A FRAMEWORK FOR THE MEASUREMENT OF THE EFFECTIVENESS OF PLANNING SYSTEM IN MANAGING HOUSING SUPPLY

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ABSTRACT

The oversupply of housing is related to the weakness and ineffectiveness of planning system in managing housing supply. The veracity of this argument has been proven by this empirical research conducted in the Johor Bahru conurbation area as the case of the study. This research reveals several weaknesses in the process and practice of housing planning, identified in the early stages of housing forecasting and formulation of housing planning policies along the preparation of structure plans and determination of land area and distribution of locations for future housing supply in the local plan. The weakness of the planning system is further exacerbated by the inefficiency of development control mechanisms failing to monitor, control and approve effectively the housing development applications. These findings result from the application of the conceptual framework formulated to lead this research. In such framework, the concept of effectiveness of planning system in managing housing supply is measured through the perspective of implementing planning mechanisms and housing planning processes. Applying certain measures, the effectiveness of this framework can be evaluated on general and detailed scales. This matter is thus the central point of discussion by this paper. In addition, a brief explanation shall follow to discuss the research problem, hence the issue of oversupply of housing, and a number of theoretical points motivating and guiding the research.

Keywords: housing development, housing planning, housing supply, land use planning.

INTRODUCTION

The planning system plays a pivotal role in achieving sustainability, efficiency and effectiveness in the development of the housing sector. Generally, the planning system not only fulfils the fundamental objective of meeting housing needs, but also recognizes housing as an important economic sector, providing and encouraging an efficient housing market (Einsiedel, 1997). Even in the failure of the market system, it is the role of the planning system to rectify failure by properly governing the housing planning process (Rydin, 1993; Einsiedel, 1997). In Malaysia, the current planning mechanisms, particularly development control and development plans are recognized as tools to guide the abovementioned process (Alias, 2007; Alias et al., 2006a). Through preparation of the structure plan, housing policies are formulated to achieve housing planning and development objectives. Subsequently, housing land area, housing quantity and suitable locations for future housing development will be determined and allocated in the preparation of local plans. The housing planning process is completed at the stage of development control, where each housing application will be assessed prior to approval. By conducting these processes, the housing planning objectives are assumed to meet housing needs, fulfil the household's `effective' demands, balance supply and demand and incorporate some criteria of market demands.

With regards to housing supply management, other than postulating that the housing supply issues are caused by market failure, it is argued that these issues result from the weakness and ineffectiveness of the planning process (Government of Malaysia, 1999; Chin, 2003; Abdul Ghani, 2004; Mohd. Fadzil, 2005). The nature of the housing planning system commonly focusing on broad housing needs is identified as one of the factors contributing to the issue, through neglecting elements of effective demand in planning and control of housing supply (Alias et al., 2006b).

In light of the arguments above, an empirical research was conducted to explore the process, practice and outcome of development plans and development control in the Johor Bahru Conurbation (JBC) area selected as the case of this study. Data was collected through the triangulation method, examining planning documents (structure plan, local plan and housing applications) using methods of content analysis, conducting questionnaire surveys and in-depth interviews with town planners. The quantitative data collected from both content analysis and questionnaire surveys were analyzed through descriptive statistics, while data collected from in-depth interviews was analyzed qualitatively by transcribing, assessing and quoting relevant texts related to the planners' views and comments on the effectiveness of housing planning process. These stages were conducted in accordance with the conceptual framework of the research as formulated earlier. In the conceptual framework, the concept of effectiveness of planning system in managing housing supply is evaluated based on the effectiveness of planning mechanisms and the housing planning process. To achieve a rationalized and effective conceptual framework, it is necessary to take into consideration the major theoretical points about the role of planning in housing development, Malaysian housing planning process and activities related to the planning and control of housing supply.

The formulation of a conceptual framework for research activities requires detailed attention and clear understanding. The significance of this matter will be emphasized here by elaborating how the effectiveness of planning in managing housing is evaluated and measured. However a brief explanation shall follow first to elaborate the research problem -hence the issue of housing oversupply - and some theoretical points related to the role of planning in housing development and the framework of Malaysian housing planning process.

THE ISSUE OF HOUSING OVERSUPPLY

The Malaysian housing sector faces various problems. Housing oversupply recorded throughout the country since 1998 has been an issue of regular debates by property and planning players (Alias et al., 2006a;2007a;2007b). The seriousness of the issue is attested by housing figures such as high overhang, over-approved and unsold housing rates. Official statistics published by the National Property Information Centre (NAPIC) for the years 2000 to 2006 display a persistence of overhang in the housing property market. A total of 51,348 units were identified as such in the year 2000 with a total worth of RM6.6 Billion. The latest figure from 2006 also puts 25,645 or 17.7% of the total 144,938 completed launched units, in the category of overhang with a total worth of RM4.18 Billion. High overhang rate has also been recorded in the JBC area from 2004 to 2006. Here a total of 3,060 units were identified as overhang in 2004, continually increasing to 4,905 in 2005 and 6,366 in 2006.

Further aggravating the issue, statistics on total unsold housing composed of under-construction and un-constructed units prove a disturbed state in the Malaysian housing market. Figures from 2006 display around 75,424 or 38.9% of the 193,531 housing units launched, as unsold. High unsold rates are also traceable in 2004 and 2005, respectively amounting to 83,811 and 82,853 units. In the context of JBC housing market, a total of 13,080 units were identified as unsold in 2006, slightly higher than the 12,465 units in 2004 and 12,661 in 2005. Besides critical figures on overhang and unsold housing, data on new housing approvals as recorded in most states in Peninsular Malaysia for the years 2000 and 2005 also describe an unhealthy housing development scenario. Figures from 2000 indicate that out of a total 5,338,000 units of housing supply (including existing and committed housing units), essentially only 3,941,000 were required to fulfil the household housing needs in Peninsular Malaysia. This figure indicates 1,396,000

units, approved by planning authorities, as oversupply. The issue of oversupply also existed in 2005, indicating a surplus of new housing approvals at 755,000 units (JPBD Semenanjung Malaysia, 2002).

Housing development in the JBC area also faced the surplus of committed development or committed supply. As recorded in the Johor Bahru District Local Plan, around 748,703 new housing units were approved by the local planning authorities until 2003. By considering this figure and existing stocks (398,911 units), the total housing supply in the JBC area until 2003 amounted at 1,147,614 units, whereas the actual housing need only required 339,043. These figures describe a large surplus in housing supply in JBC, that is 59,868 units or 117.0% from the existing stocks and 808,571 units or 338.0% from the total supply (Figure 1). This not only means the current total supply is more than enough to fulfil the current housing requirement, but that it can also cater the population's housing needs up to year 2040 (Alias, 2007). In fulfilling the housing needs for 2020, it was calculated that only 26.3% from the total committed supply need to be constructed.

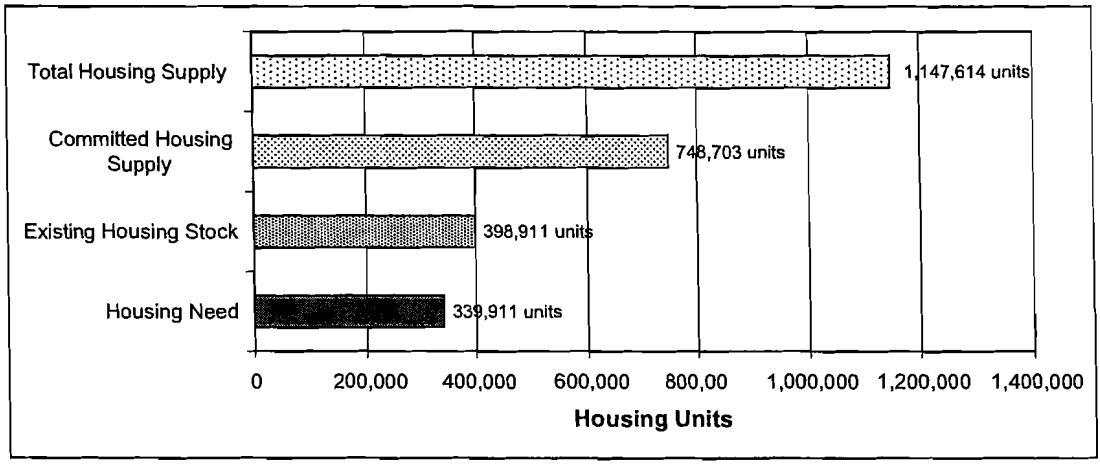

Figure 1: Comparison between housing need with the existing stock, committed supply and total supply in the JBC area in 2003

Source: Adapted from Technical Report of Johor Bahru District Local Plan (JPBD Semenanjung Malaysia, 2004).

The oversupply issue has sparked lively discussions and debates. Reflecting the perspective of the government, National Economic Action Council (NEAC) has identified the process of speculative demand and supply by private developers and loopholes in the planning system as major factors affecting the issue (Government of Malaysia, 1999). Likewise, the Ministry of Housing and Local Government blames the weakness of the development approval process, where housing applications are permitted without due consideration of the actual demand (Chin, 2003). Moreover, the Federal Town and Country Planning Department has identified the non-compliance practices to the housing planning policies and guidelines in the development plans as a main factor contributing to the issue (Mohd. Fadzil, 2005). These arguments generally describe an influence and contribution by the planning process and practice onto the oversupply of housing. The veracity of these arguments have been supported through a preliminary survey of planners, property consultants and housing developers directly involved in the process of planning and development of housing, in which most of them basically agreed, arguing that besides other influential factors, it is strongly possible for the issue to have been aggravated by failure of the planning system. Based on the arguments, it is rational to explore and evaluate the effectiveness of the planning process and practice, in planning and control of housing supply, particularly in the context of the study area.

THE ROLE OF PLANNING SYSTEM IN HOUSING DEVELOPMENT

Planning system generally consists of three main activities, namely forward planning, planning control and implementation of certain developments (Bramley et al., 1995; Greed, 1996; Ratcliffe et al., 2004). Housing development has to go through a similar process from conducting the housing planning activities to the control of housing development. It ends with developing housing schemes, either by government bodies or private developers. In relation to the production of housing supply, although the market system governs the major part of the process, the role of planning system can be seen in a broader perspective (Einsiedel, 1997). As illustrated in Figure 2, the process begins with the forward planning activity to examine and determine the existing and future housing requirements carried out during the preparation of development plans. The housing supply can also be managed at the development control stage which becomes of significance in the overall housing production process. At this level, housing development applications will be assessed by the planning authorities, before permitting development.

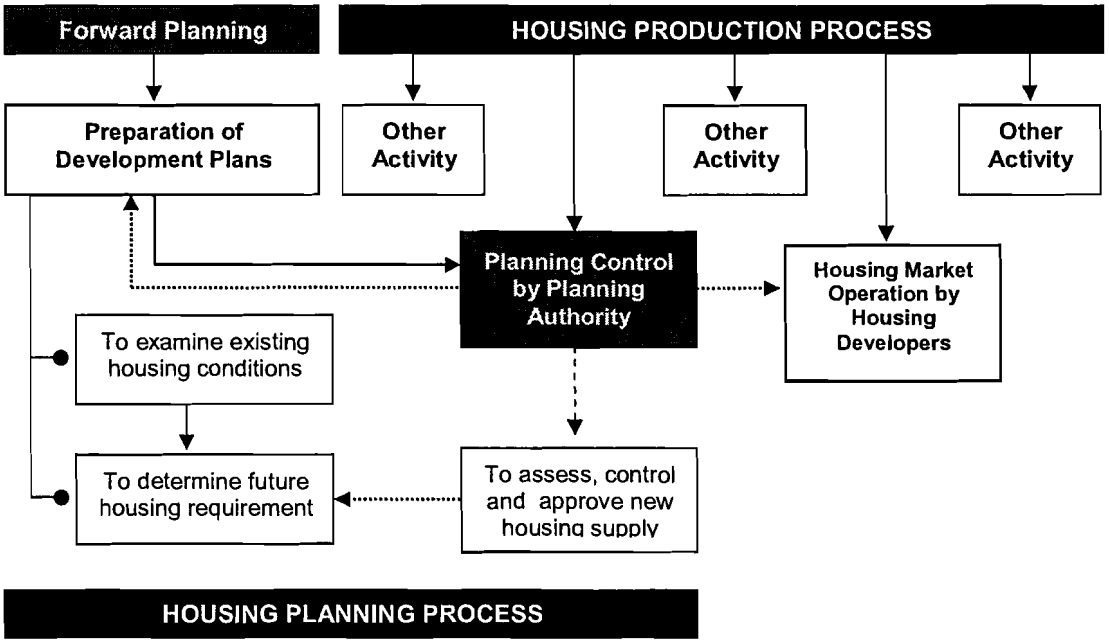

Figure 2: Role of planning system in housing development

In exercising the housing planning process, it becomes fundamental of the planning system to achieve the objective of meeting housing needs by providing adequate housing (Ratcliffe, 1981; Noraini, 1993; Golland & Gillen, 2004). Basically, the housing planning goal is considered achieved when the objective of meeting housing needs is met (Pearce, 1992). Nevertheless, several arguments remain. Nicol (2002) argues that meeting housing needs alone is insufficient to achieve a more integrated and effective housing supply. He proposes the housing planning process to take into consideration as well aspects of housing demand. The term "housing demand" is usually associated with the requirements of individual households beyond minimum housing provisions or needs. It may refer to such choices as dwelling types and forms, housing tenure, prices and methods by which new homes are developed (Golland and Gillen, 2004). Housing demand is ultimately an issue that tells us more about the choices households make in gaining access to a new house. It is also strongly associated with `effective demand', demand supported by the ability to pay. Therefore it is possible to have along the stage for consideration

of housing demands such additional parameters as household choices as well as their willingness to pay for housing, incorporated into the initial stages of housing planning process.

Market demand criteria, in addition to the household housing demand, is also important in the housing planning process. Bramley et al. (1995) identifies several elements in the housing market criteria, such as local housing market conditions and the house buyer preferences in terms of price, location and type of housing. The importance of these factors have been emphasized by Hull (1997), who stresses that apart from playing a role in meeting housing needs and housing demands, the forward planning and development control process should also look at the importance of the market criteria, especially with regards to the factor of marketable location. The significance of market demand criteria is also addressed by Bramley et al. (1995), who propose a greater awareness of the market by the housing planning process through incorporating policies and procedures sensitive to the needs of the market. Pearce (1992) and Nicol (2002) also highlight the responsibility of local authorities in the adequate understanding of housing market before the decision to release new housing supply. In similar tone, Golland & Gillen (2004) emphasize the necessity for the planning process to understand the consumer's 'taste' in housing market. Stressing on the above arguments, Healey (1992) proposes three approaches into achieving the housing planning goals by the planning system consisting of following the market, managing the market and creating the market.

The above discussion clarifies a framework for the planning system to plan and control housing supply, beginning with forward planning activities in development plans followed by a development control activity. This operation should be undertaken not only to meet the population's housing needs, but to fulfill the housing demands of households and to consider the criteria of market demand. By properly assessing and considering these factors, an effective planning and control of housing supply as well as a balance in the supply and the actual housing demand should be achieved (Alias et al., 2007a).

THE MALAYSIAN HOUSING PLANNING PROCESS

The Malaysian housing planning process is guided by the provisions of Town and Country Planning Act, 1976 (Act of 172) which has provides a statutory power to the state and local authorities to formulate and implement policies related to housing development. As shown in Figure 3, the housing development policies will be formulated during preparation of structure plans. Prior to that, the structure plan examines the current housing status and forecasts the future housing requirement for the whole structure plan area. Broad housing policies in the structure plan will be detailed out in the preparation of the local plan. The local plan further proceeds with the forecasting of future housing requirements for a number of its pertinent areas, followed by the determination of total housing land area and distribution of suitable locations for future housing development.

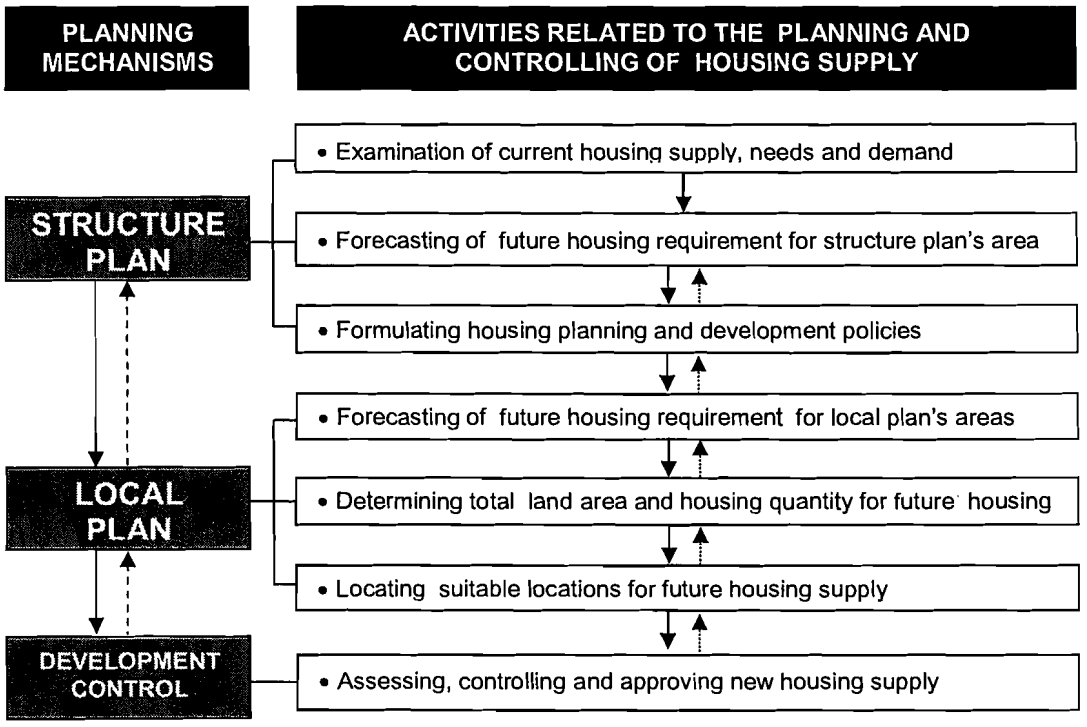

Figure 3: process of planning and controlling of housing supply in Malaysia

Other than structure and local plans, the development control mechanism plays an important role in the process of housing planning. At this stage, all housing development applications will be assessed before approval by local planning authorities. In this process, the structure and local plan provisions will be used as bases in the consideration of housing development applications. After obtaining planning approval, the housing development application will go through land approval process as enacted in the Malaysian National Land Code, 1965 (Act 56). At this stage, planning permission given under Act of 172 will be used as basis for land development approvals (Alias et al., 2006a).

FORMULATION OF CONCEPTUAL FRAMEWORK

Limited literature or empirical research exists on the effectiveness of the planning system in planning and development of housing. Most previous works in the field as explored by Rydin (1985), Bramley (1995;2003) and Asiah (1999) primarily analyze the planning system as a constraint to housing development. Thus, their scope is limited to identifying and elaborating planning activities influencing the development of housing. Among the existing literature, the effectiveness of planning systems has been touched as a concept by Johari (1983) and Abdul Munit (1996). Johari (1983) who focuses on the effectiveness of regional development in West Malaysia lists several dimensions, criteria and indicators used to evaluate the achievement of regional development objectives and the effectiveness of regional development authorities; while Abdul Munit (1996) who specializes on structure plan policies identifies several conditions, components and supporting factors influencing the effectiveness of structure plan policy implementations.

In the absence of an established approach to measure the effectiveness of the planning system, Johari's method in evaluating the effectiveness of regional development was adopted as guideline. By doing so, guided by the theoretical frameworks related to planning roles in housing development and the process of housing planning in Malaysia, the concept of effectiveness of planning system in managing the housing supply generally can be measured either in broad or in detail, at least by three perspectives. The first perspective is related to the implementation of the main functions of planning, hence forward planning and planning control, while the second relates to the implementation of planning mechanisms. In the Malaysian context, it refers directly to the structure plan, local plan and development control. The effectiveness of the planning system in these perspectives can be measured in several ways. It can be assessed in terms of the achievement of housing planning objectives or the compliance of the implementation of planning functions and mechanisms - that is between planning control and forward planning or between the structure plan, local plan and development control. Nevertheless, in the context of this research, measuring the effectiveness of planning functions and mechanisms through the achievement of housing planning objectives is more significant. For this purpose, the main housing planning objectives listed in Figure 4 can be used as the measuring criteria.

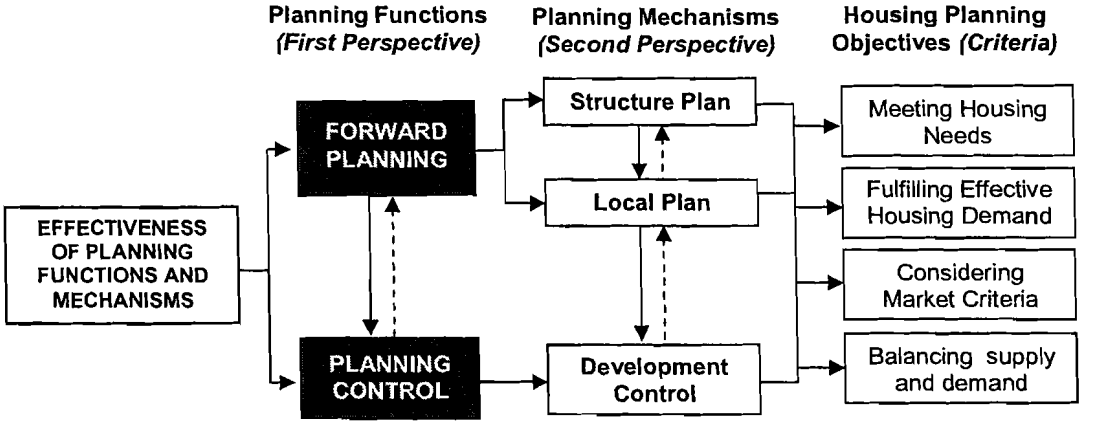

Figure 4: The criteria to measure the effectiveness of the planning functions and mechanisms

The third perspective is related to the implementation of the process of housing planning. In this research, it directly refers to the process of planning and control of housing supply. This perspective requires a detailed examination and evaluation of the activities conducted along the process. Its effectiveness may be evaluated and measured according to certain dimensions and criteria. In the Malaysian context (refer to Figure 3), the main activities related to planning and control of housing supply -as listed below- may be translated as dimensions in the measurement of the effectiveness of housing planning process.

i. Examination of current housing supply, needs and demands
ii. Forecast of future housing requirements
iii. Formulation of housing planning policies
iv. Determination of total land area for future housing supply
v. Distribution of locations for future housing supplies
vi. Assessment and controlling of housing development applications

The above perspectives were used as bases to measure the effectiveness of planning system in managing housing supply in the context of the study area. However, special focus is given to the planning mechanism (second perspective) and the process of housing planning (third

perspective). The first perspective -the implementation of planning functions- is intentionally neglected since there are clear planning mechanisms prepared and implemented in the study area. It is assumed that measuring the effectiveness of planning mechanisms implicitly measures the effectiveness of planning functions. Based on this rationale, the conceptual framework of the research was developed. As conceptualized in Figure 5, the effectiveness of planning mechanisms and the process of housing planning were measured simultaneously. This measurement strategy was then applied after considering that the activities and the process of planning and controlling of housing supply are included in the implementation of planning mechanisms (refer to Figure 4). By applying this strategy, the effectiveness of structure plan and local plan were measured based on specific activities conducted in the said plans, that is forecasting of future housing requirements, formulation of housing planning policies, determination of total land area and distribution of locations for future housing supply. Similarly, the effectiveness of development control mechanism was measured based on specific activities related to the assessment and controlling of housing development applications conducted during the implementation of the mechanism. The activities related to the planning and control of housing supply, were translated as dimensions to measure the effectiveness of the housing planning process.

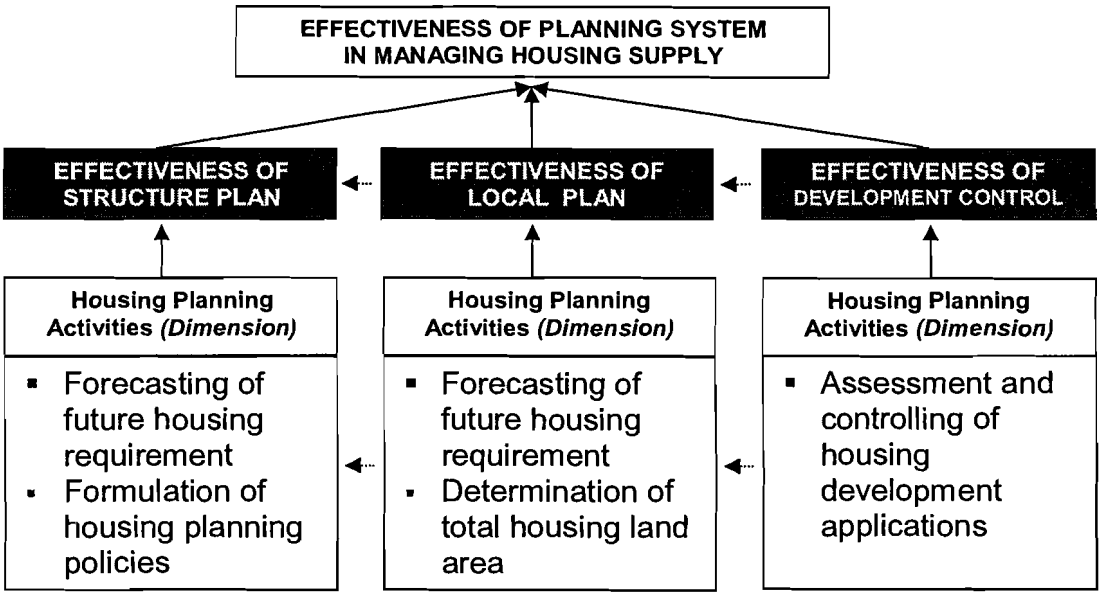

Figure 5: Conceptual framework of measuring the effectiveness of planning system in managing housing supply in the study area

In evaluating the effectiveness of planning mechanisms, the main housing planning objectives to be achieved, namely meeting housing needs, fulfilling effective housing demands, considering the criteria of market demand and balancing supply with the actual housing demand, were used as measurement criteria. Prior to that, the effectiveness of each dimension (each housing planning activity) was assessed using multiple criteria as listed below in Table 1.

Table 1: Dimensions and criteria to measure the effectiveness of the process of planning and controlling the housing supply

Dimension (Housing Planning Activities)	***Effectiveness Criteria***
Forecasting of future housing requirement (in both structure plan and local plan)	▪ Accuracy in conducting the forecast. ▪ Forecasting of both housing needs and housing demand ▪ Forecasting for overall planning period and by certain planning phases. ▪ Forecasting outcomes by housing quantity, category and types of housing.
Formulation of housing planning policies	▪ Formulating a policy to fulfil population housing needs and household housing demand. ▪ Formulating a policy to plan and control housing supply according to the suitability of physical requirements. ▪ Formulating a specific policy to consider the actual housing market demand during development control process.
Determination of total land area for future housing supply	▪ Clearly specifies the figure related to future housing land area. ▪ Completeness of conducting the activity. ▪ Complied or in accordance with the forecasting's figure. ▪ Determined for overall planning period and by certain planning phases. ▪ Outcomes by total land area, housing amount (quantity), category and all types of housing. ▪ Exactness of translating the total housing land area into the Local Plan Proposal Map.
Distribution of locations for future housing supply	▪ Considered the suitability of physical factors. ▪ Considered the future market demands. ▪ Distributed in the forms of broad housing zone (in the Local Plan Proposal Map) and detail housing zone (in certain local plan's planning blocks). ▪ Distributed for overall planning period and by certain planning phases. ▪ Distributed by category and all types of housing.
Assessment and control of housing development applications	▪ Conformity to the land use zone (that is for housing) as determined in the Local Plan Proposal Map. ▪ Considered other factors, such as actual requirement for immediate housing supply and local market demands during the approval process. ▪ Stipulated a condition related to the development phases. ▪ Complied with housing planning guidelines and standards.

CONCLUSION

A rationalized and effective conceptual framework is an essential prerequisite to the success of every research. For this study, formulating and applying the framework above facilitates the evaluation of the effectiveness of planning system in managing housing supply both in general and in detail. By using multiple criteria as bases for measurement, the effectiveness of each housing planning activity was determined and assessed in detail. In addition to the detailed evaluation, a broad assessment on the effectiveness of the implementation of planning mechanisms (structure plans, local plans and development control) in planning the housing supply can be made based on the achievement of housing planning objectives. The application of the approach has resulted in the concise measurement of the level of effectiveness of planning system in managing housing supply.

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