

# Abstract

This research investigates the notion of local in local food systems and explores the potential to implement 'local' for the food systems of Jakarta. It aims to supplement the emerging research on local food systems, particularly from the perspective of an urban settlement in a developing country, and seeks to escape the oversimplified nature of understanding 'local' from the local-global continuum approach by evaluating the term based upon localization strategies designed to achieve desirable outcomes relative to particular food systems goals. Accordingly, this research focuses on the following questions: What constitutes 'local' in local food systems? What is the potential to localize the food supply of Jakarta using the concept of 'local' in local food systems? To meet these objectives, this research follows a mixed methods approach that employs both quantitative and qualitative phase. The qualitative phase is performed through literature review and is designed for the inquiry of the first research question. The quantitative phase, on the other hand, is conducted through spatial analysis using a Geographic Information System technology, and is oriented in the quantification and visualization of 'local' as it is applied to Jakarta. Results of the qualitative phase of this research show that 'local' in local food systems constitutes two main units of analysis i.e. 'local' as spatially referenced concept and 'local' as participative system governance, suggesting that the notion of local is geographically and socially defined. 'Local' as spatially referenced concept comprises of two separate attributes intended for two different geographic settings: provenance for rural landscapes and proximity for urban landscapes. 'Local' as participative system governance, on the other hand, comprises of three collective attributes, including collaboration, empowerment, and inclusivity, and largely corresponds to the human capital, social capital, and natural capital of 'local'. To address the primary food systems challenge of Jakarta; that is, it heavily depends (98%) its food supply on production zones across Indonesia located at a mean distance of 837.23 km, this research applies proximity and participative attributes of 'local' to propose two localization strategies for Jakarta. Strategies by means of proximity are likened to minimize the extent from which Jakarta sources its food supply and is applied to propose a substitutive localization strategy, whereas strategies discussed as part of participative attributes are implemented to increase the prevalence of food production activities within city boundary and is applied to propose a supplementary localization strategy. Results of the quantitative phase of this research show that the potential to localize the food supply of Jakarta by implementing 'local' is rather weak due to poor logistical infrastructure, low regional self-sufficiency, and high inland flooding vulnerability. With regard to substitutive localization strategy, this research has found that 11/36 (30.5%) of road networks from the respective regions within the 'local' boundary to Jakarta is nonexistent, with the remaining 25 mainly identified on the eastside of Jakarta. Further, a large proportion of the respective regions within the 'local' boundary is hardly self-sufficient, with only 1/36 region (2.8%) (East Lampung) produce food surpluses (SSL > 100%). As

to supplementary localization strategy, this research has found that Jakarta has 1,527.45 ha of underutilized spaces and 236 subsidized housing that fall within areas proximate to the preexisting 72 agriculture extension that is distributed every 1.7 km across the city. Accounting the risk of annual inland flooding, Jakarta would be left with 329.32 ha (21.56%) of underutilized spaces, 36/236 (15.25%) subsidized housing, and 9/72 (12.5%) extension services to develop its local food systems infrastructure. Such weak potency to localize the food supply of Jakarta suggests that, unless the problems of logistical infrastructure, regional self-sufficiency, and causes of inland flooding are addressed, Jakarta would less likely to improve its food systems. All things considered, this research supplements the emerging research on local food systems from an Indonesian perspective, reveals opportunities as well as threats of implementing 'local' from a Western context, and therefore, acts as cursory analysis for the city municipality of Jakarta to identify appropriate measures in planning and policy efforts regarding food. It also acquaints food systems stakeholders in Jakarta with the possibility to find alternative means to improve its food systems, especially with regard to increasing stability in food supply.