

# THE LOCATION OF SCHOOLS IN URBAN AREA : SOME PLANNING IMPLICATIONS

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## **Abstract**

***Education is one of the major contributing factors for producing literate and productive society. The main aim of the Malaysian education policies formulated in 1950's was to integrate the multiracial society. Various programmes and strategies were implemented so as to upgrade the education systems and facilities. Educational policies were consistently reviewed and formulated in line with the national aspirations at that time. The recent one is the Philosophy of National Education formulated in 1990 which aims at producing literate, knowledgeable and civil society so as to meet the future challenges of the 21st. century. From time to time, educational development is progressing towards achieving the target. These include not only the curriculum, staffing and budgeting but also the school's built environment i.e. school building and the learning environment. The Ministry of Education reported that schools in urban areas such as in Kuala Lumpur, Ipoh and Johor Bahru are overpopulated with the average classroom/pupil ratio of 1 : 42. These schools can no longer accommodate the increasing number of enrolment as there are limited space for expansion. Hotels, shopping and office complexes are encroaching every inch of urban areas into the surrounding area of the school. The noise and air pollution from the urban activities and traffic congestion are becoming critical and hazardous to school children. As such, the Ministry is concerned with implementing strategies as solutions to the above issues. Basically, the paper will focus on three main topics i.e. the criteria for school planning in Malaysia, urban issues associated with school location and the current strategies to school planning.***

## **1.0 Introduction**

At present Malaysia is developing rapidly into an economically, politically, socially, spiritually, psychologically and culturally developed nation in line with the Vision 2020. By the year 2020, Malaysia will be a united nation, with a confident Malaysian society, infused by strong moral and ethical values, living in a society that is democratic, liberal, tolerant, caring, economically just and equitable, progressive and prosperous, and in full possession of an economy that is competitive, dynamic, robust and resilient (Mahathir Mohamad, 1991). The education sector plays a major role in educating and inculcating these positive values to the nation and the new generation particularly.

The most recent education policy is the National Philosophy of Education which was formulated in 1990 aiming at producing a literate and knowledge society. The provision of schools is among the major aspects of the policy with emphasis given to creating a conducive learning environment and thus relates to the locational aspect of schools particularly in the urban areas. This paper will discuss the planning issues related to school locations in urban areas by studying the Bukit Bintang Girls School, Kuala Lumpur in particular.

## 2.0 Schools Development In Malaysia

Under the Seventh Malaysia Plan (1996-2000), about 10.1 billion or 15.4 percent of the total allocation for the public sectors is allocated to the education sector. Of this amount, 1.4 billion is for the primary and secondary education, which includes building new schools and additional classrooms.

There are two types of schools in Malaysia i.e. the government assisted schools or public schools and non-government assisted schools or private schools using four different language medium namely: Bahasa Melayu, English, Tamil and Chinese. The compulsory education is the primary education and secondary education at the age of 7-12 years old and 13-17 years old respectively. In 1996, the number of Government assisted schools in Malaysia were 8,577 units (7,049 primary schools and 1,528 secondary schools) with a population of 4.5 million (2.8 million in primary schools and 1.7 million in secondary schools). The enrolment of primary schools are expected to increase from 2.7 million in 1995 to 2.9 million in the year 2000. In the Seventh Malaysia Plan (1996-2000), an additional of 9,530 classrooms will be built to accommodate the over populated school and to replace old schools. Taking the optimum number of pupils per classroom as 35 (Ministry of Education, 1995), almost 30 percent of the classroom in urban schools can be considered as overpopulated as they have more than 40 pupils per classroom.

The enrolment for the secondary school in the year 1995 were 1.6 million and is expected to reach 2.0 million by the year 2000. About 14.3 percent of the classrooms have a ratio exceeding 40 pupils per classroom. As such, by the year 2000, an additional of 9,770 classrooms will be built to accommodate the increasing number of enrolment. The issue of overpopulated schools in urban areas has been a crucial agenda not only to the Ministry concerned but also to the local authorities, for schools are one of the major landuses in urban areas.

## 3.0 Criteria For School Planning

Theoretically, two considerations that must be taken into account in locating schools are the size of population and the catchment area of the school. As far as the size of population is concerned, there must be a certain minimum number of pupils living in

an area in order to justify the building of a school. The area served should not be too large so that pupils can easily reach the school from their home. According to Hallak (1979) the school catchment area is defined by the maximum acceptable distance a child can travel between home to school. The catchment area of a school to be reached on foot is a circle whose radius is the maximum distance from home to school. Practically, the school's distribution depended very much on the age composition of a population and the population density.

Based on the recent Malaysian planning standards (1988) published by the Federal Town and Country Planning Department, the size of population that permits one primary school to be built is 7,500 people which is one neighbourhood unit. The catchment areas for a primary school is 0.4 km. - 0.8 km. or 10 minutes walking distance. The minimum lot size for a primary school is 2.3 hectares. A secondary school is required for 2 or 3 neighbourhood units (15,000 - 22,500 population) within a catchment area of 0.8 km. - 1.6 km. or 20 minutes walking distance and a minimum lot size of 3.6 hectares.

Other locational criteria to be considered in school planning are safety and healthy condition for the school children. Among the criteria are :

- i) The school's site should be accessible to bus terminal or bus stop.
- ii) The schools should be located in a site that are accessible by foot from the housing units with minimum road crossing.
- iii) The school should be located in such a way that the footpath or the route to the school is not secluded from public places.
- iv) The school's site must be free from nuisance such as factories, highways etc.
- v) The site should have minimum physical constraints (preferably flat land and good drainage) so as to minimise the development costs.

As in the case of Kuala Lumpur City Council (1984), the population size for a primary school is 7,500 with a minimum site of 2.0 hectares. A secondary school is required for

every 15,000 population with a minimum site of 4 hectares. However, nothing is mentioned with regards to the locational criteria of the schools.

Only in the mid 1970's, when the neighbourhood planning and structure planning were introduced, the planning standards for schools were adopted in urban planning practice. In the early days, school planning was rather ad-hoc and isolated from the overall scope of urban planning. Urban planning practice have failed to foresee the relationship of school location in the urban context, thus location of schools were determined without consideration to the overall planning of urban areas. As a result, the location of schools has given rise to several urban issues which will be discussed later in this paper.

#### **4.0 Schools In Kuala Lumpur Central Area**

The Kuala Lumpur City Council covers an area of 243 square km. and is divided into 15 planning units (Diagram 1). The central planning area is the central business district which covers 16.6 square km. In 1995, the Kuala Lumpur population was about 1.4 million and is expected to increase to 1.8 million by the year 2005. The schools' population in Kuala Lumpur in 1996 were 51,325 which accommodate about 227 schools.

From 1983 to 1993, the number of primary schools in Kuala Lumpur City Council have increased from 86 units to 109 units. The primary school population in 1983 were 72,306 and by 1993 the population had increased to 96,062 which requires an additional of 115 schools during the year. Based on the Seventh Malaysia Plan (1996 - 2000), 3,832 classrooms are required by the year 2000 to accommodate the primary school population.

In 1993, the required number of secondary schools were 65 units but only 62 schools were built which accommodate a total of 90,316 pupils. Schools in Kuala Lumpur particularly have an average density of 42 pupils per classroom which exceeds the optimum density of 35 pupils per classroom. There are about 56 schools (43 primary schools and 13 secondary schools) which are situated in the Kuala Lumpur central area.

#### **5.0 Urban Problems Associated With School Location : A Case Study Of Bukit Bintang Girls School, Kuala Lumpur**

##### Background of School

The Bukit Bintang Girls School is bounded by Jalan Bukit Bintang and Jalan Raja Chulan which is part of the the prime commercial area or popularly known as the "golden triangle" area of Kuala Lumpur (Plan 1). The school which covers an area of 3.1 hectares consists of a secondary school and a primary school. The secondary school was built in 1893 whilst the primary school was built 65 years later. In 1993, the primary and secondary school population were 666 and 1,606 respectively.

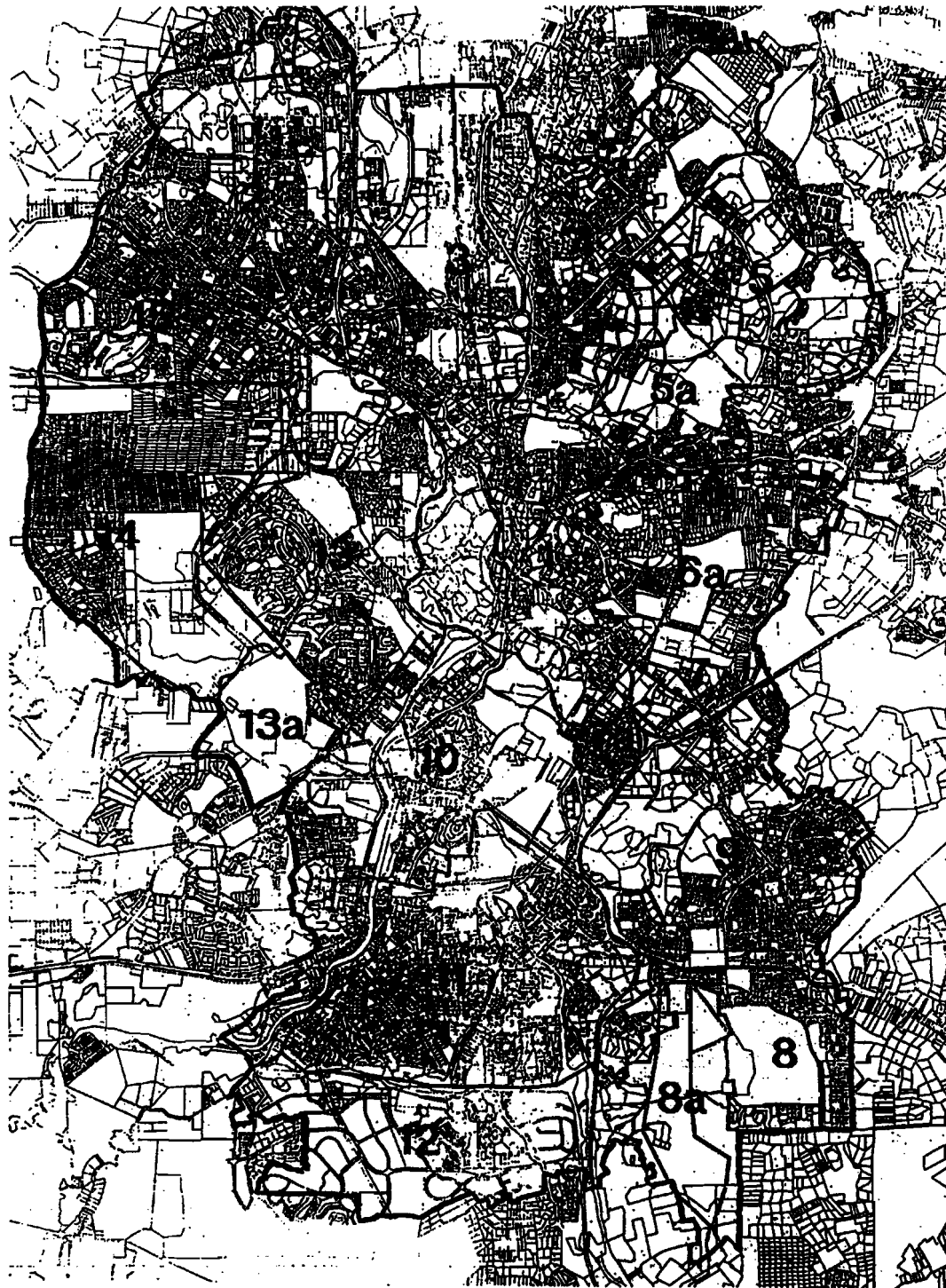
At present, the school caters not only the population of Kuala Lumpur central area but also the population within 1 km. to 15 km. from the central area. The travelling time from the house to school is between 30 minutes to one hour by car or bus.

Urban issues associated with the location of school

1. Land Scarcity and Incompatibility of Landuses.

The existing school area of 3.1 hectares cannot accommodate the increasing number of enrolment as there are no space left for expansion. The only space in the school available for future expansion is the play area and a small parking area. Landscaping hardly exist in the school compound except for a few trees in the parking area.

In the last two decades or so, Bukit Bintang area has been transformed from a run-down area into a high class shopping, hotels and entertainment enclave when the area was delineated as the "golden triangle" of Kuala Lumpur during the 1970's. Over the years, the area has been developing rapidly with high-density commercial development and the urban activities are no longer conducive to the learning environment. This transformation has given rise to traffic problem along the road.



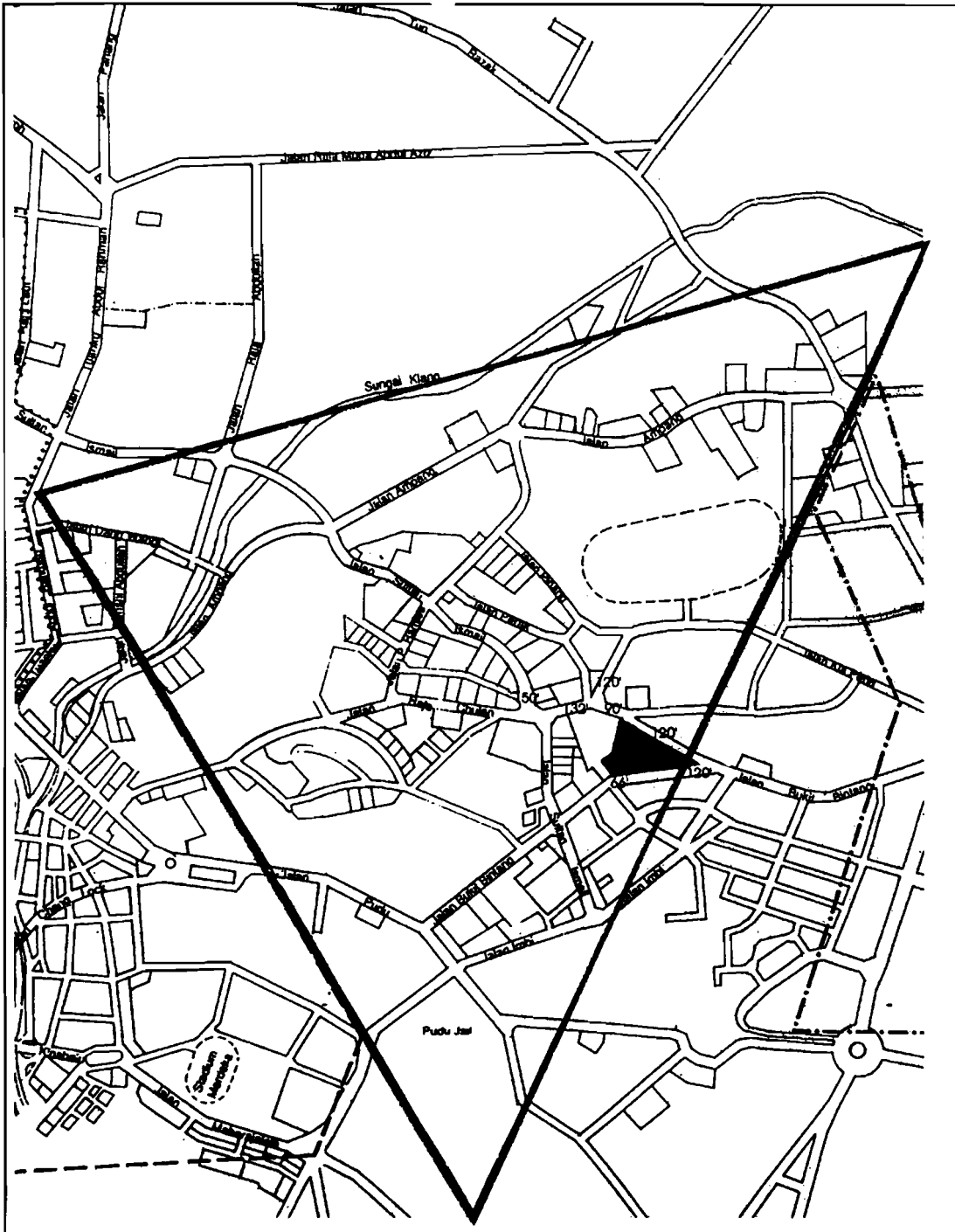
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DIAGRAM 1: PLANNING UNITS OF KUALA LUMPUR CITY COUNCIL

LEGEND

- |     |                          |
|-----|--------------------------|
| 1   | CENTRAL PLANNING AREA    |
| 2   | JINJANG                  |
| 3   | SENTUL                   |
| 4   | SETAPAK                  |
| 5   | WANGSA MAJU              |
| 5a  | KEMENTAH                 |
| 6   | DATUK KERAMAT            |
| 6a  | SELANGOR ROYAL GOLF CLUB |
| 7   | MALURI                   |
| 7a  | CHAN SOW LIN             |
| 8   | BUKIT ANGGERIK           |
| 8a  | KEM SUNGAI BESI          |
| 9   | BANDAR TUN RAZAK         |
| 10  | SEPUTIH                  |
| 11  | BUKIT INDAH              |
| 12  | BUKIT JALIL              |
| 13  | DAMANSARA                |
| 13a | UNIVERSITI MALAYA        |
| 14  | PENCHALA                 |
| 15  | EDINBURGH                |

Source : Kuala Lumpur City Council, Kuala Lumpur



1 : 80,000

## PLAN 1 : THE GOLDEN TRIANGLE OF KUALA LUMPUR

### LEGEND

-  Bukit Bintang Girls School
-  Golden Triangle Of Kuala Lumpur

Source : Kuala Lumpur City Council, Kuala Lumpur

## 2. Traffic Flow

The traffic problem has worsened over the years along Jalan Bukit Bintang and Jalan Raja Chulan. The study by Rosmawati (1996) recorded that the traffic volume from the school's activities at Jalan Bukit Bintang /Jalan Raja Chulan are 1536 or 10.5 percent of the total 14,680 cars on the particular road during peak hours. The Ministry of Transport (1992) also recorded that Jalan Bukit Bintang has a saturated situation of congestion with a ratio of 1.34 which is higher than the normal situation that is 1.0. The worst situation is before and after school hours as cars and school buses piled up along the road to drop off and pick up the school children.

## 3. Road Safety

A study done by Rosmawati (1996) also showed that from the samples of school children interviewed, 67 percent travelled to school by car with their parents while others travelled by public buses, school buses and motorcycles. None of them walk to school although their houses are located less than one kilometer from the school. This is because parents prefer to drop their children at the school on their way to work and few accompany their children for fear of road accidents. Parents that were interviewed expressed fears about the hazard to the school children although there is a traffic patrol cum school gardener who assists the school children to cross the road. The study concluded that school children taking school buses were exposed to traffic hazards on their way from the bus stop to the school as there were no safety measures for pedestrians such as zebra crossings and traffic lights for pedestrians.

## 4. Air and Noise Pollution

The vehicles on the road are the major cause of air and noise pollution in the urban areas. A study done by Salmijah (Rosmawati, 1996), showed that school children are the highest proportion of Kuala Lumpur population that are exposed to plumbum from the vehicles fumes. The Department of Environment (1982) recorded that the noise level of motorist in Kuala Lumpur during peak hours is 65.7 - 81.2 dBa which is higher than the standard level of 65 dBa for the urban and commercial areas. The school children and school teachers also complained that their

classes are distracted by the noise and the dust from the road.

## 5. Land Value

The rapid development of Kuala Lumpur is occupying every inch of vacant land and non-commercial land use in the central area and this has resulted with an increase of land value. The Property Market Report (1996) stated that the current land value along Jalan Bukit Bintang ranges between RM340.00 - RM500.00 per square foot. Thus, the Bukit Bintang Girls School site is worth about RM115.8 million. The local authority is anticipating an enormous amount of revenue from this land should the land be converted to commercial land use. Over the years, the local authority has been receiving a minimal amount of revenue from institutional premises or none at all in the case of public school premises.

## 6.0 Current Strategies To School Planning

Taking into consideration the above issues related to the location of Bukit Bintang Girls School, the local authority has identified some strategies for the planning of schools in the future so as to provide a conducive learning environment. Among the strategies are :

### 1. Proposed "education belt"

The Ministry of Education and the Kuala Lumpur City Council have identified "educational belt" at the fringe of Kuala Lumpur central area. The sites are chosen due to the fact that the landform is flat, and within the vicinity of the proposed light rapid transit terminal and bus station. The "education belt" covers the area of Air Panas (283 hectares), Batu Muda (162 hectares), Sungai Besi (182 hectares) and Pudu Ulu (34 hectares). The proposed site will provide ample space for new school buildings and educational facilities in a healthy and safe environment. Some parts of the sites are educational reserves and some have yet to be acquired from the authorities concerned.

### 2. Building new schools in residential scheme

At present, a new housing scheme must allocate a site for a school which complies to

the Planning Standards Manual, 1988. The local authority also proposed a residential school and small schools to be located near to residential areas for residential schemes which do not have school facilities due to insufficient catchment area. Children can walk to schools instead of having to travel by buses or cars to the nearest school.

School complexes will be built in housing schemes around the city for the same reasons. The school complexes consist of three different streams of school (i.e National, Chinese and Tamil) situated within a walking distance of one another. The schools will be sharing facilities such as playing fields and resource centre and carrying out co-curriculum activities together. By sharing the school facilities, the pupils of different ethnic group and religion will be able to interact with one another. This is one of the approaches towards educating the youth on the importance of living harmoniously and peacefully. This idea is in line with the challenge of Vision 2020 to achieve a united Malaysian nation.

### 3. Encouraging Privatisation Projects

Privatisation programmes which were introduced in the 1980's have proven successful in reducing the Government's financial burden. The Government is not able to meet all the requirements pertaining to education due to limited budget. Therefore, to finance the growing needs in education, some of the educational projects have to be managed by the private sector. The common type of privatisation programme is the management contracts which include printing and supplying books to the schools, school maintenance, canteen operation and establishment of private schools.

Recently, a privatisation project known as "land-swap" method was introduced where the urban school sites which have the potential of becoming commercial centre are privatised. The developer will be given the title ownership of the site and in return will build a new school at a new site (either on educational reserve land or any Government or individual land) without the Government incurring a single cost.

The first "land-swap" privatisation project is the Seri Bintang School Complex sited on a 12.6 hectares site in Pudu Ulu at the fringe of Kuala Lumpur central area. A new school's

site in Pudu Ulu will be developed by the developer in exchange for the present Bukit Bintang Girls School site in Kuala Lumpur. Part of the deal also involves building an academy of excellence exhibition centre near Universiti Teknologi Malaysia at Jalan Semarak, Kuala Lumpur and the maintenance of the Kuala Kangsar Malay College in Perak known as the first Malay school in Malaysia during the British colonisation. The existing school's site in Jalan Bukit Bintang will be developed as commercial centre by a private sector. The Seri Bintang School Complex will be the prototype for the Smart School project which is one of the flagship application of the Multimedia Super Corridor. The smart school system aims at educating the new generation in coping with a competitive and information technology intensive challenge of the 21st. century.

Another proposed project under the "land-swap" method involves the Sri Putri School in Jalan Kolam Air, Kuala Lumpur and Batu Road School in Jalan Raja Laut, Kuala Lumpur. It is anticipated that the schools in urban areas throughout Malaysia will soon be privatised. It is the only way in which the Government can develop the education sector without incurring much cost.

## 7.0 Conclusion

This paper has illustrated some planning implications pertaining to school location in urban areas taking Bukit Bintang Girls School in particular as a case study. Recently, the issue of overpopulated schools is becoming a critical agenda of the authorities concerned. The rapid growth of Kuala Lumpur and the intensification of commercial activities have resulted in substantial environmental degradation to the learning environment and the school children particularly. The findings concluded that schooling activities are no longer permissible in urban areas as urban activities have become a nuisance to the learning environment. The current strategies to school planning aimed at providing a conducive environment for learning and at the same time provide opportunities for implementing a new education system in line with the national aspirations for the 21st. century. To what extent are these strategies are effective in realising the education policies is another issue is yet to be dwelt on.

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