

# Urban Harvest

Urbanization, urban food security  
and the international agricultural  
research agenda

- Urban Harvest
- Importance of agricultural research for development (AR4D)
- Researcher perceptions of global trends transforming agriculture
- Agriculture and urbanization
- Rural-urban linkages and metropolitan regions
- Future research needs

# Urban Harvest

- A system-wide program of the CGIAR involving cross-cutting research drawing on expertise of several IARCs
- Established in 2000 in response to a recommendation of an external review of the CG System
- Three objectives:
  - Improve the contribution of urban and peri-urban agriculture to food and income security of vulnerable urban households
  - Enhance the positive environmental and health impacts of UPA and mitigate the negative effects
  - Promote UPA as positive, productive and essential component of sustainable cities

# Three key contexts of the metropolitan region

- The livelihoods context
  - Agriculture, livelihoods and markets
- The environmental context
  - Health of urban and peri-urban ecosystems
- The political-institutional context
  - Policy and institutional dialogue and change



## Championing urban farmers in Kampala; Influences on local policy change in Uganda

### African Urban Harvest: Agriculture in and around African cities, 2002-2006

GORDON PRAIN, NANCY KARANJA AND DIANA LEE-SMITH



African Urban Harvest. Agriculture in and around African cities, 2002-2006. Gordon Prain, Nancy Karanja and Diana Lee-Smith. ILRI, 2009. 211 pages. ISBN 978-92-11-54700-0.

Amid the multiple changes affecting sub-Saharan Africa in the last couple of decades, how has the demonstrated importance of urban agriculture in African cities changed, how far is farming better integrated into urban environmental management and city governance and what is its future role in addressing the needs of low-income households and modernizing cities in the region?

- A major contribution to understanding the role of agriculture for urban livelihoods in African cities
- Showing the growing role of local government for creating safe and sustainable food production in cities
- Understanding of the natural resources and social interactions that link urban, peri-urban and rural agriculture
- Documenting the primary role of women in urban food production

A timely follow up to the seminal publication by IDRC on "Cities Feeding People" (1994), this publication features contributions from leading specialists in the field of urban agriculture and the urban environment. It presents city case studies, many undertaken as part of a regional research program led by the CGIAR global initiative Urban Harvest with funding from IDRC, the World Bank, DfID and other sources, emphasizing the growing role of local food production in urban livelihoods in sub-Saharan Africa since the late 1980s. Chapters provide overviews of the changing role of agriculture in different cities, look in detail at the health risks and the social and economic benefits of crop-livestock systems and consider the opportunities from schools and local markets for making locally produced nutritious food more easily available and more profitable. The final chapters reflect on the movement toward an integrated management of urban natural resources and the built environment which includes an expanded role for urban agriculture in the region and a recognition of the importance of women in feeding cities.

Publishers: IDRC, CIP/Urban Harvest  
Number of pages: 211 approx  
Containing: maps, diagrams and photographs  
Indexed  
Format: paperback  
Available: early 2009

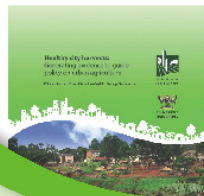


# www.uharvest.org

NEW BOOK

## Healthy city harvests: Generating evidence to guide policy on urban agriculture

EDITORS: DONALD COLE, DIANA LEE-SMITH AND GEORGE NASINYAMA



"In an era of global urban food crises and rapid, unplanned city growth, how can urban agriculture be transformed from potential source of health risks into a vehicle for healthier urban households and local environments?"

- A novel guide to integrating agriculture and public health into urban policy
- "Policy dialogue" to engage researchers and policy makers in support of agriculture-based livelihoods of low-income urban families
- A science-based approach to dealing with public health and food safety concerns
- Essential reading for professionals and academics involved in agriculture and the environment, public health, urban planning and management

Increasing concentrations of low-income families in urban settlements with limited employment opportunities have placed great emphasis on securing household food security and income supplements through local agricultural production. Fears that urban production can provide multiple pathways for introducing urban contaminants into the food chain have often resulted in a negative policy environment for urban agriculture. Yet policy makers have had little or no hard evidence either about the risks, or about the potential nutritional and other health benefits of local food production.

This publication presents research results on potential health risks from exposure of crops to urban contaminants and from livestock production as well as the nutritional and food security benefits of urban farming. These results are embedded in the specific policy context of the city of Kampala, Uganda, but the lessons about the links between research results and policy have relevance for cities in other parts of Africa and beyond. The book contains contributions by leading research specialists in the fields of urban agriculture and public health from Uganda and the broader science community.

After deconstructing the multiple perspectives on health risks from food production, the book presents the Kampala research in sections that focus on the analysis of food and nutrition security benefits, risk exposure through horticulture and the risks and benefits from livestock. Finally, the publication demonstrates how these aspects were re-integrated in a public policy debate in Kampala, and develops an urban governance approach to managing agriculture and health. By placing food, public health and urban policy in Kampala in a broader historical context, this book suggests how research may help achieve agreements among scientists and policy-makers on supporting low-income urban populations through safe and sustainable agriculture.

Publishers: CIP/Urban Harvest and Makerere University  
Number of pages: 251  
Content: Includes color photographs, maps, figures and tables.  
Indexed  
Format: paperback  
Available: late October



## WOMEN FEEDING CITIES Mainstreaming gender in urban agriculture and food security

edited by Alice Hovorka, Henk de Zeeuw and Mary Njenga



- This publication:
- Analyzes the roles of women and men in urban food production, processing and marketing in case studies from 3 development regions
  - Includes field tested guidelines and tools for gender mainstreaming
  - Is essential reading for researchers, policy makers and development practitioners.

"To take the knowledge development in the area of gender and urban agriculture a step further, both by building on the existing conceptual framework and experiences as well as by developing a set of guidelines on how to go about the issue of gender in the urban agriculture research, policy development, action planning, implementation and monitoring".

Poverty, food insecurity and malnutrition have become critical urban problems. To confront this major challenge, food production in and around cities is an important strategy, contributing not only to food security and adequate nutrition but also stimulating supplementary income generation and social inclusion among low-income, vulnerable households in urban and peri-urban areas.

Women make up the majority of urban food producers in many cities around the world, especially predominating in household subsistence farming, with men playing a greater role in urban food production for commercial purposes. This is tied to the primary role which women almost always take in feeding their families. Women produce vegetables and herbs in home gardens, community gardens, vacant urban spaces and peri-urban plots, raise animals, act as traders in bringing food from peri-urban and rural areas and selling it to urban consumers, either fresh or processed as dried, preserved or cooked foods eaten at street stalls.

However, the millions of women involved in urban and peri-urban food production, processing and marketing have mostly been invisible to city officials, economic planners and development practitioners. This invisibility of women in the urban food economy happened in parallel with the industrialisation of food along with other commodities.

Part I of this volume analyses the roles of women and men in urban food production, processing and marketing and presents various case studies from three developing regions. In Part II, field tested guidelines and tools for bringing women more into the mainstream of urban agriculture research and development are presented.

This publication is based on experiences gained in the context of  
• Urban Harvest, the CGIAR System-wide Initiative on Urban and Peri-urban Agriculture  
• The Cities Farming for the Future programme of the RUAF Foundation.

The publication was made possible thanks to a grant from the International Development Research Centre (IDRC), Canada.

RUAF FOUNDATION

The book covers 2009 and will be published by the International Development Research Centre (IDRC) in March 2009.

Book orders: [www.developmentbookshop.com](http://www.developmentbookshop.com)

# Importance of AR4D

- “Investment in agricultural research in developing countries...generates rates of return amply high and sufficiently above the opportunity cost of capital in most countries to justify strong and more intensified investment”
- “The undiscounted sum of estimated research benefits is typically on the order of twenty times the research costs...”

Dennis Purcell, Jock R. Anderson,  
World Bank Operations Evaluation Study, 1997

- Growth of food production faster than population: from 1980 to 2006, 2.2% per annum versus 1.7%
- Impact of agricultural research on poverty
- Decline in ODA funding to agriculture, from 8% in 1996 to less than 2.9% in 2006. Research especially hit
- Increased attention to agriculture by policy makers and growth in funding

# Some key global trends transforming agriculture: Agricultural research community perceptions

	CIP Strategic Plan 2008	CGIAR Mission, pre-change process	Independent CGIAR Review Panel (IRP)	CGIAR Change Management
Climate change	✓	✓	✓	✓
Energy crisis/biofuels		✓	✓	✓
Food price crisis	✓	✓	✓	✓
Globalization (markets, private sector action)	✓		✓	✓
Agriculture/health linkages (including pandemics)	✓		✓	✓
Population growth/urbanization, Migration dynamics				

- Three worlds of agriculture according to WDR2008 affected differently by major trends:
  - Mainly agricultural world – Africa and Asia
  - Transitional world – Latin America
  - Urbanized world – the North
- Oversimplification reflecting a “rural bias” in agricultural research and development



# Urbanization: not just the growth of cities and exit from farming

- Growth of urban poverty and food insecurity
- Temporary and seasonal migration
- Daily “commuting” – doubling the daytime size of cities
- “Urbanization” of rural areas

# Rural income portfolios from large-scale surveys in Tanzania

Year of survey	1969	1976/77	1980	1983	
No. of rural hh	n.a.	3247	600	498	
<b>Percentage composition of household incomes</b>					
Subsistence	43.9	49.2	49	44.9	
Farm cash	24.3	18.8	27.5	17.6	
Non-farm cash	31.8	32	23.5	37.5	

Cited in Ellis, F, 2000. Rural Livelihoods and Diversity. Oxford University Press, Oxford, UK.

## Composition of rural incomes in Kenya, by province, 1994

	Central	Coast	Eastern	North-Eastern	Nyanza	Rift Valley	Western
Agricultural income	30	38.6	37.7	59.9	35.1	51.6	43.8

## Composition of rural incomes in Shinyanga, Tanzania, by consumption terciles, 1990

	Poor	Middle	Non-poor	All
Crops	43.7	32.9	20.2	25.9
Livestock	16.1	39.8	64.3	53.2
Off-farm wage income	3.4	0.9	0.1	0.7

# Urbanization: not just the growth of cities

- Growth of urban poverty and food insecurity
- Temporary and seasonal migration
- Daily “commuting” – doubling the daytime size of cities
- “Urbanization” of rural areas
- Multi-locational households involving rural agriculture, urban agriculture, trading, temporary employment etc

- Agricultural worlds
- Transitional worlds
- Urbanized worlds

They exist within single regions

Urban areas with highly diversified livelihoods, including agriculture

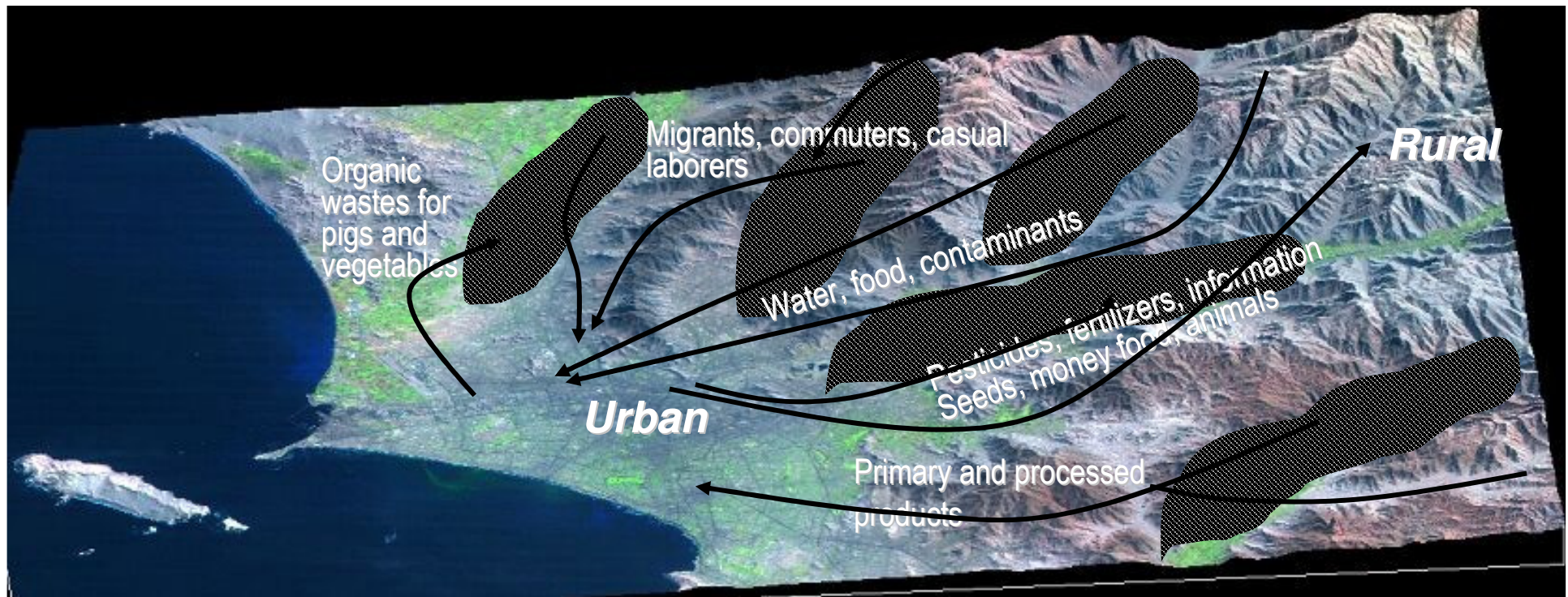


Peri-urban interface

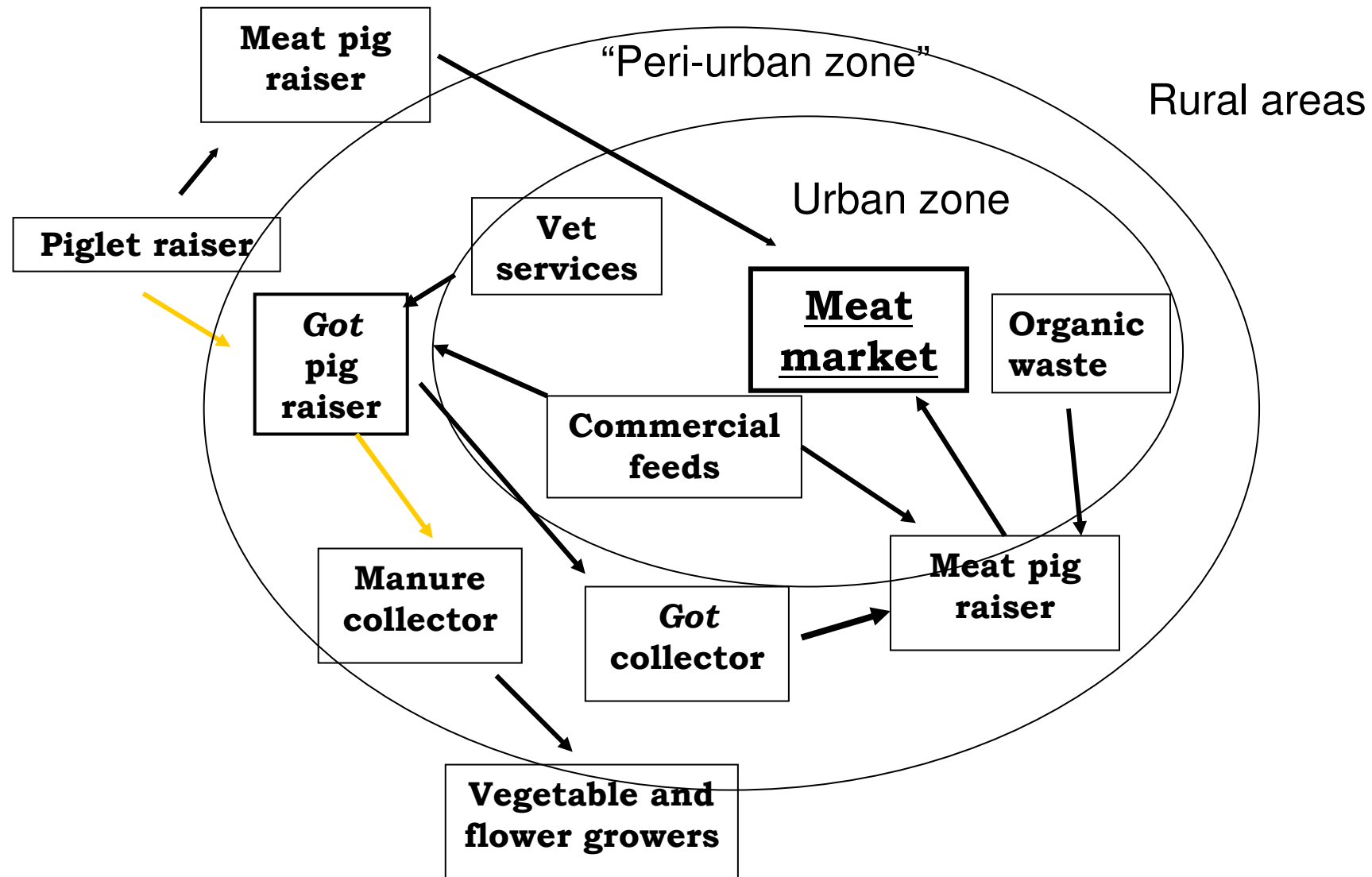


Diversifying rural livelihoods

# Ecological and socio-economic exchanges between rural, peri-urban and urban areas: rural-urban linkages



# Household-based pig-raising agro-enterprises in Hanoi: rural-urban market chains and enterprise clusters





# The metropolitan region

- First recognized in Asia, LAC, but increasingly visible in Africa
- Different shapes and dynamics
- The interdependence of city core with its hinterland
- Existence of an interconnected regional food system
- The urban center drives development in surrounding area, but is also dependent on it
- Cultural, political and administrative thinking divisive (the urban-rural divide)

# An example of a metropolitan region



Garlands

Vegetable marketing

Manila National Capital Region



Jasmin flower buds

“There is nothing surprising about this interest [in the geographical aspects of development] – perhaps the surprise is that it took so long for this interest to become a main stream concern” Paul Krugman, Nobel Laureate, Economics 2008

- Interest not yet evident in international agricultural research
- Where there is interest (WB WDR 2009), agriculture is almost absent

**Diversity of livelihoods and agricultural linkages within cities and their regions a critical way forward in AR4D**

# Some areas for future UPA research, under conditions of climate change

## Livelihoods

- Regional food security: connecting production, marketing and processing systems in metropolitan regions, diversifying markets for producers and food choices/micro-nutrient access for consumers
- Food security and food safety: smallholder organic production enterprises and marketing groups in urban and peri-urban areas
- Food safety: closer linkages and trust between urban consumers and food producers along the urban to rural transect

## **Urban-ecosystem health**

- Multi-functional city greening
  - Productive, for local food supply
  - Environmental, to reduce flooding, heat island effects
  - Healthy, to reduce dust and exposure to contaminants, increase mental health
- Regional solid and liquid waste recycling through agriculture and alternative energy production
  - Massive regional composting
  - Systematic reuse of food wastes for animal feed
  - Waste-based briquette use for cooking fuel and heating
  - Systematic linkages of animal wastes with agriculture and biogas production

## **Policy and institutional dialogue and change**

- Getting regional thinking into urban planning
- Integration of agriculture and food security into city and regional thinking and planning
- Involvement of producer organizations in food safety monitoring and regulation