

Keynote speakers

The place for urban and peri-urban horticulture in feeding the urban poor: Researchable issues for horticultural science

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Key words: horticulture for development; food security; nutrition security

Abstract

The production and daily delivery to market of perishable horticultural crops from smallholder farmers close to large urban centres (peri-urban horticulture; market gardening) have been important for millennia. An assortment of vegetables, fruits, flowers and also herbal and medicinal plants is delivered directly to urban consumers, rich and poor, with little or no official oversight with respect to quality or safety. However, the surge in world population from 2 to 7 billion during the past 70 years, and especially a well-documented rural-to-urban migration, have profoundly influenced both the practicality of traditional peri-urban agriculture and the numbers of the urban poor. Cities have expanded and displaced farmers from their land. Competition for water resources can be fierce and modern food quality and safety expectations increasingly demand better compliance and oversight. One might argue that these various factors constraining peri-urban horticulture, as well as the burgeoning population of the urban poor, have heightened the interest in producing horticultural crops *within* urban centers, or in other words, in urban horticulture.

The research needed to inform public policy about how urban and peri-urban horticulture is valued, practiced and utilized to benefit the poor must involve social geographers, demographers, nutritionists, epidemiologists, horticulturists and many other professionals. However, the horticultural science and industry sector can also address some key problems and constraints. It can inform issues about what to grow and where to grow it. This sector knows about marketing – delivering safe and attractive products to consumers. Perhaps most importantly, horticulturists can credibly address issues about land, labour, water and the crop production/protection inputs needed for successful and sustainable production. Examples include developing and introducing varieties and cultivars better suited for urban and peri-urban production and direct marketing, e.g. cultivars resilient to climate change or resistant to key pests and diseases which thus require fewer pesticides; introduction of plant materials and technologies that maximize water use efficiency; and improving crop harvesting, handling and storage practices to permit reliable delivery of safe and nutritious produce.

Agriculture and urban development in sub-Saharan Africa

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Key words: Securing access to land and water; integrated plant production and protection; product quality and safety; marketing

Abstract

This presentation focuses on results obtained from the international workshop “*Agricultures et développement urbain en Afrique de l’Ouest et du Centre*” [Types of urban agriculture and development in Central and West Africa] hosted in Yaoundé in 2005 in Cameroon. The main partners in this workshop were Senegal, Benin and Cameroon, with the participation of several

other countries from sub-Saharan Africa. Four main topics were investigated: urbanization and governance; urbanization and city supplies; urbanization and the environment; and urbanization and sanitary issues. Several main areas of research emerged, among which: 1) How can areas in cities for which it is impossible to obtain building permits be rezoned and promoted for agriculture? 2) How can the marketed surplus from urban and peri-urban areas be promoted? and 3) How can agrochemical inputs be better monitored? Among the participants at the workshop there was consensus on the highly heterogeneous situations confronted by urban and peri-urban agriculture. There was also consensus for a wide variety of policies to implement or pursue in order to improve livelihoods and environmental standards for urban and peri-urban agriculture (training, reliable data, etc.). Today, however, despite some case studies, there is still a lack of systematic research concerning institutional urban-rural interconnections. Moreover, little research has focused on the very nature of the currently ongoing transition between the rural and urban worlds. From a transition perspective, future research could thus begin to study the dynamics of agricultural practices; the migration of people in or out of agriculture; or the question of whether or not to adopt intensive systems. In this sense, a complementary area for research from a transition perspective would be the study of substitution factor between inputs (labour, technology, land, credit): for example, the economic and agronomic consequences that would result from recycling municipal solid wastes instead of using agrochemical inputs.

Oral presentations

La Grande muraille verte: Mapping strategies for the design of a productive infrastructure in the urban region of Dakar

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Key words: Productive Urban Landscapes, Dakar, Great Green Wall, Mapping

Abstract

Over the course of the past several decades, efforts have been made to find a way to decrease food insecurity in Dakar by solving specific problems related to soil salinity, water scarcity and the saturation of open space resulting from urban expansion. This paper widens the perspective and sets forth a more complex problem, making use of interpretative and projective mappings of the urban region, and proposes a strategic framework via landscape urbanism. The hypothesis is that today's food insecurity is one of the consequences of a form of urbanization which has progressively lost its relationship with the landscape and has become both incapable of adapting to the evolving climatic conditions, and unable to mitigate the impacts of globalization on local economies. A first set of interpretative mappings elucidates the most urgent issues affecting territory in connection to urbanization. A second set of projective mappings identifies strategic elements for the infiltration of productive landscapes within a heterogeneous urban fabric, capitalizing upon potentialities embedded in the site and integrating them within ongoing funded projects. The implementation of *La Grande Muraille Verte* (The Great Green Wall) initiative – a cross-continental vegetal belt 15 km wide that will link Dakar and Djibouti – is developed as a strategic project, regenerating both economy and ecology simultaneously. At the level of urban design, and on a much smaller scale, focusing on a specific – strategic – area identified in the north-eastern part of the Cap Vert peninsula, this paper develops the idea of the Grande Muraille Verte as a “mediator” to ensure the resilience of fishing settlements along the coastline and of existing pockets of urban agriculture located within the dense urban fabric. Projective cartography brings out the interplay between Dakar's