BEHAVIOURAL CHANGES AND HEALTH IMPACT RELATED TO RURAL ENVIRONMENTAL SANITATION PROGRAMME IN SARAWAK: A COMPARATIVE ANALYSIS BETWEEN SUB-URBAN AND RURAL COMMUNITIES IN KUCHING DISTRICT, SARAWAK

Khamri Bin Katang

MASTER OF ENVIRONMENTAL MANAGEMENT IN DEVELOPMENT PLANNING 2006
BEHAVIOURAL CHANGES AND HEALTH IMPACT RELATED TO RURAL ENVIRONMENTAL SANITATION PROGRAMME IN SARAWAK:
A COMPARATIVE ANALYSIS BETWEEN SUB-URBAN AND RURAL COMMUNITIES IN KUCHING DISTRICT, SARAWAK

Khamri Bin Katang

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Dedication

To my parents;
who had struggled through life trying to put lights into my life;
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Although, it might not be what they expect.

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Insyallah
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BEHAVIOURAL CHANGES AND HEALTH IMPACT RELATED TO RURAL ENVIRONMENTAL SANITATION PROGRAMME IN SARAWAK:

A COMPARATIVE ANALYSIS BETWEEN SUB-URBAN AND RURAL COMMUNITIES IN KUCHING DISTRICT, SARAWAK

ABSTRACT

The present field investigation focused on the general extent of adaptation to health practices and knowledge by appraising the impact on behaviour of the respondents in selected localities in the rural and sub-urban areas. Respondents were the recipients of the Ministry of Health-sponsored sanitation projects under the Rural Health Environmental Health Programme (RESP) for the last three decades. The study was carried out in Kuching District at Kpg Bako in the Sub-urban area and Kpg Anna Rais and Kpg Bayor in Padawan Sub-district in the rural area of Kuching Division, Sarawak.

Respondents were interviewed by using semi-structured closed and open-ended questionnaires that were selected by a remuneration system to present a 10 per cent samples size of all the localities selected. The localities were chosen at random from 205 rural villagers and sub-urban settlements in Kuching district simultaneously considering the number of houses and size of the population in order to come up with the required sample size. A total of 143 respondents were interviewed, 85 from the rural area and 58 from the sub-urban area. Small group discussions and personal observations were also conducted. Secondary data pertaining to the study were obtained from the records kept at Divisional Health Office, Health Services Headquarters, Kuching Water Board, Department of Public Works and the Local Authorities in the area.
After the data had been analysed, the study revealed that there were more small families in the sub-urban area. More female respondents were interviewed in both areas. Farming formed the major occupation of the respondents in the rural with an average monthly income of RM 500.00 a month. The majority of those in the sub-urban had no specific or permanent job but earned their living doing various works earning from RM 500.00 to RM 1,000.00 a month.

A large majority of the respondents in both areas lived in village houses with clean and feasible water supply from KWB, PWD and MOH projects. All houses but six were having latrines. In the rural all (95%) but four respondents were using proper systems of waste water disposal compare to only 56.7% in the sub-urban area. House keeping and house compound cleanliness were better in the sub-urban.

The majority of respondents in both areas were having high level of health knowledge with those in the sub-urban slightly higher. Good knowledge relating health and environment was higher among the respondents in the sub-urban area. About 90 per cents of the total respondents had good and better knowledge as regards to diseases preventions and awareness about the importance of personal hygiene. In both cases those in the sub-urban were slightly better.

All the respondents were using their latrines either all the times or some times, but very high percentage (69.6%) of those in the rural did not know the health related reasons why they should use their latrines compare to nearly 90 percent of those in the sub-urban were well aware of the importance of using latrines.

Opening burning practices were rampant in both areas that were 86.2 per cent of the respondents in both areas. All the respondents were not aware why they were restricted from such practice. Nearly all the respondents in the rural areas recycled their refuse and were aware of the benefits gained from practicing recycling.
Relatively, more respondents in the rural area (93.3%) had better and positive views on sanitation projects compare to only 58.6% in the sub-urban area. Likewise more rural respondents agreed with the implementations of sanitation projects in their areas and they knew where to apply for such projects. Overall, 80 per cent agreed with the projects. On the other hand, the majority of the respondents from the sub-urban area preferred health related project while a good majority of 96.3% of those in the rural area need agricultural projects. As regards to the benefits, almost all the respondents were aware of what and how sanitation projects could benefit them.

This study continues to discover that there was a significant relationship between health awareness and knowledge with education level of the respondents. The higher the level of education, the better health awareness and knowledge the respondents had. Unfortunately there was no significant relationship between level of health awareness and knowledge with the occupations and incomes of the respondents in both areas.

The study came to a few conclusions that both rural and the sub urban community were generally unaware of the hazards caused by open burning. The rural communities clearly saw the importance of sanitation but remained undeterred from agricultural projects as their prime choice. Sanitation programmes and health promotion efforts had left significant impacts especially on the rural community in the study areas. Nonetheless, the study saw there are needs for further research and the needs to improve the intervention strategies to benefit not only the rural population but hose in the urban settlements.
PERUBAHAN SIKAP DAN KESAN KESIHATAN BERKAITAN PROGRAM KESIHATAN PERSEKITARAN DI SARAWAK:

KAJIAN PERBANDINGAN ANTARA PENDUDUK DI KAWASAN PESISIR BANDAR DAN LUAR BANDAR DALAM DAERAH KUCHING, SARAWAK

ABSTRAK


Temuduga dijalankan menggunakan borang soal-selidik ke atas responden yang telah dipilih dengan kaedah sistem *remuneration* untuk mendapat sampel 10 peratus bagi kesemua lokaliti yang telah dikenalpasti. Lokaliti diambil secara rawak dari sejumlah 205 penempatan dan perkampungan luar bandar dan di pesisir bandar di daerah Kuching dengan mengambil kira juga jumlah rumah atau keluarga dan penduduk untuk menepati saiz sampel yang telah dipersetujui. Sejumlah 143 responden ditemui yang mana 85 dari kawasan luar bandar kawasan dan 58 dari kawasan pesisir bandar. Perbincangan kumpulan kecil dan pemerhatian telah dilakukan untuk mengukuhkan maklumat kajian. Data sekunder yang berkaitan dengan kajian telah diperolehi dari rekod di Pejabat Kesihatan Bahagian, Ibupejabat
Perkhidmatan Kesihatan, Lembaga Air Kuching, Jabatan Kerja Raya dan the Pihak Berkuasa Tempatan di kawasan kajian.

Selepas analisa ke atas data dilakukan, didapati kebanyakan keluarga di kawasan pesisir bandar adalah tergolong dalam keluarga sederhana kecil. Kaum wanita melebihi kaum lelaki di kalangan responden yang ditemuduga dalam kedua kawasan kajian. Bertani masih menjadi pekerjaan yang menyumbang kepada purata RM 500.00 pendapatan bulanan responden. Kebanyakan responden dari kawasan pesisir bandar tidak mempunyaim pekerjaan tetapi menyara hidup melakukan pelbagai pekerjaan dengan pendapatan purata RM 500.00 hingga RM 1,000.00 sebulan.

Sejumlah besar dari responden dari kedua-dua kawasan mempunyai rumah kampung (rumah tradisi) dan mempunyai bekalan air bersih yang mencukupi samada dibekalkan oleh LAK, JKR atau KKM. Semua rumah kecuali enam buah mempunyai tandas sanitari. Di luar bandar semua (95%) kecuali empat orang responden mengamalkan pelupusan air limbah yang sempurna berbanding hanya 56.7% di kawasan pesisir bandar. Kebersihan atau penjagaan ruang rumah dan kebersihan laman rumah adalah lebih baik di pesisir bandar.

Kebanyakan responden di kedua kawasan mempunyai tahap pengetahuan kesihatan yang tinggi dengan peratusan dikalangan responden di pesisir bandar menunjukkan sedikit peningkatan. Pengetahuan yang baik berkaitan kesihatan dan persekitaran adalah lebih baik di kalangan responden di kawasan pesisir bandar. Sekitar 90 peratus dari keseluruhan responden adalah baik dari aspek pengetahuan berhubung dengan cara penghindaran dan kawalan penyakit serta kesedaran terhadap kepentingan kebersihan diri. Bagi kedua keadaan tadi mereka yang di pesisir bandar adalah sedikit lebih baik dari yang berada di luar bandar.
Keseluruhan responden menggunakan tandas sanitari sama ada setiap masa atau kadang kala tetapi masih tinggi peratusan (69.6%) di kalangan mereka yang tinggal di luar bandar masih tidak tahu mengapa mereka dikehendaki menggunakan tandas berbanding hampir 90 peratus di pesisir bandar yang mengtahu secara mendalam mengenai kepentingan menggunakan tandas sanitari.

Amalan pembakaran terbuka adalah dilakukan oleh kebanyakan responden di kedua kawasan iaitu 86.2 peratus kalangan responden di kedua kawasan. Semua responden tidak menyedari mengapa pembakaran terbuka tidak dibenarkan. Hampir kesemua responden di luar bandar mengitar semula bahan buangan mereka dan memahami mengenai kepentingan dan keuntungan yang terbit dari amalan itu.

Secara relatif, lebih ramai responden di kawasan luar bandar (93.3%) mempunyai pandangan yang lebih positif mengenai projek sanitasi berbanding hanya 58.6% di kawasan pesisir bandar. Begitu juga dengan persetujuan responden. Lebih ramai antara responden di luar bandar bersetju sepenuhnya dengan perlaksanaan projek kesihatan dan sanitasi di kawasan mereka dan mereka arif dari mana mereka boleh memohon projek tersebut. Secara keseluruhan, 80 peratus di kalangan responden bersetju dengan projek sanitasi. Tetapi, kebanyakan responden dari kawasan pesisir bandar lebih memerlukan projeck yang membawa menfaat kepada kesihatan mana kala 96.3% dari mereka di kawasan luar bandar lebih mementingkan projeck pertanian dan ternakan. Menyentuh mengenai menfaat yang dapat diperolehi dari projek kesihatan hampir semua responden menyedari bagai mana projek sebegini boleh membantu meningkatkan tahap kesihatan mereka.

Kajian ini telah menemui beberapa perkaitan yang ketara antara kesihatan kesedaran dan pengetahuan dengan tahap persekolahan responden. Lebih tinggi peringkat pelajaran lebih baik tahap kesedaran dan pengetahuan mengenai
kesihatan. Malangnya tiada terdapat perkaitan yang nyata antara tahap kesedaran dan pengetahuan kesihatan dengan jenis perkerjaan dan pendapatan responden di semua kawasan.

Kajian ini menjurus kepada beberapa kesimpulan bahawa penduduk luar bandar atau di pesisir bandar pada keseluruhannya masih tidak menyedari mengenai bahaya akibat amalan pembakaraan terbuka. Tidak semua penduduk luar bandar dapat melihat kepentingan program kesihatan malah masih mementingkan projek pertanian. Program kebersihan persekitaran dan usaha promosi kesihatan telah meninggalkan kesan terutama pada penduduk di luar bandar yang terlibat dalam kajian ini. Walau bagaimana pun, dari kajian ini pengkaji dapat mengesyorkan bahawa kajian yang lebih mendalam dan lebih komprehensif adalah difikirkan perlu dilakukan agar data asas diperolehi untuk dijadikan lndasan ke arah memperbaiki dan menyesuaikan strategi dan polisi intervensi yang bertujuan bukan sahaja dirancang untuk dimanfaatkan oleh penduduk luar bandar tetapi untuk penghuni di bandar juga.
1.1. Introduction

Under the corrigenda of the 5-Year Malaysia Plans the importance of rural health or rural sanitation is always spelled out in every plan since 1962 (RM1). For instance, Chapter 17 of the Seventh Malaysia Plan, the government did not only emphasise on curative services but put details undertaking on the importance of promotive and preventive health services. The efforts to meet the objectives to raise or improve the standard of health of the rural populations by reduction of diseases incidences, to control and safeguarding the rural populations from diseases especially communicable diseases is carefully planned and financial allocations were addressed accordingly. Amongst others, the strategy is to improve coverage of recipients of rural sanitation projects and strengthening efforts on health promotion in the rural areas with the aim of enhancing and increasing health awareness (State Health Department of Sarawak Annual report, 1997).

In 1962, the Sarawak State Government carried out a health study in the rural villages through out the state. The findings of the study showed very appalling sanitary conditions in the rural areas. The summaries of findings as extracted from the Rural Health Improvement Scheme Manual published by the State Medical and Health Department in 1963 were (MOH Annual Report, 1975);

a. there was complete absence of sanitary facilities.

b. Defecation was done either in the nearby bushes or from the house dropping to the ground below or in the river serving as natural sewers,

c. Refuse and household wastes were thrown about indiscriminately and allowed to accumulate whilst human and animal faeces and decomposable wastes fouled the compounds.
d. Water was fetched from nearby springs, streams or rivers, wells and water holes.

e. Domestic animals especially pigs and chickens, were let loose to fend for themselves and they messed up the ground into muddy dirty patches.

f. Waste water was not drained off. They formed pools of stagnant water under and around the houses giving off smell as well as conducive for breeding of mosquitoes and favourable breading ground for disease agents.

Specifically, the poor health and nutritional status, low educational level and high diseases morbidity and infant mortality, and generally the unfavourable socio-economic environment in the rural areas were linked to and related to the above vicious conditions. The result of the health study was highlighted in a white paper containing a set up cum a proposal of intervention strategy and policy known as the Rural Health Improvement Scheme (RHIS). The paper was accepted by the State government, which became the cornerstone of the government’s effort to uplift and improve the health standard or the rural population of Sarawak (Medical and Health Department Sarawak, 1974). The Health Department Sarawak, which was previously called Medical and Health Department Sarawak before 1990, started to implement the Rural Sanitation Projects to the rural villages in 1965. The RHIS programme that was changed to BAKAS (Bekalan Air dan Kebersihan Alam Sekeliling) in 1986 was absorbed into the 5-Year Malaysia Development Plan of the government in 1967, under the first Malaysia Development Plan (1MDP) period. Health workers implementing RHIS and BAKAS Programmes, besides doubling effort making numerous visits to the rural communities delivering talks and instilling health awareness knowledge were encouraging the communities to use sanitary latrines, bury or making compose of their refuse, boil their water and gardening.
Though few studies had been carried in this field in particular, the impact of rural environmental sanitation programmes in this country undergo a continuous evaluation and monitoring through regular and uniformed system of reporting at monthly and yearly intervals (MOH; Water Supply and Environmental Sanitation Programme, 1985). Captured from the reports and the returns received either at the district state or national level, it was obvious that there was a significant improvement of health status especially among the rural populations. Food and water-borne diseases like typhoid fever, dysentery and cholera, vector-borne diseases like Filariasis and Malaria are a few indicators that had shown drastic drop in the number of cases for past four decades of the RHIS implementation (MOH Annual report 2001).

However, according to Haliza Mohd. Riji (1998), although there was a dire need to appraise the importance of gathering data on people's knowledge, attitude and practices relating to diseases prevalence, few studies had been initiated, except those carried out by the State Health Departments on an ad-hoc basis based on current needs (Riji, 1998). In addition, there have been researchers and post graduates medical students who conducted similar studies. In all the number of such studies has been conducted on a rather small scale (Haliza Mohd. Riji, 1998).

Ministry of Health (MOH) records in the MOH Annual Report for the year 1997 to year 1999 shows a decreasing trend of communicable diseases incidences in the rural areas in Sarawak. The incidents rates of various diseases especially dysentery had decreased form 1.59 in 1977 to 0.64 in 1999. Mortality rate due to water-borne diseases also shows a decline from 0.1 in 1977 to 0.05 in 1999. As gathered from the Divisional Health Office Kuching Annual records for a period of five years from 2000 to 2004, water and food-borne diseases like dysentery shows remarkable decrease from 18 cases in 2000 to only one (1) case for the same period in 2004. Other diseases that show a decreasing
trend is food poisoning and typhoid fever. The state had not seen any cholera case since year 2000. (See Appendix 1.1 and Appendix 1.2)

In general, the decreasing trend of communicable disease incidences in the suburban and the rural areas was believed to be the impact of the good coverage of sanitation projects in these areas, but no comprehensive study had really been carried out to back-up this opinion. Other factors are responsible for this and sanitation programme can not be easily rule out as the major factors, thus at this juncture it is inappropriate to say that good coverage of rural sanitation efforts in these areas had played a major role in improving the health of the community. When communicable diseases are concerned, the findings of this study could further assist to strengthen the fact that environmental sanitation projects coupled with improved personal hygiene, health practice and awareness had played a major role in upgrading the health status of the rural and sub-urban communities.

A study was conducted by the Institute of Medical Research (IMR), Ministry of Health Malaysia on the promotion of behavioural changes in the control of dengue fever on the selected urban and the rural communities in this country for a period of three years commencing in 1996 to 1998. The findings of the study carried out in two rural villagers (Kpg. Semilang and Kpg Beradek) in the district of Kuching revealed that the people were aware of the health risks given the environment with unkept compounds, lack of proper garbage disposal, unsanitary habits and water storage. The study summarised that there has been an overall awareness among men, women and children in both villagers (IRPA Report, 1998).

Similar studies was conducted in the selected areas in Kuching, however the result show that the level of knowledge is not sufficient for the urban communities to change towards diseases preventive and health promotive behaviours especially on dengue control. Amongst others, the reason being was that the urban communities were