Urban and peri-urban agriculture (UPA) an important strategy in building resilient cities!

The case of Monrovia, Liberia

The Role of Urban Agriculture in building resilient cities
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Urban and peri-urban agriculture

• Agricultural production (crops, trees, livestock, fish) in and around urban areas ....
• for food (vegetables, eggs, milk, meat, ..) and other products (e.g. medicinal and aromatic herbs, fodder, fuel, flowers and ornamental plants, water storage, a/o)....
• and related inputs supply, transport, processing, marketing and support services...
• often combined with other functions (recreation, urban greening, recycling of wastes, capturing CO2, etcetera), as part of the urban system
Multiple Benefits

- ECOLOGICAL (Healthy City)
- SOCIAL (Inclusive City)
- ECONOMIC (Productive City)

Multiple Levels And Actors

Figure 1: Steps in the MPAP

1. Situation analysis
   - Preparatory activities

2. Broadening institutional commitment
   - Implementation, monitoring and innovation

3. Establishment of Multi-Stakeholder Forum on urban agriculture
   - Integration in institutional programmes and budgets

4. Development of a City Strategic Agenda
   - (Re)formulation of norms, by-laws and regulations on urban agriculture

5. Participatory design and co-financing of projects

RUAF Foundation
Resource centres on urban agriculture & food security
Notes for Slide 3:

Food security / nutrition
1. UPA is important for feeding the cities:
   - about 15-20% of the world’s food is produced in urban/peri-urban areas (Armar-Klemesu, 2000); for perishable products this rises to 60 – 90% (FAO, 2007).
   - Hanoi: 80% of fresh vegetables, 50% of pork, poultry and fish, 40% of eggs;
   - Shanghai: 60% of vegetables, 100% of milk, 90% of eggs, and 50% of pork and poultry meat is produced in urban and peri-urban area.

2. UPA enhances access of urban poor to nutritious food
   - (20-60% of all food consumed by urban poor is self produced (East Jakarta 18 percent (2000); Kampala 40-60 percent (2007); Harare 60 percent (2000)

3. UPA reduces vulnerability of urban poor for food crisis and acts as a social safety net

4. UPA projects contribute to the social integration of disadvantaged groups (female headed households, unemployed youth, elderly people with a low pension)

Income/employment
1. Urban agriculture is an important primary or secondary source of income for large numbers of low income urban households
2. Urban agriculture realises good net returns to capital invested Ho Chi Minh City: urban vegetable farmers realise an added value per man-day that is 2-5 times the average wage rate for labour; Port Harcourt, Nigeria: vegetable and flower growers generate a net return of over 60 % to capital invested.
3. Urban agriculture stimulates business in input supply, processing, marketing and agro-tourism
4. Urban agriculture complements rural agriculture

Environment
1. Urban agriculture reuses composted urban organic wastes (which replaces harmful chemical fertilizers)
2. Urban agriculture and forestry green the city, improve the urban micro-climate (wind breaks, shade, reduction of dust and CO2), reduce the air pollution, conserve biodiversity and the landscape and act as water storage facility.
3. By producing fresh food close to the consumers, urban agriculture reduces the energy consumption (less transport, cooling, packaging)
4. Urban farmers may provide important recreational services, care services and eco-educational services to urban citizens.
Variety of urban farming systems

a) In the urban spaces used
b) in main line of production
C) in level of technologies used
d) in degree of formality, organisation and marketing
ACTUAL URBAN CHALLENGES and (potential) CONTRIBUTIONS of URBAN AGRICULTURE

1. Growing **urban poverty** and social exclusion
2. Growing **food insecurity** and malnutrition in cities
3. Growing need to enhance **resilience** of the cities and reduce climate change/disaster risks and ecological foot print
4. Growing **waste management** problems
5. Growing need for **green spaces** and recreational services for the urban population
• About 15-20% of the world’s food is produced in urban areas; For perishable products this may rise to 60 % or more

• poor urban households produce 20-60 % of their food themselves (e.g. East Jakarta 18 %, Kampala 50 %, Harare 60 %, Monrovia: )

...... AFSUN, RUAF studies ......

• In SE Africa, 40% of urban residents are engaged in UPA. These producing households are less vulnerable to economic crisis and increases in food prices than non-producing households (RUAF, WHH also in Liberia)

• The costs of supplying food from distant sources are rising rapidly; often only limited cold storage transport facilities available
UPA contributing to reducing urban poverty and social exclusion

• UPA is an important primary or secondary *source of income* for *large numbers* of poor urban people (RUAF, FAO)

• UPA is often used to facilitate *social integration* of newcomers and disadvantaged groups and *community development*

• In market oriented UPA often good *net returns to capital* invested are realised (*ODI, FAO Studies*)

• UPA stimulates *SME’s = waste re-use* and micro- enterprise development: compost production, food processing, marketing and agro-tourism (green jobs)
UPA contributing to disaster reduction and cities’ adaptation to climate change

• UPA reduces the urban energy consumption (less transport, cooling, packaging)

• UPA reduces floods and land slides by keeping flood plains free from construction, reducing erosion and run off and facilitating water infiltration and storage

• UPA improves the urban micro-climate (wind breaks, shade, reduction of urban heat, dust and CO2) and conserves biodiversity.

• Productive reuse of urban organic wastes in UPA reduces methane emission from landfills & use of fosile minerals
Urban wastewater and organic wastes contain large amounts of nutrients with high economic value.

14-17% increase of water supply for irrigation in agriculture is needed by 2030 to meet dietary needs; but fresh water availability is quickly declining.

Productive Use of urban wastewater and organic wastes will:
- enable year round production close to the consumers,
- reduce the pressure on freshwater resources without hampering food production,
- reduce the need for artificial fertilisers and methane emissions from landfills,
- contribute to cost recovery of investment in Sanitation and treatment.
Health and Environmental risks

- **Contamination of crops with pathogens** due to irrigation with contaminated water or unhygienic handling of food
- **Diseases transferred to humans** by rodents and flies attracted by agriculture (tick born diseases) or scavenging domestic animals
- **Contamination of crops**: due to a: **overuse of agrochemicals** (occurs mainly in areas with many years of intensive horticulture) and b. due to air, soil and water pollution by industry or heavy traffic.
- **Contamination of groundwater** due to excessive use of agrochemicals or nitrate-rich manure or wastewater.
- Non-farming neighbours may complain of **visual untidiness, dust, smell and noise** created by the urban farms

→ Regulation, Risk minimisation, Safety Guidelines
Link to Policy Perspectives of a City

ECOLOGICAL
(Healthy City)

Multi-functional urban agriculture
- Urban Greening
- Recreational services
- Productive Use of Urban Wastes
- Reduction of Urban Ecological Footprint
- Improved Urban Micro-climate
- Management of Landscape and Biodiversity
- Climate Change

SOCIAL
(Inclusive City)

Subsistence oriented urban agriculture
- Food Security & Nutrition
- Poverty Alleviation
- Social Inclusion
- Community Building
- HIV-AIDS Mitigation
- Social Safety Net

Market oriented urban agriculture
- Income Generation
- Employment Generation
- Enterprise Development
- Market chain development

ECONOMIC
(Productive City)
SOME STRATEGIES THAT CITIES APPLY TO PROMOTE URBAN AGRICULTURE AND CITY RESILIENCE

→ Creation of an **enabling policy environment** (recognition, policies and legislation, institutional home)
→ **Reducing health and environmental risks** (coordination, zoning, awareness, active source pollution control)
→ **Enhancing access to land and use security** (mapping, zoning, tax incentives)
→ **Support to Farmers in organisation, access to land, finance, marketing** (support organisation, access to credit, extension support, value chain development, farmers markets).
THE RUAF FOUNDATION

• International network of Resource centers on Urban Agriculture and Food security: www.ruaf.org
• Working in and around 25+ cities
• Local partners and Municipalities; Regional and International partners

Collaborating with local partners and cities on:
- Knowledge generation and dissemination
- Capacity building
- Technical Support
- Policy advice and Policy Lobbying → MPAP
**Multi-stakeholder Policy and Action Planning** brings together all major stakeholders in a process of joint situation analysis, visioning, identifying strategies, action planning, implementation and monitoring.

*Stakeholders* are all those groups and organisations that have an interest in urban agriculture.
MPAP: WHY?

- **MPAP involves the urban poor** in planning and enhances the social acceptability of the decision-making.
- **Engages decision-makers** from the start; enhances awareness and readiness for change.
- Improves the quality of policies and projects (dialogue between different perspectives and sets of knowledge).
- Develops **partnerships** and creates win-win situations.
- Mobilizes locally available resources.
- Promotes **local ownership and commitment**.
- Leads to integration of UPA in urban policies and planning.
MPAP : HOW?

Multiple Levels
And Actors

Figure 1: Steps in the MPAP
Lessons (1)

MSF:
1) Create joint responsibility and trust.
   Open membership, but a core group and thematic working groups
   Clear roles and responsibilities

2) Matching individual and common interests in institutions.

3) **Continuous facilitation** is required: information and communication among MSF members and within institutions.

4) Assure **visibility**: policy agenda, CSA, etc
Lessons (2)

5) Political support is necessary, but avoid becoming too political.

6) The City Strategic Agenda required commitment on resources (of participating institutions) of joint fund sourcing.

7) Monitoring and evaluation need to be integral to the process, and fed back and discussed with the actors in the MSF.

8) The MSF creates a conducive environment for implementation of projects to enhance UPA.
Thank you

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