



The Urban Agriculture Circle: A Methodology to Understand the Multi-functionality of Urban Agriculture

Jan Eelco Jansma, Joseph Chambers, Eva Sabas and Esther Veen¹

Abstract – The lack of inclusion of urban agriculture in city planning directly affects the success of initiatives in this sector, which subsequently could impede future innovations. The poor representation of urban agriculture in planning can be attributed to a lack of understanding about its multi-functionality with the authorities. A void that the Urban Agriculture Circle addresses. The circle represent 12 urban policy themes looking specifically at those that could benefit from urban agriculture. These 12 are extracted from a survey in four major cities in the Netherlands (Rotterdam, Groningen, Tilburg and Almere) during the regional elections of 2010. Subsequently a clear and robust definition was labelled to each of the themes. For a visual effect the themes were merged in a circle diagram, representing the three angles of sustainability. The circle highlights the multi-functionality that is being seen in many urban agriculture initiatives. By having a better understanding about the multi-functionality of urban agriculture initiatives, cities can facilitate and stimulate innovations in urban agriculture in a direction that mitigate specific urban issues.

Keywords – Urban agriculture, governance, planning.

INTRODUCTION

In recent years urban agriculture has been developing strongly in the Netherlands, as it has doing in the global North. Community and school gardens pop up in neighbourhoods, innovative regional food enterprises gain ground in the outskirts of cities and farmers markets are more popular than they have been for a long time. Despite the fast growing interest in urban agriculture however, it still is a small and fragmented part of the urban fabric (Jansma et al, 2014). One of the reason may lay in the observation that urban agriculture -food production- lacks in city planning, i.e. there are *a few examples in practice of food production properly planned in and around cities as a systematic approach to building greener and more sustainable cities* (Van der Schans and Wiskerke, 2012: 250).

A better understanding of the multi-functionality of urban agriculture (the added value beside food production in urban context) can lead to a greater incorporation of it in planning, which in turn would

stimulate further innovation. A suitable methodology needs to be created to asses and demonstrate this multi-functionality. A void that the Urban Agriculture Circle will address.

METHODOLOGY

Starting point of our journey to a suitable methodology is the assumption that if urban agriculture could contribute to urban themes, it will be easier to be adapted in urban planning. Thus, the next step was to collect urban themes. These (policy) themes were extracted from Veen and Mul (2010), who studied four major cities in the Netherlands (Rotterdam, Groningen, Tilburg and Almere) during the regional elections of 2010. The authors aggregated the main policy issues, looking specifically at those that could benefit from urban agriculture. Issues that were similar were combined, or joined under the same heading. This led to the 12 themes equally divided over people, planet and profit, i.e.: 1) inclusiveness (People – ‘Our city’); 2) environmental health (Planet – ‘Healthy city’); and 3) productiveness (Profit – ‘Economic city’), following De Zeeuw et al (2011). Subsequently a clear definition was labelled to each of the themes (Table 1). For a visual effect the themes were merged in a circle diagram.

In order to qualify the importance of a specific theme in the aims of an urban agriculture initiative, we created weighted rankings using 1 (Unimportant) – 5 (Very Important) scale ranking. This created weighted rankings, which were then displayed in a radar graph format, allowing easy understanding about the initiatives foci. The initiatives for testing this methodology were chosen systematically. Pre-established relationships helped to know where to source the material for analysis, as well as allowing greater understanding about the finer intricacies of their aims.

RESULTS

Several initiatives are analysed with this Urban Agriculture Circle. Figure 1 present the analysis of two urban agriculture initiatives. Initiative A is a commercial city farm that focusses on (organic) food production and provides opportunities for health care, education and new business. Initiative B is housed within an old glasshouse, previously used for flower production. The initiative gives opportunities for costumers to grow fruits and vegetables all year

¹Jan Eelco Jansma, Wageningen UR, Applied Plant Research, Lelystad, The Netherlands (janeelco.jansma@wur.nl).

Joseph Chambers and Eva Sabas, both student at Applied Plant Research, Wageningen UR, Lelystad, The Netherlands.

Esther Veen, Wageningen UR, Applied Plant Research, Lelystad, The Netherlands (esther.veen@wur.nl).



round as well as providing upkeep and management for the clients allotments.

Table 1. Justification of the 12 urban policy themes

Theme	Justification
Employment	The extent to which importance is placed on valuable employment for individuals
Added value	The extent to which importance is placed on developing business
Indirect Benefits	The extent to which importance is placed on creating additional (financial) value for others who were not directly linked
Attractive Neighbourhoods	The extent to which importance is placed on the contribution to aspects of an attractive area
Living environment	The extent to which importance is placed on improving the green quality of an area
Environment	The extent to which importance is placed on environmental issues
Climate	The extent to which importance is placed on adaptation and mitigation of climate change
Food and Health	The extent to which importance is placed on the issue of food related health
Care and Well-being	The extent to which importance is placed on providing (health) care and wellbeing programs
Participation and Cohesion	The extent to which importance is placed on creating social ties
Leisure and Recreation	The extent to which importance is placed on aspects of free-time activities
Education	The extent to which importance is placed on teaching knowledge about divers aspects of food and nutrition

Figure 1 show that although the two different initiatives operate under the banner of urban agriculture, their foci vary. Initiative A can be seen as having more of a rounded view, with a focus in every category. Initiative B is showing a large weighting towards people (Care & Wellbeing and Food & Health).

DISCUSSION AND CONCLUSION

The results from this investigation identify that urban agriculture initiatives, more often than not, tend to cover multiple themes from the spectrum. The circle highlights this multi-functionality. Although these findings are of great importance, the circle need further improvement. The methodology provided here is subjective. The next step in the development of this circle is a methodology to objectify the analysis. This could work with a consistent question and verify method with a justification from the initiative as to why they are attributed these scores. Developing a consistent question and verify method will lead to a further adjustment of the 12 themes. By defining these themes, we recognised that these cannot always be perfectly separated. For example,

an urban agriculture initiative could improve the attractiveness of a neighbourhood which in turn could lead to additional financial value (indirect benefits), i.e. higher value for real estate owners.

Both cities and initiatives could benefit from having a better understanding about the multi-functionality of urban agriculture. Cities can facilitate and stimulate innovations in urban agriculture in a direction that mitigate specific urban issues. The initiatives could use a better understanding of their multi-functionality to show authorities their added value to the urban fabric. Thus the circle will support urban agriculture to gain ground in urban plans and facilitate innovation within urban agriculture.

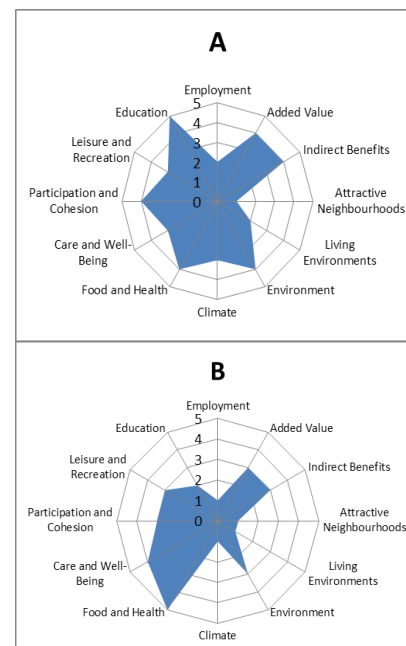


Figure 1. Radar graph of two different urban agriculture initiatives.

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