

Agromere: how to integrate urban agriculture in the development of the Dutch city of Almere?

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Abstract

Urban agriculture produces green city areas with as an extra dimension providing food, energy, care, education or recreation for the civilians. And thus it can contribute to a more sustainable and liveable cities. The objective of the project Agromere is to create a process which will lead to a new residential quarter where agriculture is fully integrated in city live. Agromere is situated in the fast growing city of Almere, the Netherlands. In a combined stakeholder and design process a township is designed which integrates living (5,000 inhabitants) with urban agriculture on 250 ha. During this process an enthusiastic network of stakeholders has been established which developed innovating and unique ideas on urban farming. The potential for organic farming in the city is high because of its emphasis on animal welfare and consumer relations.

Introduction

Nowadays more than 50% of the world population (3,3 milliard people) is living in cities (Martine, 2007). In the Netherlands this percentage is already more than 75%. In the Dutch urban environment people become estranged of food production, nature and the basic values of rural live, like quietness, darkness and the rhythm of seasons. Is it possible to (re-)introduce agriculture in city development and so contribute to a more sustainable and liveable city? Urban farming is already working in both developing and developed cities worldwide, including the Netherlands (Dekking et al, 2007; Van Veenhuizen, 2006). In most cases urban farming is about local food production and green environment. In addition to this urban agriculture can fulfil more of the city needs, like health care, elderly services, child care and education. Farming could also contribute to the shape and management of the green fringe of the city. Moreover, it can function as energy supplier, water buffer and processor of city waste.

Agromere -an imaginary quarter of the city of Almere (180,000 inhabitants)- is a good example of how urban agriculture can be applied in city design. Almere has to expand because of the growing need of new houses in Western part of the Netherlands and in absence of other places to build. In 2030 with 400,000 inhabitants Almere will be one of the major cities in the Netherlands.

Materials and methods

The objective of the case Agromere is to create a process which will lead eventually to a new residential quarter where agriculture is fully integrated in city live. The assumption is that it is essential when important stakeholders participate in this

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process and fully contribute to the final result. Eventually, the stakeholders have to adapt urban farming as an added value in sustainable city development. In order to guarantee this, we combined the **DEED** framework (Giller, 2005) and the stakeholder approach (Freeman, 1984). Here, the iterative cycle of investigation starts from **Description** and cycles through **Explanatory**, **Exploratory** and **Design** phases. Each of these activities feeds into the negotiation between stakeholders, which forms the core of this approach. These stakeholders represent, the Ministry of agriculture, local farmers, city counsel of Almere and Zeewolde (nearby town), the province of Flevoland, nature conservation organisations and commercial city developers. To explore also the needs of the citizens of Almere, two quantitative surveys were carried out. In the 2005 survey, 342 citizens (ad random selected in two city quarters) were interviewed by telephone to discover the demand for agriculture in Almere (Stobbelaar et al, 2006). In 2007 an internet survey, using the consumer panel of the municipality of Almere (N=562), explored the demands on urban agriculture as it would be part of the neighbourhood (Engelen, 2007).

Results

Description phase: The North east of Almere (app. 2,500 ha) is a polder landscape reclaimed about 50 years ago. Agriculture (most large scale arable farming) is the main land use activity nowadays. In this area the city of Almere needs to expand with 20 to 60,000 houses. At present, agriculture is excluded in the development plans. **Explanation phase:** Agromere started in 2005 with creating a multi stakeholder network in Almere. All of these stakeholders have different claims and interests on the area of north east of Almere: houses, nature, cultural history, industry, water housholding, infrastructure and agriculture. To explain these claims, the major drivers behind these different claims were described and later discussed in a workshop with the stakeholders. **Exploration phase:** The approach of future scenario's was used to cross these present claims and interests. Future scenario's are based on the assumption that it is important to develop systems or designs which are prepared to deal with future uncertainties, rather than to build on known certainties (Van der Heijden, 2005). All stakeholders were interviewed on possible uncertainties on developing Almere North east and the role of urban farming in this development. The stakeholders defined technology and locality as the most important uncertainties. Based on the extremes of these uncertainties we created in cooperation with the stakeholders four concepts for urban farming: Topspot, Ecocity, Agripel and Farmers village. These four concepts were used as a tool in the process towards joined images on urban agriculture, they were not a goal in itself. Subsequently these four were confronted with the claims and interests of the stakeholders. The stakeholders choose a combination of Ecocity and Farmers village as the most appropriate.

The two surveys are showing that inhabitants have an open mind for agriculture in their direct surrounding. Respondents gave urban farming an important role in maintaining green areas, keeping quietness and open spaces in the city. Food supply, energy production and waste management were mentioned as important functions (fig. 1). One third of the respondents appreciate a distance to the farm of less than 500 m. Animal welfare on the farm is important for two third of the respondents, an organic way of production for one third. Preferred activities at the farm are shopping, walking, visiting a restaurant and having an educational tour.

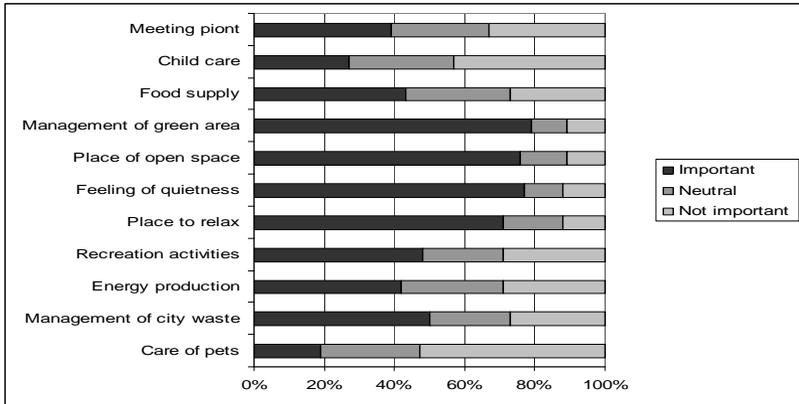


Figure 1: Important functions of urban farming to respondents (N=562) in Almere (NL). Source: Engelen, 2007.

Design phase: In this fourth step we outlined the village of Agromere with app. 5,000 inhabitants (or 2,300 households) on 250 ha of land. For houses and infrastructure 80 ha is used. These are normal figures in current Dutch city planning. On the remaining 170 ha, four urban organic farms are situated: a community supported vegetable farm (CSA), a dairy farm with nature-education, a greenhouse farm, with restaurant and school and an arable farm with health care and village-shop. Each of those four is related to each other by (re) using products, services, raw materials and waste.

Discussion

The Agromere case shows that spatial planning can be done interactively without using too much of the sparse land. In Agromere, the open space normally used for parks, play grounds and ponds, now gets an urban agrarian function. The amount of open space in the village remains still the same. The two surveys confirm that the inhabitants of Almere perceive the added value of (urban) agriculture as city green. The potential for organic farming in city live is high because of its emphasis on animal welfare and consumer relations (Stobbelaar & Van Veluw, 2006). Remarkably was that the enthusiasm of the respondents for urban farming was growing during the questioning indicating that more information on the added value of urban farming is necessary. A comparable survey in 2007 in Amsterdam (N=1062, not published) confirms this assumption.

Successful planning of urban farming requires the involvement of a wide range of stakeholders (Dubbeling and Merzthal, 2006). The DEED framework, the two surveys and the Future Scenario approach were helpful in this combined stakeholder and design process. At the start, stakeholders had no idea of urban farming and the way it can fit city planning. During the process an enthusiastic network of stakeholders (together with research) has been created which developed innovating and unique ideas on urban farming. We continue developing the outlines of Agromere in cooperation with the stakeholders because of by the summer of 2008 the municipality of Almere has to launch the developing plans for Almere North east. Urban agriculture is now a serious option in these developing plans.

Conclusions

The outline of Agromere indicates that a participative design process of urban farming is needed to commit stakeholders to this new concept. Without this process urban farming will not be a natural part of the spatial planning and city development of Almere. The Dutch citizens are still aware of the added value of agriculture in their live, but there is a need to inform them further about this added value of urban (organic) agriculture.

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