Data Article

Survey data on home gardeners and urban gardening practice in Pune, India

Ingo Zasada a, Siddhartha Lawrence Benningerb, Meike Weltina,*

a Leibniz Centre for Agricultural Landscape Research, Germany, Eberswalder Str. 84, 15374 Müncheberg, Germany
b Centre for Development Study and Activities (CDSA), Pune, India, Survey No. 58 & 49/4, Bavdhan Khurd, 411021, Pune, India

ARTICLE INFO

Article history:
Received 22 May 2019
Received in revised form 19 September 2019
Accepted 3 October 2019
Available online 11 October 2019

Keywords:
Urban agriculture
Gardening practice
Pune
India
Sustainability

ABSTRACT

The role of home gardens as productive green spaces in emerging megacities has so far been neglected when addressing pathways for sustainable urban development. This data article provides quantitative data from a questionnaire survey on gardening practice among home gardeners in Pune, one of the fastest growing cities in India and the Asian-Pacific region. Data include growing decisions and food production, fertilization, treatment of pests or irrigation as well as the cultural and recreational use of the garden. The survey also covered sociodemographic background information on the respondents and their gardening motivations. The data were used for a research article to build indicators for economic, environmental and socio-cultural sustainability dimensions of urban agriculture and analyze gardeners’ characteristics that lead to increased sustainability outcomes entitled “Home Gardening Practice in Pune (India), the Role of Communities, Urban Environment and the Contribution to Urban Sustainability”[1]. The data and questionnaire are provided at the Open Research Data repository at the Leibniz-Centre for Agricultural Landscape Research (ZALF), Germany (https://doi.org/10.4228/ZALF.DK.109). The data offer an empirical baseline to conduct studies on the interrelationships of gardeners’ motivations, gardening practice

* Corresponding author.
E-mail addresses: ingo.zasada@zalf.de (I. Zasada), siddhartha@cdsaindia.org (S.L. Benninger), meike.weltin@zalf.de (M. Weltin).

https://doi.org/10.1016/j.dib.2019.104652
2352-3409/© 2019 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).
and the value and outcomes of home gardening in an accelerated urbanization process.

© 2019 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

1. Data

The data consist of a data file of 111 observations corresponding to the interviewed home gardeners and 235 variables. Each variable is connected to a question in the survey questionnaire. This questionnaire is provided with the data at the Open Research Data repository at the Leibniz-Centre for Agricultural Landscape Research (ZALF), Germany (https://doi.org/10.4228/ZALF.DK.109). The questionnaire is divided in two parts: 1) “Biographic/Demographic Information” and 2) “Growing Food/Gardening”. The first part includes biographic and socio-economic information of the gardener and the household, community interaction, motivation and restrictions. The second part concentrates on the gardening practice, including cropping types, cropping pattern, gardening management, inputs, gardening facilities and specific activities. Further information is given on the urban environment and building situation of the garden. The data has already been used for a sustainability assessment of home gardens [1].
All variables were summarized according to a common coding scheme. The data consist of variables with binary response options (mostly coded as 1 = “yes” and 0 = “no”), multivariate response options coded according to the number of alternatives and metric response options. Missing values were coded as 99. All codes and variable names are provided in the survey questionnaire with the respective question.

2. Experimental design, materials, and methods

2.1. Questionnaire development

Guided by the subject of investigation and research questions about the practice of home gardening in urban housing neighborhoods and the gardening community, the questionnaire has been developed after a series of in-depth interviews with members of a local gardening club in Pune INORA (http://inora.in) about specifics and peculiarities of the local gardening practices. The questionnaire has also been pre-tested with a small group of gardeners from the INORA gardening club. We based all steps on established guidelines for questionnaire development according to Refs. [4,5].

2.2. Sampling procedure and data collection

The survey was targeted to Pune which is representative for a fast growing megacity in India and the Asian Pacific region as the population almost doubled between 2011 and 2018 [6]. Many green areas got lost in this process [7]. Thus urban gardening is increasingly important to provide functional green areas valuable for the sustainable development of the city. The survey focused on residential areas of Pune. Due to their specific characteristics, which either do not allow for home gardening or yield other types of urban food production, we have excluded informal housing areas as well as state institution areas. The areas where the survey was conducted covered districts of all different kinds of urban structure occurring in major cities in India, including the old town, pre-independence areas, post-independence areas, and post-economic liberalization areas. We focused on terrace-rooftop gardens and backyard-kitchen gardens because these represent the predominant types of home gardening activities in Indian metropolitan areas as identified in the in-depth interviews.

As official data on home gardening in Pune does not exist, the sampling followed a snowball method starting with members of the INORA gardening club as a key organization in the field of home gardening in Pune as well as a social media group (Facebook group named “Pune Gardeners”). After conducting the interviews, the interviewees have been asked for other home gardeners. In general, there was a high willingness to participate among the gardeners, who have been approached. A predominant share of potential interviewees finally participated in the interviews, although due to the specifics of the process – especially the fact that interviewees were collected through two different channels – it was not possible to accurately track response rates.

The chosen survey mode has been face-to-face interviews following an established methodology [4,5]. The interviews took place between January and May 2014. Gardeners have been contacted via phone, clarifying suitability and willingness to be interviewed. The interviews have been carried out on-site with the help of six commonly instructed interviewers, either in English or Marathi language following the structured questionnaire. All interviewers were bilingual. Translations of the questionnaire and data entries have been cross-checked by a native speaker of both languages also doing research in the field of urban gardening. The effect of the dual language use is thus negligible. Data have been anonymized.

Acknowledgments

This work was supported by a fellowship within the Postdoc-Program of the German Academic Exchange Service (DAAD). The authors would like to thank FLOW social sciences research organization (http://www.flowindia.org) for their kind support to conduct the survey among home gardeners.
Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

[1] I. Zasada, M. Weltin, F. Zoll, S.L. Benninger, Home gardening practice in Pune (India), the role of communities, urban environment and the contribution to urban sustainability, Urban Ecosyst. (2019), https://doi.org/10.1007/s11252-019-00921-2.
[2] FAO, Profitability and Sustainability of Urban and Peri-Urban Agriculture, Agricultural Management, Marketing and Finance Occasional Paper, 2007.
[3] A. Zezza, L. Tasciotti, Urban agriculture, poverty, and food security: empirical evidence from a sample of developing countries, Food Policy 35 (2010) 265–273.
[4] D. De Vaus, Surveys in Social Research, sixth ed., Routledge, New York, London, 2014.
[5] F.J. Fowler, Survey Research Methods, Sage, Los Angeles, 2014.
[6] United Nation, The World’s Cities in 2018 - Data Booklet, 2018.
[7] R.B. Fernandez, A.G. Dhorde, A.A. Dhorde, Impervious surface mapping for Pune city using satellite data, Gold. Res. Thoughts 1 (2012) 1–4.