

# Science for Environment Policy

## Rooftop farming: The next steps for development

**Urban agriculture** is becoming increasingly popular. A recent assessment of rooftop farming in Barcelona shows differing attitudes towards the practice, and provides important recommendations for the development of agricultural policy for the 21<sup>st</sup> century, such as including food production as a potential use of rooftops in planning legislation.

Urban **agriculture**, defined by the **Food and Agriculture Organization of the United Nations** as growing plants and raising animals within cities, is encouraging a revolution in local production. This movement first arose during crises that caused food shortages, and has recently been repopularised due to the economic downturn, with urban food plots sprouting up across northern America and western Europe. Vacant land is being used for agricultural purposes in many cities. In some, urban agriculture has even become an extensive **land use** type.

There are a multitude of environmental benefits to reap from urban agriculture, above increasing food production: reducing food transportation, increasing waste recycling and enhancing **biodiversity**, while in individual terms it can improve health and has important social benefits. Urban agriculture is therefore fast becoming an important part of food policy.

This study investigated 'rooftop farming', a type of urban agriculture that is emerging across Europe for both commercial and non-commercial purposes. The researchers investigated different perceptions of the practice, and of urban agriculture generally, in Barcelona – a city with increasing urban agriculture and a climate ideal for rooftop farming.

The researchers interviewed 25 key stakeholders in urban agriculture, identifying three different definitions of the term. Most stakeholders (including local administration and NGOs) thought of urban agriculture as a purely socially based activity, while those based in the outskirts of the city tended not to consider urban agriculture to be 'real agriculture' and therefore did not support it. However, a final definition, which tended to come from stakeholders including architects, regional and local administration and urban gardeners themselves, supported both urban agriculture and rooftop farming and considered their value to come primarily from food production.

These different perceptions – or 'frames' – from people with different values, may make it difficult to further develop urban agriculture in the city. The researchers therefore recommend working to find a common definition, which would enable all stakeholders to participate in its development.

The interviews also revealed several barriers to the development of rooftop farming, including economic investment and a lack of interest among consumers. Legislation was also a major barrier. The existing legislation in Catalonia does not consider the implementation of horticultural systems on rooftops. One respondent who had attempted to install a rooftop garden above his restaurant was declined permission due to these legal barriers. The authors suggest means of overcoming these barriers, including legislative changes to make rooftop farming easier to implement and policies that promote local production.

This new method of farming could represent an innovative way of producing food in European cities, while making better use of currently wasted space. To encourage its more widespread use, the authors recommend pilot projects and schools where citizens can learn about the practice and take part in workshops.



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