

**UTILIZATION OF GIS SPATIAL STATISTICS: AN ASSESSMENT OF
URBAN POVERTY INCIDENCES IN JOHOR BAHRU**

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A dissertation submitted in partial fulfilment of the
requirements for the award of the degree of
Master of Science (Planning-IT)

Faculty of Built Environment
Universiti Teknologi Malaysia

DECEMBER 2010

ACKNOWLEDGEMENT

Syukur alhamdulillah to Allah s.w.t, the Most Merciful and the Greatest, for giving me chance to finish this dissertation within time and full of motivation, Insya Allah.

I wish to express my sincere gratitude to my main supervisor, Professor Madya Dr. Ahmad Nazri Muhamad Ludin for continuously supervise, guidance and critics. I am also very thankful to my co-supervisor, Associate Professor Dr. Foziah Johar and Assoc. Dr. Mohd Rafee Majid for their assistance, guidance and advices.

I am also indebted to the whole staff at Faculty of Built Environment and Universiti Teknologi Malaysia (UTM) for their assistance in providing significant information. A lot of thankful to the Librarians at UTM, En.Azwan b. Ali and En. Mohd Nor b. Nadiran, staff of YBJB who willingly offered their time for quality consultations and shared their experiences with me, thus provided informative data for a quantitative study of this dissertation.

Many grateful to my fellow postgraduate students, Hamizah Yakob, Norsyamimi Omar, Adila Rusley, Shah Aznie Arifin Kasthinat, Noormasnira Mohd Salleh and NurSyahda Zakaria for their help and supports. My sincere appreciation also extends to my colleagues, for providing assistance with their opinions, ideas and encouragement until I could finish this dissertation today.

Last but not least, to my beloved parents, Mohamad Adi Ismail and Noor Hayati Hashim for the supports. To my brothers and sister, thank you for bring me a lot of happiness.

ABSTRAK

Kemiskinan bandar telah menjadi agenda utama dalam pembangunan luar bandar dan perancangan bandar semenjak tahun 1970-an. Kemiskinan seringkali dikaitkan sebagai kesan hasil daripada aktiviti migrasi, pemesatan di bandar-bandar baru dan perluasan kawasan pentadbiran bandar. Antara cabaran utama pihak kerajaan dalam mengatasi isu kemiskinan ialah aktiviti perbandaran telah menyebabkan kemiskinan berpindah dari luar bandar ke kawasan bandar. Telah banyak program pembasmian kemiskinan dijalankan, antara usaha lain ialah dengan melancarkan sistem *e-Kasih* yang merupakan tabung data kemiskinan negara. Sistem ini telah menyasarkan tiga kelompok miskin; miskin tegar, miskin dan golongan berpendapatan rendah. Kajian ini akan menggunakan data kemiskinan daripada *e-Kasih* dan kaedah Sistem Maklumat Geografi (GIS) statistik ruwang bagi mengkaji permasalahan kemiskinan dan parameter yang terlibat dalam kawasan kajian. Tujuan penyelidikan ini adalah untuk mengkaji pola taburan kemiskinan di kawasan Johor Bahru. Terdapat tiga objektif utama yang telah dikenalpasti di dalam kajian ini iaitu, (1) mengkaji taburan ruwang bagi penduduk miskin, (2) mengkaji pola dan corak taburan kemiskinan dan (3) perkaitan di antara kemiskinan dan gunatanah. Kajian ini turut menggunakan kaedah titik kepadatan (*point density*) dan titik interaksi (*point interactions*). Lokasi tetapan penduduk miskin atau *absolute location* merupakan fokus utama penyelidikan kajian, sementara lokasi relatif penduduk miskin *relative location* melibatkan jarak di antara penduduk dan pembangunan sekitar. Penemuan kajian mendapati bahawa kemiskinan adalah disebabkan oleh taraf pendidikan dan pendapatan yang rendah, mempunyai tanggungan yang ramai, masalah kesihatan yang kronik, faktor umur serta kekurangan akses terhadap kemudahan asas dan bantuan kemiskinan. Dari segi taburan ruwang, penemuan kajian mendapati bahawa golongan miskin tegar lebih berselerak berbanding golongan miskin. Akan tetapi, golongan miskin membentuk taburan berkelompok dengan nilai titik kejiranan yang tinggi. Penemuan ini diharapkan mampu memberikan implikasi terhadap pembaikan pendapatan isirumah melalui bantuan produktif ke arah bekerja sendiri dan sikap bergantung kepada diri sendiri.

Kata kunci: Kemiskinan Bandar, sistem *e-Kasih*, GIS statistic ruwang, titik kepadatan, titik interaksi.

ABSTRACT

The urban poverty incidence has been main issue in the rural development and city planning since 1970s. The poverty incidence was claimed as result of increased migration, growth in the new urban areas and extension of administration of urban boundaries. Challenges of urban government towards poverty are the rapid urbanisation process has shifted the poverty from rural towards the urban areas. Many incentives on poverty eradication programmes have been implemented. The current practice of Malaysian government is towards *e-Kasih* system; centralize national databank on poverty, which has identified poverty into three groups; hardcore poor, poor and low income households. Hence, the study focused on revisiting the poverty incidences using the e-Kasih databank as well as Geographical Information System (GIS) spatial statistics approach. The aim of this study is to assess the patterns and household indicators that occur in Johor Bahru. Three objectives were identified for the study which was (1) to study the spatial distributions of urban poor households, (2) to identify the patterns of the poverty distribution and (3) to highlight the linkages of poverty patterns and land uses. The two approaches of the *point density* and *point interactions* were selected in the study. The *absolute location* of poor households is the determinant observations whereas the *relative location* involves distance between poor households towards land uses. It was indicated that low level of education and skills, low household income, larger family size, serious health condition, aging factor and lack of access to the basic amenities and information are problems towards the poverty incidences. In term of spatial distributions, it was identified that the hardcore group is more dispersed compare to poor group. However, the poor group are mostly clustering with high values of the neighbouring points. Hence, the findings may carry few implications for the improvement of household incomes through productive assistance towards self-employment and self-reliance.

Keywords: Urban poverty, poverty incidences, e-Kasih system, GIS spatial statistics, point density, point interaction.