WORKING PAPER No. 45
STAGE 4 ASSESSMENT OF HOUSING LAND REQUIREMENT AND SUPPLY

PURPOSE

1. The purpose of this paper is to provide an account of the assessment of the requirement and supply of housing land for the period from 2003 to 2030.

ASSESSMENT OF HOUSING REQUIREMENT

2. Housing demand in the short-term is known to be affected by many factors including economic conditions, propensity for home ownership and property prices. However, over a longer period, it can be regarded as broadly relative to population growth and demographic changes, despite short-term fluctuations. Our study attempts to assess this long-term “social requirement” of housing, rather than the short-term “demand” for it, which is dependent on economic factors. Therefore, under the assessment methodology we have adopted, housing requirement is derived from the projected household generation, assuming that each new household formed would require a new housing unit.

3. While housing can be grouped under a number of different categories, including private permanent housing, public rental housing and subsidised sale flats, the future requirement of individual categories is dependent on the public housing policy, economic condition and income levels prevalent at the time. Therefore, other than taking on board the supply of public housing already contained in the public housing construction programme, we have not made any assumptions on the future public-private housing mix.

4. In addition, noting that there always exists a certain amount of vacant housing units, either awaiting actual take-up, being under renovation, or serving as a second home, we have also added a “natural vacancy factor” to the assessment formula.
ASSESSMENT ASSUMPTIONS

Vacancy Rates

5. In determining the assumption for vacancies, reference has been made to statistics from Rating and Valuation Department (R&VD). Since 1999, the vacancy rate for rateable private residential developments has fluctuated between 5.9% and 6.8%. The vacancy of public housing is generally lower, for example, the vacancy rate for public rental housing (which accounted for some one-third of total housing) was about 3.6% in 2003. Therefore, an assumption of about 5% to 6% for overall vacancy would be considered reasonable.

Smaller Households

6. Although the assumed increase in population from 2003 to 2030 under the Reference Scenario is about 1.6 million (i.e. about 24% increase over that of 2003), the number of new households will be about 0.9 million (i.e. about 41% increase over the 2.2 million households in 2003). This is largely a result of a shrinking average household size, which is expected to fall from 3.1 in 2003 to 2.6 in 2030.

7. C&SD attributes this phenomenon to a number of factors, including young persons demanding more privacy and wanting to live away from their parents, decline in marriage rates and fertility rates etc. By 2030, two-person households will take up the largest share, contributing some 34% of the total.

8. The trend for shrinking household size could have significant impact on flat size, housing capacity of individual sites, and thus the overall requirement for housing land. This trend may also be associated with changing lifestyles, which may affect choices of housing location, although the relation may not be easily ascertained and measured.

Acquisition of Second Home in the Mainland

9. Planning Department carried out a joint survey with the Guangdong Provincial Department of Construction (廣東省建設廳) in 2002 to research on the characteristics of Hong Kong people living and working
in the Pearl River Delta (PRD). The survey comprises two parts, viz. the Foreign-funded Enterprise Survey and the Residential Neighbourhood Survey. The latter, which aims at examining the characteristics of Hong Kong people living in PRD region, covered 53 major residential estates in nine municipal cities. A total of 2,014 households were enumerated and the response rate was 26%. Over 95% of the respondents who have taken up residence in the surveyed estates had Hong Kong as their usual place of residence before moving.

10. The survey findings also show that some 60% of the respondents were frequent travellers to Hong Kong (i.e. returning to Hong Kong at least once a week). About 33% and 8% of the respondents who travelled back to Hong Kong would stay here for three days to one week and one week to one month respectively. Moreover, most of them indicated that they came back to Hong Kong mainly for work-related reasons. Therefore, it can be assumed that, even though the respondents had taken up residence in PRD, they still maintained relatively close socio-economic ties with Hong Kong and many of them would likely retain an abode in Hong Kong. As a result, we have not made any adjustment in the housing requirement to discount the housing demand arising from Hong Kong people taking up residence in the PRD but would recommend that the situation be constantly monitored.

**Flat Size and Area of Land Required**

11. The amount of land required is very much dependent on the development density and housing type (i.e. average flat size). Flat size is largely market determined, and could be affected by many factors, including the trend for smaller households, economic conditions and affordability etc. The table below shows that the amount of land required to produce a hypothetical number of 100,000 units could range from 62 ha to 444 ha, depending on the assumed plot ratios and flat sizes (a Net-to-Gross Ratio of 75% is assumed).

---

1 Including Guangzhou, Shenzhen, Zhuhai, Foshan, Zhongshan, Dongguan, Jiangmen, Zhaoqing and Huizhou.
### Table 1 - Gross Land Required for 100,000 Units (ha)

<table>
<thead>
<tr>
<th>Average Flat Size (m²)</th>
<th>Plot Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>30</td>
<td>133</td>
</tr>
<tr>
<td>50</td>
<td>222</td>
</tr>
<tr>
<td>80</td>
<td>356</td>
</tr>
<tr>
<td>100</td>
<td>444</td>
</tr>
</tbody>
</table>

### HOUSING LAND REQUIREMENT

12. Based on a population assumption of 8.4 million by 2030, the housing requirements in the period of 2003 to 2030 will be 924,000 units. The breakdown of the housing requirement is shown in the following table.

### Table 2 – Housing Stock and Cumulative Requirement

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Stock</td>
<td>2,394</td>
<td>2,642</td>
<td>2,948</td>
<td>3,319</td>
</tr>
<tr>
<td>Cumulative</td>
<td>-</td>
<td>248</td>
<td>553</td>
<td>924</td>
</tr>
<tr>
<td>Requirement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(thousand units)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. If mid-range flat sizes (50- 80 m²) and a plot ratio of 5.0 are assumed, then 924,000 units would require about **1,200 to 2,000 ha** of land in terms of gross site area.

### HOUSING LAND SUPPLY

14. A major source of our future housing land supply will come from the development areas at Tseung Kwan O, Tung Chung and Kai Tak and various smaller government sites dispersed over the Metro Area and other new towns. In addition, there are a number of sites in private hands for which “green light” has been given for development. Some of these are in construction/building-plan-submission stage; some have undergone lease modifications; some relate to committed rail projects or URA schemes; and the rest, having obtained planning permission or
appropriate rezoning, are awaiting development. Private redevelopment and small houses, though to a lesser extent, contribute to the overall supply. Moreover, the domestic units which have been completed but remain unoccupied are included in the pool of supply.

15. In a nutshell, the overall housing land supply from government and known private sources is estimated to amount to some 1,500 ha. Such housing supply arising from the existing and potential housing land resources, even without additional housing land supply, would largely be adequate to meet the requirement as noted in paragraph 16 above.

16. However, there are a number of factors which could impact the potential supply, including the further development at Tung Chung which is subject to the results of a future planning and engineering study, and reduction of residential density in urban areas as necessary. More importantly, much is determined by the market (e.g. flat size, whether approved projects will go ahead, the pace of private redevelopment, etc.)

17. On the other hand, in the course of time, more private proposals are expected to surface through the planning application or lease modification systems to augment the housing supply, but it is impossible to make any assumptions in this respect at this stage. In view of the above, the land supply assumptions may have to be adjusted upon completion of relevant studies and availability of further information.

18. Demand-side uncertainties could also affect adequacy. These include the population growth rate, household size and the economic situation which affects affordability and intentions to acquire accommodation.

POSSIBLE ADDITIONAL SOURCES OF HOUSING LAND SUPPLY

19. In view of the uncertainties mentioned above, we need to be prepared to replenish our stock of housing land. While it is not our intention to set out a housing production target, we need to ensure that housing market will not be drastically de-stabilised due to a severe shortfall of housing land supply which may arise unexpectedly in future for wherever reasons. We also consider it important to diversify the housing supply, in terms of both location and type. This would not only respond to the community’s
aspirations for a wider range of housing choices, but also allow a more balanced distribution of population across the territory. The available options for additional housing supply are briefly discussed in the following paragraphs.

Redevelopment of Old Private Building Stock

20. Planning Department’s assessment shows that there are about 2,050 private buildings over 40 years in the Metro Area which are in poor or unsatisfactory condition. Although rehabilitation and better management could likely prolong their life, it is expected that redevelopment may be unavoidable in time to come. While existing residents will be displaced, redevelopment could generally result in a net gain in housing supply. However, issues such as multiple and fragmented ownership may cause problems in land assembly, and lower net gain in development potential may render the project non-viable. Policy initiatives may be needed to accelerate the redevelopment process by the URA and the private sector, and to retain sufficient private investment in the old urban areas to achieve a balanced development between the Metro Area and the New Territories.

Redevelopment/Conversion of Obsolete Uses

21. There are a number of uses which may no longer be required as a result of economic restructuring or population changes, e.g. industrial uses or surplus school sites in some locations. Where appropriate, consideration could be given to rezoning these sites to meet housing needs taking into account in particular the industrial/residential interface problem as well as urban design considerations. Nonetheless, the conversion of these obsolete sites would best be market-driven rather than for the Government to initiate a resumption process.

Development of NDAs

22. NDAs have been planned in the past under a high population growth scenario. They could help to provide an alternative choice of living, provide room for density reduction in the urban areas and achieve many other planning objectives. We have recommended implementation of two schemes, i.e. the Three-in-One Scheme in Northeast New Territories
and the Hung Shui Kiu NDA Scheme.

CONCLUSION

23. Our current assessment shows that the existing and potential supply of housing land, even without NDAs, would largely be adequate to meet requirement well into the 2020s, although there are a number of uncertainties that could affect both demand and supply. In order to provide enhance robustness of the strategy, broaden housing choices, and provide room for density reduction in the urban areas, we have proposed to implement two NDAs schemes in the New Territories. We believe that this balanced approach in housing land supply would be the most rational option in addressing our future housing needs.

Planning Department
October 2007