

URBAN AGRICULTURE IN ADDIS ABABA, ETHIOPIA

A PILOT PROJECT TO IMPROVE THE LIVELIHOODS OF
LOW-INCOME URBAN HOUSEHOLDS

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 **FARM AFRICA**



Funded by:



RATIONALE

Like in many cities in developing countries, food security in Ethiopia's capital city Addis Ababa is compromised by rapid population growth, youth unemployment, environmental degradation and climate variability. People living in poverty, particularly female-headed households, face immense challenges in meeting their households' food demands as well as non-food requirements such as housing, healthcare and clothing. Soaring costs of living are rapidly depleting the purchasing power of low-income households, further worsening their low level of food and nutritional security. Urban sprawl and associated environmental pollution are also growing problems in the city.

In response to these challenges, Farm Africa, in collaboration with the Ministry of Planning and Development (MoPD),

trialled urban agriculture as a means to improve the food security and incomes of low paid civil servants and households living in poverty, 83% of whom were female-headed. With funding from the Embassy of Sweden in Ethiopia, a 15-month urban agriculture pilot project was implemented to improve the livelihoods of 100 low-income households living in Woreda 02, Gulelie sub-city of Addis Ababa city.

Project participants' home gardens and open space within the MoPD compound were used to demonstrate integrated and innovative urban agriculture in the city. The project was designed to meet multiple objectives: food security, job creation, environmental amenity and waste management.



photo: FarmAfrica/
Medhanit Gebremichael

APPROACH

Based on Farm Africa's significant experience in sustainable agriculture, environmental management and business development, the following approaches were implemented:

PHASED APPROACH

The project was designed as a pilot to assess the potential of urban agriculture in addressing multiple challenges. Due to its success, the plan now, if funding is available, is to implement the same approach at a much wider scale in other parts of Addis Ababa and other towns and cities in the country.

DEMONSTRATION SITES

A garden established by the project within the MoPD's compound serves as a demonstration and testing site for integrated urban agriculture components and practices such as crop variety choices, land-use efficiency, vertical structure layouts, fish, poultry and vegetable farming integration, organic fertiliser production, and marketing.

HOME GARDENS

The learning from the demonstration site in open spaces within the MoPD compound was taken up by individual households. Except for the design and construction of farming structures on the demo site, with technical support from Farm Africa, participating households were able to implement all project activities at home, from seedbed preparation through crop management to harvesting and selling.

ALIGNMENT

The project was designed to align with big government initiatives in urban agriculture expansion, green legacy, urban amenity and environmental management, and solid waste management. It was highly responsive

to the government and project participants' priorities.

MAJOR PROJECT ACTIVITIES

- Producing a comprehensive urban agriculture manual
- Facilitating the establishment of a comprehensive urban agriculture demo site
- Providing training for 100 households (83 female and 17 male) and 49 (19 female and 30 male) government staff on urban agriculture concepts, practices, benefits, opportunities and challenges
- Providing vegetable seeds, seedlings, agricultural hand tools, vermicompost, vertical planting materials, poultry cages and initial feed
- Constructing a fishpond, vertical planting structures, and a shed for the production of organic compost using vermi worms
- Constructing a shop for selling organic vegetables
- Establishing village savings and loan associations (VSLAs) and supporting them with toolkits and training
- Providing technical support for project participants
- Establishing a stakeholders' platform and undertaking knowledge-sharing workshops

KEY RESULTS

IMPROVING VEGETABLE GROWING SKILLS

When the project first started, many urban residents, particularly young people, perceived agriculture as an outmoded, transitory activity that was only appropriate in rural areas. The project invested a lot of time in developing women’s and young people’s knowledge about the concepts and benefits of urban agriculture, as well as their practical farming and business skills. The training changed the project participants’ mindset and inspired them to engage in urban agriculture. The proportion of participants with a good understanding of urban agriculture increased from 20% at the start of the project to 100% at the end. The percentage of participants with the necessary skills and resources required to practise urban agriculture also improved from 19% at the start of the project to 100% at the end. As a result, it was evidenced during home-to-home technical support visits that 90 out of the 100 participants who have limited space either on their plots or on roadsides are now able to grow nutrition-sensitive vegetables such as salad, lettuce and beetroot. The understanding of the project participants on the multiple benefits of urban agriculture, compared to growing just non-food ornamental plants, has substantially improved.

Beyond the economic and nutrition benefits derived from urban agriculture, while jointly managing their vegetables and egg-laying birds, participants reported that social bonds and wellbeing have improved.

PROMOTING WOMEN’S EMPOWERMENT

All project activities were gender responsive. From the beginning, 83 out of 100 participant households were women and the results empowered women and developed their skills. Women undertook key leadership positions in their VSLA groups, sales committees and general management committees. Out of the seven VSLAs, the chair positions of four VSLAs were women; the secretary and

cashier positions of all the VSLAs and all of the general management committee positions were occupied by women.

Participants reported that the training and experience-sharing visits as well as the inputs and materials provided by the project have helped them to get out of their homes and meet different people, to produce vegetables, reduce their expenditure on buying vegetables and derive enjoyment from managing their vegetables. Growing vegetables at home has also reduced dependence on their husbands for buying produce from the market.

FOOD SECURITY AND NUTRITION DIVERSITY

The significant improvement in urban agriculture knowledge and practices among participants as a result of conceptual and practical training as well as experience-sharing visits is the most visible impact of the project that helped participants to be able to grow nutrient-dense vegetables. Provision of materials and inputs such as seeds, seedlings, planting materials, hand tools, poultry cages with egg-laying hens and initial feed, and technical support from the project enabled beneficiaries to not only be able to grow and harvest produce for their consumption, but to sell excess produce to generate income. Seventy-three participants also shared their excess harvest generously with their neighbours and relatives.

During focus group discussions undertaken at the end of the project, project participants reflected that more nutrient-dense food items have been introduced to their daily diets as a result of the production of vegetables and poultry closer to their homes. This finding was also supported by the household survey, which showed that the average dietary diversity of participating households had increased by 75% since the start of the project. The proportion of households with year-round access to sufficient food for

their families’ needs increased from 43% to 70%. This is a significant achievement considering the short lifespan of the project.

Out of 100, 73% of project participants said that they are now able to harvest vegetables like Swiss chard twice a week with an average monetary value of 30 Birr (US\$0.54). This means this much money is saved from buying vegetables from the market for the preparation of meals. They are now able to access safe and fresh vegetables grown organically with clean water in their homesteads.

This demonstrates urban agriculture’s significant potential to increase the supply of healthy and nutritious food for poor households in urban areas. Production for self-consumption increases the food security and food safety of those who may have difficulty accessing or affording transported foods and increases the ability of residents to control the nutritional balance of their family diet. Practically, urban agriculture increases equality across society by enabling poor households as well as richer households in urban areas to eat fresh vegetables.

The project has received recognition from the city and sub-city government for its

contribution to the success of “migibachin kedejachin” (meals from the surrounding area campaign) and in promoting “yelemat trufat” (legacy of urban agriculture development) in Addis Ababa.



photos: FarmAfrica/
Gadissa Debeli Tessema



“The most important thing is I invite others to try what I have done, giving seedlings and compost, hoping to see them producing their own food.”

-Sihen Tsigie
pictured at the demo site (left) and at home (above)

INCREASING HOUSEHOLDS' AVERAGE GROSS ANNUAL INCOMES

A significant number of participants confirmed they were able to generate income from the sale of vegetables and poultry products. For instance, Zeriun Getachew stated: "In the past, my intention was to buy a taxi to make a business for my life. After the project gave us training on poultry management my mind totally changed to poultry businesses since the profit from poultry is higher than that of a vehicle. Now I am able to earn more than 10,000 Birr (US\$182) per month from my poultry farm."

Quantitative data collected from the participating households found that on average their annual gross incomes had increased by 49%. During the project evaluation, 55 participants mentioned that they made between 500 and 3,500 Birr (US\$9-64) per month selling various vegetables. In addition, they had saved around 70,000 Birr (US\$1,273) in their common bank account from the sale of vegetable products from the demo site.

INTEGRATION OF MULTIPLE ATTRACTIVE COMPONENTS IN A DEMO SITE

In contrast to conventional types of agriculture that bring to mind images of large open lands for growing crops or grazing livestock, urban agriculture is practised in an environment where

land is at a premium, and requires creative forms of production. The construction of different types of vertical urban agriculture structures, a fishpond, a compost-making shed, a poultry shed and hydroponic structures in one spot helped groups interested in urban agriculture, including academic institutions to learn about components, different innovative techniques and practices to grow in confined spaces. The demo site is the first of its kind making use of wasteland surrounding government offices in Gulele subcity and in Addis Ababa as a whole. It is now serving as a learning centre helping to boost urban agriculture replicability.

TRANSFORMED WASTELAND

Turning an urban wasteland, which for decades had been presumed to be unproductive, into a beautiful and productive food landscape to benefit low-income households through urban agriculture was a key achievement that decision-makers, like-minded partners, academic institutions and society at large can learn from. The project has effectively demonstrated how to utilise wasteland in public institutions to benefit the poorer section of the urban community by engaging them to work together. Just like the compound of MoPD, if open public spaces are utilised for urban agriculture

its contribution to enhancing urban food security and nutrition, especially of the poorer sections of the urban population, is significant.

The engagement of poor households in this compound created a sense of ownership of the resource and the ministry. The introduction of communal UA practices in public open spaces increased livelihood diversification and the economic resilience of the poor households in the city, created job opportunities for young people and stimulated the economy.

SOCIAL INTEGRATION AND COHESION

Cooperation and social integration were seen to increase amongst project participants. Practising urban agriculture and participating in the VSLAs helped participants to share their thoughts, concerns, and social and personal difficulties. Interactions while practising

urban agriculture together in groups and during saving and loan services through VSLA groups helped develop friendships among individuals and so enhanced social cohesion in the urban socio-economic system. Participants, particularly those who were jobless and elderly women who had previously been spending most of their time at home, expressed how much happiness managing vegetables at the demonstration site along with their friends brought them.



In 12 months what had for decades been an urban wasteland was transformed into a beautiful and productive food landscape for low-income households.



ECONOMIC EMPOWERMENT

Another achievement was the introduction of VSLAs in the city as a means to economically empower women and young people to ensure sustainable development. A total of seven VSLA groups were established with 96 members (81 female and 15 male). As the VSLA was a new concept to the participants and they all earned low incomes, at first most of them refused to accept the idea of saving. This mentality was changed through repeated VSLA training. They then saved around 80,000 Birr (US\$1,455) in the project implementation period. The VSLAs helped participants to have easy access to loans for immediate cash needs and to start small businesses. A total of 30,000 Birr (US\$545) was disbursed in loans to 15 members to be used for petty trade, the production and selling of injera and liquid soap, and to invest in expanding their poultry businesses.

URBAN BEAUTIFICATION AND ENVIRONMENTAL PROTECTION

One of the objectives of the project was to create jobs for young people by engaging them in urban agriculture businesses like fruit tree seedling production, organic fertiliser preparation and protecting the urban environment through the facilitation of plantation. Although the project organised and trained 20 unemployed youths and made an effort to secure working urban space for these businesses, unfortunately the local government was unable to provide any land, meaning the project could not create these jobs. Instead, the project engaged the young people in vegetable seedling production and the planting of fruit trees in the MoPD compound. An organic fertiliser production shed was also constructed within the compound to manage the waste generated in the compound using vermi-worms.

The vermi-compost produced from organic waste is used to grow vegetables.

The beautification component within the MoPD compound was very well done with the construction of beautiful vertical and horizontal farms used to grow different varieties of vegetables, fruit trees, spices and aromatic plants.

The project promotes nature-positive practices, including organic methods of crop production, urban greenery, environmental protection and beautification by turning urban waste into organic fertiliser. Such practices decrease greenhouse gas emissions and limit the amount of synthetic chemicals that are released into the soil and water supplies, which is beneficial to the environment and human health. Moreover, in both the demo site and on private plots, the project facilitated the growth of a variety of food crops. This ecological principle, known as biodiversity, allows for greater resilience of ecosystems, making the food system less vulnerable.

STAKEHOLDER COORDINATION AND LEARNING

Another objective of the project was the coordination of urban agriculture stakeholders, documentation and sharing and integration of lessons learnt from the pilot project for the sustainable development of urban agriculture in the city. Farm Africa shared learning in urban agriculture with stakeholders through various workshops. This included sharing of lessons including practices and benefits obtained from the pilot project on prominent local media channels and streaming media.

Women, in particular, found urban agriculture to be a sociable and economically empowering enterprise.

Urban agriculture uses vertical planting structures to increase the productive potential of small spaces.



KEY LESSONS

It is anticipated that the following lessons will help other partners implementing urban agriculture in Ethiopia, including governmental organisations and NGOs.

USING OPEN PUBLIC SPACES FOR THE BENEFIT OF THE POOR

Using open public spaces, such as the MoPD compound, for urban agriculture can significantly enhance urban food security and nutrition, especially of the poorer sections of the urban population. Urban agriculture increases equality across society by enabling low-income households to eat organic fresh vegetables and sell the surplus to generate income.

SOCIAL COHESION AND INTEGRATION POTENTIAL

Social interactions during practising urban agriculture together in groups and during saving and loan services through VSLA groups increases social cohesion and integration.

MAXIMISATION OF FARMING SPACE

The farming structures set up within the MoPD compound are remarkably aesthetically appealing and creative. The construction of vertical structures also doubled the area of farmland.

The structures were supported by a drip irrigation system for efficient use of water.

ECONOMIC EMPOWERMENT OF POOR URBAN HOUSEHOLDS

VSLAs are an effective approach for creating access to financial services in urban areas, mainly for women. The ability to draw loans from their savings means members are able to invest in starting small businesses. The participants expressed appreciation for the intervention as it was their source of finance for their immediate cash needs.

DEMO PLOTS ENHANCE VISIBILITY AND REPLICATION

Demonstrating integrated urban agriculture components and practices in confined areas through demo plots is an effective way to showcase the different components and improved practices to groups interested in replicating the approach. The demonstration site has become a learning centre vital for facilitating the development of urban agriculture in the city.

KEY CONSIDERATIONS

➤ The project operated under the premise that all project participants possess the requisite support to participate in all intervention types, and thus all members received the same training, support and inputs irrespective of their individual interests. However, it would be better to offer specific urban agriculture alternatives to project participants, based on their interests, capacity and the availability of necessary resources such as water and space.

➤ The success of urban agriculture is determined by the availability of efficient agricultural extension services. There is a critical need for consistent technical support for urban farming practices. Technical assistance must be made available through formal governmental institutions to ensure the sustainability of the replication of activities to the large population.

➤ Cultivating formal and informal relationships with government stakeholders, like-minded NGOs and individuals, as well as facilitating the development of partnerships and working closely with city planners and decision-makers is vital for the success of urban

agriculture development.

➤ In order to make towns and cities more economically productive, wastelands can be turned into beautiful multipurpose food landscapes used for recreation, environmental protection and a source of fresh food through the implementation of urban agriculture. Open spaces in public institutions, streets and parks should be devoted to urban agriculture to promote and exploit its potential. Land allocation for urban agriculture should be decentralised with clear powers and functions given to local authorities to ease access to urban space to create jobs for unemployed people. Rules and regulations on how to use public open spaces in creative and beautiful ways need to be devised. If not, it is crucial to collaborate with the mayor's office as it is the sole organ to allocate open public spaces in the city to run urban agriculture businesses for the benefit of the people.

➤ Poultry management by groups is not as good as by individuals because with groups there can be less commitment and trust between members. It is recommended that both options are considered.



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