RURAL ROAD NETWORKS AND THEIR ROLES IN ALLEVIATING POVERTY AMONG LOCAL COMMUNITIES IN BAU - LUNDU AREAS KUCHING DIVISION

Jong Kiam Leong

Master of Environmental Management
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RURAL ROAD NETWORKS AND THEIR ROLES IN ALLEVIATING POVERTY AMONG LOCAL COMMUNITIES IN BAU-LUNDU AREAS KUCHING DIVISION

by

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I thank you all immensely!
ABSTRACT

Introduction

Rural development is of high priority for Sarawak, as majority of the population, and mostly of the poor, is living in the rural areas. However, the progress and development programs to these rural areas are always impeded by the lack of proper infrastructure and amenities like efficient road network for transportation and communication. The standard of living for the rural poor, who comprises of mostly the local indigenous communities, are also far from desired when compared with the quality of life of the urban populations.

Economic linkages between transport and poverty are prominent in easing the burden of poverty. It has been observed that efficient transport will reduce poverty, mainly by increasing economic efficiency. As such, efficient transport networks and rural roads are closely related to the living condition of the poorer rural populations.

The contributions of transport operations to poverty alleviation include the increase in the efficiency of resource allocation, the market performance, the flexibility of adjustments and the fostering of economic growth. Poverty are also closely linked to the accessibility of amenities like schools, health clinics, access to economic, employment and social opportunities. As such, there is a need to strengthen the direct role of road networks, accessibilities and transport interventions in poverty alleviations.
Scope of the study

This dissertation studies the role of roads, transport and accessibilities in poverty alleviation, their impacts on the socio-economic status of the local communities, and the social impact assessment of rural roads in the Bau-Lundu areas of the Kuching Division in Sarawak. The study wishes to achieve the following objectives of:

- To study the quality of life and socio-economic status of the various local communities along the trunk road and other categories of rural roads in Bau-Lundu areas (General objective);

- To study the effectiveness of the different types of roads in Bau-Lundu areas in overcoming the problems of inaccessibility to the rural communities (Specific objective 1);

- To estimate the household incomes of residents by the type of road access in Bau-Lundu areas (Specific objective 2);

- To study the perceptions of the various local communities along the different types of roads in Bau-Lundu areas towards the current infrastructure developments (Specific objective 3).

The dissertation is arranged in five chapters with Chapter One on the detailed description on the background of the study, its scope, and the study objectives.
Chapter Two enlists the literature reviews on relevant references and materials pertaining to the effects of road accessibilities on socio-economic impacts and poverty of the rural communities. Chapter Three describes the methodologies deployed in the survey and assessment of the socio-economic impact by rural roads. Chapter Four is the detailed data analysis and discussions on the various attributes of the rural communities affected by rural roads, and Chapter Five presents the concluding comments and statements by the author, based on the scientific researches carried out on the topic.

The study area

Surveys were carried out along the different types of roads in the Bau-Lundu Districts of Kuching Division, with the aim of studying and comparing on the quality of life and standard of living of the rural people living along these roads. Bau and Lundu are two of the many districts in Sarawak, with multi racial populations mainly on agricultural activities. The majority of the local people are Bidayuh, with some Chinese, Malay and Iban. Trunk roads are linking the Lundu town with Kuching via Bau town, and other types of roads like development roads and feeder roads linking all interior villages and communities. Generally, road accessibilities in the study area are considered as efficient and good.

Literature review on the study and survey approaches

Chapter Two has the details on the substantial researches from books, materials, journals, publications from professional institutions, reports from relevant agencies
and dialogue sessions with key informants were carried out in order to gain sufficient information on the issues under study and the concepts on how best to study into the impacts of poverty, accessibility on people, e.g. social impact assessment (SIA). Numerous site visits were also carried out with local government officials to gain first hand news on the characteristics of the people and localities.

**Methodology used in the survey**

As detailed in Chapter Three, the survey carried out interviews, observations, discussions and questionnaire surveys on the local people and study area. Data collected are processed and analyzed by SPSS for efficient diagnosis of results. A value-grading scheme based on the quality of life and standard of living of the people to derive at a quality-index is used to compare the different standards of living along the different types of access roads.

**Data analysis and discussion on results**

Data gathered from the survey were analyzed and presented in Chapter Four. General characteristics on the study area and conditions of the existing access roads are described in Part 4.1. Besides the general statistics of the local communities on their distributions by race, locations, household size, academic performances, standard of living are as in Part 4.2. The road system in the study area, as well as their development patterns are detailed in Part 4.3, whereby the effects of such roads on accessibility are described in Part 4.4.
Respondents were asked of their perceptions on roads and accessibility on their opportunities. Majority of the respondents agreed that better accessibilities enable them to enjoy more opportunities economically, on employment, on education, and improved standard of living and better quality of life.

However, analysis tests shown that the quality-index on the standards of living of the different groups of residents along the different types of roads varied and are significantly different. This was based on the level of their availabilities on the basic household facilities at their residence. By similar approach, the monthly incomes of the communities residing along the different types of roads are also significantly different.

**General conclusions from the study**

By the data analysis done on the information gathered from the survey, it can be seen that roads and accessibilities have sound effects on the quality of life and standard of living on rural communities in the study area. People living better roads are able to enjoy better opportunities, better standard of living and better accesses to facilities provided by the government like medical services, educations, businesses and employment opportunities.

A strengths-weaknesses-opportunities-threats (SWOT) analysis was carried out based on the data collected from the respondents and their perceptions on their current lives, it can be seen that there are more strengths than weakness brought to the local communities through roads and accessibilities, and there are more opportunities than
threats encountered by the people as they are now able to enjoy better facilities and opportunities available in local towns and nearby urban areas.

To conclude, the survey has successfully achieved its initial study objectives in analyzing the roles and effects of roads on the rural local communities.
ABSTRAK

Pengenalan


Kegiatan ekonomi yang berasaskan kemudahan pengangkutan merupakan salah satu daripada usaha untuk mengurangkan kadar kemiskinan. Dengan adanya jaringan pengangkutan yang efisyen, ia dapat mengurangkan kadar kemiskinan di kalangan penduduk setempat. Oleh itu, jaringan kemudahan pengangkutan yang efisyen dan pembangunan jalan-raya di kawasan luar bandar mempunyai hubungkait yang rapat dengan tahap kehidupan penduduk setempat yang mundur di kawasan luar-bandar.

Peruntukan sumber secara efisyen, pertumbuhan pasaran, keupayaan untuk menyesuaikan strategi dengan pasaran semasa dan pengukuhan pertumbuhan ekonomi merupakan antara sumbangan-sumbangan pengoperasian kemudahan pengangkutan yang efisyen dalam usaha mengurangkan kadar kemiskinan setempat. Kimiskinan juga mempunyai hubungan yang rapat dengan kemudahan-kemudahan seperti sekolah,
klinik kesihatan, peluang pekerjaan dan peluang-peluang sosial yang lain. Oleh itu, adalah menjadi satu keperluan untuk mengukuhkan peranan dan fungsi jaringan jalan raya bersama-sama dengan kemudahan-kemudahan lain bagi mengurangkan kadar kemiskinan setempat.

Skop kajian

Tujuan kajian ini adalah untuk mengkaji peranan jalan-raya, kemudahan pengangkutan dan kaitannya dengan pengurangan kadar kemiskinan, implikasinya terhadap status sosial ekonomi penduduk setempat dan implikasi sosial jalan-raya luar bandar di kawasan Bau-Lundu, di bahagian Kuching, Sarawak. Objektif kajian ini adalah untuk:

- Mempelajari kualiti kehidupan dan status sosial ekonomi masyarakat setempat di sepanjang jalan ‘trunk’dan jalan-raya luar bandar di kawasan Bau-Lundu (Objektif Am);
- Mempelajari keberkesanan kepelbagaian jenis jalan-raya yang berbeza di kawasan Bau-Lundu dalam usaha menangani masalah kesukaran hubungan dengan penduduk setempat (Objektif Khusus 1);
- Menganggarkan jumlah pendapatan isi rumah penduduk setempat yang dapat dihubungkan dengan rangkaian jalan-raya (Objektif Khusus 2); dan
- Mengenalpasti persepsi masyarakat setempat di sepanjang jalan-raya yang berbeza di daerah Bau-Lundu dengan pembanguna infrastruktur.

Kawasan kajian

Kajian semula penulisan

Bab Dua menghuraikan secara terperince mengenai kajian terdahulu yang mempunyai kaitan yang rapat dengan kajian ini. Sumber-sumber yang digunakan termasuklah bahan-bahan rujukan, penerbitan oleh badan-badan professional, laporan-laporan daripada agensi-agensi yang berkaitan serta dialog-dialog untuk mengumpul maklumat yang mencukupi untuk menjalankan kajian ini. Lawatan ke atas agensi-agensi kerajaan akan juga diusahakan untuk mendapat maklumat mengenai ciri-ciri masyarakat dan kawasan setempat.

Metodologi kajian

Kajian meliputi temuramah, pemerhatian, perbincangan dan borang soal-selidik yang akan diedarkan kepada masyarakat setempat di mana kajian akan dijalankan. Data yang dikumpul akan diproses dan dianalisis dengan menggunakan perisian SPSS bagi mendapatkan keputusan mereka. ‘Skim Gred Bernilai’ yang berasaskan kepada kualiti kehidupan dan tahap kehidupan penduduk akan digunakan untuk menentukan dan membandingkan kualiti indeks kehidupan penduduk setempat yang terdapat di sepanjang kepelbagaian jalan-ryaya yang terdapat di kawasan kajian.

Hasil kajian dan perbincangan

Data yang dikumpul daripada kajian ini akan dianalisis dan dibentangkan di Bab Empat. Ciri-ciri am kawasan kajian dan keadaan jalan-ryaya yang terdapat di situ akan diterangkan dalam Bab 4.1. Selain daripada itu, statistik mengenai komuniti setempat
yang berasaskan kaum, lokasi, tahap kemajuan akademik dan tahap kehidupan akan jelaskan dalam Bab 4.2. Bab 4.3 akan menjelaskan kajian mengenai system jaringan jalan-raya manakala Bab 4.4 menjelaskan tentang hubungan and implikasi jalan-raya kepada masyarakat setempat.

Responden juga akan ditanya mengenai persepsi mereka terhadap keadaan jalan-raya dan peluang-peluang ekonomi yang wujud daripada situ. Kebanyakan daripada responden bersetuju iaitu dengan adanya hubungan jalan-raya yang efisyen, mereka akan berpeluang menikmati lebih banyak kegiatan ekonomi, peluang pekerjaan, pendidikan, memperbaiki tahap kehidupan dan seterusnya memperbaiki kualiti kehidupan.

Walau bagaimanpun, analisis menunjukkan indeks kualiti mengenai tahap kehidupan penduduk setempat adalah berbeza mengikut kepelbagaian polirasi penduduk yang tinggal di kawasan rangkaian jalan-raya yang berlainan. Ini adalah berasaskan kepada jenis-jenis peralatan yang dimiliki oleh para penduduk setempat di tempat kediaman mereka. Dengan menggunakan kaedah yang sama, jumlah pendapatan komuniti yang tinggal di sepanjang rangkaian jalan-raya yang berbeza juga mempunyai kelainan.

Kesimpulan am daripada kajian

Melalui data yang dikumpul dan dianalisis dalam kajian ini, adalah didapati bahawa jaringan jalan-raya yang efisien mampu meningkatkan tahap kehidupan dan kualiti masyarakat setempat. Penduduk yang tinggal di kawasan yang dihubungkan dengan jaringan jalan-raya yang sempurna mempunyai lebih banyak peluang seperti
kemudahan yang disediakan oleh kerajaan seperti pusat kesihatan, pendidikan dan perniagaan mahupun peluang pekerjaan.

Analisis SWOT menunjukkan lebih banyak kekuatan (Strengths) daripada kelemahan (Weaknesses) dalam persepsi penduduk setempat terhadap rangkaian jalan-rya yang menghubungkan mereka dengan kawasan sekeliling. Kajian juga menunjukkan lebih banyak peluang (Opportunities) daripada ancaman (Threats) dengan adanya rangkaian jalan-rya kerana penduduk setempat dapat menikmati kemudahan-kemudahan yang disediakan serta peluang-peluang yang wujud.

Secara kesimpulannya, kajian ini berjaya mencapai objektifnya iaitu menganalisis dan mempelajari peranan dan implikasi rangkaian jalan-rya kepada masyarakat setempat.
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<tr>
<td>AZAM</td>
<td>Angkatan Zaman Mansang</td>
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<td>BIDS</td>
<td>Bangladesh Institute of Development Studies</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>FAMA</td>
<td>Federal Agricultural Marketing Authority</td>
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<td>FELCRA</td>
<td>Federal Land Consolidation and Rehabilitation Authority</td>
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<td>FELDA</td>
<td>Federal Land Development Authority</td>
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<td>Geographical Information System</td>
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<td>IRRI</td>
<td>International Rice Research Institute</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>Jawatankuasa Kemajuan dan Keselamatan Kampung (Village Development and Security Committee)</td>
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<td>JKR</td>
<td>Jabatan Kerja Raya (Public Works Department)</td>
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<td>LNG</td>
<td>Liquified Natural Gas</td>
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<td>MDB</td>
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<td>Ministry of Infrastructure Development and Communications</td>
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<td>Mid Term Review</td>
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<td>Native Customary Right</td>
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<td>NEP</td>
<td>New Economic Policy</td>
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<td>World Roads Association</td>
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<td>PMR</td>
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<td>RES</td>
<td>Rural Electrification Scheme</td>
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1.0 Introduction

In developing countries like Malaysia, and our State of Sarawak in particular, rural development is of high priority for the government, as majority of the population, and mostly of the poor, live in the rural areas. However, progress and development programs to these rural areas are always impeded by the lack of proper infrastructure and amenities like efficient road network for transportation and communication.

The standard of living for the rural poor, who compromises of mostly the local indigenous communities, are far from desired when compared with the quality of life of the urban populations. Majority of the rural poor have long been troubled by problems of inequality in the allocation and distribution of resources, inaccessibility due to inefficient rural road network system and poverty.

In order to be efficient in reducing poverty of the rural communities, it is necessary to define what poverty is. Some regard poverty as the sufficiency of resources or abilities to meet their needs, inequality in the distribution of income, consumption or other attributes across the population, and vulnerabilities encountered by the rural households today, or the probability of falling deeper into crisis in the future. The World Bank (2005) has defined poverty as hunger, lack of shelter, being sick and not being able to seek medical treatment, children not having access to school, illiteracies,