



Urban Agriculture: Challenges and opportunities

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1. State of the art

- Increasing urbanization process.
- Concentration of political power in cities.
- Actual urban model is not sustainable.
- Urban metabolism will relay in bringing back nature.





2. Urban Agriculture (UA): Basic questions



- UA analysis has to use a GLOCAL methodology: global view with local conditions of each city.
 - Which are the main reasons to perform UA?
 - Which type of functions UA performs in the study area?
 - Who are the main actors involved in urban farming?
 - Which of the main nature dimensions (plants, animals) should be used?
 - Which are the main benefits derived from UA and who are the beneficiaries?



3. Lights and shadows in UA

- Lights
 - Better environment.
 - Economic development.
 - Food supply.
 - Healthy life.
 - Landscape and recreation.
 - Social relationships.





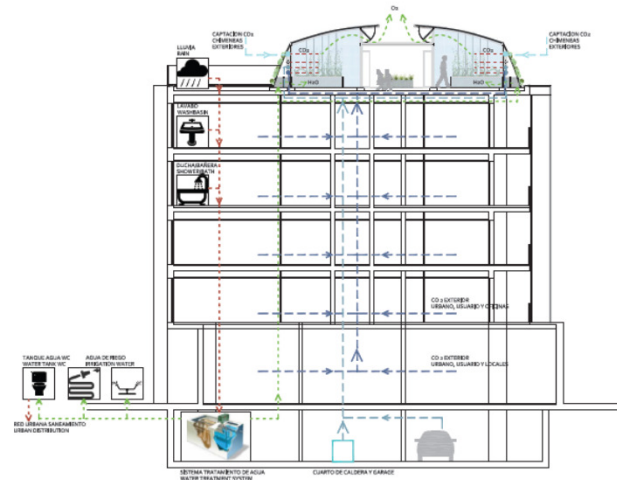
3. Lights and shadows in UA (2)

- Shadows:
 - UA is officially an invisible activity.
 - Difficult to evaluate all the impacts in our society.
 - Serious barriers in available space in ground farming.
 - Opportunity in vertical agriculture but more expensive.
 - Contamination risk in food urban farming.
 - Ornamental UA is not a substitute for a bad architecture.



4. Looking for solutions

- Technical innovations are welcome but the consequences not always positives.
- Some technical innovations:
 - Rain water harvesting and grey water recycling.
 - Energy saving (reduce consumption e increase production with renewal sources).
 - Carbon foot print reduction.
 - Food supply productivity, circular economy (reuse, reduce, recycle).





4. Looking for solutions (2)

- Socioeconomic innovations
 - Promotion local food products.
 - Market linkages for local products.
 - Recreation facilities and social relationship.
 - New business: marketing, branding.
 - Employment: new green jobs.
 - Logistic, distribution net works.





5. Urban farm resources optimization

- Integrate green infrastructures into regular markets
- Optimize innovation trough
 - New places for agriculture (food and ornamental).
 - Develop a urban food value chain to ensure sustainability.
 - Replicate environmental benefits as non tangible dimension.
 - Integrate farming in the Urban Metabolism of flows of goods and services.
 - Standardize farm production and marketing activities.
 - Urban policies for a sustainable green infrastructure.





6. The new “rurban” scenario

- The rurban approach may focus several possibilities in UA.
- Recreation and small scale model with special attention to
 - Entertainment
 - Biodiversity
 - Social interaction
 - Ornamental and landscape





6. The new “rurban” scenario (2)

- Business model.
- Looking for profit and social firm responsibility.
- Diversification.
- Low cost.
- Economic sustainability.





7. Public and private initiatives in Madrid

- Public:
 - Universities: UPM (experimental green rooftops , ltdUPM building and Green corridor) (UCM, Alcala, UAM, URJC)
 - City councils (Madrid, Getafe)
 - Public schools
- Private :
 - Hotels (Wellington, Santo Domingo)
 - Banks (Caixa Forum, Santander)
 - NGO (Tomillo Foundation)





8. Challenges

- Change citizens mentality towards the urban nature.
- "Benchmarking" analysis of successful practices in other places.
- Identification of existing and potential pilot projects.
- Mobilizing existing resources for a sustainable urban nature.
- Urban planning oriented to a friendly environment.
- Integrate UA into agrarian policies and social development.



9. Opportunities

- Take advantage of innovations in existing technologies
 - in materials and building construction
 - architecture and landscaping
 - agricultural crops and gardening
- Synergies between all the actors involved in green activities
- Interaction between national and international organization (WGIN)





Thank you

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