Owing to the proximity of the NSRs to the roadway sections, the calculated noise levels for all of the concerned roadway sections have a peak hour $L_{10 \, (1 \, hr)}$ level exceeding the 70 dB(A) HKPSG criterion. In addition, the hourly $L_{10 \, (1 \, hr)}$ traffic noise levels also exceeded the 70 dB(A) criterion during all the 16 daytime and evening hours (07:00 to 23:00 hours) for most roads.

The size of year 1997 population exposed to severe road traffic noise (ie exceeding the 70 dB(A) HKPSG criterion) have been established for each roadway sections. The population exposures for these road links are presented below.

Table 3.2c
Population Exposed to Road Traffic Noise

Area	Population affected by road traffic / km of road	Population affected by road traffic noise
Hong Kong Island	3,090	48,000
Kowloon	5,335	152,000
New Territories	3,254	229,000
Total		429,000

It should be noted that the population figures reported above and in the subsequent assessments are by no means exhaustive or comprehensive. Different screening factors have been adopted and the assessment considered only those busier and more "sensitive" road sections within the CTS-3 scope. The population figures should therefore be regarded as a reference datum only through which different exposure conditions and patterns relating to the various scenarios could be more easily visualized and compared.

Methodology - Refinement and Development

Based on the strategies generated by the transport model developed for the CTS-3 study, the road traffic noise levels ($L_{10(1 \, hour)}$) of each hour between 0700 - 2300 are calculated for the approximate 200 existing roadway sections identified at their nearest NSRs. The noise levels are then compared against the noise levels established for the 1997 base year to assess whether there is a net benefit or a negative impact. In addition, the number of people exposed to each identified roadway sections is established.

A separate but closely related set of computations is performed on "new" roadway networks under different infrastructural provision conditions. This is described more fully in this section.

As comparison is being called for, appropriate rankings of the different future scenarios would provide the stakeholders with an overall idea in relation to the relative merits of the scenarios.

The ranking system is based upon a matrix of the change of number of people