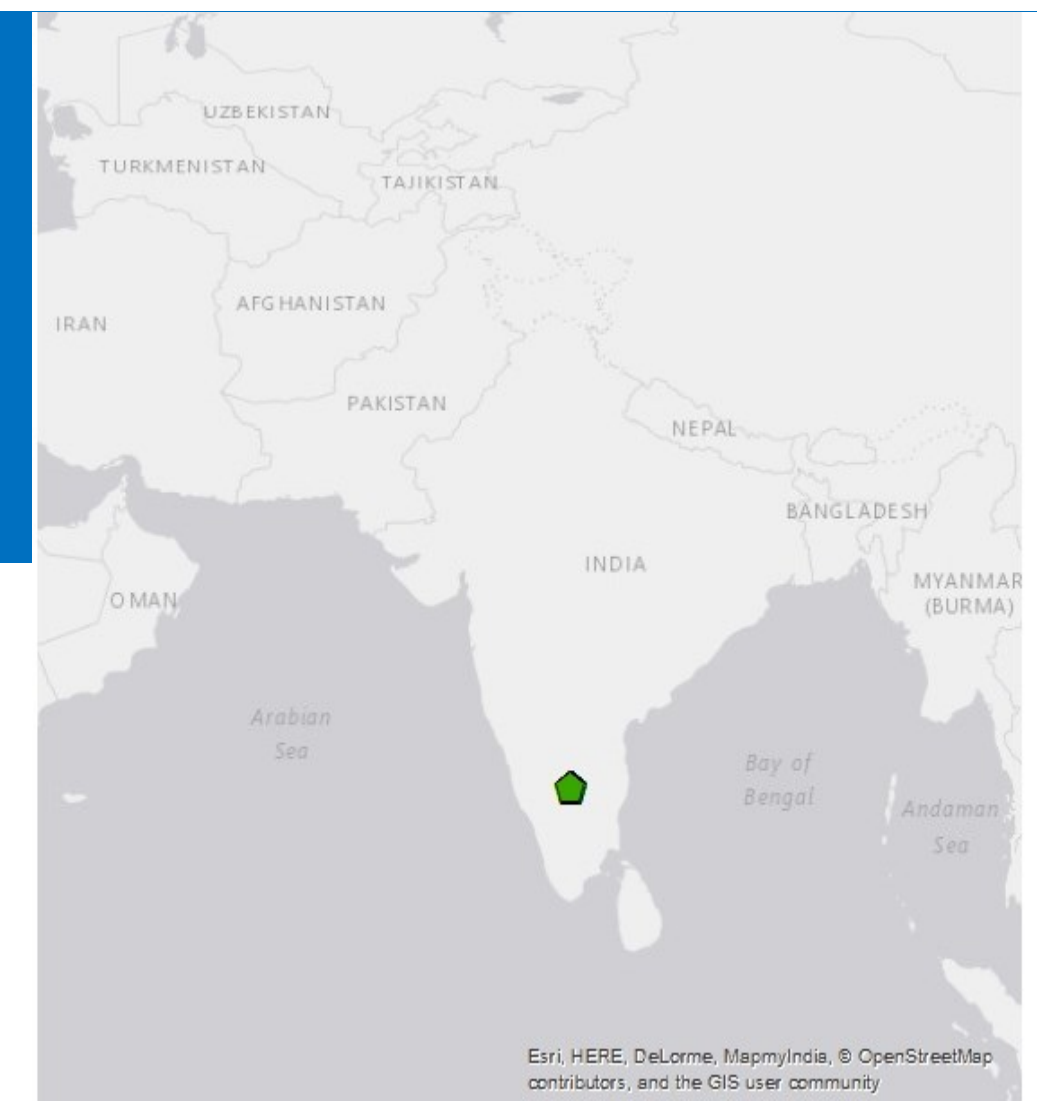


Primary School Feeding Partnerships in Bangalore, India

Identifying Locations of Concern for Provision of Mid Day Meals



Introduction

Children who face chronic hunger are often forced to forego attending school in order of find food. In India, the government has tried to address this problem through the Mid Day Meal Scheme, which funds daily lunches for 120 million public school students starting at the age of 6, making it the world's largest school meal program. In recent years, the government has provided Mid Day Meals via public-private partnerships (PPPs) with the Akshaya Patra Foundation, an NGO that is more efficient and produces superior meals, expanding the scale of the Mid Day Meal Scheme dramatically.

The implementation of the Mid Day Meal Scheme through PPPs with NGOs began in Bangalore, which is India's third largest city and is a center of rapid, uneven growth. This project examines whether Mid Day Meals reach schools in areas of the city where there may be a particularly acute need for free school lunches.

Methodology

Maps display data across Bangalore's 99 wards. Four factors helped determine acute need:

1) Percentage of Population Under the Age of 6

-Children who are under the age of 6 will be targeted beneficiaries of the Mid Day Meal Scheme in the near future since enrollment in primary school (and a child's eligibility to receive Mid Day Meals) begin when children turn 6.

2) Percentage of Population who belong to Scheduled Castes

-These individuals, who are "low -caste" Hindus, rank poorly across all human development indicators and the intended beneficiaries of many social welfare schemes in India. The overwhelming majority of Scheduled Caste children attend public schools and those who attend schools that implement the Mid Day Meal Scheme consistently partake of the lunches that are made available to them.

3) Male Illiteracy Rates

-Literacy is used as a measure in assessments of poverty frequently, but an examination of illiteracy rates exposes one of the long-term consequences of withdrawal from school, namely failure to acquire skills obtained through a formal education. By looking at wards whose populations possess the highest rates of male illiteracy, one can see which areas of the city are home to men who in their youth might have benefited from an initiative such as the Mid Day Meal Scheme had it existed in their youth (the program was not operational in Bangalore until the early 2000s, after many adults surveyed would have already passed primary school age).

4) Female Illiteracy Rates

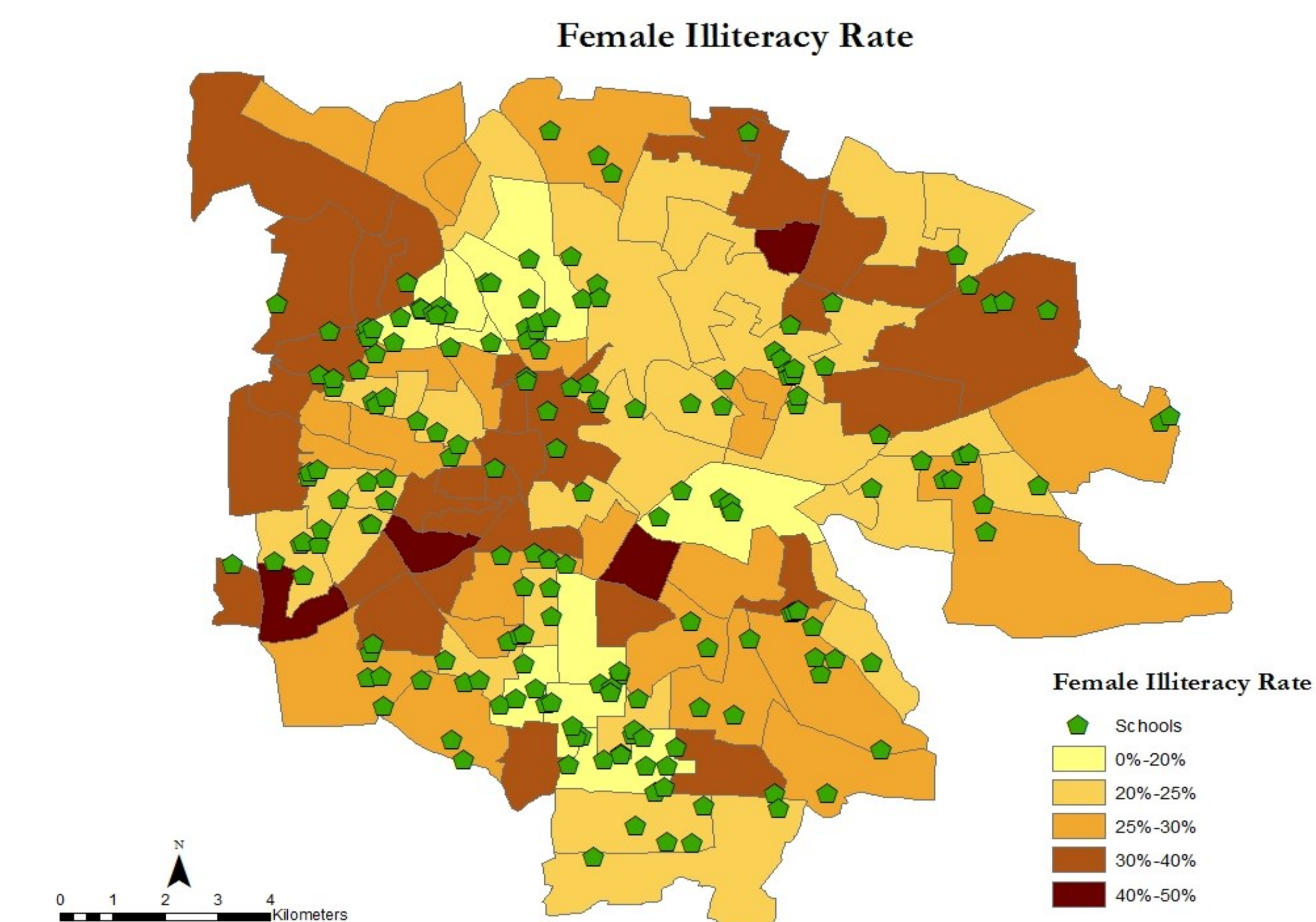
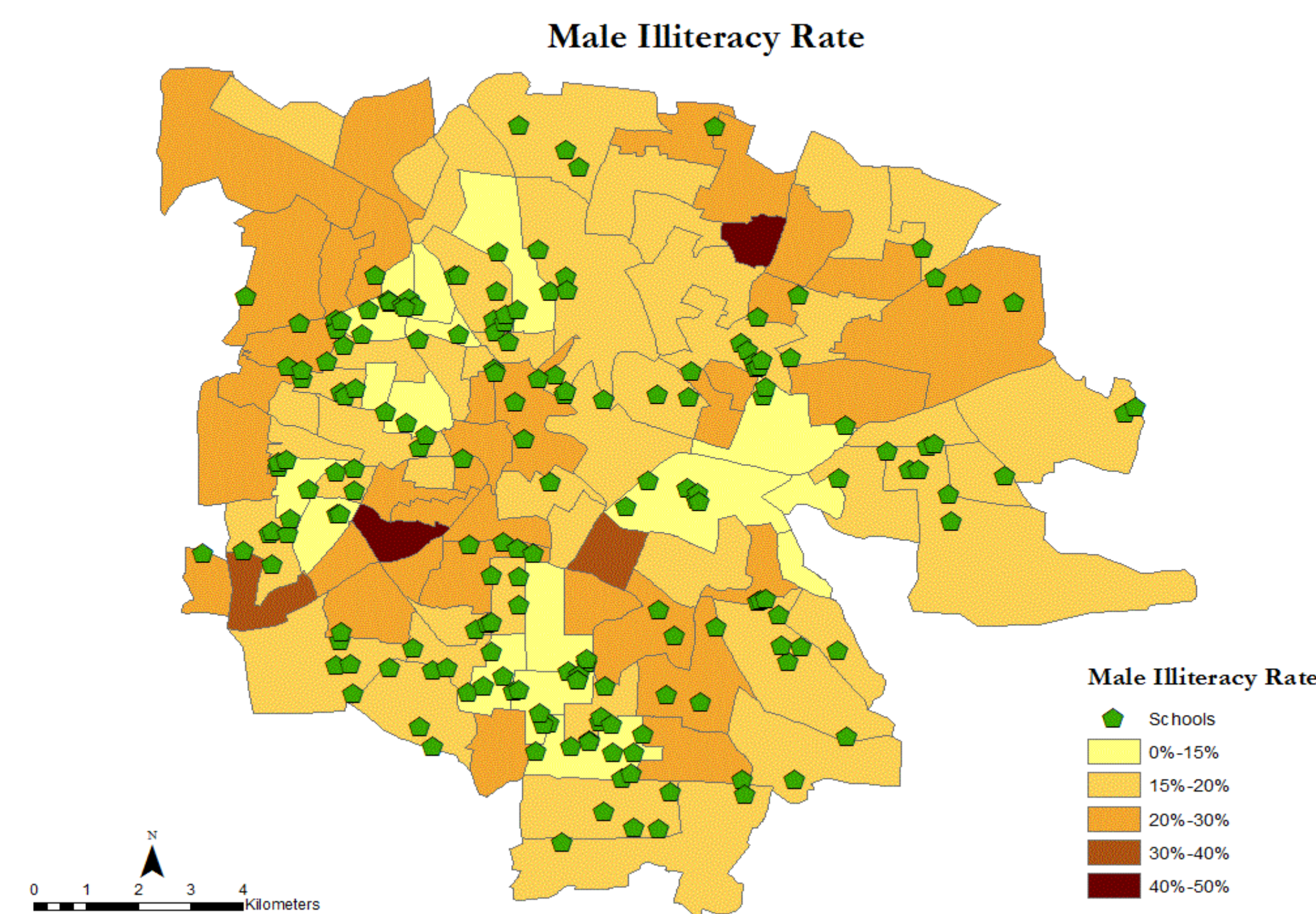
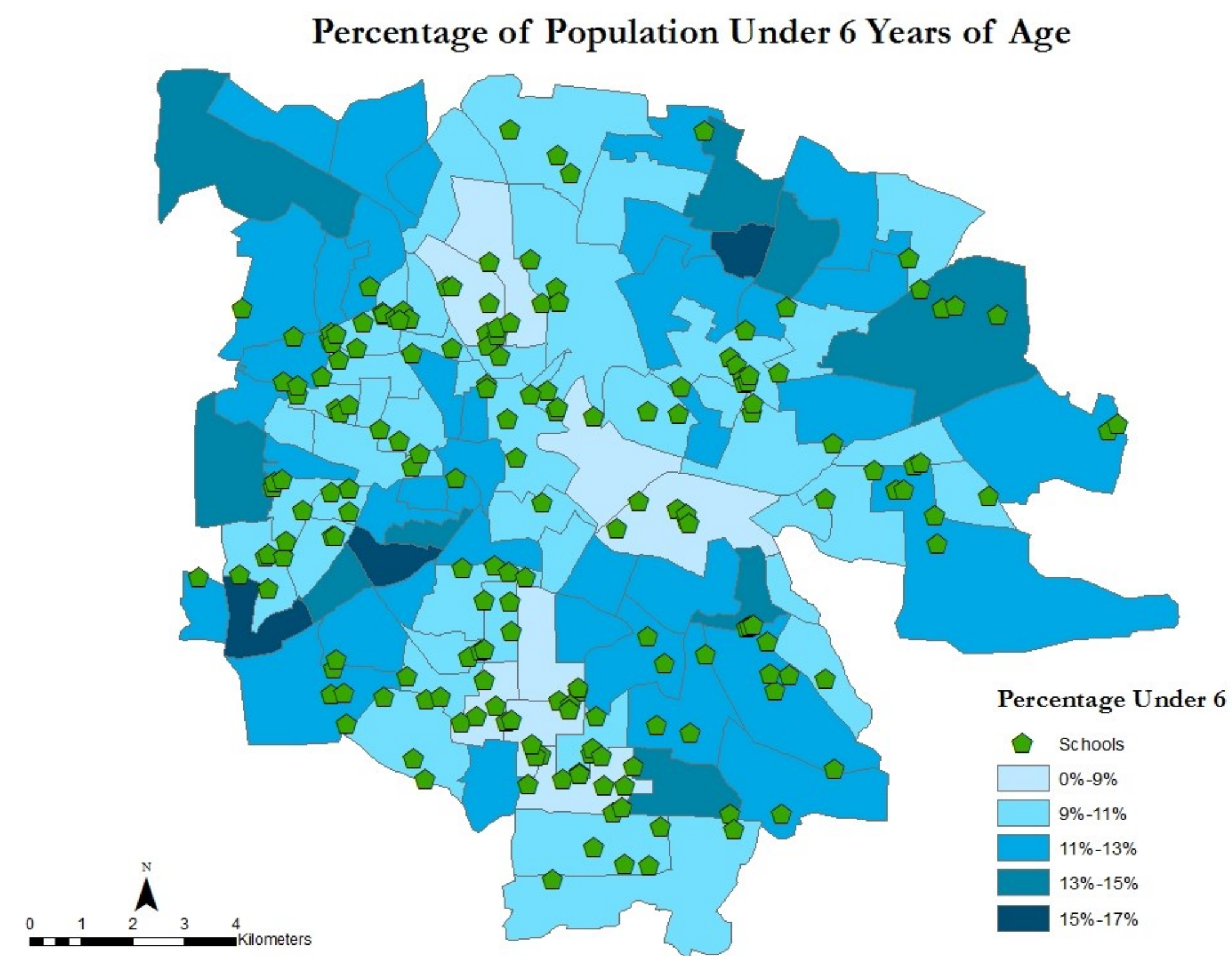
-A study of the wards that possess the highest percentage of illiterate women reveals information that is analogous to that exposed by an examination male illiteracy. It also provides a striking visualization of the comparatively greater severity of female illiteracy in Bangalore.



Cartographer: Siddarth Nagaraj | Date: May 5, 2015

Data Sources: ML Infomap; OpenStreetMap; Census of India; ESRI (Locator Map)

Projection: WGS 1984 UTM Zone 18N



Results

Acting upon the judgment that wards characterized by high illiteracy rates and/or high concentrations of scheduled caste members and children under 6 are locations of concern for provision of Mid Day Meals, it is evident that PPPs have not provided lunch services to schools in areas where both critical beneficiaries (children under 6 and scheduled caste members) and illiterate adults are most heavily concentrated. Illiteracy tends to be concentrated in the same wards for both genders, but the scale of illiteracy is worse for women in all areas. Strikingly, the wards that possess the highest percentage of children under the age of 6 (more than 15%) also report some of Bangalore's highest illiteracy rates (reaching almost as high as 50% for women), and yet there are no schools where PPPs are providing Mid Day Meals in these wards. This suggests that these areas may be concentrated areas of poverty and that there is an imminent need to ensure local schools can feed the large number of poor children who will need to attend school soon.

Limitations

This project was limited in the extent to which it could generate additional indicators of need for Mid Day Meals due to certain complications concerning the availability of data. Although the resources contained a multitude of demographic information about potential target populations for the Mid Day Meal Scheme (such as children under six years of age and individuals who belong to scheduled castes), it was not possible to acquire information about other factors that would have enriched the study even further, such as the specific population of the schools marked on maps or the exact poverty levels on a ward-specific basis.

Additionally, it should be noted that the number of schools in Bangalore where Mid Day Meals are provided is currently growing on an almost monthly basis, meaning that if data was to be collected and mapped now, the results might be quite different.

