Revisiting urban planning to integrate multifunctional agriculture policies by the means of landscape metrics and indices: a methodological proposal

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Abstract

Context

The intensive agriculture of urban fringe that formerly provided food for the city is strongly diminishing (Galli and al, 2010). New concerns arise: landscape, ground-water quality, health or food security and sovereignty (Griffon, 2006), are some of the reasons legitimating protection of farmland in urban planning (Vidal and Fleury, 2009).

This paper seeks to examine how local policy can associate per-urban multifunctional agriculture and city planning in a singular territorial project which would be no longer urban nor rural but a resilient model integrating both the ecological and socio-economic realms. We are looking for a framework to define changing agriculture practices and landscapes on urban fringe as a tool for policy makers and stakeholders.

Scientific knowledge provides manifold frameworks for agriculture multifunctionality assessment oriented to environmental evaluation and rural development. But rural agriculture is different from per-urban agriculture which is focused on urban needs. Integrating frameworks considering all the stakes specific to these agriculture forms for supporting planning are lacking.

Method/approach

Our premise is that ecologized agriculture practices have additional advantages to comply with urban requirements from agriculture on the edge: quality fresh food production, healthy agricultural practices compatible with urban dwellings, "nature" protection and often reinforced local social links by the means of short circuits commercialization (INRA, 2011).
Our proposal of a methodology for agri-urban landscape management and planning combines qualitative results from resilience assessment and quantitative landscape metrics to integrate both ecological and socio-economic realms. We focus on three issues to be taken into account for designing agri-urban landscapes meeting with resilient requirements for the purpose of sustainability:

- Landscape functions: environmental and socio-economic analysis of farming activities responding to recognizable societal needs.
- Landscape structure: urban farming spaces characterization responding to societal aesthetic wish.
- Landscape management: policy settings responding to societal values.

We are currently applying this methodology to a study case in Southern France Provence: the Communauté de Communes Pays de Sorgues Monts de Vaucluse (CCPSMV). We have conceptualized the territory of five associated French municipalities describing its external drives and internal system dynamics. We’ve decided to apply resilience framework on a territory defined by operational administrative boundaries because our research is oriented to policy makers and planners.

Results/conclusions

We are looking forward to shift planning paradigm of an "ideal" static equilibrium to introduce new forms of adaptive territorial managing. We need further to go beyond the reduction of city=urban and agriculture=rural to think about sprawl territory as a complex socio-ecological system producing food for the city. Landscape assessment and design would be the mediator to meet planning with resilience requirements. Our contribution seeks in this way to fill the gap between agronomy and urban planning concerning per-urban agriculture.

References


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