



Assessing the production of urban farmers

The case of farmers at the Yamuna River floodplains in Delhi India

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Abstract

With skyrocketing populations in Indian metropolises like Delhi, urban agriculture has the potential to play a role in providing enhanced food security and nutrient availability to sustain these populations. A large number of farmers practices agriculture along the Yamuna River inside of Delhi. As these agricultural activities are inside city boundaries it is considered as urban agriculture.

As little is known about it, the purpose of this study was to understand the importance of urban agriculture for the food security of the urban population of Delhi, India. To do so, farmers within the Yamuna River floodplains and wholesalers at the central vegetable markets were interviewed about farming practices and consumer preferences. Further, doctors were interviewed to assess the food safety of the products. A list of crops cultivated by the farmers was created and the annual yield per ha of the two most often named vegetables ridge gourd (*Luffa acutangula* L.) and spinach (*Spinacia oleracea* L.) for the area and the full year were calculated based on field measurements. The vegetable demand of the urban population was calculated and compared with the yield calculations. Furthermore, the food safety of the products from the floodplains was discussed.

51 different crops are cultivated by the urban farmers, of which vegetables are the most important. Most of the farmers use groundwater for irrigation, as they know that the Yamuna water is not safe to use. The urban agriculture at the Yamuna River floodplains in Delhi covers 4.6% of the annual fresh vegetable demand of the urban population. Moreover, urban agriculture provides a livelihood for the 1,600 farmers of the Yamuna floodplains and several thousand people involved in the up- and downstream sector. However, due to the risk of pollution, the food safety of the agricultural products is questionable and their contribution to the food security after the definition of the FAO is therefore not given. If the urban agriculture will concentrate on the cultivation of non-consumable crops in future, it still contributes to the food security, as it improves the economic access to food for the people generating income from it.