

# **Grow your own food!**

## **– The potential for small-scale urban farming in India**

*Henrik Valeur and Arshinder Kaur, 2012*

Growing your own food in the city is becoming a global trend: from growing vegetables in recycled plastic bottles in a loft in New York City or in a slum dwelling in Manila to community kitchen gardens in a posh neighborhood in London or in a *favela* in Sao Paulo, people are experimenting with different ways of becoming self-sufficient with food in urban settings.

Though this trend still accounts for only a fraction of the total food production in the world, it has the potential to make urban dwellers (especially the poor ones) less vulnerable to the fluctuating prices of the global food market and less dependent on government subsidies. In addition, small-scale urban farming may also enhance climate-change resilience and reduce both the impact of potential future food crises and some of the environmental costs associated with current modes of agricultural production and distribution.

### **The case for urban farming in India**

India is experiencing rapid urbanization, which is simultaneously fueled by and powering economic growth. But this growth is not equally distributed, partly because the integration into the cities of people trying to escape rural poverty is encountering resistance from the people who are already living in the cities. Therefore, most rural migrants wind up in slum areas – or eventually in so-called “rehabilitation colonies” – that are literally or figuratively located *on the outskirts* of cities, where opportunities are severely limited. The upshot of this is that poverty, as such, is simply conveyed from one area (the rural) to another (the urban). And this stands in glaring contrast to what we can see in other developing countries like, for instance, China, where several hundred million people, over the course of the past three decades, are reported to have escaped extreme poverty by moving to cities (where they have found job opportunities in the manufacturing industries, on construction

sites, etc.).

One of poverty's many shadows is hunger and India's inability – or reluctance – to integrate its poor in the urban economy is also reflected by the fact that despite massive rural migration, India is among only 3 out of 81 developing countries that have not succeeded in improving hunger conditions in the past 15 years, according to the 2011 Global Hunger Index Report.

In fact, Action Aid, in its 2009 Scorecard Report, criticized India for having added 30 million people to the ranks of the hungry since the mid-1990s while Bangladesh, for example, has reduced that number by more than 10 million in the past 10 years. This same report also claims that hunger exists in India not because there is insufficient food but because people cannot access it.

What can be done to change this picture? We believe that the answer may be to provide the urban poor with possibilities of growing their own food, either individually or in cooperation. And with an estimated quarter of a billion undernourished people and a quarter of a billion people expected to be added to its urban population over the next twenty years, according to a report by the McKinsey Global Institute from 2010, urban farming in India may have enormous potential.

Several initiatives have already been launched but we believe that if this potential is to be activated on a broader scale, the role of the government must (gradually) be changed from being a provider of “food security” to being a provider of “food sovereignty” – a concept originally proposed by Latin American NGOs and recently adopted by the United Nations Food and Agriculture Organization (FAO).

Instead of making poor people dependent on the government's central food distribution systems, why not let them produce their own food?

Enabling the urban poor to grow their own food would not only liberate these people from the dehumanizing experience of being dependent on government subsidies and significantly reduce food costs, which are taking up more and more of their incomes, but would also improve their health conditions and provide them – especially the women, perhaps – with occupational opportunities.

And even though opportunities are most urgently needed among the poor, urban farming may also be promoted among other segments of the urban population, as is being done when school children are taught how to grow food in organic kitchen gardens or when ordinary citizens are encouraged to grow food in public parks. Both of the latter examples stem from Mumbai but other examples can be found in other Indian cities.

### **How can urban farming be implemented in India?**

In order to enable urban dwellers to produce fresh and nutritious food, free of chemicals and pesticides, we propose that the following two actions be considered:

1. The establishment of pilot projects and learning centers, where knowledge and experiences can be developed and shared and where different crops and cultivation methods can be tested and adapted to local conditions, including new methods like hydroponics, a soil-less form of cultivation that has, however, been facing certain difficulties in India due to high costs and special climatic challenges. Moreover, a testing of the quality of the local soil and water, as well as the deployment of different forms of construction like roof gardens with bees, fruits and berries, scaffolding-like structures on building façades for vegetables and medicinal herbs, and spaces in between the city's buildings for chickens, cows and other livestock.

The pilot projects and learning centers ought to be based on ecological principles and may be run by local communities, volunteers and non-government organizations. However, there is certainly going to be a need for financial and practical backing from the municipal authorities.

2. The allocation of land for individual/community kitchen gardens, especially for the poor. This may help not only to alleviate problems such as malnutrition and unemployment but may also help urban planners to control slum development. In addition, as cities develop and prosper, these pockets of “undeveloped” land could potentially come to constitute sizeable future assets for the city.

In Europe, for instance, allotment gardens have existed since the beginning of industrialization/urbanization in the early 19th century, when millions of poor rural migrants were suffering from malnutrition and diseases due to the appalling conditions of life in the cities. In order to improve the situation, small parcels of land

were provided to them so that they could grow their own vegetables. While many of these so-called “gardens of the poor” were formerly located *on the outskirts* of the city, today, they often occupy attractive locations inside the city and are venerated by their current tenants, who may now be well-to-do people. In Berlin, for instance, an estimated 15 percent of the city’s land is currently being used for urban farming; this includes about 80,000 allotment gardens.

The implementation of urban farming is, however, facing multiple challenges, the most critical of which may be land scarcity/high value of land in cities. However, land for urban farming could be provided in the same way as parking spaces are being provided: by reserving a certain percentage of a building plot for “food space”.

This is not the only challenge, though. Other challenges include contaminated soil, a lack of sunlight due to cramped conditions, water scarcity and low quality of water. Solutions to these challenges can be devised where needed.

Furthermore, urban farming may be instrumental in promoting the recycling of both non-organic material, like plastic containers and construction elements, and organic material, like kitchen garbage, which may be composted and used for fertilization. Other means of organic fertilization include plant extracts, composted excrement from animals like chickens and cows (manure) and, perhaps more controversially, composted excrement from humans (humanure).

In areas without toilet facilities, human excrement is a source of environmental pollution and disease; this is especially a problem in dense urban areas. However, this excrement can be recycled through composting toilets, which do not require expensive sewer systems. This could very well prove to be a viable solution for slum areas.

If composting toilets were to be installed in slum areas, it would not only improve sanitation in these areas but would also be a way of providing fertilization. And if land were then to be allocated for farming, through which the primary skills of many slum dwellers, i.e. their knowledge and experience with farming, were to be put to use, this would come to represent a holistic and ecologically sustainable solution. And perhaps it could even serve as a model for the rest of the city?

Paradoxically, the solution to many of the problems related to the rapid and pervasive expansion of cities, including the fact that the producers of food are being pushed further and further away from the consumers, accordingly increasing the costs of transportation and storage, may actually be the integration of natural landscapes and processes, ecosystems and ecological agriculture in these cities. This could also come to compensate for the widespread deforestation and the massive loss of biodiversity caused not only by expanding cities but also by the employment of increasingly mono-cultural methods and chemical-intensive applications used in industrial farming.

We believe that this would not only make cities more livable, but would also make them powerful allies in the fight against poverty and hunger, climate change, pollution and resource depletion.

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