

**Home Gardens for Food and Nutritional Security and Enhanced Livelihoods in Developing Countries**

**Karim Maredia, Russell Freed, Hashini Galhena, Gunasingham Mikunthan, Naveen Patidar, Helga Blanco-Metzler, Adrienne Attorp, Raja Rajeswari Meka, Julian Gonsalves, Sunil Madan, Ruth Mbabazi, Nanda Joshi and Ramjee Ghimire**



**Importance of Home Gardens:**

Home gardens, also referred as kitchen gardens or backyard gardens or nutrition gardens, are an age-old practice globally. Global experiences have proven that home gardens provide a viable option for enhancing food and nutritional security and livelihoods in developing countries. Home gardens offer a great opportunity both in developing and developed countries towards building a resilient supply of locally produced diverse, fresh and nutritious food. The home gardens offer a great potential to help minimize inequalities in accessing food, achieving gender equality, and improving decision-making to invest savings in education and social needs of households.

The disruption of food supplies amid the COVID-19 Pandemic has triggered renewed interest to strengthen local food systems around the world. Amid the COVID-19 Pandemic, governments, and development programs all over the world are encouraging home gardens as a local source of fresh and nutritious food.

**Michigan State University**

**Global Programs:**

The College of Agriculture and Natural Resources (CANR) of Michigan State University is recognized as a leader in agricultural research, education, outreach and technology transfer worldwide. MSU and its international partners have been actively engaged in research and outreach programs on home gardens in developing countries to serve as a local source of fresh and nutritious food. Along with its global partners in 2020, MSU has also published a new book titled “*Home Gardens for Improved Food Security and Livelihoods*” bringing together global experiences on Home Gardens.

**Special Side Event at the 2020 World Food Prize (WFP) Symposium:**

The World Food Prize (WFP) Foundation in Des Moines, Iowa hosted their annual symposium and Borlaug Dialogue from October 12-16, 2020 to continue the legacy of Dr. Norman E. Borlaug, Father of Green Revolution and Nobel Peace Laureate 1970. In conjunction with the WFP symposium, MSU along with its

global partners hosted a special side event virtually on October 14, 2020 focusing on “Home Gardens for Food and Nutritional Security and Enhanced Livelihoods in Developing Countries.”

A six-member distinguished panel participated in this side event along with MSU officials including the Dean of the College of Agriculture and Natural Resources (CANR), Dr. Ronald Hendrick, and Dr. Karim Maredia, Director of CANR International Programs.

In his opening remarks, Dean Hendrick stressed the importance and contributions of home gardens and the role of MSU - **“While CANR is devoted to helping agriculture ascend in Michigan, we are also committed to help underserved and underrepresented farmers and households across the globe make a living and provide nutritious food for their families,” said Ronald Hendrick.**

Dr. Karim Maredia emphasized the critical role of home gardens during the COVID-19 Pandemic in ensuring local food supply – **“Amid the COVID-19 Pandemic, such an effort to strengthen local food supply is very timely and encouraged” said Dr. Karim Maredia.**

The panel members from different regions of the world shared their findings, experiences, and contributions of home gardens in improving food and nutritional security and livelihoods.

**Dr. Gunasingham Mikunthan**, Professor in Agricultural Biology and Dean of the Faculty of Graduate Studies of University of Jaffna in Sri Lanka shared the experiences of multifunctional home gardens from the northern areas of Sri Lanka which was affected by 30 years of civil war. Home gardens were established after the civil war ended to enhance food security and livelihoods of families in the war affected areas. Home gardens provided a diverse, balanced, and nutritious source of homegrown vegetables, fruits, and animal-based food while enhancing biodiversity and ecosystem services. Prof. Mikunthan highlighted that during the COVID-19 Pandemic, almost 60-70% food needs of local households have been met through well-established home gardens. Such well self-managed local production from home gardens readily supported many of the households when lockdown was imposed for more than two months. The constraints faced by home gardeners in Sri Lanka include lack of good quality seeds of native crop species and planting materials as well as the marketing of perishable extra produce from home gardens. Prof. Mikunthan

described the training and outreach programs of University of Jaffna and emphasized the needs for continuing education and training of home gardeners.

**Ms. Adrienne Attorp**, Research Scholar from the Center for Rural Economy and Department of Geography, Politics and Sociology at Newcastle University in the United Kingdom, shared research findings from a home gardens project in the province of Cabo Delgado in northern Mozambique, supported by the Aga Khan Foundation and the Canadian International Development Agency from 2010-2016. The project delivered home garden training for 4,700 households. Ms. Attorp’s findings indicated that home gardens were accessible to most local households, irrespective of socio-economic status, and had the potential to provide nutritional and food security benefits to household members, including women and children. However, nutritional and food security benefits were not always realized; although the home garden training improved nutrition understanding among participants, local households often sold most of the produce from their home gardens for extra income for the family. Further constraints and challenges faced included access to water for irrigation, and lack of fencing materials to protect home gardens from domestic and wild animals.

**Mr. Naveen Patidar**, Program Head at Aga Khan Rural Support Programme in India (AKRSP-I) presented the experiences of kitchen gardens and landless gardens. The AKRSP-I serves more than 600,000 households in rural communities in three states of India (Bihar, Madhya Pradesh and Gujarat). According to Mr. Patidar, home gardens have served as the simple and cost-effective intervention of ensuring dietary diversity in vulnerable communities. The main emphasis of AKRSP-I programs has been creating awareness around the diet diversity and empowering self-help women groups. Mr. Patidar highlighted that the vulnerable communities are now consuming vegetables 4 to 5 days each week. The AKRSP-I is integrating soil health, poultry, and millets along with vegetables in their home garden programs. The challenges faced include on how to encourage households, especially and women and children to consume the produce from home gardens rather than selling it, which has been promoted through community-based cooking events. The experiences of AKRSP-I suggest that the home garden programs are more effective when they are built on community-based organizations particularly organizations of rural women.



**Dr. Helga Blanco-Metzler**, Professor and Head of Experimental Farm Center of the University of Costa Rica (UCR) in Santa Cruz, Costa Rica described the experiences of the home gardens projects implemented by the UCR, where the academic programs are linked to social action in local communities to benefit the society. In Costa Rica, the home gardens are contributing to greater consumption of vegetables, fruits and poultry. Dr. Blanco described various training programs organized by UCR to empower local communities including topics such as water harvesting, organic fertilizers using farm waste, seedling production, pest management and forest nurseries. A special program, “CareNetwork” was implemented by UCR which included pregnant women and women with children. The key constraints highlighted by Dr. Blanco include lack of marketing channels, availability of quality seeds and planting materials, and value addition to home gardens produce. Dr. Blanco emphasized the need for promoting home gardens in urban areas and schools to educate children and youth on how home gardens can be part of healthier diets of the family.

**Ms. Raja Rajeswari Meka**, Program Manager, Kitchen Garden initiatives of Cornell-Sathguru Foundation for Development (CSFD) has shared experiences of kitchen gardens in the Telangana State of Southern India. CSFD works for facilitating

sustainable agriculture and social development for enhancing capacities, knowledge creation, promoting entrepreneurship and gender equality. Kitchen gardens are one of the initiatives of CSFD and it has implemented the project among 500 households in Telangana State. The project focused on improving food and nutrition security, social empowerment, enhancing income opportunities and gender equity. At the inception of the program, CSFD has trained the beneficiaries on laying the kitchen gardens scientifically and provided 14 varieties of locally preferred vegetable seeds and agri-inputs. Subsequently, CSFD created awareness on the importance of a healthy diet and guided them to maintain gardens and consume fresh food. The cost-benefit analysis of home gardens indicated savings of \$360 per year per household and saved around 27.24 KgCo2 emissions from transportation per family leading to the reduction in carbon footprint.

During the COVID period, kitchen gardens have proved resourceful enabling households to consume value-added products they have processed such as pickles and dehydrated leafy and seasonal vegetables that helped in minimizing their market visits thereby maintaining social distancing. Yet challenges remain, especially in scaling-up of kitchen gardens, achieving yearlong yield, scientific management, nurturing business approach and food processing opportunities.

**Dr. Julian Gonsalves**, Senior Advisor at the International Institute of Rural Reconstruction (IIRR) in the Philippines shared the experiences of home gardens from the Philippines. He stressed the multifunctional outcomes of bio-intensive climate smart home gardens. Their programs are strongly promoting conservation of agrobiodiversity. Dr. Gonsalves stressed the need for integration of home gardens in local schools for school meals/feeding programs and establishment of crop museums for showcasing and demonstrating diversity of crops.

Overall, the presentations and discussions by the panel members highlighted the important contributions of home gardens. The rich experiences from Sri Lanka, India, Philippines, Mozambique and Costa Rica show that home gardens are contributing to enhanced food and nutritional security and livelihoods providing benefits to households. The full recording of the side vent program can be accessed at:

[https://mediaspace.msu.edu/media/Michigan+State+University+WFP2020+Side+Event+on+Home+Gardens+for+Food+Security+October+14%2C+2020/1\\_i2lx0iup](https://mediaspace.msu.edu/media/Michigan+State+University+WFP2020+Side+Event+on+Home+Gardens+for+Food+Security+October+14%2C+2020/1_i2lx0iup)

All the panelists highlighted the important contribution of home gardens in ensuing local food supply during the COVID-19 Pandemic. The panel members identified several key constraints to further enhance home gardens programs in their regions. These included improving the availability of quality seeds and planting materials, establishing local market channels, integrating home gardens in urban and schools, continuing education and training programs, promoting home gardens as a business opportunity, and creating greater awareness on benefits locally available fresh and nutritious foods from home gardens. The side event ended with a release of new book titled “Home Gardens for Improved Food Security and Livelihoods” published by MSU and its international partners through Routledge, Taylor and Francis Group in U.K.

#### **Way Forward to Enhance Home Gardens in Developing Countries:**

Supply of locally produced fresh and nutritious food products play an important role in ensuring food and nutritional security and livelihoods enhancement in developing countries. MSU and its global partners share a common vision towards resilient, sustainable,

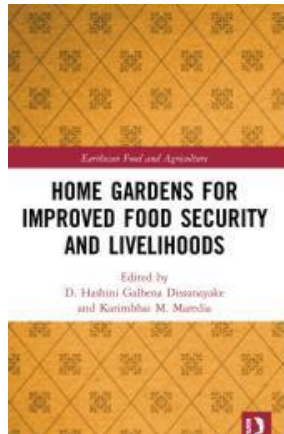
and nutritionally enhanced local food systems globally. Continued efforts and investments should be made to scale-up and sustain home garden programs in developing countries to expand the benefits to larger communities. Continued interactions, training, and networking programs are needed to facilitate sharing of knowledge, expertise, and experiences. MSU along with its international partners will continue to support these efforts globally.

#### **Note: For more information on future collaboration on Home Gardens, please contact:**

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