targeted male farmers or household heads, excluding families headed by women (WTO | NEWS - First Edition of the Commonwealth Secretariat WTO's Familiarization Programme - Press 262, 2001).

### **Gender Division of Labour in Agriculture**

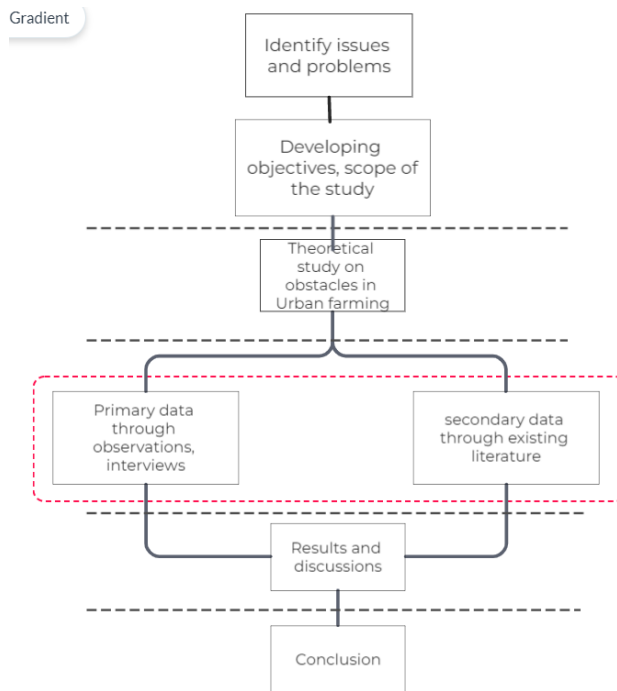
Many scholars have seen the frequent practice of gender division of labour in agriculture as a barrier for the majority of women working in the sector. There has always been a clear separation of labour in agriculture by gender throughout the majority of Asia. Such division of labour is typically based on a work or crop, and both sorts of gender-based division of labour may take place simultaneously. For some duties related to the crops they govern, both sexes routinely enlist the assistance of the other (Doss, 2010) Contrarily, women are typically in charge of home food production, small-scale food cultivation, and some cash crops that require low-level technology, while males are typically in charge of large-scale cash cropping, especially when it is highly automated (Opio, 2003)

### **Methods**

After the conceptualization of the study, the objectives were formed. A literature survey was done to narrow down a list of challenges that has been previously tested in other countries of the world. A survey was then prepared to be distributed. The data were collected during the period of March -April 2022 in the Kandy District. The visitors at the local farms that visited to buy agricultural products were chosen at random for the survey. Samples were exclusively taken from the homes of one-woman farmer, which made up the target group.

The percentage contribution of these difficulties faced by women farmers in the study area was calculated using a matrix 15x7 ranking system. Ordering things in this manner entails going from best to worst, smallest to largest, etc. The scoring process entailed the women farmers giving numerical scores to each group of issues. This was carried out following the most urgent issue limiting women's participation in agricultural production in the research area.

**Figure 03: Research Methodology**



### Results and Discussion

Out of 70 responses 66 were suitable to examine the data after being filtered. Sample represents the young adults which consists of 83% are, with an average of four persons residing in each home, according to the poll. In addition, 43.9% of the women farmers who were the subject of the study sat for the G.C.E. Advanced Level Examination, while 28.8% has a degree. Additionally, women farmers perform almost all farming tasks, such as planting, weeding, transplanting, applying fertilizer, and harvesting. They also grow a wide range of crops, including cereals, herbs, spices, fruits, and vegetables.

**Figure 04: Rooftop Gardening as a Solution for Lack of Land**

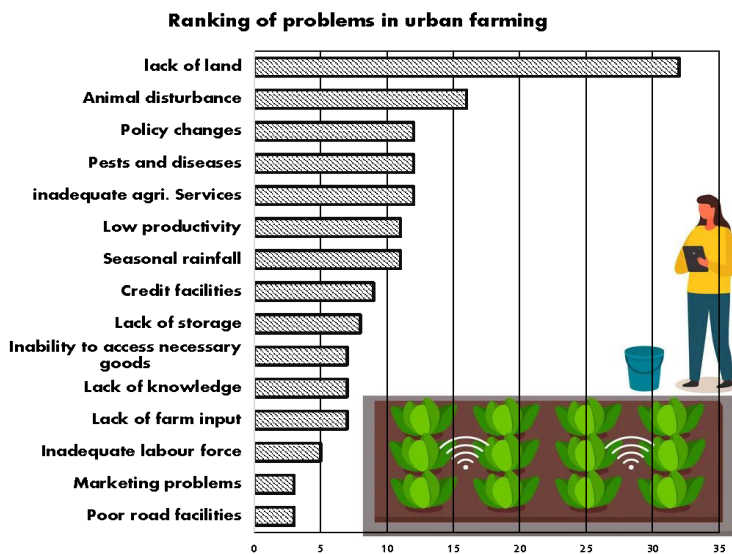


The following table 1 and the figure 6 shows the parameters taken for the survey and the results.

**Table 01: Ranking of Problems in Urban Farming**

Problem	Rank						
	1st	2nd	3rd	4th	5th	6th	7th
Credit facilities	8	6	5	4	1	2	9
lack of land	32	9	3	2	4	2	1
Lack of farm input	1	7	5	5	3	4	4
Seasonal rainfall	1	3	7	11	8	6	4
Lack of knowledge	3	7	5	7	4	2	5
Lack of storage	-	3	-	6	4	8	2
Animal disturbance	16	7	9	3	6	3	3
Poor road facilities	-	3	1	2	-	1	1
inadequate agri. Services	-	1	4	3	12	4	6
Pests and diseases	2	11	12	8	9	3	2
Marketing problems	1	-	2	3	-	2	3
Low productivity	-	3	8	7	7	11	4
Inability to access necessary goods	2	5	2	-	3	7	5
Inadequate labour force	-	-	1	4	1	4	5
Policy changes	-	1	2	1	4	7	12

**Figure 05: Ranking of Problems in Urban Farming**



Lack of enough land was cited as the most crucial issue which 48% of them identified. (13.6%) and 3 (4.5%) respondents placed the same issue as the second and third biggest problem, respectively.



Overall pests and diseases were ranked as the second most pressing issue by 11 people while 12 women ranked it as their third most pressing challenge. It should also be noted that 16 women choose animal disturbance as their first challenges even though overall, this issue was not ranked.

Seasonal rainfall was found to be another obstacle, ranking at fourth. It was found that due not having enough time to water the plants daily, women farmers preferred to have their plantations only in the rain seasons. Inadequate agricultural services were ranked fifth, and it was noted that many women farmers had complains about regional agricultural services not functioning properly.

In the research region, the productivity of the basic food crops is frequently low, mostly because the quality of the seeds and the fertilizers tend to be low, hence this issue was ranked as the fourth most pressing issue. Additionally, this is important because increased productivity requires farm inputs. Access to inputs may be impacted by factors such as household income, land ownership size, or the potential level of agricultural productivity, where women may be at a disadvantage.

According to the above data, recent policy changes were cited by many women farmers as the eighth most urgent concern. Furthermore, Female farmers in the study area ranked access to financing as one of the least important obstacles to their ability to produce agricultural goods. This was mostly based on the fact that they are growing new crops using kitchen waste and leftover veggies. According to the aforementioned findings, women farmers in the sample face several challenges, the most significant of which are restricted access to land, animal disturbances, pests and diseases, and low yield.

The absence of agricultural expertise might be listed as another urgent issue. Conducting programs for women in agriculture could be used to resolve this. The results of this study corroborate Tunde's (2011) finding that most female farmers maintain tiny parcels of land due to a lack of financial resources that would enable them to acquire more expensive parcels and farming equipment to increase output. Initiatives that address the training needs of women farmers should be developed into a robust institutional framework so that they may become more relevant and effective in the agricultural industry. Urban agriculture's legitimacy and sustainability would be significantly improved by zoning specific agricultural areas near to roads, electricity lines, or waterways (buffer zones).

## **Conclusion**

Women farmers continue to confront significant barriers to their ability to engage in profitable and productive agriculture, most notably access to cash and land in urban areas. The ongoing building of homes and infrastructure within the city threatens their ability to conduct agricultural activities. These could eventually cause the women to stop participating in urban agriculture. This has the effect of increasing the feminization of poverty in urban areas since more households with female heads of family and women who have trouble finding salaried work are dependent on Urban farming for survival.

To further improve food security in the urban region, it is necessary to implement proper urban agricultural policies that would help to lessen or eliminate recognized obstacles faced by women in urban agricultural production. Land is one of the most important resources for agricultural production, so the government should include Urban farming in the town design for urban areas so that it will be simpler for women to access lands for farming. The government should make sure that women have access to expensive and limited agricultural productive resources.

Mechanized tools, irrigation systems, better seeds, and agrochemicals are helpful to farmers. It should be made accessible through women's cooperatives or associations, microfinance, or organizations for women in agriculture, with a focus on urban women farmers. This would enable

women to better their household's welfare, gain access to necessary resources, and elevate their social position.

### **Acknowledgment**

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